

# *Degree and Certificate Programs*

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PCC grants Associate of Arts (AA), Associate of Science (AS), Associate of General Studies (AGS), and Associate of Applied Science (AAS) degrees. PCC also grants Certificates of Completion (CERT).

PCC's programs are approved by the Colorado Commission on Higher Education (CCHE), which approves degrees, and by the State Board for Community Colleges and Occupational Education (SBCCOE), which approves certificates. The PCC Curriculum and Academic Standards Committee reviews and approves new programs, or changes to existing programs, before they are forwarded to these agencies for approval.

Each program requires a major area of concentration comprising a defined sequence of courses. An Associate degree requires a minimum of 60 semester hours, and a certificate requires a minimum of two courses.

General Education courses are a part of every degree program regardless of major; these courses impart common knowledge, intellectual concepts, and attitudes that every educated person should possess.

The general education courses for the AA, AS, generalist AGS, and AAS degrees are identified in the general education curriculum of each of those degrees. The AGS technical pre-professional transfer degrees in Accounting, Business Management, Computer Information Systems, Criminal Justice, Early Childhood Education, and Mass Communications have particular general education requirements within each degree.

No designation of an emphasis area or concentration may appear on a transcript or diploma, other than "Liberal Studies."

# Associate of Arts (AA) Degree

Transfer Degree, College/University Parallel

The AA degree is designed for students who want to transfer to a four-year college or university to pursue a baccalaureate degree in the areas of arts, humanities, communications, and social sciences.

NOTE: This degree excludes majors in Business, Early Childhood Educations, Education, Engineering, or Nursing.

Requirements for the AA Degree are as follows:

- Minimum of 60 semester hours of course work
- Minimum of 15 graded semester hours earned at PCC
- Minimum grade of "C" in all coursework for the degree
- Computer competency: CIS 110 or equivalent

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

To earn an AA degree, you must complete at least 60 college-level credits, broken down as follows:

- 38 credits of Colorado Statewide Guaranteed Transfer Courses (GT Pathways)**
- 22 credits of Associate of Arts Electives**

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*Developmental courses are not included in these credits.*

Developmental courses are courses in reading, mathematics, and English that you may have to take before enrolling in college level courses.

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## I. Colorado Statewide Guaranteed Transfer Courses (GT Pathways)

You must take 38 credits from the following list:

### 9 Credits Communication

Select 2 English courses and 1 Speech course: ENG 121, ENG 122, SPE 115 or SPE 125\*

### 3 Credits Mathematics

Select from: MAT 120, MAT 121, MAT 122, MAT 125, MAT 135, MAT 155, MAT 156, MAT 201, MAT 202

### 8 Credits Physical and Life Sciences

Select two courses (credits over 8 will be applied to the electives category): AST 101, AST 102, BIO 105, BIO 111, BIO 112, BIO 201, BIO 202, BIO 204, CHE 101, CHE 102, CHE 105, CHE 111, CHE 112, GEY 111, GEY 121, MET 150, PHY 105, PHY 111, PHY 112, PHY 211, PHY 212, SCI 155, SCI 156

Note: These classes require a laboratory component.

\*SPE 115 (Public Speaking) and SPE 125 (Interpersonal Communications) are not State Guaranteed Transfer courses but a requirement of the Colorado Community College System. An approved Speech Communications course is required for the AA, AS, and AGS (Generalist) degrees.

## 9 Credits Social and Behavioral Sciences

Select 3 courses in at least 2 categories, one of which must be History:

Economics and Political Systems: ECO 201, ECO 202, POS 105, POS 111

Geography: GEO 105, GEO 106

History: HIS 101, HIS 102, HIS 111, HIS 112, HIS 201, HIS 202

Human Behavior and Social Systems: ANT 101, ANT 111, PSY 101, PSY 102, PSY 205, PSY 226, PSY 227, PSY 235, PSY 238, PSY 249, SOC 101, SOC 102, SOC 215, SOC 216, SOC 231

## 9 Credits Arts and Humanities

Select 3 courses, with no more than 2 courses from any 1 category:

Arts: ART 110, ART 111, ART 112, ART 207, MUS 120, MUS 121, MUS 122, THE 105, THE 211, THE 212, SPA 211, SPA 212, GER 211, GER 212, FRE 211, FRE 212

Humanities and Literature: HUM 121, HUM 122, HUM 123, LIT 115, LIT 201, LIT 202, LIT 205, LIT 211, LIT 212

Ways of Thinking: PHI 111, PHI 112, PHI 113, PHI 114

## II. Associate of Arts Electives

You must take 22 elective credits. You can meet your elective requirements as follows:

- Select all electives with advisor approval.
- Take any of the above courses that are not used to meet the Colorado Statewide Guaranteed Transfer Courses (GT Pathways).
- Complete any of the following Approved Elective Courses:

ANT **	HWE 100
ART **	JOU **
AST **	LIT **
BIO 105 and higher	MAT 120 or higher
CHE 101 and higher	MGD 133, MGD 221, MGD 233
ECE 101, ECE 102, ECE 205	MUS **
ECE 238, ECE 241	PED ** or DAN ** (up to 2 credits)
ECO 105 and higher	PHI **
EDU **	PHY **
ENG 121 and higher	PSY ** except PSY 106 & PSY 110
ETH **	POS **
Foreign Languages 111 or higher	SCI 155 & SCI 156
GEO **	SOC **
GEY **	SPE **
HIS **	SWK **
HUM **	THE **

\*\* You may select any course number from this course prefix area.

## Sequencing of Classes

For the AA Degree, there is no required course sequence *except when classes have prerequisites*. You can take classes in any order so long as you meet the prerequisites for each class. The course schedule below is just an example of how you might arrange your schedule over four semesters. *It is only a suggested sequencing; your own schedule might differ depending on your scheduling needs. You should work with your advisor each semester, prior to registering, to ensure that you are enrolling in the proper courses in the most logical sequence.*

Note: This sequence of courses assumes you are a full time student and that you have completed all required developmental courses. If these conditions do not apply, you may need more than four semesters to complete your degree.

### Sample Associate of Arts Degree

**Note: This is only a sample. Do not use it to self-advise.**

#### 14 Semester One

- 3 ENG 121 English Composition I
- 4 MAT 120 Math for the Liberal Arts
- 4 BIO 105 Science of Biology or Physical/Life Sciences GT Pathways course
- 3 PSY 101 General Psychology I or Social/Behavioral Sciences GT Pathways course

#### 16 Semester Two

- 3 ENG 122 English Composition II
- 4 GEY 111 Physical Geology or GT Pathways course
- 3 HUM 121 Humanities: Early Civilizations or Arts/Humanities GT Pathways course
- 3 SOC 101 Introduction to Sociology I or Social/ Behavioral Sciences GT Pathways course
- 3 HIS 101 History of Western Civilization I or History GT Pathways course

#### 15 Semester Three

- 3 PHI 111 Introduction to Philosophy or Humanities GT Pathways course
- 3 SPE 115 Public Speaking
- 3 HIS 102 History of Western Civilization II or Social/ Behavioral Sciences GT Pathways course
- 3 ENG or LIT English or Literature or Arts/Humanities GT Pathways course
- 3 PSY or SOC Behavioral Science elective GT Pathways course

#### 15 Semester Four

- 3 ART Art elective (choose from options listed under AA electives above)
- 3 LIT Literature elective (choose from options listed under AA electives above)
- 3 THE Theater elective (choose from options listed under AA electives above)
- 3 PSY Behavioral Science elective (choose from options listed under AA electives above)
- 3 SOC Social Science elective (choose from options listed under AA electives above)



# Associate of Arts (AA) Degrees with Transfer Articulation Agreement

## Education

Donna Fitzsimmons, Department Chair  
Associate of Arts (AA) Degree

### Elementary Education

#### Career Opportunities

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

#### Program Description

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

#### Program Requirements

\*In addition to the requirements listed below, you must complete 30 hours of fieldwork in EDU 221: Introduction to Education. Schools used during the fieldwork in EDU 221 require students to successfully pass a background check.

### ASSOCIATE (AA) DEGREE

#### Elementary Education

TOTAL CREDITS 60-61

#### 38-39 State Guaranteed Transfer Courses

- 9 Communications  
ENG 121 (with a grade of B or better), ENG 122, SPE 115
- 3 Mathematics  
MAT 155
- 8-9 Natural Science  
SCI 155 and SCI 156
- 9 Social and Behavioral Sciences  
GEO 105, HIS 201 OR HIS 202, POS 111
- 9 Humanities  
ART 110 or THE 105, LIT 115, MUS 120 or THE 105

#### 22 Electives

- 4 BIO 105 Science of Biology  
OR
- 4 GEY 111 Physical Geology
- 3 EDU 221 Introduction to Education\*
- 3 EDU 261 Teaching, Learning, and Technology
- 3 HIS 101 History of Western Civilization I  
OR
- 3 HIS 102 History of Western Civilization II
- 3 LIT 255 Children's Literature
- 3 MAT 156 Integrated Math II
- 3 PSY 238 Child Development  
OR
- 3 PSY 235 Human Growth and Development

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

Listed above are the courses required by the Colorado State University-Pueblo Teacher Education Program. Students successfully completing degree requirements may be eligible for admission to CSU-P as juniors.

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

### Secondary Education

If you want to teach grades 7 through 12, you may pursue an Associate of Arts degree with Secondary Education Emphasis in one of the following licensure areas:

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

You should identify the four-year college or university to which you intend to transfer and the appropriate curriculum.

### K-12 Education

If you would like to teach in the K-12 content areas of Art, Music or Physical Education, you should pursue an Associate of Arts degree at PCC. Your advisor will help you select the electives that will be required for your bachelors degree.



# Associate of Science (AS) Degree

Transfer Degree, College/University Parallel

The AS degree is designed for students who want to transfer to a four-year college or university to pursue a baccalaureate degree in the areas of natural science, physical science, mathematics, computer science, engineering, and health-related fields.

NOTE: This degree excludes majors in Early Childhood Education, Elementary Education, Business, Engineering, or Nursing.

Requirements for the AS Degree are as follows:

- Minimum of 60 semester hours of course work
- Minimum of 15 graded semester hours earned at PCC
- Minimum grade of "C" in all coursework for the degree
- Computer competency: CIS 110 or equivalent

Consult with a PCC Arts & Sciences advisor or the PCC Transfer advisor to find out which Colorado Statewide Guaranteed Transfer Courses (GT Pathways) or elective courses meet the degree requirements of the four-year college to which you plan to transfer. Secure a current A.S. curriculum sheet for reference.

To earn an AS degree, you must complete at least 60 college-level credits, broken down as follows:

- 39 credits - Colorado Statewide Guaranteed Transfer Courses (GT Pathways)**
- 21 credits - Associate of Science electives**

*Developmental courses are not included in these credits.*

Developmental courses are courses in reading, mathematics, and English that one may be required to take before enrolling in college level courses.

## I. State Guaranteed Transfer Courses

You must take 39 credits from the following list:

### 9 Credits Communication

Select 2 English courses and 1 Speech course: ENG 121, ENG 122, SPE 115 or SPE 125\*

### 4 Credits Mathematics

Select from: MAT 121, MAT 122, MAT 125, MAT 201, MAT 202

### 8 Credits Physical and Life Sciences

Select two courses (credits over 8 will be applied to the electives category): AST 101, AST 102, BIO 111, BIO 112, BIO 201, BIO 202, BIO 204, CHE 111, CHE 112, GEY 111, GEY 121, PHY 111, PHY 112, PHY 211, PHY 212

Note: Classroom laboratory components are necessary for these requirements.

\*SPE 115 (Public Speaking) and SPE 125 (Interpersonal Communications) are not State Guaranteed Transfer courses but a requirement of the Colorado Community College System. An approved Speech Communications course is required for the AA, AS, and AGS (Generalist) degrees.

## 9 Credits Social and Behavioral Sciences

Select 3 courses in at least 2 categories, one of which must be History:

Economics and Political Systems: ECO 201, ECO 202, POS 105, POS 111

Geography: GEO 105, GEO 106

History: HIS 101, HIS 102, HIS 111, HIS 112, HIS 201, HIS 202

Human Behavior and Social Systems: ANT 101, ANT 111, PSY 101, PSY 102, PSY 205, PSY 226, PSY 227, PSY 235, PSY 238, PSY 249, SOC 101, SOC 102, SOC 215, SOC 216, SOC 231

## 9 Credits Arts and Humanities

Select 3 courses, with no more than 2 courses from any 1 category:

Arts: ART 110, ART 111, ART 112, ART 207, MUS 120, MUS 121, MUS 122, THE 105, THE 211, THE 212, SPA 211, SPA 212, GER 211, GER 212, FRE 211, FRE 212

Literature and Humanities: HUM 121, HUM 122, HUM 123, LIT 115, LIT 201, LIT 202, LIT 205, LIT 211, LIT 212

Ways of Thinking: PHI 111, PHI 112, PHI 113, PHI 114

## II. Associate of Science Electives

You must take 21 elective credits. You can meet your elective requirements as follows:

- Select all electives with advisor approval.
- Take any of the above courses that are not used to meet the Colorado Statewide Guaranteed Transfer Courses (GT Pathways).
- Complete any of the following Approved Elective Courses:

ANT **	JOU **
ART **	LIT **
AST **	MAT 120 or higher
BIO 105 and higher	MGD 133, MGD 221, MGD 233
CHE 101 and higher	MUS **
ECO 105 and higher	PED ** or DAN ** (up to 2 credits)
EDU **	PHI **
ENG 121 and higher	PHY **
ETH **	POS **
Foreign Languages 111 or higher	PSY ** except PSY 106 & PSY 110
GEO **	SCI 155 & SCI 156
GEY **	SOC **
HIS **	SPE **
HUM **	SWK **
HWE 100	THE **

\*\* You may select any course number from this course prefix area.

## Sequencing of Classes

For the AS Degree, there is no required course sequence except when classes have prerequisites. You can take classes in any order so long as you meet the prerequisites for each class. The course schedule below is just an example of how you might arrange your schedule over four semesters. *It is only a suggested sequencing; your own schedule might differ depending on your scheduling needs. You should work with your advisor each semester, prior to registering, to ensure that you are enrolling in the proper courses in the most logical sequence.*

Note: This sequence of courses assumes you are a full time student and that you have completed all required developmental courses. If these conditions do not apply, you may need more than four semesters to complete your degree.

## Sample Associate of Science Degree

**Note: This is only a sample. Do not use it to self advise.**

### 14 Semester One

- 3 ENG 121 English Composition I
- 4 BIO 111 Science of Biology or Physical/Life Sciences GT Pathways course
- 3 PSY 101 General Psychology I or Social/Behavioral Sciences GT Pathways course

### 17 Semester Two

- 3 ENG 122 English Composition II
- 4 MAT 125 Survey of Calculus or Math GT Pathways course
- 4 CHE 111 General College Chemistry I with lab or Physical/Life Sciences GT Pathways course
- 3 SOC 101 Introduction to Sociology I or Social/ Behavioral Sciences GT Pathways course
- 3 HIS 101 History of Western Civilization I or History GT Pathways course

### 15 Semester Three

- 3 LIT 115 Introduction to Literature or Arts/Humanities GT Pathways course
- 3 PHI 111 Introduction to Philosophy or Arts/Humanities GT Pathways course
- 3 SPE 115 Public Speaking
- 3 PSY or SOC Social/Behavioral Sciences GT Pathways course
- 3 MUS 120 Music Appreciation or Arts/Humanities GT Pathways course

### 14 Semester Four

- 3 SCI Science elective (choose from options under AS electives above)
- 4 SCI Science elective (choose from options under AS electives above)
- 3 PSY Social/Behavioral Sciences elective (choose from options under AS electives above)
- 3 SOC Social/Behavioral Sciences elective (choose from options under AS above)
- 1 PED Physical Education or other approved elective from options under AS above

## Pre-Industrial Engineering

Jerry Christie, Department Chair  
Associate of Science Degree

PCC provides an AS degree which includes courses that may transfer to Colorado State University-Pueblo (CSU-P) to complete a Bachelor of Science degree in the area of Industrial Engineering. The AS degree requires a minimum of 60 credits, of which 33 credits must be State Guaranteed Transfer courses. You must take specific general education and degree-related courses as recommended by your academic advisor at PCC. Upon completion of the AS degree at PCC, a CSU-P transfer advisor will make a course-by-course transfer evaluation to apply credits to the BS degree at CSU-P.



# Associate of General Studies (AGS) Degree

Generalist Degree, Instituted Fall 2003

If your educational goals include a broad range of transfer and occupational interests, the AGS generalist degree allows you to pursue those interests without the constraints of specialization. However, transferability of this degree depends upon the courses you take and the requirements of the institution to which you transfer. If you complete the requirements listed below, you will receive an AGS degree with no major field specified on your transcript.

Requirements for the AGS degree include the following:

- Minimum of 60 semester hours of course work
- Cumulative GPA of 2.0 or higher
- No more than 30 credit hours of vocationally prefixed courses
- Minimum of 30 general education transferable credits. Fifteen of the 30 semester hours of general education must be in the Colorado Statewide Guaranteed Transfer Courses (GT Pathways) Curriculum
- Minimum of 15 graded semester hours earned at PCC
- Minimum grade of "C" in the 30 credits of general education courses
- Computer competency: CIS 110 or equivalent

To earn an AGS generalist degree, you must complete at least 60 college-level credits, broken down as follows:

- 30 credits - General Education Courses**
- 30 credits - Vocational or Academic Electives**

*Developmental courses are not included in these credits.* Developmental courses are courses in reading, mathematics, and English that you may have to take before enrolling in college level courses.

## I. General Education Courses

You must take 30 credits from the following list; 15 of those credits must be in Colorado Statewide Guaranteed Transfer Courses (GT Pathways) (marked with \*). Your advisor must approve all courses.

### 9 Credits Communications

Select 2 English courses and 1 Speech course: ENG 121\*, ENG 122\*, ENG 131, ENG 132, ENG 221, ENG 222, SPE 115\*, SPE 125\*, SPE 216, SPE 226

### 3 Credits Mathematics

Select from: MAT 106, MAT 107, MAT 108, MAT 120\*, MAT 121\*, MAT 122\*, MAT 125\*, MAT 135\*, MAT 155\*, MAT 156\*, MAT 201\*, MAT 202\*

### 3 Credits Physical and Life Sciences

Select from: AST 101\*, AST 102\*, BIO 105\*, BIO 106, BIO 111\*, BIO 112\*, BIO 143, BIO 201\*, BIO 202\*, BIO 204\*, CHE 101\*, CHE 102\*, CHE 104, CHE 105\*, CHE 111\*, CHE 112\*, GEY 111\*, GEY 121\*, GEY 135, HWE 100, MET 150\*, PHY 105\*, PHY 111\*, PHY 112\*, PHY 211\*, PHY 212\*, SCI 155\*, SCI 156\*

### 3 Credits Social and Behavioral Sciences

Select from: ANT 101\*, ANT 111\*, ANT 121, ANT 215, ECO 105, ECO 201\*, ECO 202\*, GEO 105\*, GEO 106\*, GEO 111, HIS 101\*, HIS 102\*, HIS 111\*, HIS 112\*, HIS 201\*, HIS 202\*, HIS 225, HIS 244, HIS 246, POS 105\*, POS 111\*, PSY 101\*, PSY 102\*, PSY 107, PSY 117, PSY 205\*, PSY 226\*, PSY 227\*, PSY 235\*, PSY 238\*, PSY 245, PSY 249\*, SOC 101\*, SOC 102\*, SOC 201, SOC 203, SOC 205, SOC 212, SOC 215\*, SOC 216\*, SOC 218, SOC 223, SOC 231\*, SOC 237, SOC 265

### 3 Credits Arts and Humanities

Select from: ART 110\*, ART 111\*, ART 112\*, ART 114, ART 121, ART 122, ART 131, ART 132, ART 141, ART 142, ART 161, ART 162, ART 163, ART 207\*, ART 211, ART 212, ART 213, ART 244, ART 261, HUM 121\*, HUM 122\*, HUM 123\*, JOU 105, JOU 106, JOU 206, LIT 115\*, LIT 125, LIT 126, LIT 201\*, LIT 202\*, LIT 205\*, LIT 211\*, LIT 212\*, LIT 238, LIT 246, LIT 255, MUS 120\*, MUS 121\*, MUS 122\*, PHI 111\*, PHI 112\*, PHI 113\*, PHI 114\*, PHI 115, THE 105\*, THE 211\*, THE 212\*, ITA 111, FRE 111, FRE 112, FRE 211\*, FRE 212, GER 111, GER 112, GER 211\*, GER 212\*, SPA 111, SPA 112, SPA 211\*, SPA 212\*

### 9 Credits Selected General Education Electives

ANT **	HWE 100
ART **	JOU **
AST **	LIT **
BIO 105 and higher	MAT 106 or higher
CHE 100 and higher	MGD 133, MGD 221, MGD 233
ECE 101, ECE 102, ECE 205	MUS **
ECE 238, ECE 241	PED ** or DAN ** (up to 2credits)
ECO 105 and higher	PHI **
EDU **	PHY **
ENG 121 and higher	PSY ** except PSY 106 & PSY 110
ETH **	POS **
Foreign Languages 111 or higher	SCI 155 & SCI 156
GEO **	SOC **
GEY **	SPE **
HIS **	SWK **
HUM **	THE **

\*Colorado Statewide Guaranteed Transfer Courses (GT Pathways) Curriculum

\*\*You may select any course number from this prefix area.

## II. Vocational or Academic Electives

You must take 30 credits of approved electives. Select your electives from any vocational or academic course numbered at or above 100 which is offered by PCC.

# AGS Degrees with Transfer Articulation Agreements

The following AGS degrees are designed for students who have specialized in a technical pre-professional area and who plan to transfer into a baccalaureate degree program based on a written articulation agreement with a designated institution.

PCC offers six Technical Pre-Professional Transfer AGS degrees. Each degree is articulated to at least one Colorado four-year institution. Specific degree requirements are listed in this catalog for the following AGS degrees:

Accounting  
Business Management  
Computer Information Systems  
Criminal Justice  
Mass Communications

Minimum requirements for the Technical Pre-Professional Transfer AGS are as follows:

- a. Minimum of 60 semester hours of course work
- b. Cumulative GPA of 2.0 or higher (3.000 or higher for the Accounting and Business Management AGS transfer degrees)
- c. General education courses of 30 semester hours as determined by each curriculum
- d. Additional requirements of 30 semester hours as listed within the individual programs of study
- e. Minimum of 15 graded semester hours earned at PCC

## Accounting

Joe Easton, Department Chair

### Associate of General Studies (AGS) Degree

#### Career Opportunities

The AGS degree in Accounting prepares you to transfer into bachelor's degree accounting programs at four-year colleges.

#### Program Description

This program offers you a comprehensive understanding of the theory and practice of modern accounting. It places particular emphasis on logical reasoning, enabling you to solve accounting problems and to make sound accounting policy decisions. It also teaches you to use computer software related to the accounting profession. You will learn to use state-of-the-art equipment through industry-standard instructional materials. The required occupational experience provides you the opportunity to obtain valuable on-the-job training.

The PCC/CSU-Pueblo Transfer Agreement allows the Accounting AGS graduate to transfer to the CSU-Pueblo Hasan School of Business with a junior standing. Contact the Department Chairperson for information about transfer of courses to other four-year institutions.

## ASSOCIATE (AGS) DEGREE

### Accounting

TOTAL CREDITS 60

#### 40 General Education Core Requirements

- 9 English/Speech  
ENG 121, ENG 122, SPE 115
- 8 Mathematics  
MAT 121, MAT 125
- 8 Natural Science  
Choose from: AST 101, AST 102, BIO 105, BIO 111, BIO 112, CHE 101, CHE 102, CHE 111, CHE 112, GEY 111, GEY 121, PHY 111, PHY 112, PHY 211, PHY 212
- 9 Social and Behavioral Sciences  
ECO 201 and ECO 202 are required.  
Choose 3 additional credits from the following: HIS 101, HIS 102, HIS 201, HIS 202
- 6 Humanities  
Choose 6 credits from 2 different disciplines from: ART 110, ART 111, ART 112, HUM 121, HUM 122, HUM 123, MUS 120, MUS 121, MUS 122, LIT 115, LIT 201, LIT 202, PHI 111, PHI 112, PHI 113 THE 105, THE 211, THE 212

#### 20 Professional Requirements

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

## Business Management

Joe Easton, Department Chair

Associate of General Studies (AGS) Degree

### Career Opportunities

The AGS degree in Business Management prepares you to transfer into bachelor's degree accounting programs at four-year colleges.

### Program Description

The Associate of General Studies degree with an emphasis in Business Management prepares you to transfer to a Bachelors degree business management program. The PCC--CSU-Pueblo Transfer Agreement allows the AGS Business Management graduate to transfer to the CSU-Pueblo Hasan School of Business with a junior standing. Contact the department chairperson for information about transferring to four-year institutions other than CSU-Pueblo.

### ASSOCIATE (AGS) DEGREE

#### Business Management

TOTAL CREDITS 60

#### 40 General Education Core Requirements

- 9 English/Speech  
ENG 121, ENG 122, SPE 115
- 8 Mathematics  
MAT 121, MAT 125
- 8 Natural Science  
Choose from: AST 101, AST 102, BIO 105, BIO 111, BIO 112, CHE 101, CHE 102, CHE 111, CHE 112, GEY 111, GEY 121, PHY 111, PHY 112, PHY 211, PHY 212
- 9 Social and Behavioral Sciences  
ECO 201 and ECO 202 are required.  
Choose 3 additional credits from the following: HIS 101, HIS 102, HIS 201, HIS 202
- 6 Humanities  
Choose 6 credits from 2 different disciplines from: ART 110, ART 111, ART 112, HUM 121, HUM 122, HUM 123, LIT 115, LIT 201, LIT 202, MUS 120, MUS 121, MUS 122, PHI 111, PHI 112, PHI 113, THE 105, THE 211, THE 212

#### 20 Professional Requirements

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

## Computer Information Systems

Joe Easton, Department Chair

Associate of General Studies (AGS) Degree

### Career Opportunities

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

### Program Description

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

### ASSOCIATE (AGS) DEGREE

#### Computer Information Systems

TOTAL CREDITS 62

#### 36 General Education Core Requirements

- 9 English/Speech  
ENG 121, ENG 122, SPE 115
- 4 Mathematics  
MAT 121
- 8 Natural Science  
Choose from: AST 101, AST 102, BIO 105, BIO 111, BIO 112, CHE 101, CHE 102, CHE 111, CHE 112, GEY 111, GEY 121, PHY 105, PHY 111, PHY 112, PHY 211, PHY 212
- 9 Social and Behavioral Sciences  
Choose 9 credits from at least 2 different disciplines: ECO 201 and ECO 202 are recommended. ANT 101, ANT 111, GEO 105, HIS 101, HIS 102, HIS 201, HIS 202, POS 105, POS 111, PSY 101, PSY 102, SOC 101, SOC 102
- 6 Humanities  
Choose 6 credits from at least 2 different disciplines: ART 110, ART 111, ART 112, FRE 111, FRE 112, FRE 211, FRE 212, GER 111, GER 112, GER 211, GER 212, HUM 121, HUM 122, HUM 123, LIT 115, LIT 201, LIT 202, MUS 120, MUS 121, MUS 122, PHI 111, PHI 112, PHI 113, SPA 111, SPA 112, SPA 211, SPA 212, THE 105, THE 211, THE 212

#### 26 Core Requirements

- 3 CIS 115 Introduction to Computer Information Systems
- 3 CIS 118 Intro PC Applications
- 3 CIS 220 Fundamentals of UNIX
- 3 CIS 268 Systems Analysis and Design I
- 3 CNG 124 Networking I: Network+  
OR
- 3 ELT 202 Introduction to PC Servicing
- 3 CSC 116 Logic and Program Design
- 4 CSC 160 Computer Science I (JAVA)
- 4 CSC 161 Computer Science II (JAVA)

# Criminal Justice

Al Alber, Department Chair

## Associate of General Studies (AGS) Degree

### Career Opportunities

The CRJ program prepares you to transfer as a junior to a four-year institution to pursue a Bachelor of Science degree in Sociology or Criminal Justice, after which you can pursue a career in federal, state, and local adult correctional institutions, juvenile corrections and treatment facilities, law enforcement, forensics, private security, and private investigations.

### Program Description

The CRJ program provides an in-depth analysis of the three components of the criminal justice system (law enforcement, the judicial system, and corrections) with special emphasis on criminology, substantive criminal law, procedural criminal law, and constitutional law. It places a strong emphasis on reading and comprehension skills, written and verbal communication skills, and empathetic awareness of cultural diversity.

### Disclaimer

If you have a prior arrest and/or drug/alcohol history, you should discuss this history with a CRJ advisor prior to your admission into a criminal justice program. Neither PCC nor CRJ advisors will be held liable for your decision to continue in the program if you have such a history.

Your entrance into any CRJ course of study, or your subsequent graduation, is no guarantee, explicit or implied, that you are employable in the criminal justice system. Further, if you are cannot be placed and/or remain in the course CRJ 287, Cooperative Education Internship, after two good-faith attempts at placement, neither PCC nor its employees accept responsibility in respect to your fulfillment of the program.

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

### Program Requirements

#### *Entrance requirements*

This is an open enrollment program.

#### *Graduation requirements*

A grade of "C" or higher is required in each course.

## ASSOCIATE (AGS) DEGREE

### Criminal Justice

TOTAL CREDITS 60

#### 39 General Education Core Requirements

- 9 English/Speech  
ENG 121, ENG 122, SPE 115
- 4 Mathematics  
MAT 120
- 8 Natural Science  
Select two courses: AST 101, AST 102, BIO 105, BIO 111, BIO 112, CHE 101, CHE 102, CHE 111, CHE 112, GEY 111, GEY 121, PHY 105, PHY 111, PHY 112, PHY 211, PHY 212
- 9 Social and Behavioral Sciences  
Choose one HIS course and two others from 2 different disciplines. Choose from: ANT 101, ANT 111, ECO 201, ECO 202, GEO 105, HIS 101, HIS 102, HIS 201, HIS 202, POS 105, POS 111, PSY 101, PSY 102, SOC 101, SOC 102
- 9 Humanities  
Choose 9 credits from 2 different disciplines. Choose from:  
ART 110, ART 111, ART 112, FRE 111, FRE 112, FRE 211, FRE 212, GER 111, GER 112, GER 211, GER 212, HUM 121, HUM 122, HUM 123, LIT 115, LIT 201, LIT 202, MUS 120, MUS 121, MUS 122, PHI 111, PHI 112, PHI 113, SPA 111, SPA 112, SPA 211, SPA 212, THE 105, THE 211, THE 212

#### 21 Core Curriculum Requirements

- 3 CRJ 110 Intro to Criminal Justice
- 3 CRJ 111 Substantive Criminal Law
- 3 CRJ 112 Procedural Criminal Law
- 3 CRJ 135 Judicial Function
- 3 CRJ 145 Correctional Process
- 3 CRJ 210 Constitutional Law
- 3 CRJ 230 Criminology

# Mass Communications

Jennifer Sherman, Department Chair

## Associate of General Studies (AGS) Degree

### Career Opportunities

The Mass Communications program prepares you for a career in journalism, radio/TV broadcasting, advertising, public relations, or New Media Technology by providing a two-year foundation of courses designed to transfer to four-year colleges and universities.

### Program Description

This program teaches you to think critically and develops your skills in news writing, television and radio production, advertising, videography, and web design. Courses provide a solid foundation in these areas through a mixture of lecture and hands-on application. A fully equipped video control room and a mobile production truck provide you with multi-camera working classrooms. Several non-linear editing suites offer you a diversity of experience in the changing field of communication. You will also gain experience in production and digital media through our media lab and the many volunteer opportunities we offer.

Transferability of courses depends upon the courses taken and the receiving institution. The PCC-CSU-Pueblo Transfer Agreement allows the AGS Mass Communications graduate to transfer to the Colorado State University-Pueblo Mass Communications Department with a junior standing.

Please see the certificate option under Broadcasting and Production Technology.

## ASSOCIATE (AGS) DEGREE

### Mass Communications

TOTAL CREDITS 60

#### 35 General Education Requirements

- 6 Communications  
ENG 121, ENG 122
- 3 Mathematics  
MAT 120, MAT 121, MAT 135
- 8 Physical and Life Sciences  
Select two courses from: AST 101, AST 102, BIO 105, BIO 111, BIO 112, CHE 101, CHE 102, CHE 111, CHE 112, GEY 111, GEY 121, PHY 111, PHY 112, PHY 211, PHY 212
- 9 Social and Behavioral Science  
Select 3 courses, in at least 2 categories, one of which must be history:  
Economics and Political Systems: ECO 201, ECO 202, POS 105, POS 111  
Geography: GEO 105  
History: HIS 101, HIS 102, HIS 201, HIS 202  
Human Behavior and Social Systems: ANT 101, ANT 111, PSY 101, PSY 102, SOC 101, SOC 102
- 9 Arts and Humanities  
Select 3 courses, with no more than 2 courses from any 1 category:  
Arts: ART 110, ART 111, ART 112, MUS 120, MUS 121, MUS 122, THE 105, THE 211, THE 212  
Literature and Humanities: HUM 121, HUM 122, HUM 123, LIT 115, LIT 201, LIT 202  
Ways of Thinking: PHI 111, PHI 112, PHI 113

#### 25 Core Curriculum Requirements

- 3 JOU 105 Introduction to Mass Media
- 3 JOU 206 Intermediate Newswriting and Editing
- 3 MAR 220 Principles of Advertising
- 3 MGD 143 Web Motion Graphic Design I
- 1 MGD 175 Special Topics: Media Lab
- 3 MGD 277 Special Topics: Public Relations
- 1 MGD 289 Capstone
- 2 RTV 100 Introduction to Telecommunications
- 3 RTV 102 Beginning Television
- 3 RTV 108 Principles of Audio

\*Note: MGD 175 and RTV 100 will always be taken concurrently

## CCCS Guaranteed Transfer (GT) - Pathways Courses

In December 2005, the Colorado Commission on Higher Education established a statewide transfer policy for general education course credits. This policy is also known as GT-Pathways. The table below lists GT-Pathways Courses that are included in this policy. Although Pueblo Community College does not offer all of the courses listed in the table below, if you are transferring any of these courses to Pueblo Community College from an accredited post secondary institution, these courses will be accepted at our college.

### Introductory Writing Courses (GT-CO1)

ENG 121	English Composition I
ENG 122	English Composition II

### Mathematics (GT-MA1)

MAT 120	(AA) Mathematics for Liberal Arts
MAT 121	(AA & AS) College Algebra
MAT 122	(AA & AS) Trigonometry
MAT 123	(AA) Finite Mathematics
MAT 125	(AA) Survey of Calculus
MAT 135	(AA) Introduction to Statistics
MAT 155	(AA) Integrated Math I
MAT 156	(AA) Integrated Math II
MAT 166	(AA) Pre-Calculus
MAT 201	(AA & AS) Calculus I
MAT 202	(AA & AS) Calculus II

### Arts (GT-AH1)

ART 110	Art Appreciation
ART 111	Art History I
ART 112	Art History II
FRE 211	French II
GER 211	German III
GER 212	German IV
ITA 211	Italian III
ITA 212	Italian IV
JPN 211	Japanese Language III
JPN 212	Japanese Language IV
MUS 120	Music Appreciation
MUS 121	Music History I
MUS 122	Music History II
RUS 211	Russian Language III
RUS 212	Russian Language IV
SPA 211	Spanish Language III
SPA 212	Spanish Language IV
THE 105	Introduction to Theatre Arts
THE 211	Development of Theatre I
THE 212	Development of Theatre II

### Literature and Humanities (GT-AH2)

HUM 121	Humanities: Early Civilizations
HUM 122	Humanities: Medieval to Modern
HUM 123	Humanities: Modern World
LIT 115	Introduction to Literature
LIT 201	Masterpieces of Literature I
LIT 202	Masterpieces of Literature II
LIT 205	Ethnic Literature
LIT 211	Survey of American Literature I
LIT 212	Survey of American Literature II
LIT 221	Survey of British Literature I
LIT 222	Survey of British Literature II

### Ways of Thinking (GT-AH3)

PHI 111	Introduction to Philosophy
PHI 112	Ethics
PHI 113	Logic

### History (GT-HI1)

HIS 101	History of Western Civilization I
HIS 102	History of Western Civilization II
HIS 201	U.S. History I
HIS 202	U.S. History II
HIS 247	Contemporary World History

### Economic & Political Systems (GT-SS1)

ECO 201	Principles of Macroeconomics
ECO 202	Principles of Microeconomics
POS 111	American Government

### Geography (GT-SS2)

GEO 105	World Geography
GEO 106	Human Geography

### Human Behavior & Social Systems (GT-SS3)

ANT 101	Cultural Anthropology
ANT 111	Physical Anthropology
PSY 101	General Psychology
PSY 102	General Psychology II
PSY 235	Human Growth & Development
SOC 101	Introduction to Sociology
SOC 102	Introduction to Sociology II

### Physical & Life Sciences (GT-SC1)

AST 101	(AA & AS) Astronomy I
AST 102	(AA & AS) Astronomy II
BIO 105	(AA) Science of Biology
BIO 111	(AA & AS) General College Biology I
BIO 112	(AA & AS) General College Biology II
BIO 201	(AA & AS) Human Anatomy & Physiology I
BIO 202	(AA & AS) Human Anatomy & Physiology II
BIO 204	(AA & AS) Microbiology
CHE 101	(AA) Introduction to Chemistry I
CHE 102	(AA) Introduction to Chemistry II
CHE 105	(AA) Chemistry in Context
CHE 111	(AA & AS) General College Chemistry I
CHE 112	(AA & AS) General College Chemistry II
GEY 111	(AA & AS) Physical Geology
GEY 121	(AA & AS) Historical Geology
MET 150	(AA & AS) General Meteorology
PHY 105	(AA) Conceptual Physics
PHY 111	(AA & AS) Physics: Algebra Based I
PHY 112	(AA & AS) Physics: Algebra Based II
PHY 211	(AA & AS) Physics: Calculus Based I
PHY 212	(AA & AS) Physics: Calculus Based II
SCI 155	(AA) Integrated Science I
SCI 156	(AA) Integrated Science II

# Career and Technical Programs

## Directory of Associate of Applied Science (AAS) Degrees, Certificates & Mini-Certificates

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### Associate of Applied Science (AAS) Degrees

#### Occupational Degrees

The AAS degree prepares you to enter a skilled and/or paraprofessional occupation or to upgrade/stabilize your employment. These programs are not intended for transfer to baccalaureate degree programs; however, certain courses may be accepted toward a bachelor's degree at other institutions. Consult an academic advisor for information about the transferability of specific courses.

Minimum requirements for an AAS degree include the following:

- Minimum of 60 semester hours of course work
- Cumulative GPA of 2.000 or higher
- 15 semester hours of general education courses
- Additional requirements of a minimum 45 semester hours as listed within the individual programs of study
- Minimum of 15 graded semester hours earned at PCC

Requirements for the AAS degrees are detailed in this section of the catalog. PCC offers AAS degrees in the following areas:

Accounting  
Applied Technology  
Automotive Collision Technology  
Automotive Technology  
Business Management  
Computer Information Systems  
    with Applications Option  
    with Local Area Network (LAN) Option  
    with e-Web Page Design Option  
    with e-Technology Option  
Criminal Justice  
    with Adult and Juvenile Corrections Area of Emphasis  
    with Police Science Area of Emphasis  
Dental Assisting  
Dental Hygiene  
Digital Media  
Early Childhood Education  
Emergency Medical Services – Paramedic

Energy Maintenance Technology  
    with Mechanical Maintenance Option  
    with Electrical Maintenance Option  
    with Solar Maintenance Option  
Engineering Technology  
    with Manufacturing Engineering Technology Option  
    with Civil Engineering Option  
Hospitality Studies  
    with Culinary Arts Management Option  
    with Culinary Arts Production Option  
    with Culinary Arts Tourism, Conventions and Events Option  
Industrial Electronics Technology  
    with General Electronics Technology Option  
    with Electromechanical Technology Option  
Library Technician  
Machining Technology  
Medical Sonography  
Nursing  
Occupational Therapy Assistant  
Office Administration  
    with Office Professional Option  
    with Desktop Applications Specialist Option  
    with Legal Office Specialist Option  
    with Medical Transcription Specialist Option  
    with Medical Records, Insurance, Coding & Billing Specialist Option  
Physical Therapist Assistant  
Radiologic Technology  
Respiratory Care Practitioner  
Respiratory Care Practitioner –  
    with Respiratory/EMT Intermediate Option  
Visual Communications  
    with Graphic Design Option  
    with 3-D Rendering & Illustration Option  
    with Digital Multimedia Option  
Welding

## Certificates

PCC offers the following certificates. For more information, please contact the appropriate department chairperson.

Automotive Collision Technology  
with Automotive Collision Repair Option  
with Automotive Refinishing Option  
with Nonstructural Repair Option  
with Refinishing Option  
with Structural Repair Option  
with Mechanical and Electrical Components Option

Automotive Technology  
with Performance Option  
with Suspension and Drive Train Option  
with Engines and Electrical Option  
with Automatic Transmissions and Brakes Option  
with Fuels and Emissions Option  
with Manual Transmissions and Suspension Option

Aviation Maintenance Fundamentals  
Aviation Technology

Broadcasting and Production Technology

Business Management  
with Business Fundamentals Option  
with Entrepreneurship Option

CISCO Certified Network Associate

Computer Information Systems  
with Applications Option  
with Computer Operator Option

Criminal Justice  
with Police Science Option  
with Adult and Juvenile Corrections Option

Dental Assisting

E-Business  
with e-Programming Option  
with e-Server Management Option

Early Childhood Education  
with Academic Director  
with Academic Group Leader

Emergency Medical Services  
with EMT Basic Option  
with EMT Intermediate Option  
with EMT Paramedic Option

Energy Maintenance Technology  
with Mechanical Maintenance Option  
with Electrical Maintenance Option  
with Solar Maintenance Option

Engineering Technology  
with Rapid Product Development Option  
with Surveying Option  
with Architectural Design Option

Health Care Support Technician

Industrial Electronics Technology  
with Industrial Controls Technology Option  
with General Electronics Technology Option  
with Electromechanical Technology Option  
with Semiconductor Manufacturing Option

Hospitality Studies/Culinary Arts  
with Dining Service Option  
with Beginning Production and Baking Option  
with Intermediate Production Option  
with Beginning Tours and Events Option  
with Intermediate Tours and Events Option

Law Enforcement Academy

Library Technician

Machining Technology

Machining  
with Manual Machining Option

Massage Therapy

Medical Sonography

Office Administration  
with Office Professional Option  
with Desktop Applications Specialist Option  
with Legal Office Specialist Option  
with Medical Transcription Specialist Option  
with Medical Records, Insurance, Coding & Billing Specialist Option

Practical Nursing

Psychiatric Technician

Visual Communications  
with Graphic Design Option  
with 3-D Rendering & Illustration Option  
with Digital Multimedia Option

Welding

## Mini-Certificates

PCC offers the following Mini-Certificates. For more information, please contact the appropriate department chairperson. Mini-Certificate programs are not eligible for Federal or State Financial Aid funds.

Automotive Collision Technology  
with Plastics and Composite Repair Option  
with Custom Painting Option

Aviation Maintenance  
with Ground Handling, Materials, and Regulations Option  
with A & P Preparation Electronics, Corrosion and Fluid Lines Option

Aviation Technology  
with Private Pilot Option  
with Commercial Pilot Option  
with Multi-Engine Instructor Option  
with Advanced Instructor and Commercial Option

Business Management  
with Real Estate Option

Criminal Justice  
with Career Enhancement: Corrections/Adult Option  
with Career Enhancement: Criminal Justice Core  
with Career Enhancement: Corrections/Juvenile Option  
with Career Enhancement: Criminal Justice Process  
with Career Enhancement: Criminal Justice System

Dental Hygiene  
with Local Anesthesia and Nitrous Oxide/Oxygen Sedation Option

Digital Media  
with Web Technologies Option  
with Web Design Option  
with Animation Option  
with Digital Video Option  
with Graphic Design Option

E-Business  
with e-Security Option

Engineering Technology – Mechanical CAD Option  
Engineering Technology – Civil CAD Option  
Engineering Technology – Construction Basics Option

Machining  
with CNC Option  
with CAD/CAM Option

Nurse Aide

Office Administration  
with Customer Service Academy Certificate  
with Personal Computer Specialist Certificate

Pharmacy Technician

Phlebotomy Technician

Real Estate

Upholstery

# Associate of Applied Science (AAS) Degree and Certificate Programs

## Occupational Degrees and Certificates

### Accounting

Joe Easton, Department Chair

#### Associate of Applied Science (AAS) Degree

##### Career Opportunities

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

##### Program Description

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

Note: Students interested in transferring to a baccalaureate program in Accounting should refer to the Transfer Degree section of this catalog.

#### ASSOCIATE (AAS) DEGREE

##### Accounting

TOTAL CREDITS 69

##### 19 General Education Requirements

- 3 ECO 201 Principles of Macroeconomics
- 3 ENG 121 English Composition I
- 3 ENG 131 Technical Writing I
- 4 MAT 121 College Algebra
- 3 SPE 115 Public Speaking
- 3 Natural Science Elective

##### 31 Core Curriculum Requirements

- 3 ACC 115 Payroll Accounting
- 4 ACC 121 Accounting Principles I
- 4 ACC 122 Accounting Principles II
- 3 ACC 131 Income Tax
- OR
- 3 ACC 216 Governmental and Not-For-Profit Accounting
- 4 ACC 211 Intermediate Accounting I
- 4 ACC 212 Intermediate Accounting II
- 3 ACC 226 Cost Accounting
- 3 ACC 245 Computerized Accounting with a Professional Package
- 3 ACC 287 Cooperative Education

##### 19 Related Requirements

- 3 BUS 115 Introduction to Business
- 3 BUS 216 Legal Environment of Business
- 3 BUS 226 Business Statistics
- 3 CIS 128 Windows Complete
- 1 CIS 131 Word Processing I
- 3 CIS 155 Complete PC Spreadsheet: Excel
- 3 MAN 226 Principles of Management

### Applied Technology

#### Associate of Applied Science (AAS)

##### Program Description

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

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

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

##### Program Requirements

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

##### Minimum requirements for this degree include:

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

#### ASSOCIATE (AAS) DEGREE

##### Applied Technology

TOTAL CREDITS 60

##### 42-45 AVTS Certificate

##### 15-18 General Education Courses

- 3 English/Speech
- 3 Humanities
- 3 Mathematics
- 3 Natural Science
- 3 Social Science

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

# Automotive Collision Technology

Jim Torres, Department Chairperson

Associate of Applied Science (AAS) Degree  
Certificates and Mini-Certificates

## Career Opportunities

The Automotive Collision and Refinishing Technology program prepares you for a career in structural and non-structural collision repair, refinishing, estimating, upholstery, paintless dent repair, glass installing, custom body and refinishing, and aviation refurbishing.

## Program Description

This program teaches you to remove and replace exterior and interior panels, glass, and hardware; straighten frames and unibodies; weld panels and structural parts; repair electrical, brakes, suspension, and drive components damaged in a collision; estimate collision repair costs; repair plastics and fiberglass; and customize the body and finish of a vehicle.

The program is certified by the National Automotive Technicians Education Foundation (NATEF). You can receive I-CAR (Inter-Industry Conference on Auto Collision Repair) Gold Class points for completing most courses if you earn degree-of-trade competency in each unit. We encourage you to take the Automotive Service Excellence (ASE) certification, and we offer a paid apprenticeship for high school students through AYES (Automotive Youth Education System).

As a student in this program, you will become a member of the "Skills USA" VICA club and participate in a number of leadership activities and competitions.

## Program Requirements

*Entrance requirements:*

Students must pass the "Ability to Benefit" assessment.

## ASSOCIATE (AAS) DEGREE

### Auto Collision Technology

TOTAL CREDITS 74

#### 19 General Education Requirements

3	ENG 121	English Composition I
3	MAT 107	Career Math
4	PHY 105	Conceptual Physics
3	PSY 101	General Psychology I
3	SPE 115	Public Speaking
3		Humanities Elective

#### 55 Core Curriculum Requirements

2	ACT 110	Safety in Collision Repair
3	ACT 111	Metal Welding and Cutting I
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
1	ACT 141	Refinishing Safety
2	ACT 142	Surface Preparation I
2	ACT 143	Spray Equipment Operations
2	ACT 144	Refinishing I
1	ACT 151	Plastics and Adhesives I
1	ACT 180	Automotive Collision Repair Internship Level I
1	ACT 181	Automotive Collision Repair Level II Internship
3	ACT 205	Estimating and Shop Management
2	ACT 211	Metal Welding and Cutting II
4	ACT 220	Structural Repair II
2	ACT 221	Moveable Glass and Hardware
3	ACT 231	Advanced Structural Damage Diagnosis and Repair
2	ACT 232	Fixed Glass Repair
3	ACT 241	Paint Defect
2	ACT 242	Surface Preparation II
2	ACT 243	Refinishing II
2	ACT 244	Final Detail
1	ACT 251	Plastics and Adhesives II
1	ACT 280	Automotive Collision Repair Internship III
1	ACT 284	Automotive Collision Repair Internship IV

## CERTIFICATE PROGRAMS

### Automotive Collision Technology

TOTAL CREDITS 16-57

#### 57 Option A: Automotive Collision Repair Certificate

2	ACT 110	Safety in Collision Repair
3	ACT 111	Metal Welding and Cutting I
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
1	ACT 151	Plastics and Adhesives I
7	ACT 175	Special Topics: Automotive Collision Technology Lab Experiences I
1	ACT 180	Automotive Collision Repair Internship Level I
3	ACT 205	Estimating and Shop Management
2	ACT 211	Metal Welding and Cutting II
4	ACT 220	Structural Repair II
2	ACT 221	Moveable Glass and Hardware
3	ACT 231	Advanced Structural Damage Diagnosis and Repair
2	ACT 232	Fixed Glass Repair
1	ACT 251	Plastics and Adhesives II
1	ACT 266	Restraint Systems
1	ACT 280	Automotive Collision Repair Level III Internship
1	ACT 284	Automotive Collision Repair Internship Level IV
3	ASE 110	Brakes I
2	ASE 120	Basic Automotive Electricity
3	ASE 140	Suspension and Steering I
3	ASE 163	Automotive Component Removal and Replacement

**29 Option B: Automotive Collision Refinishing Certificate**

- 1 ACT 141 Refinishing Safety
- 2 ACT 142 Surface Preparation I
- 2 ACT 143 Spray Equipment Operations
- 2 ACT 144 Refinishing I
- 3 ACT 160 Custom Painting
- 3 ACT 161 Automotive Graphics and Designs
- 3 ACT 162 Automotive Air Brushing and Murals
- 3 ACT 163 Automotive Special Effects and Refinishing
- 1 ACT 181 Automotive Collision Repair Level II Internship
- 3 ACT 241 Paint Defect
- 2 ACT 242 Surface Preparation II
- 2 ACT 243 Refinishing II
- 2 ACT 244 Final Detail

**16 Option C: Nonstructural Repair Certificate**

- 2 ACT 110 Safety in Collision Repair
- 3 ACT 111 Metal Welding and Cutting I
- 3 ACT 122 Panel Repair and Replacements
- 3 ACT 123 Metal Finishing and Body Filling
- 1 ACT 180 Automotive Collision Repair Internship Level I
- 2 ACT 221 Moveable Glass and Hardware
- 2 ACT 232 Fixed Glass Repair

**17 Option D: Refinishing Certificate**

- 1 ACT 141 Refinishing Safety
- 2 ACT 142 Surface Preparation I
- 2 ACT 143 Spray Equipment Operations
- 2 ACT 144 Refinishing I
- 1 ACT 181 Automotive Collision Repair Level II Internship
- 3 ACT 241 Paint Defect
- 2 ACT 242 Surface Preparation II
- 2 ACT 243 Refinishing II
- 2 ACT 244 Final Detail

**16 Option E: Structural Repair Certificate**

- 3 ACT 131 Structural Damage Diagnosis
- 3 ACT 132 Structural Damage Repair
- 2 ACT 211 Metal Welding and Cutting II
- 4 ACT 220 Structural Repair II
- 3 ACT 231 Advanced Structural Damage Diagnosis and Repair
- 1 ACT 280 Automotive Collision Repair Level III Internship

**16 Option F: Mechanical and Electrical Components Certificate**

- 3 ASE 110 Brakes I
- 2 ASE 120 Basic Automotive Electricity
- 3 ASE 140 Suspension and Steering I
- 3 ASE 163 Automotive Component Removal and Replacement
- 3 ACT 205 Estimating and Shop Management
- 1 ACT 266 Restraint Systems
- 1 ACT 284 Automotive Collision Repair Internship Level IV

**MINI-CERTIFICATE PROGRAMS**  
**Automotive Collision Technology**

TOTAL CREDITS 9-12

**9 Option G: Plastics and Composite Repair Certificate**

- 1 ACT 251 Plastics and Adhesives II
- 7 ACT 175 Special Topics: Automotive Collision Technology Lab Experience I
- 1 ACT 151 Plastics and Adhesives I

**12 Option H: Custom Painting Certificate**

- 3 ACT 160 Custom Painting
- 3 ACT 161 Automotive Graphics and Designs
- 3 ACT 162 Automotive Air Brushing and Murals
- 3 ACT 163 Automotive Special Effects and Refinishing



# Automotive Technology

Jim Torres, Department Chairperson

## Associate of Applied Science (AAS) Degree Certificates and Mini-Certificates

### Career Opportunities

The Automotive Service Technology program prepares you for a range of careers in automotive maintenance and repair.

### Program Description

This program teaches you to perform general maintenance, as well as to diagnose and repair electrical, engine, transmission, suspension, brake, and air conditioning systems. The program has met the National Institute for Automotive Technicians Education Foundation (NATEF) accreditation in the areas of Brakes, Electrical/Electronic Systems, Engine Performance, Engine Repair, and Suspension & Steering. We encourage you to take the Automotive Service Excellence (ASE) certification tests while enrolled at PCC. We offer a paid apprenticeship for high school students through the Automotive Youth Education System (AYES).

As a student in the program, you will become a member of the "Skills USA" VICA club and participate in a number of leadership activities and competitions.

### Program Requirements

#### Entrance requirements:

Pass the "Ability to Benefit" assessment.

## ASSOCIATE (AAS) DEGREE

### Automotive Technology

TOTAL CREDITS 68-69

#### 19 General Education Requirements

3	ENG 121	English Composition I
3	MAT 107	Career Math
4	PHY 105	Conceptual Physics
3	PSY 101	General Psychology I
3	SPE 115	Public Speaking
3		Humanities Elective

#### 49 Option A: Engine Performance Core Curriculum Requirements

2	ASE 120	Basic Automotive Electricity
2	ASE 123	Automotive Battery, Starting, and Charging Systems
2	ASE 124	Advanced Ignition System Diagnosis & Repair
2	ASE 130	General Engine Diagnosis
2	ASE 132	Ignition System Diagnosis and Repair
2	ASE 134	Automotive Emissions
5	ASE 161	Engine, Disassembly Diagnosis and Assembly
2	ASE 220	Specialized Electronics Training
2	ASE 231	Automotive Computers
4	ASE 233	Fuel Injection and Exhaust Systems
2	ASE 234	Advanced Automotive Emissions
1	ASE 235	Drivability Diagnosis
4	ASE 236	Advanced Drivability Diagnosis/Repair
2	ASE 260	Advanced Engine Diagnosis
1	ASE 280	Internship: Basic Electrical and Engine Performance
1	ASE 283	Internship: Advanced Electrical and Engine Performance
4	ASE 170	Laboratory Experience I
4	ASE 171	Laboratory Experience II
5	ASE 265	Automotive Heating and Air Conditioning

#### 50 Option B: Suspension/Drive Train Core Curriculum Requirements

3	ASE 110	Brakes I
2	ASE 120	Basic Automotive Electricity
3	ASE 140	Suspension and Steering I
2	ASE 151	Automotive Manual Transmission/Transaxles and Clutches
2	ASE 152	Differentials and 4WD/AWD Service
1	ASE 160	Automotive Engine Removal and Installation
3	ASE 163	Automotive Component Removal and Replacement
2	ASE 165	Automotive Machining
2	ASE 170	Laboratory Experience I
3	ASE 172	Laboratory Experience III
3	ASE 210	Brakes II
2	ASE 220	Specialized Electronics Training
2	ASE 231	Automotive Computers
3	ASE 240	Suspension and Steering II
1	ASE 250	Automatic Transmissions/Transaxle Service
5	ASE 251	Automatic Transmission/Transaxle Diagnosis and Assemblies
2	ASE 252	Advanced Automatic Transmissions/Transaxles
2	ASE 253	Advanced Manual Transmission/Transaxles
5	ASE 265	Automotive Heating and Air Conditioning
1	ASE 281	Internship: Basic Heavy Duty and Power Train
1	ASE 282	Internship: General

## CERTIFICATE PROGRAMS

### Automotive Technology

TOTAL CREDITS 17-49

#### 49 Option A: Automotive Performance Certificate

- 2 ASE 120 Basic Automotive Electricity
- 2 ASE 123 Automotive Battery, Starting, and Charging Systems
- 2 ASE 124 Advanced Ignition System Diagnosis and Repair
- 2 ASE 130 General Engine Diagnosis
- 2 ASE 132 Ignition System Diagnosis and Repair
- 2 ASE 134 Automotive Emissions
- 5 ASE 161 Engine, Disassembly Diagnosis and Assembly
- 4 ASE 170 Laboratory Experience I
- 4 ASE 171 Laboratory Experience II
- 2 ASE 220 Specialized Electronics Training
- 2 ASE 231 Automotive Computers
- 4 ASE 233 Fuel Injection and Exhaust Systems
- 2 ASE 234 Advanced Automotive Emissions
- 1 ASE 235 Drivability Diagnosis
- 4 ASE 236 Advanced Drivability Diagnosis/Repair
- 2 ASE 260 Advanced Engine Diagnosis
- 5 ASE 265 Automotive Heating and Air Conditioning
- 1 ASE 280 Internship: Basic Electrical and Engine Performance
- 1 ASE 283 Internship: Advanced Electrical and Engine Performance

#### 45 Option B: Suspension and Drive Train Certificate

- 3 ASE 110 Brakes I
- 2 ASE 120 Basic Automotive Electricity
- 3 ASE 140 Suspension and Steering I
- 2 ASE 151 Automotive Manual Transmission/Transaxles and Clutches
- 2 ASE 152 Differentials and 4WD/AWD Service
- 1 ASE 160 Automotive Engine Removal and Installation
- 3 ASE 163 Automotive Component Removal and Replacement
- 2 ASE 165 Automotive Machining
- 2 ASE 170 Laboratory Experience I
- 3 ASE 172 Laboratory Experience III
- 3 ASE 210 Brakes II
- 2 ASE 220 Specialized Electronics Training
- 2 ASE 231 Automotive Computers
- 3 ASE 240 Suspension and Steering II
- 1 ASE 250 Automatic Transmission/Transaxle Service
- 5 ASE 251 Automatic Transmission/Transaxle Diagnosis and Assemblies
- 2 ASE 252 Advanced Automatic Transmissions/ Transaxles
- 2 ASE 253 Advanced Manual Transmission/Transaxles
- 1 ASE 281 Internship: Basic Heavy Duty and Power Train
- 1 ASE 282 Internship: General

#### 17 Option C: Engine and Electrical Certificate

- 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
- 5 ASE 161 Engine, Disassembly Diagnosis and Assembly
- 2 ASE 124 Advanced Ignition System Diagnosis and Repair
- 2 ASE 260 Advance Engine Diagnosis

#### 17 Option D: Fuels and Emissions Certificate

- 2 ASE 134 Automotive Emissions
- 2 ASE 220 Specialized Electronics Training
- 2 ASE 231 Automotive Computers
- 4 ASE 233 Fuel Injection and Exhaust Systems
- 1 ASE 235 Drivability Diagnosis
- 2 ASE 234 Advanced Automotive Emissions
- 4 ASE 236 Advanced Drivability Diagnosis/Repair

## MINI-CERTIFICATE PROGRAMS

### Automotive Technology

TOTAL CREDITS 8-14

#### 12 Option E: Automatic Transmissions Certificate

- 1 ASE 250 Automatic Transmission/Transaxle Service
- 5 ASE 251 Automatic Transmission/Transaxle Diagnosis and Assemblies
- 2 ASE 252 Advanced Automatic Transmissions/Transaxles
- 1 ASE 280 Internship: Basic Electrical and Engine Performance
- 3 ASE 172 Laboratory Experience III

#### 14 Option F: Brakes Certificate

- 3 ASE 110 Brakes I
- 2 ASE 165 Automotive Machining
- 3 ASE 210 Brakes II
- 1 ASE 282 Internship: General
- 5 ASE 265 Automotive Heating and Air Conditioning

#### 11 Option G: Manual Transmissions/Removal and Replacement Certificate

- 2 ASE 151 Automotive Manual Transmission/Transaxles and Clutches
- 2 ASE 152 Differentials and 4WD/AWD Service
- 1 ASE 160 Automotive Engine Removal and Installation
- 3 ASE 163 Automotive Component Removal and Replacement
- 2 ASE 253 Advanced Manual Transmission/Transaxles
- 1 ASE 281 Internship: Basic Heavy Duty and Power Train

#### 9 Option H: Steering and Suspension Certificate

- 3 ASE 140 Suspension and Steering I
- 3 ASE 240 Suspension and Steering II
- 2 ASE 170 Laboratory Experience I
- 1 ASE 283 Internship: Advanced Electrical and Engine Performance

#### 8 Option I: Preventative Maintenance Certificate

- 4 ASE 170 Laboratory Experience I
- 4 ASE 171 Laboratory Experience II

## Aviation Maintenance

Jim Torres, Department Chair

### Certificate and Mini-Certificates

#### Career Opportunities

Overall, the employment of aircraft technicians, including mechanics and refurbishers, is projected to increase about as fast as average for all occupations through 2012. Aviation manufacturing companies need technicians who have a basic knowledge of aircraft as well as occupational skills.

#### Program Description

This program prepares you for transfer to institutions that offer complete Airframe and Powerplant programs. You will take general aviation courses that provide a basis for further studies in airframe and power plant repair. You may also take courses related to aircraft refurbishing.

#### CERTIFICATE PROGRAM

##### Aviation Maintenance

TOTAL CREDITS 21

##### 21 Aviation Maintenance Fundamentals Certificate

- 4 AMT 101 A & P Preparation
- 4 AMT 102 Basic Electrics
- 2 AMT 103 Weight and Balance and Ground Handling
- 3 AMT 104 Regulations and Publications
- 6 AMT 105 Materials and Processes
- 2 AMT 106 Corrosion Control and Fluid Lines

#### MINI-CERTIFICATES

##### Aviation Maintenance

TOTAL CREDITS 10-11

##### 11 Ground Handling, Materials, and Regulations

- 2 AMT 103 Weight and Balance and Ground Handling
- 3 AMT 104 Regulations and Publications
- 6 AMT 105 Materials and Processes

##### 10 A & P Preparation Electronics, Corrosion and Fluid Line

- 4 AMT 101 A & P Preparation
- 4 AMT 102 Basic Electrics
- 2 AMT 106 Corrosion Control and Fluid Lines

## Aviation Technology

Jim Torres, Department Chair

### Certificate and Mini-Certificates

#### Career Opportunities

The employment of aircraft pilots is projected to increase about as fast as the average rate for all occupations through 2012. While a student in the private pilot program, you will learn enough about the aviation industry to enter such general employment areas as Aircraft Fueller, Flight Attendant Ticket Agent, Baggage Handler, Reservations Clerk, and other areas that require only a general knowledge of the aircraft industry. Completion of the program can lead to employment with or as any of the following:

- |                                 |                         |
|---------------------------------|-------------------------|
| Air Cargo Pilot                 | Aerial Photographer     |
| Corporate Pilot                 | Aviation Museum Curator |
| Co-Pilot                        | Aircraft Salesperson    |
| Flight instructor               | Civil Air Patrol        |
| Pipeline patrol pilot           | Skydiving               |
| Aerial Sight Seeing Pilot/Guide | Stunt Pilot             |
| Air Taxi Pilot                  | Charter service         |
| Crop Duster                     | Parcel delivery         |
| Aerial Fire fighter             | Air Ambulance           |

#### Program Description

This is a four semester program. The first semester prepares you to take the FAA Private Pilots written exam. Passing this exam prepares allows you to fly a single engine aircraft with passengers during the day or night but not in conditions of limited visibility. The second semester prepares you for the FAA Commercial and Instrument Rating written exams. With these certifications, you can transport passengers for hire and fly using your instruments in times of limited visibility. The third semester prepares you for the written exam for certifications which allow you to fly multi-engine aircraft. This semester also begins preparing you to become a flight instructor. The final semester prepares you for the FAA certification to become a Certified Flight Instructor. PCC flight courses are considered "Ground School Training" only. To become a licensed pilot, you need to receive the required flight training in an approved aircraft and pass the FAA Check Ride exams.

#### CERTIFICATE PROGRAM

##### Aviation Technology

TOTAL CREDITS 45

##### 45 Core Curriculum Requirements

- 4 AVT 101 Private Pilot Ground School
- 4 AVT 102 Private Pilot Flight
- 4 AVT 105 Aviation Meteorology
- 4 AVT 111 Instrument Pilot Ground School
- 4 AVT 112 Instrument Pilot Flight
- 2 AVT 201 Commercial Pilot Ground School
- 3 AVT 202 Commercial Flight I
- 4 AVT 203 Commercial Flight II
- 1 AVT 205 Mountain Flying Ground School
- 1 AVT 206 Crew Resource Management
- 1 AVT 207 Multi-Engine Ground School
- 2 AVT 211 Fundamentals of Instruction
- 2 AVT 212 Flight Instructor Ground School
- 2 AVT 221 Instrument Instructor Ground School
- 1 AVT 213 Flight Instructor Flight
- OR
- 1 AVT 208 Multi-Engine Flight
- 3 AMT 140 Aircraft Systems for Pilots – Airframe
- 3 AMT 141 Aircraft Systems for Pilots – Powerplant

## MINI-CERTIFICATES

### Aviation Technology

TOTAL CREDITS 10-14

#### 13 Private Pilot

- 4 AVT 101 Private Pilot Ground School
- 4 AVT 102 Private Pilot Flight
- 4 AVT 105 Aviation Meteorology
- 1 AVT 205 Mountain Flying Ground School

#### 14 Commercial Pilot

- 4 AVT 111 Instrument Pilot Ground School
- 4 AVT 112 Instrument Pilot Flight
- 2 AVT 201 Commercial Pilot Ground School
- 1 AVT 206 Crew Resource Management
- 3 AMT 140 Aircraft Systems for Pilots – Airframe

#### 10 Multi-Engine Instructor

- 3 AVT 202 Commercial Flight I
- 1 AVT 207 Multi-Engine Ground School
- 2 AVT 211 Fundamentals of Instruction
- 2 AVT 212 Flight Instructor Ground School
- 2 AVT 221 Instrument Instructor Ground School

#### 10 Advanced Instructor and Commercial

- 4 AVT 203 Commercial Flight II
- 2 AVT 221 Instrument Instructor Ground School
- 1 AVT 213 Flight Instructor Flight  
OR
- 1 AVT 208 Multi-Engine Flight
- 3 AMT 141 Aircraft Systems for Pilots – Powerplant

## Broadcasting and Production Technology

Jennifer Sherman, Department Chair

### Certificate

#### Career Opportunities

The Broadcasting and Production Technology program prepares you for an entry-level career in broadcasting production. You will be prepared to work as a camera operator in a television studio or as a videographer in a mobile setting.

#### Program Description

This program teaches you to apply the concepts and principles of broadcasting production in the changing field of multi-media production. The certificate program prepares you to immediately enter the career field. It emphasizes practical application of the concepts and principles of broadcasting production. A fully-equipped video control room and a mobile production truck provide multi-camera working classrooms. An editing lab offers a wealth of experience you can apply in the broadcasting field.

Note: You can use this certificate to easily segue into the AGS degree in Mass Communications, in which you can select broadcasting as an emphasis in a transfer degree. Students interested in transferring to a baccalaureate program in Mass Communications should refer to the Transfer Degree section of this catalog.

### CERTIFICATE PROGRAM

#### Broadcasting and Production Technology

TOTAL CREDITS 30

#### 30 Broadcasting and Production Technology Certificate Requirements

- 3 JOU 105 Introduction to Mass Media
- 3 MAR 220 Principles of Advertising
- 3 MGD 143 Web Motion Graphic Design I
- 3 MGD 164 Digital Video Editing I
- 3 MGD 175 Special Topics: Introduction to Electronic Media
- 3 MGD 275 Special Topics: Media Lab
- 3 ART 143 Digital Photography I
- 3 RTV 102 Beginning Television
- 3 RTV 108 Principles of Audio
- 3 RTV 175 Special Topics: Basic Video Production

# Business Management

Joe Easton, Department Chair

## Associate of Applied Science (AAS) Degree Certificates and Mini-Certificate

### Career Opportunities

The AAS and Certificate programs prepare you for entry level positions in marketing, management, or sales; they also give you the skills you need to open your own business.

### Program Description

You will study management from three perspectives: marketing, management, and economics. Marketing studies offer specific training in sales, advertising, promotion, and marketing. Management studies offer a generalized perspective with broad applications in the business world. Economic studies give you a basic understanding of economics and its relationship to other disciplines.

The Associate of Applied Science (AAS) Degree teaches you the basic skills needed to qualify for business management positions, with an emphasis on practical application of the concepts and principles of management. In addition to lecture and group-participation teaching techniques, the Business Management Department relies on guest speakers from the business world to describe real-world applications of academic concepts.

The Business Management Certificate program teaches you job-performance skills related to careers in business. It is a short, intensive course of study which prepares you for entry-level work. You can apply all course work for this certificate to the AAS Degree in Business Management. The Business Fundamentals Certificate program prepares you for an entry-level position in business or for starting your own small business.

You can apply all course work for this certificate to the AAS Degree in Business Management.

The Entrepreneurship Certificate program prepares you to open your own business. The certificate comprises six classes that introduce you to the fundamentals of sales, marketing, management, and accounting. You can apply all course work for this certificate to the AAS Degree in Business Management.

The Real Estate Mini-Certificate prepares you to obtain the Colorado Real Estate License so you can pursue a career in the real estate field. The most popular career choice is real estate sales, but you can also work as a property manager, title researcher, or loan document closer. The six real estate classes total 168 classroom hours to meet Colorado requirements; they cover Real Estate Law, Contracts, Regulations, Closings, Recordkeeping, and Practical Applications. To earn the Real Estate Associate Brokers License, you must complete the classes, pass the State of Colorado Real Estate Associate Broker's Examination, and submit the appropriate licensing application to the Colorado Real Estate Commission. After you receive your Associate Brokers license, you must attach your license to an employing real estate broker who agrees to supervise your work for the first two years in the field.

Note: Students interested in transferring to a baccalaureate program in Business Management should refer to the Transfer Degree section of this catalog.

## ASSOCIATE (AAS) DEGREE

### Business Management

TOTAL CREDITS 72

#### 19 General Education Requirements-All Options

3	ECO 201	Principles of Macroeconomics
3	ENG 121	English Composition I
3	ENG 131	Technical Writing I
4	MAT 121	College Algebra
3	SPE 115	Public Speaking
3		Natural Science Elective

#### 39 Core Curriculum Requirements

3	BUS 115	Introduction to Business
3	BUS 204	Introduction to E-Business
3	BUS 216	Legal Environment of Business
3	BUS 226	Business Statistics
3	BUS 287	Cooperative Education
	OR	
3	MAN 216	Small Business Management
3	ECO 202	Principles of Microeconomics
3	MAN 200	Human Resource Management I
3	MAN 225	Managerial Finance
3	MAN 226	Principles of Management
3	MAR 111	Principles of Sales
3	MAR 117	Principles of Retailing
3	MAR 216	Principles of Marketing
3	MAR 220	Principles of Advertising

#### 14 Related Requirements

4	ACC 121	Accounting Principles I
4	ACC 122	Accounting Principles II
3	CIS 128	Windows Complete
3	CIS 118	Intro PC Applications
	OR	
3	CIS 151	Electronic Spreadsheets

## CERTIFICATE PROGRAMS

### Business Management

TOTAL CREDITS 19-35

#### 35 Business Management Certificate Requirements

3	BUS 115	Introduction to Business
3	BUS 216	Legal Environment of Business
3	BUS 226	Business Statistics
3	MAN 200	Human Resource Management I
3	MAN 226	Principles of Management
3	MAR 216	Principles of Marketing

#### Related Requirements

4	ACC 121	Accounting Principles I
3	ECO 201	Principles of Macroeconomics
3	ENG 131	Technical Writing I
4	MAT 121	College Algebra
3	SPE 115	Public Speaking

**25 Business Fundamentals Certificate Requirements**

- 3 ACC 101 Fundamentals of Accounting
- 1 ACC 103 Fundamentals of Accounting Lab
- 3 ACC 115 Payroll Accounting
- 3 BUS 115 Introduction to Business
- 3 BTE 125 Records Management
- 3 ENG 113 Business English
- 3 MAN 200 Human Resource Management I
- 3 MAN 216 Small Business Management  
OR
- 3 MAN 128 Human Relations in Organizations
- 3 MAT 112 Financial Mathematics  
OR
- 3 BTE 156 Business Mathematics with Calculators  
OR
- 3 BUS 226 Business Statistics

**19 Entrepreneurship Certificate Requirements**

- 4 ACC 121 Accounting Principles
- 3 BUS 204 Introduction to E-Business
- 3 MAN 216 Small Business Management
- 3 MAR 111 Principles of Sales
- 3 MAR 216 Principles of Marketing
- 3 MAN 226 Principles of Management

**MINI-CERTIFICATE****Real Estate**

TOTAL CREDITS 11

**11 Real Estate Mini-Certificate Requirements**

- 6 REE 103 Real Estate Brokers I
- 5 REE 104 Real Estate Brokers II

## Computer Information Systems

Joe Easton, Department Chair

### Associate of Applied Science (AAS) Degree Certificates

**Career Opportunities**

The CIS program prepares you for careers in computer science, computer networking, and electronic commerce. The AAS Degree with an emphasis in local area networking prepares you to work as a network technician on small and large networks. You may also administer smaller networks as a System Administrator. The AGS Degree with an emphasis in Computer Information Systems prepares you to transfer to a university to continue studies in Computer Science or Computer Information Systems.

**Program Description**

The CIS program provides training in basic technical computer and networking skills. You will study computer networking, programming, and database technologies along with classes that teach the technical aspects of the Internet and data communications. Note: Students interested in transferring to a baccalaureate program in Computer Information Systems should refer to the Transfer Degree section of this catalog.

**ASSOCIATE (AAS) DEGREE****Computer Information Systems**

TOTAL CREDITS 59-61

**16 General Education Requirements-All Options**

- 3 ECO 202 Principles of Microeconomics
- 3 ENG 121 English Composition I
- 4 MAT 121 College Algebra
- 3 SPE 115 Public Speaking
- 3 Natural Science Elective

**21 Core Requirements-All Options**

- 3 BUS 204 Introduction to E-Business
- 3 CIS 115 Introduction to Computer Information Systems
- 1 CIS 178 Seminar/Workshop: Sophomore Seminar
- 3 CIS 220 Fundamentals of UNIX
- 3 CIS 268 Systems Analysis and Design I
- 2 CIS 287 Cooperative Education
- 3 CWB 221 Technology Foundations for e-Commerce
- 3 ELT 202 Introduction to PC Servicing

**22 Option A: PC Specialist**

- 3 CIS 135 Complete PC Word Processing
- 1 CIS 140 Microsoft Outlook
- 3 CIS 145 Complete PC Database: Access
- 3 CIS 146 Database Application Development: Access
- 3 CIS 155 Complete PC Spreadsheet: Excel
- 3 CIS 156 PC Spreadsheet Applications Development: Excel
- 3 CIS 167 Desktop Publishing
- 3 ELT 203 Advanced PC Services and A+ Prep

- 24 Option B: Local Area Networking**
- 3 CIS 222 UNIX System Administration
  - 3 CNG 104 Intro to TCP/IP
  - 3 CNG 124 Networking I: Network +
  - 4 CNG 212 Implementing Windows 2000 Professional and Server
  - 3 CSC 116 Logic and Program Design
  - 4 CSC 160 Computer Science I (JAVA)
  - 4 CSC 161 Computer Science II (JAVA)
- 23 Option C: E-Programming**
- 3 CIS 118 Intro PC Applications
  - 3 CIS 240 Database Design and Development
  - 3 CSC 116 Logic and Program Design
  - 4 CSC 160 Computer Science I (JAVA)
  - 4 CSC 161 Computer Science II (JAVA)
  - 3 CSC 233 Object Oriented Programming in C++
  - 3 CWB 205 Complete Web Scripting

## CERTIFICATE PROGRAMS

### Computer Information Systems

TOTAL CREDITS 36-44

#### 13-18 Core Curriculum Requirements-All Options

- 3 CIS 124 Intro to Operating Systems
- 3 CIS 220 Fundamentals of Unix
- 1-6 CIS 287 Cooperative Education
- 3 CSC 150 Visual Basic Programming
- 3 ELT 202 Introduction to PC Servicing

#### 14 Related Requirements-All Options

- 4 ACC 121 Accounting Principles I
- 3 ENG 113 Business English
- 4 MAT 090 Introductory Algebra
- 3 MAN 128 Human Relations in Organizations

Select one of the following options:

#### 12 Option A: Applications Option Requirements

- 3 BTE 151 Word Processing I
- 3 CIS 145 Complete PC Database: Access
- 3 CIS 155 Complete PC Spreadsheet: Excel
- 3 CIS Elective

#### 9 Option B: Computer Operator Option Requirements

- 3 CIS 115 Intro to Computer Information Systems
- 3 CIS 118 Intro PC Applications
- 3 CSC 116 Logic and Program Design

## Computer Information Systems

Joe Easton, Department Chair

### Cisco Certified Network Associate Certificate

#### Career Opportunities

The Cisco Network Certificate Program prepares you for entry level jobs in computer networking, working primarily with vender-specific equipment. Cisco Systems is the number one manufacturer of networking hardware in the world.

#### Program Description

The Certificate program teaches the basics of computer networking including the design, installation, and configuration of networking hardware. Completing the two semester program prepares you to take the Cisco Certified Networking Associate exam. Passing the exam enables you to work in business and industry positions that maintain and support local and wide-area networks.

Cisco provides course work for a complete range of basic through advanced networking concepts – from pulling cable through complex concepts such as subnet masking rules and strategies.

#### Program Requirements

##### Entrance requirements:

Admission to PCC is the only program requirement. However, we encourage you to complete any identified remedial material before starting the Cisco Program.

##### Graduation requirements:

You must complete 20 credits of Cisco classes to graduate from the program.

## CERTIFICATE PROGRAM

### Cisco Networking

TOTAL CREDITS 20

#### 20 Certificate Requirements

- 5 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

# Criminal Justice

Al Alber, Department Chair

## Associate of Applied Science (AAS) Degree Certificates and Mini-Certificates

### Career Opportunities

The CRJ program prepares students for careers in federal, state, and local adult correctional institutions, juvenile corrections and treatment facilities, law enforcement, forensics, private security, and private investigations.

### Program Description

The CRJ program provides an in-depth analysis of the three components of the criminal justice system (law enforcement, the judicial system, and corrections) with special emphasis on criminology, substantive criminal law, procedural criminal law, and constitutional law. It places a strong emphasis on reading and comprehension skills, written and verbal communication skills, and empathetic awareness of cultural diversity.

The AAS degree prepares you for entry level positions in adult and juvenile corrections, police science, and related fields.

The program also offers seven Certificates designed as career entry or career enhancement programs. They include a 37-credit Law Enforcement Academy leading to certification as a peace officer; an 18-credit certificate in adult and juvenile corrections; and five 9-credit certificates for career enhancement.

### Disclaimer

If you have a prior arrest and/or drug/alcohol history, you should discuss this history with a CRJ advisor prior to your admission into a criminal justice program. Neither PCC nor CRJ advisors will be held liable for your decision to continue in the program if you have such a history.

Your entrance into any CRJ course of study, or your subsequent graduation, is no guarantee, explicit or implied, that you are employable in the criminal justice system. Further, if you are cannot be placed and/or remain in the course CRJ 287, Cooperative Education/Internship, after two good-faith attempts at placement, neither PCC nor its employees accept responsibility in respect to your fulfillment of the program.

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

### Program Requirements

#### Entrance requirements

CRJ degree and certificate programs are open enrollment with the exception of the Law Enforcement Academy. To enroll in the Academy, you must formally apply to the director of the Academy, meet minimum basic skills requirements, undergo a criminal history background check, and appear before an oral interview board.

#### Graduation requirements:

A grade of "C" or higher is required in each course.

Note: If you are interested in transferring to a baccalaureate program in Criminal Justice, refer to the *AGS Degrees with Transfer Articulation* section of this catalog.

## ASSOCIATE (AAS) DEGREE

### Criminal Justice

TOTAL CREDITS 66-67

#### 21-22 General Education Requirements

- 3 ENG 121 English Composition I
- 3 ENG 131 Technical Writing I
- 3 MAT 107 Career Math (or higher)
- 3 SPE 115 Public Speaking
- 3-4 Natural Science (see Advisor)
- 6 Social and Behavioral Sciences

Choose from 2 different disciplines: ANT 101, ANT 111, ECO 201, ECO 202, GEO 105, HIS 101, HIS 102, HIS 201, HIS 202, POS 105, POS 111, PSY 101, PSY 102, SOC 101, SOC 102

#### 27 Core Curriculum Requirements

- 3 CRJ 110 Intro to Criminal Justice
- 3 CRJ 111 Substantive Criminal Law
- 3 CRJ 112 Procedural Criminal Law
- 3 CRJ 125 Law Enforcement Operations
- 3 CRJ 135 Judicial Function
- 3 CRJ 145 Correctional Process
- 3 CRJ 210 Constitutional Law
- 3 CRJ 230 Criminology
- 3 CRJ 287 Cooperative Education/Internship

Select one of the CRJ areas of emphasis:

#### 18 Corrections Certificate: Adult and Juvenile

- 3 CRJ 146 Community Based Corrections
- 3 CRJ 215 Constitutional Rights of Inmates
- 3 CRJ 216 Juvenile Law and Procedures
- 3 CRJ 220 Human Relations and Social Conflict
- 3 CRJ 225 Crisis Intervention
- 3 CRJ 249 Penology

#### 37 Police Science Certificate\*

- 6 CRJ 101 Basic Police Academy I
- 12 CRJ 102 Basic Police Academy II
- 2 CRJ 103 Basic Law Enforcement Academy III
- 8 CRJ 105 Basic Law
- 3 CRJ 106 Arrest Control Techniques
- 3 CRJ 107 Law Enforcement Driving
- 3 CRJ 108 Firearms

\*Students pursuing a Police Science area of emphasis are expected to complete the Pueblo Law Enforcement Academy. This must be coordinated with the Director of the Academy and the assigned CRJ student advisor.

## CERTIFICATE PROGRAMS

### Criminal Justice

TOTAL CREDITS 18-37

#### 18 Corrections Certificate: Adult and Juvenile

3	CRJ 146	Community Based Corrections
3	CRJ 215	Constitutional Rights of Inmates
3	CRJ 216	Juvenile Law and Procedures
3	CRJ 220	Human Relations and Social Conflict
3	CRJ 225	Crisis Intervention
3	CRJ 249	Penology

#### 37 Certificate A: Police Science

6	CRJ 101	Basic Police Academy I
12	CRJ 102	Basic Police Academy II
2	CRJ 103	Basic Law Enforcement Academy III
8	CRJ 105	Basic Law
3	CRJ 106	Arrest Control Techniques
3	CRJ 107	Law Enforcement Driving
3	CRJ 108	Firearms

## MINI-CERTIFICATES

### Criminal Justice

TOTAL CREDITS 9

#### 9 Certificate B: Career Enhancement: Corrections/Adult

3	CRJ 146	Community-Based Corrections
3	CRJ 215	Constitutional Rights of Inmates
3	CRJ 249	Penology

#### 9 Certificate C: Career Enhancement: Corrections/ Juvenile

3	CRJ 216	Juvenile Law and Procedures
3	CRJ 220	Human Relations and Social Conflict
3	CRJ 225	Crisis Intervention

#### 9 Certificate D: Career Enhancement: Criminal Justice Process

3	CRJ 110	Intro to Criminal Justice
3	CRJ 111	Substantive Criminal Law
3	SOC 101	Introduction to Sociology I

#### 9 Certificate E: Career Enhancement: Criminal Justice System

3	CRJ 112	Procedural Criminal Law
3	CRJ 135	Judicial Function
3	HIS 201	U.S. History I

#### 9 Certificate F: Career Enhancement: Criminal Justice Core

3	CRJ 210	Constitutional Law
3	CRJ 230	Criminology
3	POS 111	American Government

## Dental Assisting

Janet V. Trujillo, Department Chair

### Associate of Applied Science (AAS) Degree Certificate

#### Career Opportunities

The Dental Assisting program prepares you for a career in general chairside and specialty office dental assisting. Specialty offices include orthodontics, periodontics, oral maxillo facial surgery, pediatric dentistry, and endodontics. You can also seek a career as a dental business office administrator/manager. Other career opportunities include dental sales and insurance networking. We offer national board certification in office management, general chairside assisting, and orthodontic assisting.

#### Program Description

This program teaches you to function effectively as an integral member of the dental health team. We prepare you to perform chairside assisting procedures and patient care, perform tray set-ups for specific procedures, and maintain accurate patient and dental charting records. We also teach rubber dam and matrix band application, dental material manipulation and application, patient education and post operative instructions, coronal polishing and fluoride application, and infection control procedures. Our radiation health and safety curriculum meets the certification requirements of the Colorado Dental Practice Act. Graduates are eligible to take the Dental Assisting National Board Examination.

#### Program Requirements

##### Entrance requirements:

Certificate: Meet basic skill requirements of the Accuplacer® examination; successfully complete CIS 110 and HPR 102; submit a supplemental Dental Assisting application within the stated deadline date.

AAS Degree: Meet basic skill requirements of the Accuplacer® Examination; submit a supplemental Dental Assisting application with the stated deadline date; complete 17 credits of general education.

## ASSOCIATE (AAS) DEGREE

### Dental Assisting

TOTAL CREDITS 63

#### 17 General Education/Related Requirements

4	BIO 105	Science of Biology
1	CIS 110	Introduction to the PC
3	ENG 121	English Composition I
3	MAT 107	Career Math
3	PSY 101	General Psychology I
3	SPE 115	Public Speaking

#### 46 Core Curriculum Requirements

##### Fall Semester

3	DEA 102	Principles of Clinical Practice
1	DEA 120	Introduction to Dental Practice
3	DEA 121	Dental Science I
3	DEA 122	Dental Science II
3	DEA 123	Dental Materials I
3	DEA 125	Dental Radiography
3	DEA 126	Infection Control
4	DEA 200*	Introduction to Expanded Functions
4	DEA 205*	Expanded Functions for the Dental Auxiliary

### Spring Semester

- 2 DEA 104 Specialties in Dentistry
- 2 DEA 111 Dental Office Management
- 3 DEA 124 Dental Materials II
- 3 DEA 127 Dental Science III
- 3 DEA 131 Advanced Dental Radiography
- 2 DEA 132 Medical Emergencies
- 2 DEA 134 Prevention and Nutrition in Dentistry
- 2 DEA 175 Special Topics: Practice of Clinical Chairside Assisting
- 1 DEA 176 Special Topics: Applied Dental Psychology
- 1 DEA 181 Clinical Internship I

### Summer Semester

- 6 DEA 182 Clinical Internship II and Seminar

### Electives:

- 1 DEA 140 Dental Assisting National Board Review (Elective)

\*The advanced certificate in Expanded Functions Dental Assisting is designed to be completed in two special length courses during the fall semester and in collaboration with dental auxiliary employment. Please contact the dental assisting department for requirements of enrollment.

## CERTIFICATE PROGRAM

### Dental Assisting

TOTAL CREDITS 47

Consists of all Dental Assisting Core Curriculum Courses. The program is designed to be completed in three semesters.

#### 47 Core Curriculum Requirements

##### Fall Semester

- 3 DEA 102 Principles of Clinical Practice
- 1 DEA 120 Introduction to Dental Practice
- 3 DEA 121 Dental Science I
- 3 DEA 122 Dental Science II
- 3 DEA 123 Dental Materials I
- 4 DEA 125 Dental Radiography I
- 3 DEA 126 Infection Control

##### Spring Semester

- 2 DEA 104 Specialties in Dentistry
- 2 DEA 111 Dental Office Management
- 3 DEA 124 Dental Materials II
- 3 DEA 127 Dental Science III
- 3 DEA 131 Advanced Dental Radiography
- 2 DEA 132 Medical Emergencies
- 2 DEA 134 Prevention and Nutrition in Dentistry
- 2 DEA 175 Special Topics: Practice of Clinical Chairside Assisting
- 1 DEA 176 Special Topics: Applied Dental Psychology
- 1 DEA 181 Clinical Internship I

##### Summer Semester

- 6 DEA 182 Clinical Internship II and Seminar
- Electives:
  - 1 DEA 140 Dental Assisting National Board Review (Elective)
  - 4 DEA 200\* Introduction to Expanded Functions
  - 4 DEA 205\* Expanded Functions for the Dental Auxiliary

## Dental Hygiene

Sue Kochevar, Department Chair

Associate of Applied Science (AAS) Degree

Mini-Certificate in Local Anesthesia and Nitrous Oxide/Oxygen Sedation

### Career Opportunities

The Dental Hygiene program prepares you for a career in a variety of professional settings. The most familiar setting is the private dental office, where hygienists perform critical services to detect and prevent diseases of the mouth. Beyond the private dental office, you can find employment in nursing homes and long-term care facilities, hospitals, corporate health facilities, school systems, and public health clinics. You may also work as an educator or researcher.

### Program Description

The AAS Degree prepares you to provide dental hygiene services to patients and educate them in aspects of preventive dentistry. In our on-campus clinic, you will provide preventive and therapeutic services for patients under the supervision of Dental Hygiene faculty.

In the traditional role of dental hygienist, training includes prophylaxis, patient data gathering for dental hygiene diagnosis and treatment planning, fluoride treatment, sealant application, radiographic examination, and nutritional counseling. In the expanded role of the dental hygienist, training includes treatment of periodontally-involved patients and treatment of handicapped, institutionalized, and other medically-compromised patients. You also learn to perform local anesthesia and administer nitrous oxide.

Because of the high level of personal and professional responsibility required of a dental hygienist, you must have integrity, maturity, individual motivation, good interpersonal skills, excellent manual dexterity, and a solid science and general studies academic background to be successful in this program. We are firmly committed to fostering your intellectual growth and to developing well-qualified dental hygienists with high professional standards and ethics.

The Mini-Certificate in Local Anesthesia and Nitrous Oxide/Oxygen Sedation provides you with knowledge of the theory and practice of local anesthesia and nitrous oxide/oxygen sedation. This program teaches you to administer local anesthetics and nitrous oxide proficiently and safely. The administration of local anesthesia and nitrous oxide/oxygen sedation may be performed by licensed dental hygienists under the Colorado State Dental Practice Act (General Provision 12-35-125). You must be currently enrolled in the dental hygiene program to enter this program.

### Program Requirements

#### Entrance requirements:

You must complete a current Dental Hygiene program application and meet all minimum requirements and application timelines. The application is available through the Dental Hygiene program, at the PCC Dental Hygiene website, or in Admissions & Records. You should seek advisement from program faculty for assistance with applications, minimum requirements, and required general education courses for admissions.

If you are an AAS Dental Hygiene student, you must complete all General Education/Related Requirements prior to admission to the program.

Note: All students are accepted provisionally pending completion of a criminal background check.

Disclaimer: The Colorado Board of Dental Examiners requires a dental hygienist applying for licensure to answer questions concerning felony history, excessive use or abuse of controlled substances/alcoholic beverages (within the last five years), and any physical or mental condition that may affect the ability to practice dental hygiene. Other questions asked by the State Board pertain to an applicant's history of malpractice judgment and any disciplinary action by any government or private agency. The PCC Department of Dental Hygiene assumes no responsibility for the denial of licensure by the Colorado State Board of Dental Examiners.

## ASSOCIATE (AAS) DEGREE

### Dental Hygiene

TOTAL CREDITS 88-89

#### 28-29 General Education/Related Requirements

- 4 BIO 201 Human Anatomy and Physiology I (within 5 years of application)
- 4 BIO 202 Human Anatomy and Physiology II (within 5 years of application)
- 4 BIO 204 Microbiology (within 5 years of application)
- 5 CHE 102 Introduction to Chemistry II with Lab OR
- 4 CHE 109 General, Organic, and Biochemistry (within 5 years of application)
- 3 ENG 121 English Composition I
- 3 PSY 101 General Psychology I
- 3 SPE 115 Public Speaking
- 3 SOC 101 Introduction to Sociology I

Student minimally needs to complete or be enrolled in 6 of the 8 prerequisite courses the semester of application (Spring). The remaining 2 courses must be completed summer semester prior to program entry (Summer).

#### 53 Core Curriculum Requirements

##### First Year—Fall Semester

- 2 DEH 101 Preclinical Dental Hygiene Lecture
- 2 DEH 102 Preclinical Dental Hygiene Care
- 3 DEH 103 Dental Anatomy and Histology
- 3 DEH 104 Dental Radiology
- 2 DEH 202 Applied Nutrition in Dentistry

##### Elective

- .5 HPR 102 CPR for Professionals: Professional Rescuer

##### First Year—Spring Semester

- 2 DEH 153 Clinical Theory of Dental Hygiene I
- 3 DEH 170 Clinical Practice of Dental Hygiene I
- 3 DEH 126 Dental Materials
- 1 DEH 123 Head and Neck Anatomy
- 2 DEH 122 Periodontics I
- 2 DEH 111 Dental and Medical Emergencies

##### Second Year—Summer Semester

- 1 DEH 134 Advanced Clinical Skills

##### Electives

- 1.5 DEH 171 Clinical Practice of Dental Hygiene I-A
- 2 DEH 133 Local Anesthesia
- 1 DEH 138 Nitrous Oxide/Oxygen Sedation
- .5 DEH 136 Clinical Dental Roentgenology

##### Second Year—Fall Semester

- 2 DEH 204 Community Dental Health I
- 4 DEH 270 Clinical Practice of Dental Hygiene II
- 2 DEH 268 Clinical Theory of Dental Hygiene II
- 2 DEH 132 Applied Pharmacology
- 1 DEH 282 Periodontics III
- 3 DEH 213 General and Oral Pathology

##### Second Year—Spring Semester

- 4 DEH 271 Clinical Practice of Dental Hygiene III
- 2 DEH 285 Clinical Theory of Dental Hygiene III
- 2 DEH 242 Periodontics II
- 2 DEH 221 Ethics and Practice Management
- 1 DEH 225 Community Dental Health II: Field Experience
  
- 2 DEH 259 Advanced Dental Hygiene Theory

##### Elective

- 2 DEH 266 National Boards Review

## MINI-CERTIFICATE PROGRAM

### Local Anesthesia and Nitrous Oxide/Oxygen Sedation

TOTAL CREDITS 3

#### 3 Certificate Requirements

- 2 DEH 133 Local Anesthesia
- 1 DEH 138 Nitrous Oxide/Oxygen Sedation



## Digital Media

Jennifer Sherman, Department Chair

### Associate of Applied Science (AAS) Degree Mini-Certificates

#### Career Opportunities

The Digital Media program prepares you for a career in the ever changing world of technology and multimedia. You will graduate prepared for a career in web design and development or multimedia applications.

#### Program Description

This program teaches you business processes, database development, e-commerce foundations, basic networking, and many aspects of web design and interfacing. Mini-certificates also add video editing, animation, and game design options to the core degree. The integrated curriculum includes courses in business, communication, design, project management, computer technology, and various software applications.

Note: You can earn E-business certificates while working on your Digital Media degree. You may also work on an E-business certificate after graduation, or separately from a degree. Please refer to the e-Business section of this catalog for full descriptions and requirements.

#### MINI-CERTIFICATES

##### Digital Media

TOTAL CREDITS 3-9

##### 6 Web Technologies Certificate

- 3 BUS 204 Introduction to E-Business
- 3 CWB 221 Technology Foundations for e-Commerce

##### 9 Web Design Certificate

- 3 CWB 130 Complete Web Editing Tools
- 3 MGD 143 Web Motion Graphic Design I
- 3 ART 143 Digital Photography I

##### 9 Animation Certificate

- 3 CWB 130 Complete Web Editing Tools
- 3 MGD 167 Game Design I
- 3 MGD 257 Animation Production

##### 9 Digital Video Certificate

- 3 MGD 164 Digital Video Editing I
- 3 RTV 102 Beginning Television
- 3 RTV 175 Special Topics: Basic Video Production

##### 9 Graphic Design Certificate

- 3 CIS 167 Desktop Publishing
- 3 MGD 102 Introduction to Multimedia
- 3 MGD 133 Graphic Design I

## ASSOCIATE (AAS) DEGREE

### Digital Media

TOTAL CREDITS 61-62

#### 15-16 General Education Requirements

- 3 ECO 202 Principles of Microeconomics
- 3 ENG 121 English Composition I
- 3 MAT 112 Financial Mathematics
- OR
- 4 MAT 121 College Algebra
- 3 SPE 115 Public Speaking
- 3 Natural Science Elective

#### 13 Business, Communications, and Technology Core

- 3 BUS 115 Introduction to Business
- 4 BUS 287 Cooperative Education
- 1 CWB 175 Special Topics: Digital Literacy IC3-Computing Fundamentals
- 1 CWB 175 Special Topics: Digital Literacy IC3-Key Applications
- 1 CWB 175 Special Topics: Digital Literacy IC3-Living Online
- 3 MAN 128 Human Relations in Organizations

#### 33 Digital Media Requirements

- 3 BUS 204 Introduction to E-Business
- 3 BUS 260 Business Process Foundations for E-Commerce
- 3 CNG 101 Intro to Networking
- 3 CWB 130 Complete Web Editing Tools
- 3 CWB 165 Complete Web Authoring
- 3 CWB 221 Technology Foundations for e-Commerce
- 3 CWB 206 Web Data Base
- 3 MAN 241 Project Management in Organizations
- 3 MGD 102 Introduction to Multimedia
- 3 MGD 143 Web Motion Graphic Design I
- 3 ART 143 Digital Photography I

Please see related e-Business program

## e-Business Certificates\*

### Career Opportunities

The e-Business certificate program prepares you for a career in business and industry using up-to-date knowledge and skills relating to technology products. You will qualify for a variety of jobs including web developer, web/business analyst, and web programmer.

### Program Description

The e-Business program teaches you business processes, e-Business foundations, and web technologies. This program also teaches management strategies for implementing projects in business and industry.

### Program Requirements

You can earn certificates in e-Business while working on the Digital Media degree, Computer Information Systems degree, or Business degree. You may also work on e-Business certificates separately from a degree if you wish to build your skills one certificate at a time.

### CERTIFICATE PROGRAMS\*

#### e-Business

TOTAL CREDITS 22-28

\*At the time of this catalog's publication, the following e-Business certificates were pending approval by the PCC Curriculum Committee.

#### 27-29 e-Programming Certificate

- 3 BUS 204 Introduction to E-Business
- 3 CWB 221 Technology Foundations for e-Commerce
- 3 CSC 116 Logic and Program Design
- 4 CSC 160 Computer Science I (C++)
- 4 CSC 161 Computer Science II (C++)
- 3 CWB 205 Complete Web Scripting
- 3 CWB 206 Web Data Base
- 3 CSC 233 Object Oriented Programming in C++
- 1-3 CWB 287 Cooperative Education

#### 31-33 e-Server Management Certificate

- 3 BUS 204 Introduction to E-Business
- 3 CWB 221 Technology Foundations for e-Commerce
- 3 CSC 116 Logic and Program Design
- 4 CSC 160 Computer Science I (C++)
- 4 CSC 161 Computer Science II (C++)
- 1-3 CWB 287 Cooperative Education
- 4 CNG 212 Implementing Windows 2000 Professional and Server
- 3 CIS 222 UNIX System Administration
- 3 CNG 104 Intro to TCP/IP
- 3 CNG 124 Networking I: Network +

### MINI-CERTIFICATE\*

#### e-Business

TOTAL CREDITS 15

#### 15 e-Security Certificate

- 3 CNG 131 Network Security Fundamentals
- 3 CNG 132 Principles of Information Security
- 3 CNG 133 Network Security: Fire Walls, Intrusion Detection, and Network Security
- 3 CNG 104 Intro to TCP/IP
- 3 CNG 124 Networking I: Network +



# Early Childhood Education

Rosemary Breckenfelder, Department Chair

## Associate of Applied Science (AAS) Degree Certificates

### Career Opportunities

The ECE program prepares you for a career in teaching pre-kindergarten children (birth to age 5). The program can also prepare you to become a group leader or director in the field of Early Childhood Education.

### Program Description

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

### Program Requirements

#### Entrance requirements:

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

You must meet with an ECE faculty advisor before registering for ECE courses.

Note: Students interested in transferring to a baccalaureate program in Early Childhood Education or Elementary Education should refer to the Transfer Degree section of this catalog.

## ASSOCIATE (AAS) DEGREE

### Early Childhood Education

TOTAL CREDITS 70

#### 24 General Education Requirements

- 3 BIO Science Elective
- 3 ENG English Elective
- 3 HUM Humanities Elective
- 3 MAT Math Elective
- 3 PSY 101 General Psychology I
- 3 SOC 101 Introduction to Sociology I
- 3 SPA 101 Conversational Spanish I
- OR
- 3 ASL 101 Basic Sign Language I
- 3 SPE 115 Public Speaking

#### 40 Core Curriculum Requirements

- 3 ECE 101 Introduction to Early Childhood Education
- 3 ECE 102 Introduction to Early Childhood Lab
- 3 ECE 103 Guidance Strategies for Children
- 3 ECE 111 Infant and Toddler Theory and Practice
- 3 ECE 205 Nutrition, Health and Safety
- 3 ECE 220 Curriculum Development: Methods and Techniques
- 3 ECE 225 Language and Cognition for the Young Child
- 3 ECE 226 Creativity and the Young Child
- 4 ECE 238 Child Growth and Development
- 3 ECE 240 Administration of Early Childhood Care and Education Programs
- 3 ECE 241 Administration: Human Relations for Early Childhood Professions
- 3 ECE 260 Exceptional Child
- 3 ECE 288 Practicum: Early Childhood Education

#### 6 Electives

##### Select two courses:

- 3 ECE 178 Workshop
- 3 ECE 256 Working with Parents, Families, and Community Systems
- 3 LIT 255 Children's Literature

## CERTIFICATE PROGRAMS

### Early Childhood Education

TOTAL CREDITS 16-28

#### 28 Director Certificate

- 3 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
- 4 ECE 238 Child Growth and Development
- 3 ECE 240 Administration of Early Childhood Care and Education Programs
- 3 ECE 241 Administration: Human Relations for Early Childhood Education
- 3 ECE 260 Exceptional Child

#### 16 Group Leader Certificate

- 3 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
- 4 ECE 238 Child Growth and Development

# Emergency Medical Services

Dawnelle S. Mathis, Department Chair

## Associate of Applied Science (AAS) Degree Certificates and Mini-Certificate\*

### Career Opportunities

The EMS program prepares you for a career in the pre-hospital health care field as an Emergency Medical Technician at either the Basic, Intermediate, or Paramedic level. Career opportunities include ambulance service, fire service, tactical EMS, critical care transport, and emergency department technician. If you graduate with an AAS degree, you have additional career opportunities in administration and management in the pre-hospital field.

### Program Description

This program teaches you skills in scene control and safety, direct emergency patient care, and patient transport. These skills include patient assessment, management of life threats, recording of patient history, medication administration, and critical care transport. Upon completion of the technical training program, you may take the National Registry exam, and upon passing the exam, you may apply for Colorado State Certification at your level of training.

### Program Requirements

#### Entrance requirements:

To enroll in the EMT-Basic, EMT-Intermediate, or EMT-Paramedic programs, you must be at least 18 years of age, have all current immunizations, and be able to meet the requirements of the Colorado Department of Public Health and Environment Health Facilities and Emergency Medical Services Division Functional EMT Job Description. For enrollment into the EMT-Intermediate or Paramedic programs, you must have a current Colorado EMT-Basic certification, successfully complete all pre-screening examinations, and obtain department approval for enrollment into these programs.

The Critical Care Department is offering an EMT-Intermediate to Paramedic Bridge course for those who are EMT-Intermediates. To qualify for this program you must be an EMT-199, be eligible for state certification, and pass an EMT-I prescreening exam or be nationally registered as an EMT-199. For more information on prerequisites and classes, please call the Critical Care Department.

### ASSOCIATE (AAS) DEGREE Emergency Medical Services

TOTAL CREDITS 74.5

74.5 Degree Requirements

#### Semester One

- 9 EMS 125 EMT Basic
- .5 HPR 102 CPR for Professionals: Professional Rescuer
- 4 BIO 201 Human Anatomy and Physiology I

#### Semester Two:

- 4 BIO 202 Human Anatomy and Physiology II
- 3 ENG 121 English Composition I
- 3 MAT 107 Career Math
- 3 SPE 115 Public Speaking

#### Semester Three

- 3 EMS 225 Fundamentals of Paramedic Practice
- 2 EMS 226 Fundamentals of Paramedic Practice - Lab
- 3 EMS 229 Paramedic Pharmacology
- 2 EMS 230 Paramedic Pharmacology Lab
- 4 EMS 233 Paramedic Medical Emergencies
- 1 EMS 234 Paramedic Medical Emergencies Lab

#### Semester Four

- 3 EMS 227 Paramedic Special Considerations
- 2 EMS 228 Paramedic Special Considerations Lab
- 5 EMS 231 Paramedic Cardiology
- 1 EMS 232 Paramedic Cardiology Lab
- 4 EMS 235 Paramedic Trauma Emergencies
- 1 EMS 236 Paramedic Trauma Emergencies Lab
- 2 EMS 237 Paramedic Internship Preparatory

#### Semester Five

- 6 EMS 280 Paramedic Internship I
- 3 PSY 235 Human Growth and Development

#### Semester Six

- 6 EMS 281 Paramedic Internship II

### MINI-CERTIFICATE PROGRAM\*

#### Emergency Medical Services

TOTAL CREDITS 9.5

#### 10.5 EMT Basic Option Requirements

- 9 EMS 125 EMT Basic
- 1 EMS 170 EMT Basic Clinical
- .5 HPR 102 CPR for Professionals: Professional Rescuer

\*This certificate program is pending program approval.

### CERTIFICATE PROGRAMS

#### Emergency Medical Services

TOTAL CREDITS 24.5-62.5

#### 24.5 EMT Intermediate Option Requirements

- 9 EMS 125 EMT Basic
- 6 EMS 203 EMT Intermediate I
- 6 EMS 205 EMT Intermediate II
- 3 EMS 270 Clinical: EMS Intermediate
- .5 HPR 102 CPR for Professionals: Professional Rescuer

#### 62.5 EMT Paramedic Option

- 8 General Education Requirements
- 4 BIO 201 Human Anatomy and Physiology I
- 4 BIO 202 Human Anatomy and Physiology II

#### 54.5 Core Curriculum Requirements

- 9 EMS 125 EMT Basic
- 3 EMS 225 Fundamentals of Paramedic Practice
- 2 EMS 226 Fundamentals of Paramedic Practice - Lab
- 3 EMS 227 Paramedic Special Considerations
- 2 EMS 228 Paramedic Special Considerations Lab
- 3 EMS 229 Paramedic Pharmacology
- 2 EMS 230 Paramedic Pharmacology Lab
- 5 EMS 231 Paramedic Cardiology
- 1 EMS 232 Paramedic Cardiology Lab
- 4 EMS 233 Paramedic Medical Emergencies
- 1 EMS 234 Paramedic Medical Emergencies Lab
- 4 EMS 235 Paramedic Trauma Emergencies
- 1 EMS 236 Paramedic Trauma Emergencies Lab
- 2 EMS 237 Paramedic Internship Preparatory
- 6 EMS 280 Paramedic Internship I
- 6 EMS 281 Paramedic Internship II
- .5 HPR 102 CPR for Professionals: Professional Rescuer

# Energy Maintenance Technology

Jerry Christie, Department Chair

## Associate of Applied Science (AAS) Degree Certificate

### Career Opportunities

The Energy Maintenance Technology program prepares you for a career in electrical, mechanical, and alternative energy maintenance and installation. You will learn to work in and around power plants, perform energy audits, and install and maintain solar panel systems. You will acquire the basic knowledge to manage the energy resources of industrial and commercial operations.

### Program Description

This program gives you the opportunity to specialize in Energy Mechanical Systems, Energy Electrical Systems, or Energy Solar Systems. The core courses for this program include print reading, basic electronics, and an introduction to energy plant operations. You will be expected to specialize in one of three career areas: Mechanical, Electrical, or Solar.

### Program Requirements

#### Entrance requirements:

You must meet all basic skills requirements (through ACCUPLACER testing and/or completing the necessary basic skills courses) prior to entering the program.

#### Graduation requirements:

You will be eligible for graduation after completing the course requirements as outlined in the Curriculum Sheet.

### ASSOCIATE (AAS) DEGREE\*

#### Energy Maintenance Technology

TOTAL CREDITS 62-63

#### 20 General Education Courses

- 3 ENG 131 Technical Writing I
- 3 SPE 115 Public Speaking
- 4 SCI 155 Integrated Science I
- 4 MAT 108 Technical Mathematics
- 3 ECO 245 Environment Economics
- 3 Humanities

#### 24 Common Core Courses

- 3 ENT 106 Print Reading for Manufacturing
- 3 ELT 101 Survey of Electronics
- 1 ENT 105 Safety for Manufacturing Environments
- 3 ELT 231 Electronic Instruments
- 3 ELT 252 Motors and Controls
- 4 MAC 105 Introduction to Machining Technology
- 4 WEL 102 Oxyacetylene Joining Process
- 3 PRO 100 Introduction to Process Technology

#### 18 Option A: Mechanical Maintenance

- 4 MAC 130 Conventional Lathe Operations
- 4 MAC 131 Milling Machines and Operations
- 4 WEL 124 Introduction to Gas Tungsten Arc Welding
- 3 MAC 250 Advanced Inspection Techniques
- 3 MAC 256 Industrial Components

#### 18 Option B: Electrical Maintenance

- 3 ELT 134 Solid State Devices I
- 3 ELT 202 Introduction to PC Servicing
- 3 ELT 106 Fundamentals of DC/AC
- 3 ELT 254 Industrial Wiring
- 3 ELT 257 Sensors and Transducers
- 3 ELT 258 Programmable Logic Controllers

#### 19 Option C: Solar Maintenance

- 3 ENY 101 Introduction to Energy Technologies
- 3 ENY 126 Solar Collectors
- 3 ENY 141 Passive Solar System I
- 3 ENY 145 Passive Solar Retrofit
- 3 ENY 225 Solar Domestic Hot Water Systems
- 4 ENY 226 Solar Panel Installation

### CERTIFICATE PROGRAM\*

#### Energy Maintenance Technology

TOTAL CREDITS 32

#### 10 General Education Courses

- 3 ENG 131 Technical Writing I
- 4 MAT 108 Technical Mathematics
- 3 ECO 245 Environment Economics

#### 13 Common Core Courses

- 3 ENT 106 Print Reading for Manufacturing
- 3 ELT 101 Survey of Electronics
- 1 ENT 105 Safety for Manufacturing Environments
- 3 ELT 252 Motors and Controls
- 3 PRO 100 Introduction to Process Technology

#### 9 Option A: Mechanical Maintenance

Choose from:

- 4 MAC 130 Conventional Lathe Operations
- 4 MAC 131 Milling Machines and Operations
- 4 WEL 124 Introduction to Gas Tungsten Arc Welding
- 3 MAC 250 Advanced Inspection Techniques
- 3 MAC 256 Industrial Components

#### 9 Option B: Electrical Maintenance

Choose from:

- 3 ELT 134 Solid State Devices I
- 3 ELT 202 Introduction to PC Servicing
- 3 ELT 106 Fundamentals of DC/AC
- 3 ELT 254 Industrial Wiring
- 3 ELT 257 Sensors and Transducers
- 3 ELT 258 Programmable Logic Controllers

#### 9 Option C: Solar Maintenance

Choose from:

- 3 ENY 101 Introduction to Energy Technologies
- 3 ENY 126 Solar Collectors
- 3 ENY 141 Passive Solar System I
- 3 ENY 145 Passive Solar Retrofit
- 3 ENY 225 Solar Domestic Hot Water Systems
- 4 ENY 226 Solar Panel Installation

# Engineering Technology

Jerry Christie, Department Chair

## Associate of Applied Science (AAS) Degree Certificates and Mini-Certificates

### Career Opportunities

The Associate of Applied Science Degree in Engineering Technology offers two areas of specialization: Manufacturing Engineering Technology and Civil Engineering Technology. Manufacturing Engineering Technicians work closely with mechanical and manufacturing engineers to design mechanical components and assemblies, tooling, manufacturing processes, and machine systems for industry. They also help solve problems on the production line and work to ensure product accuracy and quality.

Civil Engineering Technicians work in the surveying, construction, or architectural fields. Job opportunities exist for CAD operators, map drafters, surveyor's assistants, architectural drafters, soils testers, or construction supervisors/assistants.

These degree options also transfer well to certain universities.

The Certificate Program in Engineering Technology offers three options: Rapid Product Development, Architectural Design, and Surveying. In all three areas, you will receive specific skills training to prepare you for entry level positions in business and industry. Though employers desire the AAS degree for entry level employment, many students take the AAS in one area and a certificate in another option to improve their employability. You may also pursue a job upgrade with your present employer by earning a certificate.

### Degree Program Description

The Manufacturing Engineering Technology degree option prepares you for industrial careers requiring skills in drafting, CAD, mechanical design, 3D solid modeling, rapid product development, manufacturing processes, machining, welding, fluid power, and electronic controls.

The Civil Engineering Technology degree option prepares you for the surveying, construction, or architectural fields by giving you skills in math, physics, surveying, and civil and architectural design.

We focus on the skills and knowledge required in today's changing job market. You will receive intensive training on state-of-the-art Computer Aided Design workstations and other modern, up-to-date equipment. The program is housed in the Gorsich Advanced Technology Center at PCC. It is the only program in Colorado to have Rapid Prototyping equipment including 3D Systems Stereolithography and Fused Deposition Modeling machines.

If you plan to pursue a bachelor's degree in the fields of mechanical/manufacturing engineering technology, civil engineering technology, or architecture, please consult with a PCC transfer advisor to determine the transferability of courses.

### Certificate Program Description

The Rapid Production Development Certificate option trains you in 3D solid modeling software such as Pro Engineer, and in state-of-the-art rapid prototyping machines. This certificate prepares you to work as a mechanical design and prototyping technician at service bureaus and manufacturing facilities.

The Surveying Certificate option allows you to use surveying instruments to solve problems in the field and to bring solutions back to the classroom to produce survey maps and related architectural plans. This certificate prepares you to work as a surveyor's assistant or survey drafter.

The Architectural Design Certificate option prepares you for the architectural detailing field. Detailers work closely with architects to create computer-generated drawings of architectural designs.

### Mini-Certificate Program Description

We offer three Mini-Certificates in Engineering Technology. Two are CAD based and include Mechanical CAD and Civil CAD. The Construction Basics certificate offers you the opportunity to obtain skills in print reading, planning and estimating, and materials and methods associated with the construction industry.

## ASSOCIATE (AAS) DEGREE

### Engineering Technology

TOTAL CREDITS 75

#### 21-24 General Education Requirements

1	CIS 110	Introduction to the PC
3	ENG 121	English Composition I
3	ENG 122	English Composition II (required for Option B only)
4	MAT 121	College Algebra
3	MAT 122	College Trigonometry
4	PHY 105	Conceptual Physics
3		Humanities Elective
3		Social Science Elective

#### 19 Common Core Courses

3	CAD 101	Computer Aided Drafting I
4	ENT 131	Mechanical Drawing I
3	ENT 137	Introduction to Engineering Technology
3	ENT 237	Statics
3	ENT 247	Strength of Materials

Choose one option:

#### 35 Option A: Manufacturing Engineering Technology

3	CAD 255	Solidworks/Mechanical
3	ELT 101	Survey of Electronics
1	ENT 105	Safety for Manufacturing Environments
3	ENT 133	Introduction to Mechanical Design
2	ENT 134	Geometric Dimensioning & Tolerancing
3	ENT 155	Manufacturing Technology I
3	ENT 233	Mechanical Design I
3	ENT 234	Mechanical Design II
3	ENT 238	Industrial Fluid Power and Controls
4	ENT 256	Rapid Product Development
3	MAC 101	Introduction to Machine Shop
3	MAC 240	CAD/CAM 2D
4	WEL 102	Oxyacetylene Joining Process

#### 35 Option B: Civil Engineering Technology

3	CAD 202	Computer Aided Drafting/3D
4	ENT 141	Surveying I
4	ENT 142	Surveying II
3	ENT 143	Survey Drafting
3	ENT 145	Structural Detailing
3	ENT 146	Construction Materials and Methods
3	ENT 241	Residential Architecture
3	ENT 243	Advanced Survey Drafting
3	ENT 244	Surveying III
3	ENT 245	Concrete and Asphalt Technology
3	ENT 270	Technical Experience

## CERTIFICATE PROGRAMS

### Engineering Technology

TOTAL CREDITS 33-34

#### 7 General Education Requirements

- 3 ENG 121 English Composition I
- 4 MAT 121 College Algebra

Choose one option:

#### 27 Rapid Production Development Option

- 3 CAD 101 Computer Aided Drafting I
- 1 ENT 105 Safety for Manufacturing Environments
- 4 ENT 131 Mechanical Drawing I
- 3 ENT 133 Introduction to Mechanical Design
- 3 ENT 137 Introduction to Engineering Technology
- 3 ENT 155 Manufacturing Technology I
- 3 ENT 233 Mechanical Design I
- 4 ENT 256 Rapid Product Development

#### Electives (Choose one)

- 3 CAD 255 SolidWorks/Mechanical
- 3 ENT 234 Mechanical Design II
- 3 MAC 240 CAD/CAM 2D

#### 27 Surveying Option

- 3 CAD 101 Computer Aided Drafting I
- 4 ENT 131 Mechanical Drawing I
- 3 ENT 137 Introduction to Engineering Technology
- 4 ENT 141 Surveying I
- 4 ENT 142 Surveying II
- 3 ENT 143 Survey Drafting
- 3 ENT 243 Advanced Survey Drafting
- 3 ENT 244 Surveying III

#### 26 Architectural Design Option

- 3 CAD 101 Computer Aided Drafting I
- 4 ENT 131 Mechanical Drawing I
- 3 ENT 137 Introduction to Engineering Technology
- 4 ENT 141 Surveying I
- 3 ENT 145 Structural Detailing
- 3 ENT 146 Construction Materials and Methods
- 3 ENT 241 Residential Architecture
- 3 ENT 242 Commercial Architecture

## MINI-CERTIFICATE PROGRAMS

### Engineering Technology

TOTAL CREDITS 8-9

#### 9 Mechanical CAD Certificate

- 3 CAD 101 Computer Aided Drafting I
- 3 ENT 133 Introduction to Mechanical Design

#### Elective (choose one)

- 3 CAD 255 SolidWorks/Mechanical
- 3 ENT 233 Mechanical Design I

#### 9 Civil CAD Certificate

- 3 CAD 101 Computer Aided Drafting I

#### Electives (choose two)

- 3 ENT 143 Survey Drafting
- 3 ENT 145 Structural Detailing
- 3 ENT 241 Residential Architecture

#### 8 Construction Basics Certificate

- 3 ARC 107 Blueprint Reading (Residential/Commercial)
- 2 ENT 135 Construction Planning and Estimating
- 3 ENT 146 Construction Materials and Methods

## Health Care Support Technician

Becky Robler, Department Chair

### Certificates

#### Career Opportunities

Home health care providers assist in the personal and daily care for elderly, handicapped, or recuperating patients in their homes. Though they work in private homes, they are usually employed by hospitals, home health care agencies, visiting nurse associations, public health departments, and volunteer agencies. They assist patients with daily activities such as getting in and out of bed, going out of the house, dressing, bathing, eating, shopping, and cleaning. Home health care providers also provide companionship to patients. The average salary for a Home Health Aide is \$18,520.

Other career opportunities are as orderlies and patient service associates who transport patients in wheelchairs or stretchers for treatment or surgery, assist patients with menu selection, lift or turn patients, supervise patients' exercise routines, set-up and provide leisure activities for patients, accompany patients on outside recreational activities, and perform other duties related to patient care.

#### Program Description

This certificate program offers two options, a one-semester track and a two-semester track. The two-semester track provides more general education classes. In both tracks, classes provide you with skills in medical terminology, an overview of health career options, and basic patient care skills that can be applied in a variety of healthcare settings. While earning the certificate, you will also complete many of the pre-requisite courses needed to pursue health related Associate degrees offered at PCC.

## CERTIFICATE PROGRAMS

### Health Care Support Technician

TOTAL CREDITS 16-33

#### One Semester Track

##### 16-17 Allied Health/Dental Assisting Certificate Requirements

- 4 BIO 106 Basic Anatomy and Physiology
- OR
- 4 BIO 201 Human Anatomy and Physiology I
- 3 ENG 121 English Composition I
- 3 HPR 100 Introduction to Health
- 1-2 HPR 178 Seminar: Medical Terminology
- 5 HPR 275 Special Topics: Skills for the Health Care Technician

OR

- 4 NUA 101 Certified Nurse Aide Health Care Skills
- AND
- 1 NUA 170 Nurse Assistant Clinical Experience

#### Two Semester Track

##### 31-33 Nursing / Dental Hygiene / Respiratory Care / Radiography / Paramedic Certificate Requirements

##### 15 First Semester

- 4 BIO 106 Basic Anatomy and Physiology
- OR
- 4 BIO 201 Human Anatomy and Physiology I
- 3 ENG 121 English Composition I
- 3 PSY 235 Human Growth and Development or other approved PSY course
- OR
- 3 SOC 101 Introduction to Sociology I\*
- 1-2 HPR 178 Seminar: Medical Terminology
- 3 HPR 100 Introduction to Health

### 16-18 Second Semester

- 4 BIO 202 Human Anatomy and Physiology II
- 4 BIO 216 Pathophysiology
- OR
- 4 BIO 204 Microbiology
- 5 HPR 275 Special Topics: Skills for the Health Care Technician
- OR
- 4 NUA 101 Certified Nurse Aide Health Care Skills
- AND
- 1 NUA 170 Nurse Assistant Clinical Experience

### 3-5 Electives

- 3 Social and Behavioral Science, Humanities, or Math
- 5 CHE 101 Introduction to Chemistry I with Lab\*

\*Indicates course is required for those taking the Dental Hygiene Track



## Hospitality Studies

Carol Himes, Department Chair

Associate of Applied Science (AAS) degree  
Certificate in Culinary Arts

### Career Opportunities

The Hospitality Studies program prepares you for a variety of careers relating to culinary arts, food service management, travel, tourism, convention centers, and event planning. The two Culinary Arts tracks prepare you for skilled or supervisory jobs in cooking, baking, dining room management, bar and lounge management, restaurant management, and institutional food service supervision. The Tourism, Conventions, and Events track prepares you for employment in tour management and event planning, as well as supervisory positions in the lodging and resort business.

### Program Description

The Hospitality Studies program teaches you to perform many skills relating to the specific track you choose. Skills covered in the Culinary Arts tracks include sanitation and safety, hot and cold food production, baking, dining room management, bartending (including responsible alcohol service), garde manger, nutrition, supervision, and basic cost controls. The Culinary Arts tracks are accredited by the American Culinary Federation and include a number of courses endorsed by the National Restaurant Association. Skills taught in the Tourism, Conventions, and Events track include event planning, tour management, convention planning, business planning and development, basic cost controls, marketing, and travel planning. To complete a degree, you must finish an on-the-job internship experience. Often this leads directly to employment in the field.

### Program Requirements

#### Entrance requirements:

There are no entrance requirements for this program. However, by the time you have completed 30 credits, you must meet all college requirements for basic skill proficiency in Reading, Math, English, and Computer usage.

#### Graduation requirements:

In addition to program requirements, you must complete English 121, a college math course, 3 credits of humanities, 3 credits of social science, and 3 credits of computer instruction.

## ASSOCIATE (AAS) DEGREE

### Hospitality Studies

TOTAL CREDITS 69.5

#### 12 General Education Requirements

- 3 ENG 121 English Composition I
- 3 SPE 115 Public Speaking
- 3 Social Science Elective
- 3 Math Elective

#### 6 Related Requirements

- 3 CIS 118 Intro PC Applications
- 3 Humanities Elective

#### 14.5 Core Program Requirements

- 3 CUA 156 Nutrition for the Hospitality Professional
- 3 CUA 255 Supervision in the Hospitality Industry
- 2 CUA 181 Work Exploration
- 3 HOS 105 Intro to Management in the Hospitality Industry
- 3 HOS 106 Case Studies in the Hospitality Industry
- .5 HPR 102 CPR for Professionals: Professional Rescuer

- 37 Option A: Culinary Arts Production**
- 2 CUA 101 Food Safety and Sanitation
  - 1 CUA 121 Introduction to Food Production Principles and Practices
  - 1 CUA 122 Introduction to Stocks, Soups, and Sauces
  - 1 CUA 123 Introduction to Garde Manger
  - 1 CUA 124 Vegetable Preparation and Breakfast Cookery
  - 1 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
  - 4 CUA 190 Dining Room Management
  - 4 CUA 210 Advanced Cuisine and Garde Manger
  - 4 CUA 233 Advanced Line Prep and Cookery
  - 2 CUA 234 Advanced Line Planning
  - 2 CUA 236 Advanced Baking
  - 3 CUA 261 Cost Controls
  - 4 CUA 281 Internship
- 37 Option B: Culinary Arts Management**
- 2 CUA 101 Food Safety and Sanitation
  - 1 CUA 121 Introduction to Food Production Principles and Practices
  - 1 CUA 122 Introduction to Stocks, Soups, and Sauces
  - 1 CUA 123 Introduction to Garde Manger
  - 1 CUA 124 Vegetable Preparation and Breakfast Cookery
  - 1 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
  - 2 CUA 136 Bartending
  - 4 CUA 190 Dining Room Management
  - 1 CUA 191 Front of the House Planning
  - 4 CUA 233 Advanced Line Preparation and Cookery
  - 3 CUA 256 Marketing in the Hospitality Industry
  - 3 CUA 261 Cost Controls
  - 3 CUA 262 Purchasing for the Hospitality Industry
  - 3 CUA 263 Legal Aspects of Hospitality Management
  - 4 CUA 281 Internship
- 37 Option C: Tourism, Conventions and Events**
- 3 CUA 256 Marketing in the Hospitality Industry
  - 3 CUA 263 Legal Aspects of Hospitality Management
  - 4 CUA 281 Internship
  - 3 HOS 122 Tourism Geography I
  - 3 HOS 123 Tourism Geography II
  - 3 HOS 131 Planning for Special Events
  - 3 HOS 141 Convention Management
  - 3 HOS 207 Tour Management
  - 3 MAN 216 Small Business Management
  - 3 MAN 225 Managerial Finance
  - 6 Electives

**Elective Courses:**

- 3 TRA 175 Special Topics: Reservations and Ticketing
- 1-6 TRA 275 Special Topics: Study Tour

**CERTIFICATE PROGRAMS**

**Culinary Arts**  
TOTAL CREDITS 16

**16 Dining Service Certificate**

- 2 CUA 101 Food Safety and Sanitation
- 2 CUA 136 Bartending
- 4 CUA 190 Dining Room Management
- 3 HOS 105 Intro to Management in the Hospitality Industry
- 5 Electives

**16 Beginning Production and Baking Certificate**

- 2 CUA 101 Food Safety and Sanitation
- 1 CUA 121 Introduction to Food Production Principles and Practices
- 1 CUA 122 Introduction to Stocks, Soups, and Sauces
- 1 CUA 123 Introduction to Garde Manger
- 1 CUA 124 Vegetable Preparation and Breakfast Cookery
- 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
- 3 HOS 105 Intro to Management in the Hospitality Industry
- 3 Electives

**16 Intermediate Production Certificate**

- 1 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
- 3 CUA 156 Nutrition for the Hospitality Professional
- 4 CUA 190 Dining Room Management
- 2 CUA 236 Advanced Baking
- 3 Electives

**16 Beginning Tours and Events Certificate**

- 3 HOS 105 Intro to Management in the Hospitality Industry
- 3 HOS 122 Tourism Geography I
- 3 HOS 131 Planning for Special Events
- 3 HOS 207 Tour Management
- 4 Electives

**16 Intermediate Tours and Events Certificate**

- 3 CUA 256 Marketing in the Hospitality Industry
- 3 CUA 263 Legal Aspects of Hospitality Management
- 3 HOS 106 Case Studies in the Hospitality Industry
- 3 HOS 123 Tourism Geography II
- 3 HOS 141 Convention Management
- 1 Electives

# Industrial Electronics Technology

Jerry Christie, Department Chair

Associate of Applied Science (AAS) Degree  
Certificates and Mini-Certificates

## Career Opportunities

The AAS degree in Industrial Electronics Technology prepares you for a career as an electronic technician, an electro-mechanical technician, a semiconductor manufacturing technician, or an electro-mechanical field service technician.

## Program Description

This program develops essential skills for maintaining the complex electro-mechanical systems found in modern automated manufacturing facilities. After completing a core of courses in math, physics, fundamental analog and digital electronics, robotics, and programmable logic controllers, you will branch off into one of two optional tracks. The General Electronics option provides advanced skills in analog and digital electronics. The Electro-Mechanical option emphasizes a broader range of skills including print reading, motors and controls, and mechanical components. In addition to the two AAS degree options, several certificate options are also available.

## Program Requirements

### Entrance requirements:

You should have good basic reading, language, and math competencies. High school algebra and physics are recommended but not required. Refresher classes are available.

## ASSOCIATE (AAS) DEGREE

### Industrial Electronics Technology

TOTAL CREDITS 61

#### 16 General Education Requirements (Both options)

- 1 CIS 110 Introduction to the PC
- 3 ENG 131 Technical Writing
- 1 ENT 105 Safety for Manufacturing Environments
- 4 MAT 108 Technical Mathematics
- 4 PHY 105 Conceptual Physics
- 3 Social Science or Humanities Elective

#### 24 Common Core Requirement (Both options)

- 3 ELT 101 Survey of Electronics
- 3 ELT 106 Fundamentals of DC/AC
- 3 ELT 134 Solid State Devices I
- 3 ELT 147 Digital Devices I
- 3 ELT 175 Special Topics: Capstone I
- 3 ELT 258 Programmable Logic Controllers
- 3 ELT 275 Special Topics: Capstone II
- 3 ENT 236 Electronics Drafting

Choose one option:

#### 21 Option A: General Electronics Technology

- 3 ELT 112 Advanced DC-AC
- 3 ELT 135 Solid State Devices II
- 3 ELT 148 Digital Devices II
- 3 ELT 261 Microprocessors
- 3 ELT 268 Robotics Technologies

#### Option A: Electives

- 3 CAD 101 Computer Aided Drafting I
- 3 ELT 202 Introduction to PC Servicing
- 3 ELT 203 Advanced PC Servicing and A+ Prep
- 3 ELT 237 Vacuum and Power RF Systems
- 3 ELT 252 Motors and Controls
- 3 ELT 257 Sensors and Transducers
- 3 ELT 259 Advanced Programmable Logic Controllers
- 3 CNG 101 Intro to Networking

#### 21 Option B: Electromechanical Technology

- 3 MAC 256 Industrial Components
- 3 ENT 106 Print Reading for Manufacturing
- 3 ENT 238 Industrial Fluid Power and Controls
- 3 ELT 252 Motors and Controls
- 3 ELT 254 Industrial Wiring
- 3 ELT 257 Sensors and Transducers

#### Option B: Electives

- 3 CAD 101 Computer Aided Drafting I
- 3 ELT 202 Introduction to PC Servicing
- 3 ELT 259 Advanced Programmable Logic Controllers
- 3 ELT 268 Robotics Technologies
- 4 MAC 105 Introduction to Machining Technology
- 4 WEL 102 Oxyacetylene Joining Process

## CERTIFICATE PROGRAMS

### Industrial Electronics Technology

TOTAL CREDITS 17-29

#### 29 General Electronics Technology Certificate

- 1 ENT 105 Safety for Manufacturing Environments
- 1 CIS 110 Introduction to the PC
- 3 ELT 101 Survey of Electronics
- 3 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 261 Microprocessors
- 3 ELT 268 Robotics Technologies

#### 30 Electromechanical Technology Certificate

- 1 ENT 105 Safety for Manufacturing Environments
- 1 CIS 110 Introduction to the PC
- 3 ELT 101 Survey of Electronics
- 3 MAC 256 Industrial Components
- 3 ENT 106 Print Reading for Manufacturing
- 3 ENT 238 Industrial Fluid Power and Controls
- 3 ELT 252 Motors and Controls
- 3 ELT 254 Industrial Wiring
- 3 ELT 257 Sensors and Transducers
- 3 ELT 258 Programmable Logic Controllers
- 4 WEL 102 Oxyacetylene Joining Process

#### 29 Industrial Controls Technology Certificate

- 1 ENT 105 Safety for Manufacturing Environments
- 1 CIS 110 Introduction to the PC
- 3 ELT 101 Survey of Electronics
- 3 ELT 106 Fundamentals of DC/AC
- 3 ELT 134 Solid State Devices I
- 3 ELT 147 Digital Devices I
- 3 ENT 238 Industrial Fluid Power Controls
- 3 ELT 252 Motors and Controls
- 3 ELT 257 Sensors and Transducers
- 3 ELT 258 Programmable Logic Controllers
- 3 ELT 268 Robotics Technologies

- 17 Semiconductor Manufacturing Certificate**
- 5 CHE 101 Introduction to Chemistry I with Lab
  - 3 ELT 235 Semiconductor Manufacturing I
  - 3 ELT 236 Semiconductor Manufacturing II
  - 3 ELT 237 Vacuum and Power RF Systems
  - 3 ELT 257 Sensors and Transducers

**SHORT CERTIFICATE PROGRAMS**

**Industrial Electronics Technology**

TOTAL CREDITS 17-21

- 17 General Electronics Technology Certificate**
- 1 CIS 110 Introduction to the PC
  - 1 ENT 105 Safety for Manufacturing Environments
  - 3 ELT 101 Survey of Electronics
  - 3 ELT 106 Fundamentals of DC/AC
  - 3 ELT 134 Solid State Devices I
  - 3 ELT 147 Digital Devices I
  - 3 ELT 268 Robotics Technologies

- 21 Electromechanical Technology Certificate**
- 1 CIS 110 Introduction to the PC
  - 1 ENT 105 Safety for Manufacturing Environments
  - 3 ELT 101 Survey of Electronics
  - 3 ELT 252 Motors and Controls
  - 3 ELT 268 Robotics Technologies
  - 3 ENT 238 Industrial Fluid Power Controls
  - 3 MAC 256 Industrial Components
  - 4 WEL 102 Oxyacetylene Joining Process

## Law Enforcement Academy

Mary Kubeck, Department Chair  
Certificate

**Career Opportunities**

The Pueblo Law Enforcement Academy (PLEA) certificate program prepares you for a career in policing, parole, or investigations. This certification allows you to become state certified as a level one police officer and work anywhere in the state of Colorado.

**Program Description**

This program offers instruction in many areas of law including Colorado Revised Statutes, Constitutional law, and Case law pertaining to the 4th and 14th Amendments of the United States Constitution.

This program is a 37-semester-hour program certified by the Colorado Peace Officers Standards and Training (POST) Board. When you complete the program, you will meet the requirements of the Police Science Option of the AAS Degree in Criminal Justice, and you will also qualify to take the Colorado POST test for certification as a Colorado peace officer.

**Program Requirements**

*Entrance requirements:*

You must be admitted to PCC, file an application with the PLEA Department Chair, and meet specific guidelines prior to admission into the program (such as state statutory requirements for background checks). You may enroll in PLEA courses only if you are admitted into the program.

**CERTIFICATE PROGRAM**

**Law Enforcement Academy**

TOTAL CREDITS 37

- 37 Police Science Certificate**
- 6 CRJ 101 Basic Police Academy I
  - 12 CRJ 102 Basic Police Academy II
  - 2 CRJ 103 Basic Law Enforcement Academy III
  - 8 CRJ 105 Basic Law
  - 3 CRJ 106 Arrest Control Techniques
  - 3 CRJ 107 Law Enforcement Driving
  - 3 CRJ 108 Firearms

# Library Technician

Jeanne Gardner, Program Coordinator

## Associate of Applied Science (AAS) Degree Certificate

### Career Opportunities

The LTN program prepares you for a career in a variety of information environments including academic libraries, public libraries, school media centers, special libraries—corporate, correctional, law, and medical—and other information services. In rural settings, the Library/Media Technician manages the library/media center and is the person responsible for providing additional library services such as maintaining the computerized catalog and library web page, conducting patron orientation, and directing library programs.

### Program Description

This program offers instruction in a variety of library functions including collection management (selecting and acquiring materials); cataloging; processing and repair of library materials; circulating and shelving materials; helping patrons with reference, readers' advisory, and resource sharing services; and managing a small library or media center. We also train you in the non-technical skills you need to be a successful library technician: customer service; listening, speaking, and writing; attention to detail; and working as a member of a team.

### Program Requirements

#### Entrance requirements:

The LTN program is offered as an online degree program using the WebCT platform. You will be better prepared to succeed in the courses if you have completed the following:

- One semester of keyboarding or demonstrated the ability to type 20 words per minute
- CIS 110 Intro to the PC or are familiar with computers.

#### Graduation requirements:

Certificate and degree-seeking students must complete a minimum of 15 graded credits in the LTN core at PCC.

If you plan to transfer to a bachelor's level program, consult with your advisor to determine the transferability of courses.

## ASSOCIATE (AAS) DEGREE

### Library Technician

TOTAL CREDITS 59-62

#### 30 General Education\*

- 3-5 Mathematics (Select one):  
MAT 106, MAT 107, MAT 108, MAT 120, MAT 121, MAT 125, MAT 135, MAT 201
- 3 English/Speech (Select one):  
ENG 121, ENG 122, SPE 115
- 9-12 Social & Behavioral Sciences
- 9-12 Humanities

\*General Education must total 30 credits.

#### 15 Core Curriculum Requirements

- 1 CIS 130 Introduction to Internet
- 2 LTN 101 Introduction to Library Services
- 3 LTN 205 Introduction to Cataloging and Classification
- 3 LTN 210 Reference Materials
- 3 LTN 220 Library/Media Center Management & Public Relations

#### Select from one of the following:

- 3 HUM 164 American Cinema
- 3 LTN 110 Selection and Acquisitions - Online
- 3 LTN 115 Library Circulation

#### 6 Electives

- 3 EDU 261 Teaching, Learning and Technology
- 3 ELT 202 Introduction to PC Servicing
- 3 LIT 255 Children's Literature
- 3 LIT 275 Special Topics: Young Adult Literature
- 3 LTN 115 Library Circulation
- 2 LTN 118 Audio Visual Management

#### 9 Electives Approved by Advisor

All electives must be approved by the LTN Advisor. Students must take sufficient electives to meet the minimum 60 credit hour requirements for the associate degree.

## CERTIFICATE PROGRAM

### Library Technician

TOTAL CREDITS 29-35

#### 15 General Education Requirements

- 3 Communications (select one):  
ENG 121 or SPE 115
- 3-4 Mathematics (select one):  
MAT 106, MAT 107, BTE 156
- 4-6 Humanities
- 4-6 Social and Behavioral Sciences

#### 12 Core Curriculum Requirements

- 1 CIS 130 Introduction to Internet
- 2 LTN 101 Introduction to Library Services
- 3 LTN 205 Introduction to Cataloging and Classification
- 3 LTN 220 Library/Media Center Management & Public Relations

#### Select from one of the following:

- 3 HUM 164 American Cinema
- 3 LTN 110 Selection and Acquisitions - Online
- 3 LTN 115 Library Circulation (online)

#### 3 Electives

- 3 CIS 118 Intro PC Applications
- 3 CIS 128 Windows Complete
- 1 CIS 131 Word Processing I
- 3 ELT 202 Introduction to PC Servicing
- 3 LIT 205 Ethnic Literature
- 3 LIT 255 Children's Literature
- 3 LIT 275 Special Topics: Young Adult Literature
- 3 LTN 115 Library Circulation
- 2 LTN 118 Audio Visual Management
- 3 LTN 210 Reference Materials

# Machining Technology

Emilio Gonzales, Department Chair

## Associate of Applied Science (AAS) Degree Certificates

### Career Opportunities

The AAS Degree and certificate programs in Machining Technology prepare you to enter the manufacturing world using the latest technology and metal working skills.

### Program Description

In the first two semesters, you will use manual machines (operated by hand) to develop "hands on" fundamental skills such as drilling, reaming, turning, milling, threading, and tool bit grinding. You will also develop applied math skills to calculate tapers, complete set ups, and figure tool offset compensation. These "old school" practices will be supplemented with an introduction to Mastercam, enabling you to create two dimensional drawings and gain experience with computer aided manufacturing software.

The AAS degree provides training in advanced metal working using computer controlled machines. You will use Mastercam to create three dimensional drawings, solids, and surfaces, and you will learn to create tool paths to machine to those features. You will learn to inspect, set up, and operate machines. If you are completing the AAS degree or currently working in the field, we provide Mastercam testing and certification.

You may convert work experience into college credit through credit-by-portfolio or credit-by-challenge. If you are in the degree program, we will arrange an internship for you.

### ASSOCIATE (AAS) DEGREE

#### Machining Technology\*

TOTAL CREDITS 72

#### 17 General Education Requirements

- 3 ENG 131 Technical Writing I
- 4 MAT 108 Technical Mathematics
- 3 Humanities
- 4 Natural Science
- 3 Social Science

#### 55 Core Curriculum Requirements

##### Semester 1 – Fall

- 3 ENT 106 Print Reading for Manufacturing
- 4 MAC 105 Introduction to Machining Technology
- 4 MAC 130 Conventional Lathe Operations
- 4 WEL 263 Applied Metal Properties

##### Semester 2 – Spring

- 2 ENT 134 Geometric Dimensioning & Tolerancing
- 4 MAC 131 Milling Machines and Operations
- 3 MAC 205 Introduction to CNC Milling Operations

##### Semester 3 – Fall

- 4 MAC 141 Advanced Machining Operations
- 3 MAC 145 Production Manufacturing Concepts
- 3 MAC 206 CNC Milling Operations II
- 3 MAC 240 CAD/CAM 2D

##### Semester 4 – Spring

- 3 MAC 201 Introduction to CNC Turning Operations
- 3 MAC 241 CAD CAM 2D Lab
- 3 MAC 245 CAD/CAM 3D
- 3 MAC 250 Advanced Inspection Techniques

#### 6 Electives

Choose from: CAD 101, CAD 255, ENT 131, ENT 133, ENT 137, ENT 155, WEL 102, WEL 103, WEL 104, WEL 250

### CERTIFICATE PROGRAMS

#### Machining Technology

TOTAL CREDITS 16-38

#### 38 Machining Certificate Requirements

##### Fall Semester

- 3 ENT 106 Print Reading for Manufacturing
- 4 MAC 105 Introduction to Machining Technology
- 4 MAC 130 Conventional Lathe Operations
- 3 MAT 107 Career Math
- 4 WEL 263 Applied Metal Properties

##### Spring Semester

- 2 ENT 134 Geometric Dimensioning & Tolerancing
- 4 MAC 131 Milling Machines and Operations
- 4 MAC 141 Advanced Machining Operations
- 3 MAC 205 Introduction to CNC Milling Operations

#### 7 Technical Electives

#### 16 Manual Machining Certificate Requirements

- 4 MAC 105 Introduction to Machining Technology
- 4 MAC 130 Conventional Lathe Operations
- 4 MAC 131 Milling Machines and Operations
- 4 MAC 141 Advanced Machining Operations

### MINI-CERTIFICATES

#### Machining Technology

TOTAL CREDITS 9

#### 9 CNC Certificate Requirements

- 3 MAC 201 Introduction to CNC Turning Operations
- 3 MAC 205 Introduction to CNC Milling Operations
- 3 MAC 206 CNC Milling Operations II

#### 9 CAD/CAM Certificate Requirements

- 3 MAC 240 CAD/CAM 2D
- 3 MAC 241 CAD CAM 2D Lab
- 3 MAC 245 CAD/CAM 3D

## Massage Therapy

Becky Robler, Program Coordinator  
Certificate

### Career Opportunities

The Massage Therapy program prepares students for careers in spas, nursing homes, hospitals and private practice clinics. Students will be eligible for a Massage Therapist license in the City and County of Pueblo, and most counties in the State of Colorado.

### Program Description

The Massage Therapy program teaches students to perform basic and advanced specialized massage techniques, aromatherapy, reflexology, acupressure and the foundation knowledge needed to support the skilled application of these methods. Students also receive instruction on how to set up their own clinic in the community. Skills and knowledge are taught through a combination of lecture, hands on practice with professional massage instructors, interactive teaching in a simulated clinic setting and in the community. Through this program the student completes 500 required hours of education for a massage license in Pueblo City/County, and most counties in the State of Colorado .

### Program Requirements

#### Entrance requirements:

Students must have completed coursework or ACT scores or basic skills assessment scores equivalent to ENG 090, REA 090 and MAT 060. In addition BIO 106 or equivalent must be completed with a grade of "C" or higher, prior to entrance in the program. Students must fill out an application and return it prior to the deadline for priority consideration. When notified of conditional acceptance, students must complete a background check for admission.

#### Graduation requirements:

While in the program students must meet clinical requirements of current immunizations, drug screening, possess a professional CPR card and purchase low-cost liability insurance. All courses must be completed with a C or better to continue and graduate from the Massage Therapy Program.

## CERTIFICATE

### Massage Therapy

TOTAL CREDITS 31.5

#### 31.5 Massage Therapy Certificate Requirements

4 BIO 106 Basic Anatomy and Physiology

#### Semester 1

2 MST 105 Lifestyle Wellness  
4 MST 111 Basic Massage Therapy  
1 HPR 108 Dietary Nutrition  
3 HPR 117 Anatomical Kinesiology

#### Semester 2

4 PAP 235 Human Pathology  
3 MST 113 Professional Massage  
2 MST 204 MST Business Practices  
1 HHP 166 Introduction to Reflexology  
.5 HHP 202 Aromatherapy  
1 HHP 218 Acupressure

#### Semester 3

3 MST 184 Clinical Massage  
3 MST 284 Clinical Massage

## Medical Sonography

Larry E. Bontrager, Department Chair  
Associate of Applied Science (AAS) Degree  
Certificate

### Career Opportunities

This program prepares you for a career in Medical Sonography (Ultrasound). After graduating from the program, you may take the American Registry for Diagnostic Medical Sonography (ARDMS) national certification examination in ultrasound. A Registered Ultrasound Technologist (Ultrasonographer) specializes in ultrasound procedures that demonstrate anatomy and pathologies on medical film or electronic (PACS) systems. These images are, in turn, interpreted by Radiologists and other physicians for the diagnosis and treatment of disease.

### Program Description

This is a two-track program. Track One is a one-year certificate program for AAS degree and ARRT Registered Radiologic Technologists. Track Two includes general education requirements and results in an AAS degree in Medical Sonography for graduates of hospital-based, diploma awarding programs, who are ARRT Registered Radiologic Technologists. Both programs teach you to function as critical members of today's health care team. We teach important critical thinking/problem solving skills, as well as interpersonal and communication skills that allow you to interact effectively with other health care team members, patients, and families. We provide you the technical skills you need to work with highly complex medical imaging equipment, analyze acquired images for quality, assess patient condition, apply appropriate techniques of patient care and education, and achieve the highest degree of clinical competency. In addition to fostering your intellectual growth, we teach you to exercise good judgment, demonstrate a professional demeanor, display the highest moral and ethical standards, and foster the safety of yourself and your patients. The curriculum includes vascular ultrasound, small parts ultrasound, OB/GYN ultrasound, abdominal ultrasound, ultrasound physics, and clinical experience.

### Program Requirements

#### Entrance requirements:

Basic Skills: REA 090, ENG 090, MAT 060, CIS 110, BIO 105 or BIO 106

Prerequisite Requirements: ENG 121, BIO 201, MAT 107, BIO 202, BIO 216, RTE 255

#### Graduation requirements:

PSY 235 and Humanities. In addition, students must complete all required Clinical Competencies.

## ASSOCIATE (AAS) DEGREE

### Medical Sonography

TOTAL CREDITS 72

#### 16 General Education

3 MAT 107 Career Mathematics  
3 ENG 121 English Composition I  
4 BIO 201 Human Anatomy and Physiology I  
3 PSY 235 Human Growth and Development  
3 Humanities

#### 10 Related Requirements

4 BIO 202 Human Anatomy & Physiology II  
4 BIO 216 Pathophysiology  
2 RTE 255 Multiplanar Sectional Imaging

#### 46 Core Curriculum

##### Semester 1 – Spring

- 2 DMS 221 OB/GYN Ultrasound I
- 2 DMS 231 Abdominal Ultrasound I
- 2 DMS 241 Ultrasound Physics I
- 10 DMS 281 Clinical Internship I

##### Semester 2 – Summer

- 2 DMS 205 Small Parts Ultrasound
- 2 DMS 206 Vascular Ultrasound
- 10 DMS 282 Clinical Internship II

##### Semester 3 – Fall

- 2 DMS 222 OB/GYN Ultrasound II
- 2 DMS 232 Abdominal Ultrasound II
- 2 DMS 242 Ultrasound Physics II
- 10 DMS 283 Clinical Internship III

### CERTIFICATE PROGRAM

#### Medical Sonography

TOTAL CREDITS 56

#### 10 Related Requirements

- 4 BIO 202 Human Anatomy & Physiology II
- 4 BIO 216 Pathophysiology
- 2 RTE 255 Multiplanar Sectional Imaging

#### 46 Core Curriculum

##### Semester 1 – Spring

- 2 DMS 221 OB/GYN Ultrasound I
- 2 DMS 231 Abdominal Ultrasound I
- 2 DMS 241 Ultrasound Physics I
- 10 DMS 281 Clinical Internship I

##### Semester 2 – Summer

- 2 DMS 205 Small Parts Ultrasound
- 2 DMS 206 Vascular Ultrasound
- 10 DMS 282 Clinical Internship II

##### Semester 3 – Fall

- 2 DMS 222 OB/GYN Ultrasound II
- 2 DMS 232 Abdominal Ultrasound II
- 2 DMS 242 Ultrasound Physics II
- 10 DMS 283 Clinical Internship III

## Nursing – Associate Degree Nursing

Eva Tapia, Department Chair

Associate of Applied Science (AAS) Degree

### Career Opportunities

The ADN program prepares you to provide safe, therapeutic, and competent nursing care in hospitals and other healthcare settings. You may also work as an entry level patient-care manager.

### Program Description

The ADN program teaches you skills of direct patient care that you can apply in any healthcare setting. It offers theoretical and applied instruction in classrooms, simulated laboratories, and clinical settings. It integrates education in adult, gerontological, obstetric, pediatric, and psychiatric-mental health nursing. Your clinical learning will take place in diverse types of institutions. Entry level courses in leadership teach you to direct and supervise ancillary personnel. The program allows a practical nursing exit point (certificate). After successfully completing the first two semesters of the program, students are eligible to write the Practical Nursing National Council Licensure Examination (NCLEX-PN). At this point, students could exit and seek employment as LPNs or continue on in the remaining two semesters and prepare to write the National Council Licensure Examination for Registered Nurses (NLEX-RN). After completing all requirements, you will receive the AAS degree. Successful performance on the (NCLEX-RN) awards state licensure and qualifies you for the title of Registered Nurse (RN).

### Program Requirements

*Entrance requirements:*

BIO 201, BIO 202, BIO 204, ENG 121, PSY 235, and passing score on the Nursing Entrance Test or documented remediation.

This is a limited-entry admission program. You must meet specific program entrance requirements in addition to the PCC admission requirements. You must complete all general education requirements with a "C" or higher to be admitted to the Nursing program. Please apply through the Colorado Community College Nursing Program Admission website; you can submit your application any time after completing the prerequisites outlined in the Nursing Department Information Packet. We will rank your application numerically based on the date you complete all requirements. Your ranking will determine your date of acceptance into the nursing program.

Note: Clinical agencies used during the program require that you successfully complete a background check and a drug screen. Please check with a program advisor for any changes to admission requirements.

## ASSOCIATE (AAS) DEGREE

### PN Certificate Optional

#### Nursing

TOTAL CREDITS 80

#### 18 General Education Requirements

- 4 BIO 210 Human Anatomy and Physiology I
- 4 BIO 202 Human Anatomy and Physiology II
- 4 BIO 204 Microbiology
- 3 ENG 121 English Composition I
- 3 PSY 235 Human Growth and Development

#### Related Suggested Courses

- BIO 216 Pathophysiology
- MAT 103 Math for Clinical Calculations
- \*Humanities or Social/Behavior Science elective

\*Elective must be selected from the CCCS Guaranteed Transfer (GT) – Pathways Course list

Related Suggested Courses may be completed prior to admission into the Nursing program or may be taken concurrently to the program.

#### 34 Core Curriculum Requirements – 1<sup>st</sup> year

##### Semester 1 – Fall

- 8 NUR 109 Fundamentals of Nursing
- 2 NUR 112 Basic Concepts of Pharmacology
- 1 HPR 108 Dietary Nutrition
- 3 MAT 103 Math for Clinical Calculations

##### Semester 2 – Spring

- 9 NUR 106 Medical and Surgical Nursing Concepts
- 7 NUR 150 Obstetric & Pediatric Nursing
- 4 BIO 216 Pathophysiology

##### For LPN exit-out only – Summer

- 5 NUR 169 Transition into Practical Nursing

#### 28 Core Curriculum Requirements – 2<sup>nd</sup> year

##### Semester 3 – Fall

- 8 NUR 206 Advanced Concepts of Medical-Surgical Nursing I
- 4 NUR 211 Nursing Psychiatric Clients
- 2 NUR 212 Pharmacology II

##### Semester 4 – Spring

- 6 NUR 216 Advanced Concepts of Medical Surgical Nursing II
- 5 NUR 230 Leadership Management Trends
- 3 \*Humanities or Social/Behavior Science elective

## ASSOCIATE (AAS) DEGREE – LPN TO ADN Nursing

TOTAL CREDITS 77

#### 20\* Credits Received for Practical Nursing Courses

\* Colorado Articulation for PN graduates

#### 25 General Education Requirements

- 4 BIO 201 Human Anatomy and Physiology I
- 4 BIO 202 Human Anatomy and Physiology II
- 4 BIO 204 Microbiology
- 4 BIO 216 Pathophysiology
- 3 MAT 103 Math for Clinical Calculations
- 3 ENG 121 English Composition I
- 3 PSY 235 Human Growth and Development

#### 32 Core Curriculum Requirements

##### Summer Semester

- 4 NUR 199 Transition from LPN to ADN

##### Fall Semester

- 8 NUR 206 Advanced Concepts of Medical-Surgical Nursing I
- 4 NUR 211 Nursing Psychiatric Clients
- 2 NUR 212 Pharmacology II

##### Spring Semester

- 6 NUR 216 Advanced Concepts of Medical Surgical Nursing II
- 5 NUR 230 Leadership Management Trends
- 3 \*Humanities or Social/Behavior Science elective

\*Elective must be selected from the CCCS Guaranteed Transfer (GT) – Pathways Course list

## Nursing Aide

Karen Kissell, Program Coordinator  
Eva Tapia, Department Chair  
Mini-Certificate\*

### Career Opportunities

The Nurse Aide program prepares you to work as an entry-level bedside caregiver in health care facilities or home health care services. You can work in a variety of positions: nursing assistant, nurse aide, orderly, or attendant.

### Program Description

This program teaches you the basic skills and procedures needed to assist hospital clients, long-term care residents, and home health care clients with their daily living activities.

### Program Requirements

*Entrance requirements: High school diploma or GED, ENG 030, REA 030, MAT 030, or equivalent assessment test scores.*

To succeed in this program, you must have a sincere concern for people, good physical and emotional health, an excellent attendance record, an ability to communicate effectively with other health care personnel, patients, and their families, and a neat, well-groomed appearance.

Note: Clinical agencies used during the program require that you successfully complete a background check, drug screening, immunization series, and CPR training; you must also carry malpractice insurance.

### Graduation requirements:

Successful completion of NUA 101, NUA 170, and NUA 171

### MINI-CERTIFICATE\*

#### Nursing Aide

TOTAL CREDITS 6

#### 6 Certificate Requirements

4	NUA 101	Certified Nurse Aide Health Care Skills
1	NUA 170	Nurse Assistant Clinical Experience
1	NUA 171	Advanced Nurse Aid Clinical

\*This certificate program is pending program approval.

## Occupational Therapy Assistant

Becky Robler, Department Chair  
Associate of Applied Science (AAS) Degree

### Career Opportunities

The OTA program prepares you for a career helping others improve their quality of life. You will use rehabilitative activities and exercises to help clients of all ages overcome physical, emotional, mental and/or social disabilities and become independent in their activities of daily living. You can work in hospitals, schools, mental health centers, nursing homes, and in the community. PCC graduates hold positions throughout Colorado and in many different states. The U.S. Department of Labor projects that this will be one of the fastest-growing careers in the foreseeable future.

### Program Description

This program teaches you to work under the supervision of a registered occupational therapist to evaluate clients of all ages, design individual rehabilitative programs, create goals, and help clients meet their goals while monitoring their progress.

The program consists of 18 months of academic preparation and 16 weeks of clinical preparation for graduation. When you graduate from the program, you are eligible to take the national certification examination administered by the National Board for Certification of Occupational Therapy (NBCOT) to become certified and to practice in Colorado. Most states require licensure; however, state licenses are usually based on the results of the NBCOT exam.

### Program Requirements

#### Entrance requirements:

The OTA program has a selective admissions policy due to a limited number of clinical sites. You must submit a completed application packet available through the Health Division office. You must have completed all basic skills requirements to perform at a college level in reading, math, and English. You must also have a cumulative 2.5 GPA in college courses or on high school transcripts if no college courses have been taken. In addition, you must have vision, hearing, tactile sensation, gross and fine motor strength and coordination, memory, critical thinking, and interpersonal skills adequate to allow effective communication, ensure safety of self and others, document accurately, and provide evaluation and treatment meeting medical standards required by facilities.

Note: You must undergo a background check before we can officially admit you into the program. A felony, loss of license, administrative disciplinary proceeding for negligence, malpractice, recklessness, or willful or intentional misconduct may prohibit entrance into the program and/or eligibility to sit for the NBCOT certification exam. Contact NBCOT at (301) 990-7979 or [www.nbcot.org](http://www.nbcot.org) for an Early Determination Review.

### ASSOCIATE (AAS) DEGREE

#### Occupational Therapy Assistant

TOTAL CREDITS 69

Note: All courses other than OTA may be taken prior to admission to the program.

#### Semester 1 — Fall:

3	OTA 100	Introduction to Occupational Therapy
1	HPR 178	Seminar: Medical Terminology
4	BIO 106	Basic Anatomy and Physiology
3	PSY 101	General Psychology I
3	OTA 105	Introduction to Disease and Activity Analysis
2	OTA 106	Basic Occupational Therapy Frames of Reference & Documentation

**Semester 2 — Spring:**

- 3 MAT 107 Career Math
- 4 OTA 121 Assessment of Component Skills in Occupations
- 2 OTA 122 Origins of Occupational and Component Skills
- 4 OTA 125 Basic Occupational Therapy Application to Psychiatry
- 3 OTA 131 Geriatric Issues, Diseases, and Treatment Techniques

**Semester 3 — Summer:**

- 3 ENG 121 English Composition I
- 1 OTA 181 Geriatric Level I Fieldwork Experience
- 2 OTA 217 Occupational Therapy Rehabilitation Techniques

**Semester 4 — Fall:**

- 3 Humanities
- 1 OTA 182 Physical Disabilities Level I Fieldwork Experience
- 1 OTA 183 Pediatric Level I Fieldwork Experience
- 3 OTA 216 Physical Disabilities Neuro-Retraining
- 3 OTA 218 Occupational Therapy Application to Adult Physical Disabilities
- 3 OTA 221 Pediatric Diseases, Disabilities, and Treatment
- 2 OTA 235 Professional and Activities Management

**Semester 5 — Spring:**

- 1 OTA 278 O.T. Seminar
- 7 OTA 280 Internship in Occupational Therapy I\*
- 7 OTA 281 Internship in Occupational Therapy II\*

\*OTA 280 AND OTA 281 must be completed within 18 months of the didactic coursework.

## Office Administration

Jennifer Sherman, Department Chair

### Associate of Applied Science (AAS) Degree Certificate

#### Career Opportunities

Many fields and industries offer employment opportunities for office professionals, including healthcare, service, law, technology, manufacturing, and government. Businesses use many job titles to describe office professionals; some of those listed with the professional associations include Administrative Assistant, Executive Assistant, Office Manager, Human Resources Assistant, Front Desk Coordinator, Medical Office Assistant, Records Management Assistant, Medical Transcriptionist, and Medical Coding and Billing Assistant, to name just a few.

#### Program Description

The Office Administration program prepares you for a career as an office professional in a variety of fields and industries. You will master state-of-the-art technology, learn top-notch interpersonal and communication skills, develop strong project management, tracking, and organizing skills, and learn to solve problems creatively.

This program has five degree options, five certificates, and three mini-certificates. The degree options include Office Professional, Desktop Application Specialist, Legal Office Specialist, Medical Transcription Specialist, and Medical Records, Insurance, Coding and Billing Specialist.

### ASSOCIATE (AAS) DEGREE

#### Office Administration

TOTAL CREDITS 62-67

#### 15-17 General Education Requirements

- 4 MAT 121 College Algebra
- OR
- 3 MAT 112 Financial Mathematics
- 3 ENG 121 English Composition I
- 3 ECO 202 Principles of Microeconomics
- 4 BIO 106 Basic Anatomy and Physiology (Option E only)
- OR
- 3 Natural Science Elective
- 3 SPE 115 Public Speaking

#### 28 Core Curriculum Requirements

- 3 BUS 115 Introduction to Business
- 3 BTE 225 Office Management
- 1 BTE 116 File Management
- 3 MAN 128 Human Relations in Organizations
- 3 BTE 166 Business Editing Skills
- 3 BTE 120 Electronic Office Procedures
- 3 CIS 118 Intro to PC Applications
- 3 CIS 218 Advanced PC Applications
- 3 MAR 106 Marketing Your Image
- 3 BTE 287 Cooperative Education/Internship

- 23 Option A: Office Professional**
- 3 MAN 116 Principles of Supervision
  - 3 ACC 101 Fundamentals of Accounting
  - 1 ACC 103 Fundamentals of Accounting Lab
  - 3 ACC 115 Payroll Accounting
  - 3 MAN 128 Human Relations in Organizations
  - 3 BUS 204 Introduction to E-Business
  - 3 BUS 217 Business Communication and Report Writing
  - 3 BTE 225 Office Management
  - 1 BTE 116 File Management

- 28 Option B: Desktop Applications Specialist**
- 3 CIS 135 Complete PC Word Processing
  - 3 CIS 118 Intro to PC Applications
  - 1 CIS 140 Microsoft Outlook
  - 3 CIS 218 Advanced PC Applications
  - 3 CIS 167 Desktop Publishing
  - 3 BTE 120 Electronic Office Procedures
  - 3 BUS 204 Introduction to E-Business
  - 3 ELT 202 Introduction to PC Servicing
  - 6 Approved Electives

- 19 Option C: Legal Office Specialist**
- 1 BTE 128 Legal Terminology
  - 3 BTE 213 Introduction to Legal Office Procedures
  - 3 BTE 211 Legal Formatting
  - 3 BUS 216 Legal Environment of Business
  - 3 CRJ 110 Intro to Criminal Justice
  - 3 BTE 229 Legal Transcription
  - 3 MAN 128 Human Relations in Organizations

- 24 Option D: Medical Transcription Specialist**
- 4 MOT 110 Medical Office Administration
  - 3 CIS 118 Intro to PC Applications
  - 3 BTE 166 Business Editing Skills
  - 4 MOT 132 Medical Transcription
  - 4 MOT 142 Medical Transcription II
  - 3 HPR 178 Seminar: Medical Terminology
  - 3 HPR 278 Seminar: Medical Terminology

- 27 Option E: Medical Records, Insurance, Coding & Billing**
- 4 BIO 106 Basic Anatomy and Physiology
  - 4 MOT 110 Medical Office Administration
  - 3 HPR 178 Seminar: Medical Terminology
  - 3 HPR 278 Seminar: Medical Terminology
  - 2 MOT 208 Introduction to CPT-4 Coding
  - 2 MOT 209 Introduction to ICD-9 Coding
  - 3 MOT 210 Intermediate Coding
  - 3 MAN 128 Human Relations in Organizations
  - 3 CIS 118 Intro to PC Applications

## CERTIFICATE PROGRAMS

### Office Administration

TOTAL CREDITS 19-28

- 23 Office Professional**
- 3 MAN 116 Principles of Supervision
  - 3 ACC 101 Fundamentals of Accounting
  - 1 ACC 103 Fundamentals of Accounting Lab
  - 3 ACC 115 Payroll Accounting
  - 3 MAN 128 Human Relations in Organizations
  - 3 BUS 204 Introduction to E-Business
  - 3 BUS 217 Business Communication and Report Writing
  - 3 BTE 225 Office Management
  - 1 BTE 116 File Management

- 28 Desktop Applications Specialist**
- 3 CIS 135 Complete PC Word Processing
  - 3 CIS 118 Intro to PC Applications
  - 1 CIS 140 Microsoft Outlook
  - 3 CIS 218 Advanced PC Applications
  - 3 CIS 167 Desktop Publishing
  - 3 BTE 120 Electronic Office Procedures
  - 3 BUS 204 Introduction to E-Business
  - 3 ELT 202 Introduction to PC Servicing
  - 6 Approved Electives

- 19 Legal Office Specialist**
- 1 BTE 128 Legal Terminology
  - 3 BTE 213 Introduction to Legal Office Procedures
  - 3 BTE 211 Legal Formatting
  - 3 BUS 216 Legal Environment of Business
  - 3 CRJ 110 Intro to Criminal Justice
  - 3 BTE 229 Legal Transcription
  - 3 MAN 128 Human Relations in Organizations

- 24 Medical Transcription Specialist**
- 4 MOT 110 Medical Office Administration
  - 3 CIS 118 Intro to PC Applications
  - 3 BTE 166 Business Editing Skills
  - 4 MOT 132 Medical Transcription
  - 4 MOT 142 Medical Transcription II
  - 3 HPR 178 Seminar: Medical Terminology
  - 3 HPR 278 Seminar: Medical Terminology

- 27 Medical Records, Insurance, Coding & Billing**
- 4 BIO 106 Basic Anatomy and Physiology
  - 4 MOT 110 Medical Office Administration
  - 3 HPR 178 Seminar: Medical Terminology
  - 3 HPR 278 Seminar: Medical Terminology
  - 2 MOT 208 Introduction to CPT-4 Coding
  - 2 MOT 209 Introduction to ICD-9 Coding
  - 3 MOT 210 Intermediate Coding
  - 3 MAN 128 Human Relations in Organizations
  - 3 CIS 118 Intro to PC Applications

## MINI-CERTIFICATES

### Office Administration

TOTAL CREDITS 6-9

- 6 Customer Service Academy**
- 1 MAN 125 Team Building
  - 1 COM 268 Problem Solving & Decision Making
  - 1 MAN 117 Time Management
  - 1 MAR 158 Customer Service
  - 1 COM 263 Conflict Resolution
  - 1 COM 262 Communicating with Impossible People

- 9 Personal Computer Specialist**
- 3 CIS 118 Intro to PC Applications
  - 3 CIS 218 Advanced PC Applications
  - 3 CIS 167 Desktop Publishing

## Pharmacy Technician

Becky Robler, Department Chair  
Mini-Certificate

### Career Opportunities

This program prepares you to work in a pharmacy setting under the supervision of a licensed pharmacist, performing activities that do not require the professional judgment of a pharmacist. Nationally, the median salary is \$11.50/hour for certified pharmacy technicians, and \$10.50/hour for non-certified pharmacy technicians. Certified pharmacy technicians can earn from \$7.00 per hour to \$20.00+ per hour, depending upon location and practice setting. The U.S. Department of Labor has forecast over 36% job growth for pharmacy technicians by 2010.

### Program Description

This certificate program is offered in one-semester (three courses). It provides instruction in basic pharmacy theories and is an important step toward national certification as a pharmacy technician. Learning experiences include lecture, lab, and clinical exposure in local pharmacies. To ensure success in this class, you should have a good knowledge of basic algebra and math formulas.

### Program Requirements

We conduct a random drawing for entrance into the program. To be eligible for the drawing, you must have assessment scores of 60 in reading, 95 in English, and 45 EA in math, OR have successfully completed REA 060, ENG 090, and/or MAT 060. You must also apply for admissions to the program and pass a background check. Applications are available in March for fall semester and September for spring semester.

### MINI-CERTIFICATE

#### Pharmacy Technician

TOTAL CREDITS 11

#### 11 Certificate Requirements

- |   |         |  |
|---|---------|--|
| 4 | PHT 105 | Orientation to Pharmacy                                |
| 3 | PHT 207 | Drug Classification                                    |
| 4 | PHT 235 | Pharmaceutical Calculations and Compounding Techniques |

## Phlebotomy Technician

Becky Robler, Department Chair  
Mini-Certificate

### Career Opportunities

Phlebotomy technicians collect and process a patient's blood for future use or analysis. This program trains you to work as part of a laboratory team, to draw blood samples for medical tests and blood donations, and to keep careful records of blood tests. It prepares you to perform all duties associated with the practice of phlebotomy so you can work in hospitals, physician offices, group practices, independent laboratories, health maintenance organizations, and public facilities. The U.S. Bureau of Labor Statistics estimates that phlebotomists earn from \$18,720 to \$25,168, with a median salary of \$21,944. You do not need certification to become employed as a phlebotomy technician; however, certification can increase your earnings.

### Program Description

This is a one-semester (two course) certificate program. Courses cover venipuncture, capillary puncture, quality control, infection control, safety procedures, and laboratory computer systems. Learning experiences include lecture, lab, and clinical exposure in local pharmacies. You will participate in laboratory and clinical experiences to perfect blood drawing skills and prepare you for the workforce as a qualified phlebotomist. When you successfully complete this program, you are eligible to sit for the National Phlebotomy Registry Exam.

### Program Requirements

#### Entrance requirements:

We hold a random drawing for admission to the program. To be eligible for the drawing, you must have assessment scores of 60 in reading, 95 in English, and 45 EA in math, OR have successfully completed REA 060, ENG 090, and/or MAT 060. You must also apply for admissions to the program and pass a background check for final enrollment. Applications are available in March for fall semester and September for spring semester.

### MINI-CERTIFICATE

#### Phlebotomy Technician

TOTAL CREDITS 8

#### 8 Certificate Requirements

- |   |         |                     |
|---|---------|---------------------|
| 4 | HPR 112 | Phlebotomy          |
| 4 | HPR 113 | Advanced Phlebotomy |

# Physical Therapist Assistant

Lucinda Mihelich, Department Chair

## Associate of Applied Science (AAS) Degree

### Career Opportunities

PTAs work under the direction of physical therapists, helping to manage conditions such as back and neck injuries, sprains/strains and fractures, arthritis, burns, amputations, strokes, multiple sclerosis, birth defects, injuries related to work and sports, and others. You will work in a broad range of settings including hospitals, outpatient clinics, rehabilitation facilities, skilled nursing, extended care, or subacute facilities, homes, schools, fitness centers, and sports training facilities. Nationally, the median annual salary for PTAs was \$33,870 in 2000, with a salary range of \$23,150 to \$45,610. PCC program graduates have been employed in nursing homes, hospitals, home health, and outpatient facilities. Locally, the average hourly salary for Spring 2006 graduates was \$17.75.

### Program Description

The AAS degree prepares you to serve as a PTA within 5 semesters. The program is offered 2 - 2 ½ days per week except during the clinical experiences which occur in the third and fifth semester. Clinical experiences are scheduled for 40 hours per week, and placement is typically anywhere in Southern Colorado. Learning experiences include lecture and interactive lab opportunities in a spacious lab with state of the art equipment. The PTA program is accredited by CAPTE of the American Physical Therapy Association.

In addition to tuition and fees, additional PTA program costs include a lab coat, name tag (\$4.00), liability insurance (\$15.00/year), drug screening (\$25.00), and background check (\$59.00). You are responsible for all expenses associated with internships and must provide your own transportation to and from clinicals. Financial aid is available through the PCC Financial Aid Office. Additional scholarship and grant information will be posted on the PTA bulletin board as they become available.

### Program Requirements

The application process is based on an individual education plan (IEP). Please contact the program Chair to discuss the process and ensure that your application is eligible for fall admission. We allow you to "reserve" a slot for the fall start while completing the following program requirements for admission: a background check, volunteer hours or work experience in a physical therapy setting, a college reading class (if required), and a college anatomy and physiology class—a 4 credit course with a lab (with a minimum grade of "C"). You must also have a health care provider CPR card to attend clinical experiences, and you must provide proof of current immunizations, pass a drug screen, and purchase liability insurance.

Employment as a PTA in Colorado does not require licensure. However, we encourage you to take the National PTA exam after graduation. The 3-year average pass rate for graduates of the PTA Program is 100% (2003-2005). The employment placement rate for spring 2005 PTA graduates was 100%.

## ASSOCIATE (AAS) DEGREE Physical Therapist Assistant TOTAL CREDITS 76

### 18 General Education Requirements

4	BIO 201	Human Anatomy and Physiology I
3	ENG 121	English Composition I
1	HPR 178	Seminar: Medical Terminology
4	PHY 105	Conceptual Physics
3	PSY 101	General Psychology I
3	SPE 115	Public Speaking

### 58 Core Curriculum Requirements

#### Semester 1 — Fall

5	PTA 110	Basic Patient Care in Physical Therapy
2	PTA 115	Principles and Practices of Physical Therapy
1	PTA 131	Professional Communications I
4	PTA 176	Special Topics: Functional Anatomy

#### Semester 2 — Spring

5	PTA 120	Modalities in Physical Therapy
2	PTA 135	Principles of Electrical Stimulation
5	PTA 140	Clinical Kinesiology
1	PTA 141	Professional Communications II
2	PTA 175	Special Topics: Clinical Pathophysiology I

#### Semester 3 — Summer:

2	PTA 177	Special Topics: Clinical Pathophysiology II
4	PTA 280	PTA Internship I

#### Semester 4 — F all:

2	PTA 205	Psychosocial Issues in Health Care
5	PTA 230	Orthopedic Assessment & Management Techniques
5	PTA 240	Neurologic Assessment & Management Techniques
1	PTA 251	Professional Communications III

#### Semester 5 — Spring:

2	PTA 278	PTA Seminar
5	PTA 281	PTA Internship II
5	PTA 282	PTA Internship III

## Psychiatric Technician

Kay Annese, Program Coordinator

Eva Tapia, Department Chair

### Certificate

#### Career Opportunities

The Psychiatric Technician Certificate Program provides you with knowledge and skills for employment as a psychiatric caregiver in health care settings.

#### Program Description

This program teaches you to use basic nursing skills and psychiatric principles to interact with and care for clients in a therapeutic manner and monitor treatment modalities. You will learn to perform basic nursing skills, administer medications, conduct one-to-one relationship development, and participate in group therapy. When you successfully complete all program requirements, you are awarded a certificate and are eligible to take the standardized examination leading to state licensure. The program is approved by the Colorado State Board of Nursing.

#### Program Requirements

##### Entrance requirements:

Before we can admit you into the program, you must complete any developmental courses indicated by results of the PCC Basic Skills Assessment Test. You must also complete BIO 106, NUR 101, and the Nursing Entrance Test.

Enrollment in the program is limited. You must complete the application process by the stated deadline. Your application will be reviewed by the program's admissions committee, and you will receive written notification of the committees' decision. If you are not accepted for a given year and wish to be considered for a subsequent term, you must re-apply. Check with a program advisor for specific changes in admission requirements.

Note: Clinical agencies used during the program require that you successfully complete a drug screen and background check.

### CERTIFICATE PROGRAM

#### Psychiatric Technician

Total Credits 32

##### 5 Program Prerequisites

- 4 BIO 106 Basic Anatomy and Physiology
- 1 NUR 101 Pharmacology Calculations

##### 15 Core Curriculum Requirements (Fall Semester)

- 8 NUR 109 Fundamentals of Nursing
- 2 NUR 112 Basic Concepts of Pharmacology
- 5 PTE 110 Introduction to Psychiatric Care

##### 12 Core Curriculum Requirements (Spring Semester)

- 2 PTE 116 Theoretical Concepts of Psychiatric Care I
- 2 PTE 117 Theoretical Concepts of Psychiatric Care II
- 1 PTE 118 Psychiatric Management Principles
- 3 PTE 170 Clinical Concepts of Psychiatric Care I
- 3 PTE 171 Clinical Concepts of Psychiatric Care II
- 1 PTE 172 Psychiatric Management Clinical

## Radiologic Technology

Larry E. Bontrager, Department Chair

Associate of Applied Science (AAS) Degree

#### Career Opportunities

The Radiologic Technology program prepares you for a career in Radiologic Technology (Radiography). As a graduate of the program, you are eligible to take the American Registry of Radiologic Technologists (ARRT) national certification examination in Radiography. You will specialize in radiographic procedures that demonstrate anatomy and pathologies on medical x-ray film, fluoroscopic screens, and other electronic imaging devices. These images are, in turn, interpreted by radiologists and other physicians for the diagnosis and treatment of disease and injury.

#### Program Description

The AAS in Radiologic Technology prepares you to work as a critical member of today's health care team. We teach you important critical thinking/problem solving techniques as well as interpersonal and communication skills that allow you to interact effectively with other health care team members, patients, and families from a variety of professional, social, emotional, cultural, and intellectual backgrounds. We provide you the skills you need to work with highly complex medical imaging equipment, analyze acquired images for quality, assess patient condition and apply appropriate techniques of patient care and education, and achieve the highest degree of clinical competency. The program focuses on developing your intellectual abilities as well as the judgment you need to demonstrate a professional attitude and demeanor, display the highest moral and ethical standards, and foster the safety of yourself and your patients.

#### Program Requirements

##### Entrance requirements:

Basic Skills: REA 090, ENG 090, MAT 060, CIS 110  
Prerequisite Requirements: ENG 121, BIO 201, MAT 107, RTE 101, HPR 178

##### Graduation requirements:

PSY 235, Humanities. In addition, students must complete all required Clinical Competencies.

### ASSOCIATE (AAS) DEGREE

#### Radiologic Technology

TOTAL CREDITS 77

\*Indicates prerequisite courses for program entry.

##### 16 General Education Requirements

- 4 BIO 201\* Human Anatomy and Physiology I
- 3 ENG 121\* English Composition I
- 3 MAT 107\* Career Math
- 3 PSY 235 Human Growth and Development
- 3 Humanities

##### 3 Related Requirements

- 2 RTE 101\* Introduction to Radiography
- 1 HPR 178 \* Seminar: Medical Terminology

##### 58 Core Curriculum Requirements

- Semester 1 – Fall**
- 2 RTE 111 Radiographic Patient Care II
- 3 RTE 121 Radiologic Procedures I
- 1.5 RTE 131 Radiographic Pathology and Image Evaluation I
- 3 RTE 141 Radiographic Equipment/Imaging I
- 5 RTE 181 Radiographic Internship I

**Semester 2 – Spring**

- 3 RTE 122 Radiologic Procedures II
- 1.5 RTE 132 Radiographic Pathology and Image Evaluation II
- 3 RTE 142 Radiographic Equipment/Imaging II
- 5 RTE 182 Radiographic Internship II

**Semester 3 – Summer**

- 7 RTE 183 Radiographic Internship III

**Semester 4 – Fall**

- 3 RTE 221 Advanced Medical Imaging
- 2 RTE 231 Radiation Biology/Protection
- 8 RTE 281 Radiographic Internship IV

**Semester 5 – Spring**

- 8 RTE 282 Radiographic Internship V
- 3 RTE 289 Capstone

# Respiratory Care Practitioner

Delia Lechtenberg, Coordinator

Associate of Applied Science (AAS) Degree

**Career Opportunities**

The RCA program prepares you for a career in respiratory therapy. Respiratory therapists work in a variety of settings: hospital, homecare, neonatal nursery, diagnostic testing, and flight for life. Respiratory care is one of the fastest growing health professions in the U.S. We provide our graduates with a listing of national placement opportunities.

**Program Description**

This program prepares you to work in a unique area of health care: the diagnosis, therapy, management, and prevention of diseases associated with cardiopulmonary illness. Due to the demanding training requirements and the critical life support responsibilities of the respiratory therapist, you must have a high degree of personal maturity, strong motivation, a solid science and general studies background, and excellent reasoning skills.

**Program Requirements***Entrance requirements:*

To enter the program, you must meet all basic skills requirements including computer literacy, complete at least four of the six required General Education courses (with a "C" or higher), and undergo a screening and selection process. You must also obtain CPR certification before enrolling in the program, and pass a drug screening and background check. You can obtain application information from the Respiratory Care department.

*Graduation requirements:*

The program consists of five semesters of theory, laboratory, and clinical internships in the techniques of respiratory care. You must take the Respiratory Care courses in sequence and complete them with a "C" grade or higher. Graduates of the program become eligible for registry by the National Board for Respiratory Care.

**ASSOCIATE (AAS) DEGREE****Respiratory Care Practitioner**

TOTAL CREDITS 65-73.5

**73.5 Option A Requirements:****10 General Education Requirements**

- 4 BIO 201 Human Anatomy & Physiology I
- 3 ENG 121 English Composition I
- 3 PSY 101 General Psychology I
- OR
- 3 PSY 235 Human Growth and Development
- 3 MAT 107 Career Math

**10 Related Requirements**

- 4 BIO 204 Microbiology
- 5 CHE 105 Chemistry in Context
- OR
- 5 CHE 101 Introduction to Chemistry I with Lab
- 1 RCA 105 Introduction to Respiratory Care (course can be taken during Semester 1)

### 53.5 Option A Core Curriculum Requirements

#### Semester 1 – Fall

- 3 RCA 155 Logic of Respiratory Science
- 3 RCA 151 Cardiopulmonary Anatomy and Physiology
- 3 RCA 131 Basic Techniques in Respiratory Care I

#### Semester 2 – Spring

- 3 RCA 153 Cardiopulmonary Disease
- 3 RCA 165 Pharmacology of Cardiopulmonary Care
- 5 RCA 132 Basic Techniques in Respiratory Care II
- 3 RCA 164 Advanced Cardiac Care

#### Semester 3 – Summer

- 2 RCA 230 Critical Care I
- 4.5 RCA 280 Internship I

#### Semester 4 – Fall

- 3 RCA 256 Pediatric and Neonatal Care
- 1 RCA 254 Pulmonary Function Testing
- 3 RCA 251 Critical Care II
- 7.5 RCA 281 Internship II

#### Semester 5 – Spring

- 2 RCA 265 Professional Development
- 7.5 RCA 283 Internship III

### 65 Option B: Respiratory/EMT I\*

#### 22 General Education Requirements

- 4 BIO 201 Human Anatomy and Physiology I
- 4 BIO 204 Microbiology
- 5 CHE 101 Introduction to Chemistry I with Lab  
OR
- 5 CHE 105 Chemistry in Context
- 3 ENG 121 English Composition I
- 3 MAT 107 Career Math
- 3 PSY 101 General Psychology I  
OR
- 3 PSY 235 Human Growth and Development

### 43 Core Curriculum Requirements

#### Semester 1 – Fall

- 1 RCA 105 Introduction to Respiratory Care
- 3 RCA 155 Logic of Respiratory Science
- 3 RCA 151 Cardiopulmonary Anatomy and Physiology
- 4 RCA 133 Respiratory/EMS Modalities
- 3 RCA 165 Pharmacology of Cardiopulmonary Care

#### Semester 2 – Spring

- 3 RCA 153 Cardiopulmonary Disease (Students will take EMT-I certification courses during this semester)

#### Semester 3 – Summer

- 2 RCA 230 Critical Care I
- 3 RCA 282 RCA/EMS Internship I (Students will take EMT-I certification courses during this semester)

#### Semester 4 – Fall

- 3 RCA 256 Pediatric and Neonatal Care
- 1 RCA 254 Pulmonary Function Testing
- 3 RCA 251 Critical Care II
- 6 RCA 284 RCA/EMS Internship II

#### Semester 5 – Fall

- 6 RCA 286 RCA/EMS Internship III
- 2 RCA 289 Capstone

\*Option B must be taken with the EMT-I certificate

## Upholstery

Jim Torres, Department Chair

### Mini-Certificate

#### Career Opportunities

The Upholstery program prepares you for a career in automotive, marine, aviation or furniture upholstery and power sewing. Graduates can become gainfully employed with upholstery shops as well as with furniture, aircraft, and automobile manufacturers.

#### Program Description

The Upholstery program trains you in all aspects of the machinery used in the upholstery trade. Measuring and cost analysis is an important part of the program. You will learn not only how to perform upholstery work but how to re-cover headliners, door panels, sun visors, and other components of a vehicle. You will also learn how to design and produce custom interiors.

#### Program Requirements

*Entrance requirements:*

Pass the "Ability to Benefit" assessment test.

### MINI-CERTIFICATE

#### Upholstery

TOTAL CREDITS 12

#### 12 Certificate Requirements

- 3 UPH 100 Basic Upholstery Techniques
- 3 UPH 101 Auto Upholstery I
- 3 UPH 102 Auto Upholstery II
- 3 UPH 103 Auto Upholstery III

# Visual Communications

Jennifer Sherman, Department Chair

## Associate of Applied Science (AAS) Degree\* Certificate

### Career Opportunities

The VCC program prepares you for an entry level career in graphic design and computer graphics. The coursework prepares you to become a digital artist, design specialist, or entrepreneur in the field of visual communications and design. Career options range from working for a corporation as a designer or digital artist to owning your own small business.

### Program Description

This program teaches you to use computers and state-of-the-art software to design and develop graphic elements and produce print or electronic communication. The integrated curriculum includes in art and design, graphic arts, computer technology, and small business planning. These courses, taught on both PCs and Macs, provide you with an excellent foundation and many employment options in the visual communications field.

### CERTIFICATE PROGRAM

#### Visual Communications

TOTAL CREDITS 37-43

#### 25 Program Requirements for All Options

- 3 ART 121 Drawing I
- 3 ART 131 2-D Design
- 3 ENG 131 Technical Writing I
- 3 MAN 216 Small Business Management
- 4 MAT 108 Technical Mathematics
- 3 MGD 102 Introduction to Multimedia
- 3 MGD 280 Internship
- 3 ART 138 Photography I

Select one of the following options:

#### 12 Option A:

##### Graphic Design

- 3 CIS 167 Desktop Publishing
- 3 MGD 133 Graphic Design I
- 3 MGD 221 Computer Graphics I
- 3 MGD 233 Graphic Design II

#### 12 Option B:

##### 3-D Rendering & Illustration

- 3 CAD 101 Computer Aided Drafting I
- 3 CAD 202 Computer Aided Drafting/3D
- 3 CAD 219 3D Studio Max
- 3 CAD 220 3D Studio Max/Advanced

#### 18 Option C:

##### Digital Multimedia

- 3 CWB 130 Complete Web Editing Tools
- 3 MGD 143 Web Motion Graphic Design I
- 3 MGD 164 Digital Video Editing I
- 3 MGD 167 Game Design I
- 3 MGD 257 Animation Production
- 3 ART 143 Digital Photography I

### ASSOCIATE (AAS) DEGREE\*

#### Visual Communications

TOTAL CREDITS 62-70

#### 15 General Education Requirements

- 3 ENG 131 Technical Writing I
- 3 HUM 110 Introduction to the Fine Arts
- 3 MAT 112 Financial Mathematics
- 3 SPE 115 Public Speaking
- 3 Natural Science Elective

#### 47 Visual Communications Core Curriculum Requirements

- 3 MAR 220 Principles of Advertising
- 3 MGD 102 Introduction to Multimedia
- 3 MGD 105 Typography & Layout
- 3 ART 131 2-D Design
- 3 MGD 111 Adobe Photoshop I
- 3 MGD 133 Graphic Design I
- 3 MGD 141 Web Design I
- 3 MGD 202 Point of Purchase Packaging Design
- 3 MGD 207 Illustration I
- 3 MGD 233 Graphic Design II
- 3 MGD 241 Web Design II
- 3 MGD 256 Graphic Design Production
- 2 MGD 268 Commercial Art Business
- 3 MGD 280 Internship
- 3 MGD 289 Capstone
- 3 ART 143 Digital Photography I

\*This degree program is pending program approval.



# Welding

Emilio Gonzales, Department Chair

## Associate of Applied Science (AAS) Degree Certificates

### Career Opportunities

The Welding program prepares you for a career in construction and manufacturing settings, small job shops, city and government welding centers, and related sites. You may also work as a self-employed welder.

### Program Description

The Welding AAS degree offers advanced instruction if you have finished the basic welding courses, or if you are working at the trade and wish to upgrade your skills. We also give qualification tests if you wish to be become qualified in a welding process.

The Welding Certificate program provides training in the SMAW (Shielded Metal Arc Welding), GTAW (Gas Tungsten Arc Welding), GMAW (Gas Metal Arc Welding) and the Oxyacetylene cutting process. This training is also included in the degree program. This two semester program stresses print reading and applied metal properties. It prepares you for employment in the industry in the shortest possible time.

## ASSOCIATE (AAS) DEGREE

### Welding

TOTAL CREDITS 73

#### 16 General Education Requirements

- 3 ENG 131 Technical Writing I
- 4 MAT 108 Technical Mathematics
- 3 Humanities
- 3 Natural Science
- 3 Social Science

#### 49 Core Curriculum Requirements

- 1 WEL 100 Safety for Welders
- 4 WEL 102 Oxyacetylene Joining Process
- 4 WEL 103 Basic Shielded Metal Arc I
- 4 WEL 104 Basic Shielded Metal Arc II
- 4 WEL 106 Blueprint Reading for Welders and Fitters
- 4 WEL 125 Introduction to Gas Metal Arc Welding
- 4 WEL 124 Introduction to Gas Tungsten 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 250 Layout and Fabrication
- 4 WEL 251 Design, Layout and Fabrication
- 4 WEL 263 Applied Metal Properties

#### 8 Related Requirements

- 4 ENT 131 Mechanical Drawing I
- 4 MAC 105 Introduction to Machining Technology

## CERTIFICATE PROGRAM

### Welding

TOTAL CREDITS 40

#### 40 Welding Certificate Requirements

- 4 ENT 131 Mechanical Drawing I
- 4 MAC 105 Introduction to Machining Technology
- 3 MAT 107 Career Math
- 1 WEL 100 Safety for Welders
- 4 WEL 102 Oxyacetylene Joining Process
- 4 WEL 103 Basic Shielded Metal Arc I
- 4 WEL 104 Basic Shielded Metal Arc II
- 4 WEL 106 Blueprint Reading for Welders and Fitters
- 4 WEL 124 Introduction to Gas Tungsten Arc Welding
- 4 WEL 250 Layout and Fabrication
- 4 WEL 263 Applied Metal Properties

## MINI-CERTIFICATES

### Welding

TOTAL CREDITS 12

#### 12 Structural Welding Introduction

- 4 WEL 102 Oxyacetylene Joining Process
- 4 WEL 103 Basic Shielded Metal Arc I
- 4 WEL 104 Basic Shielded Metal Arc II

#### 12 Structural Welding Intermediate

- 4 WEL 106 Blueprint Reading for Welders and Fitters
- 4 WEL 124 Introduction to Gas Tungsten Arc Welding
- 4 WEL 250 Layout and Fabrication