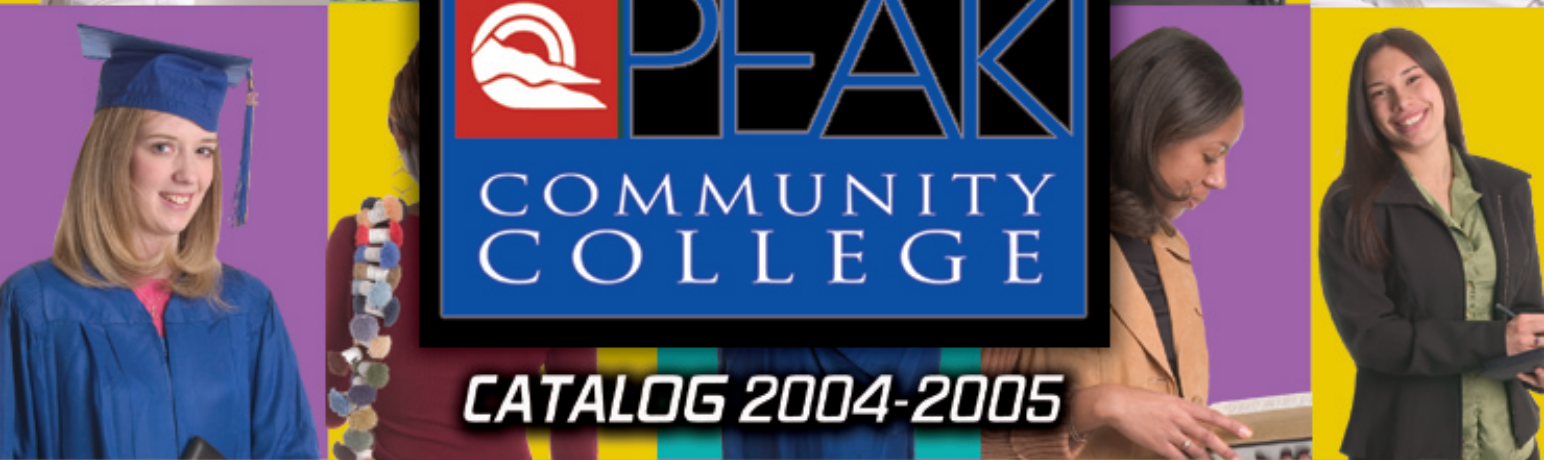




**PIKES  
PEAK**



COMMUNITY  
COLLEGE



**CATALOG 2004-2005**



**IT'S YOUR LIFE.  
MAKE IT COUNT.**



# **Thanks for your interest in Pikes Peak Community College.**

**From start to finish this catalog will be your guidebook.**

**It contains everything you need to know about PPCC.**

**If you would like to know more about the college, or would like a tour of any  
of our three campuses, just give our Enrollment Services Center a call at  
540-PPCC (7722).**

## **Locations**

### **Centennial Campus**

5675 South Academy Boulevard  
Colorado Springs, CO 80906  
(719) 576-7711 or (800) 456-6847  
TTY (719) 540-7131 or 540-7081

### **The Downtown Studio Campus**

100 West Pikes Peak Avenue  
Colorado Springs, CO 80903  
(719) 527-6000 or (800) 456-6847

### **Rampart Range Campus**

11195 Highway 83  
Colorado Springs, CO 80921  
(719) 538-5000 or (800) 456-6847  
TTY (719) 538-5079

### **Other Colorado Sites**

Fort Carson ..... (719) 576-7212  
Peterson Air Force Base ..... (719) 574-1169  
U.S. Air Force Academy ..... (719) 472-1583

### **WEB Address**

[www.pgcc.edu](http://www.pgcc.edu)

## Dear Students:

Welcome to Pikes Peak Community College. I am pleased that you have made the decision to continue your education at PPCC, and I want to tell you about some of the exciting developments at the college.

Thanks to the commitment of countless students, employees and community members, the new Child Development Centers have opened at Rampart Range Campus and Centennial Campus, providing high quality child care services to more than twice the number of students and their families.

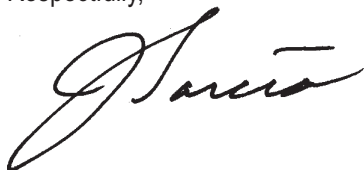
Our Enrollment Centers and student services have been significantly enhanced and strengthened to provide better customer service and a more seamless enrollment process. We have added a number of outstanding new deans, faculty and staff during the past year, and facility improvements are ongoing at all three campuses, providing better classroom space as well as better equipment and technology.

Additionally, we concluded a successful accreditation review process, and received a strong recommendation for another ten years of accreditation. During this process, the community and our current and former students spoke very highly of the job we do.

Our number one goal is individual student success. To achieve that goal, we are continuing our efforts to improve in the areas of student assessment and outcomes, governance, communication, and community collaboration. At the same time, we are committed to using our creativity and resourcefulness to find new ways to improve our services to you.

You are our number one priority, and your success at the college is a shared goal of the entire faculty and staff. Our aim is for you to achieve the lifelong goals that you have set for yourselves. Best wishes for a successful year.

Respectfully,



Joseph A. Garcia  
President



# Seven Easy Steps to College Enrollment

# 1

## APPLY

Fill out and submit an application. Pick up a free application at any PPCC location, download one from the Internet at [www.ppcc.edu](http://www.ppcc.edu), or call us at 540-PPCC and we'll mail one to you. There is no application fee. Admission is open to all high school graduates and non-graduates who are at least 16 years old.

# 2

## ORIENTATION

Attending an orientation is a smart step to take. Get all your questions answered about registration and enrollment, and find out about college life. Learn about the programs and services available to help you succeed. Convenient times and locations are available. Call 540-PPCC to reserve your place.

# 3

## FINANCIAL AID

Apply early – a single application form is all you need! There is no cost to apply for financial aid. The Free Application for Federal Student Aid (FAFSA) form is all you need to apply for many different kinds of financial aid, including grants, loans, scholarships, and work-study programs. The earlier you apply, the better your chances. The FAFSA form is available at our Financial Aid offices, at high school counseling offices, or you may apply online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). Call 540-7089 for a free Student Financial Aid Handbook, or find out more about financial aid on the PPCC website, [www.ppcc.edu](http://www.ppcc.edu).

# 4

## ASSESSMENT

Sign up and take the basic skills assessment. This helps you and your advisor know where you should start. If you have ACT or SAT scores or have taken previous college classes, you might not need to take the basic skills assessment. Contact the Testing Center, 540-7115, for more information.

# 5

## ADVISING

Once you have been admitted to the College and assessed, you will want to visit the New Student Scheduling Center. Center advisors will get you on the right track by explaining assessment results, assisting with selection and registration of classes, and providing information on course sequences and prerequisites. They will also assign you to a faculty advisor who will help you as you continue on your educational path. For more information, call 540-7216.

# 6

## REGISTER

Once you have an application on file, have completed the basic skills assessment, and have spoken with an advisor, you may register by telephone at 540-7790 or online at [www.ppcc.edu](http://www.ppcc.edu). You may also register in person at any campus location. For more information, call 540-PPCC.


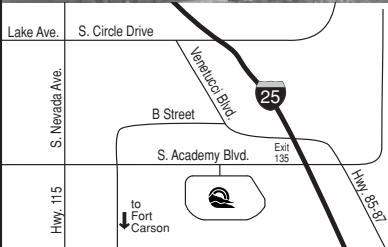
# 7

## PAY


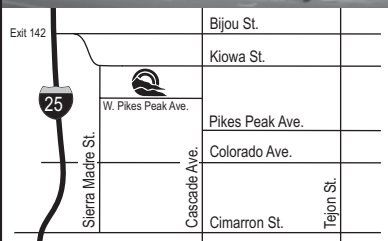
Your registration is complete once you've paid your tuition and fees.




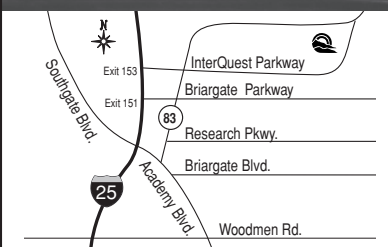
# Three Convenient Locations

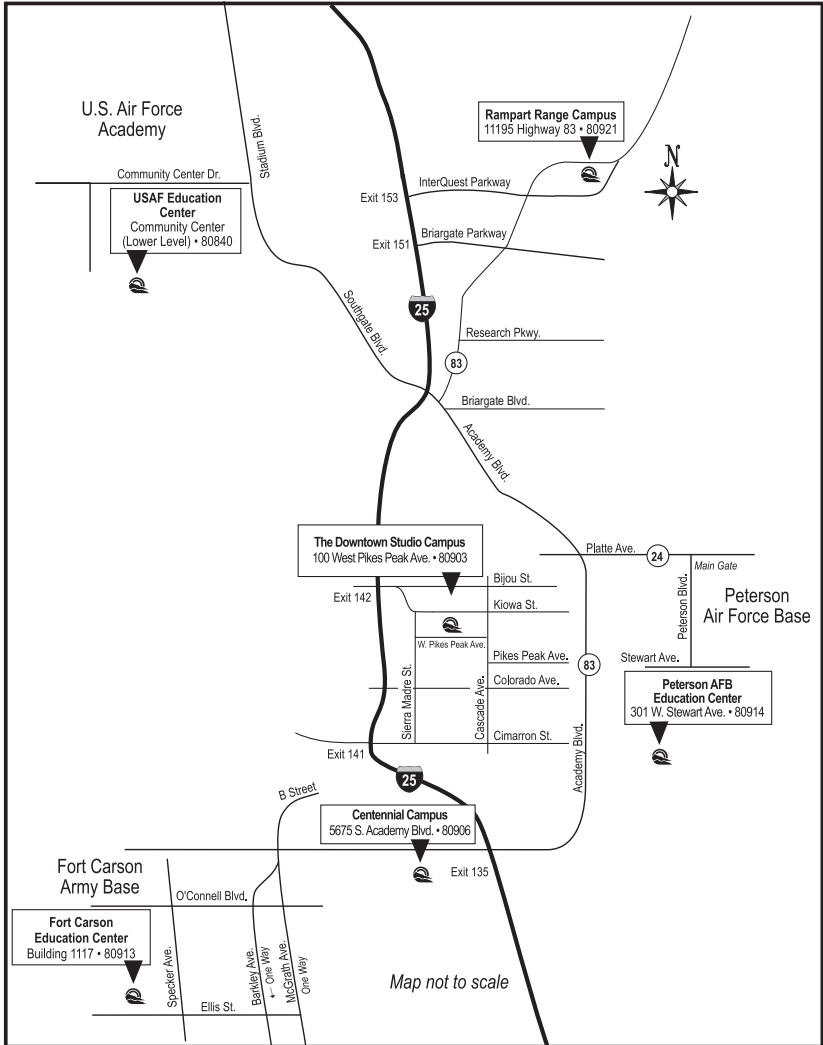
**Centennial Campus**  
5675 S. Academy Boulevard

**The Downtown Studio Campus**  
100 West Pikes Peak Avenue

**Rampart Range Campus**  
11195 Highway 83



U.S. Air Force Academy  
Community Center Dr.  
USAF Education Center (Lower Level) • 80840

Rampart Range Campus  
11195 Highway 83 • 80921

The Downtown Studio Campus  
100 West Pikes Peak Ave. • 80903

Centennial Campus  
5675 S. Academy Blvd. • 80906

Fort Carson Army Base  
Fort Carson Education Center Building 1117 • 80913

Peterson Air Force Base  
Peterson AFB Education Center  
301 W. Stewart Ave. • 80914

Map not to scale

Pikes Peak Community College has three campuses to serve the north, central, and south areas of the Pikes Peak Region. Each of the three full-service campuses offers a full array of academic programs, and enrollment and student services. Rampart Range Campus, the newest

facility, houses health profession educational programs. The Downtown Studio Campus is a center for the fine arts and dance, and Centennial Campus offers all academic disciplines as well as the occupational and technical programs.

**540.PPCC**

**866.411.PPCC**  
Toll-Free

**576.7711**  
General Information

**www.ppcc.edu**

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## Accreditation

The College is accredited by The Higher Learning Commission and is a member of the North Central Association, 30 North LaSalle Street, Suite 2400, Chicago, IL 60602-2504, (312) 263-0456.

## Changes

Catalog information is subject to change without notice. Published changes, including courses and programs approved after the catalog deadline, are available in the Enrollment Services Centers at all three campuses and on the PPCC website.

This catalog takes effect at the beginning of summer registration.

## Nondiscrimination statement



Pikes Peak Community College does not unlawfully discriminate on the basis of race, color, national origin, sex, age, or disability in admissions to, access to, treatment of persons, or employment in its educational programs or activities. Pursuant to Title IX of the Educational Amendments of 1972 (Title IX), Section 504 of the Rehabilitation Act of 1973 (Section 504), the Americans with Disabilities Act of 1990 (ADA), Title VI of the Civil Rights Act of 1964 (Title VI), and The Age Discrimination Act of 1975 (Age Discrimination) the college has established grievance procedures for students and employees. Specific complaints of alleged discrimination under Section 504 or the ADA (disability) or Title IX (sex, gender, or sexual harassment) or Title VI (race, color, or national origin), or Age Discrimination (age) should be referred to the Compliance Officer, 5675 South Academy Boulevard, Room A-118, Colorado Springs, Colorado 80906, (719) 540-7557; or the Office for Civil Rights, U.S. Department of Education, 1961 Stout Street, Denver, Colorado 80294, (303) 844-5695.



# Save on Tuition

## FACTS

About the HOPE Tax Credit and other education tax benefits

### 1. What is the HOPE Tax Credit?

The HOPE Tax Credit is a federal income tax credit available to eligible students during their first two years of postsecondary education. The tax credit covers 100 percent of the first \$1,000 of tuition paid and 50 percent of the second \$1,000 of tuition paid during the qualified period.

### 2. Who is eligible?

To be eligible, a student must be enrolled in a degree, certificate, or other program leading to a recognized education credential (i.e. associate degree, automotive technology certificate, etc.). The student must be enrolled at least half time.

### 3. When does it take effect?

The HOPE tax credit applies to tuition paid after December 31, 1997, and for education provided in academic periods beginning after that date.

### 4. How long is it available?

The HOPE tax credit is available for two tax years to those students who have not completed the first two years of postsecondary education.

### 5. What items are included in the tax credit?

HOPE applies only to tuition and certain mandatory fees – not to books, dormitory costs or other living expenses.

### 6. Are there any restrictions?

Yes. Students convicted of a felony related to the possession or distribution of a controlled substance such as heroin or marijuana are not eligible. In addition, there are income restrictions. The income ceiling for a single taxpayer is \$50,000 annually and for married taxpayers it is \$100,000 annually.

### 7. How do I apply?

Eligible individuals will claim the credit when they file their federal income tax forms.

### 8. How does it work for part-time students?

Students attending less than half time are not eligible for the HOPE tax credit. However, they may be eligible for the Lifetime Learning Credit described in item number 11.

### 9. Do I have to file a separate IRS form or will it be part of the standard 1040?

IRS form 8863–Education Credits (HOPE and Lifetime Learning Credits) should be used to take either of the credits. Additional information is available in IRS Publication 970 – Tax Benefits for Higher Education. Both the form and publication can be downloaded from the IRS website at [www.irs.gov](http://www.irs.gov).

### 10. Where can I get more information about the HOPE tax credit?

#### ▲ Financial Aid Office

Pikes Peak Community College  
540-7089 or 1-800-456-6847,  
extension 7089

#### ▲ [www.ppcc.edu](http://www.ppcc.edu)

(Pikes Peak Community College  
Web Site)

#### ▲ [www.aacc.nche.edu](http://www.aacc.nche.edu)

(American Association of  
Community Colleges Web Site)

#### ▲ Other

Call your tax preparer or the Internal  
Revenue Service at 1-800-829-1040.

### 11. What is the Lifetime Learning Credit?

The Lifetime Learning Credit will allow students studying for undergraduate, graduate or job skills training a 20% tax credit on the first \$5,000 of tuition paid.

### 12. What other new tax benefits are available?

Other tax benefits include Deduction of Student Loan Interest, Savings Incentives, Exemption of Scholarships and Tuition Remissions, and Exemption of Employer-Provided Assistance. Information on these benefits is also provided in IRS Publication 970.

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# All About PPCC

## History of the College

Pikes Peak Community 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 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 Studio Campus in central Colorado Springs in 1986, and the Rampart Range Campus in the north end of the city in 1998.

Today, PPCC 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, PPCC 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 16,000 people each year begin their education, advance their careers, and enrich their lives.

## Vision Statement

At Pikes Peak Community College, we will unite in our focus on individual student success. Students will choose our College because of our supportive learning environment, enthusiastic and respected faculty and staff, and our ability to meet our diverse community's varied educational needs.

## 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 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.

## Required Disclosures

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

- the Security Report available on page 25
- the consequences of drug and alcohol violations listed on page 23
- the manner in which the College calculates refunds and repayments listed on page 13 and as stated in the Financial Aid Handbook available in the Enrollment Services Centers or online at [www.ppcc.edu](http://www.ppcc.edu).
- the graduation rates for the College are available by request through the Office of Institutional Research at 540-7623.

## Transfer Programs

Students can complete the first two years of a four-year bachelor's degree at Pikes Peak Community College and then transfer to a four-year public institution as a junior by completing a group of guaranteed transfer courses and electives. Additionally, Pikes Peak Community College has transfer agreements with a variety of private four-year institutions. Students should consult with their faculty advisors for detailed information about transfer.

## 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 Community 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 fewer than two years.

## Locations and Facilities

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

Each full-service campus is a one-stop center for students, and includes an Enrollment Services Center, providing admissions, financial aid, records, and Veterans affairs and cashier services. Each campus offers a Bookstore, Library services, Student Life and Student Government offices. Additionally, each campus provides Student Support Services, including student scheduling and academic advising, Learning Assistance Center/Tutoring, Career Services, and services for students with disabilities. Public bus service reaches each of the three campuses from all parts of the city.

Other sites around the region include education centers at Fort Carson, Peterson Air Force Base, the U.S. Air Force Academy, and the Maintenance Technology Center. PPCC also offers courses for service members through a memorandum of understanding with the Army at Fort Sill, Oklahoma.

## Come See Us

We welcome visitors to Pikes Peak Community College, and we are happy to show prospective students around our campuses. To arrange for a tour of any of our locations, call the Enrollment Services Center at 540-PPCC (7722), or 866-411-PPCC.

## Use of College Facilities

Outside groups wanting to use a college facility should contact the Campus Director at Centennial Campus at 540-7290. Facilities used by in-house clubs and groups are scheduled on a space-available basis at no charge unless special security or maintenance service is required.

### CENTENNIAL CAMPUS

5675 South Academy Boulevard  
Colorado Springs, CO 80906  
(719) 576-7711, (800) 456-6847, TTY (719) 540-7131

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, advising, bookstore, financial aid, records, testing, Veterans affairs, tutoring, disabled student services, and career services.

The Centennial Campus provides a library, theatre, lecture halls, videoconference center, writing center, computer laboratories, language and culture lab, child development center, meeting and conference rooms, distance learning classroom, and science, career, and technical laboratories. Sports and recreation facilities include a gymnasium, fitness center, sand volleyball court, tennis courts, soccer field, and running track. The Student Center houses the Student Life Office, Student Government, a meeting room, student lounge, game area, pool tables, and vending machines.

Convenient parking is available to students, employees, and visitors in lots B, C, D, and E. Handicapped parking is reserved near most building entrances, including special spaces for wheelchair access. Parking Lot A has parking meters for people on short-term business at the college. 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 Office of Accommodative Services and Instructional Support (OASIS) by calling 540-7128.

### **THE DOWNTOWN STUDIO CAMPUS**

100 West Pikes Peak Avenue  
Colorado Springs, CO 80903  
(719) 527-6000, (800) 456-6847

The Downtown Studio Campus of PPCC 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 Studio Campus is a full-service facility, providing admissions, advising, bookstore, cashier, career services, financial aid, records, registration, testing, tutoring, student life and activities, and other services for students. The Downtown Studio Campus includes art and dance studios, an art gallery, and a performance area.

The Downtown Studio Campus offers courses leading to Associate of Arts, Associate of Science, Associate of General Studies, and some Associate of Applied Science degrees. The Paralegal/Legal Assistant, Interior Design, and Dance Programs make their home at The Downtown Studio Campus. Courses are conveniently scheduled from 8 a.m. to 10 p.m. Monday through Thursday and from 8:30 a.m. to 4:00 p.m. on Friday and Saturday.

The Gallery at The Downtown Studio Campus is a free, public art gallery that features work 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 Studio Campus beneath the Antlers Adams Mark Hotel. Campus users validate parking on campus in the first floor, lobby area. Parking is also available at metered spaces on the street.

### **RAMPART RANGE CAMPUS**

11195 Highway 83  
Colorado Springs, CO 80921  
(719) 538-5000, (800) 456-6847, TTY (719) 540-7131

The newest location of Pikes Peak Community College, Rampart Range Campus, is conveniently located in northern Colorado Springs. The campus provides convenient access via I-25 and the InterQuest Parkway, exit #153.

A full array of support services and programs is available to students, including admissions, bookstore, career services, cashier, accommodative services and instructional support, financial aid, Veterans affairs, food services, library, new student scheduling center, placement testing, records, student government, and student 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.

It offers the latest in advanced learning technology. Many classrooms are equipped with student and faculty computers, multimedia presentation capabilities, VCRs, computerized projection units, and digitized white boards. Computerized lab equipment, a CD ROM library, 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.

### **MILITARY SITES**

Pikes Peak Community College offers a variety of courses and programs at the local military sites. The courses are held at varying dates and times that differ from those of the traditional semester. The military sites include the following:

Fort Carson Education Center  
Building 1117, Room 118  
Corner of Specker and Ellis  
Fort Carson, CO 80913  
(719) 576-7212

Peterson Air Force Base  
Education Center  
301 West Stewart, Building 1141, Room 112  
PAFB, CO 80914  
(719) 574-1169

U.S. Air Force Academy  
Education Services Center  
Lower Level - Community Center  
5136 Red Tail Drive  
USAF, CO 80840  
(719) 333-2898

Pikes Peak Community College also offers courses for service members through an agreement with the Army at Fort Sill, Oklahoma.

# College Calendar

## Summer 2004

### Standard Session (10 weeks)

April	19 M	Registration Begins
May	31 M	Closed – Holiday (Web and Phone Registration Only)
June	1 T	Classes Begin
June	1-2 T-W	Late Registration
July	5 M	Closed-Holiday (Web and Phone Registration Only)
August	7 S	Classes End

### Bi-semester (5 weeks each)

June	1 T	Classes Begin
July	3 S	Classes End
July	6 T	Classes Begin
August	7 S	Classes End

## Fall 2004

### Standard Session (15 weeks + optional make-up/finals)

April	19 M	Registration Begins
		(May 31 & July 4/5 Holiday-Web and Telephone Only)
August	23 M	Classes Begin
August	23-24 M-T	Late Registration
September	6 M	Closed – Holiday
September	7 T	Open – No Classes
November	24 W	Open-No Classes
November	25 R	Closed - Holiday
November	26-27 F-S	Open - No Classes
December	11 S	Classes End
December	13-15 M-W	Optional Make-Up/Finals
December	24-Jan 1	Campus Closed-Holidays

### Bi-semester (7 1/2 weeks each)

August	23 M	Classes Begin
October	16 S	Classes End
October	18 M	Classes Begin
December	11 S	Classes End

### Tri-semesters (5 weeks each)

August	23 M	Classes Begin
September	28 T	Classes End
September	29 W	Classes Begin
November	2 T	Classes End
November	3 W	Classes Begin
December	11 S	Classes End

## Spring 2005

### Standard Session (15 weeks + optional make-up/finals)

November	15, 2004	Registration Begins
December	25–Jan 1	Closed-Holiday (Web & Phone Registration Only)
January	17 M	Classes Begin
January	17-18 M-T	Late Registration
March	21-26	Open-No Classes (SPRING BREAK)
May	7 S	Classes End
May	9-11 M/W	Optional Make-Up/Finals
May	13 F	Tentative Graduation Ceremony

### Bi-semesters (7 1/2 weeks)

January	17 M	Classes Begin
March	8 T	Classes End
March	9 W	Classes Begin
May	7 S	Classes End

### Tri-semesters (5 weeks each)

January	17 M	Classes Begin
February	19 S	Classes End
February	21 M	Classes Begin
April	2 S	Classes End
April	4 M	Classes Begin
May	7 S	Classes End

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# Getting Started

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

Prospective students who are at least 16 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 PPCC.

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.

## Class Schedule

Our class schedule is published every semester. It lists the time and location for each course. Fall and spring terms are 15 weeks long and may include finals week in some areas. The summer term is 10 weeks long.

To provide more flexibility, we offer some classes for 5-week, 7 1/2-week, or other scheduling options. Open-entry/open-exit sections allow students to enter and complete the course at their own pace. Distance learning (Internet or interactive television) sections offer flexibility for students who have difficulty getting to campus on a regular basis.

Class schedule information may change without notice. A list of new courses and changes is available from the Enrollment Services Centers or the New Student Scheduling Centers and on the PPCC website at [www.pccc.edu](http://www.pccc.edu).

## New Students

The first step is to submit an Application for Admission. An application is available on page 207 of this catalog and on the PPCC website at [www.pccc.edu](http://www.pccc.edu). Students should apply early to get the best possible start in college.

## Readmit Students

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

## Transfer Students

To transfer credits from another college, students must request that an official transcript be sent for evaluation to the Enrollment Services Centers at PPCC from their prior institution. Request forms are available from the Enrollment Services Centers. (See Academic Standards, page 16.)

## International Students

We welcome international students to Pikes Peak Community College. Students from other cultures enrich learning and campus life for everyone. International students with current visas may enroll at PPCC and will pay out-of-state tuition. All international students on F-1 visas or those who wish to apply for F-1 visas should apply for admission in the Enrollment Services Center at Centennial Campus. Students are no longer to apply for admission in the English Language Institute office. Please call 540-7113 for more information.

If international students do not have permanent resident status, they must

- prove they can meet financial obligations for at least a year
- provide records of their level of education
- show proficiency in English by submitting a TOEFL score (minimum score 450 on the paper test or 133 on the computer test). If needed, students will enroll in English Language Institute (ELI) classes to improve English proficiency before beginning a program of study at PPCC. Please contact the ELI office at 540-7047 for more information.

## Placement Testing

The Testing Center is located in A-117 at Centennial, S-101 at Rampart Range Campus, and in room 114 at The Downtown Studio Campus. A comprehensive range of services is offered in addition to placement testing. Some of the services include the following:

- CLEP and DSST (DANTES) testing for college credit.
- GED testing for the Colorado High School Equivalency Diploma.
- Independent Study, Telecourse, and classroom make-up testing.
- Test proctoring for other colleges.
- Various certification exams.
- LSAT and MCAT on national test dates.
- WorkKeys testing.

Accommodations available for those with documented disabilities.

For further information please call 540-7115, 538-5115, or 527-6015.

## The English Language Institute

All new students entering the English Language Institute 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 in the testing centers at all three campuses. [The test can be taken at any time, but it can only be taken once. There is also a paper and pencil test given once each semester for students who are not comfortable with a computerized test.] Please call 540-7047 for more information.

## New Student Scheduling Centers/Advising

Advising is required for new students in degree or certificate programs and is strongly recommended for all other students. New Student Scheduling Centers are located at Centennial Campus, The Downtown Studio Campus, and the Rampart Range Campus. First-semester advising is done in the New Student Scheduling Center; advising for continuing students is done by the assigned faculty advisor.

The following services are provided at the centers:

- Explanation of basic skills assessment results and assistance in selecting classes to alleviate academic deficiencies
- Help in selecting and registering for classes for the first semester of enrollment
- Help in adding or dropping classes
- Information on course sequence and prerequisites
- Referral of students for assistance in choosing a major or program of study
- Assignment of a faculty advisor
- Initial planning for students who intend to transfer to four-year colleges and universities.



## 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, telephone registration system, or physically at the Centennial Campus, The Downtown Studio Campus, or the Rampart Range Campus. Late registration takes place during the first two days of the new semester, but class seats are limited at this time. 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.

## Tuition and Fees

### 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 Enrollment Services Centers for more information or see the second page of the Application for Admission form on page 208.

Active Duty Military and their dependents. The Education Services Office on the student's base will certify his or her eligibility by completing the military resident classification "green form." A separate "green form" must be submitted to the Enrollment Services Centers prior to the census date each term for which the in-state tuition rate is requested.

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 Enrollment 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.

### Tuition and Fees (2004-05)\*

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

The in-state tuition rate for 2003-04 was \$66.05 per credit hour. The out-of-state tuition rate for 2003-2004 was \$345.15 per credit hour.

#### Student fees.

The student fee rates for 2003-04 were \$39.00 per semester for all students enrolled in three or fewer credit hours and \$75.20 per semester for all students enrolled in four or more credit hours. Other rates such as Distance Education are available in the current class schedule.

#### Course fees.

Some courses have extra fees ranging from \$5.45 per credit hour to \$210.00 per course. There are some courses that also have higher tuition rates. Please review the class schedule carefully to fully understand the tuition and fee rates that are charged.

\*Tuition and fee rates are set by the State Legislature and Governing Board late in the fiscal year and potential increases for the 2004-05 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

Student fees are legally required of all students. These fees support school activities, concerts, recreation, theater productions, clubs and organizations, and special events for students. The fees also support Student Government and the Student Center at Centennial Campus, student spaces at Rampart Range and The Downtown Studio Campuses, and the Child Development Centers at Centennial and Rampart Range Campuses.

Part of the student activity fee (the parking bond fee) is used to provide and maintain parking areas. A free hang tag is available for vehicles at the Public Safety Office.

Upon first enrolling at PPCC, students must get a student ID card from the Student Life Office. This ID is good for the student's entire PPCC career. If lost or stolen, a replacement ID will cost \$10. Students must have a valid ID to use the library and computer labs, to attend student activities, and to verify current student status.

## 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" and a copy of the Colorado statute from the Enrollment Services Centers. The petition and required supporting documents must be submitted to the Enrollment 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 Enrollment Services Centers personnel for details.

## Refunds/Adjustments

To receive a tuition refund or adjustment, students must drop class(es) by the deadline listed in the class schedule. No refunds or adjustments will be made after that date except in rare cases. Appeal forms are available in the Enrollment Services Centers or on the Internet. Appeals for past school years cannot be considered. Contract programs may have different refund procedures.

## Books

The bookstores at Centennial Campus, The Downtown Studio Campus, and the Rampart Range Campus stock all books and supplies needed for courses offered at that campus. A wide variety of other school supplies and PPCC insignia items are also available at the bookstores. Textbooks are also sold at Peterson AFB and Ft. Carson during the first two days of each semester for the classes offered at those locations. Check for times in the class schedule.

Textbooks may also be purchased from our bookstore website address: [www.pccbookstore.com](http://www.pccbookstore.com). This is available to all Pikes Peak Community College students.

The bookstores buy back used textbooks at the beginning and end of each semester. Look for the dates posted at the campuses, on our website, or call 1-800-456-6847 ext. 7575 for information.

## Financial Aid

There are numerous financial resources available for students who attend Pikes Peak Community College. Students should start the process by applying for the Free Application for Federal Student Aid (FAFSA). The application will explain which tax return students need for reference. This application is available at all three campus locations or on the Internet at [www.FAFSA.ed.gov](http://www.FAFSA.ed.gov). This process may take 3 to 4 weeks, so students are encouraged to apply as soon as possible. Applications for the next academic year (beginning in late August) are available January 2nd. To avoid delays, please carefully complete the FAFSA using care and do so as soon as a decision is made to apply for admission to the college.

Students will also need to submit a Student Information Form (SIF) directly to one of the Enrollment Services Centers. This form is available at all three campus locations or can also be downloaded from [www.pccc.edu](http://www.pccc.edu). Click on "Financial Aid", then "Forms". Print out the form, complete and sign it. Then mail, fax, or take it to one of the Enrollment Services Centers. No other documentation is necessary at that time until the request is processed by the Department of Education. If it is necessary for the school to request more information after the results have been received, notifications are made by mail.

To learn more about financial aid programs, how aid is distributed, student rights and responsibilities, or policies and procedures, please contact the Enrollment Services Center or review this information on-line at [www.pccc.edu](http://www.pccc.edu).

### HOPE Tax Credit

The HOPE Tax Credit, a feature in the federal Tax Relief Act of 1997, helps students save on tuition and fees. It may be available to students during their first two years at Pikes Peak Community College.

For more information, contact the following organizations:

#### Internal Revenue Service

1-800-829-1040

#### U.S. Department of Education

[www.ed.gov/budget/97918tax.html](http://www.ed.gov/budget/97918tax.html)

#### American Association of Community Colleges

[www.aacc.nche.edu](http://www.aacc.nche.edu)

#### Pikes Peak Community College

540-7722/[www.pccc.edu](http://www.pccc.edu)

## 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. Scholarships and grants do not need to be repaid. Loans provide funds while students are attending school but must be repaid. Work-study agreements allow students to work for the college while enrolled. The Student Financial Aid Handbook, available in the Enrollment Services Centers, describes each of these programs.

### Scholarships

- Colorado State Merit Scholarships
- Private Donor Scholarships
- PCC Foundation Scholarships
- Colorado Governor's Opportunity Scholarships

### Grants

- Colorado State Grants
- Colorado Leveraging Educational Assistance Partnerships Grants
- Federal Pell Grants

### Loans

- Federal Stafford Student Loans (subsidized and unsubsidized)
- Federal Parent Loans (PLUS)

### Employment Opportunities

- Federal College Work-Study Employment
- Colorado Work-Study Employment

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# Academic Standards

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

## Maximum Course Load

A course load, determined by the student and the advisor, may not exceed 20 credit hours per semester without the approval of the instructional division dean. The standard student load of a full-time student is 15 credit hours per semester although twelve (12) credit hours are considered full-time. Certain career and technical programs approved by the State Board for Community Colleges and Occupational Education may require students to take up to 24 credit hours per semester. For such programs, students will be allowed to take all necessary courses. In no case may a course load exceed 24 credit hours per semester except by written approval of the Vice President for Educational Services at or before the time of registration.

Student work load 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. Any course syllabus that indicates different preparation times takes precedence over this general requirement.

## Change of Major/Program

To change a declared major, students must see staff in the New Student Scheduling Centers. A change in major places students under the academic and curriculum requirements of their new program as published in the current college catalog.

## 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. If students pass the examination with a grade of C or higher, no further class attendance is required. Students receiving a grade of D or F must attend the remaining classes and reach the specified standards to receive credit in the course. Students may attempt a test-out only once per course each semester.

## Transfer to PPCC

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

- Credits must have been earned within 15 years prior to admission to PPCC.
- Courses in which a grade of D or above was earned will be accepted in transfer when the courses are applicable to PPCC programs and in accordance with PPCC requirements. Credit will be transferred only from an official transcript from the originating institution. In some cases, a course with a grade of D may not meet higher level course prerequisite requirements.

Students who have credits they wish to transfer to PPCC that can replace a substandard grade earned at PPCC 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 PPCC will still appear on the student's official transcripts. Other institutions receiving a PPCC 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 PPCC under this policy.

# Grading System

Grades are given for each credit course and are recorded on the student's permanent record. After each academic semester, grade reports which indicate the courses attempted, grades, grade point average (GPA) for that semester, and cumulative GPA are available to students. Grades used at PPCC are as follows:

Grade	Quality Points	Interpretation
A	4	Distinguished Grade for Superior Work: maximum proficiency in course objectives
B	3	Better than Acceptable: above-standard proficiency in course objectives
C	2	Acceptable: standard proficiency in course objectives
D	1	Less than Acceptable: Passing: poor but passes the course objectives
F	0	Failing: not demonstrating an adequate level of achievement of course objectives
U	0	Unsatisfactory: not satisfactorily achieving the course objectives and/or not officially withdrawing from the course. No credit assigned but computed in the GPA.
S	None	Satisfactory: credit assigned but not computed in the GPA
I	None	Incomplete: temporary grade granted at the discretion of the instructor for an emergency situation. Students must have substantially met the requirements of the course (75 percent of the term completed and coursework up-to-date) and must provide verifiable, justifiable reasons why the course cannot be completed. Course work must be completed by the date indicated on the Incomplete Grade Form or no later than the end of the next full 15-week semester. If not completed by this time, the "Incomplete" grade will automatically be changed to a "Failing (F)" grade. Students should arrange the terms of the "Incomplete" before the end of the semester with the faculty member who will outline the work to be done and determine the method of evaluation.
W	None	Official withdrawal initiated by the student: no credit assigned and not computed in the GPA. Official withdrawals are permitted through 80% of the course.
AW	None	Administrative Withdrawal by the institution: no credit assigned and not computed in the GPA. Administrative Withdrawals are permitted through 80% of the semester only.
AU	None	Audit: Students who wish to audit a class will need to indicate that choice in writing on a registration form at any campus Enrollment Services Centers. This option is not available by telephone or on the Internet. No credit assigned and not computed in the GPA
IP	None	In Progress: credit will be assigned and computed in GPA upon completion.

NOTE: Courses with a grade of D or F will not transfer to other institutions under GT Pathways or 60+60 Bachelors Degree Transfer program.

## Grading Options

**Satisfactory/Unsatisfactory:** students may request to take up to six credit hours each semester on a Satisfactory/Unsatisfactory (S/U) grading basis. They may take a maximum of 15 credit hours under this grading option while enrolled at PPCC. (Credit hours earned in a course where S/U 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 S/U 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 Educational Services. A Satisfactory grade earned under this option does not affect the Grade Point Average (GPA) but increases the total number of credit hours passed. However, an unsatisfactory grade earned under this option affects the GPA and increases the total number of credit hours attempted.

**Audit:** students may register to audit any course by indicating this option on the registration form at the time of enrollment. The audit option is not available on-line or with the telephone. The regular tuition rate applies. After the Drop (refunded) Last Day for the class, as indicated in the appropriate term Schedule of Classes, students may not change their registration from credit to audit, nor from audit to credit, except by written recommendation from the appropriate division dean and approval by the Vice President for Educational 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.

## Grade Changes

A change of grade (other than 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 Educational 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 and by the Vice President for Educational Services (VPES) or the appointed Assistant to the VPES. 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.

## Repeated Courses

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

## Academic Probation/Suspension/Dismissal

Pikes Peak Community College defines satisfactory academic progress as completion of the semester with a 2.0 grade point average (GPA) or better. In order to remain in good standing at PPCC, students must maintain at least a 2.0 cumulative GPA.

**Probation:** Students who do not earn at least a 2.0 GPA will be placed on academic probation for the following semester. Students who are placed on academic probation are advised to discuss resolution of their academic issues with their academic advisor as soon as possible. Students who have a cumulative GPA below 2.0 but complete each subsequent semester with a 2.0 or above will remain on probation as long as they continue earning a 2.0 or greater each subsequent semester. When the student's cumulative GPA rises above 2.0, the student will no longer be on probation.

**Suspension:** Students who do not earn at least a 2.0 GPA in their probationary semester may be suspended for one semester. Suspended students must consult with their academic advisor before they enroll for their return semester. The advisor and the student will work together to build a schedule for the student's return semester. The schedule must be approved by the Dean of the student's academic area. The student must take the enrollment form, signed by the advisor and the Dean, to the Enrollment Services Center to complete the registration process. Any changes to the student's schedule must be approved by the advisor and the Dean. Students must earn at least a 2.0 in the return semester or face academic dismissal for one calendar year.

**Dismissal:** Students on Academic Dismissal may petition for reenrollment after one calendar year. This petition is reviewed by the student's instructional Dean, who will determine if the student should be reinstated and is able to benefit from reinstatement. The Dean may impose certain restrictions to help insure a successful return. If reinstated, the student must earn a GPA of at least 2.0 in the return semester. Any appeal rights and procedures will be explained in the notification letter that is sent by certified mail to the student.

## Academic Fresh Start

All course work taken at Pikes Peak Community College appears on a permanent transcript; however, students who have earned 30 or fewer hours can initiate a petition to remove up to 30 credit hours of substandard grades from their cumulative grade point average. A Fresh Start may be considered if the following conditions are met:

- Two calendar years have elapsed since the student's last attendance at PPCC.
- Student successfully completes 6 semester hours with a term GPA of at least 2.0 prior to submitting a Fresh Start application. The petition must be received no later than the end of the semester following the successful return semester.
- Instructional Dean approval must accompany the Fresh Start Application.



Students applying for Academic Fresh Start are responsible for investigating the potential impact of Academic Fresh Start on transfer admission, financial aid, VA, and other agencies and organizations. Other institutions receiving a PPCC 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 PPCC under this policy.

Once Academic Fresh Start is granted, it is not reversible. Credit excluded from the GPA calculation cannot be used to satisfy the requirements for completion of a degree or certificate. The Academic Fresh Start may only be granted once during a student's educational career at PPCC.

### **Honor Rolls**

Each semester we give special recognition to students who demonstrate outstanding academic achievement. Students who complete at least 12 credits and earn between a 3.75 and 3.99 GPA are automatically placed on the College Honor Roll. Students who complete at least 12 credits and earn a 4.0 GPA are automatically placed on the President's Honor Roll. The honors received are listed on the transcript for the semester in which they were earned.

### **Application for Certificate or Degree**

To receive a certificate or degree, students must file an application for graduation with the Enrollment Services Center no later than the fourth week of the semester (second week for the summer term) in which they plan to graduate. For specific dates, see current class schedule.

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.

### **Academic Requirements**

To receive a degree or certificate, students must satisfactorily complete the program requirements outlined in the PPCC Catalog in effect when they were first admitted to the college. If students have not attended for two semesters (excluding the summer term), they must meet the program requirements published in the catalog in effect at the time of re-enrollment. In some cases, the Vice President for Educational Services may waive this requirement and specify an alternative course of study. Students may not re-enroll in a program which has been or is in the process of being discontinued. If students take longer than five years to complete a program and the program requirements change, they will need to request a waiver from the program division to graduate under the old requirements.

### **Assessment for Student Success**

The assessment of student learning at Pikes Peak Community College is an ongoing, evolving process that involves the entire college community. The College Outcomes Assessment Team (COAT) is charged with developing and implementing an assessment plan to gather evidence about what students know and can do as a result of their respective courses of study. This evidence is then used to improve teaching, learning, and overall program quality, enabling the College to meet the needs of students and the community it serves. The assessment process, with its focus on student learning and success, reflects the vision and values of Pikes Peak Community College as stated in the Strategic Plan. Assessment activities are formally documented in an annual report, copies of which are available for review.

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# Student Conduct

## Student Disciplinary Procedure

### **Basis:**

Students are expected to adhere to the Student Code of Conduct and policies and procedures of the College and if a student is charged with violating his/her College's code, he/she is entitled to have these procedures followed in the consideration of the charge.

### **Definitions:**

1. **Code of Conduct:** A document developed and published by each college, which defines prescribed conduct of students.
2. **Impartial Decision Maker:** The individual/committee designated by the college president to hear student disciplinary appeals.
3. **Chief Student Services Officer:** The individual designated by the College President to administer student affairs and be responsible for administering the College's Student Conduct Code and this procedure.
4. **Notice:** Notices which are required to be given by this procedure shall be considered served upon the student when given by personal delivery or mailed by certified mail 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.
5. **Sanctions:** One or more of the following may be given when there is a finding that a student has violated the College's Code of Conduct.
  - a. **Warning:** A Notice served upon the student advising him/her that he/she is violating or has violated College regulations.
  - b. **Probation:** After a finding of violation of the Code of Conduct, restriction of student's privileges for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to be violating any college regulations during the probationary period.
  - c. **Other disciplinary sanctions:** fines; restitution; denial of privileges; assignment to perform services for the benefit of the college or community; or other sanction that doesn't result in the student being denied the right of attending classes.
  - d. **College suspension or expulsion:** An involuntary separation of the student from the College for misconduct apart from academic performance for a specified period of time not to exceed one/two academic terms. Suspension differs from expulsion in that after the stated time period the student is eligible for re-admission. Expulsion is a separation for more than two academic semesters; student is not eligible for re-admission unless at the end of the separation, he/she can prove that the behavior that resulted in the expulsion has been resolved. Students may be suspended from a class, residence hall, use of a College facility or an activity in the sole determination by an authorized College employee that the conduct is in violation of the Code subject only to an appeal to the Chief Student Services Officer to ensure the action was taken pursuant to college policies. Students may be suspended from one class period by the responsible faculty member, longer suspensions can be done only in accordance with college procedures.
  - e. **Summary Suspension:** An immediate action taken by the Chief Student Services Officer to ensure the safety and well-being of members of the college community or preservation of college property; to ensure the student's own physical or emotional safety and well-being; or if the student poses a definite threat of disruption or interference with the normal operations of the college. In such event, the hearing before the Impartial Decision Maker (if requested by the student), shall occur as soon as possible following the suspension.
6. **Day:** Refers to calendar day unless otherwise noted below.

## Standards of Conduct

Specific misconduct which may subject a student to disciplinary action includes the following:

- dishonesty in the classroom or laboratory, such as cheating, plagiarism, or knowingly furnishing false information to the college.
- forgery, alteration, or misuse of college documents, records, identification, educational materials, or college property.
- obstruction or disruption of teaching, research, administration, disciplinary procedures, or other authorized activities on college premises.
- the threat to, or physical abuse of any person on college-owned or controlled property or at college-sponsored or supervised functions or conduct which threatens or endangers the welfare or safety of any such person.
- theft of or damage to property on the college premises or at authorized college functions (See Section E-708.7).
- unauthorized entry to or occupation of college facilities.
- use of, being under the influence of, possession of, or distribution of alcohol or illegal or dangerous drugs on campus or at a college-sponsored function, except as expressly permitted by law and college regulations (See Section 711-5f.).
- disorderly conduct, breach of the peace, lewd, indecent, or obscene conduct, gambling, aiding or inciting another to breach the peace, or infringement upon the rights of others either on college-owned property or at college-sponsored or supervised functions.
- failure to comply with the verbal or written directions of college employees acting in the performance of their duties.
- possession or use of firearms, explosives, dangerous chemicals or other weapons on campus or at college-sponsored activities except as permitted by law and college regulations.
- aiding or encouraging others in committing or inciting others to commit any act of misconduct set forth in any of the above.
- violation of college rules regarding the operation and parking of motorized vehicles on college property.
- Unacceptable uses of any college-owned computing equipment and/or network, including, but not limited to knowingly spreading computer viruses; sending harassing, intimidating and/or threatening messages; re-posting personal communications without the author's consent; copying protected material in violation of copyright law; using the network for financial gain, commercial activity, or illegal activity; accessing the network using another individual's account; downloading, loading or executing software without appropriate authorization; or attempting to compromise the network integrity in any other way.
- conviction of any crime or the performance of any act on or off the campus which, in the opinion of the college, gives rise to a reasonable belief that the continued presence of the student on campus will endanger the health, safety and welfare of any other student or employee of the college, will substantially disrupt the legitimate functions and activities of the college, or will impinge on the rights of others.

## PROCEDURES

### 1. Decision

Chief Student Services Officer or his/her designee shall receive all allegations of student misconduct, investigate the complaints and make a Decision. He/she may decide that the charges can be disposed of administratively by mutual consent of the parties involved on a basis acceptable to him/her. If an administrative resolution is not achieved, the Chief Student Services Officer or designee shall issue a Decision which determines whether the alleged conduct occurred; whether the conduct violated the Code of Conduct or College policies or procedures; and impose a sanction(s) if appropriate. The student shall receive written Notice of the Decision and be advised of his/her right to appeal the Decision by filing a written appeal with the Chief Student Services Officer within seven (7) days of service of the Decision. In the case of suspension or expulsion, the sanction shall be imposed no earlier than six days after service of the Notice unless it is a summary suspension or the sanction is agreed to by the student. If an appeal is requested, suspension and/or expulsion shall not be imposed until the appeal procedures below have been completed.

### 2. Appeal

- a. In the event of an appeal, the Chief Student Services Officer shall give written Notice to the student and the Impartial Decision Maker which describes the conduct to be inquired into; the Code of Conduct and/or College policies or procedures which were allegedly violated; the date, time and place of the alleged violation; the sanction that is threatened and the date, time and place of the hearing before the Impartial Decision Maker. The Notice shall be given at least seven (7) days prior to the hearing unless a shorter time is agreed to by the parties.
- b. Conduct of Hearings. The Impartial Decision Maker shall determine its own hearing procedures, keeping in mind the following guidelines:
  - (1.) Student shall have the right to be heard by the Impartial Decision Maker; in the event that the student is under the age of eighteen or incapacitated, he/she may have an advisor present to assist him/her in presenting his/her case.
  - (2.) Students do not have the right to be represented by an attorney 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 as provided in #1 above.
  - (3.) Student shall have the right to identify documents, witnesses and other material he/she would like the Impartial Decision Maker to review before making a final decision.
  - (4.) Hearings shall be conducted in private unless all parties agree otherwise.
  - (5.) A record of the hearing should be maintained by the Impartial Decision Maker.
- c. Determination by Impartial Decision Maker. The Decision Maker shall make its findings and determinations in closed meeting out of the presence of the Chief Student Services Officer and the student charged. Separate findings are to be made as to the conduct of the student and on the sanction(s), if any, to be imposed. No discipline shall be imposed on the student unless the Impartial Decision Maker is persuaded by a preponderance of the evidence that the student committed the alleged conduct and that it constituted a violation of

the Code of Conduct and/or college regulations; that the student should be sanctioned (including modifying the sanction imposed below) and that the discipline is reasonable given the violation. The student and the Chief Student Services Officer shall be given written Notice of the decision. The decision shall be issued within five calendar days of the close of the hearing and it shall become final unless a petition for review is filed.

- d. Petition for Review. The Chief Student Services Officer or the student may petition the president to review the Impartial Decision Maker's decision by filing a written petition within five (5) days after notification of the decision. If a review is requested, the other party will be given three (3) days to respond to the petition, and his/her response materials will be given to the president to review before a decision on the petition is made.
- e. President's Decision. The president shall review the record of the case and the petition and may affirm or reverse the decision of the Impartial Decision Maker. The record shall consist of the Impartial Decision Maker's written documents and the recording of the hearing and any written materials submitted in support of the Petition for Review. The president shall notify the Chief Student Services Officer and the student in writing of his/her decision within fourteen (14) days of service of the Petition for Review. The president's decision is final.

### 3. Miscellaneous

- a. College disciplinary proceeding may be instituted against a student charged with violation of a law if the violation occurred at the College or College-sanctioned activities or was of such a nature as to impact upon the College which is also a violation of the College's Student Code of Conduct. Proceedings under this Procedure may be carried out prior to, simultaneously with, or following civil or criminal proceedings off-campus.
- b. Time limits for scheduling of hearings may be extended at the discretion of the Impartial Decision Maker.
- c. The procedural rights afforded to students above may be waived by the student.

## Student Complaints/Grievances

### Reference:

Board Policy 4-31; Title VI of the Civil Rights Act of 1964; Title IX of the Education Amendments of 1972; Section 504 of the Rehabilitation Act of 1973 and Americans with Disabilities Act, Title II and Age Discrimination 1975.

### 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 without regard to sex, race, national origin or ancestry, creed, color, disability, or age, and have the issue considered in a prompt and equitable fashion.

### Definitions:

**Grievant:** Enrolled student, a client, or volunteer who is providing a service to benefit the College under the supervision and control of a college employee. A client or volunteer may only grieve a decision which bans him or her from the campus.

**Grievance:** A grievable offense is any alleged action which violates or inequitably applies written college policies or procedures. The grievant must be personally affected by such violation or inequitable action. A grievance must be brought to the formal stage within 20 calendar days of the date the student knew or reasonably should have known about the action.

**Chief Student Services Officer:** The college employee designated by the college president to administer student grievances. Grievances alleging discrimination issues may be referred to the employee responsible for ensuring equal opportunity and access.

**Remedy:** The relief that the Grievant is requesting.

**Respondent(s):** Another student, volunteer, client, faculty member and/or administrator identified by the Grievant as causing or contributing to the grievance.

**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 illegal discrimination; and disciplinary actions taken pursuant to BP 4-30.

## PROCEDURES:

### 1. INFORMAL

Grievant is encouraged to resolve the issue with the Respondent or his/her supervisor. In the case of grievances based upon one's race, color, creed, national origin or ancestry, disability, age or gender, the Grievant may first contact the college employee responsible for affirmative action to seek informal resolution of the issues. If the complaint alleges facts which might constitute a violation of SP 3-120a concerning sexual harassment, the administrator shall investigate and process the complaint under that procedure. While the Grievant is encouraged to resolve the issues through the informal process, he/she may at any time elect to go to the formal stage by following the process outlined below.

### 2. FORMAL

- a. Grievant timely files a written statement of the actions complained of and describes the remedy he/she is seeking with the Chief Student Services Officer. 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 Chief Student Services Officer 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 Grievant will be notified of the reasons.
- b. If the matter is determined to be grievable, Chief Student Services Officer or designee (which may be an individual or a committee) shall hear the Grievance. A hearing will be held which will give the Grievant, Respondent, and others invited to appear, and given the opportunity to explain what they know about the issues surrounding the grievance. Considering the oral and written statements and documents, the Chief Student Services Officer or Designee shall issue a decision within ten (10) calendar days of close of the hearing. The Decision shall be served upon the Grievant and the Respondent personally or by certified mail to the addresses on file in the Admissions office. The Decision shall reject the grievance or grant the grievance and make recommendation(s) to resolve the issue(s). The Chief Student Services Officer or designee's decision is final unless a Petition for Review is filed with the president by either party within five (5) calendar days of service of the Decision.

3. Upon receipt of a Petition for Review, the college president will review the record and issue a written decision within ten calendar days of receipt of the Petition for Review. The president's decision is final.
4. The Chief Student Services Officer or Designee may extend the scheduling timelines described above for good cause.
5. If the grievance is against the Chief Student Services Officer, the Chief Academic Officer or other person designated by the president shall perform the duties of the Chief Student Services Officer.

## Academic Honesty

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

Academic dishonesty is defined as the unauthorized use of assistance with 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:

- the 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 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
- illegitimate possession and/or 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 required 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 is not permitted in any college facility.

Eating or drinking is not permitted in classrooms, laboratories, shops, the theatre, the gymnasium, and the library 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 may be permitted in the classroom only with the instructor's permission and with the understanding that the child's presence will not be disruptive or unduly distracting. Contact the Child Development Center for occasional care needs.

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 a recommendation to the Vice President for Educational Services. This recommendation shall state the appropriate administrative action, which may include continued attendance or permanent dismissal from the class.

## Drugs and Alcohol

In compliance with the Drug-Free Schools and Communities Act Amendments of 1989 (Public Law 101-226), students shall not engage in the unauthorized or unlawful manufacture, distribution, dispensation, possession, use/abuse of alcohol and/or illicit drugs on college property or as part of any college activity.

Any student 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 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 and referral to authorities for prosecution, as appropriate.

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

## Sexual Harassment

Pikes Peak Community 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 Community 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 Community 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@ppcc.edu, or by calling (719) 540-7556. 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, 1961 Stout Street, Denver, Colorado 80294, (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 Community College who 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

According to PPCC Policy E-502. 2d, no person may have on his or her person any unauthorized firearm, ammunition, explosive device, look-alike weapon or device, or illegal weapon as defined in Colorado Revised Statutes Section 18-12-102, on the campus or any facility used by the community college.

The college has developed procedures and regulations pertaining to the use of firearms as a part of any recognized program of instruction which requires access to a firearm as an integral part of the instructional program.

Persons in violation of this policy shall be subject to appropriate action under College disciplinary policies and procedures as well as applicable local and/or state laws relating to possession and/or use of firearms.

Pikes Peak Community College will adhere to State Board Policy, BP19-10 as well as all related local and/or state regulations in regard to compliance.

## Smoking in College Buildings

Consistent with State of Colorado statute, smoking is NOT PERMITTED in any PPCC building or facility. In addition, smoking is prohibited in the courtyard between the Aspen and Breckenridge buildings on Centennial Campus.

## Parking and Traffic Regulations

The Pikes Peak Community College Centennial Campus and Rampart Range Campus will provide OPEN parking in all general lots, supported by a student fee paid at registration. These lots include B, C, D, and E lots at Centennial and A, B, C lots at Rampart Range. At Centennial Campus only, motorcycles may be parked in the designated marked areas in lots B, D, and E. At Rampart Range Campus, motorcycles may park in the designated area in B lot.

Those wishing to obtain a “hang tag” may do so by bringing student/staff identification to the Campus Public Safety office. It provides the following benefits:

- Providing easy notification in case of an emergency involving the vehicle.
- Use of tag for one fiscal year.

Speed limits on campus are 25 M.P.H. on Perimeter Road and Rampart Roads unless otherwise posted, and they are 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.

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

**Handicap Parking:** Vehicles bearing state issued handicapped placards, state issued handicapped license plates, or state issued temporary handicapped passes may park in the handicapped areas in lots A, the designated all handicap lot, and on South Service Drive at the Centennial Campus and in the handicapped areas in lots A, B, C at the Rampart Range Campus. Only vehicles identified as belonging to handicapped persons displaying the state issued handicapped placards/license plates may park in the handicapped areas.

**At the Centennial Campus only:** Wheelchair Only: These spaces are reserved for use by those persons confined to wheelchairs. Parking spaces are marked for “Wheelchair Only”.

**At the Centennial Campus only:** Metered Parking: Metered Parking, for those on short-term business with the college, is available in lot A. These parking meters are for the convenience of college visitors and not for use by students, faculty, or staff. Those who park at a meter will receive a ticket if the meter expires, even if they do have a service decal. Visitors whose business will take longer than the meters allow should use the parking spaces in B, C, D, and E lots.

**Emissions Inspection:** No matter where a person resides, he or she must have a current, valid emissions inspection if he or she is a student or staff member.

**Traffic Violations:** The DPS 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-111 at Centennial Campus and 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.

**Appeals:** If a person wants to appeal a parking citation, he or she must submit a statement in writing before the tenth working day from the date of the citation. Appeal forms are available in room A-100 at Centennial Campus and N-106 at Rampart Range Campus. The Director of Public Safety reviews the appeals and mails them back to the appropriate person. If a person disagrees with the decision of the Director of Public Safety, he or she may then appeal the citation to the Appeals Committee. A person who objects to the decision of the Appeals Committee may request a review by the President of the College or the President’s designee (Vice President of Administrative Services).

**Mopeds and Bicycles:** Service decals are not required for bicycles or mopeds. 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 DPS for safekeeping.

**Accidents:** Colorado law requires that all accidents be reported to the proper authorities. Accidents occurring on PPCC Campuses must be reported to the Department of Public Safety at ext. 7111.

Information concerning PPCC vehicle regulations may be obtained from DPS in A-100, or by calling ext. 7700 at the Centennial Campus and in N-106 at the Rampart Range Campus.

**Escort Service:** Escort Service is available through the DPS contact ext. 7111.

## Days of Enforcement

Parking and traffic regulations are enforced on all college properties. Metered Parking in A Lot at the Centennial Campus is enforced Monday through Saturday; 8:00 a.m. to 8:00 p.m. Handicapped parking violations are enforced at all times.

## Emergencies and Crime Reporting

For emergencies dial 911.

The emergency number 9-1-1 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 9-1-1. 9-1-1 should not be used for non-emergencies.

Call ext. 7111 to report any of the following: illness, lost and found items, or to request an officer for non-emergency situations and/or purposes.

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

The Department of Public Safety monitors and records all known criminal activities associated with the college, including criminal activity associated with off-campus student organizations.

The Crime Prevention section of the Department of Public Safety offers programs to the campus community. Operation Identification and 911 Readiness are offered for children at the Child Development Centers. Operation Identification kits may be picked up at any Public Safety office.

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

### Reporting Criminal Offenses

To report any emergency, dial campus extension 7111; from an off-campus telephone dial (719) 540-7111 or pick-up any Emergency phone located through-out campus buildings and parking lots.

Violent crimes considered a threat to students and employees are promptly reported to the campus community.

### Rioting Offenses

Prohibition against enrollment in state-supported institutions of higher education of persons convicted of rioting offenses.

Under Colorado law, no person shall be enrolled in a state-supported institution of higher education for a period of twelve months following the date of a guilty verdict, guilty plea, no contest plea, or a deferred judgment and sentence for inciting riot, arming rioters, or engaging in a riot.

### Sex Offender Registration

In accordance with the Campus Sex Crimes Prevention Act, the Public Safety Office shall maintain a list of all sex offenders who are currently enrolled or employed at Pikes Peak Community College and make said list available to students and employees. As of October 27, 2002, all convicted sex offenders are obligated to notify the state when the offender enrolls at, is employed at, or carries on a vocation at an institution of higher education. Said offender must notify the state of any change in enrollment or employment.

### Campus Crime and Security Report

The Crime Awareness and Campus Security Act, a public law, requires the college to disclose information regarding criminal activities and security at Pikes Peak Community College.

### Report of Criminal Offenses

#### Centennial Campus

Offense	2001	2002	2003
Murder & Non-negligent Manslaughter	0	0	0
Negligent Manslaughter	0	0	0
Forcible Sex Offenses	0	0	0
Non-forcible Sex Offenses	0	0	0
Robbery	1	0	0
Aggravated Assault	0	0	0
Burglary	0	1	4
Motor Vehicle Theft	0	0	0
Arson	0	0	0

#### Arrests Made

Liquor Law Violations	1	2	2
Drug Violations	2	4	3
Weapons Violations	1	1	0

No crimes were determined to be hate related.

Violent crimes considered to be a threat to students and employees are promptly reported to the campus community.

#### The Downtown Studio Campus

Offense	2001	2002	2003
Murder & Non-negligent Manslaughter	0	0	0
Negligent Manslaughter	0	0	0
Forcible Sex Offenses	0	0	0
Non-forcible Sex Offenses	0	0	0
Robbery	0	0	0
Aggravated Assault	0	0	0
Burglary	2	0	0
Motor Vehicle Theft	0	0	0
Arson	0	0	0

#### Arrests Made

Liquor Law Violations	0	0	0
Drug Violations	0	0	1
Weapons Violations	0	0	0

No crimes were determined to be hate related.

Violent crimes considered to be a threat to students and employees are promptly reported to the campus community.

#### Rampart Range Campus

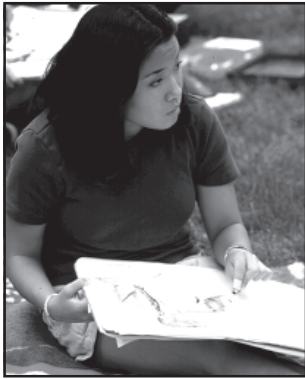
Offense	2001	2002	2003
Murder & Non-negligent Manslaughter	0	0	0
Negligent Manslaughter	0	0	0
Forcible Sex Offenses	0	0	0
Non-forcible Sex Offenses	0	0	0
Robbery	0	0	0
Aggravated Assault	0	0	0
Burglary	0	0	1
Motor Vehicle Theft	0	0	0
Arson	1	0	0

#### Arrests Made

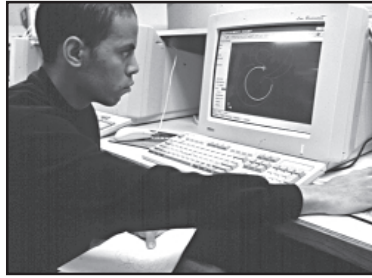
Liquor Law Violations	0	0	0
Drug Violations	1	0	0
Weapons Violations	0	0	0

No crimes were determined to be hate related.

Violent crimes considered to be a threat to students and employees are promptly reported to the campus community.



# Ethnic Student Enrichment Program at Pikes Peak Community College



**T**he Ethnic Student Enrichment Program (ESEP) at Pikes Peak Community College is designed to encourage a successful academic and personal growth experience for students of all ethnic backgrounds.

- 
- ▲ Staying on Track
  - ▲ College Survival Workshops
  - ▲ Cultural Awareness Workshop
  - ▲ Social Activities
  - ▲ Job Search Workshops
  - ▲ ESEP Information Booth
  - ▲ Mentors Program
  - ▲ Scholarship Support

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Call 540-7113 or toll free 1-800-456-6847 extension 7113 for more information .

 **Pikes Peak Community College**  
5675 South Academy Boulevard • Colorado Springs, CO 80906

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# Services for Students

## Accessing Community College Educational Support Services (ACCESS)

ACCESS is a new service to PPCC students that will help provide resources, support, and referrals to students who do not qualify for Student Support Services, who are re-entering college, who are Career and Technical students and/or ethnic minorities. ACCESS is located at the Centennial Campus, room A-117.

## Advising/New Student Scheduling Centers

Advising is required for new students in degree or certificate programs and is strongly recommended for all other students. After an initial visit to the New Student Scheduling Centers, students are assigned a faculty advisor in their program area and the advising hold is removed to allow students to register for classes. Faculty advisors can be located in their respective division office. New Student Scheduling Centers are located at Centennial Campus, at The Downtown Studio Campus, and at Rampart Range Campus. The following services are provided at the centers:

- assignment of a faculty advisor
- explanation of basic skills assessment results and assistance in selecting classes to alleviate academic deficiencies
- help in selecting and registering for classes for the first semester of enrollment
- help in adding or dropping classes
- information on course sequences and prerequisites
- referral of students for assistance in choosing a major or program of study
- specific program planning for students who intend to transfer to four-year colleges or universities

## Career Services Center

The Career Services Center offers comprehensive services to help students make career decisions and obtain employment. The center is located at Centennial Campus in room A-210, but services are also available on a scheduled basis at the Rampart Range and The Downtown Studio campuses. For more information about the Career Services Center, please call 540-7144.

**Career Planning.** We can provide resources which will help students identify goals, choose a college major, and make effective career decisions. Our services are available to students and the community. They include

- career counseling (individual and group) to help with decision-making and goal-setting
- DISCOVER Career Guidance and Information Software System, a comprehensive planning tool which includes career inventories and information databases
- Colorado Career Information System (COCIS), a computerized database of career and labor market information with emphasis on Colorado employment trends.

**Job Placement and Self-Marketing.** Services are available to help students market themselves productively and find a job, either after they graduate or while attending school. They include

- individual and group training for job seeking skills, including resume writing and interviewing (videotaped practice interviews available)
- resume production service for current and former PPCC students
- information on the local labor market and planning a job search
- listings of job openings from area employers (available to current and former PPCC students)
- Internet access to job banks.

**Pikes Peak Workforce Center.** The Career Services Center is pleased to host the Pikes Peak Workforce Center, our employment services partner at the Centennial Campus. The Pikes Peak Workforce Center, which has a part-time presence at PPCC, provides comprehensive services to assist all community members in finding employment or training opportunities. For more information and the schedule, call 579-3080 or visit the website at [www.ppwfc.org](http://www.ppwfc.org)

## Child Development Centers

The Child Development Centers (child care) located at the Centennial Campus and the Rampart Range Campus offer comprehensive educational child care services for children age six weeks to five years in infant, toddler, and preschool programs. Hourly child care is available for children age three to twelve years for students who only need child care on an occasional basis. Children participate in art activities, science, math, music, creative play, language arts, computers, and outdoor play.

The CDC's are licensed by the Colorado Department of Human Services and are staffed by certified early childhood teachers who are assisted by student staff teacher aides. The Centers serve as a practicum site for students enrolled in the Early Childhood Education Program and the Area Vocational Program.

Children of Pikes Peak Community College students, staff, and faculty are eligible to enroll. The CDC's are open when college classes are in session. Cost of child care is on an income-based sliding scale. Advance registration is required for all programs. Some classrooms may have a waiting list. Please call 540-7215 for more information.

Both facilities have a Parent Resource Room where family community resources and parenting materials are available to all students. Workshops, meetings, and support services for parents and families are offered.

## Copy Center

Part of the Publications and Printing office, the Copy Center is located in room B-234 at the Centennial Campus. Services are available to students, faculty, and staff for both personal and work-related jobs. The Copy Center is open Monday through Friday, 7:30 a.m. to 5:00 p.m. and offers black and white copies and transparencies; one and two color printing (large quantities only); color banners and posters; design, layout, and production services; folding, binding, padding, and hole punching. Please call 540-7642 for more information.

## Information Technology Support Services

Information Technology Support Services (ITSS) provides networked computing services to students, faculty, and staff. Services provided by the department include Internet access, online course support using Blackboard, computer classroom, lab and office hardware and software support to include LCD and overhead projectors, telecommunications, video conferencing, training for faculty and staff, application development for the college as well as for the Colorado Community College System (CCCS), and the evaluation and implementation of new technologies consistent with the mission of the college.

Every student is provided with a computer account on the instructional network and an e-mail address, accessible via the Internet, at the time of registration.

All classroom and lab computers have access to the Internet, the instructional network, and college provided e-mail accounts. Each full service campus has its own local area network (LAN). All campus LANs are connected via T1 circuits to provide students, faculty, and staff with the ability to seamlessly access data from any campus. Nightly backups are performed to ensure that coursework and other data is recoverable in the event of a disaster.

ITSS computer labs at The Downtown Studio, Rampart Range, and Centennial campuses are available for students, faculty, and staff. ITSS computer labs are open evenings and weekends to provide students with technology resources at convenient times. Hours of operation vary by semester and by campus, so please call for current lab hours. Telephone numbers are as follows: Centennial Campus (A-300): 540-7502; Rampart Range Campus (E-203): 538-5280; The Downtown Studio Campus (D-152): 527-6009.

Installed software includes Windows XP Professional, Office XP products, Front Page, Publisher, Visio, Visual Studio 6, MSDN library for Visual Studio 6, IE 6, and Netscape and Macromedia products such as Flash and Shockwave players. Software used in classrooms is also installed on lab computers.

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 Assistance Center/Tutoring at 540-7129 (Centennial) or 538-5075 (Rampart Range).

**Centennial Campus Computer Lab.** Located in room A-300, the computer lab at Centennial campus has over 100 computers including both PCs and Macs. Equipment available for student, faculty, and staff checkout includes digital cameras, video cameras, and headphones. Faculty and staff may also checkout LCD projectors, laptops (both PC and Mac), TV/VCR combo units, Zip drives, and adding machines for a period of up to 24 hours. Please call in advance to reserve this equipment.

The Centennial Campus computer lab includes a multimedia area available for students emphasizing Multimedia Graphic Design (MGD) and Computer Aided Drafting (CAD) programs. Students have access to the instructional network to complete class assignments. 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.

**Rampart Range Computer Lab.** Located in room E-203, this computer lab is equipped with 32 new Dell computers. Each computer has access to the Internet, as well as the instructional network, to assist students with the completion of coursework.

**The Downtown Studio Computer Lab.** Located in room D-152, The DTSC computer lab has recently moved and been upgraded to provide students with more computers and a better working environment. The lab is now equipped with 20 new Dell computers. Access to the Internet, as well as the instructional network, is provided to assist students with their coursework.

## Learning Assistance Center/Tutoring

The Learning Assistance Center/Tutoring offers organized learning clusters, individual tutoring, supplemental instruction review tutorial groups, tutor referrals, tutor training, individual success plans, in addition to student success and other specialized workshops.

Students seeking tutorial services through the Learning Assistance Center/Tutoring may require an instructor referral and then may be assigned an individual tutor or assigned to specific learning clusters. The Learning Assistance Center/Tutoring Coordinator will determine appropriate placement. Students may also be assigned to other campus resources. Referral for tutoring services does not guarantee that a tutor will be assigned.

Students seeking individual tutoring services are expected to follow the course sequence outlined by their academic advisor. Tutoring services do not replace course prerequisites. Students must:

- be enrolled for a letter grade in the class for which tutoring is requested.
- be degree or certificate seeking, as priority will be given to students requesting help for classes in their program areas.
- be prepared for the tutoring session, which includes doing homework and follow up assignments specified by the tutor.
- attend and participate reasonably in class.

Individual tutoring is limited to two subjects per semester. Individual tutoring is also limited to two semesters for the same course.

Students are encouraged to visit the Learning Assistance Center/Tutoring staff at Centennial Campus, room A-362; Rampart Range Campus, room S-101; or The Downtown Studio Campus, room 114. Students may also phone 540-7129 for more information.

## Library

The library provides a pleasant learning environment at both Centennial Campus and Rampart Range Campus. The Library enhances a student's education through a variety of materials and services. It includes the library itself, technical services, and the college archives. Community members may check out printed materials with a public library card and a picture ID. Our libraries have over 37,000 books, documents, and non-print materials. The non-print materials include DVDs, CDs, maps, audiotapes, videotapes, and other materials, most kept in the open stacks. The libraries have a collection of about 250 serial publications, including magazines, journals, and newspapers. The libraries also have materials to aid in self-paced learning, such as videotapes, and computer-assisted instruction. Study rooms are open for individual students and groups. Study carrels, typewriters, and copiers (color and black & white) are available. At Centennial Campus a Leisure/Reading room and a children's library are available. The northwest corner at Rampart Range Library is the Leisure/Reading area for that campus.

## Reference and Research Service:

Our professional reference staff members serve as information guides and help students, faculty, staff, and community users find their way to the most relevant sources, whether in print or electronic form. The Library staff consults with faculty to develop the library's collection and investigates various online databases to determine the most useful for the college community. The reference staff also provides library instruction to classes, and compiles bibliographies, help sheets, and other written materials. Several online services, which offer access to articles from many different publications, are available through the library website and the online catalog. The passwords for the subscription services can be obtained through either the circulation or reference desk. Our materials catalog is also accessible at the library website at [www.pgcc.edu/Academics/Library/](http://www.pgcc.edu/Academics/Library/).

The reference staff can advise students on how to connect to these and other resources and give assistance in using them.

Interlibrary Loan Service: Through interlibrary loan, students can request information from other libraries. If the library cannot provide the material needed, staff will find a library that can. These items are normally received in two to four weeks. Ask any of the staff for a request form.

## Military Programs

PPCC provides alternate delivery formats of courses and special training through military programs.

Military programs offer a schedule of evening, weekend, and open-entry/open-exit classes that accommodate the busy schedule of students who are unable to attend traditional classes.

Registration dates, enrollment procedures, and fees vary. For more information, call the PPCC branches at Fort Carson, 576-7212; Peterson Air Force Base, 574-1169; or the U.S. Air Force Academy, 333-2898 or visit our website at [www.pgcc.edu](http://www.pgcc.edu).

## Office of Accommodative Services and Instructional Support (OASIS)

The Office of Accommodative Services and Instructional Support (OASIS) strives to create an accessible environment by providing reasonable and appropriate services and accommodations for students with documented 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
- identification of strengths and weaknesses
- instruction in learning strategies
- note taking
- readers
- text on tape
- scribes
- "Smart Start" – preparation-for-college seminar interpreting services.

OASIS is available to the PPCC community – students, faculty, and staff, for consultation and collaboration on disability issues. It is the responsibility of the students to identify themselves, apply for supportive services, and furnish documentation about the nature and extent of their disability. This information is kept confidential and will be used to plan for appropriate services and accommodations. Appointments for all campus locations can be made at 540-7128. Our website is [www.pgcc.edu](http://www.pgcc.edu).

**Computer Access Center.** The Computer Access Center is located at the Centennial Campus. The center utilizes computer assistive technology such as screen readers, voice recognition, alternative input/output devices, and screen magnification. Courses combining word processing and assistive technology are offered. Contact OASIS at 540-7128 for further information or visit us in room A-115.

**Learning Disabilities Support Services.** Assistance is provided for students with learning disabilities through a partnership with OASIS. Support services that encourage success include identification of strengths and weaknesses; promotion of self-advocacy; instruction in learning strategies, basic skills, and study skills; help with course selection; and implementation of appropriate accommodations.

**Interpreting Services.** Interpreter, Oral, Transliteration, and Real Time Transcription services are available for Deaf and hard of hearing students who have documented need. Contact OASIS at 540-7128 or visit the office located at the Centennial Campus in room A-115 for further information.

For more information about OASIS, call 540-7128.

## Orientation Program for New Students

The Orientation Program for New Students consists of open group sessions before each semester. The sessions provide useful information for new students. Admissions, Student Life, Public Safety, and Financial Aid staff explain more about their services. To attend an orientation, contact the Enrollment Services Centers.

## Pikes Peak News

"The Pikes Peak News" is the PPCC student newspaper, published by and for PPCC students. All PPCC students are welcome to participate in the production of this paper as writers, editors, designers, and photographers. "The Pikes Peak News" also welcomes articles and photos from all PPCC-sanctioned clubs and organizations. The Pikes Peak News has won second place and honorable mention awards at previous collegiate media conventions. For more information, contact us at 540-7480 or check out our website at [www.pgcc.edu](http://www.pgcc.edu).

## Records

All records of enrollment at PPCC are kept in the Enrollment Services Centers. Transcripts are available upon request within certain timelines. The fee for a transcript is \$3.00 for normal processing (three working days) when requested in person, with a written request, or via the web. The fee will be \$5.00 for immediate (on demand, issued to student) over the counter requests. Requests to have transcripts faxed are \$5.00 (note that faxed transcripts are not deemed official). Students may review their records and ask to have information corrected or kept private.

The college releases directory information upon legitimate request. Directory information is defined as a student's name, date of birth, 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 Enrollment Services Centers.

All students attending classes at PPCC 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 "Release of Non-Directory Information" 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 Enrollment Services Centers.

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

## **Southern Colorado Educational Opportunity Center (SCEOC)**

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. For more information, call 540-7038.

## **Student Support Services**

Student Support Services (SSS) assists students who are planning to graduate from PPCC in meeting academic, career, and personal goals. Student progress and achievement is supported through individual meetings, campus referrals, and academic tutoring and monitoring. The SSS provides assistance in transition and transfer to four-year colleges. SSS provides a supportive climate for low-income and first-generation college students and students with disabilities who have academic need. SSS is located at the Centennial Campus, room A-117.

## **Testing Center**

The Testing Center offers a variety of services in addition to placement testing. Students may take a test to receive college credit in subjects such as accounting, biology, college algebra, English composition, foreign languages, humanities, management, natural sciences, and social sciences by taking CLEP or DANTES tests. GED testing for a high school equivalency diploma is available on a weekly basis. Paper/pencil and online test proctoring for other colleges/universities is also available. LSAT and MCAT are offered in the Testing Center. For more information, call 538-5115, 540-7115, or 527-6015.

## **Veterans Affairs Office**

The Veterans Affairs (VA) Office will help eligible veterans and/or dependents enroll for veterans' education benefits. The VA Office will also help with VA tutoring, vocational rehabilitation, and advising. Contact the Veterans Affairs Office, located in the Enrollment Services Centers, for more information at 540-7141.

## **Visitation Program (Four-year Colleges and Universities)**

The Visitation Program will help students make a smooth transition to a four-year college or university in Colorado. Representatives from four-year schools regularly visit Pikes Peak Community College to meet with students who plan to transfer after receiving an Associate's Degree from PPCC. For more information, contact the Enrollment Services Centers.

# **Student Life**

## **Activities**

The Student Activities Office directs a full schedule of cultural, wellness, arts, and topical events aimed at enriching student life on campus. Lunch hour concerts, makeovers, horoscope readings, juggling, and novelties typify activities between classes, while monthly Open Mic poetry nights, occasional music jams, and read-ins promote student self expression. Wellness and lifestyle activities include the Fitness Fair, Smoke-out, blood drives, flu shots, and personal growth focused programs. Multi-cultural events include heritage focuses on African Americans, Native Americans, and women, with special events offerings of Cinco de Mayo activities, Mariachi music, and West African dance. Current events are covered with a wide range of speakers, panels and forums. The Student Activities office invites your ideas and participation. Please call 540-7106 for more information.

Discounted tickets and selected city and state events are available to students. PPCC also has a membership to the Colorado Springs Fine Arts Center, making admission to the gallery and access to the art library free to students as well as offering discounts in the FAC gift shop. Through the Student Life Office, students can also rent lockers and reserve meeting room space in the Student Center at the Centennial, Rampart Range, and The Downtown Studio Campuses.

## **Athletics**

PPCC has three independent sports teams. The teams compete regionally in athletics. Soccer, karate, and volleyball represent PPCC as major athletic team sports. The athletics program is housed at the Centennial Campus in the Recreation and Sports Programming Office. For information about athletic programs, team try-outs, and a schedule of team events, call 540-7443.

Limited scholarship assistance is available for eligible participants.

## **ID Cards**

Every PPCC 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 PPCC at the Student Activity Counter at Centennial Campus, The Downtown Studio Campus, or Rampart Range Campus. Students must have their ID Card validated at the beginning of each semester in which they enroll. ID Cards are not valid unless they are stamped with a sticker for the current semester. 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.



## **Fitness Center**

The Fitness Center is a state-of-the-art cardiovascular/weight training facility located at the Centennial Campus. The facility has computerized bicycles, rowers, and treadmills; a 19-station Super Circuit; an elliptical trainer; and over a dozen muscle group machines. The Fitness Center is open six days a week. To use the Fitness Center, students must enroll in either PED 110, 111, 113, 115, 116, 210, or 211 (these are not open-entry/open-exit courses), or join the Student Wellness Program.

## **Recreation/Sports Clubs**

The Recreation and Sports Office is in the Centennial Campus gymnasium. The gymnasium is open for recreational use by students and staff. Open gym activities include basketball, volleyball, and aerobics. The recreation program includes intramural, recreational tournaments, wellness events, and outdoor equipment rentals. The office schedules/coordinates the gymnasium, track, tennis courts, and soccer field. Club sports such as skiing, basketball, volleyball, karate, soccer, billiards, cycling, and others are available. For information, call 540-7442.

## **Student Center**

Centennial Campus houses a Student Center where students can relax and meet other students. This facility is "home away from home" where students may find lounge areas, meeting rooms, study space, TV and music, and billiard tables. Student Life, Student Government, and some student club offices are also located here. Rampart Range Campus and The Downtown Studio Campus each houses student space for lounges, study areas, activities, vending machines, and the Student Life Office.

## **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 for senate seats are held during fall term. The executive officers are elected during spring term. All elections are now done via an on-line ballot, watch your student e-mail accounts for information.

## **Student Clubs and Organizations**

Over 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), Student Colorado Registry of Interpreters for the Deaf (SCRID), Nurses Organization (PPCCANS), Journalism Club, etc. Others are related to activities/interests such as basketball, skiing, dance appreciation, etc. Still others are active along multicultural/ethnic interest lines, such as Movimiento Estudiantil Chicano de Aztlan (M.E.Ch.A.), GLBTA, Black 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 PPCC. Please see the Student Guide publication called *The Nobody Told Me Book*, or visit the Student Life Office at the Centennial or Rampart Range Campuses for more information about how to get involved with clubs and organizations.



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## Services for the Community

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. Distance learning 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, PPCC opens all of its student activities and events to the public, many free of charge. A sampling of public activities and events are as follows:

- African American History Month
- American Indian Days Celebration
- Asian Culture Days
- Cinco de Mayo Celebration
- Veteran's Day Observance
- Women's History Month

For more information, call the Student Life Office at 540-7105.

### Business and Industry Training

The Office of Business and Industry Workforce Training provides quality training to companies that will enrich employee skills and lead to a more productive workforce. We offer the following services in the Colorado Springs, Pueblo, and Denver areas:

- Total training packages including customized curriculum, materials, evaluations, certificates, and pre/post testing
- Hundreds of courses in technology, business, manufacturing, construction, safety, communications, etc.
- Flexible delivery options which allow training on the employer's site or offsite
- Reasonably priced meeting, lab, and training rooms
- Official site for administration of Colorado First and Existing Industry Grants

For more information, call 540-7235.

### The Downtown Studio Gallery

The Downtown Studio Gallery is located in The Downtown Studio Campus of Pikes Peak Community College at 100 West Pikes Peak 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 527-6001 or 527-6008.

## International and Multicultural Education

Our faculty, staff, and administration place a strong emphasis on the importance of international and multicultural education, and we believe it is our responsibility to meet the needs of a changing world by expanding student knowledge and experience in international perspectives. We believe that it is imperative to help develop globally and multi-culturally competent students and citizenry. The College's year 2002-2007 Strategic Plan notes the importance of "academic programs and activities that reflect the diversity of our society and encourage an understanding of global interdependence."

Pikes Peak Community College has been the recipient of six major Department of Education grants since 1992. These awards, totaling over \$800,000, coupled with strong College support have allowed the college to pursue exceptionally strong efforts in international curriculum and international professional development for faculty; international activities for the community; and international business, industry, and educational partnerships. Pikes Peak Community College is the only community college in the United States to be twice awarded the American Council on International Intercultural Education's Achievement Award for extensive contributions to global education, in 1993 and again in 2001.

### KEPC Radio - 89.7 FM

Students in the Radio, Television program at Pikes Peak Community College can be heard throughout El Paso County at 89.7 on the FM dial. Broadcasting in stereo with nearly 8,000 watts of power, KEPC programs provide a wide variety of music and other programming.

Throughout the semester, PPCC Radio, Television students produce many public service announcements and promotional announcements of interest to PPCC students and community members. Listeners will receive information about PPCC activities and events, many that are free and open to the public. During inclement weather, KEPC will broadcast information regarding campus closures.

KEPC is on the air 24 hours a day, seven days a week. KEPC can be heard live globally on the Internet at [www.pccc.edu](http://www.pccc.edu).

For more information, call 540-7489.

### The PPCC Theatre

The Masquers, a student organization, presents two major faculty-directed performances each academic year. Some of the plays have included *To Kill a Mockingbird*, *Bus Stop*, *Equus*, *Litko*, *Flowers for Algernon*, and *The Imaginary Invalid*. All performances are open to the public and are held in the PPCC theatre located at the Centennial Campus, 5675 South Academy Boulevard. For ticket information, call 540-7418 or 540-7314.

## Options for Current High School Students

**Area Vocational Program.** High school students may enroll in the PPCC Area Vocational Program (AVP), which provides career and technical training in the program areas listed below. This program allows students to earn high school credit. At the end of a student's enrollment period, any college credit earned will be documented by the faculty and forwarded to the PPCC Enrollment Services Centers.

Students enroll in the Area Vocational Program as part of their daily high school schedule. School districts under contract pay the costs of this program. The Area Vocational 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. Most classes are offered during the morning session though some may be offered in the afternoon as well. Instruction is provided in classrooms, laboratories, and community settings that use equipment similar to what is used in business and industry. In most programs, only AVP students are enrolled; however, some classes include both secondary and post-secondary students.

All area vocational programs operated at Pikes Peak Community College are approved by the State Board for Community Colleges and Occupational Education. All AVP instructors are occupationally experienced and vocationally credentialed to teach in their area of expertise. Enrollment in AVP is completed at the high school level. Contact your high school counselor or call 540-7240 for more information.

### Occupational Programs Available

- Auto Collision Repair
- Automotive Technology
- Computer Applications Specialist
- Computer Aided Drafting
- Cisco Computer Networking
- Criminal Justice
- Culinary Arts
- Diesel Power Mechanics
- Early Childhood Education
- Fire Science Technology
- Machining Technology
- Med-Prep
- Multimedia Graphic Design
- Natural Resources
- Radio, Television
- Welding

**Post-Secondary Enrollment Options (PSEO).** PSEO is a program for college-bound students seeking degrees in non-vocational areas or students who simply want to earn college credit while still in high school. PSEO enables high school juniors and seniors to take academic college classes at PPCC and earn high school and/or college credit. Students have the opportunity to enroll in any courses for which they meet the prerequisites, except for courses offered through the Area Vocational Program (AVP). Students may enroll in those courses through AVP (see above).

To enroll in PSEO, students must obtain permission from a parent or guardian, high school counselor, and district administrator. Some school districts have a cooperative agreement with PPCC and may reimburse the tuition for qualifying courses. Contact your high school counselor for more information or to enroll.

**Articulation Agreements.** High school students may earn college credits by taking career and technical education courses at their high school. Pikes Peak Community College has articulation agreements with all local school districts. Depending upon the school district, the high school, and the articulation agreement, these courses may include the areas of welding, business, computer information systems, hospitality, visual communications, machining, electronics, early childhood education, culinary arts, computer aided drafting, auto mechanics, auto collision, marketing, Cisco, and office information technology. Courses apply towards degrees and certificates at Pikes Peak Community College but do not transfer to four-year colleges and universities. For more information, call 538-5233.

**High School Student Records.** All students attending courses at PPCC 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.pccc.edu/academics/highschoolprograms](http://www.pccc.edu/academics/highschoolprograms).

### 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 required to take attendance and anyone not on the class list will be asked to leave the classroom. If a student should be on the class list, the faculty member should determine why not and work with the student to properly add him or her to the class list. The only exception to this procedure is for specially trained interpreters necessary for disabled students.

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## Degree and Certificate Criteria

Pikes Peak Community College offers Associate of Arts (AA), Associate of Science (AS), Associate of Applied Science (AAS), and Associate of General Studies (AGS) degrees and Certificates of Completion. There are day and night classes in over 120 areas of study in arts and sciences (transfer) and career and technical areas. Career and technical programs prepare students to enter the workforce after graduation. Arts and sciences (transfer) courses provide the first two years of a bachelor's degree. Additionally, courses may be taken for personal enrichment or to learn specific skills. Some career and technical programs run for 5- or 7 1/2-week sessions, and some will accept student enrollments at any time.

Certain courses are scheduled to be taken together as a set during one semester. Each of these courses builds on and complements the knowledge and skills learned in the other. The course description for each of these paired courses refers to the concurrent enrollment requirements.

Some programs require that a course sequence be completed. Courses in one sequence are not interchangeable with courses in the other.

College preparatory courses in English, reading, mathematics, study skills, and English as a Second Language are designed to help improve skills and facilitate success in college work. Courses numbered below 100 are developmental and normally are not accepted for transfer by other schools and normally do not count toward degree requirements at PPCC.

Many freshman and sophomore level courses (numbered in the 100s and 200s) will transfer to four-year colleges, universities in Colorado, and a number of public and private schools outside Colorado. PPCC is a member of the Colorado State-Guaranteed Curriculum project, a statewide articulation process among all state community colleges, four-year colleges, and universities. Academic advising is available if students wish to transfer to another school after graduating from PPCC. Guaranteed admission programs allow students to transfer directly to Colorado University-Colorado Springs, the University of Northern Colorado, Colorado State University-Pueblo, Franklin University, and Adams State College as a junior upon completion of an Associate of Arts or Associate of Science degree. Please review these agreements with your advisor for specific requirements. Please note that four-year schools only accept transfer courses with a grade of C or above. Other state schools are negotiating similar arrangements.

Independent study and selected topic courses are individually evaluated for transfer by the receiving school based on petition. Students should keep all records of the class (syllabus, tests, papers, and other projects) for evaluation by the receiving school.

## 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 PPCC may not then also apply for an AGS degree.

PPCC 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 PPCC in an identical or closely related program. However, the Vice President for Educational Services may waive this restriction.

## College Preparatory Programs

### Purpose and Goals

College preparatory courses reinforce mathematics, writing, reading, and study skills for personal enrichment and help students meet the prerequisites for other courses. Academic advisors use placement tests to help students select courses available at several skill levels.

Research indicates that students who need and take these courses do better in their college-level courses than they would have without them. Although no special GED preparation program is available, college preparatory courses can help students prepare for the GED. Refer to the basic skills assessment matrix on page 42.

### The Math Laboratory

The Math Laboratory provides a variety of services, self-help, and computer-assisted materials. Free instructional assistance is also available.

### The Writing Center

The Writing Center on each campus provides students the opportunity to discuss their writing assignments for any class with English faculty. The Writing Centers open the second week of each semester.

### Advancing Academic Achievement Preparatory Program

The Advancing Academic Achievement (AAA) courses are designed to help students adjust to the college environment and to increase and personalize the learning strategies they need to reach their stated academic goals.

AAA 050 Semester Survival

AAA 090 Academic Achievement Strategies (introduction to college study skills)

AAA 109 Advanced Academic Achievement (college study skills)

### 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, assigned according to placement tests, help students to express their thoughts in complete sentences, organized paragraphs, and whole compositions. The writing courses progress in the following order:

ENG 030 Basic Writing Skills (basic grammar, usage, punctuation, sentence structure, and paragraphing)

ENG 060 Writing Fundamentals (grammar/punctuation, text interaction, paragraph structure) ENG 060 is a prerequisite for a number of general education classes.

ENG 090 Basic Composition (writing process, critical thinking, text interaction, effective dictation, and essay structure)  
ENG 090 is a prerequisite for

ENG 121 English Composition I and for

ENG 131 Technical Writing



## Mathematics Preparatory Program

College preparatory mathematics courses prepares students for college-level mathematics courses or entry into many occupational programs. Enrollment is determined by a placement test. The courses progress in the following order:

- MAT 030 Fundamentals of Math or equivalent modules MAT 021-023 (vocabulary, basic operations, and applications of whole numbers, fractions, and decimals)
- MAT 060 Pre-Algebra (vocabulary, basic operations, and applications of fractions, ratio, proportion, percent, signed numbers, algebraic expressions, first-degree equations, and word problems)
- MAT 090 Introductory Algebra (solution and application of first-degree equations, inequalities, and formulas; polynomials; factoring polynomials and solving equations by factoring; rational expressions; and applications)

## Reading Preparatory Program

College preparatory reading courses cover phonics, vocabulary, comprehension, speed, critical thinking, and reasoning skills. Enrollment in various reading course levels is based on placement test scores.

- REA 030 Basic Reading Skills (stages of reading, word attack strategies)
- REA 060 Foundations of Reading (vocabulary development, reading comprehension, enrichment)
- REA 090 College Preparatory Reading (strategies for enhancing reading speed and comprehension)

## Institutes and Academies

### English as a Second Language Preparatory Program

The English Language Institute (ELI) is located at the Centennial Campus, room A-324. It is a semi-intensive English as a Second Language program, designed to meet the needs of non-native English speakers. The ELI serves students who wish to improve their English reading, writing, and speaking skills. Many ELI 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 ELI courses must take the ELI placement exam. Non-native speakers of English whose placement level is below ENG 090 should take the ELI placement exam and be advised by the English Language Institute.

The English Language Institute has three levels of study – basic, intermediate and advanced. Courses in the English Language Institute include grammar, composition, reading, and conversation. In addition, there are special topic courses that include Pronunciation and Computer Basics. Full-time students may complete coursework in the English Language Institute in three semesters.

For more information about the English Language Institute at Pikes Peak Community College, visit our website at [www.pccc.edu](http://www.pccc.edu) or call 540-7047.

### Deaf Preparatory Program

The Deaf Preparatory Program is a four-semester college preparatory program for deaf students who need an accessible and supportive learning environment where they are allowed to perform and progress at their own pace. All Deaf Preparatory Program faculty are deaf or native-like signers, and classes are taught in American Sign Language. The program has four levels of remedial English and mathematics, critical thinking, study skills, American Sign Language, and community resource management. Instruction is individualized according to need and placement level in language, mathematics, American Sign Language, and reading.

Students may enter the Deaf Preparatory Program by referral from a social service agency or school district. After completing the Deaf Preparatory Program, students may choose to continue with community college education, enroll in a four-year college, enter the workforce, or take short term vocational training.

The Deaf Preparatory Program is a joint endeavor among Pikes Peak Community College, the Colorado School for the Deaf and the Blind, Colorado Vocational Rehabilitation, the Pikes Peak Center on Deafness, and the Pikes Peak Mental Health Center. For more information, call 540-7210 or 540-7146.

### Integrated Circuit Fabrication Institute

The Integrated Circuit Fabrication (IC Fab) Institute at Pikes Peak Community College is one of only a few programs in the United States that offers process and equipment technology programs specifically for the integrated circuit industry.

Integrated circuits (ICs), often called semiconductors, are found in items such as watches, CD players, modems, video games, dishwashers, computers, and space shuttles. Virtually every electronic device being sold today contains some type of integrated circuit. The semiconductor industry has experienced tremendous growth for the past 40 years and Pikes Peak Community College is helping provide this worldwide industry with the highly trained workforce it needs.

The IC Fab Institute introduces basic microelectronics and integrated circuit fabrication technology. Team-building, communication, and organizational skills are woven throughout the curriculum. Course scheduling is flexible to best meet students' needs. In-depth studies prepare the student for work in either process technology or equipment technology. This blended curriculum is designed to address the realities of the workplace.

## **Pikes Peak Regional Law Enforcement Academy**

The Pikes Peak Regional Law Enforcement Academy is set up to follow a basic recruitment curriculum sanctioned by the Peace Officers Standards and Training (P.O.S.T.) certification board of Colorado. State law requires that all applicants for the position of police officer be P.O.S.T.-certified.

The Pikes Peak Regional Law Enforcement Academy meets and exceeds the basic requirements for the P.O.S.T. certification eligibility with over 500 hours of complex training in the field of law enforcement. This training includes the required skills training such as shooting, law enforcement driving, arrest control, first aid, and CPR. All classes are taught by law enforcement professionals.

The Academy introduces the cadet to all areas of law enforcement that would allow the cadet to perform the duties of a police officer upon graduation. Additional training may be required by an individual agency after graduation and is determined by the agency based on specific needs of its area.

For more information about the Academy or to inquire about an application packet call 538-5230.

## **Alternative Delivery Methods/ Distance Learning Options**

PPCC offers a variety of non-traditional learning options for students who cannot or do not wish to take courses in a traditional classroom setting. The Distance Education program includes a wide variety of interactive television (1TV) and Internet classes and an independent study program (see page 112 for more information) that can lead to associate degrees in fire science, criminal justice, or general studies. Go to [www.ppcc.edu](http://www.ppcc.edu) and click on Distance Learning to review the options for learning from home or work.

Students who need to set their own schedules for coming to campus can take open entry/open exit courses in business and occupational areas. They can also arrange to complete coursework in specific classes through Independent Study by Division.

### **Interactive Television (Section 1TV)**

Courses are broadcast live from PPCC's interactive television classroom. Students watch the class on television and call in with questions or comments, which the faculty member will answer during televised class time. Students may also attend the class as it is being taught in the interactive television classroom. 1TV students use the same syllabus as "in-class" students.

### **PPCC Online (Sections 1N1, 2N1, 3N1, etc.)**

Courses may be taken using home computers to communicate electronically with faculty and other students in the "virtual classroom." Students may also use the computers at PPCC in the instructional computer labs.

### **PPCC Hybrid Classes (1H\*/2H\*/3H\* sections)**

Hybrid, or blended, classes combine on-campus class sessions with Internet-based course work. In most cases students will meet once a week for lecture, hands-on learning, and face-to-face group activities. Remaining assignments will be completed online. Students can access online activities from any computer connected to the Internet, including those in campus computer labs.

### **CCC Online (Sections C11, C21)**

Courses are offered through a consortium of fourteen community colleges in Colorado. Students will register as a PPCC student, but an instructor may teach the classes from any of the fourteen schools. CCC Online offers one full degree online (AAS in Business) and classes toward a number of others. Check the website for complete information. Students may also apply appropriate CCC Online classes toward degrees at PPCC.

Colorado Community Colleges have standing transfer agreements for their business core courses and general education core courses with most of the four-year public and private colleges in Colorado. In addition, there are transfer agreements with colleges both in-state and out-of-state that offer Baccalaureate completion programs using distance/electronic technology. Among these are Regis University, Colorado; Governor's State University, Illinois; Jones International University, Colorado; Franklin University, Ohio; and Northwest Missouri State University, Missouri.

For more information, please call 540-7538 or e-mail at [Distance.Ed@ppcc.edu](mailto:Distance.Ed@ppcc.edu), or visit our website at [www.cconline.org](http://www.cconline.org).

Students on active military duty, please call 538-5277 or e-mail [mil.programs@ppcc.edu](mailto:mil.programs@ppcc.edu).

### **Independent Study Courses by Division**

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

- independent study
- independent study (instructor enhanced)

College credit is awarded for these courses. Many programs sponsored by the division are self-supporting, and tuition may vary from that charged for state-supported activities.

Residents of El Paso, Teller, or Elbert counties who can benefit from a flexible degree plan are encouraged to contact the Enrollment Services Centers at 540-7226.

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

## Distance Education Independent Study

PPCC offers three courses of study that may be completed through a combination of paper-based and Internet-based classes. These courses of study may lead to the Associate of General Studies (AGS), Associate of Applied Science (AAS) in Fire Science Technology, and Associate of Applied Science (AAS) in Criminal Justice.

The programs are offered for students who cannot attend classes on the PPCC campuses or at regularly scheduled times. They are usually completed in conjunction with Credit for Prior Learning (CPL). After students are awarded applicable credits through Credit for Prior Learning, they may complete the remainder of the required courses through the Independent Study program. A minimum of 15 semester hours of PPCC courses must be completed to receive a degree. The remaining courses may be transferred from another college or university. For more information, call the CPL Evaluator at 540-7227. Students who have completed the CPL process may call the Distance Education office at 540-7537.

## Open-Entry/Open-Exit Courses

Open-entry/open-exit courses are designed to allow students to work at their own pace at times that are convenient for them.

A number of computer courses are offered in the open-entry/open-exit format so that students can begin a course during the first three business days of any month. These courses are offered at the all three campuses. For more information, contact the Division of Mathematics and Technology at 540-7258.

PPCC offers open-entry/open-exit classes in automotive engines, machining, and welding. For more information about automotive and welding classes, call 540-7341, and for machining classes, call 540-7622.

Military Programs offers a number of computer courses in an open-entry/open-exit format. For more information, call 576-7212 or 574-1169.

## Military Programs

A comprehensive career education program is offered off campus to military personnel for resident credit. Evaluation of previous military education and training, federal government and training, and work experience for the possible awarding of credit is available.

Pikes Peak Community College is a member of Servicemembers Opportunity Colleges (SOC), a group of over 1,600 colleges and universities providing voluntary postsecondary education to members of the military throughout the world. The college awards credit for learning from appropriate military education and training experiences, facilitates the transfer of relevant course credits, and provides flexible academic residency requirements.

Servicemembers Opportunity Colleges, developed jointly by representatives of the Armed Services, the Office of the Secretary of Defense, and a consortium of leading national higher educational associations, is co-sponsored by the American Association of Community Colleges (AACC). PPCC also has been selected by the Defense Activity for Non-Traditional Education Support (DANTES) as one of the approved colleges and is listed in the DANTES Guide to External Degree Programs. The Associate of General Studies (AGS) degree is offered in conjunction with the Credit for Prior Learning (CPL) program.

Courses for resident credit are offered at the following military installations:

- Fort Carson, Colorado
- Peterson Air Force Base, Colorado
- United States Air Force Academy, Colorado
- Fort Sill, Oklahoma

Veterans may be certified for educational benefits at several of the above locations. Special service is provided to the Army National Guard through the Veterans Affairs Office at the Centennial Campus.

## Credit for Prior Learning (CPL)

Students may earn credit for learning outside the classroom. Credit for Prior Learning 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 DANTES
- published guide: learning given in a nontraditional setting such as a military or industry or industry classroom which must be evaluated in a published guide by a nationally known organization such as the American Council on Education (ACE).

PPCC evaluates prior learning through the Credit for Prior Learning program (CPL). Students may receive up to 75% of their total credits for all types of prior learning. For more information, stop by the Enrollment Services Center at the Centennial Campus, or call 540-7722.

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

# Placement Testing and Success in College

## Placement Testing

Since placement into basic skills instruction is now mandatory in Colorado, the placement test is very important. We advise students to review English, math, and reading with materials available in the Library and the Testing Center before taking the test. Please read the directions carefully and do your very best work when taking the test.

## Who Needs To Be Tested?

- All first-time degree seeking students and all 17-, 18- and 19-year olds regardless of educational intent must be assessed.
- Students who seek to enter college-level English and math courses must be assessed.
- Students who change to degree seeking status must be assessed.

Exemptions may be granted under certain circumstances (with documentation):

- Student has earned an Associates Degree or higher.
- Student has previously been assessed at a Colorado public post-secondary institution.
- Student has successfully completed basic skills instruction in math, writing, or reading.
- Student has successfully completed college-level course in English.
- Student has successfully completed college-level course in math.
- Student has appropriate ACT (Eng 18, Read 18, Math 19) / SAT (Verb 450, Math 440) scores.

## What Will Be On The Test?

- Reading
- Math
- Writing Skills

## Where Can I Take The Test?

- Centennial Campus, A-117, 540-7115 (walk-in)
- The Downtown Studio Campus, 527-6015 (walk-in)
- Ft. Carson, Bldg. 1117, 576-7212
- Peterson AFB, Bldg. 1141, 574-1169
- Rampart Range Campus, S-101, 538-5115 (walk-in)
- Ft. Sill, OK, (580) 357-0198

## How Do I Prepare For The Test?

- The MATH REVIEW VIDEO is available in the library at both Centennial and Rampart Range Campuses.
- A sample test packet is available in the Testing Centers at Centennial, Rampart Range, and The Downtown Studio Campuses.
- Reading and writing reviews are available in the library.
- Placement Test Review Workshops are held before the beginning of each semester.

## How Do I Get My Results?

- Students will receive their score report a few minutes after finishing the test.

## After Testing?

- Do not lose the placement test score report! Take it to the New Student Scheduling Center for help in choosing classes.
- Students are responsible for enrolling in basic skills instruction during the first thirty (30) hours of attendance at the college.

Accommodations available for those with documented disabilities.

Test results have no effect on acceptance to Pikes Peak Community College but will indicate the appropriate initial level of academic coursework for the student. See page 42 for more information.

# Community Colleges of Colorado

## Basic Skills Assessment Matrix

Effective Summer Term 2004 (05 M)

### Reading, English, & Mathematics Courses

#### Reading Courses

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**ACCUPLACER READING COMPREHENSION****REQUIRED COURSES**

0-24	Refer to literacy or adult basic ed program
25 – 39	REA 030 Basic Reading Skills
40 – 61	REA 060 Foundations of Reading
62 – 79	REA 090 College Preparatory Reading
80 – 120	No Basic Skills Placement

**ACT READING SCORE OF 17 OR SAT VERBAL SCORE OF 430 PLACES IN COLLEGE LEVEL**

#### English Courses

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**ACCUPLACER SENTENCE SKILLS****REQUIRED COURSES**

0-24	Refer to literacy or adult basic ed program
25 – 49	ENG 030 Basic Writing Skills
50 – 69	ENG 060 Writing Fundamentals
70 – 94	ENG 090 Basic Composition
95 – 120	ENG 121 English Composition I ENG 131 Technical Writing

**ACT ENGLISH SCORE OF 18 OR SAT VERBAL SCORE OF 440 PLACES INTO ENG 121**

#### Math Courses

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**ACCUPLACER MATH TESTS****REQUIRED COURSE**

0-23	Refer to literacy or adult basic ed program
24 – 56 (AR)	MAT 030 Fundamentals of Math
57 – Above (AR)	MAT 060 Pre-Algebra
45 – 60 (EA) If EA <45 use AR	MAT 090 Introductory Algebra
61 - 84 (EA)	MAT 106 Survey of Algebra
85 - 120 (EA)	MAT 120 Math for Liberal Arts MAT 121 College Algebra MAT 123 Finite Math MAT 135 Intro to Statistics

**ACT MATH SCORE OF 19 OR SAT SCORE OF 460 PLACES INTO MAT 121**

KEY TO MATH TESTS: AR = Arithmetic EA = Elementary Algebra



# Colorado Community College System 60+60 Bachelor's Degree Transfer Program

Students beginning classes in the fall of 2003 or later must follow the guidelines established for the 60+60 Bachelor's Degree Transfer Program. (See below.) Completion of the 60+60 Bachelor's Degree Transfer Program and an AA or AS degree with a grade of C or better in each class qualifies the student to transfer under this policy in liberal arts and sciences to public four-year colleges and universities in Colorado. Some programs have specific course requirements – consult your faculty advisor for details.

## Associate of Arts Degree (AA)

The Associate of Arts degree is designed for students who want a traditional liberal arts education and who intend to transfer to a four year college or university. It provides a basis of study in the areas of arts and humanities, communication, or social sciences.

To earn the Associate of Arts Degree, students must complete the following course requirements for a total of 60 semester credit hours, at least 35 of which must be Colorado State-Guaranteed Courses.

### I. Communication

Nine (9) credit hours

GT-CO1: ENG 121

GT-CO2: ENG 122

SPE 115 or SPE 125\*

\*This requirement is a Colorado Community College System requirement and is in addition to the State Guaranteed General Education Transfer Courses.

### II. Art and Humanities

Nine (9) credit hours.

Select three (3) courses, with no more than two (2) courses from any one (1) of the following categories:

GT-AH1: ART 110, ART 111, ART 112, MUS 120, MUS 121, MUS 122, THE 105, THE 211, THE 212

GT-AH2: HUM 121, HUM 122, HUM 123, LIT 115, LIT 201, LIT 202

GT-AH3: PHI 111, PHI 112, PHI 113

### III. Mathematics

Three (3) credit hours minimum (credit hours over three (3) will be applied to the electives category).

GT-MA1: MAT 120, MAT 121, MAT 125, MAT 135, MAT 201, MAT 202

### IV. Social and Behavioral Sciences

Nine (9) credit hours

Select 3 courses, at least 1 of which must be History, with no more than 2 courses from any 1 category.

GT-HI1: HIS 101, HIS 102, HIS 201, HIS 202

GT-SS1: ECO 201, ECO 202, POS 105, POS 111

GT-SS2: GEO 105

GT-SS3: ANT 101, ANT 111, PSY 101, PSY 102, SOC 101, SOC 102

### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight (8) will be applied to the electives category).

GT-SC1: AST 101, AST 102, BIO 105, BIO 111, BIO 112, CHE 101, CHE 102, CHE 111, CHE 112, GEY 111, GEY121, PHY 111, PHY 112, PHY 211, PHY 212

**Note:** Laboratory Sciences taken online do not fulfill the physical and life sciences required for the state guaranteed core.

### VI. Fine Arts/Communications\*

One to three (1-3) credit hours

This category is for courses whose primary emphasis is the creation of original works, performances, or messages that epitomize the liberal arts.

ART 107, ART 115, ART 116, ART 118, ART 119, ART 121, ART 122, ART 123, ART 124, ART 125, ART 126, ART 131, ART 132, ART 135, ART 136, ART 137, ART 141, ART 142, ART 145, ART 146, ART 147, ART 154, ART 155, ART 156, ART 157, ART 161, ART 162, ART 163, ART 164, ART 210, ART 211, ART 212, ART 213, ART 214, ART 221, ART 222, ART 223, ART 224, ART 225, ART 226, ART 227, ART 235, ART 236, ART 237, ART 241, ART 242, ART 245, ART 246, ART 247, ART 256, ART 257, ART 258, ART 261, ART 262, ART 269, ART 277, DAN 111, DAN 112, DAN 113, DAN 121, DAN 122, DAN 123, DAN 125, DAN 131, DAN 132, DAN 133, DAN 141, DAN 142, DAN 151, DAN 152, DAN 211, DAN 224, ENG 221, ENG 222, ENG 226, ENG 227, ENG 230, ENG 231, JOU 102, JOU 105, JOU 106, JOU 109, JOU 111, JOU 121, JOU 121, JOU 206, JOU 215, JOU 221, JOU 222, JOU 231, JOU 241, MUS 100, MUS 110, MUS 112, MUS 131, MUS 132, MUS 133, MUS 141, MUS 142, MUS 143, MUS 151, MUS 152, MUS 153, PHO 101, PHO 102, PHO 205, PHO 206, PHO 209, SPE 115, SPE 125, SPE 216, SPE 219, SPE 220, SPE 225, THE 105, THE 111, THE 115, THE 116, THE 120, THE 126, THE 130, THE 131, THE 135, THE 140, THE 152, THE 181, THE 182, THE 204, THE 215, THE 218, THE 246, THE 247, THE 248

\*This requirement does not apply to transfer programs with state-approved articulation agreements.

### VII. Computer Communication

Three (3) credit hours

CSC 105 or CSC 120

Students entering with strong computer skills have three options for meeting this requirement:

- Challenge and receive credit for CSC 105 by enrolling in an Open Entry/ Open Exit section and successfully completing with a C or higher.
- Meet the requirement through Credit for Prior Learning.
- Waive the requirement by applying to the Division of Mathematics and Technology. Waiving will require proof of competency via completion of a self test and a structured interview with a faculty member from the CIS or CSC department. Waiver also requires the credits be replaced by another elective from the approved elective course list.

### VIII. Electives

Sixteen to eighteen (16-18) credit hours selected from the AA/AS approved course list.

## B. 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 PPCC.
2. Only 6 elective credits are allowed in any combination of PED courses.
3. Students may concentrate their study in a specialized area such as speech communication, journalism, or political science. Many "Recommended Tracks" are included in the next section of this catalog.
4. Career and technical courses, whether taken at another institution or at PPCC, are not accepted toward this degree without approval of the vice president for educational services. Approval is given only when it is appropriate to the educational objectives of a student.
5. Courses numbered below 100 do not apply toward degrees.

**Foreign Language Note:** While not currently a part of the General Education Transfer Program, it is advisable to verify the foreign language admissions requirements for the university/four-year college you are planning to attend. For example, many of the Colorado four-year institutions require foreign languages for admission – the CU system requires 2-3 years of high school foreign language (or equivalent 2-3 semesters at Pikes Peak Community College). Students planning to attend a Colorado four-year institution who do not have the prerequisite foreign language requirement from high school should consider enrolling in these courses in addition to the degree requirements.

## 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 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.

### I. Communication

Nine (9) credit hours  
GT-CO1: ENG 121  
GT-CO2: ENG 122  
SPE 115 or SPE 125\*

\*This requirement is a Colorado Community College System requirement and is in addition to the State Guaranteed General Education Transfer Courses.

### II. Art and Humanities

Nine (9) credit hours.  
Select three (3) courses, with no more than two (2) courses from any one (1) of the following categories:  
GT-AH1: ART 110, ART 111, ART 112, MUS 120, MUS 121, MUS 122, THE 105, THE 211, THE 212  
GT-AH2: HUM 121, HUM 122, HUM 123, LIT 115, LIT 201, LIT 202  
GT-AH3: PHI 111, PHI 112, PHI 113

### III. Mathematics

Four (4) credit hours minimum (credit hours over four (4) will be applied to the electives category).  
GT-MA1: MAT 121, MAT 125, MAT 201, MAT 202

## IV. Social and Behavioral Sciences

Nine (9) credit hours  
Select 3 courses, at least 1 of which must be History, with no more than 2 courses from any 1 category.  
GT-HI1: HIS 101, HIS 102, HIS 201, HIS 202  
GT-SS1: ECO 201, ECO 202, POS 105, POS 111  
GT-SS2: GEO 105  
GT-SS3: ANT 101, ANT 111, PSY 101, PSY 102, SOC 101, SOC 102

## V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight (8) will be applied to the electives category).  
GT-SC1: AST 101, AST 102, BIO 111, BIO 112, CHE 111, CHE 112, GEY 111, GEY121, PHY 111, PHY 112, PHY 211, PHY 212  
**Note:** Laboratory Sciences taken online do not fulfill the physical and life sciences required for the state guaranteed core.

## VI. Computer Communication (3 credits)

Choose three (3) credits from CSC 105, CS 120, CSC 150, or CSC 160.  
Students entering with strong computer skills have three options for meeting this requirement:  
a) Challenge and receive credit for CSC 105 by enrolling in an Open Entry/ Open Exit section and successfully completing with a C or higher.  
b) Meet the requirement through Credit for Prior Learning.  
c) Waive the requirement by applying to the Division of Mathematics and Technology. Waiving will require proof of competency via completion of a self test and a structured interview with a faculty member from the CIS or CSC department. Waiver also requires the credits be replaced by another elective from the approved elective course list.

## VII. Electives

Eighteen (18) credits selected from the AA/AS approved course list.

## B. 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 PPCC.
2. Only 6 elective credits are allowed in any combination of PED courses.
3. Students may concentrate their study in a specialized area such as biological sciences, chemistry, or pre-engineering. Many "Recommended Tracks" are included in the next section of this catalog.
4. Career and technical courses, whether taken at another institution or at PPCC, are not accepted toward this degree without approval of the vice president for educational services. Approval is given only when it is appropriate to the educational objectives of a student.
5. Courses numbered below 100 do not apply toward degrees.

**Foreign Language Note:** While not currently a part of the General Education Transfer Program, it is advisable to verify the foreign language admissions requirements for the university/four-year college you are planning to attend. For example, many of the Colorado four-year institutions require foreign languages for admission – the CU system requires 2-3 years of high school foreign language (or equivalent 2-3 semesters at Pikes Peak Community College). Students planning to attend a Colorado four-year institution who do not have the prerequisite foreign language requirement from high school should consider enrolling in these courses in addition to the degree requirements.

## Approved Elective Course List for AA/AS Degrees

All courses may be used as electives and are generally transferable. Please check with the receiving institution for details.

### I. Communications

ENG	121, 122 English Composition I,II	3,3
	131, 132 Technical Writing I, II	3,3
	221, 222 Creative Writing I,II	3,3
	227 Poetry Writing	3
SPE	115 Public Speaking	3
	125 Interpersonal Communication	3
	216 Principles of Speech II	3
	219 Group Dynamics	3
	220 Intercultural Communication	3
	225 Organizational Communication	3

### II. Arts and Humanities

ART	107 Art Education Methods	3
	110 Art Appreciation	3
	111, 112 Art History I, II	3
	115,116 East Asian Painting I,II	3,3
	118 Art Sampler	1
	119 Lettering	3
	121,122 Drawing I,II	3,3
	123,124 Watercolor I,II	3,3
	125,126 Landscape Drawing I,II	3,3
	131 2-D Design	3
	132 3-D Design	3
	135 Fiber Design I	3
	136,137 Navajo Weaving Techniques I,II	3,3
	141,142 Jewelry & Metal Work I, II	3,3
	145 Enameling on Metal I	3
	146,147 Stained Glass I,II	3,3
	154,155 Sculpture I, II	3,3
	156 Figure Drawing I	3
	157 Figure Painting I	3
	161,162 Ceramics I,II	3,3
	163,164 Handbuilt Clay I, II	3,3
	207 Art History – 1900 to Present	3
	208 Culture Studies	3
	210 Landscape Painting	3
	211,212,213,214 Painting I,II,III,IV	3,3,3,3
	221,222 Drawing III,IV	3,3
	223,224 Watercolor III,IV	3,3
	225 Printmaking I	3,3
	226 Advanced Printmaking I	3
	227 Portraiture	3
	235 Fiber Design II	3
	236,237 Navajo Weaving III,IV	3,3
	241,242 Jewelry and Metal Work III,IV	3,3
	245 Enameling on Metal II	3
	246,247 Stained Glass III,IV	3,3
	256 Advanced Figure Drawing	3
	257 Advanced Figure Painting	3
	258 Computer Animation	3
	261,262 Ceramics III, IV	3,3
	265 The Business of Visual Art	3
	269 Ceramic Sculpture	3
	277 Studio Art	3
	280 Internship	1-6

DAN	111,112,113 Modern Dance I,II,III	1,1,1
	121,122,123 Jazz Dance I,II,III	1,1,1
	125 History of Dance I	3
	129 Introduction to Dance	1
	130 Dance Sampler	1
	131,132,133 Ballet I,II,III	1,1,1
	141 Regional Dances	1
	142 Regional Dances II: Latin American Ballroom 1	
	151,152 Belly Dance I,II	1,1
	211 Dance Composition	2
	221 Dance Performance	2
	224 Dance for Musical Theatre	3
FRE	111,112 French Language I,II	5,5
	211,212 French Language III,IV	3,3
GER	111,112 German Language I,II	5,5
	211,212 German Language III,IV	3,3
HUM	103 Introduction to Film Art	3
	115 World Mythology	3
	121,122,123 Survey of Hum. I,II,III	3,3,3
	131 The Arts and Cultures of Mexico	3
	163 Film Criticism	3
	201 Twentieth Century American Arts	3
	235 Pre-Columbian Indian Arts	3
	236 North American Indian Arts	3
	237 Hispanic Arts of the Southwest	3
	238 Sacred Images, Sacred Spaces: Southwestern US	3
	241 Asian Arts and Cultures	3
ITA	111 Italian Language I	5
JPN	111,112 Japanese Language I,II	5,5
	211 Japanese Language III	3
LIT	115 Introduction to Literature I	3
	125 Study of the Short Story	3
	201,202 Masterpieces of Literature I,II	3,3
	205 Ethnic Literature	1
	211,212 Survey of American Literature I,II	3,3
	221,222 Survey of British Literature I,II	3,3
	235 Science Fiction	3
	246 Literature of Women	3
	248 Native American Literature	3
	255 Children's Literature	3
	257 Literature and Film	3
	268 Celtic Literature	3
	269 Popular Literature and Culture	3
MUS	100 Fundamentals of Music Theory	3
	105 Introduction to Electronic/Computer Music	
	110,111 Music Theory I,II	3,3
	112,113 Ear Training/Sight-singing I, II Lab	1,1
	120 Music Appreciation	3
	121,122 Introduction to Music History I,II	3,3
	125 History of Jazz Music	3
	126 History of American Popular Music	3
	131,132,133,134 Music Class I, II, III, IV	2,2,2,2
	141,142,143,144 Private Instruction I, II, III, IV	1,1,1,1
	151,152,153,154 Ensemble I, II, III, IV	1,1,1,1
	210,211 Music Theory III, IV	3,3
	212,213 Advanced Ear Training/Sight-singing I, II Lab	1,1
	231,232,233,234 Music Class I,II,III,IV	2,2,2,2
	241,242,243,244 Private Instruction I,II,III,IV	2,2,2,2
	251,252,253,254 Ensemble I,II,III,IV	1,1,1,1

PHI	111	Introduction to Philosophy	3	209	History of the American Southwest	3
	112	Ethics	3	215	Women in U.S. History	3
	113	Logic	3	225	Colorado History	3
	114	Comparative Religion	3	235	History of the American West	3
	214	Philosophy of Religion	3	236	Contemporary U.S. History	3
RUS	111,112	Russian Language I,II	5,5	241	History of the Pikes Peak Area	3
SPA	111,112	Spanish Language I,II	5,5	247	Contemporary World History	3
	211,212	Spanish Language III,IV	3,3	POS 105	Introduction to Political Science	3
THE	105	Introduction to the Theatre Arts	3	111	American Government	3
	111,112	Acting I,II	3,3	125	American State and Local Government	3
	115	State Movement for Actors	3	205	International Relations	3
	116	Technical Theatre	3	215	Current Political Issues	3
	120	Drafting for the Performing Arts	3	225	Comparative Government	3
	126	Auditioning for Musical Theater	3	PSY 101,102	General Psychology I,II	3,3
	130	Safety, Tools and Materials	3	106	Human Relations	3
	131,132	Theatre Production I,II	3,3	205	Psychology of Gender	3
	135,136	State Makeup I,II	2,2	215	Psychology of Adjustment	3
	140	State Dialects	1	217	Human Sexuality	3
	144	Scene Study	1	226	Social Psychology	3
	152,153	Production State Management I,II	3,3	227	The Psychology of Death and Dying	3
	181	Practicum: Audition Techniques	1-3	235	Human Growth and Development	3
	200	Paint, Draw, Render, Model Techs	3	238	Child Development	3
	204,205	Voice and Articulation I,II	2,2	245	Educational Psychology	3
	211,212	Development of Theatre I,II	3,3	247	Child Abuse and Neglect	3
	213,214	Intermediate Acting I,II	3,3	249	Abnormal Psychology	3
	215	Playwriting	3	265	Psychology of Personality	3
	216	Theatre Lighting and Design	3	SOC 101,102	Introduction to Sociology I,II	3,3
	220,230	Directing I,II	3,3	201	Introduction to Gerontology	3
	231,232	Theatre Production III,IV	3,3	205	Sociology of Family Dynamics	3
	242	Set Dressings: Theory and Practice	2	216	Sociology of Gender	3
	245	Basic Costume Design and Construction	3	218	Sociology of Diversity	3
	246,247,248	Rehearsal and Performance I,II,III	1,2,3	231	The Sociology of Deviant Behavior	3
				237	Sociology of Death And Dying	3
<b>III. Mathematics</b>						
MAT	120	Mathematics for the Liberal Arts (AA only)	4	<b>V. Physical and Life Sciences</b>		
	121	College Algebra	4	AST 101,102	Astronomy I,II	4,4
	122	College Trigonometry	3	BIO 105	Science of Biology (AA only)	4
	123	Finite Mathematics	3	111,112	General College Biology with Lab I,II	5,5
	125	Survey of Calculus	4	201,202	Human Anatomy and Physiology I,II	4,4
	135	Introduction to Statistics (AA only)	3	204	Microbiology	4
	166	Pre-calculus	5	CHE 101,102	Introduction to Chemistry with Lab I,II (AA only)	5,5
	201,202	Calculus I,II	5,5	111,112	General College Chemistry with Lab I,II	5,5
	203	Calculus III	4	211,212	Organic Chemistry with Lab I,II	5,5
	255	Linear Algebra	3	CSC 105	Computer Literacy	3
	265	Differential Equations	3	120	Problem Solving with Visual Basic for Applications	3
				140	Fortran Programming	3
<b>IV. Social and Behavioral Sciences</b>						
ANT	101	Cultural Anthropology	3	150	Visual Basic Programming	3
	107	Introduction to Archaeology	3	160, 161	Computer Science I, II: C++	4, 4
	111	Physical Anthropology	3	165	Discrete Structures	3
	211	Cultural Resource Management	3	225	Computer Organization/Assembly Language Programming	4
	221,222	Exploring Other Cultures I,II	3,3	GEO 111	Physical Geography - Landforms	4
ECO	201	Principles of Macroeconomics	3	112	Physical Geography - Weather and Climate	4
	202	Principles of Microeconomics	3	GEY 111	Physical Geology	4
GEO	105	World Regional Geography	3	121	Historical Geology	4
	106	Human Geography	3	135	Environmental Geology	3
	111	Physical Geography - Landforms	4	HWE 100	Human Nutrition	3
	112	Physical Geography - Weather and Climate	4	PHY 111,112	Physics: Algebra-Based with Lab I,II	5,5
HIS	101,102	History of Western Civilization I,II	3,3	211,212	Physics: Calculus-Based with Lab I,II	5,5
	201,202	United States (U.S.) History I,II	3,3			
	206	U.S. Family History and Genealogy	3			
	207	American Environmental History	3			
	208	Native American Experience	3			

## VI. Electives

ACC	*121,*122	Accounting Principles I,II	4,4
BUS	*115	Introduction to Business	3
	*216	Legal Environment of Business	3
	*217	Business Communication and Report Writing	3
	*226	Business Statistics	3
CIS	*118	Intro PC Applications	3
CSC	105	Computer Literacy	3
	120	Logic and Program Design	3
	130	COBOL Programming	3
	131	Advanced COBOL Programming	3
	165	Discrete Structures	3
	225	Computer Organization/Assembly Language Programming	4
	240	Java Programming	4
EDU	110	Overview of Special Populations for Paraeducators	3
	111	Communication Skills with Special Populations for Paraeducators	3
	112	Health & Safety Issues in Schools for Paraeducators	3
	114	Student Behavior Management for Paraeducators	3
	141	Basic Instructional Techniques for Paraeducators	3
	220	Exploration of Teaching	2
	221	Introduction to Education	3
	260	Adult Learning and Teaching	3
	265	Instructional Design	3
JOU	102	Introduction to Editing	3
	105	Introduction to Mass Media	3
	106	Fundamentals of Reporting	3
	109	Introduction to Desktop Publishing	3
	111	Principles of Advertising	3
	114	TV Production	3
	121	Photojournalism	3
	206	Intermediate Newswriting and Editing	3
	215	Publications Production and Design	3
	221,222	Newspaper Design I,II	3,3
	231	Introduction to Public Relations	4
	241	Magazine Article Writing	3
	280	Internship	3-5
MAN	*226	Principles of Management	3
MAR	*216	Principles of Marketing	3
PED	102	Volleyball	1
	105	Basketball	1
	106	Tennis	1
	110,111	Fitness Center Activity I,II	1,1
	114	Walking and Jogging	1
	115	Body Sculpturing and Toning	1
	116	Weight Training	1
	121	Step Aerobics	1
	137	Varsity Sports	1
	138	Introduction to Winter Sports	1
	143,144	Tai Chi I,II	1,1
	146	Martial Arts	1
	147,148	Yoga I,II	1,1
	153	Hiking	1
	210,211	Fitness Center Activity III,IV	1,1
PHO	101,102	Photography I, II	3,3
	205, 206	Digital Photography I,II	3,3
	209	Landscape Photography Workshop	2

\*These courses apply to AA Business Transfer option only.

## Associate of Applied Science Degree (AAS)

This two-year 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 other college or university if planning to transfer these courses.

### 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 PPCC. See specific degree program for additional requirements.
2. A minimum of 15 credit hours (of the 60 total) of general education courses from 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 baccalaureate 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 chief instructional officer. Approval is given only when it is appropriate to the educational objectives of a student.
5. A maximum of 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 100 normally may not apply toward degrees.

### General Education Electives for AAS

These courses are approved as meeting the general education requirements for the AAS degree with limitations noted. Credits must be earned in at least three of the categories specified below.

#### I. Communications

ENG	121,122	English Composition I,II	3,3
	131	Technical Writing I	3
SPE	115	Public Speaking	3
	225	Organizational Communication	3

#### II. Art and Humanities

ART	110	Art Appreciation	3
	111	Art History I	3
	112	Art History II	3
FRE	111,112	French Language I,II	5,5
	211,212	French Language III,IV	3,3
GER	111,112	German Language I,II	5,5
	211,212	German Language III,IV	3,3
HUM	121,122,123	Survey of Humanities I,II,III	3,3,3
	241	Asian Arts and Cultures	3
LIT	115	Introduction to Literature I	3
	125	Study of the Short Story	3
	201,202	Masterpieces of Literature I,II	3,3
	211,212	Survey of American Literature I,II	3,3
MUS	120	Music Appreciation	3
	121,122	Music History I,II	3,3
PHI	111	Introduction to Philosophy	3
	112	Ethics	3
	113	Logic	3
	114	Comparative Religion	3
	214	Philosophy of Religion	3



RUS	111,112 Russian Language I, II	5,5
SPA	111,112 Spanish Language I,II	5,5
	211,212 Spanish Language III,IV	3,3
SPE	115 Public Speaking	3
	125 Interpersonal Communication	3
	219 Group Dynamics	3
	225 Introduction to Organizational Communication	3
THE	105 Introduction to the Theatre Arts	3
	211,212 Development of Theatre I,II	3,3

### III. Mathematics and Physical and Life Sciences

AST	101,102 Astronomy I,II	4,4
BIO	105 Science of Biology	4
	110 Foundations of College Biology	5
	111,112 General College Biology I,II	5,5
	133 Basic Ecology	4
	201,202 Human Anatomy and Physiology I,II	4,4
CHE	101,102 Introduction to Chemistry with Lab I,II	5,5
	111,112 General College Chemistry with Lab I,II	5,5
CSC	105 Computer Literacy	3
	120 Problem Solving with Visual Basic for Applications	3
GEY	111 Physical Geology	4
	121 Historical Geology	4
	135 Environmental Geology	3
HWE	100 Human Nutrition	3
MAT	106 Survey of Algebra	4
	107 Career Mathematics	3
	108 Technical Mathematics	4
	121 College Algebra	4
	122 College Trigonometry	3
	123 Finite Mathematics	3
	125 Survey of Calculus	4
	135 Introduction to Statistics	3
	201,202 Calculus I,II	5,5
PHY	111,112 Physics: Algebra-Based with Lab I,II	5,5
	133 Basic Physics	4
	211,212 Physics: Calculus-Based with Lab I,II	5,5

### IV. Social and Behavioral Sciences

ANT	101 Cultural Anthropology	3
	111 Physical Anthropology	3
ECO	201 Principles of Macroeconomics	3
	202 Principles of Microeconomics	3
FIN	106 Consumer Economics	3
GEO	105 World Regional Geography	3
	106 Human Geography	3
HIS	101,102 History of Western Civilization I,II	3,3
	201,202 United States (U.S.) History I,II	3,3
POS	105 Introduction to Political Science	3
	111 American Government	3
	125 American State and Local Government	3
	205 International Relations	3
PSY	100 Psychology of Workplace Relationships	3
	101,102 General Psychology I,II	3,3
	106 Human Relations	3
	215 Psychology of Adjustment	3
	226 Social Psychology	3
	235 Human Growth and Development	3
SOC	100 Principles of Practical Sociology	3
	101,102 Introduction to Sociology I,II	3,3
	205 Sociology of Family Dynamics	3
	218 Sociology of Diversity	3

### Other General Education

MAT	112 Financial Mathematics	4
	115 Introduction to Business	3
CIS	115 Introduction to Computer Information Systems	3
	118 Introduction to PC Applications	3
CSC	105 Computer Literacy	3
PED	Any PED course	

### Associate of General Studies Degree (AGS)

#### The Associate of General Studies

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. Transferability of the AGS depends upon the courses taken and the receiving institution.

This degree requires at least 30 semester hours of general education courses. Fifteen semester hours must come from the State-guaranteed courses. In addition, students consult with an advisor and select 30 semester hours of open electives. They may include general education courses and/or career and technical courses. The selected courses must not be considered developmental.

#### Requirements

1. A minimum of 60 credit hours of course work.
2. 30 credits of general education with 15 credits from State-guaranteed courses. See AA/AS degree for list of State-guaranteed courses.
3. A cumulative grade point average of 2.0 (a C average).
4. At least 15 of these credit hours must be earned from PPCC.

#### I. General Education

(30 Credits - 15 State-guaranteed courses). General Education (30 Credits - 15 State-guaranteed courses)

(Minimum of 3 credits from Communications, Art and Humanities, Mathematics, Physical and Life Sciences, and Social and Behavioral Sciences)

#### II. Communications (minimum 3 credit hours)

ENG	121 English Composition I	3
	or	
	131 Technical Writing I	3

#### III. Art and Humanities (minimum 3 credit hours)

ART	110 Art Appreciation	3
	111 Art History I	3
	112 Art History II	3
FRE	111,112 French Language I,II	5,5
	211,212 French Language III,IV	3,3
GER	111,112 German Language I,II	5,5
	211,212 German Language III,IV	3,3
HUM	121,122,123 Survey of Humanities I,II,III	3,3,3
JPN	111,112 Japanese Language I,II	5,5
LIT	115 Introduction to Literature I	3
	125 Study of the Short Story	3
	201,202 Masterpieces of Literature I,II	3,3
	211,212 Survey of American Literature I, II	3,3
	221,222 Survey of British Literature I, II	3,3
MUS	120 Music Appreciation	3
	121,122 Music History I,II	3,3

PHI	111	Introduction to Philosophy	3
	112	Ethics	3
	113	Logic	3
	114	Comparative Religions	3
	214	Philosophy of Religion	3
RUS	111,112	Russian Language I,II	5,5
SPA	111,112	Spanish Language I,II	5,5
	211,212	Spanish Language III,IV	3,3
SPE	115	Public Speaking	3
	125	Interpersonal Communication	3
	219	Group Dynamics	3
	225	Organizational Communication	3
THE	105	Introduction to the Theatre Arts	3
	211,212	Development of Theatre I,II	3,3

#### IV. Mathematics (minimum 3 credit hours)

MAT	107	Career Mathematics	3
	108	Technical Mathematics	4
	121	College Algebra	4
	123	Finite Mathematics	3
	125	Survey of Calculus	4
	135	Introduction to Statistics (AA and AGS only)	3
	120	Mathematics for the Liberal Arts (AA only)	4
	201,202	Calculus I,II	5,5

#### V. Social and Behavioral Sciences (minimum 3 credit hours)

ANT	101	Cultural Anthropology	3
	111	Physical Anthropology	3
ECO	201	Principles of Macroeconomics	3
	202	Principles of Microeconomics	3
FIN	106	Consumer Economics	3
GEO	105	World Regional Geography	3
	106	Human Geography	3
	111	Physical Geography – Landforms	4
	112	Physical Geography - Weather and Climate	4
HIS	101,102	History of Western Civilization I,II	3,3
	201,202	United States (U.S.) History I,II	3,3
	236	Contemporary U.S. History	3
	247	Contemporary World History	3
POS	105	Introduction to Political Science	3
	111	American Government	3
	125	American State and Local Government	3
	205	International Relations	3
PSY	101,102	General Psychology I,II	3,3
	105	Psychology of Workplace Relationships	3
	106	Human Relations	3
	215	Psychology of Adjustment	3
	226	Social Psychology	3
SOC	100	Principles of Practical Sociology	3
	101,102	Introduction to Sociology I,II	3,3
	205	Sociology of Family Dynamics	3
	218	Sociology of Diversity	3

#### VI. Physical and Life Sciences (minimum 3 credit hours)

AST	101,102	Astronomy I,II	4,4
BIO	105	Science of Biology	4
	110	Foundations of College Biology	5
	111,112	General College Biology with Lab I,II	5,5
	201,202	Human Anatomy and Physiology I,II	4,4
CHE	101,102	Introduction to Chemistry I,II (AA only)	5,5
	111,112	General College Chemistry with Lab I,II	5,5
GEY	135	Environmental Geology	3
	111	Physical Geology	4
	121	Historical Geology	4
HWE	100	Human Nutrition	3
PHY	111,112	Physics: Algebra-Based with Lab I,II	5,5
	211,212	Physics: Calculus-Based with Lab I,II	5,5

#### Additional General Education Electives

BUS	115	Introduction to Business	3
CIS	115	Introduction to Computer Information Systems	3
	118	Intro PC Applications	3
CSC	105	Computer Literacy	3
ENG	122	English Composition II	3
MAT	112	Financial Mathematics	3

#### Electives (30 credit hours)

These may include courses from general education sources, AA/AS electives (pp. 45-47), and/or career and technical courses. The selected courses must not be developmental.

#### Certificate of Achievement

Occupational training is available in fewer than two years through our certificate programs. Certificates of Achievement 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.

#### 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 6 credit hours in the area of specialization earned from PPCC for programs requiring 6 hours or more.
3. Courses numbered below 100 normally may not apply toward certificate.

# Program Directory

	Rec. Track	AAS Deg.	Cert.
<b>Business, Social and Behavioral Sciences</b> Carla Malmquist, Dean • 540-7345 Cindy Buckley, Assistant Dean • 540-7640			
<b>Accounting</b> Judy Jager • Louise Hunter		X	X
<b>Anthropology</b> Ronda Burkhart • Su Il Kim	X		
<b>Business Administration*</b> Charles F. Bowles • Robert R. Bricker Sharon Meyer • Carl J. Sonntag • Jaki Taggart			X
<b>*Emphasis Areas Business Administration</b>			
<b>Business Administration</b> Wally Astor • Charles F. Bowles • Robert R. Bricker Sharon Meyer • Carl J. Sonntag • Jaki Taggart		X	X
<b>Customer Service</b> Wally Astor • Charles F. Bowles • Robert R. Bricker Sharon Meyer • Carl J. Sonntag • Jaki Taggart		X	X
<b>Entrepreneurial</b> Wally Astor • Charles F. Bowles • Robert R. Bricker Sharon Meyer • Carl J. Sonntag • Jaki Taggart		X	X
<b>Financial Services</b> Wally Astor • Charles F. Bowles • Robert R. Bricker Sharon Meyer • Carl J. Sonntag • Jaki Taggart		X	X
<b>International Business</b> Wally Astor • Charles F. Bowles • Robert R. Bricker Sharon Meyer • Carl J. Sonntag • Jaki Taggart		X	X
<b>Management</b> Wally Astor • Charles F. Bowles • Robert R. Bricker Sharon Meyer • Carl J. Sonntag • Jaki Taggart		X	X
<b>Marketing</b> Wally Astor • Charles F. Bowles • Robert R. Bricker Sharon Meyer • Carl J. Sonntag • Jaki Taggart		X	X
<b>Office Administration</b> Karla J. Rodie • Jeanette Walgren		X	X
<b>Supervision</b> Wally Astor • Charles F. Bowles • Robert R. Bricker Sharon Meyer • Carl J. Sonntag • Jaki Taggart		X	X
<b>Criminal Justice</b> Jeff Engel • Ken Morris • Pete Kismet		X	X
<b>Culinary Arts</b> Rob Hudson		X	
<b>Early Childhood Education</b> Michelle Bender • Cynthia Buckley		X	X
<b>Economics</b> Russell Flora • Patricia Shaffer	X		
<b>Fire Science Technology</b> Bob Burton • Lonnie Inzer		X	
<b>Law Enforcement Academy</b> Jeff Engel			X
<b>Paralegal/Legal Assistant</b> Mike Adams		X	
<b>Political Science</b> Leonard Riley, II	X		
<b>Psychology</b> Stefanie Bell • Misty Hull Cindy Kamilar, Ph.D. Lisa Routh • Michael Trumball, Ph.D.	X		

	Rec. Track	AAS Deg.	Cert.
<b>Real Estate</b> Charles Albrecht		X	X
<b>Sociology</b> Lisa Donaldson • Joanna Grey • Gloria Nikolai	X		
<b>Social Services Technician</b> Jane Astor		X	X
<b>Social Work Transfer</b> Jane Astor	X		
<b>Communications, Humanities, and Technical Studies</b> Deborah Schmitt, Dean • Phone: 540-7363, 527-2672			
<b>Architectural Drafting</b> Thomas E. Kelly • William H. Wysong, Jr.			X
<b>Architecture and Construction Technology</b> Thomas E. Kelly • William H. Wysong, Jr.		X	
<b>Art</b> Stephanie Mulliken • Laura Ben-Amots Janet Alexander	X		
<b>Auto Collision Repair</b> Wade Knight		X	X
<b>Automotive Technology/Diesel</b> Joe Magnuson • Ron Pety • Larry Schneider		X	X
<b>Computer Aided Drafting (CAD)</b> Janet Wilson		X	X
<b>Dance</b> Nancy McCollum, Danika Bielek		X	
<b>Facilities Maintenance Technology Management</b> Robert P. Smith		X	
<b>Farrier Science</b> Jason Bell			X
<b>History</b> Wayne Artis • Michael Olsen Katherine Scott Sturdevant • Karen Wagner, Ph.D.	X		
<b>Humanities</b> Cathy Henrichs • Nancy McCollum	X		
<b>Interior Design</b> Ruth Garrett-Graul		X	
<b>Journalism</b> Janet Rohan	X		
<b>Literature</b> Cathy Henrichs			
<b>Multimedia Graphic Design</b> Robert L. Olson • Jenna Shearn		X	X
<b>Music</b> William Malone	X		
<b>Philosophy</b> Ruth Beardsley, Ph.D • Richard Trussell	X		
<b>Physical Education</b> Dawn Jacobson			
<b>Radio, Television</b> Dick Chase • Sharon Hogg	X	X	
<b>Southwest Studies</b> Nancy McCollum	X		

	Rec. Track	AAS Deg.	Cert.
<b>Speech</b> Mary Baker • Steven Collins, Ph.D	X		
<b>Theatre</b> Michael Stansbery • Walter Yuhre	X		
<b>Welding</b> Lee Corn • Scott Mannering		X	X
<b>Health, Environmental, Natural, and Physical Sciences</b> Judy D. Baros, Dean • Phone: 540-7392; 538-5410			
<b>Astronomy</b> David Esker • Mark Izold			
<b>Biological Sciences</b> Karla Belew • Robert Henderson • Ernesto Hernandez Robert W. McMullen • Anne Montgomery • Albert L. Threlfall	X		
<b>Chemistry</b> Juan-Carlos Herraes • Evan McHugh	X		
<b>Dental Assisting</b> Frank Delgesso • Anne Maestas		X	X
<b>Emergency Medical Services</b> David Wells		X	X
<b>Geography</b> Mary Hayden	X		
<b>Geology</b> Mark Izold	X		
<b>Landscape Technician</b> Ruth-Ann Larish		X	
<b>Medical Office Technology</b> Vicki Bond, Francine Page		X	X
<b>Medical Transcriptionist</b> Vicki Bond			X
<b>Natural Resource Technology</b> Ruth-Ann Larish • Mark Platten		X	X
<b>Nursing</b> Cynthia Askvig • Angela Carrington • Catherine Gagnon Heather Gunn • Jane Madden • Jill Peterson Marylyn Russo • Carol Wallace • Mary Ann Wermers		X	X
<b>Pharmacy Technician</b> Sylvia Espinosa			X
<b>Physics</b> David Esker • Evan McHugh	X		
<b>Pre-Allied Health</b> Karla Belew • Ernesto Hernandez Robert W. McMullen • Alfred L. Threlfall	X		
<b>Pre-Engineering</b> David Esker	X		
<b>Pre-Med Professions</b> Karla Belew • Ernesto Hernandez • Robert W. McMullen Ann Montgomery • Alfred L. Threlfall	X		
<b>Space Science</b> David Esker	X		
<b>Zookeeping</b> Ruth Ann Larish	X		

	Rec. Track	AAS Deg.	Cert.
<b>Languages Division</b> Peter Heinz, Ph.D., Dean • Phone: 540-7300; 538-5300			
<b>Advancing Academic Achievement</b> Kathy Beggs			
<b>American Sign Language</b> Diana Eurek			
<b>Deaf Prep</b> Donnette Patterson			
<b>Education</b> Karen Bowen			
<b>English</b> Teresa Aggen • Barbara Graves • Craig Iburguen • Janele Johnson Sylva Miller • Mary Piering • Deidre Schoolcraft Eric Stephenson • Jennifer Sutter		X	
<b>English/College Preparatory</b> Karen Bowen • Jacque Gaiters-Jordan • Tina Getz • Larry Giddings Kate Goschen • Mark King • Sandra Miller • Karen Standridge, Ph. D.			
<b>English as a Second Language (English Language Institute)</b> Jean Echevarria • Rebecca Hicks			
<b>Foreign Languages</b> Elaine Balogh • Kathryn Birkhead Jennifer Colon • Tim Davis • Rieko McAdams		X	
<b>Interpreter Preparation</b> Lariissa McClung			X
<b>Reading</b> Kathy Beggs • Dan Purtscher			
<b>Technical Writing</b> Teresa Aggen			X
<b>Writing Center</b> Larry Giddings			
<b>Mathematics and Technology Division</b> Ted Plaggemeyer, Dean • Phone: 540-7221 Carol Ohle, Assistant Dean of Technology • 538-5254 Gwen Wiley, Assistant Dean of Mathematics • 538-5327			
<b>Cisco Networking Academy</b> Richard Reynolds • Nate Wadman • David Walters • Stephen Walth			X
<b>Computer Information Systems</b> Terri Akse • Jennifer Jirous • Frank Kuehn • Janice A. Larson Nancy Meiklejohn • Carol Ohle • Ken Riddle • Karla Rodie Jeanette Walgren • Stephen Walth		X	X
<b>Computer Networking Technology</b> Richard Reynolds • Nate Wadman • David Walters		X	X
<b>Computer Science</b> Laurie DeHerrera • Carol Ohle • Ken Riddle • Michael Simpson		X	
<b>Electronics Technology</b> Scott Fambrough		X	X
<b>Integrated Circuit Fabrication</b> Gabriele Belle • Hal Moore • Phil Myers		X	X
<b>Machining Technology</b> Kelly Oswald		X	X
<b>Mathematics</b> Holly Ashton • Kristine Bradley • Sharon Butler • Bill Clarke Deric Davenport • Richard Harms • Gayle Krzemien • Bob LaMont Shawna Mahan • Jean Olsen • Lordes Pajo • Michael Parcha Mary Schrack • Gwen Wiley • David Wolfe		X	
<b>Office Technology</b> Jeanette Walgren			X

# Educational Programs

## Accounting

### Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 090
- MAT 060
- REA 090

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.

#### General Education Courses

BUS 115	Introduction to Business	3
CIS 118	Introduction to PC Applications	3
ECO 201	Principles of Macroeconomics	3
MAT 112	Financial Mathematics	3
SPE 115	Public Speaking	3
		<u>15</u>

#### Other Course Requirements

ACC 115	Payroll Accounting	3
ACC 121	Accounting Principles I	4
ACC 122	Accounting Principles II	4
ACC 125	Computerized Accounting	3
ACC 135	Spreadsheet Applications for Accounting	3
ACC 211	Intermediate Accounting I	4
ACC 212	Intermediate Accounting II	4
BTE 108	Ten-Key by Touch*	1
BUS 216	Legal Environment of Business	3
BUS 217	Business Communications and Report Writing	3
		<u>32</u>

#### Accounting Electives

Choose 2 courses from the following list

ACC 131	Income Tax	3
ACC 216	Governmental and not-for-profit Accounting	3
ACC 226	Cost Accounting	3
		<u>6</u>

#### Other Electives

Choose 7-9 hours from the following courses

ACC 287	Cooperative Education	3
CIS 124	Introduction to Operating Systems	3
CIS 130	Introduction to Internet	1
CIS 135	Complete PC Word Processing	3
CIS 145	Complete PC Database	3
CWB 163	Introduction to HTML	1
CWB 175	Selected Topic: Introduction to Web Authoring	1
		<u>7-9</u>

#### Total Credit Hours

**60-62**

\* If proficient in Ten-Key by Touch, contact a faculty advisor for testing instructions.

## Certificate

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.

ACC 101	Fundamentals of Accounting	3
	or	
ACC 121	Accounting Principles I	(4)
ACC 115	Payroll Accounting	3
ACC 125	Computerized Accounting	3
ACC 135	Spreadsheet Applications for Accounting	3
BTE 108	Ten-Key by Touch*	1
BUS 115	Introduction to Business	3
BUS 217	Business Communication and Report Writing	3
CIS 118	Introduction to PC Applications	3
MAT 112	Financial Mathematics	3
		<u>25-26</u>

#### Electives

Choose 6 hours from the following courses

ACC 122	Accounting Principles II	4
CIS 124	Introduction to Operating Systems	3
CIS 130	Introduction to the Internet	2
CIS 135	Complete PC Word Processing	3
CIS 145	Complete PC Database	1
CWB 163	Introduction to HTML	1
CWB 175	Selected Topic: Introduction to Web Authoring	1
SPE 115	Public Speaking	3
		<u>6</u>

#### Total Credit Hours

**31-32**

\* If proficient in Ten-Key by Touch, contact a faculty advisor for testing instructions.

## 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 Community 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. Students who score into two or more developmental level courses (math, reading, and/or English) should select an Academic Achievement course in their first or second semester at PPCC. To enter the program, students need to take the placement test. Course placement is determined by the student's placement scores.

For further information about the AAA Program, please call 538-5346 or 540-7300.



# Anthropology

## Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- REA 090

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 archaeology, 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.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 43 for list of required courses.

#### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for list of required courses.

#### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

MAT 120	Mathematics for the Liberal Arts	4
MAT 121	College Algebra	4
MAT 125	Survey of Calculus	4
MAT 135	Introduction to Statistics	3
MAT 201	Calculus I	5

#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

ANT 101	Cultural Anthropology	3
ANT 111	Physical Anthropology	3
HIS 101	History of Western Civilization I	3
HIS 102	History of Western Civilization II	3
HIS 201	United States (U.S.) History I	3
HIS 202	United States (U.S.) History II	3

#### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

AST 101	Astronomy I	4
AST 102	Astronomy II	4
BIO 111	General College Biology I w/Lab	5
BIO 112	General College Biology II w/Lab	5
CHE 101	Introduction to Chemistry I w/Lab	5
CHE 102	Introduction to Chemistry II w/Lab	5
CHE 111	General College Chemistry I w/Lab	5
CHE 112	General College Chemistry II w/Lab	5
GEY 111	Physical Geology	4

GEY 112	Historical Geology	4
PHY 111	Physics: Algebra Based I w/Lab	5
PHY 112	Physics: Algebra Based II w/Lab	5
PHY 211	Physics: Calculus Based I w/Lab	5
PHY 212	Physics: Calculus Based II w/Lab	5

#### VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

#### VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

#### VIII. Electives

Sixteen (16) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

ANT 107	Introduction to Archaeology	3
ANT 211	Cultural Resource	3
ANT 215	Indians of North America	3
ANT 221	Exploring Other Cultures I	3
ANT 222	Exploring Other Cultures II	3
ANT 280	AB Southwest Field Exploration	2
ECO 201	Principles of Macroeconomics	3
GEO 105	World Regional Geography	3
POS 105	Introduction to Political Science	3
PSY 101	General Psychology I	3
PSY 102	General Psychology II	3
SOC 101	Introduction to Sociology I	3
SOC 102	Introduction to Sociology II	3

### Total Credit Hours

**60**

# Architectural Drafting

## Certificate

Recommended basic skills standards are

- ENG 090
- MAT 090
- REA 090

Students selecting the architectural certificate program develop job entry level skills in preparing detailed drawings from sketches, notes, specifications, and technical data furnished by architects, builders, or firms connected with the building industry. Students completing this option may enter Architecture and Construction Technology, a two-year degree program.

Students should schedule appointments with their program advisors to discuss remedying any deficiencies and to verify equipment needed for specific courses.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

ARC 101	Architectural Drawing I	5
ARC 102	Architectural Drawing II	5
ARC 104	Architectural Drawing Theory	4
ARC 105	Architectural Building Materials I	2
ARC 111	Architectural Technology Theory	2
ARC 114	Building Service Systems I	2
ARC 117	Presentation Drawings and Models	3
ARC 235	Contemporary Architectural Theory II	2
CAD 101	Computer Aided Drafting I	3
MAT 108	Technical Mathematics	4

### Total Credit Hours

**32**



# Architecture and Construction Technology

## Associate of Applied Science Degree

Recommended basic skills standards are

- ENG 090
- MAT 090
- REA 090

This program prepares students to be technical assistants in architectural or construction firms or to be building product representatives assisting architects, engineers, contractors, manufacturers, and other professionals connected with the building industry.

All students should schedule appointments with Architectural 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.

### General Education Courses

CIS 118	Introduction to PC Applications	3
ENG 121	English Composition I	3
	or	
ENG 131	Technical Writing I	(3)
MAT 107	Career Math	3
MAT 108	Technical Mathematics	4
	or	
MAT 121	College Algebra	(4)
General Education Electives from approved list on pp. 47-48		<u>2</u>
		15

### Course requirements for all emphasis areas

ARC 101	Architectural Drawing I	5
ARC 102	Architectural Drawing II	5
ARC 104	Architectural Drawing Theory	4
ARC 105	Architectural Building Materials I	2
ARC 111	Architectural Technology Theory	2
ARC 114	Building Service Systems I	2
ARC 117	Presentation Drawings and Models	3
ARC 223	Introduction to Building Codes	3
ARC 224	Construction Contracts and Management	3
ARC 235	Contemporary Architectural Theory II	2
CAD 101	Computer Aided Drafting I	<u>3</u>
		34

## Emphasis Areas

### Architectural Emphasis

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.

ARC 201	Architectural Drawing III	5
ARC 202	Architectural Drawing IV	5
ARC 208	Architectural Building Materials II	3
ARC 211	Building Service Systems II	2
ARC 227	Architectural Structures	5
CAD 102	Computer Aided Drafting II	<u>3</u>
		23

**Total Hours for Architectural Degree Emphasis 72**

### Construction Emphasis

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.

ARC 218	Surveying	3
ARC 208	Architectural Building Materials II	3
ARC 211	Building Service Systems II	2
ARC 222	Estimating and Print Reading	5
ARC 226	Construction Scheduling	3
ARC 227	Architectural Structures	<u>5</u>
		21

**Total Hours for Construction Degree Emphasis 70**

### Product Representative Emphasis

Students choosing this business-oriented option will learn basic selling and marketing techniques. Other items covered include estimating, bid submittals, and furnishing technical information to professionals in the building industry.

ARC 208	Architectural Building Materials II	3
ARC 211	Building Service Systems II	2
ARC 222	Estimating and Print Reading	5
BUS 115	Introduction to Business	3
BUS 217	Business Communication and Report Writing	3
CIS 155	PC Spreadsheet Concepts: Excel	3
MAR 111	Principles of Sales	3
MAR 216	Principles of Marketing	<u>3</u>
		25

**Total Hours for Product Representative Degree Emphasis 74**

## Certificates

### Basic Drafting (Day Students)\*

ARC 101	Architectural Drawing I	5
ARC 104	Architectural Drawing Theory	<u>4</u>
		9

### Basic Drafting (Evening Students)\*

ARC 104	Architectural Drawing Theory	4
ARC 151	Architectural Drafting I	3
ARC 152	Architectural Drafting II	<u>2</u>
		9

### CAD Professional Upgrade\*

CAD 101	Computer Aided Drafting I	3
CAD 102	Computer Aided Drafting II	<u>3</u>
		6

### Construction Professional Upgrade\*

ARC 218	Surveying	3
ARC 222	Estimating and Print Reading	5
ARC 226	Construction Scheduling	<u>3</u>
		11

### Intermediate Drafting (Day Students)\*

ARC 101	Architectural Drawing I	5
ARC 102	Architectural Drawing II	5
ARC 104	Architectural Drawing Theory	4
CAD 101	Computer Aided Drafting I	<u>3</u>
		17

## Intermediate Drafting (Evening Students)\*

ARC 104	Architectural Drawing Theory	4
ARC 151	Architectural Drafting I	3
ARC 152	Architectural Drafting II	2
ARC 153	Architectural Drafting III	3
ARC 154	Architectural Drafting IV	2
CAD 101	Computer Aided Drafting I	3
		<u>17</u>

\*Pending State Approval

## Art/Photography

### Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- MAT 030
- REA 090

The human being is a creative animal. The fountainhead of creativity lies in the imagination, which manifests itself in the projection of images. Art, then, is the language in images by which man communicates ideas and concepts of the self, others, and the universe. This program is designed to allow students to discover and develop themselves and their creativity in such mediums as drawing, painting, watercolor, and ceramics.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 43 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

#### Category 1 (GT-AH1) Required Courses\*

*ART 111	Art History I	3
*ART 112	Art History II	3

#### Category 2 (GT-AH2)

HUM 123	Survey of Humanities III	3
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#### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

MAT 120	Mathematics for the Liberal Arts	4
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#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

#### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

AST 101	Astronomy I	4
GEY 111	Physical Geology	4

## VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

Suggested Courses

ART 107	Art Education Methods	3
ART 115	East Asian Painting I	3
ART 116	East Asian Painting II	3
ART 118	Art Sampler	1
ART 119	Lettering	3
ART 121	Drawing I	3
ART 122	Drawing II	3
ART 123	Watercolor I	3
ART 124	Watercolor II	3
ART 125	Landscape Drawing I	3
ART 126	Landscape Drawing II	3
ART 131	2-D Design	3
ART 132	3-D Design	3
ART 135	Fiber Design I	3
ART 136	Navajo Weaving Techniques I	3
ART 137	Navajo Weaving Techniques II	3
ART 141	Jewelry and Metal Work I	3
ART 142	Jewelry and Metal Work II	3
ART 145	Enameling on Metal I	3
ART 146	Stained Glass I	3
ART 147	Stained Glass II	3
ART 154	Sculpture I	3
ART 155	Sculpture II	3
ART 156	Figure Drawing I	3
ART 157	Figure Painting I	3
ART 161	Ceramics I	3
ART 162	Ceramics II	3
ART 163	Handbuilt Clay I	3
ART 164	Handbuilt Clay II	3
ART 210	Landscape Painting	3
ART 211	Painting I	3
ART 212	Painting II	3
ART 213	Painting III	3
ART 214	Painting IV	3
ART 221	Drawing III	3
ART 222	Drawing IV	3
ART 223	Watercolor III	3
ART 224	Watercolor IV	3
ART 225	Printmaking I	3
ART 226	Advanced Printmaking I	3
ART 227	Portraiture	3
ART 235	Fiber Design II	3
ART 236	Navajo Weaving Techniques III	3
ART 237	Navajo Weaving Techniques IV	3
ART 241	Jewelry and Metal Work III	3
ART 242	Jewelry and Metal Work IV	3
ART 245	Enameling on Metal II	3
ART 246	Stained Glass III	3
ART 247	Stained Glass IV	3
ART 256	Advanced Figure Drawing	3
ART 257	Advanced Figure Painting	3
ART 258	Computer Animation	3
ART 261	Ceramics III	3
ART 262	Ceramics IV	3
ART 269	Ceramic Sculpture	3
PHO 101	Photography I	3
PHO 102	Photography II	3
PHO 205	Digital Photography I	3
PHO 206	Digital Photography II	3
PHO 209	Landscape Photography Workshop	3

## VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

### VIII. Electives

Sixteen to eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

#### Suggested Courses

ART 121	Drawing I	3
ART 122	Drawing II	3
ART 131	2D Design	3
ART 132	3D Design	3

**Total Credit Hours** 60

## Automotive Collision Technology

### Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 030
- REA 090

This program prepares students to enter into upgraded 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.

#### General Education Courses

CIS 115	Intro to Computer Information Systems	3
MAT 107	Career Math	3
SPE 225	Organizational Communication	3
General Education Electives from approved list on pp. 47-48		6
		15

#### Automotive Collision Technology Courses

ACT 101	Intro to Auto Collision Technology	4
ACT 111	Metal Welding and Cutting I	3
ACT 121	Non-Structural Repair Preparation	3
ACT 122	Panel Repair and Replacements	3
ACT 123	Metal Finishing and Body Filling	3
ACT 131	Structural Damage Diagnosis	3
ACT 132	Structural Damage Repair	3
ACT 142	Surface Preparation I	2
ACT 143	Spray Equipment Operation	2
ACT 144	Refinishing I	2
ACT 151	Plastics and Adhesives I	1
ACT 180	Automotive Collision Repair Internship Level I	4
ACT 181	Automotive Collision Repair Level II Internship	4
ACT 211	Metal Welding and Cutting II	2
ACT 221	Movable Glass and Hardware	2
ACT 231	Advanced Structural Damage Diagnosis and Repair	3
ACT 232	Fixed Glass	2
ACT 241	Paint Defects – Causes and Cures	3

ACT 242	Surface Preparation II	2
ACT 243	Refinishing II	2
ACT 244	Final Detail	2
ACT 251	Plastics and Adhesives II	1
		56

**Total Credit Hours** 71

### Certificates

#### Non-Structural Repair Technician

ACT 101	Intro to Auto Collision Technology	4
ACT 111	Metal Welding and Cutting I	3
ACT 121	Non-Structural Repair Preparation	3
ACT 122	Panel Repair and Replacements	3
ACT 123	Metal Finishing and Body Filling	3
ACT 180	Automotive Collision Repair Internship Level I	4
ACT 211	Metal Welding and Cutting II	2
ACT 221	Movable Glass and Hardware	2

**Total Credit Hours** 24

#### Refinish Prep Technician

ACT 101	Intro to Automotive Collision Technology	4
ACT 142	Surface Preparation I	2
ACT 143	Spray Equipment Operation	2
ACT 144	Refinishing I	2
ACT 244	Final Detail	2

**Total Credit Hours** 12

#### Refinish Technician

ACT 181	Auto Collision Repair Level II Internship	4
ACT 241	Paint Defects – Causes and Cures	3
ACT 242	Surface Preparation II	2
ACT 243	Refinishing II	2

**Total Credit Hours** 11

#### Structural Repair Technician

ACT 131	Structural Damage Diagnosis	3
ACT 132	Structural Damage Repair	3
ACT 231	Advanced Structural Damage Diagnosis and Repair	3
ACT 232	Fixed Glass	2

**Total Credit Hours** 11

#### Automotive Plastics Repair Technician

ACT 101	Intro to Automotive Collision Technology	4
ACT 121	Non-Structural Repair Preparation	3
ACT 151	Plastics and Adhesives I	1
ACT 242	Surface Preparation II	2
ACT 243	Refinishing II	2
ACT 251	Plastics and Adhesives II	1

**Total Credit Hours** 13

## Automotive Technology

### Associate of Applied Science Degree

Recommended basic skills standards are:

- AAA 090
- ENG 060
- MAT 030
- REA 090

This program leads to an interesting and challenging career in the automotive or diesel service, sales, or supply field. The program is

designed for students who intend to pursue a career in an automotive or diesel field. Two options are available in the degree program. The diesel option specializes in diesel and light truck service. The automotive option specializes in automotive service. Both options are compatible with each other. Additional advanced classes are offered in engine and diesel areas. Students may choose from several certificate options in Automotive, Diesel, and Motorsports Technology.

Students entering this program should exhibit the following qualities: mechanical aptitude, ability to read and follow instructions and specific manuals, and enjoyment of precision work and problem solving. Appropriate work clothes, safety equipment, and a basic set of hand tools are required (see program faculty for requirements).

The engines and the diesel classes are on an open-entry/open-exit self-paced basis.

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

MAT 107	Career Math	3
PSY 100	Psychology of Workplace Relationships	3
SOC 100	Principles of Practical Sociology	3
General Education Electives from approved list on pp. 47-48		<u>6</u>
		15

#### Courses required for all emphasis areas

ASE 110	Brakes I	3
ASE 120	Basic Automotive Electricity	2
ASE 123	Automotive Battery, Starting, and Charging Systems	2
ASE 132	Ignition System Diagnosis and Repair	2
ASE 140	Suspension and Steering I	3
ASE 151	Automotive Manual Transmission/Transaxles and Clutches	2
ASE 161	Engine, Disassembly Diagnosis and Assembly	5
ASE 210	Brakes II	3
ASE 231	Automotive Computers	2
ASE 233	Fuel Injection and Exhaust Systems	4
ASE 240	Suspension and Steering II	3
ASE 265	Automotive Heating and Air Conditioning	<u>5</u>
		36

\*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.

#### Diesel Emphasis

DPM 100	Introduction to Diesel Mechanics	4
DPM 103	Diesel Engines I	4
DPM 106	Fuel Injection	4
DPM 107	Fundamentals of Four-Wheel and Front-Wheel Drive	4
DPM 203	Diesel Engines II	4
DPM 210	Air Induction and Engine Analysis	<u>4</u>
		24

**Total Hours for Diesel Degree Emphasis 75**

#### General Automotive Emphasis

ASE 102	Introduction to the Automotive Shop	2
ASE 130	General Engine Diagnosis	2
ASE 134	Automotive Emissions	2
ASE 150	Automotive U-joint and Axle Shaft Service	2
ASE 152	Differentials and 4WD/AWD Service	2
ASE 160	Automotive Engine Removal and Installation	1
ASE 220	Specialized Electronics Training	2
ASE 221	Automotive Body Electrical	4

ASE 235	Driveability Diagnosis	1
ASE 250	Automatic Transmission/Transaxle Service	1
ASE 251	Automatic Transmission/Transaxle Diagnosis and Assemblies	<u>5</u>
		24

**Total Hours for General Automotive Degree Emphasis 75**

#### Certificates

##### Automotive Technology

ASE 102	Introduction to the Automotive Shop	2
ASE 110	Brakes I	3
ASE 120	Basic Automotive Electricity	2
ASE 123	Automotive Battery, Starting, and Charging Systems	2
ASE 132	Ignition System Diagnosis and Repair	2
ASE 134	Automotive Emissions	2
ASE 140	Suspension and Steering I	3
ASE 150	Automotive U-joint and Axle Shaft Service	2
ASE 151	Automotive Manual Transmission/Transaxles and Clutches	2
ASE 152	Differentials and 4WD/AWD Service	2
ASE 160	Automotive Engine Removal and Installation	1
ASE 161	Engine, Disassembly Diagnosis and Assembly	5
ASE 210	Brakes II	3
ASE 220	Specialized Electronics Training	2
ASE 221	Automotive Body Electrical	4
ASE 231	Automotive Computers	2
ASE 233	Fuel Injection and Exhaust Systems	4
ASE 240	Suspension and Steering II	3
ASE 265	Automotive Heating and Air Conditioning	<u>5</u>

**Total Credit Hours 51**

##### Air Conditioning and Heating

ASE 102	Introduction the Automotive Shop	2
ASE 120	Basic Automotive Electricity	2
ASE 123	Automotive Battery, Starting, and Charging Systems	2
ASE 265	Automotive Heating and Air Conditioning	<u>5</u>

**Total Credit Hours 11**

##### Automatic Transmissions

ASE 102	Introduction the Automotive Shop	2
ASE 120	Basic Automotive Electricity	2
ASE 123	Automotive Battery, Starting, and Charging Systems	2
ASE 250	Automatic Transmission/Transaxle Service	1
ASE 251	Automatic Transmission/Transaxle Diagnosis and Assemblies	<u>5</u>

**Total Credit Hours 12**

##### Automotive Brakes

ASE 102	Introduction the Automotive Shop	2
ASE 110	Brakes I	3
ASE 120	Basic Automotive Electricity	2
ASE 123	Automotive Battery, Starting, and Charging Systems	2
ASE 210	Brakes II	<u>3</u>

**Total Credit Hours 12**

##### Automotive Electricity

ASE 102	Introduction the Automotive Shop	2
ASE 120	Basic Automotive Electricity	2
ASE 123	Automotive Battery, Starting, and Charging Systems	2
ASE 220	Specialized Electronics Training	2
ASE 221	Automotive Body Electrical	4
ASE 231	Automotive Computers	<u>2</u>

**Total Credit Hours 14**



## Engine Performance

ASE 102	Introduction the Automotive Shop	2
ASE 120	Basic Automotive Electricity	2
ASE 123	Automotive Battery, Starting, and Charging Systems	2
ASE 130	General Engine Diagnosis	2
ASE 132	Ignition System Diagnosis and Repair	2
ASE 134	Automotive Emissions	2
ASE 160	Automotive Engine Removal and Installation	1
ASE 161	Engine, Disassembly Diagnosis and Assembly	5
ASE 220	Specialized Electronics Training	2
ASE 221	Automotive Body Electrical	4
ASE 231	Automotive Computers	2
ASE 233	Fuel Injection and Exhaust Systems	4
ASE 235	Driveability Diagnosis	1

**Total Credit Hours** 31

## Gasoline Engine Repair

ASE 102	Introduction the Automotive Shop	2
ASE 120	Basic Automotive Electricity	2
ASE 123	Automotive Battery, Starting, and Charging Systems	2
ASE 160	Automotive Engine Removal and Installation	1
ASE 161	Engine, Disassembly Diagnosis and Assembly	5

**Total Credit Hours** 12

## Manual Drivetrain

ASE 102	Introduction the Automotive Shop	2
ASE 120	Basic Automotive Electricity	2
ASE 123	Automotive Battery, Starting, and Charging Systems	2
ASE 150	Automotive U-joint and Axle Shaft Service	2
ASE 151	Automotive Manual Transmission/Transaxles and Clutches	2
ASE 152	Differentials and 4WD/AWD Service	2

**Total Credit Hours** 12

## Suspension and Steering

ASE 102	Introduction the Automotive Shop	2
ASE 120	Basic Automotive Electricity	2
ASE 123	Automotive Battery, Starting, and Charging Systems	2
ASE 140	Suspension and Steering I	3
ASE 240	Suspension and Steering II	3

**Total Credit Hours** 12

## Motorsports Technology

ACT 161	Automotive Graphics and Design	3
AUT 105	Introduction to Motorsports Technology	2
AUT 108	Racing Vehicle Systems	2
AUT 109	Suspension and Chassis Design	2
AUT 110	High Performance Suspension and Chassis Setup	4
ACT 111	Metal Welding and Cutting I	3
AUT 116	High Performance Brake Systems	2
AUT 118	High Performance Power Trains	2
AUT 119	High Performance Electrical and Fuel Systems	2
AUT 127	High Performance Lubrication and Cooling Systems	2
AUT 128	High Performance Engine Design, Blueprinting and Testing	4
AUT 136	Introduction to Racecar Body Fabrication	2
AUT 137	Introduction to Racecar Chassis Fabrication	2

**Total Credit Hours** 32

## Diesel Engine Performance

DPM 100	Introduction to Diesel Mechanics	4
DPM 106	Fuel Injection	4
DPM 210	Air Induction and Engine Analysis	4

**Total Credit Hours** 12

## Diesel Engine Repair

DPM 100	Introduction to Diesel Mechanics	4
DPM 103	Diesel Engines I	4
DPM 203	Diesel Engines II	4

**Total Credit Hours** 12

## Diesel Fuel Injection

ASE 120	Basic Automotive Electricity	2
DPM 100	Introduction to Diesel Mechanics	4
DPM 106	Fuel Injection	4

**Total Credit Hours** 10

## Biological Sciences

### Associate of Science Degree

Recommended basic skills standards are

- ENG 060
- MAT 090
- REA 090

The study of biological sciences 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. Other fields, which may require a modified program, include agriculture, allied health, natural resources management, and home economics. It is strongly recommended that students consult with an advisor for the specific requirements in these fields.

### Recommended Track

#### I. Communications

Nine (9) credit hours  
See page 44 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours  
See page 44 for complete list of required courses.

#### III. Mathematics

Four (4) credit hours minimum (credit hours over four [4] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

MAT 121	College Algebra	4
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#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select one (1) HIS course and two (2) courses out of two (2) categories listed on page 44.

See page 44 for complete list of required courses.

#### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

BIO 111	General College Biology I w/Lab	5
BIO 112	General College Biology II w/Lab	5

#### VI. Computer Communication

Three (3) credits

See page 44 for complete list of required courses and options to meet this requirement.

Suggested Courses

CSC 120	Problem Solving with Visual Basic for Applications	3
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## VII. Electives

Eighteen (18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

### Suggested Courses

BIO 2XX	200-Level Science Elective	5
CHE 111	General College Chemistry I w/Lab	5
CHE 112	General College Chemistry II w/Lab	5
	Science Elective	1

**Total Credit Hours** **60**

## Business Transfer

### Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- REA 090
- MAT 090

The Associate of Arts Business Option is the result of a State wide 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 four-year school. Please consult with your faculty advisor for the proper sequence of classes.

### Recommended Track

#### I. Communications

Nine (9) credit hours

ENG 121	English Composition I	3
ENG 122	English Composition II	3
SPE 115	Public Speaking	3

#### II. Art and Humanities

Six (6) credit hours: select two state guaranteed courses on page 43.

#### III. Mathematics

Eight (8) credit hours

MAT 121	College Algebra	4
	or	
MAT 123	Finite Mathematics	(4)
MAT 125	Survey of Calculus	4

#### IV. Social and Behavioral Sciences

Nine (9) credit hours

One state guaranteed History course listed on page 43 and

ECO 201	Principles of Macroeconomics	3
ECO 202	Principles of Microeconomics	3

#### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of courses.

#### VI. Business Requirements

Six (6) credit hours

ACC 121	Accounting Principles I	4
ACC 122	Accounting Principles II	4
BUS 115	Introduction to Business	3
BUS 216	Legal Environment of Business	3
BUS 217	Business Communication and Report Writing	3
BUS 226	Business Statistics	3

**Total Credit Hours** **60**

## Business Administration

### Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 060
- REA 090

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 Accounting, Business Foundations, Customer Service, Entrepreneurial, Financial Services, Hospitality, International Business, Management, Marketing, Office Administration, Real Estate, and Supervision. **The certificate programs are listed alphabetically in this catalog.**

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 on page 59.

Faculty advisors are available to assist students in evaluating the various options. Call 540-7383 at the Centennial Campus or 538-5200 at the Rampart Range Campus for program information or to schedule a personal appointment with a 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 must also have demonstrated proficiency equivalent to the completion of BTE 100.

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 Requirements

BUS 115	Introduction to Business	3
CIS 118	Introduction to PC Applications	3
ECO 201	Macroeconomics	(3)
	or	
FIN 106	Consumer Economics	3
MAT 112	Financial Mathematics	3
SPE 225	Organizational Communication	<u>3</u>
		15

#### Business Foundation Requirements

ACC 101	Fundamentals of Accounting	3
	or	
ACC 121	Accounting Principles I	(4)
BUS 216	Legal Environment of Business	3
BUS 217	Business Report Writing and Communication	3
MAN 116	Principles of Supervision	3
MAR 111	Principles of Sales	<u>3</u>
		15-16

NOTE: Completion of the above 30-31 hours in General Education and Business Foundation courses earns the student a Certificate of Business Foundations.

## Customer Service Emphasis

The Customer Service Emphasis is designed to prepare the student for entry-level positions in business and governmental organizations that require customer contact roles, leading to customer satisfaction and the improved image of the organization.

BUS	181	Internship	3
MAR	160	Customer Service	3
MAR	216	Principles of Marketing	3
PSY	226	Social Psychology	3
SPE	125	Interpersonal Communications	3
			<u>15</u>

### Customer Service Emphasis Electives

The following electives are required. Students must see program advisors for additional elective choices to for a combined total of 15-16 hours.

ANT	101	Cultural Anthropology	3
MAN	117	Time Management	1
MAN	125	Team Building	1
PHI	113	Logic	3
			<u>15-16</u>

NOTE: Program advisors may approve additional elective choices.

### Total Hours for Customer Service Degree Emphasis

**60-62**

## Entrepreneurial Emphasis

The Entrepreneurial Emphasis is designed for those who either wish to start up their own business or have an existing business they want to further develop. It provides students with an understanding of small business and its place within the U.S. economy and society. The program focuses on the fundamental factors concerned with the establishment and successful operation of small business including financing and sources of funds; organizing the business and establishing policies; learning characteristics necessary for business success; and examining the future prospects of small business on both a national and international level. The curriculum requires direct student involvement in the understanding and analysis of various approaches and situations in buying, selling, and operating different kinds of business investments.

ACC	122	Accounting Principles II	4
FIN	201	Principles of Finance	3
MAN	117	Time Management	1
MAN	125	Team Building	1
MAN	200	Human Resource Management I	3
MAN	216	Small Business Management	3
MAR	117	Principles of Retailing	3
MAR	126	Merchandising	3
MAR	160	Customer Service	3
MAR	216	Principles of Marketing	3
MAR	220	Principles of Advertising	3
			<u>30</u>

### Total Hours for Entrepreneurial Degree Emphasis

**60-61**

## Financial Services Emphasis

The Financial Services Emphasis is designed for students who wish to pursue a career in financial planning, credit management, insurance, banking, or finance.

Nine (9) hours of cooperative work experience/internship are required. Cooperative work experience/internship will be conducted with a variety of local businesses on an arranged basis. For this program of study, students should provide a resume to the program coordinator upon declaring this emphasis area and must realize that in their second year of study they will be required to work at an assigned, approved training location.

The following electives are required. Students must see program advisors for additional elective choices for a combined total of 29-30 hours.

BUS	181	Internship	3
BUS	182	Internship	3
BUS	281	Internship	3
FIN	106	Consumer Economics	3
FIN	201	Principles of Finance	3
MAN	125	Team Building	1
MAR	160	Customer Service	3
MAR	216	Principles of Marketing	3
MEP	101	Risk Management	3
			<u>29-30</u>

### Total Hours for Financial Services Degree Emphasis

**60**

## International Business Emphasis

The International Business Emphasis is designed for students who would like to become familiar with operating businesses in the international environment.

The following electives are required. Students must see program advisors for additional elective choices for a combined total of 25-26 hours.

BUS	181	Internship	3
MAN	117	Personal Time Management	1
MAN	125	Team Building	1
MAR	240	International Marketing	3
PHI	114	Comparative Religion	3
POS	205	International Relations	3
			<u>25-26</u>

### Choose one foreign language course from the following:

FRE	111	French Language I	5
GER	111	German Language I	5
ITA	111	Italian Language I	5
JPN	111	Japanese Language I	5
RUS	111	Russian Language I	5
SPA	111	Spanish Language I	5
			<u>5</u>

### Total Hours for International Business Degree Emphasis

**60-61**

## Management Emphasis

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	226	Business Statistics	3
FIN	201	Principles of Finance	3
MAN	117	Time Management	1
MAN	200	Human Resource Management I	3
MAN	226	Principles of Management	3
MAR	216	Principles of Marketing	3
			<u>16</u>

### Management Emphasis Electives

Choose 14 hours from the following courses

ACC 122	Principles of Accounting	4
BUS 181	Internship	3
BUS 182	Internship	3
BUS 281	Internship	3
MAN 125	Team Building	1
MAN 216	Small Business Management	3
		<u>14</u>

**Total Hours for Management Degree Emphasis 60-61**

### Marketing Emphasis

The Marketing Emphasis is designed to prepare students for entry level and management training positions in advertising, marketing, purchasing, retailing, and sales. Cooperative/Internships are an integral part of the program emphasis. In addition to the Business Foundations courses, the student must complete the following:

BUS 181	Internship	3
BUS 182	Internship	3
BUS 226	Business Statistics	3
MAN 226	Principles of Management	3
MAR 160	Customer Service	3
MAR 216	Principles of Marketing	3
MAR 220	Principles of Advertising	3
MAR 238	Marketing Applications and Analysis	3
		<u>24</u>

### Marketing Electives

Choose 6 hours from the following courses

ACC 122	Accounting Principles II	4
BUS 227	Principles of Purchasing	3
BUS 281	Internship	3
MAN 125	Team Building	1
MAN 216	Small Business Management	3
		<u>6</u>

NOTE: Program advisors may approve additional elective choices.

**Total Hours for Marketing Degree Emphasis 60**

### Office Administration Emphasis

The Office Administration Emphasis is designed to prepare students to become office professionals in entry-level positions that require skills in computer technology, communication skills, customer service, and office applications.

ACC 125	Computerized Accounting	3
BTE 102	Keyboarding Applications I	2
BTE 108	Ten-Key by Touch	1
BTE 111	Keyboarding Speedbuilding I	2
BTE 166	Business Editing Skills	3
CIS 107	Voice Recognition: Dragon	1
CIS 118	Introduction to PC Applications	3
CIS 135	Complete PC Word Processing	3
CIS 165	Complete Presentation Graphics: PowerPoint	3
CIS 167	Desktop Publishing	3
MAR 160	Customer Service	3
		<u>27</u>

### Electives

Choose 6 hours from the following courses

ACC 115	Payroll Accounting	3
CIS 145	Complete PC Database Complete	3
CIS 155	PC Spreadsheets Concepts: Excel	3
CIS 287	Cooperative Education	3
CWB 110	Complete Web Authoring: HTML	3
MAN 116	Principles of Supervision	3
CIS 287	Cooperative Education	6
MAN 116	Principles of Supervision	6

**Total Hours for Office Administration Degree Emphasis 63-64**

### Supervision Emphasis

The Supervision Emphasis is designed for those students who are primarily interested in the supervisory or operational level of management in a small business or corporate entity. Skills, attitudes, and knowledge gained are based on effective first-level management needs. BUS 181 – Cooperative Work Experience I/Internship I is an integral part of this emphasis area.

BUS 181	Internship	3
MAN 117	Time Management	1
MAN 125	Team Building	1
MAN 226	Principles of Management	3
MAN 200	Human Resource Management I	3
MAR 160	Customer Service	3
SOC 100	Principles of Practical Sociology	3
		<u>17</u>

### Supervision Electives \*

Choose 13 hours from the following courses. See program advisor for additional emphasis course choices.

BUS 182	Internship	3
BUS 281	Internship	3
PSY 215	Psychology of Adjustment	3
SPE 125	Interpersonal Communications	3
SWK 100	Introduction to Human Services	3
		<u>13</u>

NOTE: Program advisors may approve additional elective choices.

**Total Hours for Supervision Degree Emphasis 60-61**

## Business Foundations

### Certificate

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 060
- REA 090

This certificate will allow students exposure to most of the major areas of business. For Associate of Applied Science Degree in Business Administration, see page 59 of this catalog.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

ACC	101	Fundamentals of Accounting	3
		or	
ACC	121	Principles of Accounting	(4)
BUS	115	Introduction to Business	3
BUS	216	Legal Environment of Business	3
BUS	217	Business Report Writing and Communication	3
CIS	118	Introduction to PC Applications	3
ECO	201	Principles of Macroeconomics	3
		or	
FIN	106	Consumer Economics	(3)
MAN	116	Principles of Supervision	3
MAR	111	Principles of Sales	3
MAT	112	Financial Mathematics	3
SPE	225	Organizational Communication	<u>3</u>

**Total Credit Hours** **30-31**

## CCC Online Degree Programs

Colorado Community College Online (CCC Online) gives PPCC students the opportunity to complete full degrees or just a few classes on line. All classes meet the same state-approved course objectives as on-campus sections, and they are recorded as regular PPCC classes on student transcripts. New students can apply for admission to the college on-line or on-campus; once admitted to PPCC, students can register for classes on-line, on the telephone, or on-campus. Tuition is \$130.75 per credit hour for both in-state and out-of-state residency. CCC Online offerings allow PPCC students to complete AA and AS degrees as well as an AAS in Business. There are also extensive offerings in Computer Networking, Early Childhood Education, and Criminal Justice. Students should refer to the appropriate degree guidelines in this catalog and check course offerings at [www.cconline.org](http://www.cconline.org).

## Chemistry

### Associate of Science Degree

Recommended basic skills standards are

- ENG 060
- MAT 090
- REA 090

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.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 44 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours

See page 44 for complete list of required courses.

#### III. Mathematics

Four (4) credit hours minimum (credit hours over four [4] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

MAT	201	Calculus I	4
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## IV. Social and Behavioral Sciences

Nine (9) credit hours: select one (1) HIS course and two (2) courses out of two (2) categories listed on page 44.

See page 44 for complete list of required courses.

## V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

CHE	111	General College Chemistry I w/Lab	5
CHE	112	General College Chemistry II w/Lab	5

## VI. Computer Communication

Three (3) credits

See page 44 for complete list of required courses and options to meet this requirement.

Suggested Courses

CSC	120	Problem Solving with Visual Basic for Applications	3
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## VII. Electives

Eighteen (18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

CHE	211	Organic Chemistry I w/Lab	5
CHE	212	Organic Chemistry II w/Lab	5
PHY	211	Physics: Calculus Based I w/Lab	5

**Total Credit Hours** **60**

## Cisco Certified Network Associate

### Certificate

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 060
- REA 090

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.

CNG	260	Cisco Network Associate I	5
CNG	261	Cisco Network Associate II	5
CNG	262	Cisco Network Associate III	5
CNG	263	Cisco Network Associate IV	<u>5</u>

**Total Credit Hours** **20**

## Computer Aided Drafting (CAD)

### Associate of Applied Science Degree

Recommended basic skills standards are:

- ENG 090
- MAT 090
- REA 090
- AAA 090

This program prepares students for drafting positions in manufacturing, engineering, and other areas requiring production-ready drawings and models. Students will learn to prepare 2D and 3D drawings for fabrication using the latest release of AutoCAD. In addition, students will learn blueprint reading, problem-solving techniques, methods for customizing AutoCAD, use of research tools, general organizational skills, and applications in geometry and trigonometry.

Students should schedule a meeting with the computer aided drafting 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 have the ability to type 20 WPM or have completed BTE 100.

#### Courses required for all options

CAD 100	Blueprint Reading for CAD	3
CAD 101	Computer Aided Drafting I	3
CAD 102	Computer Aided Drafting II	3
CAD 151	Computer Aided Drafting/Technical Drafting Applications	4
CAD 202	Computer Aided Drafting / 3D	3
CAD 217	3D Studio VIZ	3
CAD 240	Inventor I/AutoDesk	3
		<u>22</u>

#### General Education Courses for all emphasis areas

CIS 118	Introduction to PC Applications	3
ENG 121	English Composition I	3
	or	
SPE 125	Interpersonal Communications	(3)
ENG 131	Technical Writing I	3
	or	
BUS 217	Business Communication and Report Writing	(3)
MAT 108	Technical Mathematics	4
MAT 109	Geometry	3
PSY 100	Psychology of Workplace Relationships	3
	or	
SPE 219	Group Dynamics	(3)
		<u>19</u>

### Mechanical Emphasis

ARC 227	Architectural Structures	5
MAC 101	Introduction to Machine Shop	3
MAC 250*	Advanced Inspection Techniques	3
MAC 252	Practical Metallurgy	3
TEC 205*	Geometric Dimensioning and Tolerancing	3
One Technical Elective Course		<u>3-4</u>
		20-21

**Total Hours for Mechanical Degree Emphasis 61-62**

### HVAC Emphasis

HVA 102	Basic Refrigeration	4
HVA 103	Basic Electricity	3
WEL 106	Blueprint Reading for Welders & Fitters	4
WEL 250	Layout & Fabrication	4
One Technical Elective Course		<u>3-4</u>
		18-19

**Total Hours for HVAC Degree Emphasis 60**

### Electronics Emphasis

ELT 106	Fundamentals of DC/AC	3
ELT 112	Advanced DC/AC	3
ELT 134	Solid State Devices I	3
ELT 135	Solid State Devices II	3
ELT 147	Digital Devices I	3
ELT 148	Digital Devices II	3
One Technical Elective Course		<u>3-4</u>
		21-22

**Total Hours for Electronics Degree Emphasis 62-63**

#### Recommended Technical Electives

CAD 201	Computer Aided Drafting / Custom	3
CAD 218	3D Studio VIZ / Advanced	3
CSC 160	Computer Science I	4
MAC 110	Introduction to Engine Lathe	3
MAC 120	Introduction to Milling Machine	3
MAC 240	CADCAM 2D	3
MAC 241	CADCAM 2D Lab	3
WEL 106	Blueprint Reading for Welders and Fitters	4

### Certificates

#### Computer Aided Drafting

CAD 100	Blueprint Reading for Computer Aided Drafting	3
CAD 101	Computer Aided Drafting I	3
CAD 102	Computer Aided Drafting II	3
CAD 151	Computer Aided Drafting/Technical Drafting Applications	4
CIS 115	Computers Information Systems	3
MAT 108	Technical Mathematics	4

12 Credit Hours of Guided Technical Electives\* 12

**Total Credit Hours 32**

\*Students must meet with an advisor to select appropriate technical electives.

#### Basic CAD Skills

CAD 101	Computer Aided Drafting I	3
CAD 102	Computer Aided Drafting II	<u>3</u>

**Total Credit Hours 6**

#### Advanced CAD Skills

Prerequisite: Basic CAD Skills Certificate or equivalent

CAD 101	Computer Aided Drafting I	3
CAD 102	Computer Aided Drafting II	3
CAD 202	Computer Aided Drafting/3D	3
CAD 201	Computer Aided Drafting/Custom	<u>3</u>

**Total Credit Hours 12**

#### Parametric Modeling

CAD 151	Computer Aided Drafting/Technical Drafting Applications	4
CAD 202	Computer Aided Drafting/3D	3
CAD 240	Inventor I/AutoDesk	<u>3</u>

**Total Credit Hours 10**

#### CAD – Quality Assurance\*

MAC 102	Blueprint Reading	3
MAT 107	Career Math	<u>3</u>

**Total Credit Hours 6**

\*Pending State Approval



# Computer Information Systems

## Associate of Applied Science Degree

Recommended basic skills standards are

- ENG 090
- MAT 060
- REA 090

The associate of applied science degree 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 BTE100.

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.

### General Education Courses

BUS 115	Introduction to Business	3
CIS 115	Introduction to Computer Information Systems	3
ENG 131	Technical Writing I	3
MAT 112	Financial Mathematics	3
SPE 125	Interpersonal Communication	3
		<u>15</u>

### Required Courses

ACC 101	Fundamentals of Accounting	3
CIS 116	Introduction to Applications Development	3
CIS 124	Introduction to Operating Systems	3
CIS 145	Complete PC Database	3
CIS 155	PC Spreadsheet Concepts: Excel	3
CIS 216	Advanced Applications Development	3
CIS 267	Management of Information Systems	3
CIS 268	Systems Analysis and Design	3
CIS 289	Capstone	3
CNG 101	Introduction to Networking	3
CWB 110	Complete Web Authoring	3
CWB 221	Technology Foundations for E-Commerce	3
MAR 160	Customer Service	3
		<u>39</u>

### Electives

Choose six (6) hours from any courses within the disciplines of CIS, CNG, CSC, CWB, MGD, except CIS 118, CSC 105, MGD 104, and CNG 101.

**Total Credit Hours 60**

## Certificate

### Computer Application Specialist\*

This certificate program is designed to provide students with a proficiency in using microcomputer software that is used in today's business environment. Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have the instructor's permission to enroll.

CIS 107	Voice Recognition: Dragon	1
CIS 124	Introduction to Operating Systems	3
CIS 135	Complete PC Word Processing	3
CIS 145	Complete PC Database: Access	3
CIS 155	PC Spreadsheet Concepts: Excel	3
CIS 165	Complete Presentation Graphics: PowerPoint	3
CWB 110	Complete Web Authoring	3
		<u>19</u>

**Total Credit Hours 19**

\* Pending State Approval

# Computer Science

## Associate of Science Degree

Recommended basic skills standards are

- ENG 060
- MAT 090
- REA 090

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.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 44 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours

See page 44 for complete list of required courses.

#### III. Mathematics

Four (4) credit hours minimum (credit hours over four [4] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

Note: It is recommended that transfer students take MAT 201.

MAT 121	College Algebra	4
MAT 201	Calculus I	4

#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select one (1) HIS course and two (2) courses out of two (2) categories listed on page 44.

See page 44 for complete list of required courses.

#### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

Note: It is recommended that transfer students take PHY 211.

BIO 111	General College Biology I w/Lab	5
BIO 112	General College Biology II w/Lab	5
CHE 111	General College Chemistry I w/Lab	5
CHE 112	General College Chemistry II w/Lab	5
PHY 111	Physics: Algebra Based I w/Lab	5
PHY 112	Physics: Algebra Based II w/Lab	5
PHY 211	Physics: Calculus Based I w/Lab	5
PHY 212	Physics: Calculus Based II w/Lab	5

#### VI. Computer Communication

Three (3) credits

See page 44 for complete list of required courses and options to meet this requirement.

Suggested Courses

CSC 150	Visual Basic Programming	3
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#### VII. Electives

Eighteen (18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

(CSC 105: Computer Literacy cannot be applied toward the Computer Science degree.)

Suggested Courses

CSC 160	Computer Science I: (Java)	4
CSC 161	Computer Science II: (Java)	4

CSC 225	Computer Architecture/Assembly Language Programming	4
CSC 230	C Programming: UNIX	3
CSC 233	Object Oriented Programming in C++	3
<b>Total Credit Hours</b>		<b>60</b>

## Criminal Justice

### Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 090
- MAT 030
- REA 090

This program is designed to upgrade the skills and knowledge of employed criminal justice and private security personnel and to provide a pre-employment program for persons interested in a career in one of the following areas: corrections, investigation/management, and police patrol. A retail/industrial security certificate program is offered. Employment possibilities exist at federal, state, county, and municipal levels in the law enforcement, management, and investigation field as well as in corrections, probation, and parole. Many opportunities exist in the private security sector.

Students may complete deficiencies concurrently with the beginning courses in the program. Many agencies impose requirements other than education for employment, retention, and/or promotion. 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, arrest, or conviction record involving moral turpitude, or with certain psychological and personality traits. Prospective students with questions concerning their qualification should consult with advisors.

#### General Education Courses required for all emphasis areas

CSC 105	Computer Literacy	3
ENG 121	English Composition I	3
	or	
ENG 131	Technical Writing I	(3)
ENG 122	English Composition II	3
	or	
SPE 115	Public Speaking	(3)
PSY 215	Psychology of Adjustment	3
Elective*		<u>3</u>
		15

\*Elective must meet general education requirements in humanities or mathematics and science. See list of approved general education courses on page 47.

#### Courses required for all emphasis areas

CRJ 110	Introduction to Criminal Justice	3
CRJ 111	Substantive Criminal Law	3
CRJ 118	Police Report Writing	3
CRJ 127	Crime Scene Investigation	3
CRJ 135	Judicial Function	3
CRJ 145	Correctional Process	3
CRJ 209	Criminal Investigation I	3
CRJ 210	Constitutional Law	3
CRJ 216	Juvenile Law and Procedures	3
CRJ 220	Human Relations and Social Conflict	3
CRJ 230	Criminology	3
CRJ 280	Internship	<u>2</u>
		35

## Investigations Emphasis

Choose 12 credits from the following:

CRJ 112	Procedural Criminal Law	3
CRJ 125	Law Enforcement Operations	3
CRJ 175	Selected Topic: Fingerprinting	3
CRJ 211	Criminal Investigation II	3
CRJ 212	Criminal Investigation III	2
CRJ 218	Drug Investigative Strategies	3
CRJ 219	Police Intelligence	2
CRJ 245	Interview and Interrogation	3
CRJ 250	Computer Crime Investigation	3
CRJ 260	Police Photography	3
CRJ 264	Practical Crime Scene Investigation	<u>3</u>
		12

**Total Hours for Investigations Degree Emphasis 62**

## Patrol Emphasis

Choose 12 credits from the following:

CRJ 112	Procedural Criminal Law	3
CRJ 106	Arrest Control Techniques	3
CRJ 107	Law Enforcement Driving	3
CRJ 108	Firearms	3
CRJ 125	Law Enforcement Operations	3
CRJ 126	Police Patrol Procedures	3
CRJ 211	Criminal Investigation II	3
CRJ 225	Crisis Intervention	3
CRJ 246	Traffic Investigation	3
CRJ 275	Selected Topic: F.A.T.S. Judgmental Shooting	<u>1</u>
		12

**Total Hours for Patrol Degree Emphasis 62**

## Certificates

### Unified Tactical\*

CRJ 106	Arrest Control Techniques	3
CRJ 107	Law Enforcement Driving	3
CRJ 108	Firearms	3
CRJ 275	Selected Topic: F.A.T.S. Judgmental Shooting	<u>1</u>

**Total Credit Hours 10**

### Correctional\*

CRJ 106	Arrest Control Techniques	3
CRJ 145	Correctional Process	3
CRJ 146	Community Based Corrections	3
CRJ 215	Constitutional Rights of Inmates	3
CRJ 249	Penology	3
CRJ 255	Organization and Management of Correctional Institutions	3
CRJ 275	Selected Topic: F.A.T.S. Judgmental Shooting	1
ENG 121	English Composition I	3
	or	
ENG 131	Technical Writing	<u>(3)</u>

**Total Credit Hours 22**

### Crime Scene Investigator\*

CRJ 175	Selected Topic: Fingerprinting	3
CRJ 209	Criminal Investigation I	3
CRJ 211	Criminal Investigation II	3
CRJ 212	Criminal Investigation III	2
CRJ 245	Interview and Interrogation	3
CRJ 250	Computer Crime Investigation	3
CRJ 260	Police Photography	3
CRJ 264	Practical Crime Scene Investigation	3
ENG 121	English Composition I	3
	or	
ENG 131	Technical Writing	<u>(3)</u>

**Total Credit Hours 26**

\*Pending State Approval

# Culinary Arts

## Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 030
- REA 090

Culinary Arts is a program of training, both extensive and difficult. 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 of this program students will be able to work in a professional establishment as second cooks or station supervisors in all preparation areas of an establishment. After further experience with development of culinary skills, we hope to see students considered for responsibility in kitchen managerial areas in the food service industry.

Once students complete the culinary courses, they can apply for certification with the American Culinary Federation by completing the point working requirements. The completion of the culinary courses will give students the required American Culinary Federation educational experience points needed for certification. This program will also help students earn the required work experience points needed for certification levels. Certification levels depend on the individual work experience in the field and on years of job related positions in food service. The culinary program encourages students to earn certification to qualify them to work in different professional establishments in the United States.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

Examinations will be given throughout the duration of the program. Please contact a faculty advisor before registering for courses.

### General Education Courses

CIS 118	Introduction to PC Applications	3
ENG 131	Technical Writing I	3
FIN 106	Consumer Economics	3
MAT 107	Career Math	3
PSY 101	General Psychology I	3
SPE 225	Organizational Communication	3
		<u>18</u>

### Additional required courses

CUA 101	Food Safety and Sanitation	2
CUA 105	Food Service Concepts and Management Skills	3
CUA 116	Catering, Buffets, and Tableside Cooking	3
CUA 120	Wines and Spirits	2
CUA 121	Intro. to Food Production Principles and Practices	1
CUA 122	Introduction to Hot Foods	1
CUA 123	Introduction to Garde Manger	1
CUA 124	Vegetable Preparation and Breakfast Cookery	1
CUA 127	Soups, Sauces, and Consommés	3
CUA 131	Starches, Pastas, Casseroles, and Grain Products	1
CUA 132	Center of the Plate: Meat	1
CUA 133	Center of the Plate: Poultry, Fish, and Seafood	1
CUA 134	Application of Food Production Principles	1
CUA 141	Baking, Principles, and Ingredients	1
CUA 142	Basic Yeast-Raised Products and Quick Breads	1
CUA 143	Baking: Cakes, Pies, Pastries, and Cookies	1
CUA 144	Baking Applications	1
CUA 156	Nutrition for the Hospitality Professional	3
CUA 181	Work Exploration	2
CUA 187	Co-operative Learning	4
CUA 210	Advanced Cuisine and Garde Manger	4
CUA 233	Advanced Line Prep and Cookery	4
CUA 262	Purchasing for the Hospitality Industry	3
		<u>45</u>

**Total Credit Hours**

**63**

# Certificates

## Culinary Arts

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 030
- REA 090

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. Please contact a faculty advisor before registering for courses.

CUA 101	Food Safety and Sanitation	2
CUA 105	Food Service Concepts and Management Skills	3
CUA 121	Introduction to Food Production Principles and Practices	1
CUA 122	Introduction to Hot Foods	1
CUA 123	Introduction to Garde Manger	1
CUA 124	Vegetable Preparation and Breakfast Cookery	1
CUA 127	Soups, Sauces, and Consommés	3
CUA 131	Starches, Pastas, Casseroles, and Grain Products	1
CUA 132	Center of the Plate: Meat	1
CUA 133	Center of the Plate: Poultry, Fish, and Seafood	1
CUA 134	Application of Food Production Principles	1
CUA 141	Baking, Principles, and Ingredients	1
CUA 142	Basic Yeast-Raised Products and Quick Breads	1
CUA 143	Baking: Cakes, Pies, Pastries, and Cookies	1
CUA 144	Baking Applications	1
CUA 156	Nutrition for the Hospitality Professional	3
CUA 210	Advanced Cuisine and Garde Manger	4
CUA 233	Advanced Line Prep and Cookery	4

**Total Credit Hours**

**31**

## Baking

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 030
- REA 090

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. Please contact a faculty advisor before registering for this program.

CUA 101	Food Safety and Sanitation	2
CUA 105	Food Service Concepts and Management Skills	3
CUA 141	Baking: Principles and Ingredients	1
CUA 142	Basic Yeast-Raised Products and Quick Breads	1
CUA 143	Baking: Cakes, Pies, Pastries, and Cookies	1
CUA 144	Baking Applications	1
CUA 150	Baking: Decorating and Presentation	3
CUA 151	Baking: Intermediate Bread Preparation	3
CUA 152	Individual Fancy Dessert Production	3
CUA 156	Nutrition for the Hospitality Professional	3
CUA 236	Advanced Baking	2
CUA 262	Purchasing for the Hospitality Industry	3

**Total Credit Hours**

**26**

# Dance

## Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- MAT 060
- REA 090

Dance is an art and a celebration. According to Colorado dancer Erick Hawkins, "Dance is a metaphor for existence. All body movement contributes to the moment-to-moment wonder of living." In dance classes, students become familiar with the customs of various national and world cultures by learning their dances. Students discover how to work within groups and how to express their own individuality. Students may study dance for enrichment, fitness and to complete an associate of arts degree with an emphasis on dance. Six forms of dance are offered in addition to courses in history, choreography and performance.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 43 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

##### Category 1 (GT-AH1)

MUS 120	Music Appreciation	3
MUS 121	Introduction to Music History I	3
MUS 122	Introduction to Music History II	3

##### Category 2 (GT-AH2)

HUM 122	Survey of Humanities II	3
HUM 123	Survey of Humanities III	3

##### Category 3 (GT-AH3)

PHI 111	Introduction to Philosophy	3
PHI 112	Ethics	3

#### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

MAT 120	Mathematics for the Liberal Arts	4
MAT 121	College Algebra	4
MAT 135	Introduction to Statistics	3

#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

##### Category 3 (GT-SS3)

ANT 101	Cultural Anthropology	3
ANT 111	Physical Anthropology	3
PSY 101	General Psychology I	3
PSY 102	General Psychology II	3

##### Category 4 (GT-HI1)

HIS 102	History of Western Civilization II	3
HIS 201	United States (U.S.) History I	3

#### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

Required Courses

BIO 111	General College Biology I w/Lab	5
BIO 112	General College Biology II w/Lab	5

#### VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

Suggested Courses

ART 121	Drawing I	3
DAN 111	Modern Dance I	1
DAN 112	Modern Dance II	1
DAN 113	Modern Dance III	1
DAN 121	Jazz I	1
DAN 122	Jazz II	1
DAN 123	Jazz III	1
DAN 125	History of Dance I	3
DAN 131	Ballet I	1
DAN 132	Ballet II	1
DAN 133	Ballet III	1
DAN 141	Regional Dances	1
DAN 151	Belly Dance	1
DAN 211	Dance Composition	3
THE 111	Acting I	3

#### VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

#### VIII. Electives

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

ART 121	Drawing I	3
ART 156	Figure Drawing I	3
DAN 111	Modern Dance I	1
DAN 112	Modern Dance II	1
DAN 113	Modern Dance III	1
DAN 121	Jazz I	1
DAN 122	Jazz II	1
DAN 123	Jazz III	1
DAN 125	History of Dance I	3
DAN 131	Ballet I	1
DAN 132	Ballet II	1
DAN 133	Ballet III	1
DAN 141	Regional Dances	1
DAN 151	Belly Dance	1
DAN 152	Belly Dance II	1
DAN 211	Dance Composition	3
DAN 221	Dance Performance I	2
PED 143	Tai Chi I	1
PED 147	Yoga I	1
THE 111	Acting I	3

#### Total Credit Hours

60



## Deaf Prep

The Deaf Prep Program is a four-semester college preparatory program for deaf students who have difficulty with basic academic skills and need an accessible and supportive learning environment where they are allowed to perform and progress at their own pace. This program is designed to make it possible for students to go on to college level classes. Instruction is individualized according to need and placement level in English, mathematics, American Sign Language, and reading. All faculty are deaf or native-like signers, and classes are taught in American Sign Language. The program has four levels of instruction in remedial English, mathematics, critical thinking, American Sign Language, resource management, and two levels of study skills. During the second year of Deaf Prep, and in certain cases, during the first year, depending on placement test scores, students are encouraged to take classes in a major or interest area in addition to or instead of Prep classes.

Students may enter the Deaf Prep program by referral from a social service agency or school district. After completing the Deaf Prep program, successful students may choose to continue with community college education, enroll in a four-year college, enter the workforce, or take short-term vocational training.

### Suggested track

#### Semester One – Fall

DEP 011	Deaf Prep American Sign Language I	3
DEP 021	Deaf Prep Critical Thinking I	2
DEP 031	Deaf Prep English I	5
DEP 041	Deaf Prep Math I	3
DEP 051	Deaf Prep Resource Management I	2
DEP 061	Deaf Prep Study Skills I	2

#### Semester Two – Spring

DEP 012	Deaf Prep American Sign Language II	3
DEP 022	Deaf Prep Critical Thinking II	2
DEP 032	Deaf Prep English II	5
DEP 042	Deaf Prep Math II	3
DEP 052	Deaf Prep Resource Management II	2
DEP 062	Deaf Prep Study Skills II	2

#### Semester Three – Fall

DEP 013	Deaf Prep American Sign Language III	3
DEP 023	Deaf Prep Critical Thinking III	2
DEP 033	Deaf Prep English III	5
DEP 043	Deaf Prep Math III	3
DEP 053	Deaf Prep Resource Management III	2

#### Semester Four – Spring

DEP 014	Deaf Prep American Sign Language IV	3
DEP 024	Deaf Prep Critical Thinking IV	2
DEP 034	Deaf Prep English IV	5
DEP 044	Deaf Prep Math IV	3
DEP 054	Deaf Prep Resource Management IV	2

### Total Credit Hours

**64**

## Dental Assisting

### Associate of Applied Science Degree

Recommended basic skills standards are

- ENG 090
- MAT 030
- REA 090

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 courses in order to graduate.

The Dental Assisting Certificate Program is accredited by the American Dental Association. (ADA). Graduates of the certificate program are eligible to take the Dental Assisting National Board (DANB) Examination. Students who wish to pursue the Associate of Applied Science (AAS) Degree in Dental Assisting must be a graduate of an ADA accredited dental assisting certificate program, be a certified dental assistant, or have two years of full time experience as a dental assistant. 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 must be a certified dental assistant, or have 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.

#### General Education Courses

CIS 115	Introduction to Computer Information Systems	3
	or	
CIS 118	Introduction to PC Applications	(3)
SPE 115	Public Speaking	3
	or	
SPE 125	Interpersonal Communication	(3)
	or	
ENG 121	English Composition I	(3)
PSY 101	General Psychology I	3
	or	
PSY 215	Psychology of Adjustment	(3)
SPE 225	Organizational Communication	3
	or	
ENG 122	English Composition II	(3)
PSY 102	General Psychology II	3
	or	
PSY 235	Human Growth and Development	(3)
		15

#### Additional required courses

DEA 102	Principles of Clinical Practice	3
DEA 104	Specialties of Dentistry	2
DEA 111	Dental Office Management	2
DEA 120	Introductions to Dental Practices	1
DEA 121	Dental Science I	3
DEA 122	Dental Science II	3



DEA 123	Dental Materials I	3	All students should schedule an appointment with an Early Childhood Education program advisor prior to enrolling in a class. Please call (719) 540-7450 to schedule an appointment.
DEA 124	Dental Materials II	3	
DEA 125	Dental Radiography	3	
DEA 126	Infection Control	3	
DEA 131	Advanced Dental Radiography	3	
DEA 132	Medical Emergencies	2	
DEA 134	Prevention and Nutrition in Dentistry	2	
DEA 140	Dental Assisting National Board Review	1	
DEA 181	Clinical Internship I	1	
DEA 182	Clinical Internship II and Seminar	6	
DEA 200	Introduction to Expanded Functions	4	
DEA 205	Expanded Functions for Dental Auxiliary	4	
		<u>49</u>	

**Total Credit Hours 64**

### Certificate

CIS 115	Introduction to Computer Information Systems	3
or		
CIS 118	Introduction to PC Applications	(3)
DEA 102	Principles of Clinical Practice	3
DEA 104	Specialties in Dentistry	2
DEA 111	Dental Office Management	2
DEA 120	Introduction to Dental Practices	1
DEA 121	Dental Science I	3
DEA 122	Dental Science II	3
DEA 123	Dental Materials I	3
DEA 124	Dental Materials II	3
DEA 125	Dental Radiography	3
DEA 126	Infection Control	3
DEA 131	Advanced Dental Radiography	3
DEA 132	Medical Emergencies	2
DEA 134	Prevention and Nutrition in Dentistry	2
DEA 140	Dental Assisting National Board Review (Elective)	1
DEA 181	Clinical Internship I	1
DEA 182	Clinical Internship II and Seminar	6
SPE 115	Public Speaking	3
or		
SPE 125	Interpersonal Communication	(3)
or		
ENG 121	English Composition I	(3)
		<u>47</u>

**Total Credit Hours 47**

## Early Childhood Education

### Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 090
- MAT 060
- REA 090

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 Community 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.

Upon completion of the early childhood education program, students will be able to meet the educational qualifications for group leader and director as defined by the Colorado Department of Human Services.

### General Education Courses

CIS 118	Introduction to PC Applications	3
ECE 238	Child Growth and Development	4
MAT 112	Financial Mathematics	3
PSY 101	General Psychology I	3
or		
PSY 215	Psychology of Adjustment	(3)
SOC 101	Introduction to Sociology I	3
or		
SOC 205	Sociology of Family Dynamics	(3)
Art/Humanities or Math/Science Elective*		<u>3</u>
		19

### Courses required for all emphasis areas

ECE 101	Introduction to Early Childhood Education	3
ECE 102	Introduction to Early Childhood Lab Techniques	3
ECE 103	Guidance Strategies for Children	3
ECE 111	Infant and Toddler Theory and Practice	3
ECE 112	Introduction to Infant/Toddler Lab Techniques	3
ECE 113	Infant/Toddler Lab Techniques II	3
ECE 191	School Age Theory and Practice	3
ECE 192	School Age Lab Techniques	3
ECE 205	Nutrition, Health and Safety	3
ECE 220	Curriculum Development: Methods and Techniques	3
ECE 238	Child Growth and Development	4
ECE 240	Administration of Early Childhood Care and Education Programs	3
ECE 241	Admin: Human Relations for Early Childhood Professions	3
ECE 260	Exceptional Child	3
ECE 261	Exceptional Child Lab Techniques	3
ECE 288	Practicum: Early Childhood Education	3
ECE 289	Capstone: Early Childhood Education	<u>5</u>
		54

**Total Credit Hours 73**

\*Elective must meet General Education requirements. See list of approved General Education courses.

### Certificates

#### Group Leader

ECE 101	Introduction to Early Childhood Education	3
ECE 102	Introduction to Early Childhood Lab Techniques	3
ECE 103	Guidance Strategies for Children	3
ECE 220	Curriculum Development: Methods and Techniques	3
ECE 238	Child Growth and Development	<u>4</u>
		16

**Total Credit Hours 16**

#### Director

ECE 101	Introduction to Early Childhood Education	3
ECE 102	Introduction to Early Childhood Lab Techniques	3
ECE 103	Guidance Strategies for Children	3
ECE 205	Nutrition, Health and Safety	3
ECE 220	Curriculum Development: Methods and Techniques	3
ECE 238	Child Growth and Development	4
ECE 240	Administration of Early Childhood Care and Education Programs	3
ECE 241	Admin: Human Relations for Early Childhood Professions	3
ECE 260	Exceptional Child	3
ECE 288	Practicum: Early Childhood Education	<u>3</u>
		31

**Total Credit Hours 31**

### Level III

ECE 101	Introduction to Early Childhood Education	3
ECE 102	Introduction to Early Childhood Lab Techniques	3
ECE 103	Guidance Strategies for Children	3
ECE 111	Infant and Toddler Theory and Practice	3
ECE 112	Introduction to Infant/Toddler Lab Techniques	3
ECE 191	School Age Theory and Practice	3
ECE 192	School Age Lab Techniques	3
ECE 205	Nutrition, Health and Safety	3
ECE 220	Curriculum Development: Methods and Techniques	3
ECE 238	Child Growth and Development	4
ECE 240	Administration of Early Childhood Care and Education Programs	3
ECE 241	Admin: Human Relations for Early Childhood Professions	3

### Total Credit Hours

37

### Professional Development

Any combination of three (3) classes in the following areas:  
 Preschool\*  
 School Age\*  
 Administration\*  
 \*Student must see advisor before enrolling in this program

### Infant Toddler

ECE 111	Infant and Toddler Theory and Practice	3
ECE 112	Introduction to Infant/Toddler Lab Techniques	3
ECE 238	Child Growth and Development	4

### Total Credit Hours

10

## Early Childhood Education\*

### Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- REA 090
- MAT 090

### Recommended Track

#### I. Communications

Nine (9) credit hours

ENG 121	English Composition I	3
ENG 122	English Composition II	3
SPE 115	Public Speaking	3

#### II. Art and Humanities

Six (6) credit hours

ART 110	Art Appreciation	3
or		
MUS 120	Music Appreciation	(3)
and		
LIT 115	Introduction to Literature	3
or		
LIT 255	Children's Literature	(3)

#### III. Mathematics

Six (6) credit hours

Choose one track below

##### Track 1

MAT 120	Mathematics for the Liberal Arts	4
or		
MAT 121	College Algebra	(4)
MAT 135	Introduction to Statistics	3

### Track 2

MAT 155	Integrated Mathematics I	3
MAT 156	Integrated Mathematics II	3

### IV. Social and Behavioral Sciences

Nine (9) credit hours

GEO 105	World Regional Geography	3
HIS 201	United State (U.S.) History I	3
POS 111	American Government	3

### V. Physical and Life Sciences

Eight (8) credit hours

Choose one track below

#### Track 1

GEY 111	Physical Geology	4
and		
BIO 105	Science of Biology	4
or		
BIO 111	General College Biology I w/Lab	(5)

#### Track 2

CHE 101	Introduction to Chemistry I w/Lab	5
or		
CHE 111	General College Chemistry I w/Lab	(5)
or		
PHY 105	Conceptual Physics	(4)
or		
PHY 111	Physics: Algebra Based I w/Lab	(5)

### VI. Early Childhood Requirements

Six (6) credit hours

ECE 101	Introduction to Early Childhood Education	3
ECE 102	Introduction to Early Childhood Education Lab Techniques	3
ECE 205	Nutrition, Health and Safety	3
ECE 236	Child Growth/Development Laboratory	3
ECE 241	Administration: Human Relations for Early Childhood Education	3

### VII. Electives

Six (6) credit hours to be determined by home and transfer institution.

### Total Credit Hours

60

\*Pending State Approval

## Electronics Technology

### Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 106
- REA 090

This degree program prepares students with technical job entry skills as electronics technicians. Graduates become qualified to work in electronic automation and in control systems environments. Measurement, instrumentation, and control systems automation are work-related areas for career path employment.

Maximizing student success in the electronic 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 trigonometric functions
- college-level reading and comprehension skills
- working knowledge and application of college-level English

- demonstrated time management skills
- awareness of workplace utilization of self-management work teams
- basic understanding of physics principles
- keyboarding, mouse, and MS Windows experience
- understanding of basic science and physics principles

Students who want individualized program planning suggestions are encouraged to meet with program faculty. Please call (719) 540-7256 to schedule an appointment.

Fall semester course sequencing provides concurrent enrollment in ELT 106 and ELT 112. Spring semester course sequencing provides current enrollment in ELT 134, ELT 135, ELT 147, and ELT 148. Students should see a program faculty person if unable to take these courses concurrently.

Students can access detailed descriptions of each program course under the ELE prefix listing at the back of this catalog.

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

CHE 101	Introduction to Chemistry I	5
CSC 160	Computer Science I: (Java)	4
ENG 131	Technical Writing I	3
MAT 135	Introduction to Statistics	3
MAT 179	Computer Applications for Statistical Procedures	1
MAN 116	Principles of Supervision	(3)
	or	
SPE 219	Group Dynamics	3
PHY 101	Basic Physics	<u>4</u>
		23

#### Additional required electives

ELT 106	Fundamentals of DC/AC	3
ELT 112	Advanced DC/AC	3
ELT 134	Solid State Devices I	3
ELT 135	Solid State Devices II	3
ELT 147	Digital Devices I	3
ELT 148	Digital Devices II	3
ELT 248	Automated Control Systems	3
ELT 258	Programmable Logic Controllers	3
ELT 263	Enhanced Microprocessors Control Systems	4
ELT 264	Enhanced Microprocessors Control Systems Lab	4
ICF 108	Introduction to Control Systems	<u>5</u>
		37

**Total Credit Hours 60**

## Emergency Medical Services

### Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 060
- REA 060
- MAT 030

Pikes Peak Community 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.

### EMT Basic Emphasis

This program provides the Emergency Medical Technician at the Basic or Intermediate level of training with the opportunity to complete the educational requirements for the AAS Degree in Emergency Medical Services. Students at the EMT – Basic and EMT – Intermediate level can advance their knowledge in emergency medical care.

#### General Education Courses

BIO 201	Human Anatomy and Physiology I	4
BIO 202	Human Anatomy and Physiology II	4
CIS 118	Introduction to PC Applications	3
ENG 121	English Composition I	3
PSY 101	General Psychology I	<u>3</u>
		17

#### Other Course Requirements

BIO 132	Introduction to Nutrition	3
EMS 112	Emergency Medical Dispatch	2.5
EMS 125	Emergency Medical Technician - Basic	9
EMS 136	EMT/Paramedic Safety Issues in the Field	1
EMS 150	Pediatric Education for Pre-hospital Professionals	3
EMS 151	Geriatric Emergencies	3
EMS 152	Wellness for Emergency Services	1
EMS 153	Advanced Patient Assessment and History Taking	2
EMS 170	EMT Basic Clinical	1
HPR 190	Basic EKG Interpretation	2
PHT 207	Drug Classification	3
PSY 227	The Psychology of Death and Dying	3
	Approved EMS Electives	<u>5.5</u>
		39

**Total Credit Hours 56**

### Paramedic Emphasis

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 EMT-Paramedic level to allow students an opportunity to pursue a career compatible with their interest.

#### General Education Requirements

BIO 201	Human Anatomy and Physiology I	4
BIO 202	Human Anatomy and Physiology II	4
CIS 118	Introduction to PC Applications	3
ENG 121	English Composition I	3
PSY 101	General Psychology I	<u>3</u>
		17

#### Other course requirements

EMS 225	Fundamentals of Paramedic Practice	3
EMS 226	Fundamentals of Paramedic Practice Lab	2
EMS 227	Paramedic Special Considerations	3
EMS 228	Paramedic Special Considerations Lab	2
EMS 229	Paramedic Pharmacology	3
EMS 230	Paramedic Pharmacology Lab	2
EMS 231	Paramedic Cardiology	5
EMS 232	Paramedic Cardiology Lab	1
EMS 233	Paramedic Medical Emergencies	4
EMS 234	Paramedic Medical Emergencies Lab	1
EMS 235	Paramedic Trauma Emergencies	4
EMS 236	Paramedic Trauma Emergencies Lab	1
EMS 237	Paramedic Internship Preparation	2
EMS 280	Paramedic Internship I	6
EMS 281	Paramedic Internship II	<u>6</u>
		45

**Total Credit Hours 62**

### Certificates

#### First Responder

EMS 115	First Responder	<u>3</u>
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**Total Credit Hours 3**

#### Emergency Medical Technician - Basic

EMS 125	EMT Basic	9
EMS 170	EMT-B Clinical	<u>1</u>

**Total Credit Hours 10**

## Emergency Medical Technician – Basic Refresher

EMS 126 EMT Basic Refresher

3

### Total Credit Hours

**3**

## Emergency Medical Technician – Paramedic

BIO 201	Human Anatomy and Physiology I	4
BIO 202	Human Anatomy and Physiology II	4
EMS 225	Fundamentals of Paramedic Practice	3
EMS 226	Fundamentals of Paramedic Practice Lab	2
EMS 227	Paramedic Special Considerations	3
EMS 228	Paramedic Special Considerations Lab	2
EMS 229	Paramedic Pharmacology	3
EMS 230	Paramedic Pharmacology Lab	2
EMS 231	Paramedic Cardiology	5
EMS 232	Paramedic Cardiology Lab	1
EMS 233	Paramedic Medical Emergencies	4
EMS 234	Paramedic Medical Emergencies Lab	1
EMS 235	Paramedic Trauma Emergencies	4
EMS 236	Paramedic Trauma Emergencies Lab	1
EMS 237	Paramedic Internship Preparation	2
EMS 280	Paramedic Internship I	6
EMS 281	Paramedic Internship II	<u>6</u>

### Total Credit Hours

**53**

## English (College Preparatory)

The College Preparatory English program includes a review of grammar, usage, punctuation, critical thinking strategies, and composition processes for a wide variety of writing situations. These courses are a good refresher for students who have been out of school for some time and/or who have had limited experience writing successfully for academic audiences. Students place in College Preparatory English courses according to their English placement test scores. (Proper placement is verified by a writing sample during the first class session.) Students who successfully complete these courses will be able to express their thoughts in complete and varied sentences, and write well-organized and well-developed paragraphs and essays.

Placement scores and progress in the program determine enrollment in the following courses:

**Basic Level** (Compass Writing scores of 0-20)  
ENG 030 Basic Writing Skills 3 credit hours

**Intermediate Level** (Compass Writing scores of 21-45)  
ENG 060 Writing Fundamentals 3 credit hours

**Advanced Level** (Compass Writing scores of 46-69)  
ENG 090 Basic Composition 3 credit hours

## English

### Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- REA 090

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.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 43 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

##### Category 1 (GT-AH1)

ART 110	Art Appreciation	3
ART 111	Art History I	3
ART 112	Art History II	3
MUS 120	Music Appreciation	3
MUS 121	Introduction to Music History I	3
MUS 122	Introduction to Music History II	3
THE 105	Introduction to Theatre Arts	3
THE 211	Development of Theatre I	3
THE 212	Development of Theatre II	3

##### Category 2 (GT-AH2)

HUM 121	Survey of Humanities I	3
HUM 122	Survey of Humanities II	3
HUM 123	Survey of Humanities III	3
LIT 115	Introduction to Literature I	3
LIT 201	Masterpieces of Literature I	3
LIT 202	Masterpieces of Literature II	3

##### Category 3 (GT-AH3)

PHI 111	Introduction to Philosophy	3
PHI 112	Ethics	3
PHI 113	Logic	3

#### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

MAT 120	Mathematics for the Liberal Arts	4
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#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

##### Category 1 (GT-S1)

ECO 201	Principles of Macroeconomics	3
ECO 202	Principles of Microeconomics	3
POS 105	Introduction to Political Science	3
POS 111	American Government	3

<b>Category 2 (GT-SS2)</b>		
GEO 105	World Geography	3
<b>Category 3 (GT-SS3)</b>		
ANT 101	Cultural Anthropology	3
ANT 111	Physical Anthropology	3
PSY 101	General Psychology I	3
PSY 102	General Psychology II	3
SOC 101	Introduction to Sociology I	3
SOC 102	Introduction to Sociology II	3
<b>Category 4 (GT-HI1)</b>		
HIS 101	History of Western Civilization I	3
HIS 102	History of Western Civilization II	3
HIS 201	United States (U.S.) History I	3
HIS 202	United States (U.S.) History II	3

#### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

#### VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

#### VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

#### VIII. Electives

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

ENG 221	Creative Writing I	3
ENG 222	Creative Writing II	3
*FOL 211	Foreign Language III (as appropriate)	3
*FOL 212	Foreign Language IV (as appropriate)	3
HUM 115	World Mythology	3
HUM 121	Survey of Humanities I	3
HUM 122	Survey of Humanities II	3
HUM 123	Survey of Humanities III	3
LIT 125	Study of the Short Story	3
LIT 211	Survey of American Literature I	3
LIT 212	Survey of American Literature II	3
LIT 221	Survey of British Literature I	3
LIT 222	Survey of British Literature II	3
LIT 246	Literature of Women	3
LIT 248	Native American Literature	3
LIT 257	Literature and Film	3
LIT 268	Celtic Literature	3

**Total Credit Hours 60**

\*FOL is a standard course prefix. Each specific foreign language has its own prefix, for example, SPA = Spanish.

## English as a Second Language

### English Language Institute

The English Language Institute at Pikes Peak Community College provides instruction in English language to students who need stronger skills in English language prior to starting degree and certificate programs at the college. To enter the program, students need to take an ESL placement test to determine placement in basic, intermediate, or advanced levels of ESL. Any student who places into ENG 030 or 060 on placement tests and whose native language is not English should take the ESL placement test and make an appointment with the English Language Institute. Students who are in the advanced level of the English Language Institute can take ESL and courses in their degree programs concurrently. For more information, please call 540-7047 or visit the English Language Institute in room A324, Centennial Campus.

#### Basic Level

ESL 021	Basic Grammar	5
ESL 031	Basic Conversation	4
or		
ESL 041	Basic Reading	(4)
		<u>9</u>

#### Intermediate Level

ESL 022	Intermediate Grammar	5
ESL 032	Intermediate Conversation	4
or		
ESL 042	Intermediate Reading	(4)
ESL 052	Intermediate Composition	<u>4</u>
		13

#### Advanced Level

ESL 023	Advanced Grammar	5
ESL 043	Advanced Reading	4
ESL 053	Advanced Composition	<u>4</u>
		13

Additional electives can be taken at any time after Basic level. These electives do not count toward level completion in the English Language Institute.

ESL 011	Basic Pronunciation	3
ESL 012	Intermediate Pronunciation	3
ESL 055	Computer Basics for ESL Students	2

## Entrepreneurial

### Certificate

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 060
- REA 090

The entrepreneurial certificate program is designed for those who either wish to start up their own business or further develop an existing business. It provides students with an understanding of small business and its place within the U.S. economy and society. The program focuses on the fundamental factors concerned with the establishment and successful operation of small business, including financing and sources of funds; organizing the business and establishing policies; learning characteristics necessary for business success; and the future prospects of small business on both a national and international level. The curriculum requires direct student involvement in the understanding and analysis of various approaches and situations in buying, selling, and operating different kinds of business investments.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

For the Associate of Applied Science Degree, see Business Administration – Entrepreneurial located on page 59 of this catalog.



BUS 181	Internship	3
FIN 201	Principles of Finance	3
MAN 117	Time Management	1
MAN 125	Team Building	1
MAN 200	Human Resource Management I	3
MAN 216	Small Business Management	3
MAR 117	Principles of Retailing	3
MAR 126	Merchandising	3
MAR 160	Customer Service	3
MAR 216	Principles of Marketing	3
MAR 220	Principles of Advertising	3

**Total Credit Hours** **29**

## Environmental Studies

### Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- REA 090

Environmental studies is an interdisciplinary program intended to provide liberal and practical education in the science and culture of critical, contemporary environmental issues. This track includes courses from over fifteen different departments. Most environmental studies track courses are incorporated into already existing tracks in math and sciences, the humanities, and social sciences. This program is composed of required common curriculum and some specially designed courses, introducing students to the basics of those physical, natural, and social sciences related to the environment and to human interaction within the natural world.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 43 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

##### Category 1 (GT-AH1)

ART 110	Art Appreciation	3
ART 111	Art History I	3
ART 112	Art History II	3
MUS 120	Music Appreciation	3

##### Category 2 (GT-AH2)

LIT 115	Introduction to Literature	3
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##### Category 3 (GT-AH3)

PHI 111	Introduction to Philosophy	3
PHI 112	Ethics	3

#### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

MAT 120	Math for the Liberal Arts	4
MAT 121	College Algebra	4
MAT 125	Survey of Calculus	4
MAT 135	Introduction to Statistics	3
MAT 201	Calculus I	5

#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

##### Category 1 (GT-S1)

POS 105	Introduction to Political Science	3
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##### Category 2 (GT-SS2)

GEO 105	World Geography	3
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##### Category 3 (GT-SS3)

ANT 101	Cultural Anthropology	3
ANT 111	Physical Anthropology	3

##### Category 4 (GT-HI1)

HIS 201	United States (U.S.) History I	3
HIS 202	United States (U.S.) History II	3

### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

BIO 105	Science of Biology	4
BIO 111	General College Biology I w/Lab	5
BIO 112	General College Biology II w/Lab	5
CHE 101	Introduction to Chemistry I	5
GEY 111	Physical Geology	4
GEY 121	Historical Geology	4
PHY 111	Physics: Algebra-Based I w/Lab	5
PHY 112	Physics: Algebra-Based II w/Lab	5
PHY 211	Physics: Calculus-Based I w/Lab	5

### VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

### VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

### VIII. Electives

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

ANT 101	Cultural Anthropology	3
ANT 107	Introduction to Archaeology	3
ANT 111	Physical Anthropology	3
ANT 211	Cultural Resource Management	3
ANT 215	Indians of North America	3
ANT 221	Cultural Studies I	3
ANT 222	Cultural Studies II	3
ANT 280	Southwest Field Exploration	2
ART 121	Drawing I	3
ART 125	Landscape Drawing	3
BIO 148	Basic Ecology	4
BIO 149	Plant Taxonomy	4
BIO 150	Animal Biology	4
BIO 204	Microbiology	4
GEO 111	Physical Geography - Landforms	4
HIS 207	American Environmental History	3
HIS 208	The Native American Experience	3
HIS 209	History of the American Southwest	3
HIS 225	Colorado History	3
HIS 235	History of the American West	3
HIS 241	History of the Pikes Peak Region	3
JOU 121	Photojournalism	3
LIT 211	Survey of American Literature I	3
LIT 212	Survey of American Literature II	3
POS 125	American State and Local Government	3
SPE 214	Natural Resource Interpretation	3

**Total Credit Hours** **60**

## Facilities Maintenance Technology

### Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 060
- REA 090

This program prepares students to enter the facilities maintenance field. This field of work involves different trade disciplines. The one-year program of core courses trains students in residential heating, ventilation, air conditioning, and refrigeration. Students can then choose from three options that will enable them to choose an area of concentration as it pertains to facility maintenance.

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 facilities maintenance technology 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.

#### General Education Courses for all emphasis areas

CIS	115	Introduction to Computer Information Systems	3
ENG	131	Technical Writing I	3
MAT	107	Career Math	3
PSY	100	Psychology of Workplace Relationships	3
SPE	219	Group Dynamics	<u>3</u>
			15

#### Courses required for all emphasis areas

HVA	102	Basic Refrigeration	4
HVA	105	Electricity for HVAC/R	4
HVA	110	Fundamentals of Gas Heating	4
HVA	113	Refrigerant Recovery Training	1
HVA	121	Residential Refrigeration	4
HVA	132	Air Conditioning and Refrigeration Controls	4
HVA	142	Residential Air Conditioning	4
HVA	143	Residential HVAC Trouble Shooting	<u>4</u>
			29

### Heating, Ventilation, Air Conditioning, and Refrigeration Emphasis

The Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC&R) Option will prepare the student for service in entry-level residential and commercial heating, ventilating, air conditioning, and refrigeration. The emphasis will be on the servicing and maintenance of equipment found in residences, commercial buildings, and large facilities.

HVA	201	Heating For Commercial	3
HVA	204	Direct Digital Controls	4
HVA	222	HVAC&R Systems Trouble Shooting	5
HVA	231	Pneumatic Controls	4
HVA	233	Advanced Refrigeration	4
HVA	241	Advanced Air Conditioning	<u>3</u>
			23

**Total Hours for HVAC & R Degree Emphasis 67**

## General Maintenance Emphasis

The General Maintenance Emphasis prepares the student for entry-level employment as a multi-faceted, multi-skilled technician who will be prepared to maintain and make minor repairs to residential and commercial HVAC&R, appliances, electrical, and plumbing systems.

FMT	102	Facilities Electrical	4
FMT	103	Facilities Plumbing	4
FMT	112	Swimming Pool Maintenance	2
FMT	201	Appliance Technology I	7
FMT	202	Appliance Technology II	7
FMT	204	Facilities Maintenance	<u>4</u>
			28

**Total Hours for General Maintenance Degree Emphasis 72**

## Major Appliance Repair Emphasis

The major appliance option prepares the student for entry-level employment in the repair and service of residential HVAC equipment and major appliances.

FMT	103	Facilities Plumbing	4
FMT	201	Appliance Technology I	7
FMT	202	Appliance Technology II	7
FMT	203	Appliance Technology III	<u>4</u>
			22

**Total Hours for Major Appliance Degree Emphasis 66**

## Certificates

### Facilities Maintenance - Residential

The residential facilities maintenance 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.

HVA	102	Basic Refrigeration	4
HVA	105	Electricity for HVAC/R	4
HVA	110	Fundamentals of Gas Heating	4
HVA	113	Refrigerant Recovery Training	1
HVA	121	Residential Refrigeration	4
HVA	132	Air Conditioning and Refrigeration Controls	4
HVA	142	Residential Air Conditioning	4
HVA	143	Residential HVAC Trouble Shooting	<u>4</u>

**Total Hours for Residential Certificate 29**

### 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.

HVA	201	Heating For Commercial	3
HVA	204	Direct Digital Controls	4
HVA	222	HVAC&R Systems Trouble Shooting	5
HVA	231	Pneumatic Controls	4
HVA	233	Advanced Refrigeration	4
HVA	241	Advanced Air Conditioning	<u>3</u>

**Total Hours for Industry Upgrade Certificate 23**

## Educational Facilities Management

The program is specially designed for maintenance personnel responsible for the care and upkeep of public education facilities. The program covers the areas of custodial, electrical, plumbing, HVAC, and supervision.

FMT	101	Custodial Techniques	4
FMT	102	Facilities Electrical	4
FMT	103	Facilities Plumbing	4
FMT	204	Facilities Maintenance	4
HVA	201	Heating For Commercial	3
HVA	241	Advanced Air Conditioning	3
MAN	116	Principles of Supervision	<u>3</u>

**Total Hours for Educational Facilities Management Certificate** **25**

## Farrier Science

### Certificate

Farrier Science is the knowledge, technique, and process of shoeing horses. This program is designed for private horse owners as well as those who wish to become commercial farriers. The 12 credit program is offered from January through June. Theory classes are generally held in the evening. Lab sessions are held on the weekends at various ranches and stables throughout the area. Students must have average skill in handling horses and possess a general knowledge of ordinary hand tools.

Detailed descriptions of each program course can be accessed under the FAS prefix listing at the back of this catalog.

Because of the unique schedule of this program, students should contact the division office at (719) 538-5300.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

### Farrier Emphasis

FAS	100	Farrier Science I	4
FAS	110	Farrier Science II	4
FAS	120	Farrier Science III	<u>4</u>

**Total Credit Hours** **12**

### Master Farrier Emphasis

FAS	130	Master Farrier I	4
FAS	140	Master Farrier II	4
FAS	150	Master Farrier III	<u>4</u>

**Total Credit Hours** **12**

## Financial Services

### Certificate

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 060
- REA 090

The financial services certificate program is designed for students who want to pursue a career in financial planning, credit management, or insurance.

Nine (9) hours of cooperative work experience/internship are required. Cooperative work experience/internship will be conducted with a variety of local businesses on an arranged basis. For this program of study, students should provide a resume to the program coordinator upon

declaring this emphasis area and must realize that in their second year of study, they will be required to work at an assigned, approved training location.

Students can complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

For the Associate of Applied Science Degree, see Business Administration – Financial Services – located on page 59 of this catalog.

BUS	181	Internship	1 - 6
BUS	182	Internship	1 - 6
BUS	281	Internship	1 - 6
FIN	201	Principles of Finance	3
MAN	125	Team Building	1
MAR	160	Customer Service	3
MAR	216	Principles of Marketing	3
MEP	101	Risk Management	<u>1</u>

**Total Credit Hours** **14-29**

## Fire Science Technology

### Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 090
- MAT 030
- REA 090

This program is designed to prepare individuals who have little or no experience with the firefighting profession for entry-level positions in the fire service industry. This program is also designed to allow experienced firefighters to receive awarded credits for knowledge gained through experience and training through the Fire Science Credit for Prior Learning Program, after which their learning can be expanded by successfully completing additional courses to complete the degree.

A plan for the entry into and completion of the fire science technology degree should be discussed with the Fire Science Faculty advisors. This advising is needed to provide thorough information on the requirements of the degree program as well as to align the courses of the degree 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.

The Fire Science Technology AAS degree requires 69 credits for completion. Fifteen credits are in general education, 15 credits are in technical electives, and 39 credits are in required technical courses.

### General Education Courses

CIS	115	Introduction to Computer Information Systems	3
		or	
CIS	118	Introduction to PC Applications	(3)
ENG	121	English Composition I	3
		and	
ENG	122	English Composition II	3
		or	
ENG	131	Technical Writing I	(3)
		and	
SPE	225	Introduction to Organizational Communication	(3)
MAT	107	Career Math or higher level math	3
POS	111	American Government	3
		or	
POS	125	American State and Local Government	(3)
			<u>15</u>

## Technical Courses

FST 102	Introduction to Fire Science/Suppression	3
FST 103	Firefighter Occupational Health and Safety	3
FST 104	Fire Protection Systems	3
FST 105	Building Plans and Construction	3
FST 106	Fire Inspection Practices	3
FST 107	Hazardous Materials Operations Level I	3
FST 201	Instructional Methodology	3
FST 202	Fire Fighting Strategy and Tactics	3
FST 203	Fire Science Hydraulics	3
FST 204	Fire Codes and Ordinances	3
FST 205	Fire Cause Determination	3
FST 206	Fire Company Supervision and Leadership	3
FST 250	Chemistry for Fire Protection	3
		<u>39</u>

## Technical Elective Courses

Choose 15 hours from the following courses

EMS 125	EMT – Basic	8
FST 100	Firefighter I	9
FST 101	Firefighter II	3
FST 150	Introduction to Fire Prevention Education	3
FST 151	Driver/Operator	4
FST 207	Fire Fighting Strategy and Tactics II	3
FST 252	Fire Arson Investigation	3
FST 253	Fire Ground Organization and Command	3
FST 254	Hazardous Materials Technician Level	3
FST 255	Fire Service Management	3
FST 256	Fire Service EMS Management	3
FST 257	Fire Department Administration	3
FST 259	Wildland Firefighting Strategy and Tactics	3
FST 160	Candidate Physical Abilities Preparation Class	3
FST 110	Job Placement and Assessment	3
		<u>15</u>

Other FST technical courses may be substituted under technical electives.

**Total Credit Hours 69**

## Certificate

### Basic Firefighter

EMS 125	Emergency Medical Tech. (Basic)	9
FST 100	Firefighter I	9
FST 107	Hazardous Material Operations	3
		<u>3</u>

**Total Credit Hours 21**

## Foreign Language

### Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- REA 090

PPCC's foreign language programs are built around the standards put forth by the American Council on the Teaching of Foreign Languages (ACTFL). The goals of those standards are that students communicate with others in the language they are studying, both in and outside the classroom; that they learn about and experience the cultures of other languages; that they make connections between the language they are learning and other disciplines; that they make comparisons between their native language and culture and the language and culture they are learning; and that they become active in communities of speakers of the language they are learning. Foreign language study is compatible with study in all other disciplines, especially law enforcement, health professions, education, social and behavioral sciences, business, journalism, and art history.

Students who have studied French, German, or Spanish in high school or who have lived in a country where one of those languages is spoken should take a placement test before enrolling in a course in that language. All native speakers of a language other than English must have permission of a full-time foreign language faculty member before enrolling in a course in their native language.

Students considering a major in a foreign 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.

## Recommended Track

### I. Communications

Nine (9) credit hours

See page 43 for complete list of required courses.

### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for complete list of required courses.

### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

### VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

### VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

### VIII. Electives

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

FOL 111	Foreign Language I*	5
FOL 112	Foreign Language II*	5
FOL 211	Foreign Language III*	3
FOL 212	Foreign Language IV*	3

## Total Credit Hours

**60**

\*FOL is a standard course prefix. Each specific foreign language has its own prefix, for example, SPA = Spanish.

# Geography

## Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- MAT 090
- REA 090

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.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 43 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for complete list of required courses.

#### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

MAT 135 Introduction to Statistics 3

#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

#### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

GEY 111 Physical Geology 4  
GEY 121 Historical Geology 4

#### VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

#### VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

#### VIII. Electives

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

ANT 111 Physical Anthropology 3  
GEO 106 Human Geography 3  
GEO 111 Physical Geography - Landforms 4  
GEO 112 Physical Geography - Weather and Climate 4  
Science Elective 2

**Total Credit Hours 60**

# Geology

## Associate of Science Degree

Recommended basic skills standards are

- ENG 060
- MAT 090
- REA 090

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.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 44 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours

See page 44 for complete list of required courses.

#### III. Mathematics

Four (4) credit hours minimum (credit hours over four [4] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

MAT 125 Survey of Calculus 4

#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select one (1) HIS course and two (2) courses out of two (2) categories listed on page 44.

See page 44 for complete list of required courses.

#### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

GEY 111 Physical Geology 4  
GEY 121 Historical Geology 4

#### VI. Computer Communication

Three (3) credits

See page 44 for complete list of required courses and options to meet this requirement.

Suggested Courses

CSC 120 Visual Basic Programming 3



## VII. Electives

Eighteen (18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

CHE 111	General College Chemistry I w/ Lab	5
CHE 112	General College Chemistry II w/ Lab	5
GEO 111	Physical Geography - Landforms	4
GEO 112	Physical Geography-Weather and Climate	4

**Total Credit Hours** 60

## History

### Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- REA 090

History is collecting and analyzing the record of what past life was like, why events occurred, and how those events led to later and present circumstances. Historians may specialize in particular time periods; communities, states, countries, or regions; aspects of life such as society, politics, economics, the military, diplomacy, science, and culture; or groups in society such as farmers and workers, women and families, or racial and ethnic minorities. Careers for historians include teaching, research, and writing; law, politics, and government; and applied or public history such as historical editing and publishing, interpreting in museums and management at historic sites, archival records collection analysis, and historical consulting for public and private agencies. Without understanding our past, how can we hope to comprehend the present, let alone the future?

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 43 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for complete list of required courses.

#### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

MAT 120	Mathematics for the Liberal Arts	4
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#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

#### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

Suggested Courses

AST 101	Astronomy I	4
AST 102	Astronomy II	4
GEY 111	Physical Geology	4
GEY 121	Historical Geology	4

#### VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

## VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

## VIII. Electives

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

GEO 105	World Regional Geography	3
HIS 101	History of Western Civilization I	3
HIS 102	History of Western Civilization II	3
HIS 201	United States (U.S.) History I	3
HIS 202	United States (U.S.) History II	3
HIS 206	U.S. Family History and Genealogy	3
HIS 207	American Environmental History	3
HIS 208	Native American Experience	3
HIS 209	History of the American Southwest	3
HIS 215	Women in U.S. History	3
HIS 225	Colorado History	3
HIS 235	History of the American West	3
HIS 236	Contemporary U.S. History	3
HIS 241	History of the Pikes Peak Region	3
HIS 247	Contemporary World History	3
HIS 249	History of Islamic Civilization	3
HUM 121	Survey of Humanities I	3
HUM 122	Survey of Humanities II	3
HUM 123	Survey of Humanities III	3

Also especially recommended are any electives in ANT, GEO, LIT, PHI, POS, or SOC

**Total Credit Hours** 60

## Humanities

### Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- MAT 030
- REA 090

Humanities is the study of human beings through their creations. Students study paintings, sculpture, architecture, music, literature, and philosophy to discover the nature of humankind and the values held by those living during a particular historical period. Students learn to look at the concerns of other cultures and to reassess their own values. Humanities majors 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, and ethnic American groups.

Students not meeting a course prerequisite must have instructor permission to enroll.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 43 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for complete list of required courses.

Required Courses

#### Category 2 (GT-AH2)

HUM 122	Survey of Humanities II	3
HUM 123	Survey of Humanities III	3

#### Category 3 (GT-AH3)

PHI 111	Introduction to Philosophy	3
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### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

MAT 120	Mathematics for the Liberal Arts	4
MAT 121	College Algebra	4
MAT 135	Introduction to Statistics	3

### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

### VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

Suggested Courses

ART 121	Drawing I	3
DAN 111	Modern Dance I	1
DAN 121	Jazz I	1
DAN 125	History of Dance I	3
DAN 131	Ballet I	1
DAN 151	Belly Dance	1
DAN 224	Dance for Musical Theatre I	3
PHO 101	Photography I	3
THE 111	Acting I	3

### VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

### VIII. Electives

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

ANT 101	Cultural Anthropology	3
DAN 111	Modern Dance I	1
DAN 125	History of Dance I	3
DAN 131	Ballet I	1
HUM 121	Survey of Humanities I	3
HUM 131	Arts and Cultures of Mexico	3
HUM 236	North American Indian Arts	3
HUM 238	Sacred Images, Sacred Places: Southwestern U. S.	3
LIT 115	Introduction to Literature	3
LIT 201	Masterpieces of Literature I	3
LIT 205	Ethnic Literature	3
PED 143	Tai Chi Chuan	1
PED 147	Yoga I	1

### Total Credit Hours

60

## Integrated Circuit Fabrication

### Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 109
- REA 090

The integrated circuit fabrication program in microelectronics technologies is designed to prepare graduates for immediate employment in the technician workforce of high-tech manufacturing companies. This degree program emphasizes transportable skills for individuals desiring to work at the technician level and above within the semiconductor, microfabrication and other high-tech industries.

Scheduling is flexible and allows students to take classes at a pace that suits their circumstances. The program can be completed in two years or extended to longer periods to accommodate individual course load preferences. In some cases, it is possible to complete the program in less than two years. Classes meet either early week or late week to allow employees working compressed week shifts to work on their education when they are off shift. Some courses are offered online via the Internet.

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

CHE 101	Intro to College Chemistry I w/Lab	5
ENG 131	Technical Writing I	3
MAN 116	Principles of Supervision	3
	or	
SPE 219	Group Dynamics	(3)
MAT 135	Introduction to Statistics	3
PHY 101	Basic Physics	4
		<u>18</u>

#### Courses required for all emphasis areas

ELT 106	Fundamentals of DC/AC	3
ELT 112	Advanced DC/AC	3
ELT 134	Solid State Devices I	3
ELT 135	Solid State Devices II	3
ELT 147	Digital Devices I	3
ICF 101	Microelectronics Fabrication	3
ICF 104	Vacuum Systems	4
ICF 108	Introduction to Control Systems	5
ICF 214	RF Energy and Process	3
ICF 218	Automated Process Control Systems	4
ICF 219	Automated Process Control Systems – Lab	4
		<u>38</u>

#### Process Emphasis

Courses required for all emphasis areas	38
General education courses	18
ICF 215 Semiconductor Manufacturing Technology	5

**Total Hours for Process Degree Emphasis 61**

#### Process Equipment Emphasis

Courses required for all emphasis areas	38
General education courses	18
ICF 205 Advanced Equipment Maintenance and Troubleshooting	5

**Total Hours for Process Equipment Emphasis 61**

## Certificates

### Operator

ENG 131	Technical Writing I	3
ICF 101	Microelectronics Fabrication	3
MAN 116	Principles of Supervision	3
or		
SPE 219	Group Dynamics	(3)

**Total Credit Hours** **9**

### Advanced Operator (Technical)

CHE 101	Intro to College Chemistry I w/Lab	5
ELT 106	Fundamentals of DC/AC	3
ELT 112	Advanced DC/AC	3
ENG 131	Technical Writing I	3
ICF 101	Microelectronics Fabrication	3
ICF 104	Vacuum Systems	4
MAT 135	Introduction to Statistics	3
PHY 101	Basic Physics	4
SPE 219	Group Dynamics	3
or		
MAN 116	Principles of Supervision	(3)

**Total Credit Hours** **31**

All courses in the integrated circuit fabrication technology degree program are newly designed courses. The curriculum was designed in collaboration with business, industry, and PPCC. The course content and program prerequisites reflect semiconductor company requirements.

## Interior Design

### Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 090
- MAT 060
- REA 090

The interior design program provides students an opportunity to develop an understanding of the principles and elements of design and to study technical and visual interior elements as well as professional business practices related to the multi-faceted design industry. Students have the opportunity for more in-depth study of residential or commercial design through studio classes. The educational experience is enhanced with an internship.

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

ART 110	Art Appreciation	3
ENG 131	Technical Writing I	3
SPE 115	Public Speaking	3
General Education Electives from approved list on pp. 47		<u>6</u>
		15

#### Other Course Requirements

ARC 101	Architecture Drawing I	5
ARC 104	Architecture Drawing Theory	4
ARC 117	Presentation Drawing	3
CAD 101	Computer Aided Drafting I	3
IND 105	Introduction to Interior Design	3
IND 107	History of Interior Design	3
IND 110	Interior Design I - Overview and Application	3
IND 116	Estimating Interior Materials	3
IND 117	Interior Textiles	2
IND 120	Interior Design II - Space Planning and Human Factors	4

IND 178	Seminar	3
IND 205	Professional Practice for Interior Designers	2
IND 207	Window Treatments	2
IND 220	Interior Design III - Materials, Details, Codes and Specs	4
IND 250	Studio I – Residential Design	3
or		
IND 260	Studio I – Commercial Design	(3)
IND 251	Studio II – Residential	4
or		
IND 261	Studio II – Commercial Design	(4)
IND 265	Interior Design IV - Special Applications	3
IND 280	Internship	3
MAR 111	Principles of Sales	<u>3</u>
		60

**Total Credit Hours** **75**

## International Business

### Certificate

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 060
- REA 090

This certificate program is intended for students already working for a business entity or those who have the basic business education background and would like to become familiar with operating businesses in the international environment.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

For Associate of Applied Science degree, see Business Administration - International Business located on page 59 of this catalog.

BUS 181	Internship	1-6
MAR 240	International Marketing	3
PHI 114	Comparative Religions	3
POS 205	International Relations	<u>3</u>
		10-15

#### Choose one foreign language course from the following

FRE 111	French Language I	5
GER 111	German Language I	5
ITA 111	Italian Language I	5
JPN 111	Japanese Language I	5
RUS 111	Russian Language I	5
SPA 111	Spanish Language I	<u>5</u>
		5

**Total Credit Hours** **15-20**

# Interpreter Preparation

## Associate of Applied Science Degree

This program prepares students for entry-level employment as either interpreters or transliterators or both for deaf and hard of hearing individuals.

Students must apply for admission to the interpreter preparation program. In order to be accepted into the program, students must demonstrate proficiency in American Sign Language. This may be accomplished by passing a proficiency test or by completing ASL 121 with a C grade or better and ASL 122 with a B grade or better. Contact the Interpreter Preparation Office for more details about applying.

Students must earn a B or better in ASL skills classes to advance to the next level. To enroll in internship (IPP 281) students must have a B average with no more than one C grade in IPP 225, IPP 227, IPP 229, or ASL 222.

Program prerequisite: ENG 090, REA 090, MAT 030 or placement scores of ENG 121, REA 090, and MAT 060 or higher.

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

ENG 121	English Composition I	3
MAT 107	Career Math (or higher)	3
SPE 115	Public Speaking	3
		<u>9</u>

ASL 123	American Sign Language III	5
ASL 215	ASL Literature	3
ASL 221	American Sign Language IV	3
ASL 222	American Sign Language V	3
IPP 121	Aspects of Interpreting I	3
IPP 122	Aspects of Interpreting II	3
IPP 125	Oral Transliterating	2
IPP 131	Text Analysis	3
IPP 132	Interpretation Analysis	3
IPP 145	Deaf People in Society	2
IPP 147	Survey of Deaf Culture	3
IPP 205	Educational Interpreting	4
IPP 207	Specialized and Technical Communication	2
IPP 225	English to ASL Interpreting	3
IPP 227	ASL to English Interpreting	3
IPP 229	Transliterating	3
IPP 235	Advanced Interpreting	4
IPP 279	Interpreter Seminar	3
IPP 281	Internship	5
		<u>60</u>

### Electives

ANT 101	Cultural Anthropology	3
	General Education elective. Choose from the AAS electives list on page 47	3
		<u>6</u>

**Total Credit Hours 75**

# Journalism

## Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- REA 090

From the early days of our nation, the Founding Fathers realized the importance of a free press. Through the Civil Rights Movement and our present Information Age, journalism has played a vital role in our nation's well-being. Journalists witness and record our lives. Journalism also makes a great partner for those pursuing other careers. It is learning how to write and then developing an expertise in a cognate area, such as business, science, law, the performing arts, literature, and the social and behavioral sciences.

Many of our authors, including Ernest Hemingway, Tom Clancy, Erma Bombeck, Edna Buchanan, Dave Barry, Mary Brody, Katherine Anne Porter and Stephen King, began their careers as reporters. Photojournalists, as well as reporters, have served as historians by recording messages and providing images for future generations.

Students have access to a black-and-white photo lab, as well as a Journalism-Tech Writing lab using digital photography with a PC format. Students can learn how to retrieve information; develop, print and edit photos; conduct computer-assisted reporting; edit copy; interview; design and lay out news pages on a computer; and produce newsletters. They also learn to write news releases, features, newspaper and magazine articles, advertisements, and headlines. Along with these skills, journalism students are encouraged to gain a general education background and start a portfolio by working for the school newspaper, *The Pikes Peak News*. After completing the journalism program at PPCC, students transferring to four-year colleges may obtain editorial positions with college newspapers.

Students enrolled in the PPCC journalism program can earn an associate of arts degree and choose from four emphasis areas: advertising/public relations, news/editorial, newsletter and multimedia.

### Recommended Track

#### I. Communications

Nine (9) credit hours  
See page 43 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.  
See page 43 for complete list of required courses.

#### Required Courses

##### Category 1 (GT-AH1)

ART 111	Art History I	3
ART 112	Art History II	3
MUS 120	Music Appreciation	3
MUS 121	Music History I	3
MUS 122	Music History II	3
THE 105	Introduction to Theatre Arts	3

##### Category 2 (GT-AH2)

HUM 121	Survey of Humanities I	3
HUM 122	Survey of Humanities II	3
HUM 123	Survey of Humanities III	3
LIT 115	Introduction to Literature	3
LIT 201	Masterpieces of Literature I	3
LIT 202	Masterpieces of Literature II	3

##### Category 3 (GT-AH3)

PHI 111	Introduction to Philosophy	3
PHI 113	Ethics	3

### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

MAT 120	Mathematics for the Liberal Arts	4
MAT 135	Introduction to Statistics	3

### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

#### Category 1 (GT-SS1)

ECO 201	Principles of Macroeconomics	3
ECO 202	Principles of Microeconomics	3
POS 105	Introduction to Political Science	3
POS 111	American Government	3

#### Category 2 (GT-SS2)

GEO 105	World Regional Geography	3
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#### Category 3 (GT-SS3)

SOC 102	Introduction to Sociology I	3
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#### Category 4 (GT-HI1)

HIS 101	History of Western Civilization I	3
HIS 102	History of Western Civilization II	3
HIS 201	United States (U.S.) History I	3
HIS 202	United States (U.S.) History II	3

### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

AST 101	Astronomy I	4
AST 102	Astronomy II	4
BIO 105	Science of Biology	4
BIO 111	General College Biology I w/Lab	5
CHE 101	Introduction to Chemistry I	5
CHE 111	General College Chemistry I	5
CHE 112	General College Chemistry II	5
GEY 111	Physical Geology	4
GEY 121	Historical Geology	4
PHY 111	Physics-Algebra Based I w/Lab	5
PHY 211	Physics-Algebra Based II w/Lab	5

### VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

Suggested Courses

ENG 221	Creative Writing I	3
ENG 222	Creative Writing II	3
ENG 226	Fiction Writing	3
ENG 230	Creative Nonfiction	3
JOU 121	Photojournalism	3
JOU 206	Intermediate Newswriting and Editing	3
JOU 215	Publications Production and Design	3
JOU 222	Newspaper Design II	3
JOU 231	Introduction to Public Relations	4
JOU 241	Magazine Article Writing	3
PHO 205	Digital Photography I	3
SPE 125	Interpersonal Communication	3
SPE 220	Intercultural Communication	3
SPE 225	Organizational Communication	3

### VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

### VIII. Electives

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

GEO 105	World Regional Geography	3
HUM 121	Survey of Humanities I	3
HUM 122	Survey of Humanities II	3
HUM 123	Survey of Humanities III	3
JOU 102	Introduction to Editing	3
JOU 105	Introduction to Mass Media	3
JOU 106	Fundamentals of Reporting	3
JOU 109	Introduction to Desktop Publishing	3
JOU 111	Principles of Advertising	3
JOU 221	Newspaper Design I	3

### Total Credit Hours

60

## Landscape Technician

### Associate of Applied Science Degree

The landscape technician program will address the main categories of study to develop awareness and understanding of landscape projects. It is the intent of this program to prepare students for an entry-level position in the multi-faceted industry of landscaping.

There will be a common core curriculum for all landscape technology majors pursuing an Associate of Applied Science (AAS) degree. The core courses will provide a solid platform on which to build an AAS degree in landscape technology. New students are encouraged to meet with a landscape technology faculty advisor before first semester registration.

Students may complete deficiencies concurrently with the beginning courses in the option. Students not meeting a course prerequisite must have instructor permission to enroll.

#### General Education Courses

BIO 154	Plant Biology	4
CIS 118	Introduction to PC Applications	3
ENG 131	Technical Writing I	3
MAT 108	Technical Mathematics	4
SPE 225	Organizational Communication	3
		<u>17</u>

#### Other Course Requirements

AGY 240	Introductory Soil Science	4
HLT 106	Green Industry Equipment	2
HLT 125	Landscape Drafting and Design	3
HLT 203	Plant Disease and Pest Field Study	2
HLT 208	Commercial Pesticide License Training	3
HLT 210	Landscape Management	3
HLT 221	Woody Landscape Plants I	3
HLT 224	Herbaceous Perennials	4
HLT 235	Principles of Grading and Drainage	3
HLT 236	Landscape Construction	4
HLT 242	Turf grass Management	3
HLT 245	Green Industry Business Operations	3
HLT 250	Landscape Irrigation Design	3
HLT 264	Arboriculture	3
HLT 280	Internship	4
		<u>47</u>



**Approved Electives – Choose 3 credit hours below**

BIO 149	Plant Taxonomy	4
CAD 101	Computer Aided Drafting I	3
HLT 120	Principles of Xeriscape	3
HLT 140	Landscape Design and Planning	4
HLT 231	Introduction to LANDCADD TM	2
HLT 237	Landscape Construction Bidding and Estimating	2
HLT 251	Landscape Irrigation Field Practices	3
HLT 260	Plant Propagation	4
NRE 100	Foundations of Forestry	4
NRE 204	Range Management and Restoration	4
		<hr/>
		3

**Total Credit Hours**

**67**

**Literature**

**Associate of Arts Degree**

Recommended basic skills standards are

- ENG 090
- REA 090

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.

**Recommended Track**

**I. Communications**

Nine (9) credit hours

See page 43 for complete list of required courses.

**II. Art and Humanities**

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

**Category 2 (GT-AH2)**

LIT 201	Masterpieces of Literature I	3
LIT 202	Masterpieces of Literature II	3

**Category 3 (GT-AH3)**

PHI 111	Introduction to Philosophy	3
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**III. Mathematics**

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

MAT 120	Mathematics for the Liberal Arts	4
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**IV. Social and Behavioral Sciences**

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

**Category 1 (GT-S1)**

POS 111	American Government	3
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**Category 2 (GT-SS2)**

GEO 105	World Geography	3
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**Category 3 (GT-SS3)**

ANT 101	Cultural Anthropology	3
PSY 101	General Psychology I	3

**Category 4 (GT-H1)**

HIS 101	History of Western Civilization I	3
HIS 102	History of Western Civilization II	3
HIS 201	United States (U.S.) History I	3
HIS 202	United States (U.S.) History II	3

**V. Physical and Life Sciences**

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

**VI. Communication Studies/Fine Arts**

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

**VII. Computer Communication**

Three (3) credits

See page 43 for options to meet this requirement.

**VIII. Electives**

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

HUM 115	World Mythology	3
HUM 121	Survey of Humanities I	3
HUM 122	Survey of Humanities II	3
HUM 123	Survey of Humanities III	3
LIT 115	Introduction to Literature	3
LIT 125	Study of the Short Story	3
LIT 205	Ethnic Literature	1
LIT 211	Survey of American Literature I	3
LIT 212	Survey of American Literature II	3
LIT 221	Survey of British Literature I	3
LIT 222	Survey of British Literature II	3
LIT 246	Literature of Women	3
LIT 248	Native American Literature	3

**Total Credit Hours**

**60**

**Machining Technology**

**Associate of Applied Science Degree**

Recommended basic skills standards are

- AAA 090
- ENG 090
- MAT 060
- REA 090

The majority of the machining classes are offered on an open-entry, open exit, self-paced basis. Classes in this program include both theoretical and laboratory experiences. Students learn to operate standard machine tools as well as advanced, more sophisticated computer-controlled machines. An AAS degree may be earned, or students may choose from seven certificate options. Upgrading by local machinists is another option.

Students may complete deficiencies concurrently with the beginning courses in the program. Students must arrange with advisors to remedy deficiencies in program requirements. Courses marked with \* are not offered on an open-entry, self-paced basis.

**General Education Courses**

CIS 115	Introduction to Computer Information Systems	3
*ENG 121	English Composition I	3
	or	
*SPE 125	Interpersonal Communication	(3)
*MAT 107	Career Math	3
*MAT 175	Selected Topic: Technical Trigonometry	3

*PSY 215	Psychology of Adjustment	3
or		
*SPE 219	Group Dynamics	(3)
		15
ACT 111	Metal Welding and Cutting I	3
or		
CAD 101	Computer Aided Drafting I	(3)
MAC 101	Introduction to Machine Shop	3
MAC 102	Blueprint Reading	3
MAC 110	Introduction to Engine Lathe	3
MAC 111	Intermediate Engine Lathe	3
MAC 112	Advanced Engine Lathe	3
MAC 120	Introduction to Milling Machine	3
MAC 121	Intermediate Milling Machine	3
MAC 122	Advanced Milling Machine Operations	3
*MAC 201	Introduction to CNC Turning Operations I	3
MAC 202	CNC Turning Operations II	3
MAC 205	Introduction To CNC Milling Operations	3
MAC 206	CNC Milling Operations II	3
*MAC 207	CNC Milling Lab	3
MAC 240	CAD/CAM 2D	3
MAC 241	CAD CAM 2D Lab	3
MAC 245	CADCAM 3D	3
MAC 246	CADCAM 3D Lab	3
MAC 252	Practical Metallurgy	3
MAC 275	Selected Topic: CNC Turning Operations II Lab	3

**Total Credit Hours**

75

**Certificates**

Courses required for all certificates		
MAC 101	Introduction to Machine Shop	3
MAC 102	Blueprint Reading	3
		6

**CADCAM 2D**

MAC 240	CAD/CAM 2D	3
MAC 241	CAD CAM 2D Lab	3
Courses required for all certificates		6

**Total Credit Hours**

12

**CADCAM 3D**

MAC 245	CADCAM 3D	3
MAC 246	CADCAM 3D Lab	3
Courses required for all certificates		6

**Total Credit Hours**

12

**CNC Lathe**

MAC 201	Introduction to CNC Turning Operations	3
MAC 202	CNC Turning Operations II	3
MAC 275	Selected Topic: CNC Turning Operations II Lab3	3
Courses required for all certificates		6

**Total Credit Hours**

15

**CNC Mill**

MAC 205	Introduction To CNC Milling Operations	3
MAC 206	CNC Milling Operations II	3
MAC 207	CNC Milling Lab	3
Courses required for all certificates		6

**Total Credit Hours**

15

**Computer Aided Machining**

MAC 201	Introduction to CNC Turning Operations	3
MAC 202	CNC Turning Operations II	3
MAC 205	Introduction To CNC Milling Operations	3
MAC 206	CNC Milling Operations II	3
MAC 207	CNC Milling Lab*	3

MAC 240	CAD/CAM 2D	3
MAC 241	CAD CAM 2D Lab	3
MAC 245	CADCAM 3D	3
MAC 246	CADCAM 3D Lab	3
Courses required for all certificates		6

**Total Credit Hours**

33

**Lathe Journeyman**

MAC 110	Introduction to Engine Lathe	3
MAC 111	Intermediate Engine Lathe	3
MAC 112	Advanced Engine Lathe	3
MAC 201	Introduction to CNC Turning Operations	3
MAC 202	CNC Turning Operations II	3
MAC 240	CAD/CAM 2D	3
MAC 241	CAD CAM 2D Lab	3
MAC 275	Selected Topic: CNC Turning Operations II Lab	3
Courses required for all certificates		6

**Total Credit Hours**

30

**Milling Journeyman**

MAC 120	Introduction to Milling Machine	3
MAC 121	Intermediate Milling Machine	3
MAC 122	Advanced Milling Machine Operations	3
MAC 205	Introduction To CNC Milling Operations	3
MAC 206	CNC Milling Operations II	3
MAC 207	CNC Milling Lab*	3
MAC 240	CAD/CAM 2D	3
MAC 241	CADCAM 2D Lab	3
Courses required for all certificates		6

**Total Credit Hours**

30

**Management**

**Certificate**

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 060
- REA 090

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.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

For the Associate of Applied Science Degree, see Business Administration – Management located on page 59 of this catalog.

BUS 226	Business Statistics	3
FIN 201	Principles of Finance	3
MAN 117	Time Management	1
MAN 200	Human Resource Management I	3
MAN 226	Principles of Management	3
MAR 216	Principles of Marketing	3
		16

**Management Electives**

Choose 10 hours from the following courses

ACC 122	Principles of Accounting	4
BUS 181	Internship	3
BUS 182	Internship	3
BUS 281	Internship	3
MAN 125	Team Building	1
MAN 216	Small Business Management	3
		10

**Total Credit Hours**

26

# Marketing

## Certificate

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 060
- REA 090

The marketing certificate program is designed to prepare students for entry level and management training positions in advertising, marketing, purchasing, retailing, and sales. Paid cooperative/internships are an integral part of the 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.

For the Associate of Applied Science degree, see Business Administration – Marketing – located on page 59 of this catalog.

BUS 181	Internship	1-6
BUS 182	Internship	1-6
BUS 226	Business Statistics	3
MAN 226	Principles of Management	3
MAR 160	Customer Service	3
MAR 216	Principles of Marketing	3
MAR 220	Principles of Advertising	3
MAR 238	Marketing Applications and Analysis	3
		<u>20-30</u>

### Marketing Electives

Choose 5 hours from the following courses

ACC 122	Accounting Principles II	4
BUS 227	Principles of Purchasing	3
BUS 281	Internship	1-6
MAN 125	Team Building	1
MAN 216	Small Business Management	3
		<u>5</u>

**Total Credit Hours 25-35**

# Mathematics

## Associate of Science Degree

Recommended basic skills standards are

- ENG 090
- MAT 090
- REA 090

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.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 44 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours

See page 44 for complete list of required courses.

#### III. Mathematics

Four (4) credit hours minimum (credit hours over four [4] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

MAT 201	Calculus I	5
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## IV. Social and Behavioral Sciences

Nine (9) credit hours: select one (1) HIS course and two (2) courses out of two (2) categories listed on page 44.

See page 44 for complete list of required courses.

## V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

PHY 211	Physics: Calculus Based I w/Lab	5
PHY 212	Physics: Calculus Based II w/Lab	5

## VI. Computer Communication

Three (3) credits

See page 44 for complete list of required courses and options to meet this requirement.

Suggested Courses

CSC 160	Computer Science I: (Java)	4
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## VII. Electives

Eighteen (18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

MAT 202	Calculus II	5
MAT 203	Calculus III	4
MAT 255	Linear Algebra	3
MAT 215	Discrete Mathematics	4
	or	
MAT 265	Differential Equations	3

**Total Credit Hours 60**

# Medical Office Technology

## Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 090
- REA 090
- MAT 030

The area of medical office technology is designed to prepare individuals to assist with clinical and administrative functions as employees within the health care system of the community. All students become familiar with the health care system, medical terminology, and interpersonal relationships. Four certificate options and one associate of applied science degree option are available within the Medical Office Technology Program. These options are designed to allow students an opportunity to pursue careers compatible with their interest and abilities. A single option or a combination of options may be pursued.

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.

### Medical Assistant

This associate of applied science degree option is designed to prepare individuals to work in both administrative and clinical areas of medical clinics or physicians' offices. 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 may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have permission of coordinator to enroll.

### General Education Courses

CIS 118	Introduction to PC Applications	3
ENG 131	Technical Writing I	3
PSY 101	General Psychology	3
PSY 235	Human Growth and Development	3
SPE 225	Organizational Communication	3
		<u>15</u>

### Other Course Requirements

HWE 103	Community First Aid and CPR	1
MOT 110	Medical Office Administration	4
MOT 120	Medical Office Financial Management	3
MOT 123	Intro to Clinical Physiology	1
MOT 124	Medical Filing	2
MOT 125	Basic Medical Sciences I	3
MOT 130	Insurance Billing and Coding	3
MOT 131	Advanced Insurance Billing and Coding	3
or		
HPR 101	Customer Service in Healthcare	(2)
and		
HPR 115	Phlebotomy, Specimen Collection, Specimen Processing	(3)
HPR 178	Seminar: Medical Terminology	2
HPR 278	Seminar: Advanced Medical Terminology	2
MOT 133	Basic Medical Sciences II	3
MOT 135	Basic Medical Sciences III	3
MOT 136	Introduction to Clinical Skills	2
MOT 138	Medical Assisting Laboratory Skills	4
MOT 140	Medical Assisting Clinical Skills	4
MOT 150	Pharmacology for Medical Assistants	3
MOT 181	Administrative Internship	2
MOT 182	Clinical Internship	3
MOT 189	Review for Medical Assistant National Examination	1
NUA 101	Certified Nurse Aide Health Care Skills	4
NUA 170	Nurse Assistant Clinical Experience	1
		<u>53-54</u>

### Total Credit Hours

68-69

### Certificate

#### Clinical Office Assistant

This certificate option is designed to prepare individuals to work in clinics or physicians' offices as clinical assistants or aides. Students successfully completing this course of study will be able to receive and prepare patients for various laboratory examinations. Successful graduates from this option will also be able to provide physician's assistants with physical examinations, diagnostic tests, and treatment procedures. Credits from this certificate may be transferred to the medical assistant AAS degree program.

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.

CIS 118	Introduction to PC Applications	3
ENG 131	Technical Writing I	3
or		
SPE 225	Organizational Communication	(3)
HPR 178	Seminar: Medical Terminology	2
HPR 278	Seminar: Advanced Medical Terminology	2
HWE 103	Community first Aid/CPR	1
MOT 110	Medical Office Administration	4
MOT 123	Intro to Clinical Physiology	1
MOT 125	Basic Medical Sciences I	3
MOT 133	Basic Medical Sciences II	3
MOT 135	Basic Medical Sciences III	3
MOT 136	Introduction to Clinical Skills	2
MOT 138	Medical Assisting Laboratory Skills	4
MOT 140	Medical Assisting Clinical Skills	4
MOT 150	Pharmacology for Medical Assistants	3

MOT 182	Clinical Internship	3
NUA 101	Certified Nurse Aide Health Care Skills	4
NUA 170	Nurse Assistant Clinical Experience	<u>1</u>

### Total Credit Hours

46

### Medical Coding Specialist

CIS 118	Introduction to PC Applications	3
HPR 178	Seminar: Medical Terminology	2
HPR 278	Seminar: Advanced Medical Terminology	2
MOT 123	Intro to Clinical Physiology	1
MOT 125	Basic Medical Sciences I	3
MOT 130	Insurance Billing and Coding	3
MOT 131	Advanced Insurance Billing and Coding	3
MOT 133	Basic Medical Sciences II	3
MOT 135	Basic Medical Sciences III	<u>3</u>

### Total Credit Hours

23

### Medical Transcriptionist

Recommended basic skills standards are

- AAA 090
- ENG 090
- REA 090
- MAT 030

The medical transcription certificate is designed to prepare students for entry-level employment as medical transcriptionists by providing the basic knowledge, understanding, and skills required to transcribe medical dictation with accuracy, clarity, and timeliness, applying the principles of professional and ethical conduct.

Students must also have demonstrated proficiency with a keyboarding speed at a minimum of 40 words per minute.

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.

BTE 166	Business Language Skills	3
CIS 118	Introduction to PC Applications	3
HPR 178	Seminar: Medical Terminology	2
HPR 278	Seminar: Advanced Medical Terminology	2
MOT 123	Intro to Clinical Physiology	1
MOT 125	Basic Medical Sciences I	3
MOT 132	Medical Transcription	4
MOT 133	Basic Medical Sciences II	3
MOT 135	Basic Medical Sciences III	3
MOT 142	Medical Transcription II	4
MOT 180	Medical Transcription Internship	<u>3</u>

### Total Credit Hours

31

### Medical Receptionist

This certificate option 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, process mail, and type and transcribe miscellaneous medical reports. Students will gain exposure to both computerized and manual systems to organize a medical office. Credits from this program may be transferred to the Medical Transcriptionist certificate program or 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.



CIS 118	Introduction to PC Applications	3
ENG 131	Technical Writing I	3
	or	
SPE 225	Organizational Communication	(3)
HPR 178	Seminar: Medical Terminology	2
HPR 278	Seminar: Advanced Medical Terminology	2
HWE 103	Community First Aid/CPR	1
MOT 110	Medical Office Administration	3
MOT 120	Medical Office Financial Management	3
MOT 124	Medical Filing	2
MOT 130	Insurance Billing and Coding	3
MOT 131	Advanced Insurance Billing and Coding	3
MOT 136	Introduction to Clinical Skills	2
MOT 181	Administrative Internship	2
NUA 101	Certified Nurse Aide Health Care Skills	4
NUA 170	Nurse Assistant Clinical Experience	1

**Total Credit Hours 34**

### Phlebotomy

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 also learn customer service and communication skills necessary to work with patients. Career options are covered, and students will be prepared for a career in phlebotomy. Upon completion of the required courses, students will receive a certificate of phlebotomy from PPCC and will qualify to take the National Certification Board Exam for Certificate Phlebotomy Technician (CPT). This certificate can be completed within one year if coursework is completed as advised.

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.

HPR 101	Customer Service in Healthcare	2
HPR 113	Advanced Phlebotomy	4
HPR 115	Phlebotomy, Specimen Collection, Specimen Processing	3
HPR 178	Seminar: Medical Terminology	2
HPR 278	Seminar: Advanced Medical Terminology	2

**Total Credit Hours 13**

### Professional Household Health Assistant\*

HWE 103	Community First Aid and CPR	1
MOT 100	Professional Household Health Assistant	5

**Total Credit Hours 6**

\*Pending State Approval

## Multimedia Graphic Design

### Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 090
- MAT 030
- REA 090

This program prepares the students for entry-level work in some of the following creative and exciting career areas: graphic design, special effects, photo enhancement, digital illustration, interactive media digital video production, web design, animation, and production layout. The program provides substantial emphasis in one of three communication options: Design, Illustration, and Multimedia. Skill development is refined in each of these specialties. 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 102). 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) 540-7367 for design and illustration options or (719) 540-7387 for the multimedia option.

Students can access detailed descriptions of each program course under the MGD prefix listing at the back of this catalog.

#### General Education Courses for all emphasis areas

ART 111	Art History I	3
ENG 121	English Composition I	3
	or	
ENG 131	Technical Writing I	(3)
MAT 107	Career Math	3
	or	
MAT 112	Financial Math	(3)
PHO 101	Photography I	3
Choose 3 hours of General Education electives from list on p. 47		3
		15

#### Required courses for all emphasis areas

MGD 102	Introduction to Multimedia	3
MGD 109	Design and Color	3
MGD 111	Adobe Photoshop I	3
MGD 112	Adobe Illustrator I	3
MGD 113	QuarkXPress	3
MGD 116	Typography I	3
MGD 280	Internship	2
		20

#### Design Emphasis

MGD 105	Typography and Layout	3
MGD 132	Graphic Design II	3
MGD 202	Point of Purchase Packaging Design	3
Approved MGD electives (see list)		16
		25

**Total Hours for Design Degree Emphasis 60**

#### Illustration Emphasis

MGD 132	Graphic Design II	3
MGD 134	Drawing for Illustrators	3
MGD 211	Photoshop II	3
MGD 215	Painting for Illustrators	3
Approved MGD electives (see list)		13
		25

**Total Hours for Illustration Degree Emphasis 60**



## Multimedia Emphasis

MGD 141	Web Design I	3
MGD 143	Web Motion Graphic Design I	3
MGD 161	Director I	3
MGD 164	Digital Video Editing I	3
MGD 165	After Effects I	3
MGD 211	Adobe Photoshop II	3
MGD 221	Computer Graphics I	3
MGD 222	Computer Graphics II	3
MGD 261	Director II	3
MGD 266	DVD Authoring	3
CAD 217	3D Studio VIZ	3
or		
RTV 108	Principles of Audio	(3)

**Total Hours for Multimedia Degree Emphasis** **68**

### MGD Electives

Any MGD course not required in the selected option may be used as long as the prerequisites are met. Please see advisor for guidance on selection of electives.

MGD 101	Introduction to Computer Graphics	3
MGD 102	Introduction to Multimedia	3
MGD 105	Typography and Layout	3
MGD 106	Creativity and Visual Thinking	3
MGD 107	History of Design	2
MGD 108	History of Illustration	2
MGD 109	Design and Color	3
MGD 111	Adobe Photoshop I	3
MGD 112	Adobe Illustrator I	3
MGD 113	Quark XPress	3
MGD 114	Adobe InDesign	3
MGD 116	Typography I	3
MGD 132	Design and Color II	3
MGD 134	Drawing for Illustrators	3
MGD 141	Web Design I	3
MGD 143	Web Motion Graphic Design I	3
MGD 161	Director I	3
MGD 164	Digital Video Editing I	3
MGD 165	After Effects I	3
MGD 180	Internship	1-6
MGD 201	Children's Book Illustration	3
MGD 202	Point of Purchase Packaging Design	3
MGD 207	Illustration I	3
MGD 208	Illustration II	3
MGD 209	Illustration III	3
MGD 211	Adobe Photoshop II	3
MGD 212	Adobe Illustrator II	3
MGD 215	Painting for Illustrators	3
MGD 221	Computer Graphics I	3
MGD 222	Computer Graphics II	3
MGD 241	Web Design II	3
MGD 243	Web Motion Graphic Design II	3
MGD 258	Web Design Production	3
MGD 259	Management and Production	3
MGD 261	Director II	3
MGD 264	Digital Video Editing II	3
MGD 265	After Effects II	3
MGD 266	DVD Authoring	3
MGD 268	Commercial Art Business	2

## Certificates

### Video Editing and Movie Making

MGD 111	Adobe Photoshop I	3
MGD 163	Sound Design I	3
MGD 164	Digital Video Editing I	3
MGD 165	After Effects I	3
RTV 208	Basic Video Production	3
RTV 218	Advanced Video Production	3

**Total Credit Hours** **18**

### Web

MGD 111	Adobe Photoshop I	3
MGD 141	Web Design I	3
MGD 143	Web Motion Graphic Design I	3

**Total Credit Hours** **9**

### Digital Illustration

MGD 111	Adobe Photoshop I	3
MGD 112	Adobe Illustrator I	3

**Total Credit Hours** **6**

### Digital Image

MGD 111	Adobe Photoshop I	3
MGD 211	Adobe Photoshop II	3

**Total Credit Hours** **6**

### 2-D Animation

MGD 143	Web Motion Graphic Design I	3
MGD 165	After Effects I	3

**Total Credit Hours** **6**

### Interactive Media

MGD 102	Introduction to Multimedia	3
MGD 161	Director I	3

**Total Credit Hours** **6**

## Music

### Associate of Arts Degree

Recommended basic skills are:

- ENG 090
- MAT 030
- REA 090

Music, as all of the arts, is an expression and transcendence of the human experience. Music courses serve as an introduction into the examination of sound as a vibrant art form as well as to provide training in performance and composition. The Music Department's offerings of humanities and performance classes are open to all students beginning through advanced. Consultation with the program director is recommended for course placement while consultation with the program director is required for applied music study.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 43 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for complete list of required courses.

### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

### VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

### VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

### VIII. Electives

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

#### Suggested Courses

JOU 105	Introduction to Mass Media	3
LIT 115	Introduction to Literature	3
MUS 100	Fundamentals of Music	3
MUS 110	Music Theory I	3
MUS 111	Music Theory II	3
MUS 112	Ear Training/Sight – Singing I Lab	1
MUS 113	Ear Training/Sight – Singing II Lab	1
MUS 120	Music Appreciation	3
MUS 121	Music History I	3
MUS 122	Music History II	3
MUS 125	History of Jazz Music	3
MUS 126	History of American Popular Music	3
MUS 131	Music Class I	2
MUS 132	Music Class II	2
MUS 141	Private Instruction I	1
MUS 142	Private Instruction II	1
MUS 151	Ensemble I	1
MUS 152	Ensemble II	1
MUS 241	Private Instruction I	2
MUS 242	Private Instruction II	2
MUS 251	Ensemble I	1
MUS 252	Ensemble II	1
PHI 111	Introduction to Philosophy	3
THE 111	Acting I	3
THE 112	Acting II	3

### Total Credit Hours

60

## Natural Resources

### Associate of Applied Science Degree

Recommended basic skills standards are

- ENG 060
- MAT 030
- REA 090

This program is designed to prepare students for employment at the technician level in the following options: natural resources, zookeeping, interpretation, geographic information systems, and the adventure industry. This program is a two-year AAS degree program. The training includes science foundations, technical skills, an internship, group projects, and resource management techniques. A wide range of career opportunities in this ever-rising field will be available to the graduate of this program. An adventure guide certificate option is also available.

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

BIO 148	Basic Ecology	4
BIO 149	Plant Taxonomy	4
ENG 131	Technical Writing I	3
GEY 135	Environmental Geology	3
MAT 108	Technical Mathematics	4
SPE 214	Natural Resource Interpretation	3
		<u>21</u>

HWE 103	Community First Aid and CPR	1
ADG 275	Selected Topic: Wilderness Skills	3
AGY 240	Introductory Soil Science	4
ENV 101	Introduction to Environmental Science	4
FST 152	Wildland Firefighting	3
GIS 160	GIS Guided Field Study	2
NRE 100	Foundation of Forestry	3
NRE 204	Range Management and Restoration	4
NRE 205	Wildlife and Fisheries Management Principles	3
NRE 211	Environmental Policies and Economics	3
NRE 212	Ecosystem Management	3
NRE 214	Environmental Issues and Ethics	3
NRE 236	Public Relations of Natural Resources	2
NRE 275	Selected Topic: Survey and Measurements	3
NRE 280	Internship	5
NRE 289	Capstone	2
		<u>47</u>

NRT Approved Electives – Choose 3 credit hours below or any other NRT, GIS, ADG selected class.

CAD 101	Computer Aided Drafting I	3
CHE 101	Introduction to Chemistry I	5
CIS 118	Introduction to PC Applications	3
GEO 112	Physical Geography - Weather And Climate	3
HIS 225	Colorado History	3
		<u>3</u>

### Total Credit Hours

72

### Zookeeping Technology Emphasis

#### General Education Courses

BIO 148	Basic Ecology	4
BIO 150	Animal Biology	4
CIS 118	Introduction to PC Applications	3
ENG 131	Technical Writing I	3
SPE 214	Natural Resource Interpretation	3
		<u>17</u>

NRE 236	Public Relations of Natural Resources	2
ZOO 100	Safety/Zoonoses/Hazardous Materials	.5
ZOO 101	Career Development for Zookeeping	.5

ZOO 105	Reptile and Amphibian Husbandry	4
ZOO 115	Bird Husbandry	4
ZOO 125	Mammal Husbandry	4
ZOO 180	Zookeeping Internship – Hoofstock	5
ZOO 181	Zookeeping Internship – Primates/Carnivores	5
ZOO 205	Horticulture for the Zookeeper	1
ZOO 206	Exhibit Design and Construction	3
ZOO 215	Veterinary Zookeeping	4
ZOO 275	Selected Topic: Fish and Aquatic Invertebrate Husbandry	4
ZOO 280	Internship Birds/Reptiles	<u>5</u>
		42

NRT Zookeeping approved electives – Choose 6 credit hours below

ADG 100	Outdoor Leadership	2
EMS 115	First Responder	3
NRE 205	Wildlife and Fisheries Management Principles	3
ZOO 117	Animal Conservation in Captivity	3
	or	
NRE 214	Environmental Issues and Ethics	(3)
ZOO 207	Animal Behavior	3
ZOO 212	Elephant Management	<u>3</u>
		6

**Total Credit Hours 65**

### Technical GIS for Natural Resources Emphasis

#### General Education Courses

BIO 148	Basic Ecology	4
CAD 101	Computer Aided Drafting I	3
CIS 118	Introduction to PC Applications	3
CIS 145	Complete PC Database	3
CIS 155	PC Spreadsheet Concepts: Excel	3
ENG 131	Technical Writing I	3
MAT 135	Introduction to Statistics	<u>3</u>
		22

AGY 240	Introductory Soil Science	4
ENV 101	Introduction to Environmental Science	4
GIS 101	Introduction To Geographic Information Systems	3
GIS 160	GIS Guided Field Study	2
GIS 175	Selected Topic: Visual Basic for ESRI	3
GIS 200	Introduction to ArcInfo Using ArcMap/Catalog/TLBX	3
GIS 212	Remote Sensing and Digital Image Processing	4
GIS 280	Internship	5
NRE 214	Environmental Issues and Ethics	3
NRE 275	Selected Topic: Survey and Measurement	<u>3</u>
		34

**Approved GIS Electives – Choose 6 credit hours from classes listed below**

BIO 149	Plant Taxonomy	4
CAD 102	Computer Aided Drafting II	3
GEO 105	World Regional Geography	3
GIS 110	Introduction to Cartography	3
GIS 130	Programming with Avenue	3
GIS 208	Intro to ArcView Network Analyst	3
GIS 215	Intro to ArcView Tracking Analyst	2
GIS 220	What is New in ArcInfo 8	3
GIS 225	Spatial Analyst – Agriculture: GIS	3
GIS 275	Selected Topic: Introduction to ArcView 3D Analyst	3
GIS 275	Selected Topic: Introduction to ArcView Spatial Analyst	3
GIS 275	Selected Topic: Spatial Hydrology Using ArcView/GIS	3
NRE 212	Ecosystem Management	3
NRE 241	Characterizing Forests – Using ArcView	3
NRE 242	Conservation GIS - Using ArcView	<u>3</u>
		6

**Total Credit Hours 62**

### Certificate

#### Adventure Guide

ADG 100	Outdoor Leadership	2
ADG 106	Desert Field Studies	2
ADG 107	Mountain Field Studies	2
ADG 115	Avalanche Science	1
ADG 125	Leave No Trace	1
ADG 220	Programming for Outdoor Education	3
ADG 275	Selected Topic: Wilderness Skills	3
ADG 280	Adventure Guide Internship	<u>5</u>
AST 101	Astronomy I	4
BIO 149	Plant Taxonomy	4
EMS 115	First Responder	3
FST 152	Wildland Firefighting	3
GEO 112	Physical Geography - Weather And Climate	4
GEY 132	Environmental Geology	3
HWE 121	Wilderness First Aid	2
NRE 214	Environmental Issues and Ethics	3
NRE 236	Public Relations of Natural Resources	2
NRE 289	Capstone	2
SPE 214	Natural Resource Interpretation	<u>3</u>
		52

**Total Credit Hours 52**

### Networking Technology

#### Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 090
- MAT 060
- REA 090

The associate of applied science degree is designed to provide students with practical and relevant skills in the field of computer networking. Students will demonstrate basic skills in computer software, computer hardware, network operating systems, and networking device configuration. Students entering this program should have a good foundation in math, reading, and computer basics such as Win 95/98 together with Internet browser familiarity. Students may be advised to take additional courses to prepare them for the degree program.

Students must also have the ability to type 20 wpm or complete BTE 100. 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

BUS 115	Introduction to Business	3
CIS 115	Introduction to Computer Information Systems	3
ENG 131	Technical Writing I	3
MAT 112	Financial Mathematics	3
MAR 160	Customer Service	3
SPE 125	Interpersonal Communication	<u>3</u>
		18

#### Other Course Requirements

CIS 116	Introduction to Applications Development	3
CIS 145	Complete PC Database	3
CIS 155	PC Spreadsheet Concepts: Excel	3
CIS 165	Complete Presentation Graphics: PowerPoint	3
CIS 216	Advanced Applications Development	3
CNG 101	Introduction to Networking	3
	and	
CNG 104	Introduction to TCP/IP	3
	or	
CNG 260	Cisco Network Associate I	(5)
CWB 110	Complete Web Authoring	<u>3</u>
		24-26

## Software Track

CIS 124	Introduction to Operating Systems	3
CNG 102	Local Area Networks	3
CNG 103	Wide Area Networks	3
CNG 108	Network Analysis and Design	3
		<u>12</u>

## Hardware Track

CNG 261	Cisco Network Associate II	5
CNG 262	Cisco Network Associate III	5
CNG 263	Cisco Network Associate IV	5
		<u>15</u>

## Electives

Choose 6 hours from any courses within the disciplines of CIS, CNG, CSC, CWB, MGD except CIS 118, CSC 105, MGD 104, and CNG 101.

**Degree with Software track – Total Credit Hours 60**

**Degree with Hardware track – Total Credit Hours 63**

## Certificate

CIS 115	Introduction to Computer Information Systems	3
CIS 145	Complete PC Database	3
CIS 155	PC Spreadsheets Concept: Excel	3
CWB 110	Complete Web Authoring	3
		<u>12</u>

## Software Track

CIS 116	Introduction to Applications Development	3
CIS 124	Introduction to Operating Systems	3
CNG 101	Introduction to Networking	3
CNG 102	Local Area Networks	3
CNG 103	Wide Area Networks	3
CNG 104	Introduction to TCP/IP	3
		<u>18</u>

## Hardware Track

CNG 260	Cisco Network Associate I	5
CNG 261	Cisco Network Associate II	5
CNG 262	Cisco Network Associate III	5
CNG 263	Cisco Network Associate IV	5
		<u>20</u>

**Certificate with Software track – Total Credit Hours 30**

**Certificate with Hardware track – Total Credit Hours 32**

## Nursing - Track One Registered Nurse

### Associate of Applied Science Degree

Recommended basic skills standards are

- ENG 090
- MAT 090
- REA 090

The registered nursing program is an associate of applied science program. Nursing courses begin each fall semester and may be completed in 4-5 semesters. Students completing the Associate of Applied Science Degree in Nursing are eligible to take the Registered Nursing Licensure Examination (NCLEX – RN). Admission to the college does not assure admission into the registered nursing program. Admission to the RN program requires separate admission criteria. All students interested in the nursing program who do not have previous college courses must complete the COMPASS exams prior to being advised.

Applications can be obtained on the school web site under nursing department or through the HENPS division office on Rampart or Centennial Campuses. Applications can be turned in at any time upon completion of basic requirements listed on the application. Students will be ranked numerically based on date of completed application and requirements. This will determine date of acceptance. Students interested in the program should attend the Information Sessions prior to seeking advising appointments for an individualized schedule.

Potential students should attend Information Nights held each month to obtain information prior to advising. Interested students should inquire and seek additional information by calling (719) 538-5400.

### General Education Courses

BIO 201	Human Anatomy and Physiology I	4
BIO 202	Human Anatomy and Physiology II	4
BIO 204	Microbiology	4
ENG 121	English Composition I	3
PSY 101	General Psychology I	3
PSY 235	Human Growth and Development	3
		<u>21</u>

### Nursing courses

NUR 101	Pharmacology Calculations	1
NUR 106	Medical and Surgical Nursing Concepts	7
NUR 107	Nursing Concepts and Skills I	4
NUR 108	Nursing Concepts and Skills I	3
NUR 111	Socialization into Practical Nursing	1
NUR 112	Basic Concepts of Pharmacology	2
NUR 116	Basic Concepts of Gerontological Nursing	1
NUR 117	Nursing Care of the Childbearing Family	3
NUR 118	Nursing Care of Children	3
NUR 171	Clinical II	2
NUR 172	Clinical III	2
NUR 206	Advanced Concepts of Medical-Surgical Nursing I	5
NUR 210	Nursing Care of Complex Obstetrical and Pediatric Clients	5
NUR 211	Nursing Care of Psychiatric Clients	5
NUR 216	Advanced Concepts of Medical Surgical Nursing II	4
NUR 217	Leadership for Professional Nursing Practice	2
NUR 271	Expanded Clinical II	2
NUR 272	Expanded Clinical III	3
NUR 288	Practicum: Health and Physical Assessment for Nursing Practice	1
NUR 289	Capstone: Comprehensive Nursing Internship	2
		<u>58</u>

**Total Credit Hours**

**79**

## Associate of Applied Science Degree

### LPN Advanced Placement – Track Two

Pikes Peak Community College offers an advanced placement associate degree program for licensed practical nurses. Upon completion of the program, graduates are eligible to take the Registered Nurse licensure examination. LPNs may pursue an Associate Degree in Nursing by completing the requirements as outlined in the Colorado Nursing Articulation Model. Admission to the RN program requires separate admission criteria. All students interested in the nursing program who do not have previous college courses must complete the COMPASS exams prior to being advised.

Applications can be obtained on the school web site under nursing department or through the HENPS division office on Rampart or Centennial Campuses. Applications can be turned in at any time upon completion of basic requirements listed on the application. Students will be ranked numerically based on date of completed application and requirements. This will determine date of acceptance. Students interested in the program should attend the Information Sessions prior to seeking advising appointments for an individualized schedule.



Potential students should attend Information Nights held each month to obtain information prior to advising. Interested students should inquire and seek additional information by calling (719) 538-5400.

Prior LPN course work and a Colorado LPN license transfer for 27 credits by Colorado Articulation Model.

NUR 278 Seminar: Bridging Course 2

For bridging students to complete the AAS Degree in Nursing they must:

1. Complete general education courses for the RN program.
2. Complete all courses in the second year RN program.
3. Complete Seminar: Bridging Course.
4. Potential students who graduated more than 10 years ago from an LPN program will need to follow current regulations of the Colorado Articulation model related to testing and experience. See a nursing advisor for details.

## Nursing

### Certificates

Pikes Peak Community College offers an accredited nursing program. There are a variety of programs offered to meet the educational needs of students interested in a career in nursing. The nursing program offers two certificates, including the nursing assistant and licensed practical nursing. In addition, the nursing program offers an associate of applied science degree. This degree program includes two tracks, the first for students pursuing an associate of applied science degree who do not have prior nursing licensure, and the second for licensed practical nurses pursuing an Associate Degree in Nursing (referred to as the advanced placement or bridging program). Both tracks lead to eligibility to take the NCLEX-RN licensing examination.

Admission to the college does not assure admission to the nursing program. Admission to the LPN and RN programs requires separate admission criteria. All students interested in the nursing program who do not have previous college courses must complete the placement exams prior to being advised. Applications, with criteria, can be obtained on the school web site under the nursing department or through the Division of Health, Environmental, Natural and Physical Sciences Office on Rampart or Centennial Campuses. Potential students should attend Information Nights held each month to obtain information prior to advising. Interested students can inquire and seek additional information by calling (719) 538-5400.

Students should be aware that all clinical facilities require current CPR certification; tuberculin skin tests; proof of rubella and rubeola vaccines or titers; proof of hepatitis vaccination or a signed waiver; and current tetanus vaccine. Additionally, some clinical facilities require criminal background checks on all students. Students who have any record of acts of violence or failure to adhere to restraining orders may not be able to enroll in specific courses. Students are also required at some clinical facilities to take and pass drug and alcohol screening prior to their clinical experience. Failure to pass above tests may result in withdrawal from the program.

### Nursing Assistant

Students are eligible to take the State certificate exam for Nurse Aide after completion of NUA 101 and NUA 170. Students completing NUA 171 in addition to NUA 101 and NUA 170 are eligible to receive a certificate from PPCC.

NUA 101	Certified Nurse Aide Health Care Skills	4
NUA 170	Nurse Assistant Clinical Experience	1
NUA 171	Advanced Nurse Aide Clinical	<u>1</u>
		6

### Other courses for nursing assistants

NUA 105	Home Health Aide Theory	2
NUA 180	Home Health Aide Internship	3

## Licensed Practical Nursing

Recommended basic skills standards are

- ENG 090
- MAT 090
- REA 090

The licensed practical nursing certificate program is designed to be completed in twelve months. Starting dates may vary. Students completing the licensed practical nursing certificate are eligible to take the licensed practical nursing licensure examination (NCLEX-PN). Admission to the college does not assure admission into the program. Please obtain a copy of requirements/application from the PPCC Web site under the Nursing Department or obtain an application from the HENPS Division office. Applications may be turned in at any time upon completion of basic requirements listed on the application. Students will be ranked numerically based on the date of completed application and requirements. This will determine the date for acceptance. Students interested in the program should attend the Information Sessions prior to seeking advising appointments for an individualized schedule.

Students who are on the waiting list for acceptance will need to maintain the required grades. A waiting list is kept for the program.

### General Education Courses

BIO 106	Basic Anatomy and Physiology	5
ENG 121	English Composition	3
PSY 101	General Psychology I	<u>3</u>
		11

### Nursing courses

NUR 101	Pharmacology Calculations	1
NUR 102	Alterations in Adult Health I	3
NUR 103	Basic Health Assessment for the Practical Nurse	1
NUR 104	Alterations in Adult Health II	3
NUR 105	Practical Nursing Arts and Skills	5
NUR 111	Socialization into Practical Nursing	1
NUR 112	Basic Concepts of Pharmacology	2
NUR 113	Basic Concepts of Maternal-Newborn Nursing	2
NUR 114	Basic Concepts of Nursing of Children	2
NUR 170	Clinical I	4
NUR 172	Clinical III	2
NUR 173	Clinical IV	4
NUR 174	Clinical V	<u>4</u>
		34

**Total Credit Hours 45**

## Office Administration

### Certificate

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 060
- REA 090

This certificate program is designed to prepare students to become office professionals in entry-level 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.



For the Associate of Applied Science Degree, see Business Administration - Office Administration - located on page 59 of this catalog.

ACC 125	Computerized Accounting	3
BTE 102	Keyboarding Applications I	2
BTE 108	Ten-Key by Touch	1
BTE 111	Keyboarding Speedbuilding I	2
BTE 166	Business Editing Skills	3
CIS 107	Voice Recognition: Dragon	1
CIS 118	Introduction to PC Applications	3
CIS 135	Complete PC Word Processing	3
CIS 165	Complete Presentation Graphics: PowerPoint	3
CIS 167	Desktop Publishing	3
MAR 160	Customer Service	3
		<u>27</u>

**Office Administration Electives**

Choose 6 hours from the following courses

ACC 115	Payroll Accounting	3
CIS 145	Complete PC Database Complete	3
CIS 155	PC Spreadsheets Concepts: Excel	3
CIS 287	Cooperative Education	3
CWB 110	Complete Web Authoring	3
MAN 116	Principles of Supervision	3
		<u>6</u>

**Total Credit Hours 33**

**Paralegal/Legal Assistant**

**Associate of Applied Science Degree**

Recommended basic skills standards are

- AAA 090
- ENG 090
- MAT 060
- REA 090

Approved by the American Bar Association.

The objectives of the program are to (1) train students for employment as legal assistants (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.

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 legal assistant program provides training for legal assistants (paralegals) who are authorized to perform substantive legal work only under the supervision of a lawyer.

**General Education Courses**

ENG 121	English Composition I	3
ENG 122	English Composition II	3
POS 111	American Government	3
PSY 101	General Psychology I	3
		<u>12</u>

**Choose two courses from the following**

AST 101	Astronomy I	4
BIO 105	Science of Biology	4
HUM 121	Survey of Humanities I	3
PHI 111	Introduction to Philosophy	3
		<u>6-8</u>

**Legal Courses**

PAR 115	Introduction to Law	3
PAR 116	Torts	3
PAR 117	Family Law	3
PAR 118	Contracts	3

PAR 125	Property Law	3
PAR 127	Legal Ethics	3
PAR 201	Civil Litigation	3
PAR 206	Business Organizations	3
PAR 211	Legal Research	3
PAR 289	Capstone	3
CRJ 111	Substantive Criminal Law	3
CRJ 210	Constitutional Law	3
		<u>36</u>

**Approved Electives – Choose nine (9) credit hours below**

ACC 101	Fundamentals of Accounting	3
	or	
ACC 121	Accounting Principles I	(4)
BUS 217	Business Communication and Report Writing	3
CIS 118	Introduction to PC Applications	3
CIS 130	Introduction to the Internet	2
CIS 135	Complete PC Word Processing	3
CIS 145	Complete PC Database	3
CIS 155	PC Spreadsheet Concepts: Excel	3
CRJ 112	Procedural Criminal Law	3
CRJ 135	Judicial Function	3
CRJ 216	Juvenile Law and Procedures	3
PAR 208	Probate and Estates	3
PAR 218	Bankruptcy Law	3
PAR 287	Cooperative Education	3
	Any General Education Course listed on page 47.	<u>3-5</u>
		9

**Total Credit Hours 63-65**

**Certificate\***

Students who have completed an academic associate degree (AA or AS) or bachelor degree from a regionally accredited college or university prior to enrolling are eligible to complete the Paralegal Certificate Program. Students must complete the required legal specialty courses (PAR) and the required Criminal Justice Courses to complete the certificate program.

PAR 115	Introduction to Law	3
PAR 116	Torts	3
PAR 117	Family Law	3
PAR 118	Contracts	3
PAR 125	Property Law	3
PAR 127	Legal Ethics	3
PAR 201	Civil Litigation	3
PAR 206	Business Organizations	3
PAR 211	Legal Research	3
PAR 289	Capstone	3
CRJ 111	Substantive Criminal Law	3
CRJ 210	Constitutional Law	3
		<u>36</u>

\*Pending State Approval

**Para-Professional Education** [Please see Teacher Preparation and Para-Professional Educator Programs]

**Pharmacy Technician**

**Certificate**

Recommended basic skills standards are

- ENG 060
- MAT 030
- REA 060

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.

CSC 105	Computer Literacy	3
PHT 105	Orientation to Pharmacy	4
PHT 116	Institutional Pharmacy	3
PHT 119	Community Pharmacy	3
PHT 170	Pharmacy Clinical: Hospital	4
PHT 171	Pharmacy Clinical: Community	4
PHT 205	Certification Review	.5
PHT 206	Employment Preparation	.5
PHT 207	Drug Classification	3
PHT 220	Pharmacology and Pathophysiology I	5
PHT 221	Pharmacology and Pathophysiology II	5
PHT 235	Pharmaceutical Calculations and Compounding Techniques	4
SPE 125	Interpersonal Communications	<u>3</u>

**Total Credit Hours** **42**

## Philosophy

### Associate of Arts Degree

Recommended basic skills standards are:

- REA 090
- ENG 121

People are selling more than consumer goods in the world today. The market place of ideas contains competing political ideologies, religious beliefs and different value systems. Philosophy equips individuals to make lucid choices amid this ever-changing world, and gives them the intellectual strength to defend what they do and what they believe.

Philosophy fearlessly explores the big questions. What is the meaning of life? What is my purpose in living? What is the nature of happiness? Is there a God? How do I decide what is right and wrong? What is the nature of reality and of human consciousness? Are there limits to what can be known? Will a machine ever duplicate the mind? Why do we need government and what should be its role?

Fields that usually require philosophy are law, economics, government, politics, environmental policy, and theology.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 43 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

##### Category 1 (GT-AH1)

ART 110	Art Appreciation	3
ART 111	Art History I	3
ART 112	Art History II	3
MUS 120	Music Appreciation	3
THE 211	Development of Theatre I	3
THE 212	Development of Theatre II	3

##### Category 2 (GT-AH2)

HUM 121	Survey of Humanities I	3
HUM 122	Survey of Humanities II	3
HUM 123	Survey of Humanities III	3
LIT 201	Masterpieces of Literature I	3
LIT 202	Masterpieces of Literature II	3

#### Category 3 (GT-AH3)

PHI 111	Introduction to Philosophy	3
PHI 113	Logic	3

#### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

MAT 120	Mathematics for the Liberal Arts	4
MAT 135	Introduction to Statistics	3

#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

##### Category 1 (GT-SS1)

ECO 201	Principles of Macroeconomics	3
ECO 202	Principles of Microeconomics	3
POS 111	American Government	3

##### Category 2 (GT-SS2)

GEO 105	World Geography	3
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##### Category 3 (GT-SS3)

ANT 101	Cultural Anthropology	3
ANT 111	Physical Anthropology	3
PSY 101	General Psychology I	3
PSY 102	General Psychology II	3
SOC 101	Introduction to Sociology I	3
SOC 102	Introduction to Sociology II	3

##### Category 4 (GT-HI1)

HIS 101	History of Western Civilization I	3
HIS 102	History of Western Civilization II	3

#### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

AST 102	Astronomy II	4
BIO 105	Science of Biology	4
BIO 111	General College Biology I w/Lab	5
GEY 121	Historical Geology	4

#### VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

#### VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

#### VIII. Electives

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives for remaining course options in this category.

Suggested Courses

PHI 112	Ethics	3
PHI 114	Comparative Religion	3
PHI 214	Philosophy of Religion	3
LIT 115	Introduction to Literature	3
POS 105	Introduction to Political Science	3

**Total Credit Hours** **60**

# Physics

## Associate of Science Degree

Recommended basic skills standards are

- ENG 090
- MAT 106
- REA 090

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.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 44 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours

See page 44 for complete list of required courses.

#### III. Mathematics

Four (4) credit hours minimum (credit hours over four [4] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

MAT 201 Calculus I 5

#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select one (1) HIS course and two (2) courses out of two (2) categories listed on page 44.

See page 44 for complete list of required courses.

#### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

PHY 211 Physics: Calculus-Based I w/Lab 5

PHY 212 Physics: Calculus Based II w/Lab 5

#### VI. Computer Communication

Three (3) credits

See page 44 for complete list of required courses and options to meet this requirement.

Suggested Courses

CSC 160 Computer Science I: 4

#### VII. Electives

Eighteen (18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

CHE 111 General College Chemistry I w/ Lab 5

CSC 161 Computer Science II: (Java) 4

MAT 202 Calculus II 5

MAT 203 Calculus III 4

### Total Credit Hours

60

# Pikes Peak Regional Law Enforcement Academy

Recommended basic skills standards are

- AAA 090
- ENG 090
- MAT 030
- REA 090

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.

CRJ 106	Arrest Control Techniques	3
CRJ 107	Law Enforcement Driving	3
CRJ 108	Firearms	3
CRJ 110	Introduction to Criminal Justice	3
CRJ 111	Substantive Criminal Law	3
CRJ 135	Judicial Functions	3
CRJ 201	Police Patrol Procedures	3
CRJ 216	Juvenile Law and Procedures	3
CRJ 220	Human Relations and Social Conflicts	3
CRJ 246	Traffic Investigation	3
CRJ 275	Selected Topic: F.A.T.S. Judgmental Shooting	1
HWE 103	Community First Aid and CPR	1

### Total Credit Hours

32

# Political Science

## Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- REA 090

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 political institutions and processes, or international relations and organizations. Some specialize in a particular type of political institution or in the politics of a specific era.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 43 for complete list of required courses.

## II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for complete list of required courses.

### Suggested Courses

#### Category 2 (GT-AH2)

HUM 121	Survey of Humanities I	3
LIT 115	Introduction to Literature	3

#### Category 3 (GT-AH3)

PHI 111	Introduction to Philosophy	3
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## III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

### Suggested Courses

MAT 120	Mathematics for the Liberal Arts	4
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## IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

### Suggested Courses

#### Category 1 (GT-SS1)

POS 105	Introduction to Political Science	3
POS 111		

#### Category 4 (GT-HI1)

HIS 101	History of Western Civilization I	3
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## V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

### Suggested Courses

GEY 111	Physical Geology	4
GEY 121	Historical Geology	4

## VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

### Suggested Courses

JOU 105	Introduction to Mass Media	3
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## VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

CSC 105	Computer Literacy	3
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## VIII. Electives

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

### Suggested Courses

POS 125	State and Local Government	3
POS 205	International Relations	3
POS 215	Current Political Issues	3

Plus 10 hours of any approved elective.

## Total Credit Hours

60

## Pre-Allied Health

### Associate of Science Degree

Recommended basic skills standards are

- ENG 060
- MAT 090
- REA 090

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. A recommended transfer track for pre-nursing is also available. While not necessarily resulting in an AS degree, the track does offer the equivalent of the course work of the first two years for transfer to four-year nursing schools in Colorado.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 44 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours

See page 44 for complete list of required courses.

#### III. Mathematics

Four (4) credit hours minimum (credit hours over four [4] will be applied to the electives category).

See page 44 for complete list of required courses.

### Suggested Courses

MAT 121	College Algebra	4
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#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select one (1) HIS course and two (2) courses out of two (2) categories listed on page 44.

See page 44 for complete list of required courses.

#### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 44 for complete list of required courses.

### Suggested Courses

BIO 111	General College Biology I w/Lab	5
PHY 211	Physics: Calculus-Based I w/Lab	5

#### VI. Computer Communication

Three (3) credits

See page 44 for complete list of required courses and options to meet this requirement.

### Suggested Courses

CSC 120	Problem Solving with Visual Basic for Applications	3
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#### VII. Electives

Eighteen (18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

### Suggested Courses

BIO 201	Human Anatomy and Physiology I	4
BIO 202	Human Anatomy and Physiology II	4
BIO 204	Microbiology	4
CHE 111	General College Chemistry I w/ Lab	5

## Total Credit Hours

60

## Physical Therapy Emphasis

### VI. Electives

Twenty-one (21) credits selected from the AA/AS approved course list.		
BIO 201	Human Anatomy and Physiology I	4
BIO 202	Human Anatomy and Physiology II	4
CHE 111	General College Chemistry I	5
CSC 120	Problem Solving with Visual Basic for Applications	3
Science Elective		3
		<u>21</u>

### Total Credit Hours

**60**

## Pre-Nursing Emphasis

### VI. Electives

Twenty-one (21) credits selected from the AA/AS approved course list.		
BIO 201	Human Anatomy and Physiology I	4
BIO 202	Human Anatomy and Physiology II	4
BIO 204	Microbiology	4
CSC 120	Problem Solving with Visual Basic for Applications	3
Science Elective		1
		<u>21</u>

### Total Credit Hours

**60**

## Pre-Engineering

### Associate of Science Degree

Recommended basic skills standards are

- ENG 060
- MAT 106
- REA 090

The AS degree recommended 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 recommended 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.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 44 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours

See page 44 for complete list of required courses.

#### III. Mathematics

Four (4) credit hours minimum (credit hours over four [4] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

MAT 201	Calculus I	5
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#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select one (1) HIS course and two (2) courses out of two (2) categories listed on page 44.

See page 44 for complete list of required courses.

### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

PHY 211	Physics: Calculus-Based I w/Lab	5
PHY 212	Physics: Calculus Based II w/Lab	5

### VI. Computer Communication

Three (3) credits

See page 44 for complete list of required courses and options to meet this requirement.

Suggested Courses

CSC 160	Computer Science I:	4
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### VII. Electives

Eighteen (18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

CHE 111	General College Chemistry I w/ Lab	5
CHE 112	General College Chemistry II w/Lab	5
CSC 161	Computer Science II: (Java)	3
Science Elective		5

### Total Credit Hours

**60**

## Pre-Med Professions

### Associate of Science Degree

Recommended basic skills standards are

- ENG 060
- MAT 090
- REA 090

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.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 44 for complete list of required courses.

#### II. Art and Humanities

Nine (9) credit hours

See page 44 for complete list of required courses.

#### III. Mathematics

Four (4) credit hours minimum (credit hours over four [4] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

MAT 201	Calculus I	5
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#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select one (1) HIS course and two (2) courses out of two (2) categories listed on page 44.

See page 44 for complete list of required courses.

### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 44 for complete list of required courses.

Suggested Courses

BIO 111	General College Biology I w/Lab	5
PHY 111	Physics: Algebra Based I w/Lab	5



## VI. Computer Communication

Three (3) credits

See page 44 for complete list of required courses and options to meet this requirement.

Suggested Courses

CSC 120 Problem Solving with Visual Basic for Applications 3

## VII. Electives

Eighteen (18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

CHE 111 General College Chemistry I w/ Lab 5

CHE 112 General College Chemistry II w/Lab 5

PHY 112 Physics: Algebra Based II 5

Science Elective 3

**Total Credit Hours**

**60**

# Psychology

## Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- REA 090

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 Community College. Students should note that graduate degrees are required for most professional positions in psychology.

## Recommended Track

### I. Communications

Nine (9) credit hours

See page 43 for complete list of required courses.

### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

#### Category 2 (GT-AH2)

LIT 115 Introduction to Literature 3

#### Category 3 (GT-AH3)

PHI 111 Introduction to Philosophy 3

PHI 112 Ethics 3

### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

MAT 121 College Algebra 4

### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

#### Category 3 (GT-SS3)

PSY 101 General Psychology I 3

PSY 102 General Psychology II 3

## V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

BIO 111 General College Biology I w/Lab 5

BIO 112 General College Biology II w/Lab 5

## VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

## VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

## VIII. Electives

Sixteen (16) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

ANT 101 Cultural Anthropology 3

PSY 205 Psychology of Gender 3

PSY 215 Psychology of Adjustment 3

PSY 217 Human Sexuality 3

PSY 226 Social Psychology 3

PSY 227 The Psychology of Death and Dying 3

PSY 235 Human Growth and Development 3

PSY 238 Child Development 3

PSY 245 Educational Psychology 3

PSY 247 Child Abuse and Neglect 3

PSY 249 Abnormal Psychology 3

PSY 265 Psychology of Personality 3

SOC 101 Introduction to Sociology I 3

SOC 102 Introduction to Sociology II 3

**Total Credit Hours**

**60**

# Radio, Television

## Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 030
- REA 090

The Telecommunications Production degree program prepares students to enter the television and radio broadcast industry. Students will learn to write, produce, and package programs for the broadcast and video production community. To enhance the learning process, students will also complete internships at local broadcast and/or video production facilities. Upon successful completion of the degree program, students may gain employment as announcers, producers, directors, writers, board operators, as well as in other non-broadcast occupations, in audio and video production.

Students who elect to complete a certificate program learn specialized broadcast skills in a shorter period of time. Coursework completed in the certificate program may be applied to one of the options in the Associates of Applied Science Degree program.

Students may complete deficiencies concurrently with the beginning courses in the program. Students must arrange with advisors to remedy deficiencies in program requirements.

**General Education Courses**

ANT 101	Cultural Anthropology	3
or		
SOC 101	Introduction to Sociology I	(3)
BTE 100	Computer Keyboarding	1
BUS 115	Introduction to Business	3
CIS 115	Introduction to Computers	3
or		
CIS 118	Introduction to PC Applications	(3)
ENG 121	English Composition I	3
SPE 115	Public Speaking	3
		<u>16</u>

**Other Course Requirements**

RTV 100	Introduction to Telecommunications	2
RTV 101	Radio Programming and Production I	3
RTV 102	Beginning Television Production	3
RTV 103	Writing for Television and Radio	3
or		
RTV 104	Corporate Scriptwriting	(3)
RTV 106	Radio Programming and Production Lab I	3
RTV 107	Television Studio Production	3
RTV 108	Principles of Audio	3
RTV 110	News Writing and Reporting	3
RTV 208	Basic Video Production	3
RTV 211	Radio Programming and Production II	3
or		
RTV 212	Advanced Television Production	(3)
RTV 216	Radio Programming and Production Lab II	3
or		
RTV 217	Advanced TV Studio Production	(3)
or		
RTV 180	Internship – KEPC Radio	(4)
or		
RTV 182	Internship – Radio Station/Audio Production Company	(4)
or		
RTV 183	Internship – Television Station/Video Production Company	4
RTV 284	Internship in Telecommunications	3
		<u>39</u>

**Electives – Choose six (6) credit hours below**

RTV 109	Radio Broadcast Technical Operations	2
RTV 180	Internship – KEPC Radio	4
RTV 182	Internship – Radio Station/Audio Production Company	4
RTV 183	Internship – Television Station/Video Production Company	4
RTV 211	Radio Programming and Production II	3
RTV 212	Advanced Television Production	3
RTV 216	Radio Programming and Production Lab II	3
RTV 217	Advanced TV Studio Production	3
RTV 218	Advanced Videotape Editing	3
RTV 280	Internship – Television Station/Video Production Company II	3
RTV 281	Internship in News - KEPC Radio	3
RTV 282	Internship - KEPC II	3
RTV 83	Internship – Radio Station/Audio Production Company II	3
		<u>6</u>

**Total Credit Hours** **61**

**Certificates**

**Television**

RTV 102	TV Production	3
RTV 103	Writing for TV and Radio	3
or		
RTV 104	Corporate Scriptwriting	(3)
RTV 107	TV Studio Production	3

RTV 181	Internship – College/Interactive TV Studio	4
RTV 183	Internship – Television Station/Video Production Company	4
RTV 208	Basic Video Production	3
RTV 212	Advanced TV Production	3
RTV 217	Advanced Studio Production	3
RTV 218	Advanced Videotape Editing	3
BTE 100	Computer Keyboarding	1

**Total Credit Hours** **30**

**Radio**

RTV 101	Radio Programming and Production I	3
RTV 103	Writing for TV and Radio	3
or		
RTV 104	Corporate Scriptwriting	(3)
RTV 106	Radio Programming and Production Lab I	3
RTV 108	Principles of Audio	3
RTV 109	Radio Broadcast Technical Operations	2
RTV 110	News Writing and Reporting	3
RTV 180	Internship – KEPC Radio	4
RTV 182	Internship – Radio Station/Audio Production Company	4
RTV 211	Radio Programming and Production II	3
RTV 216	Radio Programming and Production Lab II	3

**Total Credit Hours** **31**

**Beginning Radio Production**

RTV 101	Radio Programming and Production I	3
RTV 106	Radio Programming and Production Lab I	3

**Total Credit Hours** **6**

**Advanced Radio Production**

RTV 101	Radio Programming and Production I	3
RTV 106	Radio Programming and Production Lab I	3
RTV 211	Radio Programming and Production II	3
RTV 216	Radio Programming and Production Lab II	3

**Total Credit Hours** **12**

**Basic Radio Operations**

RTV 101	Radio Programming and Production I	3
RTV 106	Radio Programming and Production Lab I	3
RTV 109	Radio Broadcast Technical Operations	2
RTV 180	Internship – KEPC Radio	4

**Total Credit Hours** **12**

**Advanced Radio Operations**

RTV 101	Radio Programming and Production I	3
RTV 106	Radio Programming and Production Lab I	3
RTV 109	Radio Broadcast Technical Operations	2
RTV 180	Internship – KEPC Radio	4
RTV 182	Internship – Radio Station/Audio Production Company	4
RTV 211	Radio Programming and Production II	3
RTV 216	Radio Programming and Production Lab II	3

**Total Credit Hours** **22**

**Beginning TV Production**

RTV 102	Television Production	3
RTV 107	TV Studio Production	3
RTV 208	Basic Video Production	3

**Total Credit Hours** **9**

## Advanced TV Production

RTV 102	Beginning Television Production	3
RTV 107	TV Studio Production	3
RTV 212	Advanced Television Production	3
RTV 217	Advanced TV Studio Production	3
RTV 218	Advanced Video Tape Editing	3

**Total Credit Hours** 15

## Beginning TV Production and Editing

RTV 208	Basic Video Production	3
RTV 218	Advanced Video Tape Editing	3

**Total Credit Hours** 6

## Advanced TV Production and Video Editing

RTV 102	Television Production	3
RTV 107	TV Studio Production	3
RTV 208	Basic Video Production	3
RTV 212	Advanced TV Production	3
RTV 217	Advanced TV Studio Production	3
RTV 218	Advanced Video Tape Editing	3

**Total Credit Hours** 18

## Basic Copywriting

RTV 103	Writing for TV and Radio	3
RTV 104	Corporate Script Writing	3

**Total Credit Hours** 6

## Sales and Copywriting

RTV 103	Writing for TV and Radio	3
RTV 110	News Writing and Reporting	3

**Total Credit Hours** 6

## Reading

The Reading Department at Pikes Peak Community College provides courses for students who need to improve their reading skills prior to starting degree and certificate programs at the college. Instruction includes strategies for vocabulary development, improved comprehension, and increased reading rates. Successful students will develop skills to help ensure successful reading and comprehension of college textbook material in their degree or certificate programs.

To determine reading skill level, and to enroll in any reading course, students need to begin by taking the placement test in the Testing Center at any of the college locations. For Testing Center Information contact:

Centennial Campus • 540-7115  
The Downtown Studio Campus • 540-7115  
Rampart Range Campus • 538-5115

For more information about reading placement or classes, call 540-7325 or 538-5345 or stop by the Languages Division in room F200 and ask to speak to a reading instructor.

Enrollment in the following reading courses is determined by placement scores and progress in the program.

### Basic Level

REA 030	Basic Reading Skills	2
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REA 030 is a prerequisite for REA 060

### Intermediate Level

REA 060	Foundations of Reading	3
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REA 060 is a prerequisite for REA 090

### Advanced Level

REA 090	College Preparatory Reading	3
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## Real Estate

### Certificate

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 060
- REA 090

The Real Estate Certificate Program prepares students to take the State License Exam to become a Real Estate associate broker. Upon successful completion of the state exam, students can secure employment as residential or commercial Real Estate agents.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

REE 201	Real Estate Law and Practice	4
REE 202	Colorado Real Estate Contract and Regulations	4
REE 206	Record Keeping and Trust Accounts	1
REE 207	Current Legal Issues	1
		<u>10</u>

### Electives\*

BUS 226	Business Statistics	3
HIS 241	History of Pikes Peak Region	3
MAN 216	Small Business Management	3
MAN 226	Principles of Management	3
MAR 216	Principles of Marketing	3
MAR 220	Principles of Advertising	3
		<u>18</u>

**Total Credit Hours** 28

NOTE: Program advisors may approve additional elective choices.

## Social Services Technician

### Associate of Applied Science Degree

Recommended basic skills standards are

- AAA 090
- ENG 090
- MAT 060
- REA 090

This program prepares students to enter the social services career field at the paraprofessional level. 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. Elective courses are offered to help students learn more advanced skills.

Social Services Technician faculty recommend that in order 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) 540-7383 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.

**General Education Courses**

ENG 121	English Composition I	3
	and	
ENG 122	English Composition II	3
	or	
SPE 225	Introduction to Organizational Communication	(3)
	and	
ENG 131	Technical Writing I	(3)
PSY 215	Psychology of Adjustment	3
SOC 101	Introduction to Sociology I	3
SOC 102	Introduction to Sociology II	3
		<u>15</u>

**Other Course Requirements**

SWK 100	Introduction to Human Services	3
SWK 105	Application of Group Counseling	3
SWK 106	Introduction to Alcohol and Drugs	3
SWK 110	Social Welfare and Community Agencies	3
SWK 120	Intervention Techniques	3
SWK 180	Internship I	6
SWK 181	Internship II	6
SWK 200	Human Behavior in the Social Environment	3
SWK 208	Social Work Case Management	3
SWK 210	Client Development	3
SWK 280	Internship III	6
Electives		<u>6</u>
		48

**Total Credit Hours 63**

Electives must meet General Education requirements in humanities. See list of approved General Education courses.

**Certificate**

SOC 101	Introduction to Sociology I	3
SWK 100	Introduction to Human Services	3
SWK 110	Social Welfare and Community Agencies	3
SWK 120	Intervention Techniques	3
SWK 180	Internship I	6
SWK 208	Social Work Case Management	3
SWK 210	Client Development	3
Elective*		<u>3</u>

**Total Credit Hours 27**

\*Students must consult with advisors for selection of elective courses.

**Certificate**

Case Management Open Field Placement – Internship\*\*

SWK 110	Social Welfare and Community Agencies	3
SWK 120	Intervention Techniques	3
SWK 180	Internship I	6
SWK 208	Social Work Case Management	<u>3</u>

**Total Credit Hours 15**

**Child Welfare \*\***

SWK 110	Social Welfare and Community Agencies	3
SWK 120	Intervention Techniques	3
SWK 180	Internship I	6
SWK 208	Social Work Case Management	3
PSY 247	Child Abuse and Neglect	<u>3</u>

**Total Credit Hours 18**

**Gerontological \*\***

SWK 110	Social Welfare and Community Agencies	3
SWK 120	Intervention Techniques	3
SWK 180	Internship I	6
SWK 208	Social Work Case Management	3
SOC 201	Introduction to Gerontology	<u>3</u>

**Total Credit Hours 18**

**Substance Abuse \*\***

SWK 106	Introduction to Alcohol and Drugs	3
SWK 110	Social Welfare and Community Agencies	3
SWK 120	Intervention Techniques	3
SWK 180	Internship I	6
SWK 208	Social Work Case Management	<u>3</u>

**Total Credit Hours 18**

\*\*Pending State Approval

**Social Work**

**Associate of Arts Degree**

Recommended basic skills standards are

- ENG 090
- MAT 060
- REA 090

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.

NOTE: Colorado State University - Pueblo has specific program requirements for transfer; consult your program advisor for specifics.

**Recommended Track**

**I. Communications**

Nine (9) credit hours  
See page 43 for list of required courses.

**II. Art and Humanities**

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.  
See page 43 for list of required courses.

**III. Mathematics**

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).  
See page 43 for complete list of required courses.

**Suggested Courses**

MAT 135	Introduction to Statistics	3
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**IV. Social and Behavioral Sciences**

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

**Suggested Courses**

**Category 3 (GT-SS3)**

PSY 101	General Psychology I	3
SOC 101	Introduction to Sociology I	3

**V. Physical and Life Sciences**

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

**Suggested Courses**

BIO 105	Science of Biology	4
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**VI. Communication Studies/Fine Arts**

One to three (1-3) credit hours.  
See page 43 for complete list of required courses.

**VII. Computer Communication**

Three (3) credits  
See page 43 for options to meet this requirement.



### VIII. Electives

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

#### Suggested Courses

SWK 100	Introduction to Human Services*	3
SWK 110	Social Welfare and Community Agencies*	3
SWK 120	Intervention Techniques*	3
SWK 200	Human Behavior in the Social Environment*	3
SWK 210	Client Development*	3

### Total Credit Hours

**60**

\*SWK courses must be taken for the Colorado State University - Pueblo Social Work Program and count toward electives. SWK courses require paperwork from your advisor to be used in an AA degree. SWK courses transfer to Colorado State University - Pueblo Social Work Program.

In addition to the \*SWK courses, you must select seven (7) credits from the AA Approved

Course electives list above.

## Sociology

### Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- REA 090

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.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 43 for list of required courses.

#### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for list of required courses.

#### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

#### Suggested Courses

MAT 120	Math for the Liberal Arts	4
MAT 121	College Algebra	4

#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

#### Suggested Courses

##### Category 1 (GT-SS1)

POS 105	Introduction to Political Science	3
POS 111		

##### Category 2 (GT-SS2)

GEO 105	World Geography	3
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##### Category 3 (GT-SS3)

ANT 101	Cultural Anthropology	3
SOC 101	Introduction to Sociology I	3
SOC 102	Introduction to Sociology II	3

##### Category 4 (GT-HI1)

HIS 101	History of Western Civilization I	3
HIS 102	History of Western Civilization II	3
HIS 201	United States (U.S.) History I	3
HIS 202	United States (U.S.) History II	3

### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

### VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

### VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

### VIII. Electives

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

#### Suggested Courses

ANT 101	Cultural Anthropology	3
SOC 201	Introduction to Gerontology	3
SOC 205	Sociology of Family Dynamics	3
SOC 212	Research in Social Sciences	3
SOC 215	Contemporary Social Problems	3
SOC 218	Sociology of Diversity	3
SOC 231	The Sociology of Deviant Behavior	3
SOC 237	Sociology of Death and Dying	3
	Any Foreign Language	5

### Total Credit Hours

**60**

## Southwest Studies

### Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- MAT 030
- REA 090

The Southwest Studies program provides an interdisciplinary view of different social, cultural, artistic, and environmental aspects of the regions of the Southwest.

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 43 for list of required courses.

#### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for list of required courses.



### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

MAT 120	Math for the Liberal Arts	4
MAT 121	College Algebra	4
MAT 135	Introduction to Statistics	3

### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

Suggested Courses

<b>Category 2 (GT-SS2)</b>		
GEO 105	World Geography	3

#### Category 3 (GT-SS3)

ANT 101	Cultural Anthropology	3
---------	-----------------------	---

#### Category 4 (GT-HI1)

HIS 102	History of Western Civilization II	3
HIS 201	United States (U.S.) History I	3

### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

BIO 105	Science of Biology	4
BIO 111	General College Biology I w/Lab	5
GEY 111	Physical Geology	4
GEY 121	Historical Geology	4

### VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

ART 121	Drawing I	3
ART 136	Navajo Weaving Techniques I	3
DAN 125	History of Dance I	3
DAN 141	Regional Dances	1
PHO 101	Photography I	3

### VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

### VIII. Electives

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

Suggested Courses

ANT 101	Cultural Anthropology	3
ANT 111	Physical Anthropology	3
ART 136	Navajo Weaving Techniques I	3
DAN 141	Ballroom Dance I	3
HUM 131	Arts and Cultures of Mexico	3
HUM 209	History of the American Southwest	3
HUM 236	North American Indian Arts	3
HUM 237	Hispanic Arts of Southwest	3
HUM 238	Sacred Images, Sacred Spaces	3
LIT 205	Ethnic Literature	3
PHI 214	Comparative Literature	3

### Total Credit Hours

60

## Speech

### Associate of Arts Degree

Recommended basic skills standards are

- ENG 090
- MAT 030
- REA 090

The speech program is focused on helping our students develop many different communication skills. Students take classes that guide them in developing effective verbal and nonverbal behaviors for public speaking, group participation, work-related projects and presentations, and interpersonal communication. Employment possibilities include the following areas: business management, government, social work, guidance and counseling, education, law, corporate communication/training, radio and television, speech correction, personnel, entertainment, and religious leadership.

(The speech program at PPCC is combined with communication. Although no classes carry a communication prefix, several transfer as communication courses.)

### Recommended Track

#### I. Communications

Nine (9) credit hours

See page 43 for list of required courses.

#### II. Art and Humanities

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for list of required courses.

#### III. Mathematics

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

Suggested Courses

MAT 120	Math for the Liberal Arts	4
MAT 121	College Algebra	4
MAT 135	Introduction to Statistics	3

#### IV. Social and Behavioral Sciences

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

#### V. Physical and Life Sciences

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

#### VI. Communication Studies/Fine Arts

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

SPE 115	Public Speaking	3
SPE 125	Interpersonal Communication	3
SPE 216	Advanced Public Speaking	3
SPE 219	Group Dynamics	3
SPE 220	Intercultural Communication	3
SPE 225	Organizational Communication	3

#### VII. Computer Communication

Three (3) credits

See page 43 for options to meet this requirement.

### VIII. Electives

Sixteen (16) credits selected from the AA/AS approved course list. See page 45 for complete list of approved electives.

#### Suggested Courses

HIS 201	United States (U.S.) History I	3
HIS 202	United States (U.S.) History II	3
MUS 100	Fundamentals of Music	3
MUS 110	Music Theory I	3
MUS 111	Music Theory II	3
MUS 112	Ear Training/Sight-singing I Lab	1
MUS 113	Ear Training/Sight-singing II Lab	1

Any JOU prefix courses

Any PHO prefix courses

Any THE prefix courses

### Total Credit Hours

60

## Supervision

### Certificate

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 060
- REA 090

The Supervision Certificate Program is designed for those students who are primarily interested in the supervisory or operational level of management in a small business or a corporate entity. Skills, attitudes, and knowledge gained are based on effective first-level management needs. BUS 181 – Internship I is an integral part of the certificate.

Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have instructor permission to enroll.

For the Associate of Applied Science Degree, see Business Administration – Supervision located on page 59 of this catalog.

BUS 181	Internship	3
MAN 117	Time Management	1
MAN 125	Team Building	1
MAN 226	Principles of Management	3
MAN 200	Human Resource Management I	3
MAR 160	Customer Service	3
		<hr/>
		14

### Supervision Electives

Choose 9 hours from the following courses

BUS 182	Internship	3
BUS 281	Internship	3
PSY 215	Psychology of Adjustment	3
SPE 125	Interpersonal Communications	3
SWK 100	Introduction to Human Services	3
		<hr/>
		9

### Total Credit Hours

23

## Teacher Preparation and Para-Professional Educator Programs

Pikes Peak Community College is committed to the recruitment, development, and preparation of diverse, high-quality K-12 teachers and Para-Professional Educators to meet local, state and national shortages. Current legislation requires landmark educational reform designed to improve student achievement and culture of schools. PPCC's Teacher Preparation and Para-Professional Educator Programs are designed to transition Community College graduates into successful completion of four-year teacher certification programs or into Careers as highly qualified Para-Professional educators. Teacher Preparation students, select a major and grade-level, consult closely with their advisors, and complete a 60 credit hour Associate of Arts degree which will transfer to Colorado four-year Public colleges and universities. Para-Professional students choose an Associate or Arts Degree or an Associate of General Studies degree that best fits their personal educational goals.

### Associate of Arts Degree Elementary Education Teacher Preparation

Recommended basic skills standards are

- ENG 090
- REA 090
- MAT 090

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.

### Recommended Track

#### I. Communications

Nine (9) credit hours

ENG 121	English Composition I	3
ENG 122	English Composition II	3
SPE 115	Public Speaking	3

#### II. Art and Humanities

Three (3) credit hours

LIT 115	Introduction to Literature I	3
	or	
LIT 201	Masterpieces of Literature I	(3)
	or	
LIT 202	Masterpieces of Literature II	(3)

#### III. Mathematics

Six (6) credit hours

MAT 155	Integrated Mathematics I	3
MAT 156	Integrated Mathematics II	3

#### IV. Social and Behavioral Sciences

Nine (9) credit hours

GEO 105	World Regional Geography	3
HIS 201	United States (U.S.) History I	3
POS 111	American Government	3

#### V. Physical and Life Sciences

Twelve (12) credit hours

GEY 111	Physical Geology	4
BIO 105	Science of Biology	4
	or	
BIO 111	General College Biology I w/Lab	(5)

CHE	101	Introduction to Chemistry I w/Lab	5
	or		
CHE	111	General College Chemistry I w/Lab	(5)
	or		
PHY	101	Basic Physics	(4)
	or		
PHY	111	Physics: Algebra Based I w/Lab	(5)

**VI. Education Requirements**

Six (6) credit hours			
EDU	221	Introduction to Education	3
PSY	238	Child Development	3

**VII. Electives**

Fifteen (15) credit hours to be determined by discipline and transfer institution.

**Total Credit Hours** **60**

**Associate of Arts or Science Degree  
Secondary Education Teacher Preparation**

Recommended basic skills standards are

- ENG 090
- REA 090
- MAT 090

Secondary 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.

**Associate of Arts or Science Degree/Associate of General Studies Degree  
Para-Professional Education**

Recommended basic skills standards are

- ENG 090
- REA 090
- MAT 090

As a result of the recent "No Child Left Behind" legislation, Para-Professionals in education are now required to meet new standards (Title I, Part A, Section 1119) as of January 1, 2006. To meet these guidelines Para-professional educators may complete an Associate of Arts, Associate or Science, or Associate of General Studies degree program; or pass a school district designated test. Para-Professional educators seeking degrees at PPCC may submit transcripts of completed COTOP Academy course clusters to receive credit for corresponding community college courses. For additional information, please call 527-6012 or 527-6094.

**Technical Writing and Communication**

**Associate of Arts Degree**

Recommended basic skills standards are

- ENG 060
- MAT 030
- REA 090

Technical Writing is the integration of creativity, technology, and problem solving. The Technical Writing program offers a certificate and an AA degree. The certificate is designed for individuals with a bachelor degree, individuals who may already be in the Technical Writing field and need additional job-specific training, or individuals interested in making a career change. The degree is appropriate for individuals who are interested in entering the field of Technical Writing and/or positions that require a substantial amount of writing, and/or transferring the Technical Writing degree to a four-year university. Technical writers play a vital role in the development and dissemination of information in many organizations. Technical writers employ a talent for devising novel solutions to complex problems and an aptitude for computer technology and written and verbal communication. Some of the many titles that technical writers hold are documentation specialist, content developer, research associate, and editor. Technical writers help make information comprehensible.

Please contact 538-5320 to learn more about the education, tools, and training available at PPCC for career development in the Technical Writing field.

**Recommended Track**

**I. Communications**

Nine (9) credit hours  
See page 43 for list of required courses.

**II. Art and Humanities**

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.  
See page 43 for list of required courses.

Suggested Courses

**Category 1 (GT-AH1)**

ART-	110	Art Appreciation	3
ART	111	Art History I	3
ART	112	Art History II	3

**Category 2 (GT-AH2)**

HUM	121	Survey of Humanities I	3
HUM	122	Survey of Humanities II	3
HUM	123	Survey of Humanities III	3
LIT	115	Introduction to Literature	3
LIT	201	Masterpieces of Literature I	3
LIT	202	Masterpieces of Literature II	3

**Category 3 (GT-AH3)**

PHI	111	Introduction to Philosophy	3
PHI	112	Ethics	3
PHI	113	Logic	3

**III. Mathematics**

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).  
See page 43 for complete list of required courses.

Suggested Courses

MAT	125	Survey of Calculus	4
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**IV. Social and Behavioral Sciences**

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.  
See page 43 for complete list of required courses.  
Suggested Courses

**Category 1 (GT-SS1)**

ECO 201	Macro Economics	3
ECO 202	Micro Economics	3

**Category 3 (GT-SS3)**

PSY 101	General Psychology I	3
PSY 102	General Psychology II	3
SOC 101	Introduction to Sociology I	3
SOC 102	Introduction to Sociology II	3

**Category 4 (GT-HI1)**

HIS 101	History of Western Civilization I	3
HIS 102	History of Western Civilization II	3
HIS 201	United States (U.S.) History I	3
HIS 202	United States (U.S.) History II	3

**V. Physical and Life Sciences**

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

**Suggested Courses**

AST 101	Astronomy I	4
AST 102	Astronomy II	4
GEY 111	Physical Geology	4
GEY 121	Historical Geology	4

**VI. Communication Studies/Fine Arts**

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

**Suggested Courses**

ENG 221	Creative Writing I	3
ENG 222	Creative Writing II	3
ENG 230	Creative Nonfiction	3
ENG 231	Literary Magazine	3
JOU 109	Introduction to Desktop Publishing	3
JOU 111	Principles of Advertising	3
JOU 215	Publications Production and Design	3
JOU 231	Introduction to Public Relations	4
SPE 115	Public Speaking	3
SPE 125	Interpersonal Communication	3
SPE 219	Group Dynamics	3
SPE 220	Intercultural Communication	3
SPE 225	Organizational Communication	3

**VII. Computer Communication**

Three (3) credits

See page 43 for options to meet this requirement.

**VIII. Electives**

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

**Suggested Courses**

ENG 116	Designing Print Documentation	3
ENG 117	Grammar, Usage, and Style for the Professional Writer	3
ENG 118	Designing Online Documentation	3
ENG 131	Technical Writing I	3
ENG 132	Technical Writing II	3
ENG 205	Technical Editing	3

**Total Credit Hours****60****Certificate**

ENG 116	Designing Print Documentation	3
ENG 117	Grammar, Usage, and Style for the Professional Writer	3
ENG 118	Designing Online Documentation	3
ENG 131	Technical Writing I	3
ENG 132	Technical Writing II	3
ENG 205	Technical Editing	3

**Total Credit Hours****18**

# Theatre

**Associate of Arts Degree**

Recommended basic skills standards are

- ENG 090
- MAT 030
- REA 090

Along with music and dance, drama is one of the oldest forms of human expression. As Aristotle stated: "Imitation is natural to man" so mankind, by means of creating staged productions, has expressed this desire to mirror the actions of others. Theatre courses introduce students to the theatre as an art form and provide basic training in acting and production activities.

**Recommended Track****I. Communications**

Nine (9) credit hours

See page 43 for list of required courses.

**II. Art and Humanities**

Nine (9) credit hours: select three (3) courses; with no more than two (2) courses from any one (1) of the categories listed on page 43.

See page 43 for list of required courses.

**Suggested Courses****Category 1 (GT-AH1)**

ART 112	Art History II	3
THE 211	Development of Theatre I	3
THE 212	Development of Theatre II	3

**III. Mathematics**

Three (3) credit hours minimum (credit hours over three [3] will be applied to the electives category).

See page 43 for complete list of required courses.

**Suggested Courses**

MAT 120	Mathematics for the Liberal Arts	4
MAT 135	Introduction to Statistics	3

**IV. Social and Behavioral Sciences**

Nine (9) credit hours: select three (3) courses; one (1) must be a HIS course with no more than two (2) courses from any one (1) category listed on page 43.

See page 43 for complete list of required courses.

**Suggested Courses****Category 3 (GT-SS3)**

ANT 101	Cultural Anthropology	3
PSY 101	General Psychology I	3
PSY 102	General Psychology II	3
SOC 101	Introduction to Sociology I	3
SOC 102	Introduction to Sociology II	3

**Category 4 (GT-HI1)**

HIS 101	History of Western Civilization I	3
HIS 102	History of Western Civilization II	3
HIS 201	United States (U.S.) History I	3
HIS 202	United States (U.S.) History II	3

**V. Physical and Life Sciences**

Eight (8) credit hours: select two (2) courses (credits over eight [8] will be applied to the electives category).

See page 43 for complete list of required courses.

**VI. Communication Studies/Fine Arts**

One to three (1-3) credit hours.

See page 43 for complete list of required courses.

**VII. Computer Communication**

Three (3) credits

See page 43 for options to meet this requirement.

**VIII. Electives**

Sixteen-eighteen (16-18) credits selected from the AA/AS approved course list.

See page 45 for complete list of approved electives.

**Suggested Courses**

HUM	121	Survey of Humanities I	3
HUM	122	Survey of Humanities II	3
HUM	123	Survey of Humanities III	3
MUS	120	Music Appreciation	3
THE	105	Introduction to Theatre Arts	3
THE	111	Acting I	3
THE	112	Acting II	3
THE	115	Stage Movement for Actors	3
THE	116	Technical Theatre	3
THE	120	Drafting for the Performing Arts	3
THE	126	Auditioning for Musical Theater	3
THE	130	Safety, Tools and Materials	3
THE	131	Theatre Production I	3
THE	132	Theatre Production II	3
THE	135	Theatre Makeup	2
THE	140	Stage Dialects	1
THE	144	Scene Study	1
THE	152	Production Stage Management I	3
THE	153	Production Stage Management II	3
THE	181	Internship	1-3
THE	182	Internship	1-3
THE	183	Internship	1-3
THE	200	Paint, Draw, Render, Model Techs	3
THE	204	Voice and Articulation I	2
THE	205	Voice and Articulation II	2
THE	211	Development of Theatre I	3
THE	214	Intermediate Acting II	3
THE	215	Playwriting	3
THE	216	Theatre Lighting and Design	3
THE	218	Readers Theatre	3
THE	220	Set Design for Film and Theatre	3
THE	230	Directing II	3
THE	231	Theatre Production III	3
THE	232	Theatre Production IV	3
THE	242	Set Dressings: Theory and Practice	2
THE	245	Basic Costume Design and Construction	3
THE	246	Rehearsal and Performance	1
THE	247	Rehearsal and Performance II	2
THE	248	Rehearsal and Performance III	3

**Total Credit Hours** **60**

**Welding**

**Associate of Applied Science Degree**

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 030
- REA 090

NOTE: This program is offered on an open-entry basis.

Training in welding is offered to those who wish to learn basic welding skills or to upgrade their knowledge in welding. All welding classes are offered on an open-entry, open-exit 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. Three certificate options are available in pipe welding, structural welding, and combination pipe, structural, and advanced processes. The degree program provides students with additional competencies in welding which will enhance their upward mobility.

Students are required to purchase a welding helmet, leather gloves, leather shoes, chipping hammer, soapstone, oxy-acetylene goggles, safety glasses, pliers, and earplugs.

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**

MAT	107	Career Math	3
PSY	215	Psychology of Adjustment	3
SPE	225	Introduction to Organizational Communication	3
General Education Electives from approved list on pp. 47			<u>5</u>
			14

**Courses required for all emphasis areas**

WEL	106	Blueprint Reading for Welders and Fitters	4
WEL	113	Oxyfuel and Plasma Cutting	2
WEL	114	Ocyacetylene Welding	2
WEL	121	Structural Welding I	3
WEL	122	Structural Welding II	3
WEL	124	Introduction to Gas Tungsten Arc Welding	4
WEL	125	Introduction to Gas Metal Arc Welding	4
WEL	200	Advanced CAD/CAM Cutting Processes	4
WEL	205	Introduction to Ornamental Iron	4
WEL	224	Advanced Gas Tungsten Arc Welding	4
WEL	225	Advanced Gas Metal Arc Welding	4
WEL	230	Pipe Welding I	4
WEL	231	Pipe Welding II	4
WEL	240	Pipe Welding Certification	4
WEL	250	Layout and Fabrication	4
MAC	240	CAD/CAM 2D	<u>3</u>
			57

**Total Credit Hours** **71**



## Certificates

### Courses required for all certificates

MAT 107	Career Math	3
WEL 106	Blueprint Reading for Welders and Fitters	4
WEL 113	Oxyfuel and Plasma Cutting	2
WEL 114	Oxyacetylene Welding	2
WEL 121	Structural Welding I	3
WEL 122	Structural Welding II	3
		<u>17</u>

### Pipe

WEL 230	Pipe Welding I	4
WEL 231	Pipe Welding II	4
	Requirements for all certificates	<u>17</u>

### Total Credit Hours

**25**

### Structural

WEL 124	Introduction to Gas Tungsten Arc Welding	4
WEL 125	Introduction to Gas Metal Arc Welding	4
	Requirements for all certificates	<u>17</u>

### Total Credit Hours

**25**

## Combination Pipe, Structural, and Advanced Processes

WEL 124	Introduction to Gas Tungsten Arc Welding	4
WEL 125	Introduction to Gas Metal Arc Welding	4
WEL 224	Advanced Gas Tungsten Arc Welding	4
WEL 225	Advanced Gas Metal Arc Welding	4
WEL 230	Pipe Welding I	4
WEL 231	Pipe Welding II	4
	Requirements for all certificates	<u>17</u>

### Total Credit Hours

**41**

### Basic General Job Entry Skill Level

WEL 124	Introduction to Gas Tungsten Arc Welding	4
WEL 125	Introduction to Gas Metal Arc Welding	4
	Requirements for all certificates	<u>17</u>

### Total Credit Hours

**25**

# Check Us Out on the Web!

[www.ppcc.edu](http://www.ppcc.edu)

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## **Course Descriptions**

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## Course Descriptions

Courses offered by the college and their brief descriptions are listed on the following pages. These courses are not necessarily intended for use in one particular program and may be used in both degree and certificate programs. The college reserves the right at any time to modify content of courses, to substitute courses in any program, or to waive course prerequisites. Students are encouraged to contact the instructional divisions to request special course offerings.

## 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 100-199 are usually considered freshman level. Sophomore courses are generally numbered between 200 and 299. There are some exceptions to this rule. Courses numbered ENG 030 through ENG 090 and MAT 030 through MAT 109 are developmental and are not applicable to an AA, AS, or AGS degree.

Course numbers and descriptions are subject to change.

## Developmental Courses

Developmental courses are numbered from 001 to 100. 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

PPCC offers two kinds of independent study classes. The first allows 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.

The second type of class is a paper-based independent study designed by the Office of Distance Education. These classes are regularly cataloged courses presented in independent study packages developed by faculty. A limited number of courses are offered in this format. Working through the Office of Distance Education, students will work with an assigned faculty member throughout the term and complete requirements according to a specific syllabus and course calendar. For a list of specific courses and requirements, contact the Office of Distance Education at 540-7539.

## Off Campus Courses

Courses that originate at PPCC 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 175, 177, 176, 275, 276, 277 series. Developmental courses are 075, 076. 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.

# Accounting

## **ACC 101 Fundamentals of Accounting**

3 Credit Hours • 45 Contact Hours (Lecture)

Presents the basic elements and concepts of accounting, with emphasis on the procedures used for maintaining journals, ledgers, and other related records, and for the completion of end-of-period reports for small service and merchandising businesses.

## **ACC 115 Payroll Accounting**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* Minimum Reading assessment score (ACCUPlacer 60 or COMPASS 50) and ACC 101 or 121 or current enrollment or faculty consent  
*Corequisite:* ACC 101 or ACC 121

Studies 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. Students are exposed to computerized payroll procedures.

## **ACC 121 Accounting Principles I**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite:* ENG 090, MAT 060, REA 090

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

## **ACC 122 Accounting Principles II**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite:* ACC 121 or equivalent

Continues the study of accounting principles as they apply to partnerships and corporations. Major topics include stocks and bonds, investments, cash flow statements, financial analysis, budgeting, and cost and managerial accounting.

## **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 131 Income Tax**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ACC 121 is strongly recommended

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

## **ACC 135 Spreadsheet Applications for Accounting**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ACC 122, CIS 155 or spreadsheet experience

This course introduces spreadsheets as an accounting tool. Using an accounting perspective, the student applies fundamental spreadsheet concepts. The spreadsheet is used as a problem solving and decision making tool.

## **ACC 211 Intermediate Accounting I**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite:* ACC 122

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

## **ACC 212 Intermediate Accounting II**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite:* ACC 211

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

## **ACC 215 Accounting Information Systems and eBusiness**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ACC 122

Studies the principles, concepts, and tools used in the analysis, design, implementation and integration of accounting systems, internal controls systems, and accounting procedures. Key elements of system analysis, business systems design, accounting software selection, and the acquisition and implementation of systems are studied. Techniques and systems for electronic control systems, electronic data interchange, electronic funds transfer, and web commerce are explored.

## **ACC 216 Governmental and Not-for-Profit Accounting**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ACC 122

Addresses concepts of budgetary control as a matter of law and public administration theory. Accounting principles and procedures necessary to implement budgetary controls for governmental units and other not-for-profit institutions and organizations are presented.

## **ACC 226 Cost Accounting**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ACC 122 or equivalent with minimum grade of C

Studies cost accumulation methods and reports. Focuses on the concepts and procedures of job order, process, standard, and direct cost systems, budgeting, planning, and control of costs.

## **ACC 227 Cost Accounting II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ACC 226

Continues ACC 226 and focuses on the decision making aspects of managerial accounting using electronic spreadsheet applications for assigned problems. Topics include product pricing strategy, capital budgeting, statement of cash flow, and application of linear programming.

## **ACC 287 Cooperative Education**

3 Credit Hours • 135 Contact Hours (Work Experience)

*Prerequisite:* faculty consent

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.



# Advancing Academic Achievement

## AAA 050 Semester Survival

2 Credit Hours • 30 Contact Hours (Lecture)

Emphasizes basic study skills in order to strengthen students' chances of completing the current semester successfully.

## AAA 090 Academic Achievement Strategies

3 Credit Hours • 45 Contact Hours (Lecture)

Develops personalized approaches to learn and succeed for easier transition into college. Topics include goal-setting, time management, textbook reading strategies, note-taking, test-taking, listening techniques, concentration and memory devices, and critical thinking for student success.

## AAA 109 Advanced Academic Achievement

3 Credit Hours • 45 Contact Hours (Lecture)

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

# Adventure Guide

## ADG 100 Outdoor Leadership

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Explores the role of leadership as it applies to guiding in the adventure travel industry. Topics discussed include philosophic approaches, qualification profile, roles and responsibilities, group dynamics, interpersonal communication, professionalism, and various leadership styles.

## ADG 105 Wilderness Skills

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Covers wilderness theory, wilderness food preparation, map & compass, GPS, and backcountry wilderness skills. Wilderness emergency protocol will be addressed. Students will have the opportunity to practice and demonstrate Leave No Trace (LNT) principles in a hands-on setting. Upon completion, LNT, inc. will officially certify students as an LNT Trainer.

## ADG 106 Desert Field Studies

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Focuses on the desert ecosystem, flora, fauna, geology, safety and medical emergencies, travel and navigation, current issues, ethics, food planning and preparation, and camping. Leadership and guiding skills are covered. Students participate in a camping field experience at a desert location.

## ADG 107 Mountain Field Studies

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Focuses on mountain ecosystems, flora, fauna, geology, safety and medical emergencies, travel and navigation, current issues, ethics, food planning and preparation, and camping. Leadership and guiding skills are covered. Students participate in a camping field experience at a mountain location.

## ADG 115 Avalanche Science

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

Covers the details of avalanche formation and their hazards. Students learn what causes instability in the snow pack and what triggers an avalanche. Teaches avalanche hazard recognition and avoidance and a variety of other topics including types of snow metamorphism, snow pit analysis, and search and rescue techniques. This is a must class for anyone wanting to venture into the winter backcountry environment of the Rocky Mountains and a Prerequisite for the aspiring backcountry ski and mountain guide.

## ADG 125 Leave No Trace Certification Course

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

This overnighter (two days and one night) is a certification course in the low-impact guidelines of Leave No Trace (LNT). Participants have the opportunity to practice and demonstrate the LNT principles in a hands-on setting. It is a must for guides, outfitters, outdoor educators, scout/youth group leaders, or anyone who cares about minimizing impact on the Colorado backcountry. Upon completion, participants will be officially certified as an "LNT Trainer" by Leave No Trace, Inc., and awarded a trainer certificate. This certification is recognized by many outdoor and government agencies. This class is a great outdoor resume enhancer.

## ADG 220 Programming for Outdoor Education

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Focuses on the planning, development, and leadership of outdoor education and recreation programs and activities, using a variety of materials and resources. Various outdoor/environmental education curricula and philosophies are examined. Design and development of publication materials and resources are examined.

## ADG 280 Adventure Guide Internship

5 Credit Hours • 225 Contact Hours (Work Experience)

*Prerequisite: ADG 100, ADG 220, ADG 125, EMS 115 or faculty consent*

Students gain practical experience as interns for public or private adventure outfitters or programs. Includes 230 hours of related field experience in resource technology and work experience in a business or industry. Individual goals, objectives, and bi-weekly progress reports are required.

# Agriculture Crops and Soils

## AGY 240 Introductory Soil Science

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

Focuses on formation, physical properties, chemical properties, and management of soils emphasizing conditions that affect plant growth.

# American Sign Language

## 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 C or higher or pass the ASL proficiency test with a score of at least 80% or better prior to registering for ASL 122 if planning to enroll in the Interpreter Preparation Program.

## ASL 122 American Sign Language II

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: Successful completion of ASL 121 or passing the ASL 121 proficiency exam or faculty consent*

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 121 proficiency test at 80% or better prior to acceptance into the Interpreting and Transliterating Preparation program.

### **ASL 123 American Sign Language III**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* ASL 122 passing with a grade of B or better or passing the ASL 122 proficiency exam or faculty consent

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 122 with more emphasis on expressive skills in signing.

### **ASL 135 Conversational ASL**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite:* ASL 123 with a grade of C or better

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 221.

### **ASL 215 ASL Literature**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ASL 221 with a grade of B or better

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 221 American Sign Language IV**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* passing ASL 123 with a grade of B or better or faculty consent

Continues from ASL 123 to provide further study of American Sign Language (ASL) and its grammar, syntax, and cultural features. Helps students develop competency and fluency in the language. Variations in ASL are addressed.

### **ASL 222 American Sign Language V**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ASL 221 with a grade of B or better or faculty consent

Continues ASL 221 with focus on assimilating previously acquired skills and knowledge and increases proficiency in understanding and using American Sign Language (ASL). Addresses debates in ASL.

## **Anthropology**

### **ANT 101 Cultural Anthropology**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

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

### **ANT 107 Introduction to Archaeology**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Introduces the science of recovering the human prehistoric and historic past through excavation, analysis, and interpretation of material remains. Includes a survey of the archaeology of different areas of the Old and New Worlds. Also includes the works of selected archaeologists and discussions of major archaeological theories.

### **ANT 111 Physical Anthropology**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Studies human biology and its effects on behavior. Includes principles of genetics and evolution, vertebrates and primates, human origins, human variation, and ecology.

### **ANT 211 Cultural Resource Management**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Introduces the cultural resources management requirements of the federal government. Explores the history, purposes, and goals of historic preservation through an examination of cultural, archaeological, and historical resources of the American Southwest.

### **ANT 215 Indians of North America**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Studies the Indians of North America from 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 221 Exploring Other Cultures I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

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 222 Exploring Other Cultures II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ANT 221, ENG 090, REA 090

Provides an anthropological understanding of another selected culture (continuation of ANT 221) 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 225 Anthropology of Religion**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Explores the culturally universal phenomenon of religion. Cross-cultural varieties of beliefs in the supernatural and the religious rituals people employ to interpret and control their worlds are examined.

### **ANT 263 Anthropology of Folklore**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisites:* ENG 090, REA 090

Note: this course may be taken without prior introductory courses in anthropology

This course is a cross-cultural examination of oral traditions and verbal arts and how they reflect and preserve cultural values and worldviews. Various narratives (myths, legends, and tales), dramas, poetry, and other structured sayings are considered.

### **ANT 280 AB Southwest Field Exploration**

2 Credit Hours • 60 Contact Hours (Lab)

*Prerequisite:* ENG 090, REA 090

Introduces the social, religious, economic, and cultural development of the Anasazi. Major ruins, excavation sites, and laboratory facilities in the Four Corners region are explored.

# Architecture

## ARC 101 Introduction to Architectural Drawing

5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* ARC 104 can be taken concurrently  
*Corequisite:* ARC 104 if not taken previously

Introduces representations in architectural drafting: projections, sectioning, pictorial drawings, and architectural representations.

## ARC 102 Residential Architecture

5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* ARC 101

Covers residential planning, wood frame construction, elements of working drawings, free hand sketching, building code requirements, detailing, and structural framing.

## ARC 104 Architectural Drawing Theory

4 Credit Hours • 60 Contact Hours (Lecture)

Covers print reading, construction assemblies, terminology, isometric drawings, orthographic projections, and oblique sketching

## ARC 105 Architectural Building Materials I

2 Credit Hours • 30 Contact Hours (Lecture)

Covers construction principles, methods, and materials of soils, foundations, concrete, masonry materials and walls, thermal insulation and moisture protection, and passive solar energy to include properties, applications, manufacture, quality, advantages, and limitations.

## ARC 111 Architectural Technology Theory

2 Credit Hours • 30 Contact Hours (Lecture)

Presents architectural design theory, ethics, and Egyptian, Greek, Roman, Early Christian, Byzantine, Romanesque, and Gothic architecture.

## ARC 114 Building Service Systems I

2 Credit Hours • 30 Contact Hours (Lecture)

Provides an overview of electrical and plumbing service systems used in buildings to include residential electrical plan layout and related codes.

## ARC 117 Presentation Drawings and Models

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ARC 101

Covers freehand sketching; pencil rendering techniques; perspective; and principles of light, shadow, and shade. After completion of the previous material, each student will then choose an area of interest, either presentation rendering or model building for additional projects.

## ARC 151 Architectural Drafting I

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ARC 104

*Corequisite:* ARC 104 if not taken previously

Presents the same content as first portion of ARC 101, Architectural drawings include architectural lettering, use of the scale, orthographic projection, pictorial drawings, and building details.

## ARC 152 Architectural Drafting II

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ARC 151

Covers the remaining portion of ARC 101; students complete assignments including floor plans, wall and building sections, details, and perspectives.

## ARC 153 Architectural Drafting III

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ARC 101 or ARC 151, 152 and ARC 104

Covers the same content as the first portion of ARC 102: residential planning, wood frame construction, and elements of working drawings.

## ARC 154 Architectural Drafting IV

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ARC 101, ARC 104

Covers the same content as the remaining portion of ARC 102. A continuation of working drawings, free-hand sketching, building code requirements, and detailing.

## ARC 201 Architectural Drawing III

5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* sophomore standing or permission of faculty

Covers advanced working drawings for an architect-designed building composed of a heavy timber or glu-lam frame. This course will include a process for atypical detailing, connections, framing, related building materials and components, and will include problems and solutions unique to this frame type.

## ARC 202 Architectural Drawing IV

5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* Sophomore standing or permission of faculty

Advanced working drawings for a variety of non-residential construction: steel and concrete frames with masonry walls. Includes related materials and components and custom detailing, connections, and framing. Also covered are advanced drawing systems.

## ARC 208 Architectural Building Materials II

3 Credit Hours • 45 Contact Hours (Lecture)

Covers basic stress analysis, non-residential steel and concrete frame construction, roofing, plaster and stucco, gypsum board, light gauge metal framing, non-residential door and window assemblies, hardware, and wood and plywood.

## ARC 211 Building Service Systems II

2 Credit Hours • 30 Contact Hours (Lecture)

Continues ARC 114. Additional topics include heating, cooling, ventilation, fire protection, and conveying systems.

## ARC 218 Surveying

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* MAT 109 or MAT 122

Includes the fundamentals of plane surveying and the basic surveying instruments. It emphasizes construction-related aspects of surveying and the development of skills in using surveying field information. Surveying projects are generally covered in coordinated and fieldwork segments each 4-hour class period.

## ARC 222 Estimating and Print Reading

5 Credit Hours • 75 Contact Hours (Lecture)

Covers current methods of estimating cost of materials and labor for both residential and commercial construction. Print reading, specifications, and quantity takeoffs are an integral part of this course.

## ARC 223 Introduction to Building Codes

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* Sophomore standing or permission of faculty

Covers the legal requirements imposed on construction by building codes specifically required by the Uniform Building Code and local modifications to it.

## ARC 224 Construction Contracts and Management

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* Sophomore standing or permission of faculty

Covers construction scheduling methods, specifications, bonds and insurance, general conditions of the construction contract, construction contracts, and labor-management issues.

### **ARC 226 Construction Scheduling**

3 Credit Hours • 45 Contact Hours (Lecture)

Discusses various methods of project scheduling. Emphasis will be placed on critical path method techniques and strategies.

### **ARC 227 Architectural Structures**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: MAT 108 or equivalent*

Introduces the concepts of moments of inertia, centroids, shear force and bending moment diagrams, beam and column design, combined stresses, walls, footings, connections, structural systems of wood, reinforced concrete, and steel.

### **ARC 235 Contemporary Architectural Theory II**

2 Credit Hours • 30 Contact Hours (Lecture)

Theoretical aspects of architectural design and site planning; and the significance of Medieval, Renaissance, Mannerist, Baroque, Revivalist, Pre-modern, Modern, Post-Modern, and Contemporary architectural history periods.

## **Art**

### **ART 107 Art Education Methods**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on a multimedia approach to teaching art. Emphasizes strong creative presence, philosophy, and techniques in drawing, painting, printmaking, and other media. ART or EDU credit available, but credit will be granted for only one option.

### **ART 110 Art Appreciation**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

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

### **ART 111 Art History I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

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

### **ART 112 Art History II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

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

### **ART 115 East Asian Painting I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Emphasizes varied approaches to the basic elements of line, brush strokes, perspective, and media in oriental painting. Explores the expressed colors of nature in Asia through shades of black ink monochrome with the use of oriental brushes, ink sticks, ink stone, rice paper, and water color.

### **ART 116 East Asian Painting II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Emphasizes varied approaches to the basic elements of line, brush strokes, perspective, and media in oriental painting. Explores the expressed colors of nature in East Asia through shades of black ink monochrome with the use of oriental brushes, ink sticks, ink stone, rice paper, and water color. Intermediate work is expected and finished pieces are prepared for critique.

### **ART 118 Art Sampler:**

1 Credit Hour • 15 Contact Hours (Lecture)

Introduces students to basic skills through various art media. This course may be repeated under a different subtitle for a maximum of six Credit Hours. Encompasses a multitude of art experiences that expose students to an art form that they may wish to explore further.

### **ART 119 Lettering**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Introduces the manipulation of materials, tools, and styles of lettering and their uses as fine art media.

### **ART 121 Drawing I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

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

### **ART 122 Drawing II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 121*

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

### **ART 123 Watercolor I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 121, ART 131, its equivalent, or faculty consent*

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 124 Watercolor II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 123 or its equivalent*

Continues the study of watercolor techniques, emphasizing original compositions and experimentation with materials. Color theory is included.

### **ART 125 Landscape Drawing I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Emphasizes nature, particularly landscape. Drawing outside or in view of landscape using graphite, ink, prisma color, pastel, and washes. Students concentrate on various approaches, viewpoints, and styles and acquire expertise and interpretation in a variety of media.

### **ART 126 Landscape Drawing II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Focuses on drawing outdoors or in view of landscape (both rural and inner city) using graphite, ink, washes, pencils, pastels, and watercolor. Students concentrate on various approaches, viewpoints, and styles and acquire expertise in a variety of media. Each student presents finished pieces matted for critique.

### **ART 131 2-D Design**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

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

### **ART 132 3-D Design**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

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

### **ART 135 Fiber Design I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Introduces basic fiber design. Explores basic studies and approaches to fiber design, ranging from the uses of dyes, prints, painting, and threads to an appreciation of the properties of various kinds of fiber and textiles.



**ART 136 Navajo Weaving Techniques I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Introduces traditional Navajo weaving. Focuses on building a loom, carding raw wool, hand spinning, dye baths, and actual rug weaving. Explores Navajo history and culture as related to weaving.

**ART 137 Navajo Weaving Techniques II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 136*

Continues the focus on traditional Navajo weaving. Emphasizes building a loom, carding raw wool, hand spinning, dye baths, and actual rug weaving. Explores Navajo history and culture as related to weaving.

**ART 141 Jewelry and Metal Work I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Introduces the construction of jewelry designs in metals and small casting techniques.

**ART 142 Jewelry and Metal Work II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 141 or faculty consent*

Emphasizes conceptual design development using casting and specialized techniques.

**ART 145 Enameling on Metal I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Introduces the techniques, history, application, and potentials of glass fused to metal at high heat. Individual studio projects explore the brilliance of glass and the versatility of metals in enameling. Formal critiques accompany each project so that students experience and profit from instructor comment and peer comment.

**ART 146 Stained Glass I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

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 147 Stained Glass II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 146*

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 154 Sculpture I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 131, ART 132 or equivalent*

Introduces the fundamentals of sculpture such as modeling, casting, carving, and the processes of assemblage.

**ART 155 Sculpture II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 154 or equivalent*

Develops an understanding and focus on manipulation of three dimensional form, with greater concentration on individual creativity and style.

**ART 156 Figure Drawing I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Introduces the basic techniques of drawing the human figure.

**ART 157 Figure Painting I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Focuses on painting the human figure, and includes a brief survey of figure painting and instruction in the fundamental methods of composition and expressions.

**ART 161 Ceramics I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Introduces traditional and contemporary ceramic forms and processes including handbuilding and throwing on the potter's wheel.

**ART 162 Ceramics II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 161*

A continuation of ART 161, this course emphasizes skill, technique, and form.

**ART 163 Handbuilt Clay I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Provides instruction in several methods of handbuilding and the study of functional and decorative design elements.

**ART 164 Handbuilt Clay II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 163*

Provides continued instruction in various methods of handbuilding.

**ART 207 Art History – 1900 to Present**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

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

**ART 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 210 Landscape Painting**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 121 or ART 131*

Focuses on specific landscape concerns in the painting media of your choice.

**ART 211 Painting I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 121 or ART 131*

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 212 Painting II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 211 or faculty consent*

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 213 Painting III**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 212 or faculty consent*

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 214 Painting IV**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 213 or faculty consent*

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 221 Drawing III**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 122 or faculty consent*

Offers a continued study of expressive drawing techniques and development of individual style, with an emphasis on composition and technique variation.

**ART 222 Drawing IV**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 221 or its equivalent*

Explores advanced drawing problems with an emphasis on conceptual development and portfolio and/or exhibition quality presentation.

**ART 223 Watercolor III**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 124 or its equivalent*

Concentrates on the advanced study of subject development, form, color, and theme in watercolor.

**ART 224 Watercolor IV**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 223, its equivalent, or faculty consent*

Concentrates on the advanced study of techniques, individual style or expression, and consistency of compositional problem solving in watercolor.

**ART 225 Printmaking I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

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 226 Advanced Printmaking I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

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 227 Portraiture**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

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 235 Fiber Design II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Continues instruction in fiber design (ART 135, Fiber Design I).

**ART 236 Navajo Weaving III**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 137*

Provides continued study of Navajo weaving techniques with emphasis on the creation of a woven rug utilizing an original design based on the traditional artistic elements portrayed in Navajo history and culture.

**ART 237 Navajo Weaving Techniques IV**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 236*

Continues Navajo Weaving with emphasis on creating a Navajo Rug based on an original design.

**ART 241 Jewelry and Metal Work III**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 142*

Focuses upon advanced work and emphasizes experimentation with materials and techniques, individual designs, and superior craftsmanship.

**ART 242 Jewelry and Metal Work IV**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 241 or faculty consent*

Provides continued study of the properties of metal and stone in creating decorative work. Students employ advanced design and techniques to explore original, personal expression. A variety of materials and approaches are used in discovering new and independently creative finished pieces.

**ART 245 Enameling on Metal II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 145*

Provides continued study of Enameling on Metal I with emphasis on individual designs, advanced techniques, and the effect of technology on the craft.

**ART 246 Stained Glass III**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 147*

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 247 Stained Glass IV**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 246*

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 256 Advanced Figure Drawing**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 156*

Provides continuing study of the various methods of drawing the human figure, with emphasis on the description of form and individual style.

**ART 257 Advanced Figure Painting**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ART 157*

Offers continued study of painting the human figure with advanced problem solving in composition and experimentation with materials and techniques.

### **ART 258 Computer Animation**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite:* ART 135

Focuses on concepts, techniques, and aesthetics of digital animation. Explores 2-dimensional and 3-dimensional design, object creation, modeling, and animation.

### **ART 261 Ceramics III**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite:* ART 162

Encourages students to develop an individual style of wheel thrown and handbuilt ceramic forms with continuing involvement in surface treatment.

### **ART 262 Ceramics IV**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite:* ART 261

Continues advanced work with emphasis on various clay bodies, unique glazes and engobes, combining different textures and shapes, and development of personal forms.

### **ART 265 The 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 269 Ceramic Sculpture**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

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 277 Studio Art**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

Designed for advanced students interested in further exploring an art discipline to develop a more comprehensive portfolio.

### **ART 280 Internship**

1-6 Credit Hours

*Prerequisite:* faculty consent

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.

## **Astronomy**

### **AST 101 Astronomy I**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)

*Prerequisite:* MAT 090

Focuses on the history of astronomy, the tools of the astronomer, and the contents of the solar system including the planets, moons, asteroids, comets, and meteoroids. Incorporates laboratory experience.

### **AST 102 Astronomy II**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)

*Prerequisite:* MAT 090

Emphasizes the structure and life cycle of the stars, the sun, galaxies, and the universe as a whole, including cosmology and relativity. Incorporates laboratory experience.

## **Automotive Collision Technology**

### **ACT 101 Introduction to Automotive Collision Technology**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

Designed as an orientation to the automotive collision repair industry. Students receive an overview of job possibilities as well as learning various types of automobile construction. Names, uses, and maintenance procedures for a variety of tools and equipment are covered. Focuses on general collision repair and refinishing shop safety procedures with an emphasis on personal and environmental safety issues. Students also learn the proper handling and disposal of hazardous materials.

### **ACT 111 Metal Welding and Cutting I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 101 or faculty consent

*Corequisite:* ACT 211

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 121 Non-Structural Repair Preparation**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 101 or faculty consent

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 122 Panel Repair and Replacements**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 111 and ACT 123 or faculty consent

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 123 Metal Finishing and Body Filling**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 101 or faculty consent

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 131 Structural Damage Diagnosis**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 122 or faculty consent

*Corequisite:* ACT 132

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 132 Structural Damage Repair**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 122 or faculty consent

*Corequisite:* ACT 131

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 142 Surface Preparation I**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 101 or faculty consent

*Corequisite:* ACT 143

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 143 Spray Equipment Operation**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 101 or faculty consent

*Corequisite:* ACT 142

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 144 Refinishing I**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 142 and ACT 143

*Corequisite:* ACT 244

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 151 Plastics and Adhesives I**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 121 and ACT 243

*Corequisite:* ACT 251

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 161 Automotive Graphics and Designs**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 160

This course provides instruction in the application of graphics and designs to an automotive finish. These designs include striping, flames, paint fades, and graphics, etc.

### **ACT 164 Hobbyist's Paint and Body**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Grading:* S/U 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 170 Automotive Collision Technology Lab Experiences I**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 142, ACT 143

*Corequisite:* ACT 241

Designed to prepare the student to perform basic tasks for a specialized area in a controlled instructional lab.

### **ACT 171 Automotive Collision Technology Lab Experiences II**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 131, ACT 132, ACT 232

*Corequisite:* ACT 231

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 172 Automotive Collision Technology Experiences Level III**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* Completion of all courses in ACT specialization area

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 180 Automotive Collision Repair Level I Internship**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* 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 181 Automotive Collision Repair Level II Internship**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* Completion of all courses 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 211 Metal Welding and Cutting II**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 101 or faculty consent

*Corequisite:* ACT 111

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 220 Structural Repair II**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACR 219 (may be taken concurrently) or faculty consent

Designed as a continuation of ACR 219. Students continue practice in structural damage analysis and measuring procedures on both unitized and body-over-frame type vehicles. Proper methods for straightening, as well as replacing structural, mechanical, and electronic components are covered.

### **ACT 221 Moveable Glass and Hardware**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ACT 101 or faculty consent

*Corequisite:* ACT 232

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 231 Advanced Structural Damage Diagnosis and Repair**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* ACT 131 and ACT 132

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 232 Fixed Glass Repair**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* ACT 101 or faculty consent  
*Corequisite:* ACT 221

Covers the removal and replacement of fixed glass using manufacturer's specifications, proper tools, and recommended materials. Application of skills are demonstrated and utilized for the removal and replacement of modular glass using manufacturer's specifications and procedures.

### **ACT 241 Paint Defects**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* ACT 144

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 242 Surface Preparation II**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* ACT 142 and ACT 143  
*Corequisite:* ACT 243

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 243 Refinishing II**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* ACT 142 and ACT 143  
*Corequisite:* ACT 242

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 244 Final Detail**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* ACT 101  
*Corequisite:* ACT 144

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 251 Plastics and Adhesives II**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* ACT 121 and ACT 243  
*Corequisite:* ACT 151

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**

### **ASE 102 Introduction to the Automotive Shop**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/Lab Combination)

Prepares the incoming automotive student to work in the shop safely and gain familiarity with the shop and common equipment.

### **ASE 110 Brakes I**

3 Credit Hours • 60 Contact Hours (15 Lectures, 45 Lecture/Lab Combination)

*Prerequisite:* ASE 102

Covers basic operation of automotive braking systems. Includes operation, diagnosis, and basic repair of disc brakes, drum brakes, and basic hydraulic systems.

### **ASE 120 Basic Automotive Electricity**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/Lab Combination)

*Prerequisite:* ASE 102

Introduces automotive electricity and includes basic electrical theory, circuit designs, and wiring methods. Focuses on multi-meter usage and wiring diagrams.

### **ASE 123 Automotive Battery, Starting, and Charging Systems**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/Lab Combination)

*Prerequisite:* ASE 120

Covers the operation, testing, and servicing of automotive battery, starting, and charging systems. Includes voltage and amperage testing of starter and generator, load testing and maintenance of a battery, and starter and generator overhaul.

### **ASE 130 General Engine Diagnosis**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/Lab Combination)

*Prerequisite:* ASE 123

Focuses on lecture and related laboratory experiences in the diagnosis and necessary corrective actions of automotive engine performance factors.

### **ASE 132 Ignition System Diagnosis and Repair**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/Lab Combination)

*Prerequisite:* ASE 130

Focuses on lecture and related laboratory experiences in the diagnosis, service, adjustments, and repair of various automotive ignition systems.

### **ASE 134 Automotive Emissions**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/Lab Combination)

*Prerequisite:* ASE 132

Focuses on lecture and laboratory experiences in the diagnosis and repair of automotive emission control systems.

### **ASE 140 Suspension and Steering I**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

*Prerequisite:* ASE 102

Focuses on lecture and related experiences in the diagnosis and service of suspensions and steering systems and their components.



**ASE 150 Automotive U-joint and Axle Shaft Service**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite:* ASE 102

Studies the operating principles and repair procedures relating to axle-shaft and universal joints.

**ASE 151 Automotive Manual Transmission/Transaxles and Clutches**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite:* ASE 151

Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive manual transmissions, transaxles and clutches, and related components.

**ASE 152 Differentials and 4WD/AWD Service**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite:* ASE 151

Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive differentials, four wheel, and all wheel drive units.

**ASE 160 Automotive Engine Removal and Installation**

1 Credit Hour • 22.5 Contact Hours (22.5 Lecture/Lab  
Combination)

*Prerequisite:* ASE 102

Focuses on lecture and laboratory experiences in the removal and installation procedures of the automotive engine from and into front wheel and rear wheel drive vehicles.

**ASE 161 Engine, Disassembly Diagnosis and Assembly**

5 Credit Hours • 105 Contact Hours (15 Lecture, 90 Lecture/Lab  
Combination)

*Prerequisite:* ASE 160

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 163 Automotive Component Removal and Replacement**

3 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

Practical methods of removal and installation of engines, transmissions, transfer cases, clutch assemblies, bolt, and thread repair.

**ASE 210 Brakes II**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab  
Combination)

*Prerequisite:* ASE 110

Covers the operation and theory of the modern automotive braking systems. Includes operation, diagnosis, service, and repair of the anti-lock braking systems, power assist units, and machine operations of today's automobile.

**ASE 220 Specialized Electronics Training**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite:* ASE 120

Provides a systematic approach to automotive electrical systems. Builds from the basic electrical principles and concepts through semiconductors and microprocessors. Features on-bench exercises. Students practice diagnostic procedures that have applications to present and future automotive electronics and electrical systems.

**ASE 221 Automotive Body Electrical**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* ASE 120

Provides a comprehensive study of the theory, operation, diagnosis, and repair of vehicle accessories.

**ASE 231 Automotive Computers**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite:* ASE 120, ASE 134, ASE 220

Focuses on lecture and laboratory experiences in the inspection and testing of typical computerized engine control systems.

**ASE 233 Fuel Injection and Exhaust Systems**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* ASE 120, ASE 134, ASE 231

Focuses on lecture and related laboratory experiences in the diagnosis and repair of electronic fuel injection systems and modern exhaust systems.

**ASE 235 Drivability Diagnosis**

1 Credit Hour • 22.5 Contact Hours (22.5 Lecture/Lab  
Combination)

*Prerequisite:* ASE 233

Emphasizes lecture and related laboratory experience in diagnostic techniques and the use of diagnostic scan tools, oscilloscopes, lab scopes, multi-meters, and gas analyzers. Students diagnose live vehicle drivability problems.

**ASE 240 Suspension and Steering II**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab  
Combination)

*Prerequisite:* ASE 140

Emphasizes lecture and related experiences in the diagnosis and service of electronic suspensions and steering systems and their components.

**ASE 250 Automatic Transmission/Transaxle Service**

1 Credit Hour • 22.5 Contact Hours (22.5 Lecture/Lab  
Combination)

*Prerequisite:* ASE 102

Focuses on practical methods of maintaining, servicing, and performing minor adjustments on an automatic transmission and transaxle.

**ASE 251 Automatic Transmission/Transaxle Diagnosis and Assemblies**

5 Credit Hours • 105 Contact Hours (15 Lecture, 90 Lecture/Lab  
Combination)

*Prerequisite:* ASE 250

Covers diagnosis, principles of hydraulics, principles of electronic components, power flow, theory of operation, removal of transmission/transaxle, tear down, replacement of components, measurement and subsequent adjustment of components and replacement of transmission/transaxle.

**ASE 265 Automotive Heating and Air Conditioning**

5 Credit Hours • 105 Contact Hours (15 Lecture, 90 Lecture/Lab  
Combination)

*Prerequisite:* ASE 102

Emphasizes lecture and related laboratory experiences in the diagnosis and service of automotive heating and air conditioning systems and their components.



### **ASE 282 Co-op/Internship: General (Summer)**

1 Credit Hour • 45 Contact Hours (45 Work Experience)

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.

## **Automotive Technology**

### **AUT 105 Introduction to Motorsports Technology**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite: faculty consent*

Provides an introduction to the motorsports industry and support industries. Introduces shop safety and vehicle safety.

### **AUT 108 Racing Vehicle Systems**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite: AUT 105*

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 109 High Performance Suspension and Chassis Design**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite: faculty consent*

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 110 High Performance Suspension and Chassis Setup**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite: faculty consent*

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 116 High Performance Brake Systems**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite: faculty consent*

Introduces high performance brake systems as applied to racing vehicles.

### **AUT 118 High Performance Power Trains**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite: faculty consent*

Introduces high performance transmissions, drive lines, and differentials. Includes design, repair, and service techniques as applied to racing vehicles.

### **AUT 119 High Performance Electrical and Fuel Systems**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite: faculty consent*

Introduces electrical and fuel systems as applied to racing vehicles. Includes carburetion, fuel injection, fuel pumps, fuel cells, ignition systems, switches, and wiring.

### **AUT 125 Engines I**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite: faculty consent*

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 126 Engines II**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite: AUT 125*

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 125 and through the use of video and computer-assisted instruction.

### **AUT 127 High Performance Lubrication and Cooling Systems**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite: faculty consent*

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 128 High Performance Engine Design, Blueprinting, and Testing**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite: faculty consent*

Introduces high performance engine theory, design, components and their function. Emphasizes disassembly and assembly techniques and an introduction to dynamometer testing.

### **AUT 136 Introduction to Racecar Body Fabrication**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite: faculty consent*

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 137 Introduction to Racecar Chassis Fabrication**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 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 205 Advanced Automotive Engines**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* AUT 126

This course is a continuation of Automotive Engines II with an emphasis on advanced diagnosis and engine rebuild techniques.

### **AUT 206 High Performance Engines**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* faculty consent

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.

## **Biology**

### **BIO 105 Science of Biology**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)

*Corequisite:* MAT 090, REA 090

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

### **BIO 106 Basic Anatomy And Physiology**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)

*Prerequisite:* REA 090

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 110 Foundations of College Biology**

5 Credit Hours • 90 Contact Hours (60 Lecture, 30 Lab)

*Prerequisite:* MAT 090, REA 090

Emphasizes general concepts of biology as a science and includes basic chemistry, cell structure and function, genetics, and evolution. A preliminary course designed for students pursuing human anatomy and physiology. Includes laboratory experience.

### **BIO 111 General College Biology with Lab**

5 Credit Hours • 90 Contact Hours (60 Lecture, 30 Lab)

*Prerequisite:* MAT 090, REA 090 or permission of Department Chair

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

### **BIO 112 General College Biology II with Lab**

5 Credit Hours • 90 Contact Hours (60 Lecture, 30 Lab)

*Prerequisite:* BIO 111 (Grade of C or higher) or permission of Department Chair

A continuation of BIO 111. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience.

### **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. Lab includes field experience.

### **BIO 149 Plant Taxonomy**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)

Focuses on beginning biological and botanical terminologies, techniques, and experiments and provides a strong background in plant relationships and identification of plants. Includes laboratory and field experience.

### **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. Lab experiences parallel lecture topics.

### **BIO 154 Biology of Plants**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)

Focuses on the diversity of plants, the structure and function of plants, the ecology of plants, and human use of plants. Emphasizes seed-producing vascular plants, especially flowering plants. Lab and field experience is included.

### **BIO 201 Human Anatomy and Physiology I**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)

*Prerequisite:* MAT 090 and BIO 110 or BIO 111 (grade of C or higher) or permission of Department Chair

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

### **BIO 202 Human Anatomy and Physiology II**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)

*Prerequisite:* BIO 201 (grade of C or higher) or equivalent, or permission of Department Chair

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

### **BIO 204 Microbiology**

4 Credit Hours • 90 Contact Hours (45 Lecture, 45 Lab)

*Prerequisite:* BIO 111 or BIO 201 (grade of C or higher) or permission of Department Chair

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

## **Business**

### **BUS 115 Introduction to Business**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on the operation of the American business system. Covers fundamentals of the economy, careers and opportunities, marketing, management, production, governmental regulations, tools of business, and social responsibilities.

### **BUS 181 Internship**

1 – 6 Credit Hours • 45 Contact Hours per credit (Internship)

*Prerequisite: Program Advisor's approval*

Provides students with hands-on training in their career field. Occurs in a business setting arranged through a Student Work Experience (SWE)/ Internship Coordinator, or by utilizing a current employment organization. Student is expected to work a minimum of 7.5 hours per week. Students attend 3 seminars during the semester of enrollment. Class utilizes cooperative work experience or project methods depending on the individual situation.

### **BUS 182 Internship**

1 – 6 Credit Hours • 45 Contact Hours per credit (Internship)

*Prerequisite: BUS 181*

Provides continued instruction and work experience.

### **BUS 187 Cooperative Education/Internship**

1 – 6 Credit Hours • 45 Contact Hours per credit (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 stations related to their program of study. They work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor/coordinator.

### **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 217 Business Communication and Report Writing**

3 Credit Hours • 45 Contact Hours (Lecture)

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

### **BUS 226 Business Statistics**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAT 090*

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

### **BUS 227 Principles of Purchasing**

3 Credit Hours • 45 Contact Hours (Lecture)

Covers the management of purchasing activity and the control of materials in business, government, and organizations.

### **BUS 260 Business Process Foundations for E-Commerce**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on business process foundations and a preliminary look at the opportunities and challenges that implementers of e-commerce tools encounter.

### **BUS 261 E-Commerce Business Value**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: BUS 260*

Focuses on how implementation of e-commerce solutions drive changes to the business process.

### **BUS 281 Internship**

1 – 6 Credit Hours • 45 Contact Hours per credit (Internship)

*Prerequisite: BUS 182*

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 282 Internship**

1 – 6 Credit Hours • 45 Contact Hours per credit (Internship)

*Prerequisite: BUS 281*

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.

## **Business and Technology Education (Office Administration)**

### **BTE 100 Computer Keyboarding**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

Designed for students who have minimal or no keyboarding skills. Introduces the touch method of keyboarding, as well as the basic operation and functions of the equipment. Emphasizes learning the alphanumeric keyboard, proper technique, and speed control.

### **BTE 102 Keyboarding Applications I**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite: 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 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 111 Keyboarding Speedbuilding I**

2 Credit Hour • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite: Ability to keyboard by touch or faculty consent*

Designed to increase speed and improve accuracy in keyboarding on the PC through the use of correct techniques and concentrated effort.

### **BTE 116 File Management**

1 Credit Hour • 15 Contact Hours (Lecture)

Provides instruction principles, organization, and procedures for alphabetic, numeric, subject, chronological and geographic systems of filing.

### **BTE 155 Word Processing Techniques I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: Computer literacy; faculty consent*

Provides instruction in the preparation of business documents for the modern office using current software and in learning software commands and functions. Includes creating, processing, and editing documents.

### **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 187 Cooperative Education/Internship**

3 Credit Hours • 135 Contact Hours (Work Experience)

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.

**BTE 287 Cooperative Education/Internship**

3 Credit Hours • 135 Contact Hours (Work Experience)

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 a business location and with the direct guidance of the instructor/coordinator.

## Chemistry

**CHE 101 Introduction to Chemistry I with Lab**

5 Credit Hours • 90 Contact Hours (60 Lecture, 30 Lab)

*Prerequisite: MAT 090 or concurrent enrollment*

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

**CHE 102 Introduction to Chemistry II with Lab**

5 Credit Hours • 90 Contact Hours (60 Lecture, 30 Lab)

*Prerequisite: CHE 101 or faculty consent*

Focuses on introductory organic chemistry and biochemistry (sequel to Introduction to Chemistry I). 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. Incorporates laboratory experiments.

**CHE 111 General College Chemistry I with Lab**

5 Credit Hours • 105 Contact Hours (60 Lecture, 45 Lab)

*Prerequisite: One year of high school chemistry or equivalent**Corequisite: MAT 121*

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry, and thermochemistry. 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 and molecular orbital theory. Includes gases, liquids, and solids. Problem-solving skills are emphasized. Incorporates laboratory experiments.

**CHE 112 General College Chemistry II with Lab**

5 Credit Hours • 105 Contact Hours (60 Lecture, 45 Lab)

*Prerequisite: CHE 111, MAT 121*

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

**CHE 211 Organic Chemistry I with Lab**

5 Credit Hours • 105 Contact Hours (45 Lecture, 60 Lab)

*Prerequisite: CHE 112*

Focuses on compounds associated with the element carbon. Includes structure and reactions of aliphatic hydrocarbons and selected functional group families. Covers nomenclature of organic compounds, stereochemistry, reaction mechanisms such as SN1, SN2, E1 and E2. Laboratory experiments demonstrate the above concepts plus the laboratory techniques associated with organic chemistry.

**CHE 212 Organic Chemistry II with Lab**

5 Credit Hours • 105 Contact Hours (45 Lecture, 60 Lab)

*Prerequisite: CHE 211*

Continues the investigation into the chemistry of carbon-based compounds, their reactions and synthesis. Includes the structure, physical properties, reactivities, and synthesis of organic functional groups not covered in the first semester. Explores functional groups including alcohols, ethers, aromatics, aldehydes, ketones, amines, amides, esters, and carboxylic acids. Includes reactions and reaction mechanisms of aromatic compounds. An introduction to biochemical topics may be included if time permits. Lab experiences demonstrate the above concepts and the laboratory techniques associated with organic chemistry.

## Computer Aided Drafting

**CAD 100 Blueprint Reading for Computer Aided Drafting**

3 Credit Hours • 52.5 Contact Hours (30 Lecture, 22.5 Lecture/Lab Combination)

Covers linetype identification, identification of symbols, linear dimensions, angular dimensions, arrowless dimensions, machine process callouts, drawing notes, ANSI/ASME/ISO dimensioning standards, tolerances, freehand sketching, and reading working drawings.

**CAD 101 Computer Aided Drafting I**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

Focuses on basic computer aided drafting skills using the latest release of CAD software. Includes file management, Cartesian coordinate system, drawing set-ups, drawing aids, layer usage, drawing geometric shapes, editing objects, array, text applications, basic dimensioning, and Help access.

**CAD 102 Computer Aided Drafting II**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

Focuses on advanced computer aided drafting skills using the latest release of CAD software. Includes blocks and wblocks, polylines, multilines, polyline editing, advanced editing, editing with grips, hatching, isometric drawings, dimensions and dimension variables, paper space and viewports, templates, external references, and printing/plotting.

**CAD 151 Computer Aided Drafting / Technical Drafting Applications**

4 Credit Hours • 90 Contact Hours (90 Lecture/Lab Combination)

Focuses on the principles of technical drafting using the latest release of CAD software. Includes geometric constructions, multiview projection, sectional views, auxiliary views, manufacturing design and processes, dimensioning and tolerancing, threads, fasteners, classes of fit, design and working drawings, bill of materials, axonometric projection, intersections and developments, and gearing and cams.



### **CAD 201 Computer Aided Drafting / Custom**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

Focuses on program customization using the latest release of CAD software. Includes customizing menus, customizing toolbars, attribute extraction, basic CAD programming, advanced dimensioning, path options, script files, and slide shows.

### **CAD 202 Computer Aided Drafting / 3D**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

Focuses on construction of three-dimensional objects using the latest release of CAD software. Includes wire frame construction, surface modeling, solid modeling, extrusions, Boolean operations, 3D editing, 3D views, rendering, and 3D to 2D construction.

### **CAD 217 3D Studio VIZ**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

Focuses on introductory level basic features of the software using the latest version of 3D Studio VIZ. Includes creation and modification of primitive and complex shapes, Boolean constructions, creation and modification of lights, applying materials to objects, creation and modification of backgrounds, creation and adjustment of cameras, rendering, and animation by keyframing.

### **CAD 218 3D Studio VIZ / Advanced**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: CAD 217*

Builds on the basic 3D Studio VIZ skills learned in CAD 218. Includes importing and editing solid models, external processes (special effects), incorporating scanned images, advanced materials editing, creating materials libraries, rendering, animating, and project management.

### **CAD 225 Architectural Desktop/Autodesk**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: CAD 102 or faculty consent*

Provides students with the software application training in Architectural Desktop necessary to produce 3D architectural drawings utilizing 2D drafting skills.

### **CAD 240 Inventor I/AutoDesk**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: CAD 202 or faculty consent.*

Introduces basic non-parametric 3D concepts to build confidence in 3D thinking and moves on to three-dimensional parameters. The student learns to construct, modify, and manage complex parts in 3D space as well as how to produce 2D drawings from the 3D models.

## **Computer Information Systems**

### **CIS 101 Alternative Input/Output for Computers**

1 Credit Hour • 15 Contact Hours (Lecture)  
*Prerequisite: faculty consent*

Focuses on teaching alternative methods for inputting data into a computer. Individualized for each student, the course covers such programs as Dragon Naturally Speaking, Dragon Dictate, or Job Access with Speech (JAWS). It is designed for students who have little or no previous computer experience.

### **CIS 102 Computer Assistive Technology**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite: faculty consent*

Introduces assistive technology and alternative methods for utilization of computer systems. Depending upon student need or interest, the student selects the AT or method. Options include voice recognition, screen readers, screen enlargement, keyboard modification, word predication, reading enhancement programs, and alternative data entry methods.

### **CIS 104 Word Processing with Assistive Technology**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite: faculty consent*

Provides training in the functions, features, and uses of assistive technology and alternative methods. Covers the introduction of standard word processing features needed for proper presentation of college or business papers and the methodology to successfully use the assistive technology/alternative method in continuing educational or employment environments.

### **CIS 107 Voice Recognition: Dragon**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

Teaches the basics of voice recognition software for word processing and other related office applications. Benefits include the reduction of repetitive stress injuries, increasing accuracy, and saving report time preparation.

### **CIS 115 Introduction to Computer Information Systems**

3 Credit Hours • 45 Contact Hours (Lecture)

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

### **CIS 116 Introduction to Applications Development**

3 Credit Hours • 45 Contact Hours (Lecture)

Introduces applications development. Covers the processes and tools necessary for building application software. Focuses on basic problem solving and beginning design and programming concepts.

### **CIS 118 Introduction PC Applications**

3 Credit Hours • 45 Contact Hours (Lecture)

Introduces computer concepts and components, as well as application-suite software and the Internet. Includes descriptions of and hands-on experiences with word processing, spreadsheets, databases, operating environments and other common PC application packages

### **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 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 135 Complete PC Word Processing**

3 Credit Hours • 45 Contact Hours (Lecture)

Explores a complete array of word processing skills. The skills needed to create, edit, format, and printing documents are covered. Other topics include character, paragraph, and page formats, the use of spelling checkers and thesaurus, hyphenation, tables, mail merge, document design, and graphics.



### **CIS 145 Complete PC Database**

3 Credit Hours • 45 Contact Hours (Lecture)

Explores a complete array of database skills. Includes table, query, form, and report creation and modification. Other topics include application integration and automation of database tasks within the database.

### **CIS 146 Database Application Development: Access**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CIS 145*

Covers the PC database concepts necessary to create database applications. Includes programming, shared files, resource locking, and database recovery.

### **CIS 155 PC Spreadsheet Concepts: Excel**

3 Credit Hours • 45 Contact Hours (Lecture)

Exposes the student to a wide range of uses of the electronic spreadsheet with special emphasis on using it as a business tool. Includes fundamentals and terms, creating and saving workbooks, entering and using formulas, formatting, printing, multiple-page workbooks, creating charts, entering and using functions, managing lists, and simple macros.

### **CIS 165 Complete Presentation Graphics: PowerPoint**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on the development of presentation graphics materials including graphs, charts, illustrations, and diagrams. Emphasizes effective communication through computerized presentations. Covers features of PowerPoint and effective presentation techniques.

### **CIS 167 Desktop Publishing**

3 Credit Hours • 45 Contact Hours (45 Lecture)

*Prerequisite: Knowledge of word processing*

Introduces the concepts and applications for desktop publishing using word processing software. Emphasizes page layout and design with techniques for incorporating text and graphics and final production of printed documents.

### **CIS 204 Customization of Assistive Technology**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CIS 104 or concurrent enrollment; faculty consent*

Provides training in the customization of computer assistive technology and alternative methods. Includes individualized set up features specific to the assistive technology or alternative method and the individual. Covers program features or methods needed for use in data base programs, spreadsheets, email, and the internet. Examines individual macros and commands to enhance usage.

### **CIS 216 Advanced Applications Development**

3 Credit Hours • 45 Contact Hours (Lecture)

Continues Introduction to Applications Development. It is assumed that the student has a working knowledge of word processing, spreadsheet, and database concepts. Emphasis will be placed on the design and development of business, database, and internet applications.

### **CIS 220 Fundamentals of Unix**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CIS 115*

Covers the structure and fundamentals of the UNIX operating system. Includes the files system and file processing, various utility programs, and shell, multi-user operation, text processing, and communications.

### **CIS 222 UNIX System Administration**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CNG 104, faculty consent*

Introduces the UNIX/Linux operating system and covers the skills required to install, configure, and operate a UNIX/Linux system.

### **CIS 230 Solaris Fundamentals**

3 Credit Hours • 45 Contact Hours (Lecture)

Teaches students to use UNIX Operating Environment commands. Focuses on fundamental command-line features of the Solaris environment including file system navigation, file permissions, the vi text editor, command shells, and basic network use.

### **CIS 231 Solaris System Admin I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CIS 230*

Provides information about the essential tasks of stand-alone installation, file system management, backup procedures, process control, user administration, and device management. Students gain the necessary skills and knowledge to perform these essential system administration tasks in the Solaris Operating Environment.

### **CIS 232 Unix Shell Programming**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CIS 230*

Covers simple scripts to automate frequently executed commands followed by an explanation of adding conditional logic, user interaction, loops, menus, traps, and functions to enhance the productivity and effectiveness of the user. In addition, students explore in detail Bourne and Korn shell scripting languages.

### **CIS 233 Solaris System Admin II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CIS 231*

Provides skills necessary to administer SUN workstations running Solaris 8 in a network environment, install and maintain Sun systems, configure and troubleshoot the network file system environment, configure the network information service environment, and add think clients.

### **CIS 240 Database Design and 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 for databases.

### **CIS 243 Introduction to SQL**

3 Credit Hours • 45 Contact Hours (Lecture)

*Corequisite: CIS 245*

Introduces students to creating database structures and storing, retrieving, and manipulating data in a relational database. SQL is the set of statements that all users and programs must use to access data in the Oracle database. Also focuses on SQL\*Plus to manipulate SQL statements.

### **CIS 251 Introduction to Standard Query Language (SQL)**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CIS 145 or equivalent knowledge and experience*

Introduces students to ANSI SQL which is the basis for most other Structured Query Languages. Students learn to query and update data, create table and views, use indexes, secure data, develop stored procedures and triggers, learn object relational concepts, and develop applications with embedded SQL and ODBC.

### **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 268 Systems Analysis and 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 287 Cooperative Education**

3 Credit Hours • 135 Contact Hours (Work Experience)

Provides students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives, and to coordinate learning activities with the employer or work site supervisor.

### **CIS 289 Capstone**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: sophomore standing*

Serves as the capstone course for CIS majors. Incorporates projects that allow students to develop advanced techniques and assemble information from different courses. Most projects will include the creation of interactive application programs for the non-computer user and require research beyond the classroom to prepare the student for entry level employment in a variety of situations.

## **Computer Networking**

### **CNG 101 Introduction to Networking**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on underlying concepts of data communications, telecommunications, and networking. Emphasizes the terminology and technologies in current networking environments and provides a general overview of the field of networking as a basis for continued study in the field.

### **CNG 102 Local Area Networks**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CNG 101 or faculty consent*

Introduces Local Area Networking concepts. Focuses on discussions and demonstrations of planning, installing, and supporting networks.

### **CNG 103 Wide Area Networks**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CNG 101 or faculty consent*

Provides the student with conceptual and working knowledge of how Local Area Networks communicate over a wide area. Introduces telephony - the technology of switched voice communications. Provides students with an understanding of how communication channels of the public switched telephone networks are used for data communications and how voice data communications have become integrated.

### **CNG 104 Introduction to TCP/IP**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CNG 101 or faculty consent*

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 105 Internet Technologies**

3 Credit Hours • 45 Contact Hours (Lecture)

Outlines the important Internet Technologies in use today. Focuses on the major components and functions of each of these technologies as well as methods used to connect different technologies. Provides the students with concepts that are important to the field of systems integration with the Internet as well as a conceptual basis for understanding Internet Technologies.

### **CNG 108 Network Analysis and Design**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CNG 101, CNG 102, CNG 103, CNG 104*

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 240 Fundamentals of Network Security**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: Completion of the CCNA program or current CCNA certification*

This course is part of the Cisco Networking Academy Program. Emphasizes security policy design and management, security technologies, products, and solutions. Covers firewall and secure router design, installation, configurations, and maintenance. Includes AAA and VPN implementation using routers and firewalls. This course enables the student to take the Cisco MCNS (Managing Cisco Network Security) and the CSPFA (Cisco Secure PIX Firewall Advanced) exams, giving the student the new Cisco Security Specialist 1 certification. NOTE: In order to take the MCNS and CSPFA exams, CCNA certification is required.

### **CNG 260 Cisco Network Associate I**

5 Credit Hours • 75 Contact Hours (Lecture)

Introduces network fundamentals, the OSI model and industry standards, IP addressing (subnet masks), and basic network design.

### **CNG 261 Cisco Network Associate II**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: CNG 260*

Focuses on router theory and technologies, including router configurations, protocols, network management, and introductory LAN switching.

### **CNG 262 Cisco Network Associate III**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: CNG 261*

Focuses on advanced routing and switching configurations, LAN switching, network management, and advanced network design.

### **CNG 263 Cisco Network Associate IV**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: CNG 262*

Focuses on project-based learning, including advanced network design projects and advanced management projects. This course and CNG 260, CNG 261 and CNG 262 prepare students for the CISCO Certified Network Associate (CCNA) certification exam.

### **CNG 264 Home Integration**

5 Credit Hours • 75 Contact Hours (Lecture)

Introduces the elements of Smart home technology in preparation for the HTI+ industry certification examination.

### **CNG 265 Cisco Network Professional I**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: Current Cisco CCNA Certification or Department Approval*

Focuses on using Cisco routers connected in LANs and WANs typically found at medium to large network sites. Emphasizes selection and implementation of the appropriate Cisco IOSTM services required to build a scalable, routed network. Includes theories and tasks that network managers and administrators need to use and perform when managing access and controlling overhead traffic in growing, routed networks once connectivity has been established. This course is the first in a series of four semesters pertaining to CCNP Certification.

### **CNG 266 Cisco Network Professional II**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: Current Cisco CCNA Certification or Department Approval*

Focuses on using and configuring Cisco routers remotely connected in WANs found in medium to large network sites. Emphasizes how to select WAN topologies, devices, protocols, and implement the appropriate Cisco IOS services required for remotely accessing network resources. Includes selecting WAN components, configuring asynchronous modems, PPP, Frame Relay and ISDN protocols, NAT, X.25; TACACS+ Server, Dial Backup, and Managing Network Performance with Queuing and Compression together with requisite router configurations. This is the second course in a series of four semesters pertaining to CCNP Certification

### **CNG 267 Cisco Network Professional III**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: Current Cisco CCNA Certification or Department Approval*

Focuses on using and configuring Cisco routers and switches to connect LANs and WANs found at medium to large network sites. Covers the selection and implementation of the appropriate Cisco IOS services required to build scalable, routed, switched, and multi-layered switched networks. Includes theories and tasks that network managers and administrators need to perform when managing access and controlling overhead traffic in growing, routed networks once connectivity has been established. This is the third course in a series of four semesters pertaining to CCNP Certification.

### **CNG 268 Cisco Network Professional IV**

5 Credit Hours • Contact Hours

*Prerequisite: CNG 265, CNG 266, CNG 267*

Focuses on methodologies that provide systematic and efficient approaches to troubleshooting and support of networks and network components. Emphasizes troubleshooting tools, software testing products, protocol overviews, TCP/IP features, LAN switching, VLAN broadcasts and security, routing and switching architectures, Frame Relay, ISDN, Novel IPX, AppleTalk, EIGRP, OSPF, and BGP. This is the fourth course in a series of four semesters pertaining to CCNP Certification.

## **Computer Science**

### **CSC 105 Computer Literacy**

3 Credit Hours • 45 Contact Hours (Lecture)

Introduces computers and includes the history of computers and their impact on society. Focuses on microcomputer terminology as well as criteria for evaluating hardware and software. Enables students to develop a working knowledge of an operating system, the internet, and several microcomputer applications.

### **CSC 116 Logic and Program Design**

3 Credit Hours • 45 Contact Hours (Lecture)

Introduces computer program design using concepts of structured programming and logic. Includes pseudo code, flowcharts, and structure charts. Covers variables, data types, control structures, looping, program breaks, and arrays.

### **CSC 120 Problem Solving with Visual Basic for Applications**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)

Focuses on the history of computers and their impact on society. Covers microcomputer terminology as well as criteria for evaluating hardware and software. Enables students to develop a working knowledge of an operating system and several microcomputer applications. The applications include, but are not limited to, word-processing, spreadsheet, database, and presentation software.

### **CSC 125 Programming for the Internet**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)

*Prerequisite: The student should have an understanding of windows, a browser, and the Internet*

Provides the student with a basic understanding of the more common programming languages/scripts used on the internet. Emphasizes the development of dynamic/interactive web pages. Some of the internet languages that are covered include HTML, DHTML, XML, JavaScript, Vbscript, Active Server Pages, CGI, Form processing, and PERL.

### **CSC 130 COBOL Programming**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CSC 116 or faculty consent*

Involves computer programming in which elements of the COBOL language are taught. Focuses on design, code, debug, and document solutions to a variety of business-oriented problems.

### **CSC 131 Advanced COBOL Programming**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CSC 130 or faculty consent*

Provides continued study of COBOL programming language. Enables the student to develop more sophisticated capabilities of COBOL.

### **CSC 140 Fortran Programming**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAT 106 or equivalent experience or faculty consent*

Enables students to acquire programming skills using the FORTRAN programming language. Includes program design, data types, looping structures, formatted and unformatted input/output, array and matrix processing, character manipulations, functions and subroutines, and file processing.

### **CSC 150 Visual Basic Programming**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)

*Prerequisite: CSC 120 or faculty consent*

Introduces programming and applications development for the Microsoft Windows Programming environment using Visual Basic for Windows.

### **CSC 151 Advanced Visual Basic Programming**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)

*Prerequisite: CSC 150 or faculty consent*

Builds on the skills learned in CSC 150. Focuses on more involved applications, work with advanced controls, and deals with additional advanced topics.

### **CSC 154 Introduction to MS Visual Basic .NET (OOP)**

3 Credit Hours • 45 Contact Hours (Lecture)

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 160 Computer Science I**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)  
*Prerequisite: MAT 109 or equivalent experience or faculty consent*

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

## **CSC 161 Computer Science II**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)  
*Prerequisite: CSC 160 or faculty consent*

Continues the structured algorithm development and problem solving techniques begun in Computer Science I. Enables students to gain experience in the use of data structures and design of larger software projects. Requires intensive computer laboratory experience.

## **CSC 225 Computer Architecture/Assembly Language Programming**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)  
*Prerequisite: CSC 160 or equivalent or faculty consent*

Introduces concepts of computer architecture, functional logic, design, and computer arithmetic. Focuses on the mechanics of information transfer and control within a computer system. Includes symbolic programming techniques, implementing high level control structures, addressing modes and their relation to arrays, subprograms, parameters, linkage to high level languages, and the assembly process.

## **CSC 230 C Programming: Unix**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)  
*Prerequisite: MAT 121, CSC 116, or faculty consent*

Introduces C programming language - a mid level language whose economy of expression and data manipulation features allow a programmer to deal with the computer at a low level.

## **CSC 231 Advanced C Programming: Platform**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)  
*Prerequisite: CSC 230*

Continues the study of C begun in CSC 230. Includes pointers, arrays, linked lists, stacks and queues, trees, and advanced user interfaces such as menus, windows, and cursor control.

## **CSC 233 Object-Oriented Programming in C++**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)  
*Prerequisite: CSC 230 or CSC 160 or equivalent experience, or permission of instructor*

Covers all syntactical components of the C++ language including arrays, structures, pointers, functions and classes. Emphasizes inheritance, overloading, and polymorphism. Focuses on writing clear, properly structured, and well documented programs using the C++ Language and Object-Oriented methodology. It is the advanced course in C++ Programming.

## **CSC 240 Java Programming**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)  
*Prerequisite: MAT 109 or equivalent experience or faculty consent*

Introduces the Java programming language and covers basic graphics, events/procedures, user interface, and libraries. Enables the student to write and execute a variety of Java programs. Incorporates Java Applets into HTML.

## **CSC 241 Advanced Java Programming**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)  
*Prerequisite: CSC 240*

Continues the study of the Java programming language. Covers advanced programming topics including multi-threading, network/Internet programming, database programming, and JavaBeans. Enables the student to write advanced, large, and complex programs.

# **Computer Web Based**

## **CWB 110 Complete Web Authoring**

3 Credit Hours • 45 Contact Hours (Lecture)

Explores the complete set of web authoring skills using HTML and/or other scripting languages. Includes links, backgrounds, controlling text and graphic placement, tables, image maps, frames, and forms.

## **CWB 130 Complete Web Editing Tools**

3 Credit Hours • 45 Contact Hours (Lecture)

Introduces advanced web editing techniques to control web page layout. Advanced HTML topics such as frames and web forms are introduced. In addition students learn to create and manage web sites using a Graphical Web Design program such as Front Page or DreamWeaver.

## **CWB 163 Introduction to HTML**

1 Credit Hour • 15 Contact Hours (Lecture)

Provides an introduction to Hypertext Markup Language. Teaches students to write HTML, to create tags, format text, insert and manipulate images, create links, lists, tables and forms, and to work with style sheets. Basic knowledge of computer and internet experience preferred

## **CWB 164 XML**

3 Credit Hours • 45 Contact Hours (Lecture)

Provides students with an introduction to the XML language's structure and syntax. Examines supporting tools such as XSL and CSS. This course is not designed to focus on a particular implementation of XML, but examine the possibilities of using XML with popular technologies such as Java SAX, SOAP, RDF, and the DOM.

## **CWB 221 Technology Foundations for E-Commerce**

3 Credit Hours • 45 Contact Hours (Lecture)

Provides the student with thorough knowledge of e-commerce architecture, relational database management systems, and HTML and Network fundamentals.

# **Criminal Justice**

## **CRJ 106 Arrest Control Techniques**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: Declared CRJ major*

*Corequisite: Declared CRJ major*

Covers the skills, knowledge and abilities necessary to effectively maintain control of a suspect when making an arrest. Emphasizes the continuum of force and de-escalation of force.

## **CRJ 107 Law Enforcement Driving**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: Declared CRJ major*

*Corequisite: Declared CRJ major*

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.

## **CRJ 108 Firearms**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Discusses the skills, knowledge, and abilities necessary to safely use police firearms. Students will demonstrate skills by firing weapons on a firing range. The student will demonstrate basic safety techniques and will explain the firearms role within the continuum of force.



**CRJ 110 Introduction to Criminal Justice**

3 Credit Hours • 45 Contact Hours (Lecture)

Introduces a study of the agencies and processes involved in the criminal justice system: the legislature, the police, the prosecutor, the public defender, the courts, and corrections. Includes an analysis of the roles and problems of the criminal justice system in a democratic society, with an emphasis upon inter-component relations and checks and balances.

**CRJ 111 Substantive Criminal Law**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* CRJ 110 or equivalent

Teaches legal definitions of crime, purposes and functions of the law, historical foundations, and the limits of the criminal law.

**CRJ 112 Procedural Criminal Law**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* CRJ 110 or equivalent

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 118 Report Writing**

3 Credit Hours • 45 Contact Hours (Lecture)

Identifies the areas of concern in regards to proper documentation of police related activities. Focuses on report writing skills, proper structuring of interviews, and chronological documentation of events. Incorporates proper sentence structuring, the use of correct terminology, and accuracy in written reports.

**CRJ 125 Law Enforcement Operations**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* CRJ 110

Examines the complexity and multi-dimensional aspects of the law enforcement role and career; law enforcement discretion; law enforcement values and culture in modern America. Covers the role and functions of law enforcement in occupational, social, political, and organizational context.

**CRJ 126 Patrol Procedures**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on an in-depth study of the basic knowledge and skills required of a peace officer to safely and effectively accomplish the patrol procedure.

**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 135 Judicial Function**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* CRJ 110 or equivalent

Examines the criminal process with an analysis of the major judicial decision-makers, i.e., prosecutors, defense attorneys, judges, and the discretionary aspects of adjudication.

**CRJ 145 Correctional Process**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* CRJ 110 or equivalent

Focuses on the post-conviction corrections process, the development of a correctional philosophy, theory, and practice, a description of institutional operation, programming and management, and community-based corrections, probation, and parole.

**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 175 Selected Topic: Advanced Firearms**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* CRJ 161, Declared CRJ Majors Only

Continuation of Police Pistol Training with emphasis on Police Combat/ Tactical Shooting techniques using the police revolver, semi-automatic pistol, and shotgun. This course covers the additional hours and training required by P.O.S.T. that allows testing for Colorado Police Officers P.O.S.T. Certification.

**CRJ 175 Selected Topic: Fingerprinting**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

*Prerequisite:* Declared CRJ Majors Only

Covers technical terms used in fingerprinting, pattern interpretation, classification of fingerprints, lifting and photographing of fingerprints, and searching and filing procedures. Covers use and nomenclature of the fingerprinting camera and various kits and allied equipment.

**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 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. Includes intensive analysis of United States Supreme Court decisions.

**CRJ 211 Criminal Investigation II**

3 Credit Hours • 45 Contact Hours (Lecture)

Builds on CRJ 209 with focus on follow-up investigation including an examination of death in all its aspects.

**CRJ 212 Criminal Investigation III**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite:* CRJ 209

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 215 Constitutional Rights of Inmates**

3 Credit Hours • 45 Contact Hours (Lecture)

Covers an overview of the criminal justice system as it pertains to the constitutional rights of inmates including civil and criminal liabilities, legal services, and disciplinary proceedings.

**CRJ 216 Juvenile Law and 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 218 Drug Investigative Strategies**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on laws dealing with gambling, prostitution, sex crimes, and narcotics. Emphasizes special techniques employed in the detection, suppression, and apprehension of violators. Includes effects of drugs and narcotics, identification of narcotics, and terminology.

**CRJ 219 Police Intelligence**

2 Credit Hours • 30 Contact Hours (Lecture)

Focuses on the fundamentals of how law enforcement agencies apply intelligence in police operations and combat organized crime. Explains the structure, training, staffing, and security of intelligence units and demonstrates operating guidelines at a command level.

**CRJ 220 Human Relations and Social Conflict**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CRJ 110 or equivalent*

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 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 227 Law Enforcement Supervisory Training Program**

2 Credit Hours • 30 Contact Hours (Lecture)

Develops the Law Enforcement Supervisor. It provides an overview of police supervision and gives the student an understanding of the first-line supervisor's role from three perspectives: management expectations, first-line supervisors concept of the role, and subordinates expectations. This is a P.O.S.T. approved course.

**CRJ 230 Criminology**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CRJ 110 or equivalent*

Examines the question of crime causation from legal, social, political, psychological, and theoretical perspectives. Covers the history and development of criminology.

**CRJ 240 Criminal Investigations**

3 Credit Hours • 45 Contact Hours (Lecture)

Introduces investigation methods and procedures from preliminary through the follow-up stages.

**CRJ 245 Interview and 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 246 Traffic Investigation**

3 Credit Hours • 45 Contact Hours (Lecture)

Provides an overview of the skills and concepts necessary to complete an accurate investigation of a traffic collision. Emphasizes traffic management concepts, selective traffic enforcement, and safety issues.

**CRJ 249 Penology**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on an historical and theoretical study of incarceration as punishment, deterrence, and incapacitation.

**CRJ 250 Computer Crime Investigation**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: Law Enforcement personnel or permission of Academy Director*

Provides a basic foundation of the skills and knowledge necessary to understand and investigate the computer criminal. Investigative procedures, interviewing skills, and the necessity of search warrants will be covered. Legal issues regarding personal liability, privacy, and wiretapping will also be discussed.

**CRJ 255 Organizational Management of Correctional Institutions**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on the history of penal and correctional management, organization of correctional institutions, management processes, leadership, control principles, and implications for the future.

**CRJ 260 Police Photography**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

Focuses on current methods and techniques of police photography. Includes the use, nomenclature, and operation of 35mm and 4x4 cameras at simulated crime scenes and traffic accidents. Incorporates the development, printing, and enlargement of photos.

**CRJ 264 Practical Crime Scene Investigation**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: CRJ 160, CRJ 209, CRJ 211, CRJ 260*

Introduces the investigation of death from the edico-legal standpoint. Discusses all aspects of an investigation from the initial findings to identification of the deceased and the determination of cause and time of death. Includes the follow-up investigation and the preparation and presentation of evidence for the criminal trial.

**CRJ 275 Selected Topic: Criminal Investigation IV**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite: CRJ 209*

This course covers arson and incendiarism, arson laws, and types of incendiary fires; methods of determining fire cause, recognizing and preserving evidence, and interviewing and detaining witnesses; procedures in handling juveniles, court procedure, and giving court testimony are also included.

**CRJ 275 Selected Topic: F.A.T.S. Judgmental Shooting**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: CRJ Majors Only*

Class focuses on P.O.S.T. pre-testing requirements for tactical mindset and decision-making involving the use of deadly force. Covers opportunity to display skills learned in the use of deadly force by law enforcement officers. F.A.T.S. (Firearms Training System) is a laser pistol screen that puts "Shoot – Don't Shoot" scenarios into lifelike projections to permit judgmental shooting decisions. The system grades judgment, shooting skills, and time involved in the decision-making processes and permits in-depth discussion on improving skill levels.

**CRJ 275 Selected Topic: Introduction to Crime Scene Technology**

3 Credit Hours • 45 Contact Hours (Lecture)

A study of techniques used for identifying, collecting, and preserving of physical evidence at a crime scene. Includes collection of shoe and tire impressions, tool marks, detection and development of latent fingerprints, examination of glass fractures, and ballistics.

**CRJ 275 Selected Topic: Juvenile Law and Procedures**

3 Credit Hours • 45 Contact Hours (Lecture)

An in-depth analysis of the socio-legal operation of the Juvenile Court, focusing on the substantive and due process rights of minors. Analysis of legal reasoning underlying the juvenile law as it operates at all levels of government.

**CRJ 275 Selected Topic: Police Supervision Techniques**

2 Credit Hours • 30 Contact Hours (Lecture)

The course covers basic problems of police supervision: role and function of police supervisor at various levels, training needs, and effective application of supervisory techniques to accomplish objectives.

## Culinary Arts

**CUA 101 Food Safety and Sanitation**

2 Credit Hours • 30 Contact Hours (Lecture)

Covers 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 Completion from the Education Foundation.

**CUA 105 Food Service Concepts and 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 116 Catering, Buffets, and Tableside Cooking**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Focuses on getting started in the catering business. Includes recruiting, types of events, contacts, kitchen set-up, equipment, pricing, and menu development. Enables students to present and plan various stations of buffet set-ups and to demonstrate techniques of tableside service and flambé tableside cooking. Students also participate in basic ice carving demonstrations.

**CUA 120 Wines and 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 121 Introduction to Food Production Principles and Practices**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

Provides students with the fundamental principles of commercial kitchen operations including safety and sanitation applications, use and care of equipment, tools, utensils and knives, recipe use and conversion, organization of work, and basic cooking methods.

**CUA 122 Introduction to Hot Foods**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: CUA 121 or faculty consent*

Focuses on the fundamental principles of stocks, soups, sauces, gravies, and thickening agents. Enables students to produce a variety of these products in the college kitchen incorporating practice in the use of tools, utensils, equipment, and application of safety and sanitation practices. Students apply pre-preparation skills and efficient organization of work techniques.

**CUA 123 Introduction to Garde Manager**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: CUA 122 or faculty consent*

Provides fundamental principles of cold food and non-alcoholic beverage preparation and production. Enables students to produce a variety of cold food and non-alcoholic beverage products incorporating practice in the use of tools, utensils, equipment, and application of safety and sanitation methods. Introduces basic cold food decorative work such as fruit and vegetable garnishes and carvings, terrines, and hors d'oeuvres. Focuses on pre-preparation procedures and efficient organization of work techniques.

**CUA 124 Vegetable Preparation and Breakfast Cookery**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: CUA 123 or faculty consent*

Enables students to describe the characteristics of a variety of vegetable items including preparation procedures. Focuses on the significance of variety of breakfast items and the preparation of vegetable items using a variety of cooking methods. Emphasizes the effects of seasonings and cooking methods on vegetable products. Students prepare plate and garnish breakfast orders similar to those ordered in restaurants with egg cookery and dairy products emphasized.

**CUA 127 Soups, Sauces, and 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. Introduces gravies and sauce garnishing.

**CUA 131 Starches, Pastas, Casseroles and Grain Products**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: CUA 101, CUA 124 or faculty consent*

Provides the basics of preparing and/or cooking potatoes, starches, legumes, and pastas. Enables students to prepare and cook a variety of casseroles and grain products using the college kitchen for their preparation area. Allows students to apply pre-preparation skills and efficient organization of work techniques.

**CUA 132 Center of the Plate: Meat**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: CUA 101, CUA 131 or faculty consent*

Provides the student with the basics of meat handling, including principles used for selecting meat products, their basic cuts, and cooking methods. Focuses on a variety of meat products in the college kitchen.

**CUA 133 Center of the Plate: Poultry, Fish and Seafood**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: CUA 101, CUA 132 or faculty consent*

Provides the basics of handling poultry, fish, and seafood including principles used for selection and the basic forms these products have and the methods of cooking them. Focuses on preparation of poultry, fish, and seafood products and incorporates practice in the use of these principles and methods. Covers pre-preparation skills and efficient organization of work techniques.

**CUA 134 Application of Food Production Principles**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* CUA 101, CUA 133 or faculty consent

Serves as the practice vehicle for the student to apply food production principles for foods covered in CUA 121, CUA 122, CUA 123, CUA 124, CUA 131, CUA 132, and CUA 133. Enables the student to plan and prepare a variety of complete meals intended for a variety of settings.

**CUA 141 Baking, Principles and Ingredients**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Corequisite:* CUA 101 or faculty consent

Provides the student with the fundamentals of baking terminology, principles of baking, and the characteristics and functions of the main ingredients used in bakery production.

**CUA 142 Basic Yeast-Raised Products and Quick Breads**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* CUA 141 or faculty consent

Provides the student with the fundamentals of basic yeast-raised production and quick breads. Enables the student to produce white bread, rolls, variety grain breads, specialty breads, sweet yeast-raised products, and quick breads.

**CUA 143 Baking: Cakes, Pies, Pastries and Cookies**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* CUA 141 or faculty consent

Provides the student with the fundamentals of basic cake, pie, pastry, and cookie production. Enables the student to produce a variety of cakes, pies, pastries, cookies, and assorted dessert items.

**CUA 144 Baking Applications**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* CUA 141, CUA 142, CUA 143 or faculty consent

Serves as the practical vehicle for the student to apply basic baking principles and practices to the production of yeast breads, quick breads, cakes, icings, pastries, pies, and cookies. Focuses on the preparation of a variety of baked goods according to a baking production schedule. Enables the student to demonstrate comprehensive knowledge of products as well as speed and efficiency in the production of quality baked goods.

**CUA 150 Baking: Decorating and Presentation**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* CUA 141, CUA 142, CUA 143, CUA 144 or concurrent enrollment

Examines the preparation and production of cakes, pastries, different styles of decorating, equipment, and types of products used for decoration. Covers the use of plate painting, national products, and designing show pieces.

**CUA 151 Baking: Intermediate Bread Preparation**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* CUA 141, CUA 142, CUA 143, CUA 144 or concurrent enrollment

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 152 Individual Fancy Dessert Production**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* CUA 141, CUA 142, CUA 143, CUA 144 or concurrent enrollment

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 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 181 Work Exploration**

2 Credit Hours • 90 Contact Hours (Work Experience)

*Prerequisite:* A minimum of 10 semester hours in Culinary Arts or Hospitality Studies

*Corequisite:* Two of these hours must be in CUA 101, Food Safety and Sanitation.

Places students in actual work situations to observe the operation of foodservice establishments. Encompasses a variety of positions including customer contact, production, purchasing-inventory-planning, and maintenance. Enables the student to participate in a regularly scheduled weekly class session, complete weekly class assignments and maintain a journal of work-site activities, present a report on the work experience to the class at the end of the course, and turn in a written copy of the report to the class coordinator.

**CUA 187 Co-operative Learning**

1 - 4 Credit Hours • 45 Contact Hours per credit (Work Experience)

*Prerequisite:* Completion of 12 core credits in Culinary Arts and a portfolio demonstrating proficient skill.

Provides students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives, and to coordinate learning activities with the employer or work site supervisor.

**CUA 210 Advanced Cuisine and Garde Manger**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* CUA 134 or faculty consent

Focuses on the preparation of food display items for buffets and banquets such as fancy garnishes, fruit and vegetable carvings, canapés, party trays, etc. Includes pates, galantines, terrines, and choud froid items. Incorporates creation of food artistry show pieces meeting competition guidelines developed by the American Culinary Federation. Covers the preparation of a regional, ethnic, or cultural culinary presentation based upon personal research.

**CUA 233 Advanced Line Prep and Cookery**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* CUA 134 or faculty consent

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 236 Advanced Baking**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* CUA 144 or faculty consent

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 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.

## **Dance**

### **DAN 111 Modern Dance I**

1 Credit Hour • 30 Contact Hours (Lab)

*Prerequisite:* ENG 060

Introduces basic concepts and skills of modern dance. Focuses on technique work to increase strength, flexibility, endurance, coordination, rhythm, and spatial awareness. Explores dance as a tool for communication and dance as an art form.

### **DAN 112 Modern Dance II**

1 Credit Hour • 30 Contact Hours (Lab)

*Prerequisite:* ENG 060

Includes a more in-depth study of modern dance concepts as well as more specific techniques of modern dance choreography. Focuses on more advanced technique work and more emphasis on improvisation.

### **DAN 113 Modern Dance III**

1 Credit Hour • 30 Contact Hours (Lab)

*Prerequisite:* ENG 060

Builds on the skills learned in DAN 112 with more advanced technique work. Enables students to increase knowledge of specific modern choreographers' techniques and develop more experience with movement improvisation.

### **DAN 114 Modern Dance IV**

1 Credit Hour • 30 Contact Hours (Lab)

*Prerequisite:* DAN 113

Teaches a variety of modern dance techniques and experimentation with movement styles. Attention is placed on the performance elements of dance technique. This intermediate/advanced modern dance class is designed to challenge a dance student.

### **DAN 121 Jazz I**

1 Credit Hour • 30 Contact Hours (Lab)

*Prerequisite:* ENG 060

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 122 Jazz II**

1 Credit Hour • 30 Contact Hours (Lab)

*Prerequisite:* ENG 060

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 123 Jazz III**

1 Credit Hour • 30 Contact Hours (Lab)

*Prerequisite:* ENG 060

Builds on skills learned in DAN 122 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 125 History of Dance I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Introduces the history of dance as a theatre or performing art. Examines dance from Classical Greece through the Renaissance, including court and classical ballet to modern dance with African and Caribbean influences.

### **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 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 131 Ballet I**

1 Credit Hour • 30 Contact Hours (Lab)

*Prerequisite:* ENG 060

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 132 Ballet II**

1 Credit Hour • 30 Contact Hours (Lab)

*Prerequisite:* ENG 060

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 133 Ballet III**

1 Credit Hour • 30 Contact Hours (Lab)

*Prerequisite:* ENG 060

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 134 Ballet IV**

1 Credit Hour • 30 Contact Hours (Lab)

*Prerequisite:* DAN 133

Consists of traditional and contemporary ballet technique with focus on correct body alignment and kinesiology for an increased physical performance. This is not a point class.



## DAN 141 Regional Dances

1 Credit Hour • 30 Contact Hours (Lab)

*Prerequisite: ENG 060*

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 142 Regional Dances II: Latin American Ballroom

1 Credit Hour • 30 Contact Hours (Lab)

*Prerequisite: ENG 060*

Continues Dance 141 with focus on regional dances, customs, and rhythms. Partners are not required.

## 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 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 152 Belly Dance II

1 Credit Hour • 30 Contact Hours (Lab)

Continues Belly Dance I (DAN 151) with emphasis on coordination and balance and additional techniques. Includes costume design.

## DAN 211 Dance Composition

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: REA 090, ENG 090; two techniques classes or faculty consent*

Focuses on principles of choreography and development of individual expressive style.

## DAN 221 Dance Performance I

2 Credit Hours • 60 Contact Hours (Lab)

*Prerequisite: faculty consent through audition*

Enables students to rehearse and perform dances for community concerts after selection through audition. Covers warm-up/advanced technique, rehearsals, and cool down in a dance company atmosphere. Focuses on choreography for original ballet, modern dance, and jazz dance works.

## DAN 222 Dance Performance II

2 Credit Hours • 60 Contact Hours (Lab)

*Prerequisite: DAN 221*

Continues Dance Performance class offering more opportunities for students to perform in different settings.

## DAN 224 Dance for Musical Theatre I

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: Dance technique courses*

Introduces students to dance within the context of musical theatre. Enables the student to practice non-verbal communication and expressive movement techniques.

## DAN 225 Dance for Musical Theatre II

3 Credit Hours • 90 Contact Hours (Lab)

*Prerequisite: DAN 224*

Continues Dance 224 with more emphasis on performance.

## DAN 226 Pointe

1 Credit Hour • 30 Contact Hours (Lab)

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.

# Deaf Prep

## DEP 011 Deaf Prep American Sign Language I

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Allows the student to study the Deaf culture. Focuses on discussion of experiences of the Deaf or hard of hearing person while growing up. Covers the values, traditions, and norms of both Deaf and hearing people.

## DEP 012 Deaf Prep American Sign Language II

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Discusses diversity of Deaf people in general. Examines the lives of Deaf people from past and present. Enables the student to compare people from different countries and their sign languages. Incorporates volunteer time at one of the Deaf centers.

## DEP 013 Deaf Prep American Sign Language III

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Focuses on expressive skills development. Involves students in activities that require observing different Deaf actors and poets. Enables the student to develop skills to act or tell stories in ASL to several kinds of audiences.

## DEP 014 Deaf Prep American Sign Language IV

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Allows the Deaf students to study their own language in depth. Involves analyzing different components of ASL grammar and developing the understanding of each component and its functions. Emphasizes improving and maintaining their signing skills.

## DEP 021 Deaf Prep Critical Thinking I

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Serves as the first course in a sequence for students enrolled in the Deaf Prep Program and is taught in American Sign Language. It is remedial in nature and targets Deaf students who are not academically ready for developmental classes. Focuses on Feuerstein's Instrumental Enrichment program as well as other activities, games, and projects. Is highly individualized and assignments vary according to student's understanding and progress.

## DEP 022 Deaf Prep Critical Thinking II

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Serves as the second course for students enrolled in the Deaf Prep Program and is taught in American Sign Language. Is remedial in nature and targets Deaf students who are not academically ready for developmental classes. Focuses on Feuerstein's Instrumental Enrichment program as well as other activities, games, and projects. Is highly individualized and assignments vary according to student's understanding and progress.

## DEP 023 Deaf Prep Critical Thinking III

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Serves as the third course in the sequence and is taught in American Sign Language. Is remedial in nature and targets Deaf students who are not academically ready for developmental classes. Focuses on Feuerstein's Instrumental Enrichment program as well as other activities, games, and projects. Is highly individualized and assignments vary according to student's understanding and progress.

## DEP 024 Deaf Prep Critical Thinking IV

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Serves as the fourth course in a sequence and is taught in American Sign Language. Is remedial in nature and targets Deaf students who are not academically ready for developmental classes. Focuses on Feuerstein's Instrumental Enrichment program as well as other activities, games, and projects. Is highly individualized and assignments vary according to student's understanding and progress.



**DEP 031 Deaf Prep English I**

5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)

Serves as the first in a sequence for students enrolled in the Deaf Prep Program and is taught in American Sign Language. Is remedial in nature and targets Deaf students who are not academically ready for developmental classes. Includes reading and writing of English and comparison of English and ASL. Placement is based upon students' abilities and needs and the results of pretesting. Incorporates highly individualized activities, projects, and assignments.

**DEP 032 Deaf Prep English II**

5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)

Serves as the second in a sequence for students enrolled in the Deaf Prep Program and is taught in American Sign Language. Is remedial in nature and it targets Deaf students who are not academically ready for developmental classes. Includes reading and writing of English and comparison of English and ASL. Placement is based upon students' abilities and needs and the results of pretesting. Incorporates highly individualized activities, projects, and assignments.

**DEP 033 Deaf Prep English III**

5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)

Serves as the third in a sequence for students enrolled in the Deaf Prep Program and is taught in American Sign Language. Is remedial in nature and targets Deaf students who are not academically ready for developmental classes. Includes reading and writing of English and comparison of English and ASL. Placement is based upon students' abilities and needs and the results of pretesting. Incorporates highly individualized activities, projects, and assignments.

**DEP 034 Deaf Prep English IV**

5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)

Serves as the fourth in a sequence for students enrolled in the Deaf Prep Program and is taught in American Sign Language. Is remedial in nature and targets Deaf students who are not academically ready for developmental classes. Includes reading and writing of English and comparison of English and ASL. Placement is based upon students' abilities and needs and the results of pretesting. Incorporates highly individualized activities, projects, and assignments.

**DEP 041 Deaf Prep Math I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Serves as the first in a sequence for students enrolled in the Deaf Prep Program and is taught in American Sign Language. Is remedial in nature and targets Deaf students who are not academically ready for developmental classes. Includes whole number arithmetic as well as operations with fractions and decimals. Placement is based upon students' abilities and needs and the results of pretesting. Incorporates highly individualized activities, projects, and assignments.

**DEP 042 Deaf Prep Math II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Serves as the second in a sequence for students enrolled in the Deaf Prep Program and is taught in American Sign Language. Is remedial in nature and targets Deaf students who are not academically ready for developmental classes. Includes whole number arithmetic as well as operations with fractions and decimals. Placement is based upon students' abilities and needs and the results of pretesting. Incorporates highly individualized activities, projects, and assignments.

**DEP 043 Deaf Prep Math III**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Serves as the third in a sequence for students enrolled in the Deaf Prep Program and is taught in American Sign Language. Is remedial in nature and targets Deaf students who are not academically ready for developmental classes. Includes whole number arithmetic as well as operations with fractions and decimals. Placement is based upon students' abilities and needs and the results of pretesting. Incorporates highly individualized activities, projects, and assignments.

**DEP 044 Deaf Prep Math IV**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Serves as the fourth in a sequence for students enrolled in the Deaf Prep Program and is taught in American Sign Language. Is remedial in nature and targets Deaf students who are not academically ready for developmental classes. Includes whole number arithmetic as well as operations with fractions and decimals. Placement is based upon students' abilities and needs and the results of pretesting. Incorporates highly individualized activities, projects, and assignments.

**DEP 051 Deaf Prep Resource Management I**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Serves as the first in a sequence for students enrolled in the Deaf Prep Program and is taught in American Sign Language. Is remedial in nature and targets Deaf students who need to improve their life skills. Enables the student to recognize and utilize resources within themselves, their close relationships, their communities, and their world. Class activities may include field trips, guest lecturers, and special projects. These classes are highly individualized and assignments vary according to students' understanding and progress.

**DEP 052 Deaf Prep Resource Management II**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Serves as the second in a sequence for students enrolled in the Deaf Prep Program and is taught in American Sign Language. Is remedial in nature and targets Deaf students who need to improve their life skills. Enables the student to recognize and utilize resources within themselves, their close relationships, their communities, and their world. Class activities may include field trips, guest lecturers, and special projects. These classes are highly individualized and assignments vary according to students' understanding and progress.

**DEP 053 Deaf Prep Resource Management III**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Serves as the third in a sequence for students enrolled in the Deaf Prep Program and is taught in American Sign Language. Is remedial in nature and targets Deaf students who need to improve their life skills. Enables the student to recognize and utilize resources within themselves, their close relationships, their communities, and their world. Class activities may include field trips, guest lecturers, and special projects. These classes are highly individualized and assignments vary according to students' understanding and progress.

**DEP 054 Deaf Prep Resource Management IV**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Serves as the fourth in a sequence for students enrolled in the Deaf Prep Program and is taught in American Sign Language. Is remedial in nature and targets Deaf students who need to improve their life skills. Enables the student to recognize and utilize resources within themselves, their close relationships, their communities, and their world. Class activities may include field trips, guest lecturers, and special projects. These classes are highly individualized and assignments vary according to students' understanding and progress.

### **DEP 061 Deaf Prep Study Skills I**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Allows students to develop their skills in goal setting, time management, and test taking. Addresses effectiveness of proper school tools, attitudes, and behaviors. Develops awareness of the availability of college resources such as interpreters, notetakers, mentors, libraries, tutoring centers, and computer labs.

### **DEP 062 Deaf Prep Study Skills II**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Allows students to develop their skills in goal setting, time management, and test taking. Addresses effectiveness of proper school tools, attitudes, and behaviors. Develops awareness of the availability of college resources such as interpreters, notetakers, mentors, libraries, tutoring centers, and computer labs.

## **Dental Assisting**

### **DEA 102 Principles of Clinical Practice**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

*Corequisite: DEA 120 and DEA 121 or program coordinator consent*

Includes techniques used in four handed dentistry, instrument identification, and armamentarium for tray set-ups. Covers sterilization and aseptic procedures.

### **DEA 104 Specialties in Dentistry**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/Lab Combination)

*Corequisite: DEA 102, DEA 120, and DEA 121 or program coordinator consent*

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 111 Dental Office Management**

2 Credit Hours • 45 Contact Hours (45 Lecture/Lab Combination)

*Prerequisite: DEA 102, DEA 104, DEA 120, DEA 121, DEA 123, DEA 125, DEA 126*

*Corequisite: DEA 122, DEA 124, DEA 131, DEA 132, DEA 134 or program coordinator consent*

Includes office management and clerical practices, scheduling appointments, completing daily records, insurance and tax forms, bookkeeping and recall systems, and ordering supplies.

### **DEA 120 Introduction to Dental Practices**

1 Credit Hour • 15 Contact Hours (Lecture)

*Corequisite: DEA 121*

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 121 Dental Science I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Corequisite: DEA 120*

Includes fundamentals of the oral structures as they apply to oral histology, embryology, morphology, pathology, dental anatomy, and dental charting.

### **DEA 122 Dental Science II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: DEA 102, DEA 104, DEA 120, DEA 121, DEA 126 or program coordinator consent*

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 123 Dental Materials I**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

*Corequisite: DEA 120, DEA 121 or program coordinator consent*

Includes fundamentals of dental materials as they apply to clinical and laboratory applications.

### **DEA 124 Dental Materials II**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: DEA 120, DEA 121, DEA 123 or program coordinator consent*

Includes type, compositions, and uses of elastomeric impression materials and the fabrication of custom impression trays and temporary crowns.

### **DEA 125 Dental Radiography**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

*Corequisite: DEA 120, DEA 121 or program coordinator consent*

Focuses on the science of radiography, the application of radiographic techniques, and aseptic techniques.

### **DEA 126 Infection Control**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

*Corequisite: DEA 120, DEA 121 or program coordinator consent*

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 131 Advanced Dental Radiography**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: DEA 120, DEA 121, DEA 125*

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 132 Medical Emergencies**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/Lab Combination)

*Prerequisite: DEA 102, DEA 120, DEA 121*

Includes techniques for taking and reading vital signs as well as Cardiopulmonary Resuscitation (CPR) for Health Care Providers. Emphasizes recognition, prevention, and management of medical emergency situations in the dental office. Covers completing and updating patient health history. Addresses pharmacology.

**DEA 134 Prevention and Nutrition in Dentistry**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite:* DEA 102, DEA 120, DEA 121

*Corequisite:* DEA 122, DEA 132 or program coordinator consent

Includes techniques in preventive dentistry with an emphasis on fluoride application and oral home care instruction. Includes nutrition as it applies to dental health and diet counseling. Covers techniques for coronal polishing.

**DEA 140 Dental Assisting National Board Review (Elective)**

1 Credit Hour • 15 Contact Hours (Lecture)

*Prerequisite:* DEA 102, DEA 104, DEA 111, DEA 120, DEA 121, DEA 122, DEA 123, DEA 124, DEA 125, DEA 126, DEA 131, DEA 132, DEA 134, DEA 181, 2 years documented full time dental assisting experience or program coordinator consent

*Corequisite:* DEA 182

Focuses on a review for the Dental Assisting National Board (DANB) Examination.

**DEA 181 Clinical Internship I**

1 Credit Hour • 45 Contact Hours (Work Experience)

*Prerequisite:* Program coordinator consent

Includes the opportunity for clinical application of dental assisting techniques in a dental office or clinical setting as part of the American Dental Association's requirement of 300 clinical internship hours.

**DEA 182 Clinical Internship II and Seminar**

6 Credit Hours • 270 Contact Hours (Work Experience)

*Prerequisite:* DEA 181 and program coordinator consent

Focuses on clinical practice in private or public dental offices or clinics with clinical work experience in both general dentistry and specialty fields on a rotating basis.

**DEA 200 Introduction to Expanded Functions**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* Graduate of an American Dental Association accredited dental assisting program, Certified Dental Assistant, or 2 years of documented full time dental assisting experience or program coordinator consent.

Emphasizes techniques and concepts of expanded functions in dental assisting, including team management, placement and finishing of dental restorative materials, and adjunct procedures necessary to restorative dentistry.

**DEA 205 Expanded Functions for the Dental Auxiliary**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* DEA 200

Focuses on clinical application of expanded functions in dental assisting.

## Diesel Power Mechanics

**DPM 100 Introduction to Diesel Mechanics**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

Focuses on a basic understanding of general maintenance procedures for trucks and trailers and outlines the duties and responsibilities of the diesel mechanic. Addresses the use of shop tools, shop equipment, and the use of flat-rate and vehicle and shop safety procedures, and tool requirements. Covers preventative maintenance procedures.

**DPM 103 Diesel Engines I**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* faculty consent

Covers the theory of operation and repair of diesel engines with emphasis on the smaller automotive and medium range diesel engines. Enables the student to disassemble, inspect, and reassemble engines.

**DPM 106 Fuel Injection**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* DPM 100

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 107 Fundamentals of Four-Wheel and Front-Wheel Drive**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* faculty consent

Focuses on the operation and repair of four wheel drive and front wheel drive systems.

**DPM 203 Diesel Engines II**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* faculty consent

Continues to build on skills learned in Diesel Engines I with major emphasis on heavy duty diesel engine theory, diagnosis, and repair.

**DPM 205 Heavy Duty Powertrains**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* DPM 100 or faculty consent

Studies the power train from the clutch to the final drive on heavy-duty equipment. Includes a study of clutch types, transmissions, and final drives and covers diagnosis and servicing of the components.

**DPM 206 Heavy Duty Brake Systems**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* DPM 100 or faculty consent

Focuses on the various braking systems incorporated in heavy-duty trucks and heavy equipment. Includes a study of hydraulic, air, and engine brake systems and covers the diagnosis and service of the components.

**DPM 210 Air Induction and Engine Analysis**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* DPM 100 or faculty consent

Covers the theory of operation and repair of turbochargers, superchargers, intercoolers, and various induction systems. Examines factors regulating engine performance failure and procedures for reclaiming engine performance.

# Early Childhood Education

## **ECE 100 Pre-licensing Training for Family Child Care Providers**

1 Credit Hour • 15 Contact Hours (Lecture)

Provides the educational training necessary to meet the hours and categories of training required by the Colorado Department of Human Services to open a licensed child care facility for children ages 2-12, with no more than two children under the age of two. Upon completion of 15 hours of training, in the areas listed below, the student will have met the academic training requirements of the Colorado Department of Human Services needed to open a licensed child care facility for children ages 2-12, with no more than two children under the age of two.

## **ECE 101 Introduction to Early Childhood Education**

3 Credit Hours • 45 Contact Hours (Lecture)

Provides an introduction to Early Childhood Education. Includes the eight key areas of professional knowledge: Child Growth and Development; Health, Nutrition and Safety; Developmentally Appropriate Practices; Guidance; Family and Community Relationships; Diversity; Professionalism; Administration and Supervision. Focuses on ages birth through age eight.

## **ECE 102 Introduction to Early Childhood Lab Techniques**

3 Credit Hours • 105 Contact Hours (15 Lecture, 90 Practicum)

*Prerequisite: ECE 101, ECE 103 or concurrent enrollment*

Focuses on a classroom seminar and placement in a child care 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 103 Guidance Strategies for Children**

3 Credit Hours • 45 Contact Hours (Lecture)

Explores guidance theories, applications, goals, techniques, and factors that influence expectations, classroom management issues, and prosocial skills. Addresses ages birth through age 8.

## **ECE 111 Infant and Toddler Theory and Practice**

3 Credit Hours • 45 Contact Hours (Lecture)

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 112 Introduction to Infant/Toddler Lab Techniques**

3 Credit Hours • 105 Contact Hours (15 Lecture, 90 Practicum)

*Prerequisite: ECE 111 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 113 Infant/Toddler Lab Techniques II**

3 Credit Hours • 135 Contact Hours (Practicum)

*Prerequisite: ECE 111, ECE 112 or concurrent enrollment*

Continues ECE 112 with responsibility for planning and implementing developmentally appropriate activities and caregiving.

## **ECE 191 School Age Theory and Practice**

3 Credit Hours • 45 Contact Hours (Lecture)

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 192 School Age Lab Techniques**

3 Credit Hours • 135 Contact Hours (Practicum)

*Corequisite: ECE 191*

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 205 Nutrition, Health and Safety**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on nutrition, health, and safety as a key factor for optimal growth and development of young children. Includes nutrient knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities, and communication with families. Addresses ages from prenatal through age 8.

## **ECE 220 Curriculum Development: Methods and Techniques**

3 Credit Hours • 45 Contact Hours (Lecture)

Provides an overview of early childhood curriculum development. Includes processes for planning and implementing developmentally appropriate environments, materials and experiences, and quality in early childhood programs.

## **ECE 225 Language and Cognition for the Young Child**

3 Credit Hours • 45 Contact Hours (45 Lecture)

*Prerequisite: PSY 238 or faculty consent*

Note: Course offered at CCC Online 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 226 Creativity and the Young Child**

3 Credit Hours • 45 Contact Hours (45 Lecture)

Note: Course offered at CCC Online only

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 238 Child Growth and Development**

4 Credit Hours • 67.5 Contact Hours (45 Lecture, 22.5 Lecture/Lab Combination)

Covers the growth and development of the child from conception through the elementary school years. Emphasizes physical, cognitive, language, social and emotional domains and the concept of the whole child and how adults can provide a supportive environment. Ages addressed: prenatal through age 12. This course has an early childhood laboratory component.

## **ECE 240 Administration of Early Childhood Care and Education Programs**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ECE 101 or faculty consent*

Examines Colorado's minimal licensing requirements, as well as optimal standards pertaining to the operation of programs for young children. Focuses on the director's administrative skills and role as a community advocate for young children. Addresses ages birth through age 12.



## **ECE 241 Admin: Human Relations for Early Childhood Professions**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on the human relations component of an early childhood professional's responsibilities. Includes director-staff relationships, staff development, leadership strategies, parent-professional partnerships, and community interaction.

## **ECE 260 Exceptional Child**

3 Credit Hours • 45 Contact Hours (Lecture)

Presents an overview of typical and atypical developmental progression. Includes planning techniques, learning strategies, legal requirements, and accommodations and adaptations that are necessary in order to create an integrated classroom environment for a child with a wide range of exceptionalities. Focuses on ages birth through age 8.

## **ECE 261 Exceptional Child Lab Techniques**

3 Credit Hours • 135 Contact Hours (Practicum)

*Prerequisite: ECE 260 or concurrent enrollment*

Incorporates a supervised experience in a program serving exceptional children in an inclusive setting. 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 288 Practicum: Early Childhood Education**

1 – 7 Credit Hours • 45 Contact Hours per credit (Practicum)

*Prerequisite: faculty consent*

*Corequisite: faculty consent*

Provides students with advanced field experience opportunities in early childhood education programs.

## **ECE 289 Capstone: Early Childhood Education**

5 Credit Hour • 225 Contact Hours (Work Experience)

*Prerequisite: ECE Program requirements*

Incorporates a demonstrated culmination of learning within a given program of study.

# **Economics**

## **ECO 201 Principles of Macroeconomics**

3 Credit Hours • 45 Contact Hours (Lecture)

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

## **ECO 202 Principles of Microeconomics**

3 Credit Hours • 45 Contact Hours (Lecture)

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

## **ECO 235 International Economics**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on international economic interdependence. Analyzes the foundations of trade theory, international trade organizations and trade policies, regional trade arrangements, international financial institutions, and e-trade.

# **Education**

## **EDU 110 Overview of Special Populations for Paraeducators**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: A reading level of 9th grade or faculty consent is required for entry into the class.*

Provides students with knowledge in the areas of laws and history of special education; roles and responsibilities of paraeducators; planning for students with disabilities; typical and non-typical developmental stages of children and youth; basic learning concepts; cognitive, communicative, physical and affective needs of students with disabilities; understanding people with disabilities; transition, job coaching; and how to teach students self-advocacy skills.

## **EDU 111 Communication Skills with Special Populations for Paraeducators**

3 Credit Hours • 45 Contact Hours (Lecture)

Provides knowledge in areas of effective communication skills, problem solving techniques, and analyzing self as communicator.

## **EDU 112 Health and Safety Issues in Schools for Paraeducators**

1 Credit Hours • 15 Contact Hours (Lecture)

Provides students with the knowledge in the areas of health and safety issues in schools; basic first aid and CPR procedures; and the feeding and positioning of physically challenged students.

## **EDU 114 Student Behavior Management for Paraeducators**

3 Credit Hours • 45 Contact Hours (Lecture)

Provides students knowledge in the areas of behavior modification; teaching appropriate behaviors; contingency contracts; observing and recording behavior; lunchroom supervision; and playground supervision.

## **EDU 141 Basic Instructional Techniques for Paraeducators**

3 Credit Hours • 45 Contact Hours (Lecture)

Provides students with knowledge in the areas of delivering instruction; grouping students; reading with students; modifying instructional materials; using technology; and utilizing adaptive equipment.

## **EDU 188 Practicum I**

1-6 Credit Hours • 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 220 Exploration of Teaching**

2 Credit Hours • 30 Contact Hours (Lecture)

Gives students a study of the broad overview of topics related to the teaching profession, grades K-12. Provides a hands-on, relevant exploration to help each student personally consider a career in education.

## **EDU 221 Introduction to Education**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: REA 090, ENG 121*

*Corequisite: 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. Includes current issues of educational reform, technology as it relates to education, and considerations related to becoming a teacher in the state of Colorado.



### **EDU 232 Literacy in the Multicultural/Multilingual Classroom**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: faculty consent*

Introduces students to the theories, methods, and techniques for teaching reading and language to children from diverse cultural and linguistic backgrounds. Includes field experience applying coursework with children.

### **EDU 260 Adult Learning and Teaching**

3 Credit Hours • 45 Contact Hours (Lecture)

Introduces the basic instructional theory focusing on the adult learner. Includes developing a syllabus, learning goals and outcomes, and lesson plans. Emphasizes teaching to a diverse participant body, classroom management, learning theory, learning styles, teaching styles, and using technology in the classroom.

### **EDU 261 Teaching, Learning and Technology**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: EDU 221 or EDU 260*

Prepares students to integrate technology into their teaching curriculum. Enables the student to design educational and training materials incorporating instructional technology. Explores a variety of technologies, including the computer, Internet, multimedia, graphics, audio, and text with an emphasis on increasing learning through their use. Examines combining technology with a variety of instructional methodologies.

### **EDU 265 Instructional Design**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: EDU 221 or EDU 260 or faculty consent*

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.

## **Electronics**

### **ELT 106 Fundamentals of DC/AC**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MAT 090*

*Corequisite: MAT 112*

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 112 Advanced DC-AC**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Continues to build on ELT 106 and covers advanced concepts of DC-AC circuits, including DC network theorems and analysis of AC series-parallel circuits. Includes an expanded treatment of power supplies, dual-supply rectifier circuits, and Zener diode voltage regulators. Emphasizes troubleshooting.

### **ELT 134 Solid State Devices I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: ELT 112 or equivalent or waiver*

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/varistors, 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 135 Solid State Devices II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: ELT 134 or equivalent or waiver*

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 147 Digital Devices I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: ELT 106*

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 148 Digital Devices II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: ELT 147*

Continues ELT 147 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 248 Automation Control Circuits**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: ELT 106 and ELT 258*

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 258 Programmable Logic Controllers**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: ELT 106*

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 263 Enhanced Microprocessor Systems**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: ELT 147, ELT 148*

Focuses on microprocessor interfacing, industry standard serial and parallel interface devices, support software, development and implementation, system schematic orientation, logic analyzer, timing and measurement considerations, and troubleshooting techniques.

### **ELT 264 Enhanced Microprocessor Systems Lab**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Prerequisite: ELT 147, ELT 148*

*Corequisite: ELT 263*

Covers construction, measurement, analysis, application, and experimentation with systems developed in ELT 263.

# Emergency Medical Services

## **EMS 112 Emergency Medical Dispatch**

2.5 Credit Hours • 37.5 Contact Hours (Lecture)

Provides technical and practical information, skill practice, and written examination for the current or potential emergency dispatcher.

## **EMS 115 First 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 125 EMT Basic**

9 Credit Hours • 202.5 Contact Hours (Lecture/Lab Combination)

*Corequisite: HPR 102*

Enables the student after successful completion of this course to take the EMT Certification Examination subject to the requirements of the Colorado Department of Health and Environment. Includes written and practical examinations. Student must be at least 18 years of age.

## **EMS 126 EMT Basic Refresher**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: EMT 125*

Provides required didactic and skills review for renewing EMT students. Accommodates the needs of the re-entry EMT student.

## **EMS 136 EMT/Paramedic Safety Issues in the Field**

1 Credit Hour • 15 Contact Hours (Lecture)

Provides EMTs and paramedics with the skills needed to quickly assess the scene for potential hazards to themselves. Introduces topics on scene safety, evaluation of potential problem patients, verbal communication control techniques, physical control techniques for the problem patient, and scene control techniques.

## **EMS 150 Pediatric Education for Prehospital Professionals**

1 Credit Hour • 15 Contact Hours (Lecture)

Provides the student with core knowledge and skills necessary to provide emergency care to the pediatric patient.

## **EMS 151 Geriatric Emergencies**

3 Credit Hours • 45 Contact Hours (Lecture)

Addresses the problems most common in the elderly population. Provides the emergency medical services responder the necessary information to help understand those problems and provide quality care in the pre-hospital setting.

## **EMS 152 Wellness for Emergency Services**

1 Credit Hour • 15 Contact Hours (Lecture)

Offers the EMS provider methods for coping with stress in the workplace and educates pre-hospital providers on finding additional options to reduce stress and make wise choices in the midst of difficult situations.

## **EMS 153 Advanced Patient Assessment and History Taking**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Teaches the pre-hospital health care provider techniques in assessing the patient – both medical and trauma. Covers history taking, documentation, communication and assessment techniques for the special patient.

## **EMS 170 EMT Basic Clinical**

1 Credit Hour • 30 Contact Hours (Clinical)

*Corequisite: EMS 125*

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

## **EMS 225 Fundamentals of Paramedic Practice**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: EMT 125, BIO 201*

*Corequisite: BIO 202*

Serves as the first course of the National Standard Paramedic Curriculum as approved by the Colorado State Department of Health and Environment.

## **EMS 226 Fundamentals of Paramedic Practice - Lab**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Corequisite: EMS 225*

Serves as the lab experience to coincide with EMS 225 topics.

## **EMS 227 Paramedic Special Considerations**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: EMS 226*

Focuses on a comprehensive study of Advanced Life Support Practice.

## **EMS 228 Paramedic Special Considerations Lab**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Corequisite: EMS 227*

Serves as the lab experience for those students enrolled in EMS 227.

## **EMS 229 Paramedic Pharmacology**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: EMS 228*

Focuses on a comprehensive study of emergency pharmacology.

## **EMS 230 Paramedic Pharmacology Lab**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Corequisite: EMS 229*

Serves as the required lab course in the paramedic education program.

## **EMS 231 Paramedic Cardiology**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: EMS 230*

Addresses cardiology topics as presented in the National Standard Curriculum for paramedics.

## **EMS 232 Paramedic Cardiology Lab**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Corequisite: EMS 231*

Incorporates a hands-on application of principles of cardiac care in the hospital environment.

## **EMS 233 Paramedic Medical Emergencies**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: EMS 231, EMS 232*

Focuses on a comprehensive study of adult medical emergencies.

## **EMS 234 Paramedic Medical Emergencies Lab**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: EMS 233*

Focuses on a clinical study of adult and pediatric medical emergencies.

## **EMS 235 Paramedic Trauma Emergencies**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: EMS 233, EMS 234*

Focuses on a comprehensive study of adult and pediatric trauma emergencies.

## **EMS 236 Paramedic Trauma Emergencies Lab**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Corequisite: EMS 235*

Serves as a lab presenting various acute trauma scenarios.

**EMS 237 Paramedic Internship Preparatory**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite: EMS 235, EMS 236*

Reviews concepts and techniques used in the pre-hospital setting.

**EMS 280 Paramedic Internship I**

6 Credit Hours • 270 Contact Hours (Work Experience)

*Prerequisite: EMS 237*

Serves as the preceptor/internship program for paramedic students.

**EMS 281 Paramedic Internship II**

6 Credit Hours • 270 Contact Hours (Work Experience)

*Corequisite: EMS 280*

Serves as the continuation of EMS 240, preceptor program for paramedic students.

## English

**ENG 030 Basic Writing Skills**

2 Credit Hours • 30 Contact Hours (Lecture)

Focuses on sentence and basic paragraph structure and development. Enables the student to review and improve grammar, usage, and punctuation skills while employing critical thinking strategies and the writing process to respond to a wide variety of writing situations.

**ENG 060 Writing Fundamentals**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: Appropriate assessment scores or ENG 030 with a C grade or higher*

Focuses on paragraph structure and development and introduces the formal essay. Enables the student to review and improve grammar, usage, and punctuation skills while employing critical thinking strategies and the writing process to respond to a wide variety of writing situations.

**ENG 090 Basic Composition**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: Appropriate assessment scores or ENG 060 with a C grade or higher*

Emphasizes critical thinking as students explore writing for specific purposes and audiences. Enables the student to develop skills required for college-level writing while reviewing paragraph structure and focusing on essay development.

**ENG 116 Designing Print Documentation**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on developing technical documents, such as product manuals and troubleshooting guides, that are delivered to users in print form. Emphasizes content, organization, presentation, and style of print documentation. Introduces concepts of document preparation and printing, as well as project cycle management, working as part of a documentation team, and collaboration with technical experts.

**ENG 117 Grammar, Usage, and 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 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 121 English Composition I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090 with a C grade or higher, or appropriate placement test score*

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

**ENG 122 English Composition II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 with a C grade or higher*

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

**ENG 131 Technical Writing I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: 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 132 Technical Writing II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: Grade of C or higher in ENG 131*

Expands and refines the objectives of ENG 131, emphasizing formal presentations, both written and oral.

**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 215 Playwriting I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 with a C grade or higher*

Enables the student to learn and practice playwriting techniques, thereby improving creative writing skills. Emphasizes elements of dramatic structure, dialogue, styles, and theatrical practices. Note: This course is co-scheduled with THE 215 and may be taken as ENG 215 or THE 215 but not as both.

**ENG 221 Creative Writing I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 with a C grade or higher or faculty consent*

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

### **ENG 222 Creative Writing II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 221*

Provides continued development of written expression in such forms as poetry, fiction, and/or nonfiction writing.

### **ENG 226 Fiction Writing**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 with a C grade or higher*

Teaches techniques for creating fiction, including the study and appreciation of the language and forms of the short story.

### **ENG 227 Poetry Writing**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 with a C grade or higher*

Teaches techniques for creating poems, including study of figurative language, forms, and sound patterns of poetry.

### **ENG 230 Creative Nonfiction**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 with a C grade or higher*

Teaches students to incorporate literary techniques into factual writing. Enables the student to survey a wide range of readings and analyze form and content. Includes critical review, biographical profiles, travel writing, and memoirs. Provides the opportunity for students to write and review their own nonfiction in a supportive, constructive setting.

### **ENG 231 Literary Magazine**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 with a C grade or higher*

Teaches the student the editorial process involved in preparing a literary magazine for publication. Covers the process of selection of material (fiction, nonfiction, poetry, and visual art) to be published, as well as design, layout, and production to prepare a manuscript for publication. Enables the student to produce a literary magazine.

### **ENG 235 Rhetoric and Propaganda**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 with a C grade or higher*

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.

## **English as a Second Language**

### **ESL 011 Basic Pronunciation**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: appropriate placement score*

Provides listening and speaking activities that help students recognize and produce English vowel and consonant sounds and common stress and intonation patterns.

### **ESL 012 Intermediate Pronunciation**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: appropriate placement score*

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 021 Basic Grammar**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: appropriate placement score*

Assists the student in mastering basic structures in English grammar through oral and written practice.

### **ESL 022 Intermediate Grammar**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: ESL 021 or appropriate placement score*

Reviews basic grammar and introduces intermediate structures. Provides integrated practice through a variety of oral and written exercises.

### **ESL 023 Advanced Grammar**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: ESL 022 or appropriate placement score*

Reviews intermediate grammar. Introduces advanced structures with increased emphasis on written communication.

### **ESL 031 Basic Conversation**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: appropriate placement score*

Provides listening and speaking activities that help the student communicate more competently. Provides practice with pronunciation, vocabulary, and basic grammatical patterns.

### **ESL 032 Intermediate Conversation**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: ESL 031 or appropriate placement score*

Teaches listening, pronunciation, and conversation skills. Increases speed and accuracy in speaking through free and guided conversational practice.

### **ESL 041 Basic Reading**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: appropriate placement score*

Improves comprehension of simple written texts through vocabulary building and reading strategies.

### **ESL 042 Intermediate Reading**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: ESL 041 or appropriate placement score*

Helps the student read more quickly and accurately and understand a variety of intermediate level reading material.

### **ESL 043 Advanced Reading**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: ESL 042 or appropriate placement score*

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 052 Intermediate Composition**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: appropriate placement score*

Introduces the fundamentals of paragraph organization and development. Assists the student in developing sentence variety and grammatical competency within well-organized paragraphs.

### **ESL 053 Advanced Composition**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: ESL 052 or appropriate placement score*

Reviews paragraph organization and develops the skill of writing essays using selected rhetorical modes. Stresses accurate use of advanced grammatical structures. Includes summarizing, paraphrasing, and research writing.



### **ESL 055 Computer Basics for ESL Students**

2 Credit Hours • 30 Contact Hours (Lecture)  
*Prerequisite: ESL placement test at intermediate or advanced level or faculty consent*

Introduces the basic skills for computer use, including word processing, text entry, document appearance, editing, spelling, and printing.

## **Environmental Science**

### **ENV 101 Introduction to Environmental Science**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

Introduces the student to the basic concepts of ecology and the relationship between environmental problems and biological systems. Includes discussions on biology, chemistry, geology, energy, natural resources, pollution, and environmental protection.

## **Facilities Maintenance Technology**

### **FMT 101 Facilities Maintenance-Custodial Techniques**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

Focuses on products and techniques of maintaining commercial or industrial buildings. Covers health standards and issues.

### **FMT 102 Facilities Maintenance - Electricity**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

Focuses on electrical fundamentals as applied to residential and commercial facilities maintenance. Covers repair, service, and maintenance of electrical systems and codes.

### **FMT 103 Facilities Maintenance - Plumbing**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

Addresses troubleshooting, servicing, and repairing of plumbing systems found in commercial and industrial buildings. Includes codes and safety practices.

### **FMT 112 Swimming Pool Maintenance**

2 Credit Hours • 37.5 Contact Hours (15 Lecture, 22.5 Lecture/Lab Combination)

Focuses on the fundamentals of pool operation and maintenance techniques for private and public swimming pools.

### **FMT 201 Appliance Technology I**

7 Credit Hours • 135 Contact Hours (45 Lecture, 90 Lecture/Lab Combination)

*Prerequisite: HVA 105, HVA 132 or faculty consent*

Examines mechanical systems, water distribution, and electrical and gas systems of laundry equipment. Includes service and repair on washers and dryers.

### **FMT 202 Appliance Technology II**

7 Credit Hours • 135 Contact Hours (45 Lecture, 90 Lecture/Lab Combination)

*Prerequisite: HVA 105, HVA 132*

Examines mechanical systems, water distribution, and electrical and gas components of kitchen equipment. Covers service and repair on dishwashers, disposals, ranges, and microwave ovens.

### **FMT 203 Appliance Technology III**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: HVA 105, HVA 132*

Instructs students in the fundamentals of operation, theory, and troubleshooting electronic controls found in modern household appliances.

### **FMT 204 Building Maintenance**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: Sophomore standing or faculty consent*

Focuses on light construction, repairs, and maintenance of buildings and explores trends and issues in facilities maintenance. Covers preventative maintenance methods.

## **Farrier Science**

### **FAS 100 Farrier Science I**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/Lab Combination)

Focuses on horses from evolution to the present with emphasis on existing breeds and shoeing requirements. Covers behavior patterns of horses, proper handling and safety, need for and frequency of shoeing, anatomy and physiology of the lower leg, angles, hoof preparation, shoe selection, shaping, and basic techniques.

### **FAS 110 Farrier Science II**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/Lab Combination)

*Prerequisite: FAS 100*

Focuses on corrective shoeing for pleasure horses and racehorses. Emphasizes anatomy of horses, physiology of the lower leg, preliminary examination, and natural angles of the legs, hoof preparation, and normal shoeing.

### **FAS 120 Farrier Science III**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/Lab Combination)

*Prerequisite: FAS 110*

Introduces special purpose shoeing for racehorses, trail horses, etc. Examines corrective shoeing, shoeing requirements for various breeds, special purpose plating, special equipment, and public relations.

### **FAS 130 Master Farrier I**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/Lab Combination)

*Prerequisite: FAS 120*

Continues the basic farrier course. Enables the Master student to assist the instructor during both theory and laboratory sessions by evaluating basic course students in the process of shoe shaping, analysis of gaits, and proper horse handling.

### **FAS 140 Master Farrier II**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/Lab Combination)

*Prerequisite: FAS 130*

Allows Master students to assist the instructor in teaching anatomy of horses, physiology of the lower leg, natural angle of the leg, and hoof preparation. Incorporates student research and reports on assigned subjects.



### **FAS 150 Master Farrier III**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* FAS 140

Enables the student to demonstrate skill in all phases of horseshoeing, especially in the area of corrective shoeing and unusual hoof repair.

## **Finance**

### **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 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.

## **Fire Science Technology**

### **FST 100 Firefighter I**

9 Credit Hours • 157.5 Contact Hours (90 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* EMS 125

Addresses the requirements necessary to perform at the first level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level I, standard using IFSTA Essentials.

### **FST 101 Firefighter II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Addresses the requirements necessary to perform at the second level of progression as identified in NFPA 1001, level II Fire Fighter Professional Qualifications.

### **FST 102 Introduction to Fire Science and Suppression**

3 Credit Hours • 45 Contact Hours (Lecture)

Introduces the fire service organization and operation from past to present operations. Includes operation and organization of federal, state, local, and private protection forces. Emphasizes extinguishing methods and equipment, special extinguishing agents, and special hazard considerations. Serves as a Prerequisite for students having no previous fire suppression training or experience.

### **FST 103 Firefighter Occupational Health and Safety**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on on-scene and on-the-job firefighter health, safety and fitness, the safety officer, mental well-being, stress management, and standards related to health, safety, and fitness.

### **FST 104 Fire Protection Systems**

3 Credit Hours • 45 Contact Hours (Lecture)

Addresses principles and functions involved in the installation and use of sprinkler systems, special suppression systems, and fire detection and alarm systems. Covers portable fire extinguishing equipment requirements, sprinkler systems, installation, inspection and maintenance, special protection systems, and residential sprinklers.

### **FST 105 Building Plans and Construction**

3 Credit Hours • 45 Contact Hours (Lecture)

Covers various methods of building construction, the materials used in building construction, and their relationship to methods of fire attack and extinguishments. Includes types of building construction, principles of fire resistance, flame spread, smoke and fire containment, basic knowledge of plan review, and blueprint specifications.

### **FST 106 Fire Inspection Practices**

3 Credit Hours • 45 Contact Hours (Lecture)

Introduces the organization of the fire prevention agency; inspections, surveying, mapping and company inspections; recognition of fire hazards; engineering a solution to the hazard, enforcement of the solution, and public relations as affected by fire prevention. Fire Inspector I State Certificate available.

### **FST 107 Hazardous Materials Operations Level I**

3 Credit Hours • 45 Contact Hours (Lecture)

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 150 Introduction to Fire Prevention Education**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on conducting prevention and education needs assessment, targeting audiences, development and delivery of prevention and education programs. Includes methods of conducting fire prevention and safety inspections.

### **FST 151 Driver-Operator**

4 Credit Hours • 67.5 Contact Hours (45 Lecture, 22.5 Lab)

Provides the student with the basic knowledge and skills to safely operate fire apparatus according to the NFPA professional standard. Enables the student to display and demonstrate knowledge of fire apparatus, operation of apparatus, pumps and pumping, hydraulics calculations, maintenance, and testing.

### **FST 152 Wildland Firefighting**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Introduces a basic understanding of wildland fire and the strategies and tactics involved during suppression operations. Includes fire line safety, emphasizing the wildland fire orders and watch out situations. Students receive training qualifying them as Certified Wildland Firefighters under the Incident Command System, recognized by the National Wildfire Coordinating Group. Covers fire behavior, fire weather, fuel types, safety equipment and guidelines, incident size up, determining resource needs, aircraft identification and capabilities, direct vs. indirect attack, burn-out, backfiring, and map reading.

### **FST 160 Candidate Physical Abilities Test Prep Course**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab  
Combination)

Grading: SU only

Prepares students for the job as firefighters as well as the testing requirements to test for CPAT. The tools for all classes will be fire service tools, such as sledge hammer, hose, nozzle, ladders, pike pole, power saws, and rescue dummy. The course will include basic fire skills of rescue, hose lay, equipment movement, ladder raise, ladder extend, forcible entry, search, and ceiling breach. The course also includes aerobic and strength training to assist student in passing CPAT.

**FST 201 Instructional Methodology (Fire Instructor I, II)**

3 Credit Hours • 45 Contact Hours (Lecture)

Covers the role and responsibility of the fire service instructor. Includes oral communication skills, concepts of learning, planning and development of lesson plans, instructional materials and delivery methods, testing and evaluations, records and reports, and demonstration of instructional abilities.

**FST 202 Firefighting Strategy and Tactics**

3 Credit Hours • 45 Contact Hours (Lecture)

Firefighting strategy and tactics, methods of fire attack, fire behavior, building construction, and pre-fire planning.

**FST 203 Fire Science Hydraulics**

3 Credit Hours • 45 Contact Hours (Lecture)

Covers hydraulic calculations that are necessary in water delivery and supply for fire suppression; hydraulic laws and formulas as applied to fire protection requirements; and fire apparatus UL requirements.

**FST 204 Fire Codes and Ordinances**

3 Credit Hours • 45 Contact Hours (Lecture)

Covers familiarization and interpretation of national, state, and local codes, ordinances and laws which influence the field of fire prevention. Fire code and life safety code are reviewed and referred to throughout the course.

**FST 205 Fire Cause Determination**

3 Credit Hours • 45 Contact Hours (Lecture)

Covers the proper method(s) of conducting basic fire investigation, determining area and point of origin, cause and methods of fire spread, recognition and preservation of evidence. Includes arson law, Constitutional law, interviewing, court procedures, and testimony.

**FST 206 Fire Company Supervision and Leadership (Fire Officer I)**

3 Credit Hours • 45 Contact Hours (Lecture)

Covers fire department organization, management philosophies, leadership traits, time management, group dynamics, communications, motivation counseling, conflict resolution, and employee discipline. Meets components of Fire Officer I State Certificate.

**FST 207 Firefighting Strategy and Tactics II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: FST 202*

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 250 Chemistry for Fire Protection**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: FST 107*

Addresses the actions and reactions of commonly encountered products and chemicals, chemical properties, and field applied chemistry.

**FST 252 Fire Arson Investigation**

3 Credit Hours • 45 Contact Hours (Lecture)

Studies cause and origin as related to arson fires; evidence preservation and chain of evidence; interviewing; giving testimony; and laws associated with fire and arson investigation, records, and reports.

**FST 253 Fire Ground Organization and Command**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: FST 202*

Students will take an in depth look at fire ground management; resource availability, management and deployment; Integrated Management System and all related components; communications, problem solving, and table top exercises.

**FST 254 Hazardous Materials Technician Level**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: FST 107*

Students will study techniques associated with hazardous materials mitigation, the use of monitoring devices, components of a mitigation teams, command and control of hazardous materials incidents.

**FST 255 Fire Service Management**

3 Credit Hours • 45 Contact Hours (Lecture)

Serves as the basic management course for present and potential members of the fire service, and for students and members of other fire science-related professions. Introduces the student to current management practices and philosophies and real-world applications from the supervisor's point of view. Covers decision making/problem solving, communication skills, conflict resolution, creativity and innovation, as well as the role of the manager in supervising personnel and programs, e.g., motivation, leadership, counseling, ethics, and handling discipline and grievances.

**FST 256 Fire Service EMS Management**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: EMS 125*

Addresses budgeting, staffing, training, and equipment issues; transportation, standard of care, and protocols; operations, communications, incident and disaster management, and legal issues associated with EMS operations.

**FST 257 Fire Department Administration**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: FST 206*

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 258 Wildland Fire Incident Management and Organization**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: FST 152 or previous certified red card training*

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 NIIMS and recognized by the National Wildfire Coordinating Group. Covers fireline safety, size-up, incident planning, ordering, tactics, strategies, and administrative duties.

**FST 259 Wildland Firefighting Strategy and 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 260 Inter. Fire Behavior S-290**

2 Credit Hours • 30 Contact Hours (Lecture)

Analyzes the effects of fuels, weather, topography, and fire behavior on the wildland fire environment. Acquaints prospective fire line supervisors in wildland fire behavior for effective and safe fire management operations.

### **FST 261 Fire Operations in the Urban Interface**

2 Credit Hours • 30 Contact Hours (Lecture)

Examines fireline personnel skills to anticipate and predict wildland fire behavior, weather, and rates of spread. This course was developed under the Interagency Curriculum established and coordinated by the National Wildfire Coordinating Group. Covers fire environment, fuels classification, topography and fire behavior, temperature-moisture relationship, fuel moisture, local and general winds, atmospheric stability and instability, keeping current with the weather, extreme fire behavior, fire behavior affecting fireline tactics, and fire behavior predictions.

### **FST 262 Wildland Fire Behavior**

3 Credit Hours • 45 Contact Hours (Lecture)

Gives fireline personnel skills to anticipate and predict wildland fire behavior, weather, and rates of spread. This course was developed under the Interagency Curriculum established and coordinated by the National Wildfire Coordinating Group. The course covers fire environment, fuels classification, topography and fire behavior, temperature-moisture relationship, fuel moisture, local and general winds, atmospheric stability and instability, keeping current with the weather, extreme fire behavior, fire behavior affecting fireline tactics, and fire behavior predictions.

### **FST 263 Powersaws S212**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Ability to perform chainsaw operations. Teaches the wildland firefighter the skills necessary to use, repair, and maintain a chainsaw in the field. Focuses on techniques to fell trees and buck material in a fireline operation.

### **FST 265 Ignition Operations S-234**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Teaches the wildland firefighter techniques in conducting firing operations. Focuses on the duties and responsibilities in applying fire to the ground, the devices used, techniques and sequences, fire behavior descriptions, evaluations of the operation, and safety concerns related.

### **FST 266 Crew Boss S230**

2 Credit Hours • 30 Contact Hours (Lecture)

Meets the training needs of a Crew Boss on an incident. Includes preparation, mobilization, tactics and safety, off-line duties, demobilization, and post-incident responsibilities.

### **FST 270 Basic Air Ops S270**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Surveys the uses of aircraft in fire suppression. The course provides instruction on how to deal with management policy, regulations, and procedures which govern agency aviation operations in fire suppression. This course is the S-270 course offered by the National Wildfire Coordinating Group (NWCG).

## **French**

### **FRE 111 French Language I**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading, and writing the French language.

### **FRE 112 French Language II**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* FRE 111 with a C grade or higher or faculty consent

Continues French I in the development of functional proficiency in listening, speaking, reading, and writing the French language.

### **FRE 211 French Language III**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* FRE 112 with a C grade or higher or faculty consent

Continues French I and II in the development of increased functional proficiency in listening, speaking, reading, and writing the French language.

### **FRE 212 French Language IV**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* FRE 211 with a C grade or higher or faculty consent

Continues French I, II, and III in the development of increased functional proficiency in listening, speaking, reading, and writing the French language.

## **Geology**

### **GEY 111 Physical Geology**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)

*Prerequisite:* MAT 090

Studies the materials of the earth, its structure, surface features, and the geologic processes involved in its development. This course includes laboratory experience.

### **GEY 121 Historical Geology**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)

*Prerequisite:* MAT 090

Studies the physical and biological development of the earth through the vast span of geologic time. Emphasizes the investigation and interpretation of sedimentary rocks, the record of ancient environments, fossil lifeforms, and physical events, all within the framework of shifting crystal plates. Course includes laboratory experience.

### **GEY 135 Environmental Geology**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090

Introduces geology and its relationship to the human environment. Covers geologic hazards such as floods, landslides, avalanches, earthquakes, and volcanoes. Focuses on surface and groundwater resources in terms of exploitation and our responsibility to protect these resources from contamination. The geologic aspects of land use practices, as well as mineral and energy resource exploitation are reviewed and related to legislation regarding environmental law.

### **GEY 143 The Geology and Evolution of Caves**

2 Credit Hours • 30 Contact Hours (Lecture)

Introduces the science of caves. Includes cave formation and evolution, cave decorations (speleothems), and the adaptations of living organisms to life below ground. Incorporates a one-day field trip to a nearby cave system.

## **Geographical Information Systems**

### **GIS 100 GIS Fundamentals**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

Provides information on the basic concepts of GPS (Global Positioning Systems) and GIS (Geographic Information Systems). Defines the two systems and explains the link from one to the other. Analyzes the different types of GPS Equipment and differentiates between their role in the GPS technology world. Provides information on the types of mapping systems available today and the necessary information to integrate GPS data. Upon the integration of the data, creation of the GIS network is demonstrated. Enables the learner to develop basic skills, attitudes, and knowledge to make the GPS equipment productive in a recreation or work environment.

### **GIS 101 Introduction to Geographic Information Systems**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Surveys the development and operation of automated geographic information systems. Focuses on the fundamentals of using computers to draw maps. Incorporates study of cartographic fundamentals such as map projections, map scales, selective display of data on maps, and various computer software applications in GIS.

### **GIS 110 Introduction to Cartography**

3 Credit Hours • 45 Contact Hours (Lecture)

Examines a broad range of map types, emphasizing maps as a communication system with both symbology and specific organizational hierarchies. Discussion and demonstration focuses on essential cartographic principles and practices used for designing maps, with emphasis on cartographic protocol resulting in the effective communication of both qualitative and quantitative information.

### **GIS 120 Introduction to Visual Basic for ESRI Software**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: GIS 101*

Grading: SU only

Covers the fundamental concepts of the Microsoft Visual Basic programming language and prepares students to take courses on customizing and using ArcInfo and Map Objects to create mapping applications.

### **GIS 130 Programming with Avenue**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: GIS 101*

Focuses on the six-module course that teaches the basics of object oriented programming and how to create Simple Avenue scripts.

### **GIS 160 GIS Guided Field Study**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Incorporates 45 hours of field study in GIS. Enables the student to work with a local agency/company on an actual GIS project. This hands-on experience enhances the course work and gives the student the inside view of the GIS industry.

### **GIS 200 Introduction to Arc Info using ArcMap/ Catalog/TLBX**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: GIS 101*

Incorporates a six-module course that teaches, at basic level, how to use three Windows-based components of Arc Info to perform GIS task and analysis.

### **GIS 207 Introduction to ArcView 3D Analyst**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: GIS 101*

Grading: SU only

Shows students how to use ArcView 3D Analyst to display, create, and analyze spatial data in three dimensions.

### **GIS 208 Introduction to ArcView Network Analyst**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: GIS 101*

Incorporates a six-module course that teaches students how to prepare data for network analysis, create routes and directions, find the closest facility, and define service areas.

### **GIS 209 Introduction to ArcView Spatial Analyst**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: GIS 101*

Grading: SU only

Explores how this ArcView GIS software extension allows the use of raster and vector data in an integrated environment.

### **GIS 212 Remote Sensing and Digital Image Processing**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Prerequisite: GIS 101 or concurrent enrollment*

Introduces students to basic concepts and procedures used in the processing of remotely sensed data, with an emphasis on integration of digital imagery into basic GIS applications.

### **GIS 215 Introduction to ArcView Tracking Analyst**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: GIS 101*

Incorporates a four-module course that teaches how to display data from a real-time feed, replay historical tracking data, and customize how time is represented in a view. Internet-based class.

### **GIS 220 What is new in ArcInfo 8**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: GIS 101*

Focuses on a six-module course that teaches the new components, data models, and customization options for the eagerly anticipated ArcInfo 8. Internet-based class.

### **GIS 225 Spatial Analyst – Agriculture: GIS Approach**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: GIS 101*

Incorporates a six-module course that demonstrates the use of spatial analysis to assist agriculturists in the decision-making system - also known as precision farming. Internet-based class.

### **GIS 226 Spatial Hydrology - ArcView GIS**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: GIS 101*

Grading: SU only

Provides an introduction to the synthesis of GIS and hydrology, a subject called spatial hydrology. In this course students will study hydrology from a GIS perspective, developing new ideas and problem-solving methods in hydrology using the spatial data and functions provided by GIS. How to present GIS data in a form that supports conventional hydrologic analysis methods will also be studied.

### **GIS 280 Internship**

5 Credit Hours • 225 Contact Hours (Work Experience)

*Prerequisite: faculty consent*

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.

## **Geography**

### **GEO 105 World Regional Geography**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090*

Facilitates an understanding of spatial relationships between and among the geographic regions of the world. Includes demographic and cultural (political, economic, and historic) forces related to the physical environments of selected regions. Focuses on analysis of interrelationships between developed and developing regions, and the interactions between human societies and natural environments.



## **GEO 106 Human Geography**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090*

Introduces geographic perspectives and methods with applications to the study of human activities. Emphasizes the distribution of humans, adjustments to the natural environment, and land use practices.

## **GEO 107 Physical Geography**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090*

Focuses on the study of the spatial relationship between humans and the natural environment. Covers five main themes: the atmosphere (weather and climate); the hydrosphere (water bodies and rivers); the lithosphere (earth's crust and landforms); the biosphere (soil, plant, and animal relationships); and the impact of the human population on these environmental factors. Recommended for students interested in environmental studies, earth science, and geography.

## **GEO 111 Physical Geography - Landforms**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)

*Prerequisite: ENG 090*

Introduces the principles of landforms as a major aspect of the human natural environment. Incorporates an integrated process of lecture, discussion, and laboratory assignments. The course may be transferred to universities and colleges as science credit.

## **GEO 112 Physical Geography - Weather and Climate**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)

*Prerequisite: ENG 090*

Introduces the principles of meteorology, climatology, world vegetation patterns, and world regional climate classification. Incorporates an integrated process of lecture, discussion, and laboratory assignments and may be transferred to colleges and universities as science credit.

## **German**

### **GER 111 German Language I**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading, and writing the German language.

### **GER 112 German Language II**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: GER 111 with a C grade or higher or faculty consent*

Continues German Language I in the development of functional proficiency in listening, speaking, reading and writing the German language.

### **GER 211 German Language III**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: GER 112 with a C grade or higher or faculty consent*

Continues German Language I and II in the development of increased functional proficiency in listening, speaking, reading, and writing the German language.

### **GER 212 German Language IV**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: GER 211 with a C grade or higher or faculty consent*

Continues German Language I, II, and III in the development of increased functional proficiency in listening, speaking, reading, and writing the German language.

## **Health and Wellness**

### **HWE 100 Human Nutrition**

3 Credit Hour • 45 Contact Hours (Lecture)

Introduces basic principles of nutrition with emphasis on personal nutrition. Satisfies nutrition requirement of students entering health care professions.

### **HWE 103 Community First Aid and CPR**

1 Credit Hour • 15 Contact Hours (Lecture)

Uses demonstration videos, instructor led practice and workbook/textbook study to prepare for certification in Adult/Child/Infant CPR and Community First Aid.

### **HWE 104 CPR Instructor Course**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: Current HCP CPR card*

Provides information for the potential CPR instructor. Course requirements, renewal information, and current content are discussed. Practice teaching is included in course.

### **HWE 120 Wilderness First Aid**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: Current CPR card*

Provides limited medical information to cope with basic wilderness emergencies.

### **HWE 121 Wilderness First Aid and Outdoor Emergency Care**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite: First responder certification*

Provides more advanced wilderness care for the First Responder or EMT provider.

## **Health Professional**

### **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.

### **HPR 102 CPR for Professionals: (List Certification)**

.5 Credit Hours • 7.5 Contact Hours (Lecture)

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, child, and adult patients.

### **HPR 108 Dietary Nutrition**

1 Credit Hour • 15 Contact Hours (Lecture)

Studies the basic principles in clinical practice involved in the assistance of health care. The course will cover factors which influence the nutritional status of individuals, methods of nutritional assessment and support, and diet modification for specific disease states.



### **HPR 113 Advanced Phlebotomy**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Prerequisite: HPR 115*

Instructs students in advanced phlebotomy techniques to include patients in trauma, neonatal, geriatric, and long term acute care areas. In addition, laboratory procedures taught include specimen processing and advanced point-of-care instrumentation. This course includes a lecture/lab combination that teaches theory and direct application of theoretic content and clinical opportunities for student to master learned skills.

### **HPR 115 Phlebotomy, Specimen Collection, Specimen Processing**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

Prepares the student in theory and in practical skills in the field of phlebotomy. Recommended for either the healthcare practitioner who is interested in updating skills or for the novice student who is developing career skills. Students learn skills in obtaining blood samples through capillary draws, venipuncture, and through collection processes onto slides. Use of a variety of on-site testing equipment is introduced, and procurement of samples for accurate laboratory testing is stressed. Universal Blood and Body Fluid Precautions, as related by OSHA are taught and practiced with attention to absolute compliance practice. This course is delivered through both lecture/laboratory methods with attention to application to theory in a clinical setting in order to master tactile skills.

### **HPR 120 Advanced Cardiac Life Support**

1 Credit Hours • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: EMT-I or higher*

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 130 Pediatric Advanced Life Support**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: EMT-I or higher*

Provides students the needed information and skills as required by health care agencies for pediatric emergencies.

### **HPR 178 Seminar: Medical Terminology**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite: REA 090*

Introduces the student to the structure of medical terms with emphasis on combining and using the most common prefixes, roots, and suffixes. Includes terms related to clinical laboratory, diagnostic imaging, nuclear medicine and oncology, as well as major body systems. Classroom structure provides accepted pronunciation of terms and their use in the healthcare setting.

### **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 200 12 Lead ECG Interpretations**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: HPR 190*

Focuses on each wave and interval of the complex, the axis, and the 12-lead presentation of some rhythm disturbances.

### **HPR 278 Seminar: Advanced Medical Terminology**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite: HPR 178*

Continues Medical Terminology in developing the student base of knowledge of medical terminology for body systems as related to human anatomy defined through correct terminology. Practice of pronunciation, spelling, and usage is developed by relating basic medical terminology, root words, prefixes, and suffixes to all human body systems.

## **Heating, Ventilation, and Air Conditioning**

### **HVA 102 Basic Refrigeration**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

Introduces the basic theory of refrigeration systems, components, charging, recycling, and evacuation of refrigeration units.

### **HVA 104 Electrical Components for Air Conditioning and Refrigeration**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

Covers electrical power, distribution, transformers, capacitors, relays, and electric motors. Laboratory experiences range from using electrical devices to electrical loads.

### **HVA 105 Electricity for HVAC/R**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 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 110 Fundamentals of Gas Heating**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 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 113 Refrigerant Recovery Training**

1 Credit Hour • 15 Contact Hours (Lecture)

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 121 Residential Refrigeration**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: HVA 102 or faculty consent*

Covers refrigerators, freezers, and humidifiers. Students learn refrigeration, electrical, defrost, and ice maker systems. Lab experiences include troubleshooting and repair of residential refrigeration equipment.

### **HVA 132 Air Conditioning and Refrigeration Controls**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: HVA 102, HVA 105, or faculty consent*

Continues HVA 105. 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 142 Residential Air Conditioning**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: HVA 102, HVA 105 or faculty consent*

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 143 Residential HVAC Trouble Shooting**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: HVA 110 or faculty consent*

Troubleshooting practical problems and techniques will be covered. Use of computer simulation as well as actual equipment will be utilized.

### **HVA 201 Heating For Commercial**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: Sophomore standing or faculty consent*

Covers hydronic and steam heating systems, including steam, hot water, and forced air-heating systems for commercial buildings.

### **HVA 204 Direct Digital Controls**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: Sophomore standing or faculty consent*

Introduces the student to the field of direct digital controls.

### **HVA 222 HVAC and R Systems Troubleshooting**

5 Credit Hours • 105 Contact Hours (15 Lecture, 90 Lecture/Lab Combination)

*Prerequisite: Sophomore standing or faculty consent*

Studies troubleshooting industrial and commercial heating, ventilating, air conditioning, and refrigeration systems.

### **HVA 231 Pneumatic Controls**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: Sophomore standing or faculty consent*

Covers pneumatic controls and systems used in controlling commercial and industrial HVAC equipment. The course includes lab experimentation with pneumatic controls, rebuilding of valves and actuators, and calibration of various types of controls. Students work with controls from most of the major manufacturers.

### **HVA 233 Advanced Refrigeration**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Prerequisite: 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 241 Advanced Air Conditioning**

3 Credit Hours • 60 Contact Hours (15 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: Sophomore standing or faculty consent*

Studies commercial air conditioning systems to include centrifugal water chillers, air handlers, and building systems.

## **History**

### **HIS 101 History of Western Civilization I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Explores a number of events, peoples, groups, ideas, institutions, and trends that have shaped Western Civilization from the prehistoric era to 1650. Reflects the multiple perspectives of gender, class, religion, and ethnic groups. Focuses on developing, practicing, and strengthening the skills historians use while constructing knowledge in this discipline.

### **HIS 102 History of Western Civilization II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Explores a number of events, peoples, groups, ideas, institutions, and trends that have shaped Western Civilization from 1650 to the present. Reflects the multiple perspectives of gender, class, religion, and ethnic groups. Focuses on developing, practicing, and strengthening the skills historians use while constructing knowledge in this discipline.

### **HIS 201 United States (U.S.) History I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

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

### **HIS 202 United States (U.S.) History II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Explores events, trends, peoples, groups, cultures, ideas, and institutions in United States History, including the multiple perspectives of gender, class, and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing, and strengthening the skills historians use while constructing knowledge in the discipline.

### **HIS 206 U.S. Family History and Genealogy**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Introduces genealogical and historical methods, sources, and standards for creating a family history using the broader context of social history—ordinary people's everyday lives. Team-taught by a historian and a genealogist.

### **HIS 207 American Environmental History**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Traces and analyzes the relationships between Americans and their natural environments throughout the history of the United States. Environmental history interprets the changing ways diverse people have used and viewed their environments over time. Examines the development of conservation movements and environmental policies in modern America.

### **HIS 208 Native American Experience**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Analyzes historical and socio-cultural change for Native Americans (Indians) from pre-colonial America to the present, emphasizing those processes and relations with non-Native Americans which have contributed to the current conditions.

## **HIS 209 History of the American Southwest**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Traces and analyzes the cultural and historical development of what is now the southwestern United States, a region defined most by its arid environment and the cultural and political interactions of Southwest Indians, Spanish conquerors, Mexican settlers, late-coming Yankees, artists and artisans, and modern Sunbelt migrants.

## **HIS 215 Women in U.S. History**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Examines women's changing roles in American history from the pre-colonial native population to the present. Emphasizes the nature of women's work and the participation of women in the family, political, religious, and cultural activities and in social reform movements.

## **HIS 225 Colorado History**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Presents the story of the people, society, and cultures of Colorado from its earliest Native Americans, through the Spanish influx, the explorers, the fur traders and mountain men, the gold rush, railroad builders, the cattlemen and farmers, the silver boom, the tourists, and the modern state.

## **HIS 235 History of the American West**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Traces the history of the American West, from the Native American cultures and the frontier experiences of America's earliest, eastern settlers, through the Trans-Mississippi West, across the great exploratory and wagon trails, and up to the present West, be it urban, ranching, reservation, resource management, or industrial. Emphasizes the north and central parts of the West.

## **HIS 236 Contemporary U.S. History**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Focuses on the major political, economic, social, and cultural developments that have shaped modern America.

## **HIS 241 History of the Pikes Peak Region**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Interprets the history of the southern Front Range area, centering on Colorado Springs and the surrounding communities, including the environmental and Native American background; the Spanish, Mexican, and Yankee exploration; Palmer and other developers; and the area's role as a Mecca for miners, tourists, health seekers, athletes, military installations, and religious groups.

## **HIS 247 Contemporary World History**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Investigates the major political, social, and economic developments, international relationships, scientific breakthroughs, and cultural trends that have shaped the various global regions and nation-states from 1900 to the present. Emphasizes the interactions of global regions and nation-states.

## **HIS 249 History of Islamic Civilization**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Surveys the tenets of Islam and the political, social, and cultural history of the civilizations which embraced it from the 6th century to the modern day. Focuses on the diversity and dynamism of Islamic civilizations through time by looking at legal systems, scientific and artistic accomplishments, philosophical heterogeneity, and political developments.

# **Horticulture**

## **HLT 106 Green Industry Equipment**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Introduces students to the basic concepts of maintenance, care of, and repairing equipment associated with the Green Industry. This instruction is designed to cover the knowledge and skills required of employees and employers in many areas of the landscape occupations such as the lawn maintenance industry, landscaping, and nurseries.

## **HLT 120 Principles of Xeriscap**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Covers the principles and practices used in establishing water-conserving landscapes. Special attention is given to the proper site, establishment, and care of plant materials in water conserving landscapes, and the installation of low water use irrigation systems.

## **HLT 125 Landscape Drafting and Design**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Teaches students who wish to learn the basics of landscape design and planning so that they can produce simple gardens, or interpret plans for construction. The course discusses the principles and elements of design by looking at various landscape styles. Students learn the design process and basics of landscape graphics. They produce simple, scaled landscape drawing, and learn to interpret landscape plans for construction.

## **HLT 140 Landscape Design and Planning**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

Explores the principles and elements of design. The student learns about form, spatial and materials composition, and environmentally and architecturally responsive design. Students complete a set of landscape design documents for an actual or fictional client.

## **HLT 203 Plant Disease and Pest Field Study**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite: HLT 208 or faculty consent*

Provides students the opportunity to conduct field studies of local weed, insect, and disease problems. Students evaluate various situations and discuss actual problem diagnosis and site-specific remedies or preventatives for the problems they identify.

## **HLT 208 Commercial Pesticide License Training**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Studies the requirements for the qualified supervisor license as outlined in the training manuals published by the Colorado Department of Agriculture. Students may elect to take the certified operator tests if they do not meet the experience qualifications for the qualified supervisors license. Areas studied will be for the general, weeds, agricultural insect, plant disease, and industrial right-of-way tests administered by the Colorado Department of Agriculture. Students may elect to take any of the other tests available.

## **HLT 210 Landscape Management**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Teaches the best management practices for landscapes. Students learn about the maintenance needs of various landscape features and what management options exist for each feature. This course emphasizes improving landscape quality while minimizing management costs. Other topics include Landscape business practices, water management, and seasonal landscape care tasks.

## **HLT 221 Woody Landscape Plants I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Discusses the identification (common and botanical names), landscape usage, and culture of regionally adapted plants. This course discusses deciduous shade and ornamental trees, and conifers (evergreen trees and shrubs).

### **HLT 224 Herbaceous Perennials**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

Discusses the identification (common and botanical names), landscape usage, and culture of herbaceous perennials common to Colorado landscapes.

### **HLT 231 Introduction to LANDCADD TM**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* HLT 140

Introduces Landcadd software. Student will work through a self-paced, guided landscape design. Student will also develop an independent landscape design using this software.

### **HLT 235 Principles of Grading and Drainage**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Teaches the grading process and grading methods. The class discusses how to represent grade changes graphically on a site plan and how to interpret those representations during the construction process. The course also discusses how to calculate cut and fill quantities, how to use surveying equipment to establish benchmarks and baselines, and how to use these reference points for site layout.

### **HLT 236 Landscape Construction**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

Introduces students to the fundamentals of landscape construction, including construction equipment, safety practices, grading, deck, retaining wall, paving, and water feature construction. During labs students construct various landscape elements.

### **HLT 237 Landscape Construction Bidding and Estimating**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* Completion of HLT 125 prior to enrollment in this course is recommended.

Discusses the process of bidding for landscape construction. Plan reading, quantity takeoffs, bidding, and estimating practices and processes are covered.

### **HLT 242 Turfgrass Management**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Discusses the fundamentals of turfgrass establishment and maintenance as it is practiced at different cultural intensities. Topics include the growth and development of turfgrass plants, the turfgrass environment, turfgrass species selection and identification, turfgrass cultural practices, and turfgrass pest management.

### **HLT 245 Green Industry Business Operations**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Introduces students to the basics of Landscape business management including establishing a business, retail and wholesale marketing and merchandising, and the operations of a landscape business.

### **HLT 250 Landscape Irrigation Design**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Focuses on the hydraulic analysis of residential irrigation systems to determine design capacity and working pressure. Irrigation system components are examined and their application explained. Students analyze site conditions, and apply their knowledge of hydraulic analysis to produce sample irrigation designs.

### **HLT 251 Landscape Irrigation Field Practices**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* HLT 250

Applies skills necessary to install a residential system using proper equipment and techniques. Also covers the routine maintenance and repair of sprinkler systems, including head adjustment, back-flow prevention device maintenance, and electrical and hydraulic system troubleshooting.

### **HLT 260 Plant Propagation**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

Teaches the theory, biology, and practical applications of plant propagation technologies. This course discusses propagation by seed, cuttings, budding, grafting, layering, and tissue culture. The course also discusses the propagation environment, techniques of stock plant management, and seed handling.

### **HLT 264 Arboriculture**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Discusses plant growth and development as it relates to trees and shrubs, and progresses to methods of planting, tree protection, pruning, and tree care.

### **HLT 265 Arboriculture Field Practices**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

Stresses the practical application of arboricultural techniques. Industry practices are discussed, including selection, planting, pruning, and general care of shade and ornamental trees.

### **HLT 280 Internship**

4 Credit Hours • 180 Contact Hours (Work Experience)

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.

## **Hospitality Management**

### **HOS 280 Internship**

3 Credit Hours • 135 Contact Hours (Work Experience)

*Prerequisite:* faculty consent

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**

### **HUM 103 Introduction to Film Art**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Studies the relationships among film's stylistic systems, narrative systems, and audience reception. Students view, discuss, and critically analyze a variety of films which represent key historical and aesthetic periods as well as a variety of genres and themes. The course incorporates the vocabulary of stylistic systems (for instance, cinematography, editing, and art direction) and narrative systems (for instance, story structure and character motivation) as both relate to the kinds of meanings a film conveys.

### **HUM 115 World Mythology**

3 Credit Hours • 45 Contact Hours (Lecture)

Introduces students to the mythologies of various cultures with a special emphasis on Greece, Asia, and North America. Common themes are illustrated and some artistic reactions are used as examples.

### **HUM 121 Survey of Humanities I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Through a study of the visual arts, literature, music, and philosophy, this course introduces students to the history of ideas that have defined cultures. It emphasizes connections among the arts, values, and diverse cultures, including European and non-European, from the Ancient world to 1000 C.E.



### **HUM 122 Survey of Humanities II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Examines written texts, visual arts, and musical compositions to analyze and reflect the evolution and confluence of cultures in Europe, Asia, and the Americas from 800 C.E. to 1750 C.E.

### **HUM 123 Survey of Humanities III**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Examines the cultures of the 17th through the 20th centuries by focusing on the interrelationships of the arts, ideas, and history. Considers the influences of industrialism, scientific development, and non-European peoples.

### **HUM 131 The Arts and Cultures of Mexico**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Examines the cultures of the 17th through the 20th centuries by focusing on the interrelationships of the arts, ideas, and history. Considers the influences of industrialism, scientific development, and non-European peoples.

### **HUM 163 Film Criticism**

3 Credit Hours • 45 Contact Hours (Lecture)

Considers different approaches to film criticism, including the journalist, humanist, auteurist, genre, social science, historical, and ideological/theoretical approaches. Students will view and analyze films applying each of the critical approaches through class discussion and other assignments.

### **HUM 164 American Cinema**

3 Credit Hours • 45 Contact Hours (Lecture)

Introduces film studies and surveys the American film industry as an art form, as an industry, and as a system of representation and communication. This course explores how Hollywood films work technically, aesthetically, and culturally to re-enforce and challenge America's national self image.

### **HUM 201 Twentieth Century American Arts**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Focuses on elements common to the arts of film, painting, architecture, literature, and music of 20th century United States. Students study the effects of the economy, business, and industry and traditional North American values and dreams on the arts.

### **HUM 235 Pre-Columbian Indian Arts**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Focuses on the effects of myth, ritual, religion, and geography on the arts and crafts of the Olmecs, Toltecs, Maya, Aztecs, Incas, and North American Indians.

### **HUM 236 North American Indian Arts**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Focuses on North American Indian music, dance, architecture, painting, sculpture, pottery, and fashions through a study of the literature of Indian cultures in North America.

### **HUM 237 Hispanic Arts of the American Southwest**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Examines the history, visual arts, and permanency of the Hispanic culture of the American Southwest. Through the study of historical sequences, major artistic expressions dating from 1598, and aspects of literature of the contemporary Hispanic society, students will gain an insight into the Hispanic cultural contributions to the Southwest.

### **HUM 238 Sacred Images, Sacred Spaces: Southwestern U.S.**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Examines the historical, social, geographical, and cultural forces that influenced the design and presentation of sacred images in several Southwestern U.S. cultures. Students will study stylistic features of images in various media in relation to the sacred spaces where they are displayed or employed in rituals.

### **HUM 241 Asian Arts and Cultures**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Explores the most popular religions and philosophies of China, Japan, and India and their relationships to the arts and cultures of Asia. Special emphasis will be placed on Hinduism, Buddhism, and Islam.

## **Integrated Circuit Fabrication**

### **ICF 101 Microelectronics Fabrication**

3 Credit Hours • 45 Contact Hours (Lecture)

Delivers the foundation concepts used to create microelectronic semiconductor integrated circuits. This extensive course includes aspects of semiconductor manufacturing, materials, equipment, processes, contamination control, testing, measurements, and cleanroom environments.

### **ICF 104 Vacuum Systems**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

Delivers design and application concepts for Gas Delivery and Vacuum Technologies with specific reference to the semiconductor fabrication industry. Basics of gas flow dynamics from the viscous flow regime through the ultra high vacuum are explored. The way these gas properties affect how gas delivery and vacuum systems have to be designed, built, and operated to obtain the desired conditions for various industrial processes are investigated. Areas discussed will include roughing and high vacuum pumps, vacuum and pressure measurement systems, mass flow controllers, pressure regulators, connection systems, and materials of construction. Characterization, troubleshooting, and leak detection of these systems and their components are also covered.

### **ICF 106 Semiconductor Active Devices and Mixed Signal ICs**

6 Credit Hours • 90 Contact Hours (Lecture)

*Prerequisite: ELT 106, ELT 112*

*Corequisite: ICF 107*

Introduces semiconductor devices, linear electronic circuits, and digital electronic circuits.

### **ICF 107 Semiconductor Active Devices and Mixed Signal ICs Lab**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: ELT 106, ELT 112*

*Corequisite: ICF 106*

Teaches the student to analyze and demonstrate competency in the use of semiconductor active devices, linear and nonlinear operational integrated circuits. The course will also cover op-amp feedback methods, comparator circuits, mixed-signal analog and digital circuit types. Emphasis will be placed on control system op-amp circuits, process control applications, and manufacturing applications for system automation. The class will also cover IC circuit performance measuring criteria, troubleshooting concepts, analog-to-digital and digital-to-analog conversion circuits.



**ICF 108 Introduction to Control Systems**

5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)

Covers the concepts, design, and function of feedback loop control system components with specific reference to the semiconductor fabrication industry.

**ICF 205 Advanced Equipment Maintenance and Troubleshooting**

5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: ICF 218, ICF 219*

Covers the knowledge and skills required for maintaining and troubleshooting semiconductor manufacturing equipment.

**ICF 214 RF Energy and Process**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: ELT 106, ELT 112*

Covers the basic properties of plasma and its applications in the semiconductor processes. Focus is mainly on RIE and DPS Etch, PE and HDP CVD, Ashers, and PVD. Hardware covers amplifier circuits, RF energy waves, transmission lines, and matching networks. Included are common troubleshooting issues, special topics, and safety.

**ICF 215 Semiconductor Manufacturing Technology**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: ICF 101*

Describes relevant microchip manufacturing technology with emphasis on process integration and troubleshooting common manufacturing problems.

**ICF 218 Automated Process Control Systems**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: ICF 108**Corequisite: ICF 219*

Covers the principles and applications of feedback loop control at system level. Areas covered include transducers, controllers, and system designs. Both analog and digital as well as microprocessor and computer control are studied.

**ICF 219 Automated Process Control Systems Lab**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Prerequisite: ICF 108**Corequisite: ICF 218*

Teaches the student the principles of control systems by experiment, reading, and research. The class runs concurrently with ICF 218 Automated Process Control System where the principles are taught.

## Interior Design

**IND 105 Introduction to Interior Design**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, MAT 060, REA 090*

Introduces design awareness, color, and the elements of style in this overview of the interior design industry. Focus is on design awareness and creative problem solving while studying various facets related to interiors.

**IND 107 History of Interior Design**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, MAT 060, REA 090*

Offers a study of interior furnishings from the medieval period to the Revival styles of the mid-eighteenth century to the contemporary classics used in modern interiors today. The characteristics of historical interiors, ornamental design, use of color, and architecture will be the primary emphases.

**IND 110 Interior Design I – Overview and Application**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: ARC 101, ARC 104, and faculty consent**Corequisite: ARC 101, ARC 104, IND 105, IND 107*

Introduces the student to the interior design industry, interior architecture, and the relationships with other design disciplines. Focus will be on the application of the elements of design, presentation techniques, and creativity.

**IND 116 Estimating Interior Materials**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: For IND majors only, IND 110, ENG 090, MAT 060, REA 090*

Develops skills when estimating materials and costs for interior finishes including paint, carpet, wall covering, and fabrics. Emphasis is on specification, documentation, and details.

**IND 117 Interior Textiles**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite: ENG 090, MAT 060, REA 090 or faculty consent*

Emphasizes the study of fabrics, fibers, weaves, finishes, dyeing, and printing methods for residential and commercial fabrics and carpets. Resources are discussed and developed.

**IND 120 Interior Design II- Space Planning and Human Factors**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: ENG 090, MAT 060, REA 090, IND 110, IND 116, IND 117*

Develops awareness of human dimensions, special relationships, and the importance of the physical and psychological characteristics of people. Studies include residential and commercial spaces and ADA factors.

**IND 178 Seminar**

3 Credit Hours • 45 Contact Hours (Lecture)

This course provides students with an experiential learning opportunity.

**IND 205 Professional Practice for Interior Designers**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite: ENG 090, MAT 060, REA 090, IND 120, IND 151*

Introduces many of the business procedures encountered in the commercial and residential practice of interior design. The student will generate a business plan and a marketing plan and learn how to establish accounts within the industry.

**IND 207 Window Treatments**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite: ENG 090, MAT 060, REA 090 or faculty consent*

Discusses and demonstrates the hard and soft window treatments used in today's market place. Measuring, installing, pricing, ordering, and resource development are investigated. Fabric weaves and weights, trims, and linings are discussed, and creative treatments are designed and specified.

**IND 220 Interior Design III – Materials, Details, Codes, and Specs**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

*Prerequisite: IND 120, ARC 101*

Coordinates interior building materials, interior details, and section drawings; building codes and specifications for typical and custom projects; and the ability to communicate custom designed furnishings specifications.

### **IND 250 Studio I – Residential Design**

3 Credit Hours • 52.5 Contact Hours (30 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite:* ENG 090, MAT 060, REA 090, IND 220

Challenges the advanced interior design student to study residential design components, generate working drawings, elevations, finishing plans, budget sheets, and color boards. Grading includes final formal presentation. Independent study in resource development is expected.

### **IND 251 Studio II – Residential**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* ENG 090, MAT 060, REA 090, IND 250

Gives the advanced Interior Design student criteria to design a residence. Student will be expected to generate a completed project for final formal presentations. Independent research and study are expected.

### **IND 260 Studio I – Commercial Design**

3 Credit Hours • 52.5 Contact Hours (30 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite:* Interior Design Majors only; IND 220

Allows the advanced interior design student to generate plans specifications, elevations, and color boards for selected commercial spaces. Independent study is required for developing the criteria for furnishing selections. Grading includes final formal presentation.

### **IND 261 Studio II – Commercial Design**

4 Credit Hours • 82.5 Contact Hours (15 Lecture, 67.5 Lecture/  
Lab Combination)

*Prerequisite:* IND 260, ENG 090, MAT 060, REA 090

Provides the advanced interior design student with the specific area for which the student will be expected to generate completed projects for final formal presentation. Independent research and study are expected.

### **IND 265 Interior Design IV – Special Applications**

3 Credit Hours • 52.5 Contact Hours (30 Lecture, 22.5 Lecture/  
Lab Combination)

*Prerequisite:* IND 250 or IND 260 and ARC 108, ENG 090, MAT 060, REA 090

This course is divided into three sections to allow the student exposure to various types of software used by major companies in the practice of interior design. A project will be completed for each of the different software programs.

### **IND 280 Internship**

3 Credit Hours • 135 Contact Hours (Work Experience)

*Prerequisite:* IND 120, ARC 108

Provides work experience in a business or industry; 45 fieldwork hours per credit hour.

### **IPP 122 Aspects of Interpreting II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* IPP 121

*Corequisite:* ASL 221

Provides a more in-depth study of the field of interpreting, expanding on the basics introduced in IPP 121. 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 125 Oral Transliterating**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite:* IPP 121

*Corequisite:* IPP 132

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 131 Text Analysis**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ASL 122 with a B or better, successful placement in ENG 121 on COMPASS or ACET

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 132 Interpretation Analysis**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* IPP 131

Follows IPP 131 and is a continuation of the work begun in that course. The goal 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 131, further increasing English/Sign vocabulary and idioms.

### **IPP 145 Deaf People in Society**

2 Credit Hours • 30 Contact Hours (Lecture)

*Corequisite:* ANT 101 or faculty consent

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 147 Survey of Deaf Culture**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ANT 101, IPP 145

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 205 Educational Interpreting**

4 Credit Hours • 60 Contact Hours (Lecture)

*Corequisite:* ASL 221, IPP 122

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.

## **Interpreter Preparation**

### **IPP 121 Aspects of Interpreting I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ASL 122 with a B grade or higher, ENG 090 or appropriate placement test

*Corequisite:* ASL 123

Acquaints the student with the basics of interpreting. This will enable the student to understand what interpreting involves, and the professional requirements for being an interpreter. In this course, the student is introduced to the code of ethics, situation assessment required for effective interpreting, and certification of interpreters.

### **IPP 207 Specialized and Technical Communication**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite:* ASL 222

Expands their repertoire of specialized and technical sign terminology and ability to apply them in appropriate contexts.

### **IPP 225 English to ASL Interpreting**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ASL 221, IPP 132

*Corequisite:* ASL 222, IPP 227

Provides the student an opportunity to further develop interpreting skills from English to ASL.

### **IPP 227 ASL to English Interpreting**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ASL 221, IPP 132

*Corequisite:* ASL 222, IPP 225

Provides the student an opportunity to build skills in interpreting and transliterating into spoken English from ASL and various contact varieties.

### **IPP 229 Transliterating**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* IPP 122, ASL 221, and IPP 132

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 235 Advanced Interpreting**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite:* ASL 222, IPP 225, IPP 227, IPP 229

*Corequisite:* IPP 279, IPP 281

Provides the student an opportunity to further develop and refine skills in ASL to English and English to ASL interpretation and transliteration.

### **IPP 279 Interpreter Seminar**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* Must have GPA of B or better; no more than one C in ASL 222, IPP 225, IPP 227, IPP 229

*Corequisite:* IPP 235, IPP 281

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 281 Internship**

5 Credit Hours • 225 Contact Hours (Work Experience)

*Prerequisite:* Must have GPA of B or better; no more than one C in ASL 222, IPP 225, IPP 227, IPP 229

*Corequisite:* IPP 235, IPP 279

Provides field experience interpreting in a supervised educational, community, service agency, or other setting.

## **Italian**

### **ITA 111 Italian Language I**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading, and writing the Italian language.

### **ITA 112 Italian Language II**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* ITA 111 with a C grade or higher or faculty consent

Continues Italian Language I in the development of functional proficiency in listening, speaking, reading, and writing the Italian language. Note: The order of the topics and the methodology will vary according to individual texts and instructors.

## **Japanese**

### **JPN 111 Japanese Language I**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading, and writing the Japanese language.

### **JPN 112 Japanese Language II**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* JPN 111 with a C grade or higher or faculty consent

Continues Japanese Language I in the development of functional proficiency in listening, speaking, reading, and writing the Japanese language.

### **JPN 211 Japanese Language III**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* JPN 112 with a C grade or higher or faculty consent

Continues Japanese Language I and II in the development of increased functional proficiency in listening, speaking, reading, and writing the Japanese language.

### **JPN 212 Japanese Language IV**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* JPN 211 with a C grade or higher or faculty consent

Continues Japanese Language I, II, and III in the development of increased functional proficiency in listening, speaking, reading, and writing the Spanish language.

## **Journalism**

### **JOU 102 Introduction to Editing**

3 Credit Hours • 45 Contact Hours (Lecture)

Focuses on the process of editing articles for publication in newspapers, newsletters, magazines, and the Internet. The Associated Press style is emphasized.

### **JOU 105 Introduction to Mass Media**

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 106 Fundamentals of Reporting**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)

Introduces newswriting, reporting, and interviewing with an emphasis on clarity, accuracy, completeness, timeliness, and fairness.

### **JOU 109 Introduction to Desktop Publishing**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)

Introduces fundamentals of desktop publishing, using database files, desktop publishing, and graphics programs, as well as HTML coding to design brochures, fliers, newsletters, newspapers, and Web sites. Students will also create database files and charts for computer-assisted reporting.

### **JOU 111 Principles of Advertising**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)

Employs design concepts, principles, and practices for advertising management for the mass media.

### **JOU 114 TV Production**

3 Credit Hours • 45 Contact Hours (Lecture)

Covers principles and techniques of television production, as well as the role of the director/producer.

### **JOU 121 Photojournalism**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)

Provides an introductory, hands-on course in black-and-white photography, with an emphasis on photojournalistic techniques, processing, and printing. This course includes an investigation of word/pictures relationships in creating photo essays for publications.

### **JOU 206 Intermediate Newswriting and Editing**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)

*Prerequisite: Placement Level ENG 121, REA 090, and JOU 106*

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 215 Publications Production and Design**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)

*Prerequisite: Placement Level ENG 121 and REA 090*

Provides for students' participation in the planning, writing, design, and production processes of a non-newspaper publication.

### **JOU 221 Newspaper Design I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: Placement Level ENG 121 and REA 090*

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 222 Newspaper Design II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: Placement Level ENG 121 and completion of JOU 221*

Allows students to build their newspaper production experience through work on the college newspaper or other approved news-oriented publications.

### **JOU 231 Introduction to Public Relations**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: JOU 106 or faculty consent*

Focuses on public relations and its role for the individual, the non-profit organization, business, and government; research methodology, principles, and practices necessary to become a public relations practitioner; and media channels best suited to a persuasive appeal or crisis.

### **JOU 241 Magazine Article Writing**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: Placement Level ENG 121, REA 090 or faculty consent*

Studies trade, consumer, and technical markets; manuscript development with emphasis on nonfiction; submission techniques; and trends affecting the marketing of manuscripts.

### **JOU 280 Internship**

3-5 Credit Hours • 360 Contact Hours (Internship)

*Prerequisite: faculty consent*

Provides a structured, guided, and individualized research that is organized and tailored around the interests and needs of the individual student who may use journalism skills and experiences acquired during previous coursework.

## **Literature**

### **LIT 115 Introduction to Literature I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Introduces students to fiction, poetry, and drama. Emphasizes active and responsive reading.

### **LIT 125 Study of the Short Story**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Focuses on careful reading and interpretation of the short story as a distinct genre. It examines formal as well as thematic elements of short fiction. Critical thinking, discussion, and writing about short stories will enhance perceptive reading skills and heighten awareness of the human condition.

### **LIT 201 Masterpieces of Literature I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful readings and understanding of the works and their cultural backgrounds.

### **LIT 202 Masterpieces of Literature II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Examines significant writings in world literature from the seventeenth century to the present. Emphasizes careful reading and understanding of the works and their cultural backgrounds.

### **LIT 205 Ethnic Literature**

1 Credit Hour • 15 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Focuses on significant texts by ethnic Americans including African-American, Native American, Latino/a, and Asian Americans. Emphasizes careful reading and understanding of the cultural and literary elements of the works.

### **LIT 211 Survey of American Literature I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Provides an overview of American literature from the Native American through the nineteenth century Romantics. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers.

### **LIT 212 Survey of American Literature II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Provides an overview of American literature from the mid-nineteenth century to the present. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers.

### **LIT 221 Survey of British Literature I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Provides an overview of British literature from the Anglo-Saxon period through the 17th century. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers.



### **LIT 222 Survey of British Literature II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Provides an overview of British literature from the 18th century to the present. Explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers.

### **LIT 235 Science Fiction**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Examines the techniques and issues of science fiction through a close reading a variety of writers in the genre.

### **LIT 246 Literature of Women**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Examines the techniques and themes in literature by and about women by examining women's issues from various genres.

### **LIT 248 Native American Literature**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

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 255 Children's Literature**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Evaluates the criteria for selecting appropriate literature for children through exploration of genres, age levels, values taught through literature, and the literary and artistic quality of various texts.

### **LIT 257 Literature and Film**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Examines the relationship between literature and motion pictures, emphasizing the technique and interpretive function of filmmakers.

### **LIT 268 Celtic Literature**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

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 269 Popular Literature and Culture**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Explores special interests in literature, such as Detective Fiction and Science Fiction

## **Machining**

### **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 102 Blueprint Reading**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Students read blueprints and interpret symbols, notes dimensions, and tolerances.

### **MAC 110 Introduction to Engine Lathe**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MAC 101, MAC 102 or concurrent enrollment*

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 111 Intermediate Engine Lathe**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MAC 110 or concurrent enrollment*

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 112 Advanced Engine Lathe**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MAC 102 or concurrent enrollment*

Prepares students to form radius, single-point isometric threads, turn spherical radius, use a radius gauge, and work within .0005 inches tolerance externally.

### **MAC 120 Introduction to Milling Machine**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MAC 101, MAC 102 or concurrent enrollment*

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 121 Intermediate Milling Machine**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MAC 120 or concurrent enrollment*

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 122 Advanced Milling Machine Operations**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MAC 121 or concurrent enrollment*

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 201 Introduction to CNC Turning Operations**

3 Credit Hours • 45 Contact Hours (Lecture)

Covers computer numerical control (CNC) lathe operations, control functions, the letter address system, the program format, and machine setup. G & M codes, control functions, the letter address system, and math issues related to CNC are included. This class is NOT offered on an open-entry, open-exit basis.

### **MAC 202 CNC Turning Operations II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAC 201 or concurrent enrollment*

Prepares students to write basic computer numerical control (CNC) lathe part programs, G and M codes, math related to CNC, setups, speeds and feeds, straight turning, spherical turning, threading, chamfering, tapering, drilling, tapping, boring, and grooving. Cutter compensations, sub-programming techniques, repetitive cycles, and both absolute and incremental exercises will be incorporated into programs. Students will also proof and edit the programs to make them valid. This class is NOT offered on an open-entry, open-exit basis.

### **MAC 205 Introduction to CNC Milling Operations**

3 Credit Hours • 45 Contact Hours (Lecture)

Provides transitional information between conventional machining applications and the typical applications found in computer numerical control machining. Topics may consist of numerical control systems, The cartesian coordinate system, high efficiency tooling applications, objectives of numerical control, calculating speed and feed rates, defining and calculating tool motion, fixturing requirements, basic program structure, programming codes, and basic conversational programming. Operations of NC machines will be required.

### **MAC 206 CNC Milling Operations II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAC 205 or concurrent enrollment*

Exposes the student to the principle operations of both vertical and horizontal CNC milling machines via lecture instruction methods, multi-media instruction methods, and manufacturing hands-on methods. The student will be exposed to the basic CNC machining center, principle operations, manual controls, programming methods, tool-offsets, G54-G59 work offsets, cutter radius compensation, and tool selection methods. General operator skills and basic setup skills will be stressed.

### **MAC 207 CNC Milling Lab**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MAC 206 or concurrent enrollment*

Prepares students to write programs and run parts from both blueprints provided and per individual student designs. Proofing and editing programs, sub-programs, managing cutter compensations, fixture offsets, and overall execution at the machine will be the primary focus.

### **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 241 CAD/CAM 2D Lab**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MAC 240 or concurrent enrollment*

Requires students to produce a variety of lab exercises on robotic machinery in a self-paced format in conjunction with MAG 215. 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 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 246 CAD/CAM 3D Lab**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MAC 245 or concurrent enrollment*

Requires students to produce a variety of three dimensional lab exercises on robotic machinery in a self-paced format in conjunction with MAG 225. 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 CAD/CAM programs on the milling machine.

### **MAC 250 Advanced Inspection Techniques**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MAT 108*

Exposes the student to the principles of dimensional metrology. Students will learn how to use common measuring instruments relating to state-of-the-art manufacturing environments. Students will also learn the importance of Quality Control, TQM, and SPC processes as they relate to manufacturing environments. Use of a coordinate measuring machine will be delivered.

### **MAC 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.

## **Management**

### **MAN 116 Principles of Supervision**

3 Credit Hours • 45 Contact Hours (Lecture)

Studies the principles and techniques of supervising and motivating personnel. This course is designed for students who are interested in supervising others or for those currently in supervision. Course content focuses on the human interaction in supervision.

### **MAN 117 Time Management**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

Provides students with the conceptual knowledge and tools to make better use of their time in the management function.

### **MAN 125 Team Building**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

Introduces the concept of working as a team member. Activities and assignments will emphasize the ability to negotiate, work together, build consensus, and make quality decisions.

### **MAN 128 Human Relations in Organizations**

3 Credit Hours • 45 Contact Hours (Lecture)

Explores the importance of effective communication in our personal lives as well as in the world of business. Practical business applications such as employee motivation, handling customer complaints, and effectively resolving conflict in the workplace will be a major part of the curriculum.

### **MAN 200 Human Resource Management I**

3 Credit Hours • 45 Contact Hours (Lecture)

Provides the student with a broad overview of the contemporary issues, theories, and principles used to effectively manage human resources. Topics include recruiting, hiring, compensation and benefits, training and development, employee relations, and legal issues.

### **MAN 212 Negotiation and Conflict Resolution**

3 Credit Hours • 45 Contact Hours (Lecture)

Presents proper techniques in negotiation and conflict resolution. Key practices that determine successful negotiation are explored. This course covers principles of conflict resolution including business policies, accepted business practices contracts, labor union contracts, pay raises, and starting salaries.

### **MAN 215 Organizational Behavior**

3 Credit Hours • 45 Contact Hours (Lecture)

Examines the behaviors of groups and individual members of organizations and how that behavior can be influenced. Course emphasis is on the tools managers use to achieve organizational effectiveness.

### **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. It is also designed to enhance the skills of those already involved in the operation of a small business. The course includes the development of a complete small business plan.

### **MAN 226 Principles of Management**

3 Credit Hours • 45 Contact Hours (Lecture)

Presents a survey of the principles of management. Emphasis is on the primary functions of planning, organizing, leading, and controlling with a balance between the behavioral and operational approach.

### **MAN 287 Cooperative Education/Internship**

1 – 6 Credit Hours • 45 Contact Hours per credit (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 stations which 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.

## **Marketing**

### **MAR 111 Principles of Sales**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: BUS 115*

Enables the student to understand and develop ethical sales techniques and covers the role of selling in the marketing process. Areas of emphasis include behavioral considerations in the buying and selling process and sales techniques.

### **MAR 117 Principles of Retailing**

3 Credit Hours • 45 Contact Hours (Lecture)

Emphasizes the study of the basic principles and techniques of merchandising, operations, layout, store organization, site location, and customer service with an emphasis on retailing operations.

### **MAR 126 Merchandising**

3 Credit Hours • 45 Contact Hours (Lecture)

Emphasizes facility/store organization and merchandising techniques. The study of what makes a store appealing includes layout, product mix, and techniques of display.

### **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 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 220 Principles of Advertising**

3 Credit Hours • 45 Contact Hours (Lecture)

Examines the principles and practices of advertising and its relationship to business in order to promote a business or organization. Areas of major emphasis include advertising principles, strategies, media, copy and layout, and ethical considerations.

### **MAR 222 Implementing E-Commerce**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: BUS 160*

Provides the student with practical skills and knowledge of e-commerce implementation methodology. Topics include strategic planning for e-commerce, project management, change management, role of technology, implementation planning and assessment. Students use case studies to examine standards and practices of businesses implementing e-commerce applications and solutions.

### **MAR 238 Marketing Applications and Analysis**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAR 216 or documentation of passing a marketing principles course at another institution*

Students explore the application of marketing variables through lecture and case analysis. Each person develops a situational analysis or marketing plan as a semester project.

### **MAR 240 International Marketing**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: BUS 115*

Enables the student to explore the international marketing for U.S. products, and to explore the increasing competitive international environment and recent changes in the environment that have challenged U.S. business. The course is designed to make the reader an "informed observer" of the global market place as well as enabling him/her to develop skills to make marketing decisions in a global context.

### **MAR 245 Sales Management**

3 Credit Hours • 45 Contact Hours (Lecture)

Explores management of the selling function. It includes forecasting, organization of the sales force, recruiting, selection, training, compensation, retention, and territory management.

## **Mathematics**

### **MAT 030 Fundamentals of Mathematics**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite: Math assessment*

Includes the vocabulary, operations, and applications of whole numbers, decimals, and basic fractions and mixed numbers.

### **MAT 060 Pre-Algebra**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: Successful completion of MAT 030 (grade of C or higher) or appropriate math assessment*

Further the study of fractions and mixed numbers. Also included are vocabulary, operations, and applications of ratio, proportion, percent, area, perimeter, US and metric measures, integers, and an introduction to algebraic expressions and the solution of basic first-degree equations.

### **MAT 090 Introductory Algebra**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: Successful completion of MAT 060 (grade of C or higher) or appropriate math assessment*

Includes first-degree equations, inequalities, formulas, polynomials, algebraic fractions, factoring polynomials, solving quadratic equations by factoring, and applications. Coordinate geometry, graphing linear equations and inequalities, and systems of linear equations may be included.

### **MAT 106 Survey of Algebra**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: Successful completion of MAT 090 (grade of C or higher) or appropriate math assessment*

Emphasizes problem solving with further study of equations, slope, inequalities, systems of equations, polynomials, quadratic equations, rational expressions, rational exponents, radical expressions, graphing and applications. A graphing calculator or equivalent software may be utilized.

### **MAT 107 Career Math**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: Successful completion of MAT 060 (grade of C or higher) or appropriate math assessment*

Covers material designed for career technical students or general studies students who need to study particular mathematical topics. Topics may include arithmetic review, calculator usage, algebra, geometry, trigonometry, graphs, and finance. These are presented on an introductory level and the emphasis is on applications. The specific topics covered are selected to meet the needs of the students enrolled in the course.

### **MAT 108 Technical Mathematics**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: Mat 090 (grade of C or higher) or appropriate math assessment*

Covers material designed for career technical students or general studies students who need to study particular mathematical topics. Topics may include calculator usage, algebra, geometry, trigonometry, graphs, finance logarithms and statistics. These are presented on an introductory level and the emphasis is on applications. The specific topics covered are selected to meet the needs of the students enrolled in the course.

### **MAT 109 Geometry**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: Successful completion of MAT 090 (grade of C or higher) or appropriate math assessment*

Teaches basic geometric principles involving lines, triangles, circles, polygons, and three-dimensional figures. Geometric constructions and measurement in the metric and U.S. systems are covered.

### **MAT 111 Technology Lab for Algebra**

1 Credit Hour • 30 Contact Hours (Lab)

Explores and applies algebraic topics in a laboratory course using graphing calculators.

### **MAT 112 Financial Mathematics**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAT 060 or equivalent*

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

### **MAT 120 Mathematics for the Liberal Arts**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: Successful completion of MAT 090 (grade of C or higher) or appropriate math assessment*

Develops mathematical and problem-solving skills. Appropriate technological skills are included. Content is selected to highlight connections between mathematics and the society in which we live. Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. Additional content will include one topic in geometry, numeration systems, decision theory, or management science.

### **MAT 121 College Algebra**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite: Successful completion of MAT 106 (grade of C or higher) or appropriate math assessment*

Includes a brief review of intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and non-linear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series, permutations and combinations, the binomial theorem, and theory of equations. A graphing calculator is required.

### **MAT 122 College Trigonometry**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: Successful completion of MAT 121 (grade of C or higher) or appropriate math assessment*

Covers topics including trigonometric functions (with graphs and inverse functions), identities and equations, solutions of triangles, complex numbers, and other topics as time permits. This is a traditional Prerequisite course to the calculus sequence.

### **MAT 123 Finite Mathematics**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite:* Successful completion of MAT 106 (grade of C or higher) or appropriate math assessment

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 125 Survey of Calculus**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite:* Successful completion of MAT 121 (grade of C or higher) or appropriate math assessment

Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science, and/or social science majors.

### **MAT 135 Introduction to Statistics**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* Successful completion of MAT 106 (grade of C or higher) or appropriate math assessment

*Corequisite:* MAT 179

Includes data presentation and summarization, introduction to probability concepts and distributions, statistical inference—estimation, hypothesis testing, comparison of populations, correlation, and regression.

### **MAT 155 Integrated Math I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* MAT 106 or equivalent competency

Covers topics including natural numbers, integers, rational numbers, relations, functions, and equations. This course is the first of a two-course sequence particularly pertinent to prospective arithmetic teachers, presenting arithmetic and algebra from a modern approach.

### **MAT 156 Integrated Math II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* Successful completion of MAT 155 (grade of C or better)

Continues MAT 155. It includes the study of the fundamentals of probability, statistics, and informal Euclidean geometry suitable for K-8 curriculum, employing laboratory techniques where applicable.

### **MAT 166 Pre-Calculus**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* Successful completion of MAT 106 (grade of C or higher) or appropriate math assessment

Reviews college algebra and college trigonometry intended for those planning to take calculus. Topics include algebraic manipulations, properties of algebraic and trigonometric functions and their graphs, trig identities and equations, conic sections, polar coordinates, and parametric equations.

### **MAT 179 Computer Applications for Statistical Procedures**

1 Credit Hour • 22.5 Contact Hours (7.5 Lecture, 15 Lab)

*Prerequisite:* MAT 106

*Corequisite:* MAT 135

Uses statistical software and the World Wide Web to engage students in an active visual approach to the topics covered in MAT 135. Students will work with real world data on problems of a practical nature.

### **MAT 201 Calculus I**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* Successful completion of MAT 121 and MAT 122 (grade of C or higher) or appropriate math assessment

Introduces single variable calculus and analytic geometry. Includes limits, continuity, derivatives, and applications of derivatives as well as indefinite and definite integrals and some applications.

### **MAT 202 Calculus II**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* Successful completion of MAT 201 (grade of C or higher) or appropriate math assessment

Continuation of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals, and infinite series.

### **MAT 203 Calculus III**

4 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* Successful completion of MAT 202 (grade of C or higher) or appropriate math assessment

Completes the traditional subject matter of Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals, and application.

### **MAT 215 Discrete Mathematics**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite:* MAT 201

Includes formal logic, algorithms, induction proofs, counting and probability, recurrence relations, equivalence relations, graphs, shortest-path, and tree traversal. This course is designed for mathematics and computer science students.

### **MAT 255 Linear Algebra**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* Successful completion of MAT 202 (grade of C or higher)

Includes vector spaces, matrices, linear transformations, matrix representation, eigenvalues, and eigenvectors.

### **MAT 265 Differential Equations**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* Successful completion of MAT 202 (grade of C or higher)

Emphasizes 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.

## **Meat Processing**

### **MEP 101 Risk Management**

1 Credit Hour • 15 Contact Hours (Lecture)

Introduces OSHA (Occupational Safety & Health Administration) standards. Student will learn safety policies & regulations and individual safety behaviors with an understanding of risks in the environment. Course will also focus on work related injury policies and the value of ergonomics.

## **Medical Office Technology**

### **MOT 100 Professional Household Health Assistant**

5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)

Provides skills through lecture and hands-on lab, experiences in both classroom environment and household sites. Topics include family dynamics, communication skills, boundaries, patient assistance skills in the home, nutrition, safety issues & body mechanics, environmental care, chronic illness care in the home, and self-marketing skills. This course is designed to provide clients home care by providers who attend to basic needs in the home for support of the professional nurse and other healthcare providers. This person attends to the needs based on family requirements in support of patient comforts and safety, while providing companionship and assistance for patients and family.

### **MOT 110 Medical Office Administration**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Introduces the administrative duties specifically used in medical offices.



### **MOT 120 Medical Office Financial Management**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* MAT 030, MOT 110

*Corequisite:* CIS 118

Covers the practical uses of accounts and records with emphasis on accounting principles and analysis for use in a medical office.

### **MOT 123 Introduction to Clinical Physiology**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* REA 090

*Corequisite:* HPR 178

Introduces the allied health professional to the human body and introduces the fields of chemistry and biology with applications to the function of the human body. Examines the states of homeostasis and disease and alterations in those states. Students will also be introduced to the study of pharmacology and applying the disciplines of chemistry and biology to body processes. This course is a pre-requisite for MOT 125, MOT 133, and MOT 135.

### **MOT 124 Medical Filing**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite:* MOT 110

Introduces the student to the basic rules and principles of filing in medical facilities. Topics include numeric, terminal digit, alphabetic, and computer-assisted filing methods. Cross-referencing, color-coding, and medical records control will also be introduced.

### **MOT 125 Basic Medical Sciences I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* MOT 123

Teaches the anatomy and 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. This course is a follow-on course from MOT 133. Students may take MOT 125, MOT 133, and MOT 135 in any order after successfully completing MOT 123.

### **MOT 130 Insurance Billing and Coding**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* MOT 125, MOT 135

Introduces outpatient coding with an ultimate goal to present a clear picture of medical procedures and services performed (CPT codes), correlating the diagnosis, symptom, complaint or condition (ICD-9 codes), thus establishing the medical necessity required for third-party reimbursement.

### **MOT 131 Advanced Insurance Billing and Coding**

3 Credit Hours • 45 Contact Hours (Lecture)

*Corequisite:* MOT 125, MOT 135

Prepares the student to code correctly and optimize reimbursements for a full range of medical services by expanding coverage of diagnostic and therapeutic procedures, official coding guidelines, APGs, APCs, DRGs, Medicare fraud and abuse.

### **MOT 132 Medical Transcription**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite:* MOT 125, HPR 278

Provides basic knowledge, understanding, and skills required to transcribe medical dictation with accuracy, clarity, and timeliness, applying the principles of professional and ethical conduct.

### **MOT 133 Basic Medical Sciences II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* MOT 123

Teaches the anatomy and physiology, pathophysiology, and drug therapy of the cardiovascular, respiratory, and dermatology systems. This course is a follow-on course from MOT 123. Students may take MOT 125, MOT 133, and MOT 135 in any order after successfully completing MOT 123.

### **MOT 135 Basic Medical Sciences III**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* MOT 123

Covers the anatomy and physiology, pathophysiology, and drug therapy of the Renal, Reproductive, Neurological, and Endocrine systems. This course is a follow-on course from MOT123. Students may take MOT125, MOT133, and MOT135 in any order after successfully completing MOT123.

### **MOT 136 Introduction to Clinical Skills**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Corequisite:* MOT 138, MOT 140

Provides hands on experience with the basic clinical skills required for assisting with patient care. Delivers the theory behind each skill presented as well as proper technique for performing each skill. Includes knowledge and/or performance of blood borne pathogens/OSHA regulations, medical asepsis, procedural gloving, patient gowning, positioning, and measurement of vital signs.

### **MOT 138 Medical Assisting Lab Skills**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Corequisite:* MOT 136

Introduces the student to basic routine laboratory skills and techniques for collection, handling, and examination of laboratory specimens often encountered in the ambulatory care setting. Emphasizes hands-on experience.

### **MOT 140 Medical Assisting Clinical Skills**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

*Corequisite:* MOT 136

Provides hands on experience with the clinical skills required for assisting with patient care. Delivers the theory behind each skill presented as well as proper technique for performing each skill.

### **MOT 142 Medical Transcription II**

4 Credit Hours • 60 Contact Hours (Lecture)

*Prerequisite:* MOT 132

*Corequisite:* MOT 180

Uses a simulation approach to build student vocabulary and speed while providing actual medical transcription of a variety of health care and medical reports at progressively increasing accuracy and productivity standards.

### **MOT 150 Pharmacology for Medical Assistants**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* MAT 030

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.

### **MOT 180 Medical Transcription Internship**

3 Credit Hours • 180 Contact Hours (Internship)

*Corequisite:* MOT 142 or faculty consent

Provides supervised placement in contracted facility for guided experience in the application of knowledge and skills acquired in the classroom.

### **MOT 181 Administrative Internship**

2 Credit Hours • 90 Contact Hours (Internship)

*Prerequisite:* MOT 189 or program coordinator consent

Provides supervised placement in contracted facility for guided experience in application of knowledge and skill acquired in the classroom. Positions are non-paid due to CAAHEP requirement. Student must have permission by program coordinator to begin internship.



### **MOT 182 Clinical Internship**

3 Credit Hours • 135 Contact Hours (Internship)

*Prerequisite: Must be in final semester of MOT degree or certificate program or have program coordinator consent*

Provides supervised placement in contracted facility for guided experience in applications of knowledge and skills acquired in the classroom. Positions are non-paid due to CAAHEP requirement. Student must have permission by program coordinator to begin internship.

### **MOT 183 Medical Assistant Internship**

5 Credit Hours • 225 Contact Hours (Internship)

*Prerequisite: Must be in final semester of MOT degree or certificate program or program coordinator consent*

Provides supervised placement in contracted facility for guided experience in application of knowledge and skill acquired in the classroom. The student assists with a variety of business and clinical procedures. Positions are non-paid due to CAAHEP requirement. Student must have permission by program coordinator to begin internship.

### **MOT 189 Review for Medical Assistant National Examination**

1 Credit Hour • 15 Contact Hours (Lecture)

*Prerequisite: Must be in final semester of MOT degree or certificate 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.

## **Multimedia Graphic Design**

### **MGD 101 Introduction to Computer Graphics**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Introduces the student to the computer system developed for graphics. The student will learn the hardware and software components for multimedia production. Each student will explore basic computer operations, ergonomics, file management, scanning techniques, archiving capabilities, and utilization of the multimedia department server and internet connection.

### **MGD 102 Introduction to Multimedia**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Introduces the types of equipment and technical considerations used in multimedia productions and the multimedia professions. It focuses on current types of equipment such as scanners, printers, digital cameras, and computers. Students gain hands-on experience in how the technology is utilized for input and output in production and design projects. Overview of software and basic design principles will be explored.

### **MGD 103 Production Design**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

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 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 105 Typography and Layout**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Covers the creation and production of graphic projects, emphasizing the layout creative design process, problem solving, and research. Provides experience producing thumbnails, roughs, and digital layouts emphasizing refined creative typography.

### **MGD 106 Creativity and Visual Thinking**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Introduces the visual and oral skills necessary to analyze works of art and design, articulate complex ideas, then present the solution cogently in 2-D and 3-D projects and presentation skill building. The underlying philosophy of what we see, how we see, and what we do with it is the major concern of this class.

### **MGD 107 History of Design**

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 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 109 Design and 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 on line, form, composition, and continuity.

### **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 111 Adobe Photoshop I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Corequisite: MGD 101 or faculty consent*

Concentrates on the high-end capabilities of a raster photo-editing software 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.

### **MGD 112 Adobe Illustrator I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Corequisite: MGD 101 or faculty consent*

Acquaints students with the processes of a vector drawing program on the computer. Students learn how to use the tools to create digital artwork that can be used in web design, print media, and digital screen design.

### **MGD 113 QuarkXPress**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Corequisite: MGD 101, MGD 102 or faculty consent*

Introduces students to QuarkXPress, a digital page layout tool. Students learn how to assemble, organize, manipulate, and manage text and graphics to produce a high quality publication. Class discussions and independent projects supplement hands-on classroom work.

### **MGD 114 Adobe InDesign**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Corequisite: MGD 101, MGD 111, MGD 112*

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 116 Typography I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: MGD 105*

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 128 Multimedia Hardware**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Teaches the principles and techniques of maintaining, upgrading, and customizing personal computer systems. Emphasis will also be placed on various emerging and established technologies related to graphic computing.

### **MGD 132 Design and Color II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: MGD 109*

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 133 Graphic Design I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Focuses upon the study of design layout and conceptual elements concerning graphic design projects such as posters, advertisements, logos, and brochures.

### **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 141 Web Design I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: MGD 101, MGD 102 or faculty consent*

Introduces the fundamentals of HTML syntax using a simple text editor to create a web page. Web-safe colors and the use of graphic editors will be explored. Students study web aesthetics and intuitive interface design. The course emphasizes file organization and layout including tables and frames.

### **MGD 143 Web Motion Graphic Design I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: MGD 101, MGD 102 or faculty consent*

Stresses creation of animated GIF's and dynamic, interactive media for Web applications. Students will learn how to draw objects, create symbols, and assemble motion tweens.

### **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 161 Director I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: MGD 101, MGD 102, MGD 111*

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 163 Sound Design I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Explores the use of sound in multimedia production and audio storytelling. Students examine the principles of recording. Classes focus on how sound can enhance interactive productions and improve computer presentations. Students learn how to use the computer as a full audio editing studio.

### **MGD 164 Digital Video Editing I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: MGD 101, MGD 102 or faculty consent*

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 165 After Effects I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: MGD 101, MGD 102 or faculty consent*  
*Corequisite: MGD 164*

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 178 Seminar/Workshop**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: faculty consent*

*Corequisite: faculty consent*

Provides students with an exceptional learning experience.

### **MGD 180 Internship**

3 Credit Hours • 135 Contact Hours (Work Experience)

*Prerequisite: faculty consent*

*Corequisite: faculty consent*

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 201 Children's Book Illustration**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 109*

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 202 Point of Purchase Packaging Design**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 109, MGD 132, MGD 133, or faculty consent*

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 203 Design and Concept**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Covers the process of comprehensive problem solving of complex and advanced print design. Provides experience in digital production of designs, using multiple computer applications emphasizing concept.

**MGD 204 Videography II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 104 or faculty consent*

Offers advanced study of digital video imaging concepts using digital cameras. Heavy emphasis is placed upon media aesthetics and the creative integration of sight, sound, and motion in student projects.

**MGD 207 Illustration I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 134*

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 208 Illustration II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 207*

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 209 Illustration III**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 208*

Continues Illustration II with added emphasis on conceptual development and proficiency in technique.

**MGD 211 Adobe Photoshop II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 111 or faculty consent*

Develops and reinforces image composition techniques learned in Adobe Photoshop I, MGD 111. Fundamentals are continuously reinforced as new design techniques are introduced.

**MGD 212 Adobe Illustrator II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 112 or faculty consent*

Enables the student to continue development of electronic drawing skills through practice and use of state of the art illustration software.

**MGD 213 Electronic Prepress**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

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 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 221 Computer Graphics I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 111, 112, 113 or faculty consent*

Introduces the process of generating computer design.

**MGD 222 Computer Graphics II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 111, 112, 113 or faculty consent*

Continues MGD 221 with advanced problems in generating computer design for graphics application, emphasizing production of individual fine art pieces.

**MGD 233 Graphic Design II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 133 or faculty consent*

Continues instruction in idea development for advanced graphic design.

**MGD 241 Web Design II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 141*

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 243 Web Motion Graphic Design II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 143*

Stresses the complex creation of 2D animated motion graphics concentrating on the prior skills learned and the use of scripting and behaviors. Students will create motion graphics using these skills and apply them to web sites. Web site justification of motion graphics will be stressed, appraised, and weighed.

**MGD 253 3D Animation II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 153*

Addresses more advanced aspects of creating 3D characters on the computer. Students also examine facial animation, lip synchronization, scene design, and lighting set-ups.

**MGD 256 Graphic Design Production**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Provides an opportunity to combine several draw and paint applications into one design and layout class. Students will explore advanced techniques in creating and designing computer art.

**MGD 258 Web Design Production**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Stresses web site development and usability issues as well as pre-production, production, and post-production concepts. Students will prepare project evaluations, objectives and analysis reports, project budgets and time-lines, content outlines, storyboards, and flow charts. Students will also examine interactive interface design for several Web applications. Projects will vary from semester to semester.

**MGD 259 Management and Production**

3 Credit Hours • 45 Contact Hours (Lecture)

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 260 Graphic Design Production II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* MGD 103, MGD 213, MGD 256  
*Corequisite:* MGD 111

Continues design and production techniques with further instruction in computer file set-up and creation of camera-ready art. Use of black and white and spot color for a variety of design projects.

### **MGD 261 Director II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* MGD 161

Explores the interactive process within all areas of program design; immersive creations, courseware authoring, delivery techniques and instruction strategies. Students are introduced to advanced Lingo scripting, 3D object integration, and Shockwave Multiuser Server to provide more expansive interactive capabilities.

### **MGD 262 Graphic Design Production III**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* MGD 260

Covers advanced study in design and production techniques and processes, including use of full color for publication design and book formats, advertising campaigns, business reply mail, promotional items, and editorial design.

### **MGD 263 Sound Design II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* MGD 163

Focuses on the application of sound with various multimedia software applications. Principles and techniques include MIDI orchestration and sequencing, digital multitrack recording and production, working with musicians and other talent, sound effects layering, integrated audio system production, and advanced audio mixing/sweetening. The student will explore synchronization techniques of audio with moving pictures, graphics, and animation.

### **MGD 264 Digital Video Editing II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* MGD 164

Looks at the more complex and advanced techniques of digital video editing. Areas of editing such as masking, filtering, blue/green screening, track mattes, and image mattes will be examined. Students will produce a movie project in this class and discuss practical ways to distribute to various audiences.

### **MGD 265 After Effects II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* MGD 165

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 266 DVD Authoring**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Introduces students to all aspects of DVD authoring; covers source acquisition, DVD production, interface design, organization, management, and appropriate DVD output solutions.

### **MGD 268 Commercial Art Business**

2 Credit Hours • 30 Contact Hours (Lecture)  
*Prerequisite:* MGD 103, MGD 206

Presents a guide to freelance work and a study of business practices and procedures unique to commercial art including billing rates, client management, business forms, employee management, taxes, licenses, registration, bid processes, and self-promotion. Course may include visits by professionals in the field and discussion of career opportunities and professional organizations.

### **MGD 278 Seminar/Workshop**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* faculty consent  
*Corequisite:* faculty consent

Provides students with an exceptional learning experience.

### **MGD 280 Internship**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* faculty consent  
*Corequisite:* faculty consent

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 288 Practicum**

1-6 Credit Hours • 45 Contact Hours per credit hour (Practicum)  
*Prerequisite:* faculty consent

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.

## **Music**

### **MUS 100 Fundamentals of Music**

3 Credit Hours • 45 Contact Hours (Lecture)

Designed to help the beginning music student, or those students with a limited background in music theory, study the basic elements of music, including notation, rhythm, scales, key signatures, intervals, and chords.

### **MUS 105 Introduction to Electronic/Computer Music**

3 Credit Hours • 45 Contact Hours (Lecture)

Explores the elements of electronic music and demonstrates some of the most popular music software for the Macintosh and IBGM computers, including music notation and music sequencing programs. Achieving a fundamental working knowledge of setup and recording procedures on a personal computer is stressed. Equipment is provided, and beginner's knowledge on either the Macintosh or IBM computer is helpful but not essential.

### **MUS 110 Music Theory I**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite:* MUS 100 or faculty consent  
*Corequisite:* MUS 112

Presents music fundamentals, diatonic four-part harmony, analysis, ear training, and keyboard harmony.

### **MUS 111 Music Theory II**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite:* MUS 110, MUS 112  
*Corequisite:* MUS 113

Presents chromatic four-part harmony, analysis, ear training, and keyboard harmony.

### **MUS 112 Ear Training/Sight-singing I Lab**

1 Credit Hour • 37.5 Contact Hours (Studio)  
*Prerequisite:* Follow sequence of MUS 100 or MUS 101, or equivalent proficiency  
*Corequisite:* MUS 110 or faculty consent

Presents exercises in sight-singing with melodic and rhythmic dictation.



**MUS 113 Ear Training/Sight-singing II Lab**

1 Credit Hour • 37.5 Contact Hours (Studio)  
*Prerequisite:* MUS 112 or equivalent proficiency via faculty consent  
*Corequisite:* MUS 111

Presents exercises in sight-singing with melodic and rhythmic dictation.

**MUS 120 Music Appreciation**

3 Credit Hours • 45 Contact Hours (Lecture)

Covers the basic materials of music, musical forms, media, genres, and musical periods. Emphasizes the development of tools for intelligent listening and appreciation.

**MUS 121 Music History I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 121 or concurrent enrollment, MUS 100 or MUS 110, MUS 120

Studies the various periods of music history with regard to the composers, esthetics, forms, and genres of each period. Considers music from the Middle Ages through the Classical period.

**MUS 122 Music History II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 121 or concurrent enrollment, MUS 100, MUS 120

Continues Music History I with a study of music from the early Romantic period to the present.

**MUS 125 History of Jazz Music**

3 Credit Hours • 45 Contact Hours (Lecture)

Provides an overview of the history of jazz in America, and provides basic listening skills for the understanding and appreciation of jazz music.

**MUS 126 History of American Popular Music**

3 Credit Hours • 45 Contact Hours (Lecture)

Provides a survey of the history and literature of American Popular Music from 1600 to the present. Through the study of the many ethnic influences that contribute to the diverse musical landscape of American Popular Music, the students acquire an appreciation of this rich musical heritage. These musical styles have evolved out of the diversity in America, and are performed and enjoyed throughout the world.

**MUS 131 Music Class I:**

2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)

*Prerequisite:* faculty consent

Applies the fundamentals of music to the voice or specific musical instruments. This course also introduces basic techniques, repertoire, and sight-reading. First year, first term.

**MUS 132 Music Class II:**

2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)

*Prerequisite:* faculty consent

Applies the fundamentals of music to the voice or specific musical instruments. The course also introduces basic techniques, repertoire, and sight-reading. First year, second term.

**MUS 133 Music Class III:**

2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)

*Prerequisite:* faculty consent

Applies the fundamentals of music to the voice or specific musical instruments. The course also introduces basic techniques, repertoire, and sight-reading. First year, third term.

**MUS 134 Music Class IV:**

2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)

*Prerequisite:* faculty consent

Applies the fundamentals of music to the voice or specific musical instruments. The course also introduces basic techniques, repertoire, and sight-reading. First year, fourth term.

**MUS 141 Private Instruction I:**

1-2 Credit Hours • 7.5 Contact Hours (Private Instruction)

*Prerequisite:* Class instruction or faculty consent.

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. First year, first term.

**MUS 142 Private Instruction II:**

1-2 Credit Hours • 7.5 Contact Hours (Private Instruction)

*Prerequisite:* Class instruction or faculty consent.

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. First year, second term.

**MUS 143 Private Instruction III:**

1-2 Credit Hours • 7.5 Contact Hours (Private Instruction)

*Prerequisite:* Class instruction or faculty consent.

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. First year, third term.

**MUS 144 Private Instruction IV:**

1-2 Credit Hours • 7.5 Contact Hours (Private Instruction)

*Prerequisite:* Class instruction or faculty consent.

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. First year, fourth term.

**MUS 151 Ensemble I:**

1 Credit Hour • 37.5 Contact Hours (Studio)

*Prerequisite:* faculty consent

First year, first term. Rehearses and performs various types of musical literature.

**MUS 152 Ensemble II:**

1 Credit Hour • 37.5 Contact Hours (Studio)

*Prerequisite:* faculty consent

Rehearses and performs various types of musical literature. First year, second term.

**MUS 153 Ensemble III:**

1 Credit Hour • 37.5 Contact Hours (Studio)

*Prerequisite:* faculty consent

Rehearses and performs various types of musical literature. First year, third term.

**MUS 154 Ensemble IV:**

1 Credit Hour • 37.5 Contact Hours (Studio)

*Prerequisite:* faculty consent

Rehearses and performs various types of musical literature. First year, fourth term.

**MUS 210 Music Theory III**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* MUS 111, MUS 112

*Corequisite:* MUS 112

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 211 Music Theory IV**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* MUS 210

*Corequisite:* MUS 213

Offers a continuation of chromatic harmony, analysis, ear-training, and keyboard harmony. New topics will include Impressionism and 20th century styles of composition.



**MUS 212 Advanced Ear Training/Sight-singing I Lab**

1 Credit Hour • 37.5 Contact Hours (Studio)  
*Prerequisite: follow sequence and MUS 164 or faculty consent*  
*Corequisite: MUS 210*

Presents modulating and chromatic exercises in sight-singing and dictation. Dictation includes four-part writing.

**MUS 213 Advanced Ear Training/Sight-singing II Lab**

1 Credit Hour • 37.5 Contact Hours (Studio)  
*Prerequisite: Follow sequence and MUS 263 or faculty consent*  
*Corequisite: MUS 211*

Presents modulating and chromatic exercises in sight-singing and dictation. Dictation includes four-part writing.

**MUS 231 Music Class I:**

2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)  
*Prerequisite: faculty consent*

Applies the fundamentals of music to the voice or specific musical instruments. The course also introduces basic techniques, repertoire, and sight-reading. Second year, first term.

**MUS 232 Music Class II:**

2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)  
*Prerequisite: faculty consent*

Applies the fundamentals of music to the voice or specific musical instruments. The course also introduces basic techniques, repertoire, and sight-reading. Second year, second term.

**MUS 233 Music Class III:**

2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)  
*Prerequisite: faculty consent*

Applies the fundamentals of music to the voice or specific musical instruments. The course also introduces basic techniques, repertoire, and sight-reading. Second year, third term.

**MUS 234 Music Class IV:**

2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)  
*Prerequisite: faculty consent*

Applies the fundamentals of music to the voice or specific musical instruments. The course also introduces basic techniques, repertoire, and sight-reading. Second year, fourth term.

**MUS 241 Private Instruction I:**

2 Credit Hours • 22.5 Contact Hours (15 Lecture, 7.5 Private Instruction)  
*Prerequisite: Class instruction or faculty consent*

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. Second year, first term.

**MUS 242 Private Instruction II:**

2 Credit Hours • 22.5 Contact Hours (15 Lecture, 7.5 Private Instruction)  
*Prerequisite: Class instruction or faculty consent*

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. Second year, third term.

**MUS 243 Private Instruction III:**

2 Credit Hours • 22.5 Contact Hours (15 Lecture, 7.5 Private Instruction)  
*Prerequisite: Class instruction or faculty consent.*

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. Second year, third term.

**MUS 244 Private Instruction IV:**

2 Credit Hours • 22.5 Contact Hours (15 Lecture, 7.5 Private Instruction)  
*Prerequisite: Class instruction or faculty consent.*

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. Second year, fourth term.

**MUS 251 Ensemble I:**

1 Credit Hour • 37.5 Contact Hours (Studio)  
*Prerequisite: faculty consent*

Rehearses and performs various types of musical literature. Second year, first term.

**MUS 252 Ensemble II:**

1 Credit Hour • 37.5 Contact Hours (Studio)  
*Prerequisite: faculty consent.*

Rehearses and performs various types of musical literature. Second year, second term.

**MUS 253 Ensemble III:**

1 Credit Hour • 37.5 Contact Hours (Studio)  
*Prerequisite: faculty consent*

Rehearses and performs various types of musical literature. Second year, third term.

**MUS 254 Ensemble IV:**

1 Credit Hour • 37.5 Contact Hours (Studio)  
*Prerequisite: faculty consent*

Rehearses and performs various types of musical literature. Second year, fourth term.

## Natural Resources

**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 204 Range Management and Restoration**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

Covers management of rangelands, important plants, rangeland communities, and restoration practices to restore disturbed ecosystems. Students will learn field measurement techniques of ecosystem components.

**NRE 205 Wildlife and Fisheries Management Principles**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: ENG 131*

Covers theory, philosophy, and applications for study and management of wildlife and fisheries resources. Field and laboratory methods used in wildlife management also covered.

**NRE 211 Environmental Policies and Economics**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 131*

Covers interactions, resources, economics and politics; government and environment policy. Evaluation of alternative resource use patterns and land use plans. Discussion and analysis of current environmental issues and the impact of economic growth.

### **NRE 212 Ecosystem Management**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: BIO 148*

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 214 Environmental Issues and 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 236 Public Relations of Natural Resources**

2 Credit Hours • 30 Contact Hours (Lecture)

Provides students with appropriate skills in dealing effectively with customers and co-workers at all levels, including difficult situations. It will teach the skills necessary for working directly or indirectly with the media and give a broad understanding of the importance of customer service and public relations.

### **NRE 241 Characterizing Forests – Using ArcView**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: GIS 101*

Emphasizes learning GIS through forestry applications in a six-module course. Each module offers hands-on exercises in which students use data from a forest inventory.

### **NRE 242 Conservation GIS – Using ArcView**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: GIS 101*

Uses actual applications and conservation data to teach ArcView GIS and solve common conservation problems.

### **NRE 278 Seminar**

1-6 Credit Hours • 45 Contact Hours per credit hour (Work Experience)

Provides students with an experiential learning opportunity.

### **NRE 280 Internship**

5 Credit Hours • 225 Contact Hours (Work Experience)

*Prerequisite: faculty consent*

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 289 Capstone**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite: faculty consent*

Provides a demonstrated culmination of learning within a given program of study.

## **Nursing**

### **NUR 101 Pharmacology Calculations**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: Acceptance into a professional nursing program*

Introduces the nursing student to the concepts and techniques of dosage calculations and medication administration by a variety of routes. Learners will apply basic math concepts to complex conversion of dosages between and among various systems of weights and volumes. Learners will apply critical thinking skills to the calculation and administration of medications by oral and parenteral (including intravenous) routes of administration.

### **NUR 102 Alterations in Adult Health I**

3 Credit Hours • 52.5 Contact Hours (30 Lecture, 22.5 Lecture/Lab Combination)

*Prerequisite: Successful completion of preceding required program course work or permission of program director*

*Corequisite: Successful completion of concurrent Practical Nursing course or permission of program director*

Introduces the Practical Nurse to basic concepts necessary for assessing and meeting nursing care needs of the adult and older individual.

The course focuses on the concepts of acute and chronic illness, pain management, fluid and electrolyte balance, perioperative care, oncology, death and dying, infection and inflammation, and shock syndromes. Common disorders of the musculoskeletal, integumentary, respiratory and reproductive systems are presented. Relevant psychosocial and ethno cultural concepts and legal and ethical implications are integrated throughout.

### **NUR 103 Basic Health Assessment for the Practical Nurse**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: Successful completion of preceding required program course work or permission of program director*

*Corequisite: Successful completion of concurrent Practical Nursing course work or permission of program director*

Provides a foundation in assessment and related therapeutic communication and teaching skills within the legal role of the Practical Nurse. Information is presented to assist the learner in obtaining a health history and in performing a basic assessment on adults and older adults with predictable outcomes. Health maintenance and health promotion concepts are incorporated throughout the course. Relevant mental health, psychosocial, and ethno cultural concepts are integrated. Learning theory regarding teaching and learning concepts is presented.

### **NUR 104 Alterations in Adult Health II**

3 Credit Hours • 52.5 Contact Hours (30 Lecture, 22.5 Lecture/Lab Combination)

*Prerequisite: Successful completion of preceding required program course work or permission of program director*

*Corequisite: Successful completion of concurrent Practical Nursing course work or permission of program director*

Continues the concepts introduced in Alterations in Adult Health I. Introduces the learner to basic concepts necessary for assessing and meeting nursing care needs of the adult and older individual. The course focuses on the common disorders of the neurological, cardiovascular, blood, lymphatic, immune, endocrine, gastrointestinal, renal and urinary systems, and the special senses. Relevant psychosocial and ethno cultural concepts are integrated throughout.

### **NUR 105 Practical Nursing Arts and Skills**

5 Credit Hours • 97.5 Contact Hours (30 Lecture, 67.5 Lecture/Lab Combination)

*Prerequisite: Successful completion of preceding required program coursework or permission of the program director*

*Corequisite: Successful completion of concurrent Practical Nursing course or permission of the program director*

Introduces the Practical Nursing learner to the principles of basic procedures necessary in caring for clients across the lifespan with stable and predictable outcomes in selected health care settings. Emphasis is placed on use of the nursing process in providing care. Opportunities are provided in the classroom and laboratory to develop competence in the performance of nursing skills. Relevant psychosocial and ethno cultural concepts are integrated throughout. Content regarding multidisciplinary relationships, historical perspectives, and health care delivery systems is presented.

**NUR 106 Medical and Surgical Nursing Concepts**

7 Credit Hours • 150 Contact Hours (45 Lecture, 45 Lecture/Lab Combination, 60 Clinical Lab)

*Prerequisite:* Successful completion of preceding nursing program coursework or permission of program director

*Corequisite:* Successful completion of concurrent nursing program coursework or permission of program director

Introduces the student to the role of the nurse in assessing and meeting the medical and surgical nursing needs of adults across the life span in various health care settings. The student learns nursing concepts to assist the patient in achieving optimal functioning. Knowledge from foundational nursing, the sciences, pharmacology, and nutrition along with the continued integration of mental health and cultural concepts provides foundations for nursing care planning for medical and surgical clients.

**NUR 107 Nursing Concepts and Skills I**

4 Credit Hours • 93.75 Contact Hours (15 Lecture, 33.75 Lecture/Lab Combination, 45 Clinical Lab)

*Prerequisite:* Successful completion of preceding nursing program coursework or permission of program director

*Corequisite:* Successful completion of concurrent nursing program coursework or permission of the program director

Introduces the nursing student to applications of critical thinking and the nursing process to provide care to clients in a variety of community and acute care settings. Emphasis is on holistic health care across the health-illness continuum. Introduces learners to the clinical skills essential for the nursing role of care provider including safe and effective clinical environment, skill preparation, implementation, and evaluation. Emphasizes use of caring, critical thinking, and communication while completing nursing skills.

**NUR 108 Nursing Concepts and Skills II**

3 Credit Hours • 71.25 Contact Hours (15 Lecture, 11.25 Lab, 45 Clinical Lab)

*Prerequisite:* Successful completion of preceding nursing program coursework or permission of program director

*Corequisite:* Successful completion of concurrent nursing program coursework or permission of program director

Introduces more complex concepts and behaviors of nursing roles within the context of the nursing process, holistic care, and health care. Emphasizes the theoretical and practical aspects of more complex nursing skills required to meet the needs of clients in a variety of settings.

**NUR 111 Socialization into Practical Nursing**

1 Credit Hour • 15 Contact Hours (Lecture)

*Prerequisite:* Successful completion of preceding required coursework or program director permission

*Corequisite:* Successful completion of/or concurrent Practical Nursing/ Nursing courses or permission of program director

Introduces roles and responsibilities of the graduate Practical Nurse as defined by established standards, including the Colorado Nurse Practice Act. Emphasis is placed on accountability, delegation, and perspectives in health care. Career and job readiness skills are developed.

**NUR 112 Basic Concepts of Pharmacology**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite:* Successful completion of preceding required program coursework or permission of the program director

*Corequisite:* Successful completion of/or concurrent Practical Nursing/ Nursing courses or permission of program director

Introduces the basic concepts of pharmacology related to the actions, therapeutic and adverse effects, interactions of drugs, drug classifications, and the basic pharmacology of commonly used medications. Emphasis is placed on nursing considerations and client education. Learners will apply knowledge gained in selected clinical settings in caring for clients across the lifespan.

**NUR 113 Basic Concepts of Maternal-Newborn Nursing**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite:* Successful completion of preceding required program coursework or permission of program director

*Corequisite:* Successful completion of concurrent Practical Nursing coursework or permission of program director

Introduces the study of families experiencing childbirth. The focus is on normal pregnancy and the physiological and psychological changes during this time including the care of the normal newborn. Selected common complications are discussed. Relevant psychosocial and ethno cultural concepts are integrated throughout. The nursing process is used as a framework to assist the learner in understanding basic maternal/newborn needs and nursing care within the role of the Practical Nurse.

**NUR 114 Basic Concepts of Nursing of Children**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite:* Successful completion of preceding required program coursework or permission of the program director

*Corequisite:* Successful completion of/or concurrent Practical Nursing coursework or permission of program director

Provides the learner with a basic understanding of the care of both the well and sick child within the role of the Practical Nurse. Emphasis is placed on the normal growth and development from infancy to adolescence. Nursing care of common childhood conditions is discussed. Theory is related to the nursing care of the well child, the sick child in various settings, the child with special needs, and the impact of pediatric care on the family. Relevant psychosocial, ethno cultural, and family concepts are integrated throughout.

**NUR 116 Basic Concepts of Gerontological Nursing**

1 Credit Hour • 15 Contact Hours (Lecture)

*Prerequisite:* Successful completion of preceding required program coursework or program director permission

*Corequisite:* Successful completion of concurrent Practical Nursing course or permission of program director

Introduces the learner to basic knowledge of normal aging, disorders related to aging, and nursing care of the older individual within the role of the Practical Nurse. Concepts regarding legal and ethical factors affecting the older individual are presented. Relevant psychosocial and ethno cultural concepts are integrated throughout.

**NUR 117 Nursing Care of the Childbearing Family**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Clinical Lab)

*Prerequisite:* Successful completion of preceding required program course work or permission of program director

*Corequisite:* Successful completion of concurrent coursework or permission of the program director

Provides a foundational course in the nursing care of the childbearing family. The focus is on normal pregnancy, physiologic, and psychological changes experienced, and care of the normal newborn. The nursing process is used in identifying and meeting the needs of the childbearing family to facilitate optimal functioning. The impact of psychosocial and cultural values and practices of the childbearing family are explored. Legal and ethical issues are addressed.

**NUR 118 Nursing Care of Children**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Clinical Lab)

*Prerequisite:* Successful completion of preceding nursing program coursework or permission of the program director

*Corequisite:* Successful completion of concurrent nursing program coursework or permission of the program director

Introduces the role of the nurse in meeting the individual needs of the child from infancy through adolescence in health and illness. Beginning assessment and use of the nursing process, basic growth and development, pathophysiology, nutrition, and relevant emotional, cultural, and family concepts are integrated throughout.

### **NUR 170 Clinical I**

4 Credit Hours • 120 Contact Hours (Clinical Lab)

*Prerequisite:* Completion or co-enrollment in corresponding didactic nursing course

*Corequisite:* Completion or co-enrollment in corresponding didactic nursing course

Offers the clinical practicum to apply the related nursing theory.

### **NUR 171 Clinical II**

2 Credit Hours • 60 Contact Hours (Clinical Lab)

*Corequisite:* NUA 101 and NUA 170

Offers the clinical practicum to apply the related nursing theory.

### **NUR 172 Clinical III**

2 Credit Hours • 60 Contact Hours (Clinical Lab)

*Prerequisite:* Completion or co-enrollment in corresponding didactic nursing course

*Corequisite:* Completion or co-enrollment in corresponding didactic nursing course

Offers the clinical practicum to apply the related nursing theory.

### **NUR 173 Clinical IV**

4 Credit Hours • 120 Contact Hours (Clinical Lab)

*Prerequisite:* Completion or co-enrollment in corresponding didactic nursing course

*Corequisite:* Completion or co-enrollment in corresponding didactic nursing course

Offers the clinical practicum to apply the related nursing theory.

### **NUR 174 Clinical V**

4 Credit Hours • 120 Contact Hours (Clinical Lab)

*Prerequisite:* Completion or co-enrollment in corresponding didactic nursing course

*Corequisite:* Completion or co-enrollment in corresponding didactic nursing course

Offers the clinical practicum to apply the related nursing theory.

### **NUR 178 Seminar**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* faculty consent

*Corequisite:* faculty consent

Provides students with an exceptional learning experience.

### **NUR 188 Practicum**

1 – 6 Credit Hours

*Prerequisite:* faculty consent

*Corequisite:* faculty consent

Provides students an opportunity to gain practical experience in applying their nursing 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 practicum supervisor.

### **NUR 206 Advanced Concepts of Medical-Surgical Nursing I**

5 Credit Hours • 116.25 Contact Hours (22.5 Lecture, 33.75 Lecture/Lab Combination, 60 Clinical Lab)

*Prerequisite:* Successful completion of preceding nursing program course work or permission of the program director

*Corequisite:* Successful completion of concurrent nursing program course work or program director permission

Focuses on the role of the registered professional nurse as care provider, teacher, manager, professional, and advocate in meeting the nursing needs of adults across the life span. Utilizing the nursing process, the student is expected to integrate previous learning to assist the patient and family in achieving optimal functioning in various health care settings.

### **NUR 210 Nursing Care of Complex Obstetrical and Pediatric Clients**

5 Credit Hours • 105 Contact Hours (45 Lecture, 60 Clinical Lab)

*Prerequisite:* Successful completion of preceding required program coursework or program director permission

*Corequisite:* Successful completion of concurrent nursing program coursework or program director permission

Prepares the professional nurse to comprehend and apply advanced concepts in care of the high-risk child bearing family and for children with complex health problems from birth through adolescence. Emphasizes special needs and complications during the perinatal experience and altered functioning, special needs, and disease processes manifested in children. The nursing process is used as a framework to attain optimal levels of maternal-newborn and pediatric health and wellness. Legal and ethical accountability are integrated throughout the course. Critical thinking skills are utilized throughout.

### **NUR 211 Nursing Care of Psychiatric Clients**

5 Credit Hours • 101.25 Contact Hours (37.5 Lecture, 33.75

Lecture/Lab Combination, 30 Clinical Lab)

*Prerequisite:* Successful completion of preceding nursing program course work or program director permission

*Corequisite:* Successful completion of/or concurrent Practical Nursing/ Nursing courses or permission of program director

Develops concepts of psychosocial integrity and emphasizes the function and responsibility of nursing in promoting and maintaining mental health of individuals and families. This course emphasizes communication and caring through the application of the therapeutic relationship and nursing process in the care and treatment of common clinical conditions/disorders.

### **NUR 216 Advanced Concepts of Medical Surgical Nursing II**

4 Credit Hours • 93.75 Contact Hours (15 Lecture, 33.75 Lecture/Lab Combination, 45 Clinical Lab)

*Prerequisite:* Successful completion of preceding nursing program course work or program director permission

*Corequisite:* Successful completion of concurrent nursing program course work or program director permission

Continues to focus on the role of the registered professional nurse as care provider, teacher, manager, professional, and advocate in meeting the complex medical and surgical health care needs of adult clients. Utilizing the nursing process, the student is expected to integrate previous learning to assist the patient and family in achieving optimal functioning in various complex health care situations and settings.

### **NUR 217 Leadership for Professional Nursing Practice**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite:* Successful completion of preceding nursing program coursework or program director permission

*Corequisite:* Successful completion of preceding nursing program coursework or program director permission

Socializes the student into the graduate registered nurse role. The focus is on the exploration and analysis of contemporary nursing practice, current trends and issues impacting nursing care delivery. Advanced leadership and management concepts are discussed as part of the nursing role.

### **NUR 270 Expanded Clinical I**

1 – 6 Credit Hours

*Prerequisite:* Completion or co-enrollment in corresponding didactic nursing course

*Corequisite:* Completion or co-enrollment in corresponding didactic nursing course

Offers the clinical practicum to apply the related nursing theory.



### **NUR 271 Expanded Clinical II**

2 Credit Hours • 60 Contact Hours (Clinical Lab)  
*Prerequisite:* Completion or co-enrollment in corresponding didactic nursing course  
*Corequisite:* Completion or co-enrollment in corresponding didactic nursing course

Offers the clinical practicum to apply the related nursing theory.

### **NUR 272 Expanded Clinical III**

3 Credit Hours • 90 Contact Hours (Clinical Lab)  
*Prerequisite:* Completion or concurrent enrollment in corresponding didactic nursing course

Offers practical experience and continues to build upon the principles that are expected to be understood by students in the nursing discipline.

### **NUR 278 Seminar**

2 Credit Hours • 45 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* faculty consent  
*Corequisite:* faculty consent

Provides students with an exceptional learning experience.

### **NUR 288 Practicum: Health and Physical Assessment for Nursing Practice**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite:* Successful completion of preceding program course requirements or permission of program director  
*Corequisite:* Successful completion of concurrent course work or permission of the program director

Develops skills of nursing assessment across the life span using effective communication, interview techniques, and beginning physical assessment. The course develops critical thinking skills in assessment, data analysis, and derivation of actual/potential health needs.

### **NUR 289 Capstone: Comprehensive Nursing Internship**

2 Credit Hours • 60 Contact Hours (Clinical Lab)  
*Prerequisite:* Successful completion of preceding nursing program course work or program director permission  
*Corequisite:* Successful completion of concurrent nursing program coursework or program director permission

Facilitates transition from student to graduate nurse through application of nursing principles and skills in an area of health care delivery. Critical thinking, life long learning, nursing process, caring, collaboration, and health teaching and promotion are emphasized.

### **NUR 290 RN Refresher Course**

5 Credit Hours • 97.5 Contact Hours (30 Lecture, 67.5 Lecture/Lab Combination)  
*Prerequisite:* Colorado RN License in good standing

Presents material that is designed for all RN's regardless of time absent from nursing practice, to explore avenues of employment. Clinical experience is held in the hospital to refresh and update basic nursing skills. Other opportunities for clinical experience may include home health, long-term, rehabilitation, and hospice.

### **NUR 291 RN Refresher Course Clinical**

3 Credit Hours • 90 Contact Hours (Clinical)  
*Prerequisite:* Colorado RN License in good standing  
*Corequisite:* NUR 290

Presents material as a co-requisite to NUR 290, the RN didactic portion of the completer program. Students will demonstrate skill attainment gained in NUR 290.

## **Nursing Assistant**

### **NUA 101 Certified Nurse Aide Health Care Skills**

4 Credit Hours • 67.5 Contact Hours (45 Lecture, 22.5 Lecture/Lab Combination)

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 in theory and lab. The student will learn skills that address mental health needs as well as patient/resident/client rights.

### **NUA 105 Home Health Aide Theory**

2 Credit Hours • 30 Contact Hours (Lecture)  
*Prerequisite:* Successful completion of NUA 101, NUA 170

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 170 Nurse Assistant Clinical Experience**

1 Credit Hour • 30 Contact Hours (Clinical)  
*Prerequisite:* Successful completion of NUA 101

Applies knowledge gained from NUA 101 in a clinical setting.

### **NUA 171 Advanced Nurse Aide Clinical**

1 Credit Hour • 30 Contact Hours (Clinical)  
*Prerequisite:* Current CPR card, negative TB test or chest X-ray, and current immunizations  
*Corequisite:* NUA 101, NUA 170

Prepares the student to move toward more independent functioning in applying knowledge and skills gained in NUA 101 and NUA 170. The student will learn skills that address cultural competency, care of the dying patient, and organizational skills.

### **NUA 180 Home Health Aide Internship**

3 Credit Hours • 82.5 Contact Hours (22.5 Lecture/Lab Combination, 60 Clinical)

*Prerequisite:* Current Colorado nurse aide certification or successful completion of a Colorado nurse aide course

Prepares the nurse aide for entry-level into the home health care setting.

## **Paralegal**

### **PAR 115 Introduction to Law**

3 Credit Hours • 45 Contact Hours (Lecture)

Provides an understanding of the role of paralegals, issues facing paralegals, the working of the legal system, and ethical questions. Legal terminology and an overview of the substantive areas of law will be discussed.

### **PAR 116 Torts**

3 Credit Hours • 45 Contact Hours (Lecture)

A basic course in tort law, including negligence, intentional torts, and strict liability, with an emphasis on personal injury litigation.

### **PAR 117 Family Law**

3 Credit Hours • 45 Contact Hours (Lecture)

This course covers domestic law, common property, dissolutions, adoptions, legal separation, and other family law issues.



### **PAR 118 Contracts**

3 Credit Hours • 45 Contact Hours (Lecture)

This course covers the basic principles of contract law.

### **PAR 125 Property Law**

3 Credit Hours • 45 Contact Hours (Lecture)

This course covers real estate law, ownership, sale, leasing, financing, and government regulation of land.

### **PAR 127 Legal Ethics**

3 Credit Hours • 45 Contact Hours (Lecture)

Explores the parameters of professional responsibilities and value systems for paralegals and related occupations.

### **PAR 201 Civil Litigation**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: PAR 115 or faculty consent*

Intensive study of the legal process including the Federal and Colorado Rules of Civil Procedure.

### **PAR 206 Business Organizations**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: PAR 115 or faculty consent*

Study of the major types of business organizations.

### **PAR 208 Probate and Estates**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: PAR 115 or faculty consent*

The course provides an understanding of the creation and administration of an estate, including wills and trusts, and the probate process.

### **PAR 211 Legal Research**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: PAR 115 or faculty consent*

The course is designed to introduce students to basic legal research tools, including statutes, digests, case law, citators, encyclopedias, dictionaries, and online data bases.

### **PAR 212 Legal Writing**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: PAR 115, PAR 211, ENG 121, or faculty consent*

In this course students practice the content and conventions of legal writing.

### **PAR 218 Bankruptcy Law**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: PAR 115 or faculty consent*

This course covers the federal and state laws and procedures involving bankruptcy.

### **PAR 287 Cooperative Education**

1-6 Credit Hours • 45 Contact Hours per credit (Work Experience)

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 students to select an appropriate work site, establish learning objectives, and to coordinate learning activities with the employer or work site supervisor.

### **PAR 289 Capstone**

3 Credit Hours • 105 Contact Hours (15 Lecture, 90 Work Experience)

*Prerequisite: All required courses in certificate and AAS degree program*

Emphasizes a synthesis of the information and skills that students learn throughout their paralegal studies.

## **Pharmacy Technician**

### **PHT 105 Orientation to Pharmacy**

4 Credit Hours • 60 Contact Hours (Lecture)

This introductory course is a general overview of pharmaceutical care in the scheme of health care and the role of the pharmacist and the pharmacy technician in its delivery. The student is introduced to pharmacy practice, standards of practice, certification, pharmacy associations, and opportunities available to the pharmacy technician. Includes surveying laws, regulations, and standards at the federal and state level as they govern the practice of pharmacy. Discussion includes legal and ethical responsibilities of the pharmacy technician. Also introduced are pharmacy terminology, symbols, and abbreviations. Professionalism and communication skills stressing interactions with patients and health care professionals are discussed.

### **PHT 116 Institutional Pharmacy**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

This course is designed to provide students with a basic understanding of general and specific tasks as well as the responsibilities involved in the practice of pharmacy in an institutional pharmacy setting. While the emphasis will be on in-patient hospital pharmacy practice, other related practice settings (such as Homecare and Nursing Home or Long-Term Care) will be explored. A laboratory experiential component will provide an opportunity for "hands-on" experience in the preparation of intravenous admixtures, aseptic technique, unit-dose distribution, dispensing for greater than 24 hours.

### **PHT 119 Community Pharmacy**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

This course is designed to provide students with a basic understanding of both general and specific tasks and responsibilities involved in the practice of pharmacy in a community pharmacy setting. While the emphasis will be on chain and independent community pharmacy practice, other related practice settings (such as consultant pharmacy, mail order pharmacy and nuclear pharmacy) will also be explored. Students will also have an opportunity to obtain "hands on" experience in the important technical duties of dispensing and compounding. The course will utilize a "lecture-informal discussion" format combined with a series of practice skills laboratory sessions.

### **PHT 170 Pharmacy Clinical: Hospital**

4 Credit Hours • 180 Contact Hours (Work Experience)

*Prerequisite: PHT 105, PHT 116, PHT 119, PHT 207, PHT 220, PHT 221, PHT 235*

This course is designed to provide students with "hands on" experience in an inpatient hospital pharmacy setting within the State of Colorado. Students must complete all didactic course work prior to enrolling in this course. The course involves a minimum of 160 hours including 8 hours of seminar class time and 152 hours of on-the-job work experience. Each student is required to work under the supervision of a licensed pharmacist (i.e. preceptor) who may, in turn, delegate some supervisory and/or training responsibilities to another licensed pharmacist or certified pharmacy technician. During their work time at their hospital pharmacy site, students are expected to participate in the pharmacy practice activities delineated in the Clinical Site Manual provided each student and each preceptor. Such activities include, but are not limited to, dispensing, compounding, inventory handling and control, drug distribution, and the preparation of intravenous (IV) admixture products, chemotherapy products, and total parenteral nutrition (TPN) products. Students are also expected to complete daily and weekly reports of their work activities and are required to evaluate both their work site and their preceptor at the conclusion of their clinical rotation. Similarly, each preceptor is asked to complete an evaluation of, and provide a grade for, each student at the completion of the student's rotation. The course instructor is also required to evaluate each student after completing a visit to the student's work site and discussing the student's performance with both the student and his/her preceptor.

### **PHT 171 Pharmacy Clinical: Community**

4 Credit Hours • 180 Contact Hours (Work Experience)  
*Prerequisite:* PHT 105, PHT 116, PHT 119, PHT 207, PHT 220, PHT 221, and PHT 235

This course is designed to provide students with “hands on” experience in a community pharmacy setting within the State of Colorado. Students must complete all didactic course work prior to enrolling for this course. The course involves a minimum of 160 hours including 8 hours of seminar class time and 152 hours of on-the-job work experience. Each student is required to work under the supervision of a licensed pharmacist (i.e. preceptor) who may, in turn, delegate some supervisory and/or training responsibilities to another licensed pharmacist or certified pharmacy technician. During their work time at their community pharmacy site, students are expected to participate in the pharmacy practice activities delineated in the Clinical Site manual provided each student and each preceptor. Such activities include, but are not limited to, dispensing, compounding, inventory handling and control, drug distribution, processing of third party claims, maintenance of patient profiles, and interaction and communication with patients. Students are also expected to complete daily and weekly reports of their work activities and are required to evaluate both their work site and their preceptor at the conclusion of their clinical rotation. Similarly, each preceptor is asked to complete an evaluation of, and provide a grade for, each student at the completion of the student’s rotation. The course instructor is also required to evaluate each student after completing a visit to the student’s work site and discussing the student’s performance with both the student and his/her preceptor.

### **PHT 205 Certification Review**

0.5 Credit Hour • 7.5 Contact Hours (Lecture)

This course is developed to prepare the student for the National Pharmacy Technician Certification Examination.

### **PHT 206 Employment Preparation**

0.5 Credit Hour • 7.5 Contact Hours (Lecture)

Preparation for entering the profession will include writing resumes and interviewing.

### **PHT 207 Drug Classification**

3 Credit Hours • 45 Contact Hours (Lecture)

Students will study the drug classes, such as over-the-counter vs. prescription drugs, scheduled drugs, and the laws pertaining to each. Topics include the drug development process, the different pregnancy classifications, the degree of potential harm for each class, and the commonly used drugs that can be addictive, abused, and potentially lethal. The student will learn dosage forms, routes of administration, selection and recommendation of OTC drugs and natural products, and memorize trade and generic names.

### **PHT 220 Pharmacology and Pathophysiology I**

5 Credit Hours • 75 Contact Hours (Lecture)

A course in the study of disease states and the pharmacological basis for medication action. Students obtain an understanding of the normal functioning and the major disorders of integumentary, musculo-skeletal, nervous, sensory, and endocrine systems. Therapies for these systems are taught in conjunction with the pathophysiology, covering the common therapeutic drugs, dosages, indications, actions, effects, side effects, toxicity, and incompatibilities.

### **PHT 221 Pharmacology and Pathophysiology II**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* PHT 220

Continuation of Pharmacology and Pathophysiology I. Students study normal and abnormal physiology, and corresponding therapies for the cardiovascular system, hematological, immune, lymphatic, respiratory, digestive, urinary, and reproductive systems.

### **PHT 235 Pharmaceutical Calculations and Compounding Techniques**

4 Credit Hours • 67.5 Contact Hours (45 Lecture, 22.5 Lab)

*Prerequisite:* MAT 060

This course develops the skills necessary for performing calculations in pharmacy practice and the compounding of sterile and nonsterile products. A review of basic mathematical skills is included. The student learns to solve problems involving calculations pertinent to the preparations of pharmaceuticals. These skills are put to practical use in the compounding portion of this course. Preparation of sterile products, parenteral admixtures, TPN solutions and chemotherapeutics, and using proper aseptic techniques are taught. The safe handling of antineoplastics and other hazardous drug products, as well as special drug storage requirements are learned. The importance of accuracy, quality, and infection control is emphasized. Use and maintenance of equipment such as Laminar Flow Hoods, autoinjectors, and pumps are discussed. Accuracy is stressed.

## **Philosophy**

### **PHI 111 Introduction to Philosophy**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 121

Introduces significant human questions and emphasizes understanding the meaning and methods of philosophy. Includes human condition, knowledge, freedom, history, ethics, the future, and religion.

### **PHI 112 Ethics**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 121

Examines human life, experience, and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues.

### **PHI 113 Logic**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 121

Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving.

### **PHI 114 Comparative Religions**

3 Credit Hours • 45 Contact Hours (Lecture)

This course introduces students to the similarities and differences among concepts predominant in the major world religions, comparing sociological, philosophical, and phenomenological similarities between major world faiths. It is designed to transfer to any four-year college philosophy, religious studies, or humanities department.

### **PHI 115 World Religions – West**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 121

Introduces the student to the common and different concepts predominant in the major world religions. Includes sociological, political, psychological, and philosophical aspects of a variety of belief systems. Focuses on the concept of religion as a cultural system, and a way that people make sense of a complex world. Particular emphasis is placed on how myths, legends, and folk tales reveal religious concerns.

### **PHI 116 World Religions – East**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 121

Emphasizes the diversity and richness of Eastern Religions within a cross-cultural context. Concepts such as fate, reincarnation, enlightenment, and morality are analyzed.

### **PHI 214 Philosophy of Religion**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121*

Focuses on the critical examination of the fundamental concepts, ideas, and implications of religion. Specific topics will include: the nature of God, the varieties of religious experience, argument concerning God's existence, the Problem of Evil, faith and reason, religion and human destiny, and the connection between religion and ethics.

### **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.

## **Physical Education**

### **PED 102 Volleyball**

1 Credit Hour • 30 Contact Hours (PED)

This course is designed to introduce and improve student skill level in volleyball. The primary emphasis is on teaching the student the elements of volleyball: rules, offensive and defensive play, passing, serving, setting, attacking, team play and game strategies.

### **PED 105 Basketball**

1 Credit Hour • 30 Contact Hours (PED)

This course is designed to introduce and improve student skill level in basketball. The primary emphasis will be on teaching the student the elements of basketball rules, offensive and defensive footwork, shooting, passing, dribbling, rebounding, team play, and game strategies.

### **PED 106 Tennis**

1 Credit Hour • 30 Contact Hours (PED)

This course is designed to introduce and improve the skill level in tennis. The primary emphasis is teaching students the elements of tennis: rules of the game, ground strokes, serving, the various shots, and singles and doubles play and strategies.

### **PED 110 Fitness Center Activity I**

1 Credit Hour • 30 Contact Hours (PED)

This course is designed for individuals interested in improving total fitness via an aerobic circuit training program. The course will include an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. All of 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 111 Fitness Center Activity II**

1 Credit Hour • 30 Contact Hours (PED)

*Prerequisite: PED 110*

This is an advanced course designed for individuals interested in reaching a higher level of total fitness via an aerobic circuit training program. The course will include an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. All of 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 113 Fitness Concepts**

1 Credit Hour • 30 Contact Hours (PED)

Focuses on providing information and guidelines for moving toward a healthier 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 114 Walking and Jogging**

1 Credit Hour • 30 Contact Hours (PED)

This course is designed to help students understand the values in walking and jogging. Safety precautions and emphasis on personal programs will be emphasized.

### **PED 115 Body Sculpting and Toning**

1 Credit Hour • 30 Contact Hours (PED)

This course is designed to introduce exercise techniques to improve overall physical fitness. The primary emphasis is the interaction between cardiovascular conditioning, muscular strength and endurance, flexibility, and program design that are integrated into an aerobic format. Emphasis is placed upon blending together different combinations and sequences of exercises while conditioning the entire body. Students exercise using various types of resistance equipment.

### **PED 116 Weight Training**

1 Credit Hour • 30 Contact Hours (PED)

This course offers basic instruction and practice in weight training. Students utilize weight training equipment in accordance to their abilities and goals. Emphasis is placed upon weight training equipment orientation, correct lifting techniques, and basic program design for men and women.

### **PED 121 Step Aerobics**

1 Credit Hour • 30 Contact Hours (PED)

This course is designed to introduce basic step aerobics, exercise techniques, and improve physical fitness. The primary emphasis is to gain an understanding of the basic principles of step aerobics including the effects upon the cardio-respiratory system and skeletal muscles, various step patterns, and choreography.

### **PED 137 Varsity Sports**

1 Credit Hour • 30 Contact Hours (PED)

*Prerequisite: faculty consent*

This course is designed to allow the student-athlete an opportunity to participate in a competitive varsity sports program.

### **PED 138 Introduction to Winter Sports**

1 Credit Hour • 30 Contact Hours (PED)

This course provides an overview of at least two of the following winter sports: alpine skiing, snowboarding, ice skating, telemark skiing, Nordic skiing, snowshoeing, or skate skiing. The primary emphasis is on gaining the knowledge and techniques necessary for winter sports on beginner to intermediate groomed or backcountry terrain. Multiple field trips to ski areas or other outdoor venues are required.

### **PED 143 Tai Chi I**

1 Credit Hour • 30 Contact Hours (PED)

This course is designed to introduce 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 144 Tai Chi II**

1 Credit Hour • 30 Contact Hours (PED)

This course will emphasize 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 will be integral parts of the Tai-Chi training. In addition psychosocial skills such as meditation, relaxation, and self-efficacy will be addressed.

### **PED 146 Martial Arts**

1 Credit Hour • 30 Contact Hours (PED)

This course is designed to introduce basic martial arts techniques and forms designed to improve the physical and mental capacity of an individual. The primary emphasis is to gain an understanding of the basic philosophies and concepts around the martial arts; the approach to ethics; and to provide a clear-cut guide for developing a powerful sense of character and will.

### **PED 147 Yoga**

1 Credit Hour • 30 Contact Hours (PED)

This course offers guided instruction in yoga. Students practice yoga according to their individual fitness levels and abilities. Emphasis is placed on enhancing general health and well-being through the performance of yoga strength, flexibility, balance, and relaxation techniques and exercises.

### **PED 148 Yoga II**

1 Credit Hour • 30 Contact Hours (PED)

*Prerequisite: PED 147 or faculty consent*

Concepts of basic yoga are carried into additional areas. Increases awareness of yoga and its physical and mental benefits.

### **PED 153 Hiking**

1 Credit Hour • 30 Contact Hours (PED)

This course is designed to provide skills related to hiking and wilderness travel. This course emphasizes hiking skills, proper conditioning, route finding, equipment, and hiking hazards and ethics. The course involves conditioning in the fitness center and weekend hikes.

### **PED 210 Fitness Center Activity III**

1 Credit Hour • 30 Contact Hours (PED)

*Prerequisite: PED 110 and PED 111*

This is an advanced exercise course designed for individuals interested in attaining a high level of total fitness. The course will include an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. All of the basic components of fitness including flexibility, muscular strength, muscular endurance, cardiovascular fitness, and body composition will be addressed. 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 available in the Fitness Center

### **PED 211 Fitness Center Activity IV**

1 Credit Hour • 30 Contact Hours (PED)

*Prerequisite: PED 110, PED 111, and PED 210*

This is an advanced course designed for individuals interested in attaining a high level of total fitness. The course will include an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. All of the basic components of fitness including flexibility, muscular strength, muscular endurance, cardiovascular fitness, and body composition will be addressed. 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.

## **Photography**

### **PHO 101 Photography I**

3 Credit Hours • 45 Contact Hours (Lecture)

This course is an introduction to black and white photography as a fine art medium and develops skills necessary for basic camera and lab operations.

### **PHO 102 Photography II**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)

*Prerequisite: PHO 101 or demonstrated competency*

This course is a further exploration in camera and lab operations with an emphasis on individual creativity. It includes the development of a comprehensive portfolio.

### **PHO 202 Photography III**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: PHO 101 and PHO 102 or demonstrated competency*

Explores photography technique with emphasis on history, theory, and assimilation of ideas into the students' creative work. Includes the development of a comprehensive portfolio.

### **PHO 205 Digital Photography I**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)

*Prerequisite: PHO 101*

This course provides each student with an introduction to the basic concepts of digital imaging as applied to Photography. With hands-on experience using applicable technology, modern developments will be presented which have led to the present applications of digital imaging which combine traditional photographic ideas with electronic media. The student will have the opportunity 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 206 Digital Photography II**

3 Credit Hours • 60 Contact Hours (30 Lecture, 30 Lab)

*Prerequisite: PHO 205*

This course is a continuation of the beginning digital photography class. This class will look at digital photography in terms of design and communication factors including color, visual design, lighting, graphics, and aesthetics.

### **PHO 209 Landscape Photography Workshop**

2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)

*Prerequisite: PHO 101*

This class is designed to present participants with both traditional and contemporary approaches to landscape photography. Technical and aesthetic aspects of landscape photography will be discussed through group discussions, a field study, lectures, and print and slide critiques.

## **Physics**

### **PHY 101 Basic Physics**

4 Credit Hours • 75 Contact Hours (45 Lecture, 30 Lab)

*Prerequisite: ENG 090, MAT 090, REA 090*

This course teaches basic understanding of the laws of physics. Emphasis is on critical thinking skills which allow the student to apply the laws to a wide variety of fields. Applications are illustrated by demonstrations and simple hands-on exercises which involve careful observation, measurement, analysis, and interpretation of phenomena, allowing the student to draw conclusions based on the laws of physics. In addition, the student learns problem solving techniques in which the basic laws are applied in simple, logical or mathematical ways. A variety of media such as strobe photography, diagrams, graphs, and films are used to reinforce understanding of the basic laws and their applications.



### **PHY 111 Physics: Algebra-Based I with Lab**

5 Credit Hours • 105 Contact Hours (60 Lecture, 45 Lab)

*Prerequisite: ENG 090, REA 090, MAT 121*

Enables the student to explore the truth about physical reality through reasoning, mathematics, and experimentation. Examines kinematics, force, circular motion, energy, momentum, torque, rotational dynamics, simple harmonic motion, temperature, heat, and thermodynamics. The concepts and theories presented in class are explored through the demonstrations and the hands-on experiments. This is a general physics course that is recommended for all of the health sciences and all other interested students. Students entering engineering or one of the advanced sciences should register for PHY 211.

### **PHY 112 Physics: Algebra-Based II with Lab**

5 Credit Hours • 105 Contact Hours (60 Lecture, 45 Lab)

*Prerequisite: PHY 111*

Expands upon PHY 111. Some of the topics covered in this class include sound waves, electric fields, electric circuits, magnetic fields, optics, and modern physics. The concepts and theories presented in class are explored through the demonstrations and hands-on experiments.

### **PHY 211 Physics: Calculus-Based I with Lab**

5 Credit Hours • 105 Contact Hours (60 Lecture, 45 Lab)

*Prerequisite: ENG 090, REA 090, MAT 201*

Physics is the most fundamental of all sciences. The goal of physics is to determine the truth about our physical reality through reasoning, mathematics and experimentation. Some of the topics covered in this class include: kinematics, force, gravity, energy, momentum, torque, rotational dynamics, fluids, and waves. The concepts and theories presented in class are explored through the demonstrations and the hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advanced sciences.

### **PHY 212 Physics: Calculus-Based II with Lab**

5 Credit Hours • 105 Contact Hours (60 Lecture, 45 Lab)

*Prerequisite: PHY 211*

This is the continuation of the PHY 211 course. Some of the topics covered in this class include: thermodynamics, electric fields, electric circuits, magnetic fields, light and optics, and modern physics. The concepts and theories presented in class are explored through demonstrations and hands-on experiments.

## **Political Science**

### **POS 105 Introduction to Political Science**

3 Credit Hours • 45 Contact Hours (Lecture)

Survey of the discipline of political science, including political philosophy and ideology, democratic and non-democratic governments and processes, and international relations.

### **POS 111 American Government**

3 Credit Hours • 45 Contact Hours (Lecture)

Includes the background of the U.S. Constitution; the philosophy of American government; general principles of the Constitution; federalism; civil liberties; public opinion and citizen participation; political parties, interest groups, and the electoral process; and the structure and functions of the national government.

### **POS 125 American State and Local Government**

3 Credit Hours • 45 Contact Hours (Lecture)

This course is a study of the structure and function of state, county, and municipal governments including their relations with each other and with national government. Colorado government and politics are emphasized.

### **POS 205 International Relations**

3 Credit Hours • 45 Contact Hours (Lecture)

This course examines relationships among modern nation states. Topics include diplomacy, nationalism, ideologies, power and influence, conflict and cooperation, the role of non state actors, the international economy, and theoretical attempts to understand international behavior.

### **POS 215 Current Political Issues**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: Prior political science class or faculty consent*

This course is an in-depth analysis of critical issues in political science. Topics will be determined each term.

### **POS 225 Comparative Government**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: POS 105 or POS 115 are encouraged*

This course is a comparison of the basic features of selected developed and developing countries. Topics include ideologies, political parties, interest groups, and governmental institutions.

## **Psychology**

### **PSY 100 Psychology of Workplace Relationships**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 060, REA 060*

This course focuses on interactions among people – their conflicts, cooperative efforts, and group relationships. It will examine why beliefs, attitudes, and behaviors cause relationship problems in our personal lives and in work-related situations. It will emphasize the analysis of human behavior, the application of prevention strategies, and resolution of the behavior.

### **PSY 101 General Psychology I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning and memory.

### **PSY 102 General Psychology II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, life span development, and social psychology.

### **PSY 106 Human Relations**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

This course emphasizes the development and practice of effective interpersonal skills on and off the job.

### **PSY 205 Psychology of Gender**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121, REA 090*

This course examines gender differences in work, courtship, family life, and sexual behavior throughout the life span.

### **PSY 215 Psychology of Adjustment**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

This course emphasizes personal growth and the development of interpersonal skills. Focus is on the practical application of psychological principles and theories in achieving self-understanding and personal growth.



**PSY 217 Human Sexuality**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121, REA 090*

This course is a survey of physiological, psychological, and psychosocial aspects of human sexuality. Topics include relationships, sexual identity, and sexual health.

**PSY 226 Social Psychology**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121, REA 090, 3 Credit Hours of general psychology or faculty consent*

This course covers behavior of humans in social settings including attitudes, aggression, conformity, cooperation and competition, prejudice, and interpersonal attraction.

**PSY 227 The Psychology of Death and Dying**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121, REA 090*

This course covers philosophies of life and death, emphasizing dying, death, mourning, and the consideration of one's own death.

**PSY 235 Human Growth and Development**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121, REA 090, 3 Credit Hours of general psychology or faculty consent*

This course is a survey of human development from conception through death emphasizing physical, cognitive, emotional, and psychosocial factors.

**PSY 238 Child Development**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Covers the growth and development of the child from conception through the elementary school years. Emphasizes physical, cognitive, language, social, and emotional domains; and the concept of the whole child; and how adults can provide a supportive environment. Addresses ages from prenatal through age 12.

**PSY 245 Educational Psychology**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121, REA 090*

Students will study the relationships between theory, research, and practice in the areas of learning, child development, motivation, and educational assessment.

**PSY 247 Child Abuse and Neglect**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121, REA 090*

This course examines the causes and effects of physical, sexual, and psychological abuse and neglect. Intervention and prevention strategies are emphasized.

**PSY 249 Abnormal Psychology**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121, REA 090, 3 Credit Hours of general psychology or faculty consent*

A study of abnormal behavior and its classification, causes, treatment, and prevention.

**PSY 265 Psychology of Personality**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121, REA 090, 3 Credit Hours of general psychology or faculty consent*

Examines the structure, function, and development of personality. Students will investigate the major contemporary theories of personality. The course will consider psychodynamic, behavioral, cognitive-social learning; humanistic traits; and, optionally, neurobiological, existential, and/or Eastern perspectives. The underlying assumptions and research support for these theories will be appraised and students will gain an appreciation of the value of alternative theoretical approaches to this subfield of psychology.

## Radio, Television

**RTV 100 Introduction to Telecommunications**

2 Credit Hours • 30 Contact Hours (Lecture)

Focuses on the study of market demands involving national, local, and international uses of telecommunications.

**RTV 101 Radio Programming and Production I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Corequisite: RTV 106*

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 102 Beginning Television**

3 Credit Hours • 45 Contact Hours (Lecture)

*Corequisite: RTV 107*

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 103 Writing for TV and Radio**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: BTE 100 or concurrent enrollment*

Explores writing techniques for television and radio emphasizing professional techniques, format, and style.

**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 105 Principles of Satellite Communication**

2 Credit Hours • 30 Contact Hours (Lecture)

Enables the student to gain a general understanding of the basic operations relating to satellite communications, and how this technology applies to education and industry on a global and national scale.

**RTV 106 Radio Programming and Production Lab I**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Corequisite: RTV 101*

Focuses on the use of basic radio station equipment, programming, and formats. Includes simulated broadcasting using production studio facilities.

**RTV 107 Television Studio Production**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Corequisite: RTV 102*

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 108 Principles of Audio**

3 Credit Hours • 45 Contact Hours (Lecture)

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 109 Radio Broadcast Technical Operations**

2 Credit Hours • 30 Contact Hours (Lecture)

Focuses on technical operation of radio transmitting systems and includes FCC rules and regulations.

**RTV 110 News Writing and Reporting**

3 Credit Hours • 45 Contact Hours (Lecture)

*Corequisite: BTE 100*

Emphasizes gathering, writing, and reporting radio and television news and development of communication medium style. Covers the legal system in relation to news reporting ethics. Addresses professional news-sorting and writing software for IBM compatible computers.

**RTV 180 Internship - KEPC Radio**

4 Credit Hours • 150 Contact Hours (15 Lecture, 135 Work Experience)

*Prerequisite: RTV 101, RTV 106, RTV 131 and faculty consent*

Incorporates on-the-air experience on the college FM radio station, KEPC.

**RTV 181 Internship-College ITV Studio**

4 Credit Hours • 150 Contact Hours (15 Lecture, 135 Work Experience)

*Prerequisite: RTV 201 and RTV 106 and faculty consent*

Provides experience in a commercial television station or an allied industry.

**RTV 182 Internship-Radio Sta./Audio Production**

4 Credit Hours • 150 Contact Hours (15 Lecture, 135 Work Experience)

*Prerequisite: RTV 101 and RTV 106 and faculty consent*

Provides experience in a commercial radio station or an allied industry.

**RTV 183 Internship-TV Studio/Video Production Co.**

4 Credit Hours • 150 Contact Hours (15 Lecture, 135 Work Experience)

*Prerequisite: RTV 101 and RTV 106 and faculty consent*

Provides experience in a commercial television station or an allied industry.

**RTV 208 Basic Video Production**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: RTV 102, RTV 107 or faculty consent*

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 211 Radio Programming and Production II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: RTV 101*

*Corequisite: RTV 107*

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 212 Advanced Television Production**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: RTV 102, RTV 107*

*Corequisite: RTV 217*

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 216 Radio Programming and Production Lab II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: RTV 106*

*Corequisite: RTV 211*

Covers the operation of technical equipment of a radio broadcasting studio with emphasis on news, special news features, commercials, audition tapes, sports, and weather.

**RTV 217 Advanced Television Studio Production**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: RTV 102, RTV 107*

*Corequisite: RTV 212*

Focuses on principles and techniques of television production and direction in a laboratory setting using commercial television broadcast equipment for broadcast and institutional video productions.

**RTV 218 Advanced Video Production**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: RTV 208*

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 280 Internship-TV Studio/Video Production II**

3 Credit Hours • 105 Contact Hours (15 Lecture, 90 Work Experience)

*Prerequisite: RTV 183 or faculty consent*

Provides experience in a commercial television station or an allied industry.

**RTV 281 Internship in the News-KEPC Radio**

3 Credit Hours • 105 Contact Hours (15 Lecture, 90 Work Experience)

*Prerequisite: RTV 101, RTV 106, and RTV 109*

Enables the student to cover news events, actualities, and report several regular newscasts on KEPC.

**RTV 282 Internship-KEPC Radio II**

3 Credit Hours • 105 Contact Hours (15 Lecture, 90 Work Experience)

*Prerequisite: RTV 101, RTV 106, and RTV 109*

Incorporates advanced experience on radio station KEPC.

**RTV 283 Internship-Radio Sta./Audio Prod. II**

3 Credit Hours • 105 Contact Hours (15 Lecture, 90 Work Experience)

*Prerequisite: RTV 282 or faculty consent*

Incorporates advanced experience in a commercial radio station or an allied industry.

### **RTV 284 Internship in Telecommunications**

3 Credit Hours • 105 Contact Hours (15 Lecture, 90 Work Experience)

*Prerequisite:* RTV 201, RTV 206 and faculty consent

Provides experience in a commercial television station or an allied industry.

## **Radiological Technology**

### **RTE 101 Introduction to Radiography/Patient Care**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite:* MOT 125

Provides an introduction to radiology and the knowledge necessary for the radiography student to provide safe patient care including communication skills, legal and ethical issues in medicine, body mechanics, patient transfer, medical terminology, valuing diversity, universal precautions, and radiography as a profession.

### **RTE 141 Radiographic Equipment/Imaging I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* MOT 125

Introduces the fundamental aspects of radiographic equipment including a basic review of Physics fundamentals pertaining to x-ray production, the x-ray machine, image receptors, and control of scatter radiation.

## **Reading**

### **REA 030 Basic Reading Skills**

2 Credit Hours • 30 Contact Hours (Lecture)

Focuses on strategies for word attack, vocabulary development, stages of reading, and basic reading comprehension.

### **REA 060 Foundations of Reading**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* Appropriate assessment scores or REA 030

Focuses on strategies for vocabulary development, improved reading comprehension, and enrichment.

### **REA 090 College Preparatory Reading**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* Appropriate assessment scores or REA 060

Enables the student to apply strategies for improving comprehension, developing vocabulary, and increasing rate for reading college textbooks.

## **Real Estate**

### **REE 103 Real Estate Brokers I**

6 Credit Hours • 90 Contact Hours (Lecture)

Enables the student to meet the educational requirements of the Colorado Real Estate Commission for a Colorado Real Estate Brokers license. Includes real estate law and practice, practical application, and current legal issues.

### **REE 104 Real Estate Brokers II**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* REE 103

Enables the student to meet the educational requirements of the Colorado Real Estate Commission for a Colorado Real Estate Brokers license. This course includes Colorado contracts and regulations, real estate closings, and trust accounts and record keeping.

### **REE 105 Colorado State Exam Review**

1 Credit Hour • 15 Contact Hours (Lecture)

Helps prepare the student to take and pass the Colorado Real Estate License exam.

### **REE 201 Real Estate Law and Practice**

4 Credit Hours • 60 Contact Hours (Lecture)

Introduces the student to the practice of real estate through the study of a common body of knowledge including key terms and concepts as well as the related federal laws practiced in the majority of states on a national level.

### **REE 202 Colorado Real Estate Contract and Regulations**

4 Credit Hours • 60 Contact Hours (Lecture)

Enables the student to prepare and understand Colorado Real Estate Commission's approved contracts and understand Colorado Real Estate regulations.

### **REE 206 Record Keeping and Trust Accounts**

1 Credit Hour • 15 Contact Hours (Lecture)

Instructs students in the proper recordkeeping procedures required by the Real Estate Commission to maintain and account for funds belonging to others.

### **REE 207 Current Legal Issues**

1 Credit Hour • 15 Contact Hours (Lecture)

Provides a course of study for students to develop or enhance their knowledge and awareness of current real estate and real estate related statutes and regulations and important legal issues, developments, and practices.

### **REE 208 Closings**

2 Credit Hours • 30 Contact Hours (Lecture)

Focuses on the basic skills necessary to properly close a real estate transaction. Includes responsibilities from the contract through and after the closing plus accounting for all funds received and disbursed. Incorporates a comprehensive review of the legal documents prepared by the broker.

## **Russian**

### **RUS 111 Russian Language I**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading, and writing the Russian language.

### **RUS 112 Russian Language II**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* RUS 111 with a C grade or higher or faculty consent

Continues Russian I in the development of functional proficiency in listening, speaking, reading, and writing the Russian language.

### **RUS 211 Russian Language III**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* RUS 112 with a C grade or higher or faculty consent

Continues Russian Language I and II in the development of increased functional proficiency in listening, speaking, reading, and writing the Russian language.

### **RUS 212 Russian Language IV**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* RUS 211 with a C grade or higher or faculty consent

Continues Russian Language I, II, and III in the development of increased functional proficiency in listening, speaking, reading, and writing the Russian language. Note: The order of the topics and the methodology will vary according to individual texts and instructors.

# Social Work

## **SWK 100 Introduction to Human Services**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAT 060, ENG 090, REA 090*

Covers the human services and the challenges and problems of working with people. Intervention strategies and skills are taught and human service systems, the role of the human service worker, and attitudinal and ethical issues are covered.

## **SWK 105 Application of Group Counseling**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAT 060, ENG 090, REA 090*

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 106 Introduction to Alcohol and Drugs**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAT 060, ENG 090, REA 090*

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 110 Social Welfare and Community Agencies**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAT 060, ENG 090, REA 090*

Teaches the history of the social welfare system and how it is currently administered. Community resources are discussed and investigated. Social workers from community human service agencies are invited to visit the class as guest speakers in order to discuss the purpose and function of their agency.

## **SWK 120 Intervention Techniques**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAT 060, ENG 090, REA 090*

Covers basic communication skills essential in working in the human services field. Listening techniques, empathic response skills, and rapport building techniques are taught.

## **SWK 180 Internship I**

6 Credit Hours • 240 Contact Hours (15 Lecture, 225 Work Experience)

*Prerequisite: SWK 120, MAT 060, ENG 090, REA 090*

Provides work experience in a business or industry, 35 hours per credit hour for a total of 210 hours per semester.

## **SWK 181 Internship II**

6 Credit Hours • 240 Contact Hours (15 Lecture, 225 Work Experience)

*Prerequisite: SWK 120, MAT 060, ENG 090, REA 090*

Provides work experience in a business or industry, 35 hours per credit hour for a total of 210 per semester.

## **SWK 200 Human Behavior in the Social Environment**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAT 060, ENG 090, REA 090*

Examines the influence of the social environment on individuals, families, groups, communities, and organizations from a social and ecological systems perspective.

## **SWK 207 Differential Approaches in Social Services**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAT 060, ENG 090, REA 090*

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 208 Social Work Case Management**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAT 060, ENG 090, REA 090*

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 210 Client Development**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: MAT 060, ENG 090, REA 090*

Teaches the stages of human development and how they impact client coping. Interventions at the paraprofessional level are discussed.

## **SWK 280 Internship III**

6 Credit Hours • 240 Contact Hours (15 Lecture, 225 Work Experience)

*Prerequisite: SWK 120, MAT 060, ENG 090, REA 090*

Provides work experience in a business or industry, 35 hours per credit hour for a total of 210 hours per semester.

# Sociology

## **SOC 100 Principles of Practical Sociology**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 060*

Introduces the student to the varied dynamics of human society. Will examine topics such as the impact of social groups of which we are a part on how we act and think, the historical development of sociology, the way sociologists are taught to think, the interaction between humans and their social organizations, the ways in which we operate in and through our social structures, inequality in society, the meaning of culture, the effects of our social institutions, the ways in which social organizations influence each other, order and power in social organizations, the ever-changing dynamics of human social life, and the study of family structures in our society.

## **SOC 101 Introduction to Sociology I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090*

Examines the basic concepts, theories, and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class, and race.

## **SOC 102 Introduction to Sociology II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 090, REA 090, SOC 101 or faculty consent*

Examines social institutions and organizations from the macro perspective. Emphasizes issues of social change, demography, social movements, and conflicts and trends within education, religion, family, political, and economic structures.



### **SOC 201 Introduction to Gerontology**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* SOC 101 or SOC 102 or PSY 101 or PSY 102

Acquaints students with the major issues and concepts pertinent to the field of gerontology. The course introduces various theoretical perspectives on aging, the changing trends in life expectancy and other demographic considerations, and the interrelationship between elders and key social institutions. It provides an overview of physical, cognitive, and socioemotional factors associated with aging.

### **SOC 205 Sociology of Family Dynamics**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090, SOC 101 or faculty consent

Develops an understanding of marriage, family and kinship. It examines the family as an institution and how social, cultural, and personal factors influence family relations. The stability and diversity of the family will be explored, along with current trends and some alternative life styles.

### **SOC 212 Research in Social Sciences**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090 or COMPASS placement score of 8000, SOC 101

Introduces social research methods with an emphasis on the scientific method and the role of empirical inquiry into sociology. This course will include the study of methodologies of data collection and analysis, the logic of research, the role of theory, measurement, sampling and research designs. Field research and the professional norms and ethics of social research will also be covered.

### **SOC 216 Sociology of Gender**

3 Credit Hours • 45 Contact Hours (Lecture)

Gives students the theoretical and factual background necessary to understand the phenomenon of gender stratification in American and other cultures. Students will be exposed to a history of gender stratification in human societies, theoretical explanations for this, and insights into the consequences of gender differentiation in our world today.

### **SOC 218 Sociology of Diversity**

3 Credit Hours • 45 Contact Hours (Lecture)

Explores the variety of intergroup relations regarding race, nationality, ethnicity, gender, sexual orientation, and other diversity issues. Patterns of prejudice, discrimination and possible solutions to these issues will be addressed.

### **SOC 231 The Sociology of Deviant Behavior**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* Completion of ENG 090 or placement scores for ENG 121 and Completion of SOC 101 or faculty consent

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

### **SOC 237 Sociology of Death and Dying**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090 or placement scores for ENG 121

Provides an opportunity to familiarize students and professionals with the needs and issues surrounding dying and death. This course will provide sociological, psychological, religious, historical, and anthropological perspectives for interpreting contemporary American customs dealing with dying, death, and bereavement. We will examine the professions associated with death and dying, such as hospice, funeral and crematory institutions, and medical care.

## **Spanish**

### **SPA 101 Conversational Spanish I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Offers beginning students the skills necessary to understand and speak Spanish. The material includes basic vocabulary, grammar, and expressions that are used in daily situations and in travel.

### **SPA 102 Conversational Spanish I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* SPA 101 with a C grade or higher or faculty consent

Offers students the skills necessary to understand and speak Spanish. The material continues to cover basic conversational patterns, expressions, and grammar.

### **SPA 109 Spanish for Travelers**

2 Credit Hours • 30 Contact Hours (Lecture)

Introduces the basic vocabulary and expressions useful to travelers in Spanish speaking countries. The course will concentrate on the customs, traditions, and cultural attitudes to be discovered by a visitor to the destination country. Cultural diversity and global awareness are integral to this course of study. This course does not fulfill Humanities Area Requirements. Not intended for transfer.

### **SPA 111 Spanish Language I**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading, and writing the Spanish language.

### **SPA 112 Spanish Language II**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite:* SPA 111 with a C grade or higher or faculty consent

Continues Spanish Language I in the development of functional proficiency in listening, speaking, reading, and writing the Spanish language.

### **SPA 115 Spanish for the Professional I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 090, REA 090

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 201 Conversational Spanish III**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* SPA 102 with a C grade or higher or faculty consent

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 202 Conversational Spanish IV**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* SPA 201 with a C grade or higher or faculty consent

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 211 Spanish Language III**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* SPA 112 with a C grade or higher or faculty consent

Continues Spanish Language I and II in the development of increased functional proficiency in listening, speaking, reading, and writing the Spanish language.

### **SPA 212 Spanish Language IV**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite: SPA 211 with a C grade or higher or faculty consent*

Continues Spanish Language I, II and III in the development of increased functional proficiency in listening, speaking, reading, and writing the Spanish language.

### **SPA 215 Spanish for the Professional II**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite: SPA 115 with a C grade or higher or faculty consent*

Continues SPA 115 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 261 Grammar for the Heritage Language Speaker**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite: SPA 212 with a C grade or higher or faculty consent*

Provides grammatical instruction in Spanish to bilingual or native speakers to develop their formal proficiency in Spanish.

### **SPA 262 Composition for the Heritage Language Speaker**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite: SPA 212 with a C grade or higher or faculty consent*

Provides instruction to bilingual or native speakers of Spanish to develop their written proficiency in Spanish.

## **Space Science**

### **SPS 101 Spaceflight**

3 Credit Hours • 45 Contact Hours (Lecture)

Introduces the principles for launching and operating manned spacecraft, unmanned satellites, and permanent space stations.

## **Speech**

### **SPE 115 Public Speaking**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite: ENG 090, REA 090*

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

### **SPE 125 Interpersonal Communication**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite: ENG 090, REA 090*

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.

### **SPE 214 Natural Resource Interpretation**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite: ENG 090, REA 090*

Provides human communication and interpretation training for those required to interpret natural resource data and/or present information about historical characters and times for the public. The course focuses on experiential skill development in the area of educational interpretation at times 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.

### **SPE 216 Principles of Speech Communication II**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite: ENG 090, REA 090, SPE 115*

Emphasizes the intensification of ideas and styles with a focus on persuasive speaking. The course includes additional studies in rhetorical analysis and oral delivery methods.

### **SPE 219 Group Dynamics**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite: ENG 090, REA 090*

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

### **SPE 220 Intercultural Communication**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite: ENG 090, REA 090*

Explores the link between culture and communication and will develop and/or enhance communication skills and the abilities appropriate to a multicultural society. Emphasis will be on understanding diversity within and across cultures. Relevant concepts include perception, worldview, context, ethics, language, and nonverbal communication.

### **SPE 225 Organizational Communication**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite: ENG 090, REA 090. Students encouraged to take SPE 115 and/or have organizational setting experience.*

Studies human communication systems and patterns in business and organizational settings. Topics include exploration of leadership strategies; effective managerial communication skills with peers, superiors and subordinates; and organizational communication environments, networks, and goals.

## **Technical**

### **TEC 205 Geometric Dimensioning and Tolerancing**

3 Credit Hours • 45 Contact Hours (Lecture)  
*Prerequisite: MAT 108*

Enables students to interpret geometric dimensioning and tolerancing (GDT) in machining or drafting. The course covers math formulas, tolerancing systems, modifiers, symbols, datums, and tolerances of form, profile, orientation, runout, and location. Students learn that generation of a working drawing is a team effort between design, drafting, manufacturing, and quality control.

## **Theatre**

### **THE 105 Introduction to Theatre Arts**

3 Credit Hours • 45 Contact Hours (Lecture)

Includes discussions, workshops, and lectures designed to discover, analyze, and evaluate all aspects of the theatre experience: scripts, acting, directing, staging, history, criticism, and theory.

### **THE 111 Acting I**

3 Credit Hours • 45 Contact Hours (Lecture)

Corequisite: THE 105 is recommended but not required.

Covers basic acting techniques and approaches including scene study, improvisation, and script analysis. Includes practical application through classroom performance.

### **THE 112 Acting II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: THE 111 or faculty consent. THE 105 is strongly advised.*

Continues to explore basic acting techniques and approaches including scene study, improvisation, and intermediate script analysis. It includes practical application through classroom performance.

### **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 116 Technical Theatre**

3 Credit Hours • 45 Contact Hours (Lecture)

Introduces hands-on methods of constructing and painting scenery and properties and operating stage lighting. Students also learn the proper procedures of using shop equipment and serving on stage crews.

### **THE 120 Drafting for the Performing Arts**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: THE 116 or faculty consent*

Teaches students to apply basic drafting techniques to various performing arts applications and venues such as ground and lighting plots for stage, film, dance, and music. Other projects will include design layouts, working, detailed, and isometric drawings. Attention will be given to drawing symbols, notations, dimensions, and blueprint reading.

### **THE 126 Auditioning for Musical Theater**

3 Credit Hours • 45 Contact Hours (Lecture)

Builds a confident, talented, and exciting audition. It includes a mock video taped 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 130 Safety, Tools and Materials**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: THE 116 or faculty consent*

Addresses basic safety guidelines concerning the operation/use, care and storage of tools and materials. Areas covered include OSHA power tools, hand tools, hardware, lighting and sound equipment, paints, solvents, plastics, woods, steel, aluminum, and ladders.

### **THE 131 Theatre Production I**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ENG 060, REA 090, THE 111, and or THE 112 or faculty consent*

Allows students to put into practice theories of theatre production. Participation in set construction, scenic artistry, costuming, lighting, sound, acting, stage managing, and administration is available.

### **THE 132 Theatre Production II**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: ENG 060, REA 090, THE 111, and or THE 112 or faculty consent*

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 135 Stage Makeup I**

2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)

Covers makeup design and application techniques. Techniques include basic corrective, character, old age, and fantasy application.

### **THE 136 Stage Makeup II**

2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)

*Prerequisite: THE 135*

Continues to explore Theatrical makeup design and application techniques. In addition, prosthetics, hair design, and other more advanced applications will be explored.

### **THE 140 Stage Dialects**

1 Credit Hour • 15 Contact Hours (Lecture)

Teaches students to develop skills in nine dialects and accents.

### **THE 144 Scene Study**

1 Credit Hour • 15 Contact Hours (Lecture)

*Prerequisite: THE 143, THE 111 or faculty consent*

Emphasizes the Stanislavski approach. Students will explore acting skills through advanced material, including avant garde and classical.

### **THE 152 Production Stage Management I**

3 Credit Hours • 90 Contact Hours (Lab)

*Prerequisite: THE 116 or faculty consent*

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 153 Production Stage Management II**

3 Credit Hours • 90 Contact Hours (Lab)

*Prerequisite: ENG 060, REA 090, THE 131, THE 261 or faculty consent*

Examines the practical and creative side of Production Stage Management from a participatory stance by serving as the Production Stage Manager for a current PPCC production. Participation in this course is subject to an interviewing process with the Show's Director/Producer and is limited to just one student per semester. Interviews will start as much as three months before the semester of enrollment and may last through the first week of the semester of enrollment. This course is a continuation of THE 261.

### **THE 181 Internship**

1-3 Credit Hours • 15 Contact Hours per credit (Lecture)

*Prerequisite: THE 143, THE 144, or THE 111 or faculty consent*

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 182 Internship**

1-3 Credit Hours • 45 Contact Hours per credit hour (Practicum)

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 183 Internship**

1-3 Credit Hours • 45 Contact Hours per credit hour (Practicum)

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 200 Paint, Draw, Render, Model Techs**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite: THE 105 or faculty consent*

Introduces art techniques that are needed specifically in Theatrical Design. Techniques will include painting, rendering of scenic, lighting, costume designs, and model construction techniques.

**THE 204 Voice and Articulation I**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite:* ENG 060, REA 090

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 205 Voice and Articulation II**

2 Credit Hours • 30 Contact Hours (Lecture)

*Prerequisite:* ENG 060, REA 090, THE 204

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. A continuation of THE 204.

**THE 211 Development of Theatre I**

3 Credit Hours • 45 Contact Hours (Lecture)

Surveys the history and evolution of drama from Ancient Greece to the Renaissance, emphasizing all aspects of the art from period values to analysis of dramatic literature and performance.

**THE 212 Development of Theatre II**

3 Credit Hours • 45 Contact Hours (Lecture)

Surveys the history and evolution of drama from the Renaissance to the present, emphasizing all aspects of the art from period values to the analysis of dramatic literature and performance.

**THE 213 Intermediate Acting I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 060, REA 090, THE 112

Continues THE 112. Emphasis is on artistic concentration of voice and movement. A detailed character biography is required.

**THE 214 Intermediate Acting II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* ENG 060, REA 090, THE 211

Emphasizes artistic concentration of voice and movement. Detailed character biography is required. This course is a continuation of THE 211.

**THE 215 Playwriting**

3 Credit Hours • 45 Contact Hours (Lecture)

Gives students the opportunity to learn and practice playwriting techniques, thereby improving creative writing skills. Elements of dramatic structure, dialogue, styles, and theatrical practices are emphasized.

**THE 216 Theatre Lighting and Design**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite:* THE 116 or faculty consent

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 218 Readers Theatre**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* SPE 205 or concurrent enrollment in SPE 206

Studies ensemble interpretation of literature—poetry, prose, and drama, primarily through the medium of the spoken word.

**THE 220 Directing I**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* THE 111 or faculty consent

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 221 Set Design for Film and Theatre**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite:* ENG 060, REA 090

Emphasizes two- and three-dimensional drawing and designs and color theory. Students construct 3-D models and a theatrical stage set.

**THE 230 Directing II**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite:* THE 220 or faculty consent

Continues to explore basic technique for stage directing in contemporary theatre. Subjects to be covered are stage composition, script analysis, work with actors, and the collaborative role of the director. Student will direct a one act theatre piece for final project.

**THE 231 Theatre Production III**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite:* ENG 060, REA 090, THE 111, and/or THE 112 or faculty consent

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 232 Theatre Production IV**

3 Credit Hours • 75 Contact Hours (15 Lecture, 60 Lab)

*Prerequisite:* ENG 060, REA 090, THE 111, and/or THE 112 or faculty consent

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 242 Set Dressings: Theory and Practice**

2 Credit Hours • 45 Contact Hours (15 Lecture, 30 Lab)

*Prerequisite:* ENG 060, REA 090

Covers the set dressing theory and practice including plot design, period style, set props, hand props, production paper work, and run exaction of scene changes, acquisition, care, handling, and storage.

**THE 245 Basic Costume Design and Construction**

3 Credit Hours • 90 Contact Hours (Lab)

*Prerequisite:* THE 106, THE 108

Explores the basics of costume design and color theory. Construction techniques using regular and industrial sewing machines will be applied in constructing costumes and accessories. Students will be introduced to pattern drafting.

**THE 246 Rehearsal and Performance**

1 Credit Hour • 30 Contact Hours (Lab)

*Prerequisite:* ENG 060, REA 090, THE 131, or faculty consent

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 activities. Previous acting experience is helpful but not required.

**THE 247 Rehearsal and Performance II**

2 Credit Hours • 60 Contact Hours (Lab)

*Prerequisite:* ENG 060, REA 090, THE 131, or faculty consent

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 activities. Previous acting experience is helpful but not required.



### **THE 248 Rehearsal and Performance III**

3 Credit Hours • 90 Contact Hours (Lab)  
*Prerequisite: ENG 060, REA 090, THE 131, or faculty consent*

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.

## **Welding**

### **WEL 106 Blueprint Reading for Welders and Fitters**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

Covers interpreting weld symbols on blueprints, identifying proper layout methods and tools, and proper joint design necessary for various welding processes.

### **WEL 113 Oxyfuel and 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 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 115 Autobody Welding and 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 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 122 Structural Welding II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: WEL 121*

Continues WEL 121 with final emphasis toward AWS welder qualification with mild steel electrode E-7018 qualification test in the 2G, 3GU, and 4G position.

### **WEL 124 Introduction to Gas Tungsten Arc Welding**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

Covers welding in all positions and on various joint configurations using the GTAW (tig) 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 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 200 Advance CAD/CAM Cutting Processes**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: MAC 215; MAC 240 or faculty consent*

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 205 Introduction to Ornamental Iron**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: as specified by instructor*

Covers designing, drawing, and fabricating a welded project. Student will demonstrate his/her ability to use (in a practical application) previously learned techniques using different welding processes.

### **WEL 224 Advanced Gas Tungsten Arc Welding**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: WEL 124 or faculty consent*

Covers welding in all positions on carbon steel, stainless steel, and aluminum plate and carbon steel pipe with the GTAW process. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints, and safety in the welding industry.

### **WEL 225 Advanced Gas Metal Arc Welding**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: WEL 125 or faculty consent*

Covers welding in all positions on carbon steel plate with the GMAW process. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints, and safety in the welding industry.

### **WEL 230 Pipe Welding I**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: WEL 122, WEL 224, WEL 225 or faculty consent*

Covers safety inspections, minor repairs, operating parameters, and operation of SMAW, GMAW, and FCAW equipment in a variety of positions on plain carbon steel pipe joints. Also covers evaluating and solving complex welding and fabrication problems and administering hands on training and supervision to other students during assigned fabrication and welding operations.

### **WEL 231 Pipe Welding II**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: WEL 230 or faculty consent*

*Corequisite: May be taken concurrently with WEL 230*

Covers safety inspections, minor repairs, operating parameters, and operation of SMAW, GMAW, and FCAW equipment in a variety of positions on plain carbon steel pipe joints. Also covers evaluating and solving complex welding and fabrication problems and administering hands on training and supervision to other students during assigned fabrication and welding operations.

### **WEL 240 Pipe Welding Certification**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: WEL 231 or faculty consent*

Introduces theory and practice in modern welding methods of pressure pipe line and pipe systems. Emphasis toward welder qualification under various codes.

### **WEL 250 Layout and Fabrication**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)  
*Prerequisite: WEL 106*

Develops welding and associated skills in the use of drawings and blueprints in planning. Includes designing and layout projects.

# Zookeeping

## **ZOO 100 Safety/Zoonoses/Hazardous Materials**

0.5 Credit Hour • 7.5 Contact Hours (Lecture)

Prepares students to deal in a safe and effective manner with the hazards and hazardous materials involved in zookeeping.

## **ZOO 101 Career Development for Zookeeping**

0.5 Credit Hour • 7.5 Contact Hours (Lecture)

Supplies the tools necessary to be competitive in the zoological job hunt. Provides students with the ability to make realistic decisions concerning education and occupational objectives.

## **ZOO 105 Reptile and Amphibian Husbandry**

4 Credit Hours • 67.5 Contact Hours (45 Lecture, 22.5 Lecture/Lab Combination)

Teaches herpetology and herpetological husbandry. The emphasis is on developing a working knowledge of the care and management of captive reptiles.

## **ZOO 115 Bird Husbandry**

4 Credit Hours • 67.5 Contact Hours (45 Lecture, 22.5 Lecture/Lab Combination)

Teaches bird husbandry and supplies the student with a working knowledge of the captive care and management of birds.

## **ZOO 117 Animal Conservation in Captivity**

3 Credit Hours • 45 Contact Hours (Lecture)

Studies the importance of animal conservation programs in captive environments throughout the world. The background, current programs, and future issues will be discussed. Some topics will include animal's relationships with man, zoo programs, and extinction issues.

## **ZOO 125 Mammal Husbandry**

4 Credit Hours • 67.5 Contact Hours (45 Lecture, 22.5 Lecture/Lab Combination)

Teaches the student mammal biology and husbandry, and provides the student with a working knowledge of the care and management of captive mammals.

## **ZOO 135 Fish and Invertebrate Husbandry**

4 Credit Hours • 90 Contact Hours (Lecture/Lab Combination)

Teaches students fish and aquatic invertebrate biology and husbandry. Course provides students with a working knowledge of the care of aquatic life, including management of closed systems.

## **ZOO 180 Zookeeping Internship - Hoofstock**

5 Credit Hours • 225 Contact Hours (Work Experience)

*Prerequisite:* ZOO 100, BIO 150

*Corequisite:* ZOO 125

Provides work experience at the Cheyenne Mountain Zoo or other approved facility for 230 hours over a fifteen-week period (ten-week summer semester). The student will become competent in the care of the animals studied within each internship.

## **ZOO 181 Zookeeping Internship – Primates/Carnivores**

5 Credit Hours • 225 Contact Hours (Work Experience)

*Prerequisite:* ZOO 100, BIO 150

*Corequisite:* ZOO 125

Provides work experience at the Cheyenne Mountain Zoo or other approved facility for 230 hours over a fifteen-week period (ten-week summer semester). The student will become competent in the care of the animals studied within each internship.

## **ZOO 205 Horticulture for the Zookeeper**

1 Credit Hour • 22.5 Contact Hours (Lecture/Lab Combination)

Explores the role of plants and animal exhibits. Students will learn to care for a variety of plants while learning about the relationship between the living beings in a quality exhibit.

## **ZOO 206 Exhibit Design and Construction**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Discusses the exhibit design and renovation process through the conceptual, architectural rendering and construction phases. Will discuss small, supervised projects as well as new multi-million dollar projects.

## **ZOO 207 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 212 Elephant Management**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite:* ZOO 100

This course will cover the natural history of the two current living genera of elephants, status in the wild, status in captivity, and basic husbandry needs. It will include lab experience at the Cheyenne Mountain Zoo and Denver Zoo. The course will focus on current training theory as well as an introduction to the four currently recognized elephant management systems.

## **ZOO 215 Veterinary Zookeeping**

4 Credit Hours • 67.5 Contact Hours (45 Lecture, 22.5 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 280 Internship – Birds/Reptiles**

5 Credit Hours • 225 Contact Hours (Work Experience)

*Prerequisite:* ZOO 100, BIO 150

*Corequisite:* ZOO 105 and/or ZOO 115

Provides work experience at the Cheyenne Mountain Zoo or other approved facility for 230 hours over a fifteen-week period (ten-week summer semester). The student will become competent in the care of the animals studied within each internship.

## **ZOO 281 Internship – Abroad**

5 Credit Hours • 225 Contact Hours (Work Experience)

*Prerequisite:* ZOO 100, BIO 150

*Corequisite:* ZOO 105 and/or ZOO 125

Provides work experience at a pre-approved facility for 230 hours over a fifteen-week period (ten-week summer semester). The student will become competent in the care of the animals within a specified area of study.

# College Administrative Staff

## Officers of the College

President ..... Joseph Garcia  
Vice President for Educational Services ..... Edwin Ray, Ph.D.  
Vice President for Administrative Services ..... Dirk Howard

## President's Staff

Executive Director of Human Resource Services ..... Jeff Olson  
Executive Director of Marketing  
and Communications ..... George Sanchez  
Executive Director of Institutional  
Advancement and Development (Interim) ..... Jon Stepleton

## Educational Services

Assistant to the VPES ..... Bart Guthrie  
Assistant to the VPES ..... Lia Howard  
Assistant to the VPES for Articulation and  
Transfer ..... Wayne Artis  
Assistant to the VPES for Technology ..... Roman Hidrogo

## Educational Services Division Deans:

Business, Social and Behavioral Sciences  
Dean ..... Carla Malmquist  
Assistant Dean ..... Cindy Buckley  
Communications, Humanities, and Technical Studies  
Dean ..... Deborah Schmitt, Ph.D.  
Assistant Dean ..... Robert Smith  
Health, Environmental, Natural and Physical Sciences  
Dean ..... Judy Baros  
Languages Dean ..... Peter Heinz, Ph.D.  
Mathematics and Technology Dean ..... Ted Plaggemeyer  
Assistant Dean-Mathematics ..... Gwen Riley  
Assistant Dean-Technology ..... Carol Ohle

## Directors:

Auxiliary Services ..... Lia Howard  
Centennial, Rampart Range  
and Downtown Studio Campus ..... John di Stasio  
Distance Education ..... Julie Witherow  
Institutional Effectiveness ..... Jane Abbott, Ph.D.  
International Education ..... Peter Heinz, Ph.D.  
Library ..... Jane Abbott, Ph.D.  
Military Programs ..... Bart Guthrie  
School Partnership Program ..... vacant

## Program Administrators:

English Language Institute ..... Jean Echevarria  
Pikes Peak Regional Law Enforcement  
Academy ..... Jeff Engel

## Managers

Bookstore - Assistant Managers ..... Connie Bryan  
Michael McCullough  
Publications and Printing/Copy Center ..... Mark Day

## Administrative Services

Dean of Students ..... Dale Baxter  
Associate Vice President of  
Enrollment Services ..... Rick Lee

## Directors:

Business Services ..... Eileen Hogue  
Child Care Services ..... Cynthia Neale-Downing  
Enrollment Services  
Associate Director ..... Nicole Striegel  
Assistant Director of ES-Admissions ..... Troy Nelson  
Assistant Director of ES-Financial Aid ..... Sherri McCullough  
Facilities and Procurement ..... Eva Reynolds  
Assistant Director of Facilities and  
Procurement ..... Earl Lindsey  
Facilities Quality Assurance ..... Paul Hartman  
Financial Services/Controller ..... Monica Smith  
Information Technology Support Services ..... J. Michael Young  
Assistant Director – ITSS ..... Cyrille Parent  
Manager of Technical Support ..... Christian Orth  
Manager of Communication and Distribution .... Steve Carrick  
Institutional Research ..... Dale Baxter  
Public Safety ..... John Fisher  
Student Life and Student Services ..... Colette Berge

## Coordinators:

Accommodative Services and  
Instructional Services ..... Michael Nusen  
Career Services ..... Jennifer Sengenberger  
Child Development Center-CC ..... Judith Russell  
Child Development Center-RRC ..... Vacant  
Computer Aided Lab ..... Ernest Hughes  
Learning Assistance Center ..... Edmond Quesada  
Fitness Center/Gym ..... Dawn Jacobson  
Student Activities ..... Megan Boyle  
Testing ..... Donna Sohan

## Managers:

Enrollment Services Center ..... Nancy Martinez  
Student Accounts ..... Gerri Lyons

# Faculty and Staff

ABBOTT, Jane, Ph.D. (Colorado State University, 1995)  
Dean of Library Services and Educational Effectiveness

ABRAHAMSON, Robin, B.A. (St. Martin's College, 1997)  
Administrative Assistant II, Communications, Humanities, & Technical Studies

ADAMS, Diane  
Accounting Tech I, Enrollment Services

ADAMS, Michael J.D. (University of Wyoming, 1996)  
Faculty of Legal, Business, Social & Behavioral Science

AGGEN, Teresa, M.A. (Stephen F. Austin State University, 1991)  
Faculty of English, Division of Languages

AKSE, Theresa, B.A. (Carleton College, 1993)  
Faculty of Computer Information Systems, Mathematics & Technology and Area Vocational Program

ALCARAZ, Tracy, B.A. (University of Colorado, 2002)  
Supplemental Service Assistant, Area Vocational Program

ALEXANDER, Janet, M.F.A. (New York University, 1987)  
Faculty of Art, Communications, Humanities, & Technical Studies

ALEXANDER, James, B.A. (University of Southern Colorado, 2001)  
Sales Assistant II, Bookstore

ALINSUNURIN, Jinn  
General Labor I, Facilities and Procurement

ALIRE, Arlene Ann  
Administrative Assistant III, Enrollment Services

ALLISON, Mark, B.A. (Western State College, 1996)  
Police Officer I, Public Safety

ALLISON, Robin, A.A.S. (Pikes Peak Community College, 2002)  
Administrative Assistant III, Public Safety

ALVARAN, Reginald  
Custodian I, Facilities and Procurement

ANDERSON, Matthew  
Material Handler I, Bookstore

ANDREATA, Kenneth, A.A.S. (Trinidad State Junior College, 1979)  
General Labor I, Facilities and Procurement

ANTHONY, David B., A.A.S. (Pikes Peak Community College, 1984)  
IT Professional II, Information Technology Support Services

ARCHULETA, Pamela, B.S. (Regis University, 1995)  
General Professional II, Enrollment Services

ARFSTEN, Cheri, A.A. (Pikes Peak Community College, 1998)  
Administrative Assistant III, Communications, Humanities, & Technical Studies

ARGABRIGHT, Candice, Cert (Pikes Peak Community College, 2003)  
Administrative Assistant II, Enrollment Services

ARKOWSKI, Donna, M.B.S. (University of Colorado, 1997)  
Faculty of Geography, Health, Environmental, Natural & Physical Sciences

ARNDT, Mathew, M.A. (University of Colorado, 1998)  
Math Specialist, Student Success Services

ARTIS, W. Wayne, M.A. (University of Delaware, 1977)  
Faculty of History, Communications, Humanities, & Technical Studies

ASHTON, Holly, M.S. (Iowa State University, 1986)  
Faculty of Math, Mathematics & Technology

ASKVIG, Cynthia S., M.S.N. (Northern Illinois University, 1981)  
Vocational Credentials: Faculty, Registered Nurse  
Professor of Nursing, Health, Environmental, Natural & Physical Sciences

ASTOR, Jane, M.S.W. (University of Denver, 1993)  
Faculty of Social Services, Business, Social & Behavioral Sciences

ASTOR, Wally, Ph.D. (Georgetown University, 1977)  
Faculty of Business, Business, Social & Behavioral Sciences

BABIN, Dave  
Administrative Assistant III, Enrollment Services

BAILEY, Sandra, B.A. (California State University, 1990)  
Faculty of Computer Applications, Mathematics & Technology and Area Vocational Program

BAKER, Karen  
Administrative Assistant III, Enrollment Services

BAKER, Mary, M.A. (University of Colorado, 1990)  
Faculty of Speech, Communications, Humanities, & Technical Studies

BALOGH, Elaine, M.A. (University of California, Davis, 1990)  
Faculty of French, Division of Languages

BANEY, Eileen  
Administrative Assistant III, Enrollment Services

BARNETT, Barbara, A.A.S. (Pikes Peak Community College, 1991)  
Administrative Assistant I, Enrollment Services

BARNETT, Kimberly R., A.G.S. (Pikes Peak Community College, 1991)  
Program Assistant II, Presidents Office

BAROS, Judy, M.A. (Western State College of Colorado, 1967)  
Dean, Health, Environmental, Natural & Physical Sciences

BARR, Charles, B.A. (University of Western Illinois)  
Faculty of Automotive, Area Vocational Program

BARTA, Tim  
General Labor I, Facilities and Procurement

BARTA, Vicki, A.A. (Pikes Peak Community College, 1989)  
Accounting Technician III, Enrollment Services

BARTRUM, Raymond, A.A.S. (T.T.I., 1994)  
Custodian I, Facilities and Procurement

BASS, Clarence, B.A. (Fort Hays State University, 1999)  
Administrative Assistant II, Health, Environmental, Natural & Physical Sciences

BATES, Cheryl, A.A.S. (Pikes Peak Community College, 1998)  
Administrative Assistant II, Human Resource Services

BAUER, Patricia  
Administrative Assistant II, Office of the Vice President for Educational Services

BAXTER, Dale, M.S. (University of Missouri, 1971)  
Director of Enrollment Management & Research, Institutional Research

BEARDSLEY, Ruth, Ph.D. (University of Colorado, 1985)  
Professor of Philosophy, Communications, Humanities, & Technical Studies

BEEN, Laurin A., A.A.S. (Pikes Peak Community College, 1995)  
Administrative Assistant III, Enrollment Services

BEGGS, Kathleen, M.Ed. (Drury College, 1973)  
Faculty of Reading, Division of Languages

BEHAR, Cherie N.  
Child Care Aid, Child Development Center

BELEW, Karla, Ph.D. (Texas Tech University, 1983)  
Professor of Biology and Chemistry, Health Environment Natural & Physical Sciences

BELL, Stefanie, M.A. (Goddard College, 1977)  
Faculty of Psychology, Business, Social & Behavioral Sciences

BEN-AMOTS, Laura, M.F.A. (University of the Arts, 1992)  
Faculty of Art, Communications, Humanities, & Technical Studies

BENDER, Michelle, B.S. (University of Wisconsin, 1991)  
Faculty of Early Childhood Education, Business, Social & Behavioral Sciences

BENNINGTON, Shelly, B.A. (University of Colorado, 1995)  
Administrative Assistant III, Mathematics & Technology

BERGE, Colette, M.S. (University of Colorado, 1978)  
Director of Student Life

BICKNELL, Gail A., A.A.S. (Pikes Peak Community College, 1988)  
Administrative Assistant II, Division of Languages

BIEKER, Sheila, A.A. (Pikes Peak Community College, 1996)  
Office Manager I, Library

BIELEK, Danika, B.F.A. (Arizona State University, 1995)  
Faculty of Dance, Communications, Humanities, & Technical Studies

BIRKHEAD, Kathryn, M.A. (University of Arkansas, Fayetteville, 1977)  
Faculty of Spanish, Division of Languages

BOEHME, Angela  
Police Officer I, Public Safety

BOLLING, Linda  
Library Technician II, Library

BOND, Vicki, L.P.N. (St. Mary's School of Practical Nursing, 1976)  
Medical Office Technology Program Coordinator, Health, Environmental, Natural & Physical Sciences

BOWEN, Karen S., M.Ed. (University of Pittsburgh, 1970)  
Faculty of English and Study Skills, Division of Languages

BOWERS, William  
LTC Trainee V, Facilities and Procurement

BOWLES, Charles F., M.B.A. (Pacific Lutheran University, 1977)  
Faculty of Business Management, Business, Social & Behavioral Sciences

BOYLE, Megan, M.A. (Gonzaga University, 1976)  
Coordinator of Student Activities, Student Life

BRADLEY, Kristine, M.B.S. (University of Colorado, 1997)  
Faculty of Math, Mathematics & Technology

BRICKER, Robert R., M.A. (University of Northern Colorado, 1973)  
Vocational Credentials: Faculty  
Professor of Marketing Management, Business, Social & Behavioral Sciences

BRISTOL, Darrin, A.A.S. (Pikes Peak Community College, 1997)  
Faculty of Culinary Arts, Business, Social & Behavioral Sciences

BROOKS, C.R.J., M.P.A. (University of Colorado, 1992)  
General Professional II, Human Resource Services



BRYAN, Connie  
 Sales Manager III, Bookstore  
 BRYAN, Larry R., A.A.S. (Pikes Peak Community College, 1993)  
 Accounting Technician I, Enrollment Services  
 BUCKLEY, Cynthia, M.Ed. (Regis University, 2002)  
 Vocational Credentials: Early Childhood Education  
 Faculty of Early Childhood Education, Business, Social & Behavioral Sciences  
 BURKHART-NERO, Gloria, M.F.A. (University of Cincinnati, 1973)  
 Library Technician II, Communication, Humanities, & Technical Studies  
 BURKHART, Ronda A., M.B.S. (University of Colorado, 1980)  
 Faculty of Anthropology, Business, Social & Behavioral Sciences  
 BURLISON, Kay B., B.S., (Mississippi State University, 1983)  
 Early Childhood Educator I, Child Development Center  
 BURTON, Robert W., A.A.S. (Pikes Peak Community College, 1998)  
 Co-coordinator of Fire Science Technology, Business, Social & Behavioral Sciences  
 BUTLER, Sharon, M.S.Ed. (Butler University, 1975)  
 Assistant Professor of Mathematics, Mathematics & Technology  
 CARNE, Glenda L., M.A. (University of Colorado, 1997)  
 Program Assistant II, Articulation & Transfer  
 CARPENTER, Janel, A.A.S. (Pikes Peak Community College, 2003)  
 Early Childhood Educator I, Student Life  
 CARRICK, Steven A., B.S. (Regis University, 2001)  
 IT Professional I, Information Technology Support Services  
 CARRINGTON, Angela, M.A. (University of Phoenix, 1992)  
 Faculty of Nursing, Health, Environmental, Natural & Physical Sciences  
 CASIAS, Helen  
 Library Technician II, Library  
 CHASE, Peter, A.A.S. (Colorado Institute of Art, 1994)  
 Faculty of Multi-Media, Area Vocational Program  
 CHASE, Richard, B.S. (Regis University, 1987)  
 Faculty of Radio, Television, Telecommunications, Communications, Humanities & Technical Studies  
 CHAVEZ, Christine, B.A. (University of Colorado, 2000)  
 Administrative Assistant II, Career Services Center  
 CLARK, William, M.Div. (Union Theological Seminary, 1990)  
 Faculty of Mathematics, Mathematics & Technology  
 CLASSEN, Suzanne, B.A. (Goshen College, 1994)  
 Transfer Transition Coordinator, Student Success Services  
 COLLINS, Stephen, Ph.D. (Northwestern University, 2001)  
 Faculty of Speech, Communications, Humanities, & Technical Studies  
 COLON, Jennifer, Ph.D. (Florida State University, 2003)  
 Faculty of Spanish, Division of Languages  
 CONWAY, Daniella, A.A.S., (Pikes Peak Community College, 2000)  
 Administrative Assistant II, Enrollment Services  
 CORN, Leland, A.A.S., (Pikes Peak Community College, 1996)  
 Faculty of Welding, Communications, Humanities, & Technical Studies  
 CORNELIUS, Belenda, M.A. (University of Colorado, 1992)  
 Counseling and Human Services Certification  
 Recruitment Officer, Enrollment Services  
 DAVENPORT, Deric, M.S., (University of Arkansas, 1987)  
 Faculty of Mathematics, Mathematics & Technology  
 DAVIS, Stephen  
 Custodian I, Facilities and Procurement  
 DAVIS, Timothy, M.A. (Ohio University, 1971)  
 Faculty of Spanish, Division of Languages  
 DAY, Kimberly G., A.A.S. (Pikes Peak Community College, 1997)  
 Customer Support Coordinator I, Information Technology Support Services  
 DAY, Mark, B.A. (Rockmont College, 1974)  
 General Professional IV, Publications and Printing  
 DECH, Debra  
 Administrative Assistant III, Enrollment Services  
 DEESE, Barry, M.B.A. (Central Michigan University, 1997)  
 Recruitment Officer, Enrollment Services  
 DEHERRERA, Laurel, M.S. (Northern Illinois University, 1994)  
 Faculty of Computer Science, Mathematics & Technology  
 DELGESSO, Frank, A.A.S. (Community College of the Air Force, 1989)  
 Vocational Credentials: Faculty  
 Faculty of Dental Assisting, Health, Environmental, Natural & Physical Sciences  
 DEWITT, Sharon, B.A. (University of Wisconsin, 1994)  
 Administrative Assistant II, Enrollment Services  
 DI STASIO, John, M.B.A. (St. Mary's University, 1972)  
 Vocational Credentials: Administrator/Faculty, Local Director, Supervisor  
 Director of the Centennial Campus, DTS Campus, Rampart Range Campus  
 DI TULLIO, Regina (Gina), A.S. (Pikes Peak Community College, 1993)  
 IT Professional II, Information Technology Support Services  
 DODSON, Susan, A.A. (Pikes Peak Community College, 1996)  
 Library Technician III, Library  
 DOLAWAY, Theresa L. (Vocational Credential in Business Education)  
 Office Manager I, Area Vocational Program  
 DONALDSON, Lisa, M.A. (University of New Mexico, 1995)  
 Faculty of Sociology, Business, Social & Behavioral Sciences  
 DORK, Thomas  
 Custodian I, Facilities and Procurement  
 DORRINGTON, Jenny, Ph.D. (Northwestern University, 1994)  
 Faculty of Math, Mathematics & Technology  
 DOTSON, Rickette Y., B.S., (Metropolitan State College, 1996)  
 Administrative Assistant III, Enrollment Services  
 DOVE, Lisa, Certificate (Pikes Peak Community College, 2003)  
 Early Childhood Educator II, Child Development Center  
 DRAKE, Kathleen M.  
 Early Childhood Educator I, Child Development Center  
 DREW, Alysa, B.A. (University of Colorado, 1992)  
 Interpreter Coordinator, Interpreting Services, Office of Accommodation Services and Instructional Support  
 ECHEVARRIA, Jean, M.A. (Colorado State University, 1989)  
 Faculty of English Language Institute, Division of Languages  
 ELLARD, Cheryl, B.A. (Iowa Wesleyan College, 1975)  
 Administrative Assistant II, Learning Assistance Center  
 ELTHORP, Michele A.  
 Early Childhood Educator II, Child Development Center  
 EMBRY, Jacquelyn J.  
 Child Care Aide, Child Development Center  
 ENGEL, Jeffery, M.A. (Concordia University, 2001)  
 Faculty of Criminal Justice, Business, Social & Behavior Sciences  
 ENSMINGER, Michael, B.S. (Colorado Christian University, 1996)  
 Vocational Credentials: Faculty, Colorado Type C Certificate  
 Assistant Professor of Criminal Justice, Business, Social & Behavioral Sciences and Area Vocational Program  
 ESKER, David, M.S. (Southern Illinois University, 1994)  
 Faculty of Physics, Health, Environmental, Natural & Physical Sciences  
 ESPINOSA, Sylvia, Pharm D. (University of Southern California, 1989)  
 Faculty of Pharmacy, Health, Environmental, Natural & Physical Sciences  
 EUREK, Diana  
 Faculty of American Sign Language, Division of Languages  
 EVANS, Sharron, A.S. (El Paso Community College, 1974)  
 General Professional II, Facilities & Procurement  
 EVERETT, Jami, A.G.S. (Pikes Peak Community College, 2003)  
 IT Professional I, Information Technology Support Services  
 FAMBROUGH, Scott  
 Faculty of Electronics, Mathematics & Technology  
 FISHER, John C.  
 Police Administrator I, Public Safety  
 FLETCHER, Barbara  
 Accounting Technician I, Enrollment Services  
 FLORA, Russell L., M.A. (Rutgers University, 1972)  
 Professor of Economics, Business, Social & Behavioral Sciences  
 FONTES, Benjamin L.  
 Sales Manager I, Bookstore  
 FURAU, Vicki M.  
 General Professional II, Enrollment Services  
 GADPAILLE, Delnita M., M.A. (University of Colorado, 1992)  
 Administrative Assistant III, Enrollment Services  
 GAGNON, Catherine, M.S.N. (University of Phoenix, 2000)  
 Faculty of Nursing, Health, Environmental, Natural & Physical Sciences  
 GAITERS-JORDAN, Jacquelyn, B.A. (Albany State University, 1993)  
 Faculty of English, Division of Languages  
 GARCIA, Joseph, Juris Doctor (Harvard Law School, 1983)  
 President  
 GARRELT, Ryan  
 Police Officer II, Public Safety  
 GEORGE, Paula, B.A. (University of Kansas, 1971)  
 General Professional III, Deaf Prep Program, Division of Languages  
 GERTH, Carolyn  
 Accounting Technician III, Bookstore  
 GERTH, Michael, A.S. (Pikes Peak Community College, 2001)  
 Technician III, Enrollment Services

GERVELL, Patricia, B.S. (Regis University, 1997)  
 Accountant I, Financial Services

GETZ, Christine M., M.S. (Indiana State University, 1969)  
 Associate Professor, Developmental Studies English Lab

GIDDINGS, Larry A., M.A. (Humboldt State University, 1989)  
 Faculty of Developmental English, Division of Languages

GOSHEN, Charity, M.A. (University of Colorado, 1994)  
 Faculty of English, Division of Languages

GRAVES, Barbara, M.A. (University of Maryland, 1982)  
 Faculty of English, Division of Languages

GRAUL, Ruth, B.V.A. (Georgia State University, 1979)  
 Faculty of Interior Design, Communications, Humanities, & Technical Sciences

GREY, Joanna C., M.A. (Humboldt State University, 1992)  
 Faculty of Sociology, Business, Social & Behavioral Sciences

GRUSING, Barbara, A.A. (Pikes Peak Community College, 1992)  
 Administrative Assistant II, Financial Services

GUNN, Heather, B.S.N. (University of Phoenix, 2002)  
 L.P.N Faculty, Health, Environmental, Natural & Physical Sciences

GUTHRIE, Barton, M.A. (Webster University, 1989)  
 Vocational Credentials: Business  
 Assistant to the Vice President for Educational Services and  
 Director of Military Programs

HAGAN, Trey,  
 Police Officer I, Public Safety

HALLAM, Amy, B.A. (Campbell University, 2001)  
 Administrative Assistant III, Business, Social & Behavioral Sciences

HAMILTON, Will  
 Police Officer I, Public Safety

HANSON, Christina  
 Library Manager, Agilent Library

HARMS, Richard L., M.S. (Kansas State University, 1968)  
 Faculty of Mathematics, Mathematics & Technology

HARRIS, Elizabeth  
 Administrative Assistant II, Division of Languages

HARRIS, Gloria, B.A. (University of Colorado, 1996)  
 General Professional II, New Student Scheduling Center

HARTMAN, Paul  
 Credentials: Regional Building A1 License  
 Director, Facilities Quality Assurance, Vice President for Administrative Service

HARTMAN, Tamara, A.A.S. (Pikes Peak Community College, 1984)  
 General Professional III, Human Resource Services

HASTINGS, Rudy  
 Structural Trades I, Facilities and Procurement

HAWK, Heather D., A.S., (Georgia Military College, 1994)  
 Early Childhood Educator I, Child Development Center

HAWKE, Marguerite, B.S. (Regis University, 2002)  
 Assistant Testing Coordinator, Student Success Services

HAYDEN, Mary, M.A. (University of Colorado, 1992)  
 Faculty of Geography, Health, Environmental, Natural & Physical Sciences

HAZEL, Julie, B.A. (University of Colorado, 2000)  
 Program Assistant II, Office of Vice President for Educational Services

HAZEL-DESTEFANO, JEANNIE, A.A.S. (Pikes Peak Community College, 1998)  
 Administrative Assistant I, Division of Languages

HEADDEN, Beverly,  
 Accounting Tech I, Enrollment Services

HEFLIN, Nanette  
 General Professional II, Marketing and Communications

HEINZ, Peter, Ph.D. (Ohio State University, 1993)  
 Dean, Division of Languages

HEMESATH, Michael, A.G.S. (Pikes Peak Community College, 1999)  
 IT Technician II, Information Technology Support Services

HENDERSON, Robert, M.A. (University of California at Los Angeles, 1970)  
 Professor of Biology, Health, Environmental, Natural & Physical Sciences

HENRICHS, Cathy, M.A. (University of Connecticut, 1981)  
 Faculty of Literature, Communications, Humanities, & Technical Studies

HERNANDEZ, Carol  
 Administrative Assistant II, Mathematics & Technology

HERNANDEZ, Ernesto, M.S. (Colorado State University, 1992)  
 Faculty of Biology, Health, Environmental, Natural & Physical Sciences

HERRAEZ, Juan-Carlos, M.S. (University of Southern Colorado, 1995)  
 Assistant Professor of Chemistry, Health, Environmental, Natural & Physical Sciences

HETZLER, Carol, B.S. (Colorado State University, 1981)  
 General Professional II, Marketing and Communications

HICKS, Rebecca, M.Ed. (Marymount University, 1995)  
 Faculty of English, Division of Languages

HIDROGO, Laura  
 Accounting Technician III, Enrollment Services

HIDROGO, Roman T., B.S. (Colorado Christian University, 1998)  
 Vocational Credentials: Faculty, Colorado Type P Certificate, Certified  
 Assistant to the Vice President for Educational Services for Technology

HILL, Edith A., A.A.S. (Cameron University, 1992)  
 Administrative Assistant, Military Programs

HILL, Renae  
 Administrative Assistant II, Mathematics & Technology

HOGG, Sharon, B.S. (Slippery Rock State College, 1978)  
 Faculty of Radio and Television, Communications, Humanities & Technical Studies

HOGUE, Eileen, B.S. (Colorado Technical University, 2001)  
 Director, Business Services

HOLLER, Richard  
 Electronics Specialist II, Communications, Humanities, & Technical Studies

HOLTORF, Stacy A.  
 General Professional II, Enrollment Services

HORNER, Jeffrey, M.A. (New School University, 1974)  
 Administrative Assistant III, Enrollment Services

HOWARD, Dirk, M.B.A. (University of Denver, 1981)  
 Vice President for Administrative Services

HOWARD, Lia P., M.B.A. (University of Colorado, 1994)  
 Assistant to the Vice President for Educational Services and  
 Director of Auxiliary Services

HUDSON, Robert, A.A.S. (Pikes Peak Community College, 1990)  
 Faculty of Culinary Program, Business, Social & Behavioral Sciences

HUGHES, Ernest  
 Computer Assisted Instruction Lab Coordinator, Information Technology Support Services

HULL, Misty, M.A. (Colorado Christian University, 2001)  
 Faculty of Psychology, Business, Social & Behavioral Science

HULSEY, Michelle, B.A. (University of Colorado, 1997)  
 Administrative Assistant III, Health, Environmental, Natural & Physical Sciences

HUMPHREY, Twila  
 General Professional I, Enrollment Services

HUMPHRIES, Cecilia, A.A.S. (Pikes Peak Community College, 2003)  
 Administrative Assistant II, Mathematics & Technology

HUNTER, Louise, M.B.A. (University of Colorado, 1980)  
 Faculty of Accounting, Business, Social & Behavioral Sciences

HURRELL, Dennis  
 Materials Handler II, Bookstore

HURRELL, Rockie  
 General Professional II, Facilities and Procurement

HUNTER, Louise, M.B.A. (University of Colorado, 1980)  
 Faculty of Accounting, Business, Social & Behavioral Sciences

IBARGUEN, Craig, M.A. (University of New Mexico, 2001)  
 Faculty of English, Division of Languages

INZER, Lonnie D., B.S. (Colorado State, 1981)  
 Co-coordinator of Fire Science Technology, Business, Social & Behavioral Sciences

IZOLD, Colleen  
 Administrative Assistant II, Student Support Services

IZOLD, Mark, M.S. (Ohio State University, 1993)  
 Faculty of Geology/Astronomy, Health, Environmental, Natural & Physical Sciences

JACOBSON, Chad  
 Sales Assistant II, Bookstore

JACOBSON, Dawn, B.A. (University of Northern Iowa, 1983)  
 Fitness Center Coordinator, Communications, Humanities, & Technical Studies

JAGER, Judith, M.B.A. (University of Colorado, 1987)  
 Faculty of Accounting, Business, Social & Behavioral Sciences

JENT, Tom  
 Production III, Publications and Printing

JIROUS, Jennifer, M.B.A. (University of Wisconsin, 2000)  
 Faculty of Computer Information Systems, Mathematics & Technology

JOHANNSEN, Sandra, M.Ed (University of Virginia, 1971)  
 Counselor/Coordinator, Office of Accommodative Services and Instructional Support

JOHNSON, Janele, M.A. (Oklahoma State University, 1988)  
Faculty of English, Division of Languages

JOHNSON, Stoney  
Custodian I, Facilities and Procurement

JONES, Floyd, A.A.S. (Pikes Peak Community College, 2002)  
Pipe/Mechanic Trades I, Facilities and Procurement

JORGENSEN, Maureen, B.S. (Florida State University, 1977)  
Supplemental Services Assistant, Area Vocational Program

JUEL, Jamie  
Administrative Assistant II, Enrollment Services

KAMILAR, Cindy, Ph.D. (University of Miami, 1993)  
Faculty of Psychology, Business, Social & Behavioral Sciences

KELLER, Shae L., A.A.S. (Pikes Peak Community College, 2003)  
Administrative Assistant II, Child Development Center

KELLEY, Terri, A.A.S. (Pikes Peak Community College, 2002)  
Accounting Technician III, Financial Services

KELLY, Thomas E., M.Ed. (Lesley University, 1995)  
Vocational Credentials: Faculty  
Associate Professor of Architecture, Communications, Humanities, & Technical Studies

KENNINGTON, Kathleen, N., B.S. (University of Phoenix, 1999)  
Office Manager I, Communication, Humanities, & Technical Studies

KILGORE, Doyle  
Police Officer I, Public Safety

KIM, Su Il, Ph.D. (McMaster University, 1985)  
Faculty of Anthropology, Business Social & Behavioral Science

KIMBRELL, Judith, B.A. (Hillsdale College, 1996)  
Faculty of Photography, Communications, Humanities, & Technical Studies

KING, Linda  
Administrative Assistant II, Enrollment Services

KING, Mark, M.A. (New Mexico State University, 1998)  
Faculty of Developmental English, Division of Languages

KLATASKA, Rickey K., A.A. (Pikes Peak Community College, 1999)  
Police Officer I, Public Safety

KLINGER, Mark D., M.P.A. (University of Colorado, 1982)  
Statistical Analyst I, Institutional Research

KLISMET, Peter, M.S. (California Lutheran University, 1974)  
Faculty of Criminal Justice, Business Social & Behavioral Science

KNIGHT, Wade C.  
Vocational Credentials: Faculty, Colorado Type C Certificate  
Faculty of Automotive Collision Repair, Communications, Humanities, & Technical Studies

KNUDSEN, Kay, M.A. (University of Denver, 1975)  
Technical Services Librarian, Library

KORT, Judy, M. Ed. (National College of Education, 1977)  
Learning Disabilities Specialist, Office of Accommodative Services & Instructional Support

KRATKY, Christine  
Administrative Assistant III, Enrollment Services

KRAUSE, Steven  
Equipment Mechanic II, Facilities and Procurement

KROUGH, Cynthia D.  
Administrative Assistant I, Facilities and Procurement

KRUGER, Charles E., A.G.S. (Pikes Peak Community College, 1993)  
Laboratory Coordinator I, Division of Mathematics & Technology

KRZEMIEN, Gayle, Ph.D. (College State University, 2003)  
Faculty of Mathematics, Mathematics & Technology

KUEHN, Frank, M.A. (University of Kansas, 1975)  
Faculty of Computer Information Systems, Mathematics & Technology

LABATE, Fabrizio, A.A.S. (Pikes Peak Community College, 2001)  
Web Designer/Developer, Information Technology Support Services

LA MONT, Robert, M.A. (University of Texas at Austin, 1976)  
Faculty of Mathematics, Mathematics & Technology

LAIRD, Robert P., Jr.  
Pipe/Mechanic Trades II, Facilities and Procurement

LANGAN, Lynn  
Accounting Technician III, Enrollment Services

LARISH, Ruth-Ann, M.A. (Colorado College, 2001)  
Faculty of Natural Resource Technology, Health, Environmental, Natural & Physical Sciences

LARROQUETTE, Linda S., A.G.S. (Pikes Peak Community College, 1995)  
Office Manager I, Child Development Center

LEE, Nancy J.  
Child Care Aide, Child Development Center

LEE, Rick, B.S. (Metropolitan State College, 1983)  
Associate Vice President for Enrollment Services

LENANDER, Gary, B.S. (Colorado State University, 2000)  
Skills USA State Advisor, Trade, Industrial, & Technical

LEWIS, M. Kathy  
Administrative Assistant II, Business, Social & Behavioral Science

LEWIS, Regina, M.A. (University of Colorado, 2001)  
Faculty of Speech, Communications Humanities & Technical Studies

LIKINS, Andrew R., M.A. (Azusa Pacific University, 2001)  
ELI Assistant, Division of Languages

LINDSEY, Earl, A.S. (Pikes Peak Community College, 1984)  
LTC Operations II, Facilities and Procurement

LIONEL, Jonathan, B.A. (University of California at San Diego, 1992)  
Supplemental Services Assistant, Area Vocational Program

LOBDELL, Deborah, A.A.S. (Pikes Peak Community College, 1986)  
Administrative Assistant II, Enrollment Services

LONG, Stephanie, A.A.S. (Pueblo Community College, 1993)  
Accounting Technician III, Financial Services

LUCKENBAUGH, Carolyn, B.S. (Regis University, 1991)  
Accountant II, Financial Services

LUCKENBAUGH, James  
Technician IV, Facilities and Procurement

LYLE, Nanette, A.A.S. (Pikes Peak Community College, 1987)  
Administrative Assistant II, Facilities and Procurement

LYONS, Geraldine  
Accountant I, Enrollment Services/Cashiers – Accounts Receivable

MADDEN, Jane, M.S.N. (Saint Louis University, 1981)  
Faculty of Nursing, Health, Environmental, Natural & Physical Sciences

MAESTAS, Anne M., B.A. (University of Colorado, 1972)  
Vocational Credentials: Faculty  
Faculty of Dental Assisting, Health, Environmental, Natural & Physical Sciences

MAGNUSON, Joseph, A.A.S. (Pikes Peak Community College, 1983)  
Vocational Credentials: Faculty, Colorado Type C Certificate  
Faculty of Automotive Technology, Communications, Humanities, & Technical Studies

MAHAN, Shawna, M.S., (University of Colorado, 1995)  
Faculty of Mathematics, Mathematics & Technology

MAKSIMOWICZ, Michelle, Ph. D. (Michigan State University, 1989)  
Director, Student Support Services

MALMQUIST, Carla, M.S. (University of Colorado, 1991)  
Dean, Business, Social & Behavioral Sciences

MALONE, William, M.M. (New Zealand Conservatory of Music, 1980)  
Faculty of Music, Communications, Humanities, & Technical Studies

MALUIA, Vaalele  
Police Officer I, Public Safety

MANNERING, Scott, A.A.S (Pikes Peak Community College, 1997)  
Faculty of Welding, Communications, Humanities & Technical Studies

MARTIN, Paul  
IT Technician II, Information Technology Support Services

MARTINEZ, Nancy  
General Professional III, Enrollment Services

MCADAMS, Rieko, M.A., (University of Colorado, 1997)  
Faculty of Japanese, Division of Languages

MCCARTY, Deborah  
Program Assistant I, Institutional Advancement and Development Office

MCCLUNG, Lariisa, M.Ed. (University of Arkansas, 1991)  
Faculty of Interpreter Preparation Program, Division of Languages

MCCOLLUM, Nancy, M.A. (University of Denver)  
Faculty of Humanities, Communications Humanities & Technical Studies

MCCRAY, Brenda F., B.S. (Troy State University, 1991)  
Site Coordinator, Ft. Sill OK, Military Programs

MCCULLOUGH, Michael, B.A. (Regis University, 2000)  
Sales Manager III, Bookstore

MCCULLOUGH, Sherri, M.A. (Regis University, 2001)  
General Professional V, Enrollment Services

MCDONNELL, Alicia  
Administrative Assistant II, Area Vocational Program

MCGOVERN, William  
IT Technician II, Information Technology Support Services

MCHUGH, Evan, M.S. (University of Southern Colorado, 1993)  
Assistant Professor of Chemistry, Health, Environmental, Natural & Physical Sciences

MCMULLEN, Robert W., Ph.D. (Utah State University, 1984)  
Professor of Biology, Health, Environmental, Natural & Physical Sciences



MCMURRAY, Lisa  
Administrative Assistant II, Division of Communications, Humanities, & Technical Studies

MEHLHOSE, Greg, B.S. (University of Missouri, 1999)  
IT Technician II, Information Technology Support Services

MEIKLEJOHN, Nancy, M.A. (University of Colorado, 2002)  
Faculty of Computer Information Systems, Mathematics & Technology

MEYER, Sharon, M.B.A. (University of Colorado, 1989)  
Faculty of Business Management, Business, Social & Behavioral Sciences

MIELKE, Patricia  
Accounting Technician III, Financial Services

MILLER, Betty  
Administrative Assistant III, Division of Business, Social & Behavioral Sciences

MILLER, Sandra, M.A. (University of Northern Colorado, 1971)  
Faculty of Developmental English, Division of Languages

MILLER, Sylva, M.S. (Utah State University, 2001)  
Faculty of English, Division of Languages

MILLIGAN, Steve, M.A. (University of Denver, 1976)  
Reference Librarian, Library

MISKELL, Ronald  
Police Officer III, Public Safety

MOLINA, Doris  
Administrative Assistant II, Testing Center

MONAGHAN, Joanne, A.A.S. (Pikes Peak Community College, 1990)  
Administrative Assistant III, Military Programs

MONTGOMERY, Anne, M.S. (University of Oklahoma, 1987)  
Faculty of Biology, Health, Environmental, Natural & Physical Sciences

MORGAN, Lori E., B.S. (University of Colorado, 2001)  
EMS Clinical Coordinator, Health, Environmental, Natural & Physical Sciences

MORRIS, Kenneth, M.P.A. (University of Colorado, 1989)  
Faculty of Criminal Justice, Business Social & Behavioral Science

MORRISON, Karlene  
General Professional II, Enrollment Services

MULLEN, Judy  
Administrative Assistant III, Division of Languages

MULLEN, Paul  
Materials Handler I, Communications, Humanities, & Technical Studies

MULLIKEN, Taffy H., M.A.T. (Colorado College, 1992)  
Faculty of Art, Communications, Humanities, & Technical Studies

MUNIZ, Alice, A.A.S. (Pueblo Community College, 1986)  
Office Manager I, Health, Environmental, Natural & Physical Sciences

MYERS, Cindy  
Administrative Assistant II, Distance Education

MYERS, Philip R., M.S. (Washington State University, 1975)  
Director of Integrated Circuit Fabrication, Communication, Humanities, & Technical Studies

NAVARRO, Frank  
Custodian I, Facilities and Procurement

NEALE, Scott, B.S. (Regis University, 1999)  
IT Professional I, Instructional Technology Support Services

NEALE-DOWNING, Cynthia, B.S. (Colorado Christian University, 1998)  
Vocational Credential: Faculty, Licensed Child Care Center  
Director of Child Care Services

NELSON, Troy, B.A. (Colorado College, 1989)  
Assistant Director of Enrollment Services - Admissions

NIKOLAI, Gloria, M.A. (University of Colorado, 1992)  
Faculty of Sociology, Business, Social & Behavioral Sciences

NUFER, Kenneth, B.S., B.M. (University of Phoenix, 1999)  
General Professional III, Human Resource Services

NUSEN, Michael, B.S. (University of Southern Colorado)  
Coordinator of CAC, Accommodative Service & Instructional Support

OHLE, Carolyn, M.A. (Webster University, 1990)  
Faculty of Computer Information Systems, Mathematics & Technology

OLSEN, Jean, M.A.T. (Western New Mexico University, 1977)  
Faculty of Developmental Math, Mathematics & Technology

OLSEN, Michael, Ph.D., (University of Washington, 1970)  
Faculty of History, Communications, Humanities & Technical Studies

OLSEN, Richard J., A.A.S. (Pikes Peak Community College, 1986)  
LTC Operations I, Facilities and Procurement

OLSON, Jeff, M.A. (University of Oklahoma, 1993)  
Executive Director of Human Resources, AA/EEO/ADA

OLSON, Robert, B.F.A. (Kansas City Art Institute, 1978)  
Vocational Credentials: Faculty  
Faculty of Visual Communications, Communications, Humanities, & Technical Studies

OMDAHL, Deborah, B.S. (University of Southern Colorado, 1996)  
Administrative Assistant III, Center for Students with Disabilities

ORNDORFF, John A., Jr.  
Police Officer II, Public Safety

ORNDORFF, Laura  
Program Assistant I, Student Services and Student Life

ORTH, Christian  
IT Professional IV, Information Technology Support Services

OSWALD, Kelly, A.A.S. (Pikes Peak Community College, 2001)  
Faculty of Machining, Mathematics & Technology

OSWANDEL, David, B.A. (University of Hawaii, 1988)  
Lab. Coordinator, Health, Environmental, Natural & Physical Sciences

PAGE, Francine  
Faculty of Medical Office Technology, Health, Environmental, Natural & Physical Sciences

PAJO, Lourdes, M.Ed. (Southwest Texas State, 2003)  
Faculty of Mathematics, Mathematics & Technology

PARCHA, Michael, M.A. (Eastern Michigan University, 1990)  
Faculty of Developmental Mathematics, Mathematics & Technology

PARENT, Cyrille, M.A. (University of Paris VII, 1995)  
Assistant Director, Information Technology Support Services

PARKER, Carol A.A.S. (Pikes Peak Community College, 2002)  
Lab. Coordinator I, Accommodative Services and Instructional Support

PARRISH, Renee, A.A.S. (Pikes Peak Community College, 2000)  
Program Assistant II, Information Technology Support Service

PATTERSON, Charles  
Custodian I, Facilities and Procurement

PATTERSON, Donnette, M.A. (Hyles-Anderson, 1997)  
Faculty of Deaf Prep., Division of Languages

PAULEY, Stephanie, B.S. (University of Southern Colorado, 1997)  
Laboratory Coordinator II, Health, Environmental, Natural & Physical Sciences

PETERSON, Jill, M.S.N. (University of Missouri, 2003)  
Faculty of Nursing|First Year Coordinator, Health Environmental, Natural & Physical Science

PICHE, Mary A.A.S. (E. Griffith, 1974)  
Faculty of Culinary Arts, Business Social & Behavioral Sciences

PIERING, Mary, M.A.T. (Colorado State University, 1976)  
Faculty of English, Division of Languages

PLAGGEMEYER, Ted, M.S. (Montana State University, 1980)  
Dean of Mathematics & Technology

POTTS, David A., A.S. (Pikes Peak Community College, 1978)  
Vocational Credentials: Faculty, Colorado Type C Certificate  
Assistant Director, Area Vocational Program

POWELL, Laura A., A.G.S. (Pikes Peak Community College, 1995)  
Program Assistant I, Financial Services

PRESUHN, Jennifer R., B.A. (University of Wisconsin – Eau Claire, 1992)  
General Professional II, Enrollment Services

PURTSCHER, Daniel, M.S. (University Marycrest College, 1985)  
Faculty of Reading, Division of Languages

QUESADA, Edmond D., M.A. (University of Colorado, 1986)  
Coordinator, Learning Assistant Center

RANKIN, Paul, M.A. (University of Southern Mississippi, 2001)  
Faculty of English, Division of Languages

RAY, Edwin, Ph.D. (University of Washington, 1974)  
Vice President for Educational Services

RAYBORN, Richard, M.S. (Columbia Pacific University, 1992)  
Military Academic Advisor, Military Programs

RAYMOND, Joseph P., A.A.S. (Colorado Technical College, 1976)  
Police Officer I, Public Safety

REDFERN, Mary, A.S. (Pikes Peak Community College, 1992)  
Accounting Technician III, Enrollment Services/Cashiers-Accounts Receivable

REES, Laurie, F.  
Child Care Aide, Child Development Center

REYNOLDS, Eva, B.S. (Regis University, 1994)  
General Professional VI, Facilities and Procurement

REYNOLDS, Richard, B.S. (City College of New York, 1974)  
Faculty of Computer Information Systems, Mathematics & Technology

RIDDLE, Ken, M.S. (Colorado Technical University, 2000)  
Faculty of Computer Information Systems, Mathematics & Technology

RILEY II, Leonard, M.P.A. (University of Colorado, 1991)  
Faculty of Political Science, Business, Social & Behavioral Sciences

ROBINSON, Constance  
Office Manager I, Business, Social & Behavioral Sciences



ROBINSON, Leonard  
Faculty of Auto Collision Repair, Communications, Humanities & Technical Studies

ROCCO, Jim, A.A.S (Pikes Peak Community College, 1986)  
Police Officer I, Public Safety

RODIE, Karla J., B.S.B.A. (Colorado State University, 1977)  
Vocational Credentials: Faculty/Teacher-Coordinator, Colorado Type A Certificate  
Faculty of Office Information Technology, Mathematics & Technology

ROHAN, Janet, M.A. (University of Northern Colorado, 1986)  
Faculty of Journalism, Communications, Humanities, & Technical Studies

ROLLINS, Diane  
Program Assistant II, Office of Vice President for Educational Services

ROSS, Jacquelyn  
Administrative Assistant II, Student Life

ROSS, Paul O., A.A.S. (Pikes Peak Community College, 1997)  
Pipe/Mechanical Trades II, Facilities and Procurement

ROUTH, Lisa, M.A. (Pepperdine University, 1993)  
Faculty of Psychology, Business, Social & Behavioral Sciences

RUBEL, Kenneth W., M.B.A. (University of Colorado, 1994)  
IT Professional I, Information Technology Support Services

RUSSELL, Judith, B.A. (University of Northern Colorado, 1986)  
Coordinator of Child Development Center – Centennial Campus

RUSSO, Marilyn, M.S. (College of St. Francis, 1986)  
Faculty of Nursing, Health, Environmental, Natural & Physical Sciences

RUYBALID, Andrew  
Custodian I, Facilities and Procurement

SANCHEZ, George, B.S. (University of Southern Colorado, 2000)  
Executive Director of Marketing and Communications

SANCHEZ, Sylvia  
IT Technician II, Information Technology Support Services

SANDERS, Myong S.  
Custodian I, Facilities and Procurement

SANDERSON, Michael, B.A. (Colorado State University, 2000)  
General Professional II, Enrollment Services

SANDOVAL, Virginia  
Administrative Assistant II, Facilities and Procurement

SAUNDERS, Joan, M.H.S.A. (Antioch New England Graduate School, 1992)  
Faculty of Business, Business, Social & Behavioral Sciences

SCHMIDT, Nick  
Administrative Assistant III, Bookstore

SCHMITT, Deborah. Ph.D. (Indiana University, 1997)  
Dean, Communication Humanities & Technical Studies

SCHNEIDER, Larry L., A.A.S. (Southern Colorado State College, 1966)  
Vocational Credentials: Faculty, Colorado Type A Certificate  
Faculty of Diesel Power Mechanics, Communications, Humanities, & Technical Studies

SCHOOLCRAFT, Deidre, M.A. (University of Northern Colorado, 1992)  
Faculty of English, Division of Languages

SCHRACK, Mary, M.S. (University of Delaware, 1983)  
Faculty of Mathematics, Mathematics & Technical Studies

SENGENBERGER, Jennifer M., B.A. (Colorado State University, 1982)  
Coordinator, Career Services Center

SHAFER, Debra, B.S. (University of Portland, 1979)  
Faculty of Nursing, Health, Environmental, Natural & Physical Sciences

SHAFFER, Patricia, B.S. (Regis University, 1994)  
Faculty of Economics, Business, Social & Behavioral Sciences

SHEARN, Jenna, B.A. (Cornell College, 1989)  
Faculty of Visual Communications, Communications, Humanities, & Technical Studies

SHIELDS, Ron, M.S. (University of Northern Colorado, 1997)  
Program Coordinator, Military Programs

SHELSTAD, Don  
Project Planner I, Facilities and Procurement

SHINN, Evelyn, M.A. (The Colorado College, 1981)  
Vocational Credentials: Type A Teaching Certificate  
Faculty of Health-Related Occupations, Area Vocational Program

SIMPSON, Michael A., M.S. (University of Colorado, 1988)  
Faculty of Computer Science, Mathematics & Technology

SMELSER, Rita, A.A.S. (Front Range Community College, 1979)  
Administrative Assistant II, Health, Environmental, Natural & Physical Sciences

SMITH, Anthony, B.A. (University of Las Vegas, 2002)  
Grounds & Nursery I, Facilities and Procurement

SMITH, Claudia  
Arts Professional I, Publications and Printing

SMITH, Monica R., B.S., (University of Northern Colorado, 1985)  
Director of Financial Services/Controller, Financial Services

SMITH, Joann  
Administrative Assistant III, Testing

SMITH, Robert, B.S. (Colorado State University, 1991)  
Vocational Credentials: Faculty  
Assistant Professor of Air Conditioning, Heating, and Refrigeration Technology, Communications, Humanities, & Technical Studies

SOLANO, Anna, M.A. (University of Colorado, 2002)  
Administrative Assistant II, Enrollment Services

SONNTAG, Carl J., M.A. (Webster University, 1982)  
Vocational Credentials: Teacher-Coordinator  
Professor of Business Management, Business, Social & Behavioral Sciences

STANDRIDGE, Karen, Ph.D. (University of Denver, 1993)  
Professor of Developmental English, Division of Languages

STANSBERRY, Michael, M.Div. (Andover Neceston Theological School, 1977)  
Faculty of Theatre, Communications, Humanities & Technical Studies

STEPHENSON, Eric, M.A. (University of Colorado, 1996)  
Faculty of English, Division of Languages

STEEN, Gordon  
Electrical Trades II, Facilities and Procurement

STEPHENSON, Eric, M.A. (University of Colorado, 1987)  
Faculty of English, Division of Languages

STOCKWELL, Patricia  
Library Technician III, Library

STREBEL, Chera  
Accounting Tech I, Enrollment Services

STRIEGEL, Nicole, M.B.A. (University of New Orleans, 2000)  
Associate Director for Enrollment Services, Registrar

STURDEVANT, Katherine, M.A. (San Francisco State University, 1981)  
Faculty of History, Communications, Humanities, & Technical Studies

SUTTER, Jennifer, M.A. (University of Wyoming, 1998)  
Faculty of English, Division of Languages

SUE, Nadia, A.A.S. (Pikes Peak Community College, 1990)  
Administrative Assistant II, Office of the Vice President for Educational Services

TABOR, Mary Ann, A.A.S. (Pikes Peak Community College, 1985)  
Office Manager I, Division of Languages

TAGGART, Jacqueline, Ph.D. (Union Institute and University, 2000)  
Faculty of Business, Business, Social & Behavioral Sciences  
Workplace Development Coordinator

TAMBLYN, Jeffrey D., A.G.S. (Pikes Peak Community College, 1995)  
Sales Manager I, Bookstore

TASTE, Diane, A.A. (Pikes Peak Community College, 1997)  
Program Coordinator SCEOC, Student Support Services

TATUM, Mary, B.F.A. (Southwest Texas State University, 1987)  
Office Manager I, Student Life

TAYLOR, Alice W.  
Custodian II, Facilities and Procurement

TAYLOR, Kina, A.A. (Pikes Peak Community College, 1999)  
Administrative Assistant III, Enrollment Services

TERRELL, Kendra  
Early Childhood Educator II, Child Development Center

THEARD, Cynthia  
Administrative Assistant III, Enrollment Services

THORNTON, Cynthia, A.G.S. (Pueblo Community College, 2002)  
Administrative Assistant I, Military Programs

THORSON, Kathleen M., B.A. (Colorado State University, 1992)  
Administrative Assistant II, Communications, Humanities & Technical Studies

THRELFALL, Albert L., M.S. (University of Alabama at Birmingham, 1991)  
Professor of Biology, Health, Environmental, Natural & Physical Sciences

TOLLE, Audrey, M.S. (University of North Texas, 1993)  
Head of Reference Librarian, Library

TOLLIVER, Gary  
Pipe Mechanic Trades I, Facilities and Procurement

TOLLIVER, Marlet C.  
General Professional I, Facilities and Procurement

TOMRDLE, Jacqueline, B.A. (University of Colorado, 2002)  
Television Station Manager, Distance Education

TONER, Cici  
Administrative Assistant III, Enrollment Services

TOTAKHAIL, Soraiya E., B.A. (University of Kubul, Afghanistan, 1977)  
General Professional II, Library

TRIPLETT, Jennifer, A.A. (Pikes Peak Community College, 1999)  
Administrative Assistant III, Career Services Center

TRUJILLO, Raymond  
Custodian I, Facilities and Procurement

TRUMBULL, Michael, Ph.D. (The Union Institute Graduate School, 1993)  
Faculty of Psychology, Business, Social & Behavioral Sciences

TRUSSELL, Richard, M.Div. (Pacific Lutheran Theological Seminary, 1982)  
Faculty of Philosophy, Communications, Humanities, & Technical Studies

VANDERTANG, Victoria  
Administrative Assistant II, Child Development Center

VIGIL, Alfred  
General Labor I, Facilities and Procurement

VIGIL, Gary  
Grounds & Nursery II, Facilities and Procurement

VIGIL, Glenda J.  
Administrative Assistant II, Area Vocational Program

WADMAN, Nathan, B.S. (Colorado State University, 1996)  
Faculty of Cisco, Mathematics & Technology

WAGNER, Karen, Ph. D. (University of Toronto, 1995)  
Faculty of History, Communications, Humanities, & Technical Studies

WALGREN, Jeanette, M.Ed. (Colorado State University, 1982)  
Vocational Credentials: Faculty  
Faculty of Office Information Systems, Mathematics & Technology

WALLACE, Carol, B.S.N. (Wichita State University, 1973)  
Faculty of Nursing, Health, Environmental, Natural & Physical Sciences

WALTER, Wesly, A.G.S. (Columbia College, 1990)  
Police Officer III, Public Safety

WALTERS, David, A.A.S. (Pikes Peak Community College, 1996)  
Faculty of Networking Technology, Mathematics & Technology

WALTH, Stephen, B.A. (University of Colorado, 1972)  
Faculty of Computer Information Systems, Mathematics & Technology

WATSON, Basil, A.A.S. (Pikes Peak Community College, 1983)  
Custodian III, Facilities and Procurement

WATSON, Michael, A.A.S. (Pikes Peak Community College, 2000)  
IT Technician II, Information Technology Support Services

WEIXELMAN, Susan, M.A. (University of Colorado, 1975)  
Vocational Credential: Faculty  
Faculty of Early Childhood Education, Communications, Humanities, & Technical Studies and Area Vocational Program

WELLESLEY, Fay  
Accounting Technician III, Financial Services

WELLS, David, B.S. (University of Colorado, 1999)  
Emergency Medical Services Coordinator, Health, Environmental, Natural & Physical Sciences

WERMERS, Mary Ann, R.N., M.S.N. (St. Louis University, 1970)  
Nursing Program Coordinator, Health, Environmental, Natural & Physical Sciences

WHITEMAN, Sylvia, A.A.S. (Pikes Peak Community College, 1993)  
Office Manager I, Mathematics & Technology

WIDNER, Bryan  
Police Officer I, Public Safety

WIENHOLTZ, Sabrina, B.A. (University of Wisconsin, 2001)  
Sales Assistant II, Bookstore

WILEY, Gwen, M.A. (Pennsylvania State University, 1979)  
Faculty of Mathematics, Mathematics & Technology

WILKERSON, Chris, A.A.S. (Pikes Peak Community College, 1994)  
Administrative Assistant III, Office of the Vice President for Educational Services

WILKINSON, Dixie  
Data Specialist, Financial Services

WILLIAMS, Cesily  
LTC Trainee II, Facilities & Procurement

WILLIAMS, Delmira, B.S. (Metropolitan State College of Denver)  
Early Childhood Educator I, Child Development Center

WILLIS, Debra, A.A. (Blair College, 1999)  
Administrative Assistant III, Student Life

WILLIS, David, M.S. (University of Illinois, 2000)  
Reference Librarian, Library

WILSON, Janet, A.A.S. (Pikes Peak Community College, 1991)  
Faculty of Computer Aided Drafting, Communications, Humanities, & Technical Studies

WINKELBAUER, EDITH F., A.A.S., (Mesa Community College, 1980)  
Child Care Aide, Child Development Center

WITHEROW, Julie F., M.A. (Ball State University, 1978)  
Director of Distance Education

WITT-AGNEW, Sheila  
Administrative Assistant III, Distance Education

WOLFE, David, M.A. (University of Tennessee, 1975)  
Faculty of Developmental Math, Mathematics & Technology

WRIGHT, Margaret  
Administrative Assistant II, Enrollment Services

WYSONG, William H., Jr., M.A. (University of Northern Colorado, 1980)  
Vocational Credentials: Faculty, Colorado Architectural License  
Professor of Architectural and Construction Technology, Communications, Humanities, & Technical Studies

YOUNG, J. Michael, B.A. (University of Southern Colorado, 1992)  
IT Professional IV, Information Technology Support Services

YOUNG, Robin M., B.S.B.A. (University of Southern Colorado, 1993)  
General Professional II, Enrollment Services

YUHRE, Walter, M.A. (Sacramento State University, 1992)  
Faculty of Theatre, Communications, Humanities, & Technical Studies

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## Pikes Peak Community College Catalog Team

### Editing

Jane Abbott

### Curriculum

Julie D. Hazel and Julie A. Gonzales

### Publication Coordination

Mark Day and George Sanchez

### Layout and Graphic Design

Claudia A. Smith

### Cover Design and Illustration

Azteca Design

# Campus Directory

## Centennial

576-7711

A = Aspen Bldg.  
B = Breckenridge Bldg.  
C = Student Center  
F = Faculty Bldg.

## Downtown Studio

527-6000

## Rampart Range

538-5000

N = North  
S = South  
E = East  
W = West

	Room • Phone:	Room • Phone:	Room • Phone:
Aardvark's Pantry	A-211 • 540-7281		
Admissions	A-107 • 540-7722	DT-120 • 527-6046	S-102 • 538-5113
Administrative Services, Vice President	B-309 • 540-7568		S-202 • 538-5551
Area Vocational Program (AVP)	A-220 • 540-7240		
Art Gallery		DT-123a • 527-6001	
Bookstore	B-205 • 540-7569	DT-111 • 540-2569	N-101 • 538-5569
Breckenridge Conference Center	B-205 • 540-7218		
Business, Social & Behavioral Sciences Division	F-300 • 540-7383		E-213 • 538-5200
Campus Director	A-229 • 540-7290	DT-214 • 527-6001	S-202 • 538-5551
Career Services Center	A-210 • 540-7144	DT-114 • 540-7144	S-101 • 540-7144
Cashier	A-101 • 540-7608	DT-120 • 527-6045	S-102 • 538-5126
Catering (all campuses)	262-4485 • email: catering@uccs.edu or 389-6673 • email: kapterson @coloradocollege.edu		
Center for Excellence in			
Teaching & Learning (CETL)	A-222 • 538-5346		
Child Development Center	CDC • 540-7215		CDC • 538-5180
Communications, Humanities & Technical Studies Division	F-300 • 540-7696		W-119 • 538-5300
Computer Access Center (OASIS)	A-119a • 540-7673		
Computer Labs	A-300 • 540-7502	DT-152 • 527-6009	E-203 • 538-5280
Copy Center	B-234 • 540-7642		
Credit for Prior Learning	A-106 • 540-7227		
Deaf Studies Division	A-312 • 540-7180		
Distance Education	A-209 • 540-7538		
Educational Services, Vice President	A-229 • 540-7200		S-202 • 538-5551
English Language Institute	A-324 • 540-7047		
Enrollment Services	A-107 • 540-7722	DT-120 • 527-6046	S-102 • 538-5113
Facilities & Procurement	B-229 • 540-7628	DT-155 • 540-2534	N-107 • 538-5528
Financial Aid	A-106 • 540-7089	DT-120 • 527-6046	S-102 • 538-5120
Financial Services	A-101 • 540-7600		
First Aid/Medical Assistance	A-100 • 540-7111	DT-121 • 527-6000	N-104 • 538-5112
Fitness Center	A-262 • 540-7443		
Food Services	B-205 • 540-7072		W-103 • 538-5362
Foundation	A-216 • 540-7554		
Gymnasium	A-262 • 540-7447		
Health, Environmental, Natural & Physical Sciences Division	F-300 • 540-7393		W-209 • 538-5400
Human Resource Services	A-118 • 540-7557		
Institutional Advancement & Development	A-216 • 540-7554		
Institutional Research	B-309 • 540-7623		
Information Technology Support Services (ITSS)	A-111 • 540-7516	DT-157 • 540-2560	W-108 • 538-5360
Help Desk	A-111 • 540-7584		
Computer Labs	A-300 • 540-7502	DT-152 • 527-6009	E-203 • 538-5280
Integrated Circuit Fabrication (IC Fab) Institute	B-208 • 540-7061		

	<b>Centennial 576-7711</b>	<b>Downtown Studio 527-6000</b>	<b>Rampart Range 538-5000</b>
	A = Aspen Bldg. B = Breckenridge Bldg. C = Student Center F = Faculty Bldg.		N = North S = South E = East W = West
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International Education			S-202 • 538-5552
Interpreting Services	A-115 • 540-7185		
KEPC Radio	A-153 • 540-7489		
Languages Division	F-200 • 540-7300		W-119 • 538-5300
Learning Assistance Center (Tutoring)	A-362 • 540-7129	DT-114 • 540-7129	S-101 • 538-5575
Library	A-201 • 540-7500		N-201 • 538-5500
Mailroom	B-229 • 540-7645		N-105 • 538-5532
Marketing & Communications	A-216 • 540-7566		
Math Lab	A-316 • 540-7337	DT-215 • 540-2503	N-204 • 538-5332
Mathematics & Technology Division	F-200 • 540-7256		E-213 • 538-5200
Military Programs			S-202 • 538-5551
New Student Scheduling Center	A-204 • 540-7216	DT-127 • 527-6026	S-101 • 538-5510
Newsletter	A-216 • 540-7566		
Office of Accommodative Services & Instructional Support (OASIS)	A-115 • 540-7128	DT-114 • 540-2575	S-101 • 540-7128
Pikes Peak News	A-257 • 540-7480		
Pikes Peak Regional Law Enforcement Academy	F-300 • 540-7346		E-213 • 538-5230
Post-Secondary Enrollment Options (PSEO)	A-220 • 540-7234		
President's Office	A-216 • 540-7551		S-202 • 538-5551
Public Safety - Administration	A-100 • 540-7700	DT-121 • 527-6095	N-106 • 538-5112
Public Safety - Emergencies	A-100 • 540-7111	DT-121 • 540-7111	N-106 • 540-7111
Publications & Printing	B-234 • 540-7642		
Procurement (Purchasing)	B-229 • 540-7661		
Records	A-106 • 540-7119	DT-120 • 527-6046	S-102 • 538-5119
Recreation & Sports	A-262 • 540-7445		
School Partnership Program	A-220 • 540-7238		
Southern Colorado Educational Opportunity Center (SCEOC)	A-115 • 540-7038		
Student Activities	C-206 • 540-7106	DT-153 • 540-2506	S-207 • 538-5161
Student Government	C-206 • 540-7163	DT-153 • 540-2505	S-207 • 538-5164
Student Life	C-202 • 540-7105	DT-153 • 540-2505	S-207 • 538-5162
Student Center Meeting Rooms	• 540-7105		• 538-5166
Student Services	A-115 • 540-7095	DT-114 • 540-2575	S-101 • 538-5575
Student Support Services (ACCESS)	A-117 • 540-7084		
Television Station-ITFS (WLX-245)	A-209 • 540-7538		
Testing Center	A-117 • 540-7115	DT-114 • 527-6015	S-101 • 538-5115
Theatre (Box Office)	A-112 • 540-7418		
Veterans Affairs	A-105 • 540-7121		
Videoconference Room	A-201j • 540-7342		S-201 • 538-5553
Videoconferencing Services	A-111 • 540-7516		
Skills USA – VICA	B-303 • 540-7071		
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PIKES PEAK COMMUNITY COLLEGE  
5675 South Academy Blvd.  
Colorado Springs, CO 80906  
(719) 540-7722

# Application for Admission

\*Responses to items marked by an asterisk (\*) are voluntary, will be kept confidential, will not be used in a discriminatory manner, and are intended to support actions designed to promote students' participation in the education programs offered by the College. The information will not be used as a factor in acceptance to the College.

## INSTRUCTIONS - Please complete all sections of this application in **BLACK INK** and **PRINT LEGIBLY**.

PLEASE INDICATE THE YEAR AND TERM YOU WISH TO ENROLL 20    SUMMER  FALL  SPRING

-  -   MR  MS OR LIST OTHER: \_\_\_\_\_ BIRTHDATE  -  -  Gender  (M) Male  (F) Female  
\*Social Security Number/Student I.D. MO. DAY YR.

LAST NAME  FIRST NAME  MIDDLE NAME

**\*Current Employment Status**  
 (F) full time (30+ hrs/week)  
 (P) part time (1-29 hrs/week)  
 (U) unemployed

**\*Ethnic Origin:**  
 (I) American Indian or Alaskan Native  
 (O) Asian or Pacific Islander  
 (H) Hispanic  
 (B) Black Non-Hispanic  
 (W) White Non-Hispanic

**\*Veteran/Military Service**  
 None  
 (1) Veteran or Dependent Eligible for VA Educational Benefits  
 (2) Veteran Not Eligible for VA Educational Benefits  
 (3) Active Duty Veteran  
 (4) Active Duty Military

**Citizenship:**  
 U.S. Citizen  
 Non U.S. Citizen\*\*

Country of Citizenship: \_\_\_\_\_ Visa Type: \_\_\_\_\_  
VISA Expiration Date: \_\_\_\_\_

PREVIOUS NAME

**Office Use Only**  
 VISA  
 RESIDENCY  
 LOCAL COUNTY

\*\*You must attach photocopy of your I-551 (resident Alien Card) (both sides) or I-94 (Arrival-Departure Record). If you are under the age of 23, you must attach a photocopy of both your and your parent's/legal guardian's I-551 or I-94.

LOCAL ADDRESS  COUNTY OF LOCAL ADDRESS

CITY  STATE  ZIP CODE  COUNTRY  (AREA)  RESIDENCE PHONE NUMBER

PERMANENT ADDRESS (IF DIFFERENT FROM ABOVE)  E-MAIL ADDRESS

CITY  STATE  ZIP CODE  COUNTRY  (AREA)  BUSINESS PHONE NUMBER

## STUDENT GOALS

**While at this institution, do you intend to**  
 (1) Earn an academic degree (AA/AS/AGS)  
 (2) Earn a vocational - technical degree (AAS)  
 (3) Earn a vocational - technical certificate  
 (4) None of the above

**Are you enrolling at this college for job or career reasons?**  
 (Y) Yes  (N) No

**Program/Major area of study:**

**Do you plan to transfer to another institution?**  
 (1) Yes, to a 4 year school **after** graduation  
 (2) Yes, to a 4 year school **before** graduation  
 (3) Yes, to a 2 year school **after** graduation  
 (4) Yes, to a 2 year school **before** graduation  
 (5) No, I do not plan to transfer

**Please indicate planned length of study at this institution:**  
 (1) Semester  (3) 2 years  
 (2) 1 year  (4) More than 2 years

## ENROLLMENT DATA

\* Do you consider yourself economically disadvantaged?  
 Yes  No

\* Do you consider yourself academically disadvantaged?  
 Yes  No

\* Is your primary language other than English?  
 Yes  No  
Language \_\_\_\_\_

\* Do you consider yourself a displaced homemaker?  
 Yes  No

\* Do you consider yourself a single parent?  
 Yes  No

**Have your parents earned a baccalaureate (4-year) degree?**  
 (M) Mother  (F) Father  (B) Both  (N) Neither  
 (U) Unknown

**Which best describes your current status?**  
 (RA) Re-entering former student at this institution  
**Transfer, attended another college**  
 (TR) will transfer credit in  
 (TN) will not transfer credit in  
 (NE) New Student, first college attended

**Which best describes the level of education you have completed? (choose one)**  
 (LT) Less than High School  
 (HS) High School Graduate/GED  
 (CE) Certificate  
 (AD) Associate Degree  
 (BD) Bachelor's Degree  
 (MA) Master's Degree  
 (DD) Doctorate (Ed D, Ph D)  
 (PR) Professional Degree (MD, JD, MBA, Ed S)

Name of Last High School Attended   
City  State

Name of Last College Attended   
City  State

### Type of Secondary Diploma

High School Diploma  
(Y) Year Received 19/20   
 (G) G.E.D. - year received 19/20   
 (C) Currently enrolled in High School  
Expected Graduation Date 20   
 (N) Non-Graduate

### Office Use Only

COLLEGE  CLASS  DEGREE  MAJOR  MINOR  SPEC  HIGH SCHOOL CODE  COLLEGE CODE





## Addendum to the 2004-2005 Catalog Pikes Peak Community College

*These are the changes, corrections, general revisions, and Curriculum and Instructional Practices (CIP) Committee revisions.*

### Contact Hour/Activity Type/Prerequisite Changes to Existing Courses

ART 118	Change contact hours from 15 LEC to 22.5 Contact Hours (7.5 Lecture, 15 Lab)
ENG 131	Prerequisite: ENG 090 with a C grade or higher or appropriate placement test score, student must be computer literate
JOU 111	Change contact hours from 60 LLB to 45 LEC
NUR 291	Change activity type from CLI to WEX
PAR 287	Change credit/contact hours from 1-6 WEX to 3 Credit Hours / 105 Contact Hours (15 Lecture, 90 Work Experience)
PSY 238	Change prerequisites from ENG 090, REA 090 to ENG 121, REA 090, 3 hours of general psychology or faculty consent
REE 104	Change contact hours from 75 to 80

### Deleted Courses

#### **HVA 104 Electrical Components for Air Conditioning and Refrigeration**

4 Credit Hours • 75 Contact Hours (30 Lecture, 45 Lecture/Lab Combination)

Covers electrical power, distribution, transformers, capacitors, relays, and electric motors. Laboratory experiences range from using electrical devices to electrical loads.

#### **LIT 235 Science Fiction**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ENG 121 or concurrent enrollment*

Examines the techniques and issues of science fiction through a close reading a variety of writers in the genre.

#### **MEP 101 Risk Management**

1 Credit Hour • 15 Contact Hours (Lecture)

Introduces OSHA (Occupational Safety & Health Administration) standards. Student will learn safety policies & regulations and individual safety behaviors with an understanding of risks in the environment. Course will also focus on work related injury policies and the value of ergonomics.

#### **MGD 203 Design and Concept**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

Covers the process of comprehensive problem solving of complex and advanced print design. Provides experience in digital production of designs, using multiple computer applications emphasizing concept.

#### **MGD 253 3D Animation II**

3 Credit Hours • 67.5 Contact Hours (Lecture/Lab Combination)

*Prerequisite: MGD 153*

Addresses more advanced aspects of creating 3D characters on the computer. Students also examine facial animation, lip synchronization, scene design, and lighting set-ups.

**REE 201 Real Estate Law and Practice**

4 Credit Hours • 60 Contact Hours (Lecture)

Introduces the student to the practice of real estate through the study of a common body of knowledge including key terms and concepts as well as the related federal laws practiced in the majority of states on a national level.

**REE 202 Colorado Real Estate Contract and Regulations**

4 Credit Hours • 60 Contact Hours (Lecture)

Enables the student to prepare and understand Colorado Real Estate Commission's approved contracts and understand Colorado Real Estate regulations.

**REE 206 Record Keeping and Trust Accounts**

1 Credit Hour • 15 Contact Hours (Lecture)

Instructs students in the proper recordkeeping procedures required by the Real Estate Commission to maintain and account for funds belonging to others.

**REE 207 Current Legal Issues**

1 Credit Hour • 15 Contact Hours (Lecture)

Provides a course of study for students to develop or enhance their knowledge and awareness of current real estate and real estate related statutes and regulations and important legal issues, developments, and practices.

**REE 208 Closings**

2 Credit Hours • 30 Contact Hours (Lecture)

Focuses on the basic skills necessary to properly close a real estate transaction. Includes responsibilities from the contract through and after the closing plus accounting for all funds received and disbursed. Incorporates a comprehensive review of the legal documents prepared by the broker.

## New or Reinstated Courses

### **ARA 111 Arabic Language I**

5 Credit Hours • 75 Contact Hours (Lecture)

*Prerequisite: ENG 100, REA 100*

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading and writing the Arabic language.

### **ASL 125 Fingerspelling**

3 Credit Hours • 45 Contact Hours (Lecture)

*Prerequisite: ASL 122*

Provides the student an opportunity to develop expressive and receptive fingerspelling through various class activities.

### **BIO 211 Cell Biology**

4 Credit Hour • 75 Contact Hours (45 Lecture, 30 Lab)

*Prerequisite: BIO 111 or equivalent, or permission of department chair*

This course is an intensive study of the cell and its organelles. Emphasis will be on the molecular mechanisms involved in cell communication, metabolism, motility, genetics, growth, and reproduction. This course requires hands-on laboratory experience.

### **BIO 212 Molecular Biology**

4 Credit Hour • 75 Contact Hours (45 Lecture, 30 Lab)

*Prerequisite: BIO 111 or equivalent, or permission of department chair*

This course is an intensive survey of molecular biology techniques and principles. Topics will include chemical and enzymatic reactions, cellular processes, DNA, RNA, and protein manipulations, and genetic studies. This course requires hands-on laboratory experience.

### **BIO 224 Genetics**

4 Credit Hour • 75 Contact Hours (45 Lecture, 30 Lab)

*Prerequisite: BIO 111 or equivalent, or permission of department chair*

Studies the fundamental laws of heredity and their application to living organisms. Covers the basics of genetics. Focuses on the laws of Mendal, linkage, mutation concept, molecular genetics, and the Hardy-Weinberg law. Includes a laboratory experience.

### **CAD 280 Internship**

3 Credit Hours • 105 Contact Hours (15 Lecture, 90 Work Experience)

*Prerequisites: CAD 100, CAD 101, CAD 102*

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 direct guidance of the instructor.

### **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 256 Marketing in the Hospitality Industry**

3 Credit Hours • 45 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 261 Cost Controls**

3 Credit Hours • 45 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% or higher, they will receive a national certificate for the course.

### **CUA 263 Legal Aspects of Hospitality Management**

3 Credit Hours • 45 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.

### **ECE 279 Seminar**

1-6 Credit Hours

Provides students with an opportunity to examine aspects of early childhood education in detail.

### **EDU 263 Teaching and Learning Online**

3 Credit Hours • 45 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.

### **FST 110 Job Placement and Assessment**

3 Credit Hour • 52.5 Contact Hours (30 Lecture, 22.5 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.

### **JPN 101 Conversational Japanese I**

3 Credit Hour • 45 Contact Hours (Lecture)

*Prerequisites: REA 090, ENG 090*

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.

### **NUR 201 IV Therapy for LPN's**

5 Credit Hours • 97.5 Contact Hours (45 Lecture, 22.5 Lecture/Lab Combination, 30 Clinical)

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.

### **NUR 290 RN Refresher Course**

5 Credit Hours • 112.5 Contact Hours (Lecture/Lab Combination)

Presents material that is designed for all RN's regardless of time absent from nursing practice, to explore avenues of employment. Clinical experience is held in the hospital to refresh and update basic nursing skills. Other opportunities for clinical experience may include home health, long-term, rehabilitation, and hospice.

### **NUR 291 RN Refresher Course Clinical**

3 Credit Hours • 90 Contact Hours (Clinical)

Presents material as a co-requisite to NUR 290 the RN didactic portion of the completer program. Students will demonstrate skill attainment gained in NUR 290.

### **POS 288 Practicum**

0-6 Credit Hours • 45 Contact Hours per Credit Hour

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.



## Approved New / Revised Programs & Certificates

### Nursing (New Certificate)

#### Certificate

#### LPN Option

Recommended basic skills standards are

- ENG 090
- MAT 090
- REA 090

The LPN Option is a certificate program that allows first year RN students to write the national licensure test as a practical nurse. The certificate is available upon satisfactory completion of required courses, including successful completion of the first year nursing courses as well as BIO 201, BIO 202, PSY 101, ENG 121 with a minimum grade of C in each course.

ENG 121	English Composition	3
PSY 101	General Psychology I	3
BIOL 201	Human Anatomy & Physiology	4
BIOL 202	Human Anatomy & Physiology II	4
NUR 101	Pharmacology Calculations	1
NUR 106	Med & Surg Nursing Concepts	7
NUR 107	Nursing Concepts and Skills I	4
NUR 108	Nursing Concepts and Skills II	3
NUR 111	Socialization into Practical Nursing	1
NUR 112	Basic Concepts of Pharmacology	2
NUR 116	Basic Concepts of Gerontological Nursing	1
NUR 117	Nursing Care of Childbearing Family	3
NUR 118	Nursing Care of Children	3
NUR 171	Expanded Clinical (Fundamentals)	2
NUR 172	Expanded Clinical III (Med/Surg)	2
NUR 288	Health and Physical Assessment	1
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# Social Services Technician (General Education Change)

6 hours of general electives is now defined as CSC 105 and one Humanities elective.

## Associate of Applied Science Degree

Recommended basic skills standards are

- ENG 090
- MAT 060
- REA 090

This program prepares students to enter the social services career field at the paraprofessional level. 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. Elective courses are offered to help students learn more advanced skills.

Social Services Technician faculty recommend that in order 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) 540-7383 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.

### General Education Courses

ENG 121	English Composition I	3
	and	
ENG 122	English Composition II	3
	or	
SPE 225	Introduction to Organizational Communication	(3)
	and	
ENG 131	Technical Writing I	(3)
PSY 215	Psychology of Adjustment	3
SOC 101	Introduction to Sociology I	3
SOC 102	Introduction to Sociology II	3
CSC 105	Computer Literacy	3
Humanities elective		<u>3</u>
		21

### Other Course Requirements

SWK 100	Introduction to Human Services	3
SWK 105	Application of Group Counseling	3
SWK 106	Introduction to Alcohol and Drugs	3
SWK 110	Social Welfare and Community Agencies	3
SWK 120	Intervention Techniques	3
SWK 180	Internship I	6
SWK 181	Internship II	6
SWK 200	Human Behavior in the Social Environment	3
SWK 208	Social Work Case Management	3
SWK 210	Client Development	3
SWK 280	Internship III	<u>6</u>
		48

**Total Credit Hours 63**

## New / Revised Programs & Certificates Pending State Approval

### Food Service Management (New Certificate)

#### Certificate\*

CUA 101	Food Safety and Sanitation	2
CUA 105	Food Service Concepts & Management Skills	3
CUA 156	Nutrition for the Hospitality Industry	3
CUA 116	Catering, Buffets, and Tableside Cooking	3
CUA 120	Wine & Spirits	2
CUA 121	Intro to Food Production Principles & Practices	1
CUA 122	Hot Foods	1
CUA 123	Intro to Gardé Manger	1
CUA 124	Vegetable Prep & Breakfast Cookery	1
CUA 190	Dining Room Management	4
CUA 261	Cost Controls	3
CUA 262	Purchasing for the Hospitality Industry	3
CUA 263	Legal Aspects of Hospitality Management	3
CUA 256	Marketing in the Hospitality Industry	3

Total Credits 33

\*Pending state approval

### Multimedia Graphic Design (Revised Program)

#### Associate of Applied Science Degree

Recommended basic skills standards are

- ENG 090
- MAT 030
- REA 090

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 102). 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) 540-7367 for design and illustration options or (719) 540-7387 for the multimedia option.

Students can access detailed descriptions of each program course under the MGD prefix listing at the back of this catalog.

#### General Education Courses for all emphasis areas

*ART 110	Art Appreciation	3
	Or	
ART 111	Art History I	(3)
ENG 121	English Composition I	3
	or	
ENG 131	Technical Writing I	(3)
MAT 107	Career Math	3

	or		
MAT	112	Financial Math	(3)
PHO	101	Photography I	3
	Or		
*PHO	205	Digital Photography	(3)
*PSY	100	Psychology of the Workplace	<u>3</u>
			15

**Required MGD courses**

MGD	102	Introduction to Multimedia	3
*MGD	103	Production Design	3
MGD	109	Design and Color	3
MGD	111	Adobe Photoshop I	3
MGD	112	Adobe Illustrator I	3
MGD	113	QuarkXPress	3
MGD	116	Typography I	3
*MGD	134	Drawing for Illustrators	3
	or		
*MGD	131	2-D Design	(3)
*MGD	141	Web Design I	3
*MGD	211	Computer Graphics I	3
MGD	280	Internship	1
*MGD	289	Capstone	3
		Approved MGD electives (see list below)	<u>11</u>
			45

**Total Credit Hours** 60

**\*MGD Electives**

MGD	106	Creativity and Visual Thinking	3
MGD	107	History of Design	2
MGD	108	History of Illustration	2
MGD	110	Lettering for Graphic Design	2
MGD	114	Adobe InDesign	3
MGD	132	Design and Color II	3
MGD	143	Web Motion Graphic Design I	3
MGD	161	Director I	3
MGD	164	Digital Video Editing I	3
MGD	165	After Effects I	3
MGD	180	Internship	3
MGD	201	Children's Book Illustration	3
MGD	202	Point of Purchase Packaging Design	3
MGD	207	Illustration I	3
MGD	208	Illustration II	3
MGD	209	Illustration III	3
MGD	211	Adobe Photoshop II	3
MGD	212	Adobe Illustrator II	3
MGD	215	Painting for Illustrators	3
MGD	221	Computer Graphics I	3
MGD	222	Computer Graphics II	3
MGD	241	Web Design II	3
MGD	243	Web Motion Graphic Design II	3
MGD	258	Web Design Production	3
MGD	259	Management and Production	3
MGD	264	Digital Video Editing II	3
MGD	265	After Effects II	3
MGD	266	DVD Authoring	3

**Certificates**

**Digital Image**

MGD	111	Adobe Photoshop I	3
MGD	112	Adobe Illustrator I	3

MGD 211	Adopt Photoshop II	3
PHO 205	Digital Photography	<u>3</u>
<b>Total Credit Hours</b>		<b>12</b>

### Web Design

MGD 111	Adobe Photoshop I	3
MGD 112	Adobe Illustrator I	3
MGD 141	Web Design I	3
MGD 143	Web Motion Graphic Design I	3
MGD 241	Web Design II	3
MGD 243	Web Motion Graphic Design II	<u>3</u>
<b>Total Credit Hours</b>		<b>18</b>

### Illustration

MGD 111	Adobe Photoshop I	3
MGD 112	Adobe Illustrator I	3
MGD 207	Illustration I	3
MGD 208	Illustration II	3
MGD 209	Illustration III	3
MGD 215	Painting for Illustrators	<u>3</u>
<b>Total Credit Hours</b>		<b>18</b>

### Design to Print

MGD 109	Design and Color	3
MGD 111	Adobe Photoshop I	3
MGD 112	Adobe Illustrator I	3
MGD 113	QuarkXPress	3
MGD 221	Computer Graphics I	3
MGD 222	Computer Graphics II	<u>3</u>
<b>Total Credit Hours</b>		<b>18</b>

### Video Production

MGD 111	Adobe Photoshop I	3
MGD 164	Digital Video Editing I	3
MGD 165	After Effects I	3
MGD 264	Digital Video Editing II	3
MGD 265	After Effects II	3
RTV 108	Principles of Audio	3
RTV 208	Basic Video Production	3
RTV 218	Advanced Video Production	<u>3</u>
<b>Total Credit Hours</b>		<b>24</b>

\*Revisions pending state approval

## Real Estate (Revised Certificate)

### Certificate\*

Recommended basic skills standards are

- AAA 090
- ENG 060
- MAT 060
- REA 090

The Real Estate Certificate Program prepares students to take the State License Exam to become a Real Estate associate broker. Upon successful completion of the state exam, students can secure employment as residential or commercial Real Estate agents.

REE 103	Real Estate Brokers I	6
REE 104	Real Estate Brokers II	<u>5</u>
<b>Total Credit Hours</b>		<b>11</b>

\*Pending state approval



<b>Programs No Longer Pending State Approval</b>
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## Architecture and Construction Technology

### Certificates

#### Basic Drafting (Day Students)

ARC 101	Architectural Drawing I	5
ARC 104	Architectural Drawing Theory	<u>4</u>
Total Credit Hours		9

#### Basic Drafting (Evening Students)

ARC 104	Architectural Drawing Theory	4
ARC 151	Architectural Drafting I	3
ARC 152	Architectural Drafting II	<u>2</u>
		9

#### CAD Professional Upgrade

CAD 101	Computer Aided Drafting I	3
CAD 102	Computer Aided Drafting II	<u>3</u>
Total Credit Hours		6

#### Construction Professional Upgrade

ARC 218	Surveying	3
ARC 222	Estimating and Print Reading	5
ARC 226	Construction Scheduling	<u>3</u>
Total Credit Hours		11

#### Intermediate Drafting (Day Students)

ARC 101	Architectural Drawing I	5
ARC 102	Architectural Drawing II	5
ARC 104	Architectural Drawing Theory	4
CAD 101	Computer Aided Drafting I	<u>3</u>
Total Credit Hours		17

#### Intermediate Drafting (Evening Students)

ARC 104	Architectural Drawing Theory	4
ARC 151	Architectural Drafting I	3
ARC 152	Architectural Drafting II	2
ARC 153	Architectural Drafting III	3
ARC 154	Architectural Drafting IV	2
CAD 101	Computer Aided Drafting I	<u>3</u>
		17

## Computer Aided Drafting

### Certificate

#### CAD – Quality Assurance

CAD 100	Blueprint Reading for Computer Aided Drafting	3
MAT 107	Career Math	<u>3</u>
Total Credit Hours		6

# Computer Information Systems

## Certificate

### Computer Application Specialist

This certificate program is designed to provide students with a proficiency in using microcomputer software that is used in today's business environment. Students may complete deficiencies concurrently with the beginning courses in the program. Students not meeting a course prerequisite must have the instructor's permission to enroll.

CIS	107	Voice Recognition: Dragon	1
CIS	124	Introduction to Operating Systems	3
CIS	135	Complete PC Word Processing	3
CIS	145	Complete PC Database: Access	3
CIS	155	PC Spreadsheet Concepts: Excel	3
CIS	165	Complete Presentation Graphics: PowerPoint	3
CWB	110	Complete Web Authoring	<u>3</u>
<b>Total Credit Hours</b>			<b>19</b>