## Fall 2015

<table>
<thead>
<tr>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester Classes /First Quarter Begins</td>
</tr>
<tr>
<td>Labor Day (No Classes)</td>
</tr>
<tr>
<td>First Quarter Ends</td>
</tr>
<tr>
<td>Teacher Workday (No Classes)</td>
</tr>
<tr>
<td>Second Quarter Begins</td>
</tr>
<tr>
<td>Fall Recess</td>
</tr>
<tr>
<td>Conference Exchange Day (No Classes)</td>
</tr>
<tr>
<td>Thanksgiving Recess (No Classes)</td>
</tr>
<tr>
<td>Fall Semester/Second Quarter Ends</td>
</tr>
<tr>
<td>Teacher Workday (No Classes)</td>
</tr>
<tr>
<td>Winter Recess (No Classes)</td>
</tr>
</tbody>
</table>

## Spring 2016

<table>
<thead>
<tr>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration for Spring Semester</td>
</tr>
<tr>
<td>Spring Semester Classes /Third Quarter Begins</td>
</tr>
<tr>
<td>Martin Luther King Jr. Day (No Classes)</td>
</tr>
<tr>
<td>Teacher Inservice (No Classes)</td>
</tr>
<tr>
<td>Conference Exchange Day (No Classes)</td>
</tr>
<tr>
<td>President's Day (No Classes)</td>
</tr>
<tr>
<td>Third Quarter Ends</td>
</tr>
<tr>
<td>Teacher Workday (No Classes)</td>
</tr>
<tr>
<td>Fourth Quarter Begins</td>
</tr>
<tr>
<td>Spring Break (No Classes)</td>
</tr>
<tr>
<td>Certificate Awards Ceremony (No Classes)</td>
</tr>
<tr>
<td>Spring Semester/Fourth Quarter Ends</td>
</tr>
<tr>
<td>Teacher Workday</td>
</tr>
</tbody>
</table>

Registration dates are subject to change. Please see our website at www.pickenstech.org for current dates.

500 Airport Boulevard  Aurora, Colorado 80011  303-344-4910  www.pickenstech.org
Table of Contents

GENERAL INFORMATION
Academic Calendar .............................................. 2
Admissions, Registration & Records ........................ 6
Standards & Conduct .......................................... 10
Student Services ............................................... 15
Degree Options .................................................. 17
Tuition Table .................................................... .81
Staff List ......................................................... .82

BUSINESS ADMINISTRATION
Business and Computer Technology .................. .24

HOSPITALITY, HUMAN SERVICES & EDUCATION
Human Services
Barber ............................................................. 21
Cosmetology ..................................................... 34
Esthetician ....................................................... 46
Nail Technician ................................................... 63

HEALTH SCIENCES & PUBLIC SAFETY
Health Sciences
Dental Assisting .................................................. 38
Foundations for Healthcare Professionals ............... 48
Medical Assistant .............................................. 57
Nurse Aide ........................................................ 65
Practical Nursing ............................................... 70
Respiratory Care ................................................ 75

SKILLED TRADES & TECHNICAL SCIENCES
Transportation, Distribution & Logistics
Automotive Technology ....................................... 18
Collision Repair Technology ............................... 26
Diesel Power Mechanics .................................... 40
Power Sports Technology .................................... 66

Architecture & Construction
Construction Technology ..................................... 31
Computer Aided Drafting ................................... 28
Electrician Occupations .................................... 43
Heating & Air Conditioning Service Technician ....... 52
Property Maintenance Technician ........................ 74

Manufacturing
Precision & Computer-Aided Machining ................. 69
Welding ............................................................ 79

ARTS, DESIGN & INFORMATION TECHNOLOGY
STEM
General Electronics Technology ........................ 50

Design & Arts
Multimedia Graphic Design ............................... 60
Professional Photography .................................. 72

Information Technology
Enterprise Computer Service ............................. 44
Mobile Apps ..................................................... 59

AGRICULTURAL & ENVIRONMENTAL SCIENCES
Landscape Management ...................................... 54
Veterinary Assistant .......................................... 77

COURSE DESCRIPTIONS
Course descriptions pertaining to each program immediately follow the program information page
Pickens Technical College Vision Statement

Pickens Technical College prepares all students for
Post-Secondary Workforce Readiness (PWR).

Pickens Technical College Mission Statement

Pickens Technical College provides unsurpassed, equitable
Career and Technical Education.

Aurora Public Schools Mission Statement

To teach every student within a safe environment the
knowledge, skills and values necessary to enter college or careers
and become contributing members of society who flourish
in a diverse, dynamic world.

Non-Discrimination Policy

Aurora Public Schools does not discriminate on the basis of disability or sex in admission to its programs, services or activities, in access to them, in the treatment of individuals with disabilities or in any aspect of their operations. Aurora Public Schools does not discriminate also on the basis of disability or sex in its hiring or employment practices. Detailed grievance procedures for persons who believe they have been victims of sex or disability discrimination have been developed. Ask for the coordinator designated below for a copy of regulation ACA-R (sex) or ACE-R (disability).

This notice is provided as required by Title IX of the Education Amendments of 1972 and by Title II of the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973. This notice is available from the compliance coordinator in large print, on audio tape and in braille.

Questions, complaints or requests for additional information regarding the ADA, (Americans with Disabilities Act of 1990) Section 504 and Title IX may be forwarded to the designated ADA, Section 504 compliance coordinator.

Name and Title: Brandon Eyre, Legal Counsel
Office Address: 15701 East 1st Ave.
               Suite 100
               Aurora, CO 80011
Phone: (303) 344-8060
Days/Hours Available: Monday-Friday, 7:30 a.m. - 4:30 p.m.

Although this catalog was prepared on the basis of the best information available at the time, all information (including the District calendar, admission and graduation requirements, course offerings and course descriptions, and statements of tuition and fees) is subject to change without notice or obligation. Pickens Technical College is an affirmative action/equal opportunity institution. For current calendars, tuition rates requirements, deadlines, etc., students should refer to the Schedule of Courses for the semester in which they intend to enroll, which can be found on the Pickens Technical College website at www.pickenstech.org.
Pickens Technical College provides complete career and technical certificate programs and individual courses in many vocational and technical areas of study for post-secondary and adult levels of training. These programs, which are in conformity with the guidelines of the Colorado Community College System, provide:

(a) pre-employment training for those who are preparing to enter an occupation and (b) retraining, upgrading, or occupational advancement for those already employed.

In addition, Pickens Technical College cooperates with several community colleges to provide technical training in several areas of study which may be a part of an Associate of Applied Science Degree in Management (Tech Management Emphasis), an Associate of Applied Science Degree in Applied Technology, or an Associate of General Studies Degree awarded by the community colleges. See page 15 for more information.

Pickens Technical College provides a variety of student support services including: advising, guidance and counseling, testing and assessment, tutoring, instruction, financial aid, job readiness and job coaching.

Students needing in-depth remediation are referred to the Community College of Aurora for services. Students interested in obtaining the GED certificate may do so on the Pickens Technical College campus. For more GED information, please call (303)326-2112.

The programs of study at Pickens Technical College are credit generating and meet Vocational/Adult Accreditation Standards recommended by program advisory committees, the Colorado Community College System, the Colorado Commission on Higher Education, and the US Department of Education. In addition, several programs are accredited by state and national accrediting agencies.

Pickens Technical College provides special adult offerings and short courses needed for upgrading vocational and technical skills depending upon demand and resources.

**PICKENS TECHNICAL COLLEGE PHILOSOPHY & OBJECTIVES**

The philosophy of Pickens Technical College is to provide programs and learning activities which will meet the employment needs of the individual and the business community. Pickens Technical College also makes the firm commitment that all coursework will incorporate well-defined objectives, keeping abreast of technological and industrial changes, and offer curriculum which will help develop the total individual. The following objectives express specifically the philosophy of Pickens Technical College:

A. to provide trainees with the opportunity to acquire the skills, knowledge, work habits, and attitudes required for successful employment
B. to encourage students to work well with others while maintaining their own ideas, views, and standards
C. to provide trainees with a curriculum that is sufficient in depth, scope, and length to insure adequate preparation for employment
D. to evaluate trainees in a realistic manner which parallels the standards of business and industry
E. to utilize advisory committees in assisting existing programs and initiating new programs to meet the labor needs of the community
F. to provide trainees with the opportunity to develop leadership abilities through involvement in vocational student organizations
G. to meet the needs of trainees by providing counseling, assistance in job placement, and student financial assistance
H. to provide special services to meet specific individual needs including personal, physical, and mental capacities, attitudes, and interests
I. to provide trainees with the opportunity to develop additional knowledge and skills to change occupational goals or for career mobility within an occupational area
J. to provide training in an environment similar to business and industry while maintaining an atmosphere conducive to learning
K. to promote high standards in trade ethics, workmanship, scholarship, and safety
L. to provide competent administrators, teachers and support personnel necessary to develop, operate, and maintain a quality training facility
M. to develop a greater awareness for vocational education within the school district and the community
N. to cooperate with the area high schools, the Community Colleges, and the agencies necessary to meet the career and technical education needs of the community

**ADVISORY COMMITTEES**

Each certificate program has an advisory committee consisting of representatives from education, business, and industry. The committee assists the instructional staff and administration in helping to keep the program up-to-date with recommendations for curriculum content, equipment selection, and job-placement opportunities.

**FACULTY & STAFF**

All faculty and administrators have credentials for their work assignments from the Colorado Community College System. In addition, most full-time faculty hold a teaching certificate or license from the Colorado State Department of Education. These credentials require each faculty member to have several years of experience working in the subject field as well as formalized education and specialized training.

**NOTE:** Visit www.pickenstech.org under “Directory” to view a complete list of our faculty and staff.

**SCHEDULE, STAFF, AND COURSE CONTENT CHANGES**

The school reserves the right to cancel, discontinue, re-schedule, or combine classes and to change instructors. Classes may be canceled if fewer than the required minimum number of students register.

**SCHOOL CALENDAR**

Pickens Technical College follows the Aurora Public Schools calendar regarding the starting and ending of classes and the scheduling of holiday vacations and staff inservice. Students should refer to the current semester schedule of classes for the most accurate calendar information or www.pickenstech.org

**EMERGENCY CANCELLATION OF CLASSES**

If classes are canceled, Aurora Public Schools will notify major radio and television stations. When day classes are canceled prior to the start of the school day or during the school day, evening classes will also be canceled.
Admissions, Registration and Records

WEBSITE
Students can find information about Pickens Technical College online. The school's website address is www.pickenstech.org. It hosts a current description of programs and services available to students, and a calendar of activities. Students may apply for enrollment online or in person.

INSTITUTIONAL LIABILITY
Pickens Technical College disclaims liability for any kind of injury, illness, or for loss of or damage to personal property brought on to school property. Students are expected to provide their own protection for such losses. Every reasonable effort is made by school authorities to provide a safe environment in which to work and learn.

STUDENT RIGHT-TO-KNOW & CAMPUS SECURITY ACT
CAMPUS SECURITY AWARENESS
It is the goal of Pickens Technical College to provide a totally safe environment for its students. In this effort, there are several campus security policies, including:

A. students do not have access to campus facilities unless supervised by an instructor
B. any member of the campus community is expected to report suspicious and criminal actions to administration
C. the student parking lot is monitored regularly for suspicious activities and possible thefts
D. visitors must sign in at the receptionist's desk in the main office
E. doors (except the main doors) of all buildings are locked at 4:30 p.m. daily
F. the Aurora Police Department and/or Arapahoe/Adams County Sheriff's Department are notified immediately regarding thefts and drug or alcohol usage

STUDENT RESPONSIBILITIES
Student responsibilities for health and safety are covered on page 10-11.

REPORTING AN INCIDENT
Students are encouraged to report all occurrences that endanger the lives and well-being of our school population. Suspicious and criminal behavior should be reported immediately to school administration. Appropriate police/sheriff's departments will be notified. These community agencies will take appropriate legal action.

The following statistics are in compliance with the Jeanne Clery Act for reporting criminal offenses:

<table>
<thead>
<tr>
<th>Criminal Offense</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Murder/Manslaughter</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sex Offenses, Forcible</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sex Offenses, Non-Forcible</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Robbery</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Aggravated Assault</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Burglary</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Motor Vehicle Theft</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Arson</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Simple Assault</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Larceny-Theft</td>
<td>10</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Intimidation</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Destruction/Damage/Vandalism</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Weapons: Carrying, Possessing, etc</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Drug Abuse Violations</td>
<td>0</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Liquor Law Violations</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

All criminal and illegal activity statistics are collected by the Dean of Students.

Admission requirements at Pickens Technical College are listed within this section. Enrollment includes individuals from the metropolitan area and state, from a wide variety of backgrounds and age groups. Applications for admission should be submitted well in advance of the desired entry date. Applicants are encouraged to apply at least 6-8 weeks prior to the semester of attendance. This will allow adequate time to process financial aid materials, meet with an advisor to schedule classes, and register for classes. All registration for classes is held at Pickens Technical College. Early application is encouraged for all programs. Registration steps are outlined in this section.

ADMISSION TO CERTIFICATE PROGRAMS
ADMISSION POLICY
A. All students must submit an application for admission prior to registration. Students may apply online at www.pickenstech.org. Go to the “Register” link and complete “Step 1”.
B. All certificate programs require an admissions process. Please refer to program area and/or call an advisor/counselor to inquire about requirements of the program.
C. Individuals applying for financial aid must have a high school diploma or completed the GED.
D. Late enrollments are accepted in most classes through the first week of class, subject to space availability.
E. Students enrolled in a post-secondary program prior to the current term who have interrupted their training will be registered as new students. When possible, every effort will be made to permit re-enrollment to enable completion of the program.
F. All financial obligations to Pickens Technical College from previous terms must be paid in full prior to continuing enrollment or readmittance. Payment for classes is due at the time of registration.
G. Veterans must report all previous education and training to the Office of the Financial Aid Office.
H. A student's success in a program may depend on the individual's personal interest, aptitude, and physical qualifications required for each program. The philosophy of the staff is that the student should be able to benefit from the instruction and that there is a reasonable chance the student will be able to complete requirements which will enable job entry employment or advancement in the occupation.
I. The school does not require a physical examination as a general condition of admission but reserves the right to require evidence of good health in individual instances. Some programs will require a physical examination upon acceptance into the program.
J. When a certificate of completion is granted, it is considered that program competencies have been met unless the student has previously stated in writing additional requirements needed to satisfy long-range objectives. This additional training must receive special administrative approval.
K. A student who is enrolled for 12 or more credits per semester is considered to be a full-time student.
L. Career and Technical programs are available to adult students. Any person, 16 years of age or older, who has or has not completed high school may be granted admission as a post-secondary student.

RESIDENCY REQUIREMENTS
Colorado residents and non-residents may attend Pickens Technical College. Resident classification impacts tuition rate. Students will be classified as an in-state or out-of-state student according to the information on the application for admission. Residency requirements are determined by the Colorado Tuition Classification Law (sections 23-7-101 to 105 of the Colorado Revised Statutes).

To qualify for in-state tuition, a student (or the parents or legal guardian if...
Admissions, Registration and Records

the student is under 23 years old and not emancipated) must have been
domiciled in Colorado for 12 or more continuous months immediately
preceding the first day of classes. Domicile for tuition purposes is
determined by two factors: the ability to show a permanent place of
residence in Colorado, and the ability to demonstrate intent to remain in
Colorado. Several ways to prove intent to remain include providing
evidence such as:

A. paying Colorado income taxes
B. being permanently employed in Colorado
C. owning residential Colorado real estate
D. holding a Colorado driver’s license or vehicle registration
E. registering to vote

Any student who has been classified as an “out-of-state resident,” and
who believes he/she can qualify as a resident may secure a petition for
change of residency status from the Registration Office. It is the student’s
responsibility to ensure that petitions and all supportive documentation are
on file in the Registration Office no later than ten (10) class days after the
first day of classes of the semester they wish to receive/change their
residency status. The Registration Office cannot assume responsibility for
mailed petitions that arrive after the deadline; petitions will not be accepted
after the end of the second week of the term.

IMMIGRANT AND NON-IMMIGRANT ALIENS

Immigrant and non-immigrant aliens must show their Resident Alien card or
visa to determine residency for tuition purposes.

RESIDENCY APPEAL PROCESS

In cases where the student does not agree with the decision of the tuition
classification officer, he/she may request that administration appoint an
appeal committee. This appeal committee will review the residency petition
and supporting documentation to make a final determination of residency.

MILITARY PERSONNEL

Active duty military personnel and their dependents upon moving to
Colorado on a permanent-change-of-station (PCS) basis are eligible for
residence for tuition purposes. Before registering at Pickens Technical College, they
should contact the nearest Military Education Office in order to complete
and have the tuition classification certification form approved by the
Education Officer. The form is to be presented at the Registration Office
at the time they register for a class.

REGISTRATION

APPLICATION INFORMATION

New students seeking admission to full-time post-secondary
certificate programs must consult with a counselor/advisor.

Any student planning to use any form of financial aid to attend school
should contact the Financial Aid Office at least six to eight weeks in
advance of registration in order to provide adequate time to process
information. Applications submitted any later may not be completed in
time to pay tuition and fees when the student registers. Such students
need to be prepared to pay their own tuition and fees when they register.

No student will receive financial aid of any kind until after he/she has
been admitted as a student by the Admissions/Registration Office. Any
student planning to seek an Associate of Applied Science or General
Studies Degree from the Community College of Aurora, or from another
Community College, upon completion of a Pickens Technical College program
should notify the Registration/Records Office and also make that fact known
with the Community College of choice.

CLASS SCHEDULE INFORMATION

A schedule of course offerings is published fall and spring semesters,
listing courses to be offered during the semester. The schedule indicates
dates, times, costs, and procedures to register for classes.

The semester schedule may be found on the Pickens Technical College
website at www.pickerstech.org

DROP/WITHDRAWAL POLICY

A student may officially drop from a class or program during the first 15% of
class without having a grade recorded. Students who withdraw from
class or program after the first 15% of class will have a grade of
“W” recorded in the permanent records. Students may not receive a
withdrawal grade from a course after 75 percent of the scheduled time of
the course has been completed. A letter grade will be given.

Students who plan to discontinue class attendance should complete a
withdrawal form in the Registration/Records Office as soon as possible
after the decision has been made. Refund, if any, is determined by the
date the student officially submits the form to Registration.

PROCEDURE TO DROP/WITHDRAW FROM A CLASS OR PROGRAM

When a student registers for a class or program, space is reserved under
the assumption the student plans to complete the course(s). A student
record is started in the Registration Office computer.

To drop or withdraw from a class or an entire program, the student
must go to the Registration/Records Office to have an official
donation form completed. Telephone requests are not accepted. Until a student officially drops/withdraws at the Registration
Office, the enrollment remains active with absences and grades recorded.

STUDENT RECORDS

CHANGE OF ADDRESS

It is the responsibility of each student to notify the Registration/Records
office of any change of address, name, telephone number, or other
change that will affect his/her permanent or financial records.

PERMANENT RECORDS

A permanent record is maintained on each officially enrolled student. The record
lists course numbers, course names, course credit hours, and course grades.
The student may request to examine his/her record with a member of the
Registration/Records Office staff or a school counselor.

Student records are maintained in compliance with the Federal Family
Section 513.88 Statute 471.20 U.S. C. 1232Q)

REQUEST FOR TRANSCRIPTS

Students who wish to have a copy of their Pickens Technical College
certificate sent to another educational institution, to a prospective
employer, or for personal use must complete a Request for Transcript
form at the Registration Office. A fee of $5 per copy will be charged.

Transcripts will not be available for any student who has not fulfilled all
financial obligations.

A one-week period of time should be allowed from the time of the receipt
until the time the transcript is mailed.

FAMILY EDUCATION RIGHTS & PRIVACY ACT OF 1974

In compliance with the Family Education Rights and Privacy Act of 1974,
also known as the Buckley Amendment, institutions of higher education
such as the post-secondary program at Pickens Technical College are
required, on an annual basis, to inform students of their rights under the
Act and to enumerate its basic provisions. The following statement
constitutes such notice:

Under the Act, a student 18 years of age and older at post-secondary
institutions has the right to inspect and review all official records, files and
data directly related to the student, including all material that is incorporated
into the student’s cumulative record file.
Admissions, Registration and Records

The student shall have the right to challenge the contents of personal education records and has a right to have a hearing to ensure that the records are accurate. Student names and current enrollment status at Pickens Technical College are considered public information. Pickens Technical College will respond to inquiries in this regard, whether they are made in person, by phone, or in writing. Other items are also considered public information, but students can prevent their disclosure by filing a written request with the Registration Office that they be withheld unless written permission is granted. The following items may appear in school directories and publications or be disclosed by staff to anyone inquiring in person, by phone, or in writing:

A. classes, program or division
B. date of enrollment
C. number of hours currently taken or completed previously
D. certificates earned
E. honors received

Student names may be released for graduation listings, and lists of special awards, honors, and events may be released to the news media. All other information contained in student records is considered private and not open to the public without written consent. Only the following individuals, because of their official function, have access to this information:

A. Pickens Technical College officials
B. Officials of other schools or colleges where the student intends to enroll
C. State or federal educational authorities
D. Officials requesting information in connection with a student’s application for financial aid
E. State and local officials requiring reporting data
F. Accrediting organizations
G. Parent(s) of a dependent student (proof of dependency may be required)
H. In compliance with a judicial order
I. In case of an emergency to protect the health, safety, or welfare of the student or other persons

TUITION

Tuition & Fees

Tuition and fees for post-secondary programs are reviewed annually by the school and various state agencies.

Tuition for Pickens Technical College is determined by the Aurora Public Schools Board of Education and is subject to change. The schedule of course offerings published each semester will list the rate of tuition fees and other charges.

Students who do not meet in-state residency requirements for higher education as enacted by the Legislature and promulgated by State policy and procedures are required to pay more for their education. At Pickens Technical College this is calculated at twice the residency rate.

In addition to tuition, various student and academic fees have been established and approved by the governance board.

Fees are charged to recover some of the costs of providing services and programs. Fees are subject to change without notice. General supply and material fees are assessed to help defray costs of supplies and equipment. In certain high cost programs such as Health Occupations, Professional Photography, and others, special fees or surcharges may be charged upon enrollment.

Tuition and fees are assessed and collected each term in accordance with Colorado Commission on Higher Education rules and regulations.

The Counseling office and Registration have information about approximate costs for such items as tools, uniforms, and insurance, which are required in some programs.

REFUNDABLE FEES

These fees are refundable up to the census date if dropped with the accompanying class(es):

A. College Fee: Pay a credit hour fee, up to 18 credits for full time students, to help fund general operations of the school.
B. Lab/Course Fee: Some courses are assessed an additional lab/program fee to defray extra costs of materials, supplies, and equipment. For example, due to the lower teacher-student ratio enforced by accreditation agencies, there is a clinical fee in many of the Health Occupations programs. Check the Post-Secondary Semester Schedule for specific course/lab fees.
C. Program Fees

NON-REFUNDABLE FEES

A. Student Enrollment Fee: A non-refundable student enrollment fee paid each semester to offset enrollment processing and records costs. See current tuition fee schedule.
B. Tuition Refund Fee: $20 processing fee for classes dropped from the first day of class through refund date.
C. Challenge Fee: A $20 per credit hour fee for course challenge. Used to offset instruction costs, materials and processing costs. See Credit for Prior Learning section for specific procedures.
D. Portfolio Review Fee: A $25 per hour one-time fee for review of life experiences to seek credit for prior learning. Used to cover the direct cost of review by staff.
E. Deferred Payment Fee: A $10 processing fee to cover costs of handling the deferred payment.
F. Academic Transcript Fee: $5 per transcript. Used to offset printing costs, mailing and telephone charges.
G. Replacement Certificate: $10.00 fee for each replacement certificate. Must be requested within one year of graduation.
H. Replacement of student identification card: $5.00 processing fee.

PAYMENT OF TUITION & FEES

A student, by the act of registering, automatically incurs a financial obligation to Pickens Technical College. This obligation must be satisfied by appropriate payment. This means that a student who registered for one or more classes is obligated to pay the full amount of the tuition and fees whether or not the student attends class. Failure to pay tuition and fees may result in cancellation of a student’s registration. Unpaid accounts will be forwarded to a collection agency that may impact the student’s credit rating and may result in additional collection fees, attorney fees, interest or other costs. Pickens Technical College will not be able to register a student, provide semester grades or final transcript to any student or former student who has any financial obligations.

DEFERRED PAYMENT

Deferred payment is available at the time of registration for tuition in excess of $300. All fees and 50 percent of tuition costs must be paid on the day of registration. The remaining balance is due in two or three installments. A $10 non-refundable processing fee is to cover the cost of handling the deferred payment. An additional $10 non-refundable charge is assessed for each late payment. If a student has incurred a late fee, the student will not be eligible for another deferred payment for the remainder of the school year.

AUDIT OF COURSES

Students who wish to attend class without earning credits may register on an audit basis by registering for the course and completing the Request for Audit form. Registration and tuition are the same as for credit courses.
Admissions, Registration and Records

Changes to or from audit status must be made on or before the refund date for the class. Under this option, students are not held to standard attendance requirements nor required to take examinations. An “AU” will be recorded in the student’s transcript which is not calculated into the GPA.

REFUND POLICY
The refund policy for Pickens Technical College is based on the fact that tuition provides a portion of the cost of education. When a student enrolls in a program/class, he/she reserves a place which cannot be made available to another student until he/she officially drops the program/class. In addition, a student’s original enrollment represents a sizable cost to the State of Colorado whether or not he/she continues in the program/class. Refunds, when due, are made without requiring a request from the student.

A. One hundred percent (100%) refund, less $20.00 processing fee and less additional fees for high cost programs, is granted to students for classes dropped from the first day of class through refund date. Refund date is the date when 15% of the scheduled class time has occurred.

B. No refund will be given for fees and other obligations not retrievable by the institution.

C. No refund will be given once 15% or more of the scheduled time for the class has elapsed.

D. When the class section is canceled due to lack of enrollment or other cause, the school will notify the student and the student is entitled to a 100% refund. Students may come to the Registration/Records Office and choose from the class sections still available to substitute for the canceled class or apply for a refund.

E. Records will not be released until all obligations to Pickens Technical College are fulfilled.

F. A student receiving financial aid who withdraws during the semester may be required to repay a portion of the financial aid. For more information concerning the methods of determining when a repayment may be due, contact the Financial Aid Office or refer to the Financial Aid Handbook.

G. Students whose tuition is being paid by an agency or third party are responsible for their tuition if the agency or third party does not pay.

H. Refunds, when due, are made without requiring a request from the student and are made within 45 days (1) of the last day of attendance if written notification has been provided to the institution by the student, or (2) from the date the institution terminates the student or determines withdrawal by the student.

Academic Standards

Certiﬁcate of Completion Awards
Students who complete all certificate program requirements, and who meet the specifications set forth in the Standards of Progress, and who complete all financial obligations to Pickens Technical College are eligible to receive a Certificate of Completion. Students will be recommended for the certificate by their instructor(s). The instructor will validate that all requirements have been met.

Students are encouraged to participate in the certificate awards ceremony. All certificates will be mailed upon completion of the grade verification process after the end of the semester.

Standards of Progress
To maintain the required Standards of Progress in a program or an individual course, a student must meet the minimum requirement of having an average grade of “C” or better in all courses in the approved schedule.

Failure to maintain a satisfactory Standard of Progress may result in the following actions:

A. being placed on academic probation
B. dropped from program status. Note: Students may re-enroll in individual course(s) for which prerequisites are met
C. denied re-admission if student has failed to meet standards twice in a school year. Student must prove to the satisfaction of the school administration that circumstances have changed

Administration, in conjunction with Registration/Records, instructors and advisors, is responsible for administering and supervising the Standards of Progress. The student is entitled to request a hearing regarding such a dismissal.

Grading Policy
The Registration/Records Office mails the student grade reports at the end of each semester. Students will also receive regular feedback on class progress during the term of the course.

<table>
<thead>
<tr>
<th>Grade Symbol</th>
<th>Quality of Work</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>93-100</td>
</tr>
<tr>
<td>B</td>
<td>Above Average</td>
<td>82-92</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>71-81</td>
</tr>
<tr>
<td>D*</td>
<td>Below Average</td>
<td>60-70</td>
</tr>
<tr>
<td>F*</td>
<td>No Credit</td>
<td>Below 60</td>
</tr>
<tr>
<td>I*</td>
<td>Incomplete</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory</td>
<td></td>
</tr>
<tr>
<td>U*</td>
<td>Unsatisfactory</td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
<td></td>
</tr>
<tr>
<td>AU</td>
<td>Audited Course</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Challenge Exam</td>
<td></td>
</tr>
</tbody>
</table>

4-Point Grading System

<table>
<thead>
<tr>
<th>Grade Symbol</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>D*</td>
<td>1</td>
</tr>
<tr>
<td>F*</td>
<td>0</td>
</tr>
</tbody>
</table>

* Note: A grade of “C” or above is required in all courses meeting the requirements to earn a program Certificate of Completion.

Repeated Courses: Students may repeat a course ONCE. Students who want to repeat more than once require administrative approval. Students who receive a “D” or “F” in a course may repeat the course for a better grade when the course is next regularly scheduled or through arrangements with the instructor. Students must register and pay tuition for each course repeated. All grades will appear on the transcript. Students may request that the lower of the two grades be dropped from their GPA. This is not automatically done by the Records Office; a request form must be completed by the student in the Registration Office and approved by the instructor.

Grade Quality of Work Indicated by Symbol

A. Excellent achievement. Exceedingly high quality of work as demonstrated by ability to master outcomes of the course.
B. Above average achievement. Highly satisfactory work in required areas of the course.
C. Average achievement. Proficiency in most of the course requirements/quality of work usual for this course.
D. Below average achievement. Some proficiency in course requirements, accompanied by unacceptable performance. Will not count toward certificate requirements.
**Standards and Conduct**

**Failing.** Course requirements have not been met satisfactorily. Will not count toward certificate requirements.

**Incomplete.** Temporary grade where 75% of the coursework has been satisfactorily completed, but due to reasons beyond the student's control, the work of the course cannot be completed at this time. An incomplete grade does not permit the student to re-enroll in the class again without payment of tuition. An “I” grade must be completed no later than the end of the semester immediately following the assignment of the “I” grade not counting summer term (for spring term this means during the next fall semester). If no grade change form is received from the instructor by the last day of the term, the “I” grade will revert to an “F” grade. This incomplete policy is referenced to post-secondary students only. Secondary students must meet APS Board of Education requirements.

**Satisfactory:** Credit received. The student has demonstrated mastery or achievement of course objectives. Not computed in GPA. Counts toward certificate requirements.

**Unsatisfactory:** Indicates student has not demonstrated mastery or achievement of course objectives. Not computed in GPA. Will not count toward certificate requirements.

**Withdrawal:** Transcribed grade received by student who withdraws from the course after 15%, but before 75%, of the course has expired.

**Audit:** Transcribed for a student who is taking a course without earning credits. Not computed in GPA.

**Challenge Exam** was passed successfully. Counts towards certificate requirements. Not computed in GPA.

**ACADEMIC DUE PROCESS**

In cases where academic matters are in question or where an instructor's judgement is in question, the first contact for resolving the matter should be with the instructor. The next line of appeal is an advisor. If the student is still not satisfied, he/she may request that administration appoint an academic appeal committee to mediate the appeal.

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**POST-SECONDARY ENROLLMENT PROCESS**

All post-secondary students are responsible for their own enrollment, for identifying disabilities, and, if needed, requesting specific accommodations for any basic skills assessment and support service. Check with an advisor for program availability and start dates. Complete the following admission steps:

- Fill out an application. You may apply online or download one from our website: www.pickensstech.org and mail or fax to our registration office. Or fill out an application in person.

*Submission of the Pickens application indicates intent to register.*

**Fax:** (303)326-1965

**Mail Applications to:**

PTC Registration Office
500 Airport Blvd
Aurora, CO 80011

- If using financial aid, fill out the application on the FASFA website: www.fafsa.ed.gov

PTC Code: 012875

- Register for classes, **in person**, at the Registration Office. Finalize registration by showing proof of residency and paying all tuition and fees.

*Online registration will be available in 2014*

**Please note:** if student is under 23 years of age, a copy of parent/guardian’s proof of residency will need to be provided at time of registration. Also parent/guardian information will need to be provided on the admissions application.

- Make payment at the cashier’s window located in the Registration area.

*Classes are filled on a first come first serve basis. For program availability please contact the Counseling department.*

All **post-secondary students** are responsible for their own enrollment, for identifying disabilities, and if needed, requesting specific accommodations for any basic skills assessment and support.
Standards and Conduct

Our academic standards and procedures at Pickens Technical College have evolved over the decades to provide clear definitions for our students. We urge you to become familiar with the system and the expectations of students.

CREDIT FOR PRIOR LEARNING
Currently enrolled students (registered and tuition/fees paid) may be awarded credit for prior learning which has been acquired through traditional coursework, nontraditional school work, or other life experiences to meet partial certificate credit requirements. For prior learning to qualify for course credit it must be comparable to the Pickens Technical College post-secondary course content and must relate to the student’s occupational objective. No more than 75 percent of the certificate program requirements may be met through credit for prior learning. The methods of credit for prior learning are as follows:

A. Course Transfer
Course(s) being transferred to a Pickens Technical College post-secondary program must meet the following criteria:

1. The credit must be from a North Central Association of Schools and Colleges or accredited association of higher education.
2. Course content must be recognizable as being equivalent to the Pickens Technical College course.
3. The transfer course must have been completed within the previous ten years. Course(s) completed more than ten years ago may validated through the course challenge procedure.
4. A grade of “C” or better must be documented on an official transcript. Official transcripts are to be mailed from the previous school. Fax transcripts are not accepted as official.
5. Pickens Technical College reserves the right to evaluate all credits. Coursework found to be obsolete will require updated credit.
6. Students cannot transfer between programs after the drop date of each semester and only when there is available space in the program.

Procedure for Transfer Credit:
1. Obtain an official transcript from the previous institution(s).
2. A credentialed teacher(s) or advisor in the subject area will evaluate the transcript for eligibility of transfer credit.

Transfer credit will be recorded as “transfer credit” on the Pickens Technical College transcript. Transcripts covering a student’s previous education and other records submitted to the school as part of the admission requirements are assimilated into the official file and cannot be returned to the student. The school will neither issue nor certify copies of transcripts and records from other institutions.

B. Course Challenge
Course challenge may be used to validate previous certificate program coursework that is more than ten years old, or it may be used to demonstrate knowledge and skills gained through work experience or other life experience. A successful challenge will enable the student to receive a grade of “E” (successful passing of Challenge Exam) without having to take the course. The request to challenge must be made within the first five school days of the start of the course. Course challenge examinations are usually equivalent to taking a final examination and may include both performance and written tests. A course challenge for any course may be made only once. The student failing the course challenge must take the course and pass it successfully in order to receive credit.

Grades for a challenge will be submitted for recording on the transcript at the end of the term. The grade for a satisfactory challenge will be “E”. A course challenge cannot be used to improve a prior recorded grade. Challenge credit is not applicable towards grade point average. A maximum of eighteen credits (18) or twenty-five percent (25%) of the credits required for a certificate may be earned through course challenge.

Procedures for Course Challenge:
1. Student enrolls and pays tuition and fees for course.
2. Consult with the course teacher and an advisor to determine the feasibility of a course challenge.
3. Secure a Request for Course Challenge from the Registration Office and obtain all necessary signatures within the first five school days of the start of the course.
4. Pay the fee for a course challenge of $20 per credit hour. (This fee is nonrefundable.) If the challenge is successful, the tuition and fees paid during registration will be refunded if applicable. If the challenge is not successful, the student may complete the course or accept a withdrawal passing grade. Any refunds applicable will be determined using the refund policy.
5. Arrange with the teacher and an advisor to take the course challenge examination.
6. Course challenge exams are administered at the convenience of the examination administrator but must be completed within the first 15 percent of the course.

C. Portfolio of Learning Outcomes
The portfolio opportunity is provided for students who have acquired program-related competencies through experiences which have not been documented through traditional means, such as examination results and transcripts. Work (paid or unpaid) and other life experiences that have provided knowledge and skills directly related to the student’s program of choice are examples one might document to receive credit for prior learning using the portfolio of learning outcomes. Submission of evidence documenting the validity of these experiences will be required. A maximum of eighteen credits (18) or twenty-five percent (25%) of the credits required for a certificate may be earned through portfolio evidence.

Work experience – a description of the work performed and the competencies needed to perform the work, the name, address, and telephone number of the employer. A self-employed person may find it helpful to include tax returns and other work related documents.

Other experience - a complete list of the experiences, full range of activities, references, telephone numbers, and addresses of individuals who are knowledgeable of the work performed and the skills needed, examples of products or services, pictures, news articles or other evidence must be provided. In addition to the above, the student may be required to successfully complete written and/or performance tests related to the experiences identified.

A credentialed teacher(s) teaching in the subject area will evaluate the portfolio of learning outcomes to determine credit for prior learning. There is a one-time Portfolio Review Fee of $25 per hour which is used to cover the direct cost of the review staff. Course(s) that may be waived for earning a certificate of completion will be based on the evaluation of the portfolio but cannot exceed 25 percent of the total certificate course requirements.

Hours acquired through the portfolio will not accrue toward determining tuition charges for students who are also taking courses at Pickens Technical College, nor generate a grade or grade point average. The Executive Director or designee will make final approval of all experiences accepted for credit.
Standards and Conduct

STUDENT CONDUCT

STUDENT RESPONSIBILITIES

The student is responsible for becoming fully informed about all school policies and procedures as published in the general catalog, APS Safe Schools Policies and Regulations Booklet, student handbook and the schedule of classes. This includes, but is not limited to, withdrawal dates and procedures, refund dates and procedures, and attendance requirements.

The Aurora Public Schools Discipline Policy and its accompanying regulation, along with Policy JKD/JKE, Suspension/Expulsion of Students and Policy JLCF, Secret Societies/Gang Activity constitute the Aurora Public Schools Conduct and Discipline Code.

It is the intent of the Board of Education that students demonstrating unacceptable behavior understand that such behavior will not be tolerated and will be dealt with in accordance with this Conduct and Discipline Code. Violation of this Code may also result in referrals to law enforcement agencies. The Board of Education directs the Superintendent of Schools to develop regulations to implement the purposes of the policy. This Conduct and Discipline Code shall be in effect at all times. In addition, individual schools may develop additional specific operational rules to implement the Conduct and Discipline Code. If such rules are developed, they shall apply specifically to the individual building. This Code applies to conduct at school, on District property, in district vehicles or at a school-sponsored activity or event (whether or not building. This Code applies to conduct at school, on District property, in district vehicles or at a school-sponsored activity or event (whether or not in a building). This Code applies to conduct at school, on District property, in district vehicles or at a school-sponsored activity or event (whether or not in a building).

If policies are not known or understood, the student is responsible for seeking clarification from the proper school authorities.

STUDENT CONDUCT

Admission to the post-secondary program implies that adult students are expected to conduct themselves in a mature and responsible manner. They are expected to respect the rights of others and observe moral and civil laws. Interference with the normal processes of education in the classroom or elsewhere on the campus will be regarded as unacceptable conduct which warrants suspension and/or dismissal from the school. Conduct for which students are subject to disciplinary action falls into the following categories:

A. possession of any weapon on school property
B. physical abuse of any person on school property or conduct which threatens or endangers the health and safety of others as expressly prohibited by law
C. disorderly conduct or lewd, indecent, or obscene conduct on school property
D. unlawful use, possession, or distribution of drugs or alcohol on school property
E. theft, vandalism or damage to school property
F. unauthorized entry to or use of school facilities
G. dishonesty in any form or knowingly furnishing false information to Pickens Technical College
H. forgery, alteration, or misuse of school documents or records
I. failure to comply with written or verbal directives of duly authorized school officials who are performing assigned duties
J. obstruction or interference with academic or administrative processes of the school
K. failure to comply with the Tobacco Free policy
L. violation of school rules regarding use of computer or internet
M. harassment, intimidation or bullying of any kind toward students, staff or guests
N. improper dress or obscene messages on clothing
O. cell phones are not to be seen, heard, or used in any way inside the school during the instructional day from 7:50 a.m. to 4:00 p.m. This includes the use of any cell phone options such as cameras, PDAs, and calculators. Cell phones may be used outside the building. However, there will be consequences enforced if a student misses academic time due to cell phone use.

Electronics that are "receive only" devices such as I-pods, MP3 players, PDAs, etc. will be allowed in the Commons and/or lunch area during the instructional day. Electronic devices used in instructional areas will be confiscated.

STUDENT SAFETY RESPONSIBILITIES

All students are responsible for working safely and productively, always remaining aware of the hazards in their jobs and following safe work practices. A "Safety Violation Ticket" will be issued for failure to comply with safety rules. Depending on the severity of the infraction, suspension or dismissal from school may be warranted. These responsibilities include:

A. to follow school safety instruction and safety practices, and to work according to standard shop or lab practices
B. to recognize and report to the instructor hazardous conditions or work practices in the shop or lab
C. to use protective and safety equipment, tools and machinery as they were designed
D. to avoid using any equipment or tool if not properly trained or authorized to do so
E. to report all injuries or exposure to toxic materials to the instructor as soon as possible
F. to know the content and location of material safety data sheets when appropriate

PERSONAL SAFETY EQUIPMENT

Personal safety equipment (i.e., protective clothing, uniforms, safety glasses, welding gloves, etc), is required in several programs. Students will be advised by instructors concerning safety equipment requirements. This equipment will be available for student purchase in the bookstore.

PICKENS TECHNICAL COLLEGE ATTENDANCE

Regular attendance is encouraged for all students in order to retain an active enrollment status and to earn course credit. Excessive absences may result in failure of the course, failure to earn credit, and/or dismissal from the class and the school.

MAKE-UP WORK FOR ABSENCES

Instructors will provide post-secondary students the opportunity to make up work for absences if the procedures are met:

A. Student must request the make-up assignment(s) within two additional class meetings of the class. Failure to request the make-up assignment(s) will constitute a failure for these assignments.
B. The student will receive a specific content related assignment(s) from the instructor(s) of the class(es) missed.
C. The student will complete the assignment within a reasonable period of time. Reasonable period of time will be determined in relation to the number of days absent and the intensity of the subject matter.

DRUG-FREE PICKENS TECHNICAL COLLEGE

Pickens Technical College adheres to and supports the legislation and laws enacted by the federal, state and local governments addressing the unlawful possession, use or distribution of illicit drugs and alcohol. The person who is involved in any of these activities on campus will be
Standards and Conduct

prosecuted to the fullest extent of the law. Further sanctions, such as suspension and dismissal from the school, may be deemed necessary.

Due to Colorado State Law and Aurora Public School District policy, the Pickens Technical College campus is entirely tobacco-free.

SERVICES AND GENERAL INFORMATION

ADVISING/COUNSELING

Counselors and academic advisors are available to offer prospective and enrolled students assistance in exploring various careers, Pickens Technical College program options and personality profiles. They can help you choose a career/college/life path that fits your interests, personality and skills. All of our personality and career surveys are provided free of charge to prospective and current students. Our counselors are also available to talk with you about any personal issues that might be affecting your life and success in school. To make an appointment please call to schedule a time at 303-344-4910 or walk-ins are welcome.

HEALTH AND SAFETY

A Health and Safety Coordinator is generally available during the regular daytime hours of operation to provide basic school nursing services. The Coordinator is not on duty during the late afternoon and evening hours.

Safety instruction and safety practices are of vital concern within instructional programs at Pickens Technical College. Safe practices must be observed by all staff and students. Familiarize yourself with the content and location of Material Safety Data Sheets (MSDS) when appropriate. Students with disabilities that present a hazard to themselves or to others must report such information on the health and emergency card along with whom should be notified in case of emergency.

In the event of an accident or the sudden onset of illness, appropriate first aid should be obtained immediately. The staff will refer to the health and emergency card to identify family members who are expected to assume responsibility; otherwise, the staff will take appropriate and prudent action on behalf of the student. Students are responsible for carrying their own health and accident insurance and for any expenses incurred including outside emergency services.

Pickens Technical College strives to maintain a safe campus conducive to student well-being and learning. For crime statistics and reporting procedures, please see the Student Right-To-Know and Campus Security Act of 1990 section on page 5. Remember, campus security is a responsibility for all members of the campus community. As a member you should:

A. always lock your car when leaving the parking lot to go to class
B. always check your vehicle prior to unlocking and entering it when returning to it after class
C. walk out of class in groups or pairs
D. report any suspicious activity to school administration offices
E. pay attention to the physical characteristics of individual(s) involved in any incident you report. If it involves a motor vehicle, note the license plate number, make and/or model of the vehicle

INFORMATION RESOURCE CENTER (MEDIA CENTER)

The IRC provides the most current information available for students and staff to support their instructional needs. This information includes books, magazines, audio visual and CD Rom programs.

The IRC includes Lab A (24 computers) and Lab B (22 computers) with additional computers located in the IRC. Microsoft Office 2007 and program-specific software are available for student use.

TUTORING SERVICES

Students wanting personal assistance with any occupational program may request tutorial assistance.

Tutoring services are provided on a priority of need basis. Tutorial assistance is limited to the school’s ability to locate qualified tutors. Arrangements for this service should be made by contacting the instructor or counselor.

EMPLOYMENT SERVICES

Services are available to provide assistance to students and graduates to compete effectively in the job market. A variety of resources and services are provided to assist the student at no extra charge.

Pickens Technical College provides comprehensive employment assistance to its students and graduates, but does not guarantee employment or placement.

STUDENT ORGANIZATIONS

Professional organizations offer co-curricular activities which broaden and complement specific occupational areas. The activities are designed to build leadership skills while allowing members the opportunity to network and socialize. Students are encouraged to join any student organizations. Some students choose to participate in professional organizations, while others choose to participate in organizations directly related to their specific career. The following student organizations, however, are broad based, encompassing a wide array of careers. Join today and make your education and training more meaningful!

Student organizations at Pickens Technical College include: DECA (Distributive Education Clubs of America), FBLA (Future Business Leaders of America), FFA (Future Farmers of America), HOA (Health Occupations Students of America), SkillsUSA (Career and Technical Student Organization), FCCLA (Family Career Community Leaders of America), PBL (Phi Beta Lambda), SPOC (Student Photographers of Colorado), VIP (Visual Imaging Professionals) and DEC (Delta Epsilon Chi).

DISABLED STUDENTS

Students with disabilities have the responsibility to provide appropriate disability documentation to the Post-Secondary ADA Coordinator. Documentation legitimizes a student’s request for reasonable accommodation, and can assist both the student and the school in identifying the nature of necessary accommodations and in meeting a programs technical standards, where such standards exist. In addition, it is the students responsibility to maintain communication about the appropriateness of accommodations made, and to alert the faculty and staff about any physical or attitudinal barriers encountered at the school.

Students with disabilities making a transition to the post-secondary level often face increased academic and personal responsibilities. Students are expected to be their own advocate to a far greater extent than in the K-12 context. The advocacy process involves good communications; therefore, students with disabilities are encouraged to do the following: Make an appointment with the schools ADA Coordinator at (303) 326-2000 ext. 27704; Provide appropriate disability documentation (or discuss how such documentation is to be obtained) and prepare to discuss accommodation alternatives; Meet all deadlines established for documentation and submission of requests for accommodations; Maintain ongoing communication about the appropriateness of accommodations made. If there are problems, first try to resolve them with the individual instructor. If that does not work, contact the Post-secondary ADA

www.pickenstech.org

Pickens Technical College Catalog 2014-2015 13
Standards and Conduct

Coordinators. Finally, students have a right to file a formal grievance under the Aurora Public Schools ADA/Section 504 Grievance Procedure. A copy of this document may be found at http://www.aps.k12.co.us/pol-reg/SectionA/ace.pdf and is also available from Pickens Technical College Director’s office (303) 344-4910, or from the APS Office of Legal Counsel (303) 344-8060 ext. 28009). Keep faculty, staff and the Pickens Technical College Post-secondary ADA Coordinator informed about any physical and/or attitudinal barriers encountered on this campus. Please go to www.pickenstech.org under “Student Services” for more information.

CHILD CARE

The KIDS TECH child care facility at Pickens Technical College delivers child care and instruction to children between the ages of fifteen months and five years. In addition to providing quality child care, KIDS TECH serves as a lab for training secondary students who are enrolled in the Early Childhood Professions program. Child care services are extended to secondary parenting students, post-secondary parenting students who are enrolled in a certificated program at Pickens Technical College, Aurora Public Schools staff and community members. Child care services are arranged each semester on a first-come, first-served basis, assuming all eligibility requirements are met. Please call (303) 326-2824 for more information.

BOOKSTORE

Most courses require textbooks and other educational materials. Pickens Technical College operates a student bookstore where students may purchase books and related classroom materials.

The Student Bookstore re-purchases used books for classes currently offered. Generally, the Student Bookstore is not open on non-student contact days or during the summer.

TRANSPORTATION

 ordinarily Pickens Technical College does not provide school transportation for post-secondary field trips and/or student school-related educational activities. However, at the determination of school administrators, students may be required to ride in school vehicles. Students driving personal vehicles to field trips and school-related educational activities do so at their own risk and bear full responsibility for themselves and all passengers.

FINANCIAL AID

GENERAL INFORMATION

Financial aid at Pickens Technical College is designed to help students who would be unable to attend without assistance. The primary responsibility for meeting the costs of education rests with the individual student. Financial aid funds are available to supplement whatever funds a student can provide. Since requests for assistance usually exceed the availability of funds, students should be aware of procedures and priority dates in order to receive maximum consideration for the funds that are available.

VETERAN AFFAIRS INFORMATION

The Financial Aid Office does all certifications for veterans seeking to use their educational benefits at Pickens Technical College. Not all programs are eligible for veterans benefits and prospective students should contact the office for information on specific programs or classes.

A veteran is ALWAYS responsible for his or her tuition bill at the time of registration. An application or certificate in progress does not exempt students from meeting financial obligations when they are due.

Veterans and Students on Financial Aid Programs must notify the Pickens Technical College Financial Aid Office immediately of withdrawals, drops, or any changes in the program or class schedules. Notification of changes must be sent to funding agencies. Appropriate forms must be submitted to the Veteran’s Administration Office. A student’s record will not be released until the drop/withdrawal procedure is completed. It is the student’s responsibility to keep the Financial Aid Office informed of any change in class schedule.

ACTIVE MILITARY PERSONNEL who are from out-of-state will be granted in-state tuition once the appropriate documentation is verified. For more information on military benefits please visit www.gibill.va.gov.

FINANCIAL AID APPLICATION PROCEDURES

All application materials are available from the Financial Aid Office. The Free Application for Federal Student Aid (FAFSA) is used for both state and federal funds. Students should use the internet to file this application. It is available at www.fafsa.ed.gov. The process takes approximately 4 to 6 weeks from the time the FAFSA is submitted until eligibility can be determined.

Additional supporting documents may be requested by the Financial Aid Office, such as federal income tax forms, verification of untaxed income, employment, etc. Students should check with the Financial Aid Office for their file completion status. Applicants who need to make corrections on their application are encouraged to contact the Financial Aid Office for assistance. Corrections done electronically at the school are processed and returned more quickly than those which are mailed.

FINANCIAL AID ELIGIBILITY

To be eligible for financial aid, a student must be a U.S. citizen or permanent resident or have a refugee visa. Noncitizens may be asked to verify eligibility by providing the Financial Aid Office with a copy of the required residency card or visa. In addition, students who are required to register with Selective Service must have done so in order to receive financial aid. Any student who is in default on a Title IV loan or grant is not eligible for financial aid.

Students must be accepted for admission as a regular student in a certificate program and be enrolled at least half-time (6 credit hours or more for a regular semester) in order to receive financial aid.

A student receiving financial assistance at Pickens Technical College must have either a high school diploma or a GED. Students with bachelor degrees are not eligible for need-based aid. The Ability to Benefit examination is no longer used in lieu of a high school diploma or GED.

DETERMINATION OF FINANCIAL AID

Financial need is defined as the difference between actual cost of attendance (tuition, books and supplies, transportation allowances, and allowances for essential incidental expenses as determined by Pickens Technical College) and the total resources available to the student. These resources include expected parental contributions, students and spouse assets and earnings, and any awards from outside agencies.

Financial need is determined by a federal needs analysis formula. The system analyzes income and assets, family size, number of family members in college, student dependency status, and other data to determine the reasonable expected contribution from the student and the family. Final need determination is made by the Financial Aid Office.

Checks for students who have remaining funds after tuition, books and fees charges have been paid will be available approximately six weeks after the semester begins.
If any portion of the student’s tuition and fees were paid from any financial aid account, the same account will be reimbursed in the amount of the scheduled standard tuition refund, as described in this catalog under the section titled “Refund Policy.”

**TYPES OF AID AVAILABLE**
These are two types of need-based aid: (1) gift, and (2) self-help. “Gift assistance” takes the form of grants from institutional, state and federal sources, whereas “self-help” indicates the student’s responsibility to provide his/her fair share of the dollar commitment.

**GRANTS**

**Federal Pell Grant**
This federal program serves as the foundation for other forms of aid. This program is designed for undergraduate students who do not have a bachelor’s degree. The amount of this award is determined by a federal funding formula and the cost of education at Pickens Technical College. Students who have a bachelor’s degree are not eligible for this grant.

**Federal Supplemental Educational Opportunity Grant (FSEOG)**
This federal program is designed to be awarded first to those applicants with exceptional need. Students who have a bachelor’s degree are not eligible for this grant.

**Colorado Student Grant (CSG)**
This state program awards grants to Colorado residents who demonstrate financial need. Students with a bachelor’s degree are not eligible for this grant.

**SCHOLARSHIPS**

**Institutional and Private Scholarships**
There are scholarships available each semester for new and continuing students. The amounts range from $200 to $500 per semester. These scholarships are merit or need based. Information and/or applications are available through the Financial Aid Office. For additional scholarship information, contact the Financial Aid office.

**Loans**
Pickens Technical College does not currently participate in any student loan programs (Federal Stafford Loan, Direct Loan, Perkins, etc.). However, students holding previous loans from other schools are eligible for deferment of loans in good standing. Deferment forms will be completed by the records office and sent to previous schools or the loan holder. For further information on loan deferments, contact the Financial Aid Office.

**WORK-STUDY**

**Federal and State Need-Based College Work-Study Program**
Pickens Technical College participates in two work-study programs with award amounts based on the applicant’s demonstrated need. These programs provide employment opportunities for students that enable them to earn money to fund their education. Pickens Tech will attempt to provide employment that complements and reinforces the educational and vocational career goals of the students. Jobs will be located on campus. Students may not earn more than the amount of the award.
Colorado No-Need Work-Study Program
This program is for Colorado resident students who do not qualify for need-based aid, but who have a desire for employment. Lack of financial need is determined from the FAFSA form.

Associate Degree options through Transfer or Articulation

Transfer of Associate of Arts and Associate of Science Degrees

Colorado public four-year higher education institutions will honor the transfer of an Associate of Arts (A.A.) degree and the Associate of Science (A.S.) degree earned at a Colorado public institution that offer A.A. or A.S. degrees. A student who earns an A.A. or A.S. degree at a Colorado public college, including completing the state guaranteed general education courses with a grade of C or better in all courses will transfer, upon admission, with junior standing into any arts and science degree program offered by a Colorado public four-year college. The credits earned in the associate degree program will apply at minimum to 35 credit hours of lower division general education and 25 credit hours of additional graduation credits. Since 1988 Colorado has had an operating two-plus-two transfer agreement that ensures a student who completes an A.A. or A.S. degree with a grade of “C” or better in all courses, will have junior standing at the receiving institution i.e., transfer 60 credit hours. Because all liberal arts and sciences degrees are designed to be completed in 120 credit hours, a transfer student can complete a four-year degree in the same time as a native student, 120 hours. The receiving institution will evaluate credit for prior learning, Advanced Placement, and correspondence courses following its standard policy.

Associate of Applied Science, Applied Technology Degree, (A.A.S.)
The AAS degree in Applied Technology requires the completion of at least 60 semester hours. Credits from area vocational schools that apply to the degree vary in number according to the certificate program offered by the area vocational school. A maximum of 45 certificate credits may be applied toward the Applied Technology degree. Students must complete at least 15 credit hours in general education courses at CCA. Students whose certification program taken at the area vocational school requires less than 45 hours must complete more than the 15 required credit hours at CCA in order to bring the total number to 60 semester hours. Such additional credits may be taken from any course in the CCA catalog which is applicable toward a degree.

Associate of Applied Science Course Requirements: (the following reflect the course requirements at the Community Community of Aurora. Other Community Colleges may vary in course requirements)

Required General Education Courses

I. Speech
Choose 3 hours from the following:
SPE 115 Principles of Speech Communication 3
SPE125 Interpersonal Communication 3

II. Mathematics or Science
Choose 6 hours from the following:
Astronomy, Biology, Chemistry, Geology, Human Wellness Education, Holistic Health Professions, Mathematics 120 or higher, Physics 105 or higher

III. Social/Behavioral Science Choose 3 hours from the following:

IV. Humanities
Choose 3 hours from the following:

V. Management (3 hours total)
BUS 115 Introduction to Business 3

Total Credits 60

Associate of Applied Science, Management, Tech Management Emphasis
The AAS degree in Management with an emphasis in Tech Management may be taken at CCA only by students who complete certificates at Pickens Technical College. This degree requires the completion of at least 60 credit hours. Credits from Pickens Technical College that apply to the degree vary in number according to the certificate program offered by Pickens Technical College. A maximum of 30 certificate credits may be applied toward the Management (Tech Management Emphasis) degree. Students must complete at least 30 credit hours at CCA in order to bring the total number of semester credit hours to 60. Such additional credits may be taken from any course in the CCA catalog which is applicable toward a degree.

Required General Education Courses 15

I. English
Choose 3 hours from the following:
ENG 121 English Composition I 3
ENG 131 Technical Writing 3
ENG 217 Business Communications & Report Writing 3

II. Mathematics or Science
Choose 3 hours from the following:
Any AST-Astronomy, BIO-Biology, CHE-Chemistry, GEY-Geology, HHP Holistic Health Professions, HWE-Health Wellness Education, MAT-Math 120 or Higher, PHY-Physics 105 or higher

III. Social/Behavioral Science Choose 3 hours from the following:
ECO 201 Principles of Macroeconomics 3
ECO 202 Principles of Microeconomics 3

IV. Humanities
Choose 3 hours from the following:
SPE 115 Public Speaking 3
SPE 125 Interpersonal Communication 3

V. Management (3 hours total)
BUS 115 Introduction to Business 3
**Student Services**

**Degree Emphasis Requirements:** 11

(must take all of the following)

- ACC 121 Principles of Accounting I 4
- CIS 110 Introduction to the PC 1
- CIS 115 Introduction to Computer Information Systems 3
- MAN 226 Principles of Management 3

**Electives – Choose 5 credits from the following:**

- ACC 122 Principles of Accounting II 4
- BUS 102 Entrepreneurial Operations 4
- BUS 216 Legal Environment of Bus. 3
- CIS 135 Complete PC Word Processing 3
- BTE 225 Office Management 3
- MAN116 Principles of Supervision 3
- MAN 200 Human Resource Management I 3
- MAN 289 Management of Info Systems 3
- MAR 108 Personal Selling 3
- MAR 113 Principles of Sales 3
- MAR 216 Principles of Marketing 3
- PHI 112 Ethics 3
- SBM 101 Start Your Own Business 3

**General Education Requirements**

15

**Degree Emphasis Requirements**

11

**Electives**

6

**Pickens Tech Credits**- up to

30

**Total Required**

62

**Associate of General Studies Degree Generalist Degree**

This degree is designed to meet individual career goals with no intent of transferring to baccalaureate degree programs, although some courses will transfer. It consists of a broad program of courses without the constraints of specialization. A student who is interested in this degree must successfully complete a minimum of 60 credit hours.

**General Education Requirements**

15

**Degree Emphasis Electives**

15

**Electives**

30

**Total Required**

60

*Please see the Counseling Department at Pickens Technical College for more information about this degree option, or the Community College of Aurora web link: http://www.ccaurora.edu/programs/degrees/index.htm*

**TYPES OF PROGRAMS AVAILABLE**

**CERTIFICATE PROGRAM**

Certification demonstrates an individual’s possession of the knowledge and skill required to enter into, maintain, or advance in employment in a predetermined identified vocation or profession.

**SKILL UPGRADE & RETRAINING**

Many individual courses offered in the day and evening programs are available for skill upgrading for those already employed and retraining for those seeking a change of career. Individual “Course Completion Certificates” may be requested through the appropriate office.

**Degree Options**

**CUSTOMIZED TRAINING**

Customized training can provide reasonably priced employee training and development of courses to meet your company’s needs. Training can take place at Pickens Technical College or at your business site. Qualified and experienced instructors are drawn from Pickens Technical College’s faculty, local industry and advisory committees. Effective employee training means increased productivity. Contact the advising office for more information at 303-344-4910.

**INDEPENDENT STUDY**

Pickens Technical College may recognize an occasion to provide for individual needs through independent study. Independent study courses may be selected from among the regular course offerings or, in an extreme case, developed outside of those courses listed in the school catalog. All independent study courses are subject to approval by the appropriate advisor and instructors. A maximum of six credits can be applied toward a certificate program.

**TRANSFERRING OF PICKENS TECHNICAL COLLEGE CREDIT TO ANOTHER INSTITUTION**

Colorado’s public two-year and four-year public colleges and universities will honor the transfer of credits earned in relevant courses at Colorado area vocational schools subject to all other requirements and limitations defined in academic and transfer policies established by the Colorado Commission on Higher Education. The relevancy of credits earned at area vocational colleges will be determined through transcript evaluations administered by receiving institutions unless the credits were earned in courses carrying the guaranteed statewide transfer designation, in which case the credits will be guaranteed for transfer as described elsewhere in this policy.

**WORK-BASED LEARNING**

Pickens Technical College offers supervised work-based learning (e.g., internships, clinicals, job shadowing, etc.) These could be either paid or unpaid. In the case of unpaid work experience, on-the-job coverage for all Pickens Technical College interns will be provided through the Aurora Public Schools Worker’s Compensation Insurance. For more information regarding specific programs and supervised work experience opportunities, please contact the appropriate department.

www.pickenstech.org
Program Information

AUTOMOTIVE TECHNOLOGY

The Automotive Technology Program provides students with the needed skills and attitudes for successful entry into an automotive servicing career.

The Automotive Technology Program prepares students to enter the career field. This is a college level program that is NATEF certified, just like the expensive private colleges and unlike the private colleges for only 15 more credits at CCA you will have your Associates degree.

Not only do we teach you how to repair vehicles, we also train you in post-secondary workforce readiness throughout the program. The shop has all of the latest automotive equipment so you are not learning on outdated tools. The class provides experience in all eight specialty areas as well as preparation for ASE testing and certification.

The following certificates may be earned:
NATEF Automotive Service Technician
Maintenance and Light Repair Technician
Automotive Service Technician
Master Automotive Service Technician

MAINTENANCE AND LIGHT REPAIR TECHNICIAN CERTIFICATE
Certificate length: 2 Semesters

Courses required for this certificate:
ASE 250 Auto Trans/Transaxle Service
ASE 150 Man Dvr Trm & Axle
ASE 162 Auto Engine Service
ASE 130 General Engine Diagnosis
ASE 275 Special Topics: MLR Capstone
ASE 140 Steering and Suspension I
ASE 110 Brakes I
ASE 111 Auto Brakes II
ASE 120 Basic Auto Electricity
ASE 122 Auto Elec Safety Systems
ASE 123 Starting and Charging Systems
ASE 264 Intro to HVAC Systems
ASE 101 Auto Shop Orientation
ASE 134 Autofuel & Emissions System I

Maintenance and Light Repair Technician Certificate
Total: Clock Hours: 600 Credit: 29

AUTOMOTIVE SERVICE TECHNICIAN CERTIFICATE
Certificate length: 1 Semester

Courses required for this certificate:
ASE 151 Manual Transmission/Transaxles & Clutches
ASE 251 Auto Trans/Transaxle Repair
ASE 141 Suspension and Steering II
ASE 210 Auto Power/ABS Brake Systems
ASE 265 HVAC Systems
ASE 285 Independent Study

Automotive Service Technician Certificate
Total: Clock Hours: 270 Credit: 16

Pre-requisite: Students must complete the Maintenance and Light Repair Certificate in order to move onto the Automotive Service Technician program.

MASTER AUTOMOTIVE SERVICE TECHNICIAN CERTIFICATE
Certificate length: 1 Semester

Courses required for this certificate:
ASE 152 Manual Transmission/Transaxles/Clutch II
ASE 160 Auto Engine Repair
ASE 240 Suspension and Steering III
ASE 231 Auto Comp & Ignition Systems
ASE 233 Auto Fuel Injection/Emissions
ASE 221 Auto/Diesel Body Electrical
ASE 170 Laboratory Experience I: Mast Lab

Master Automotive Service Technician Certificate
Total: Clock Hours: 270 Credit: 17

Pre-requisite: Students must complete the Maintenance and Light Repair Technician and Automotive Service Technician Certificates in order to move onto the Master Automotive Service Technician program.

NATEF AUTOMOTIVE SERVICE TECHNICIAN CERTIFICATE
This certificate is a combination of the Automotive Service Technician Certificate, Master Automotive Service Technician Certificate and NATEF Automotive Service Technician Certificate.

NATEF Automotive Service Technician Certificate
Total: Clock Hours: 1140 Credit: 62
COURSE DESCRIPTIONS

ASE 101 Auto Shop Orientation
2 credits/45 clock hours
Provides students with safety instruction in the shop and on the Automobile. Emphasis is placed on the proper use and care of test equipment, precision measuring and machining equipment, gaskets, adhesives, tubing, wiring, jacks, presses, and cleaning equipment and techniques.

ASE 110 Brakes I
2 credits/37.5 clock hours
Covers basic operation of automotive braking systems. Includes operation, diagnosis, and basic repair of disc brakes, drum brakes, and basic hydraulic systems.

ASE 111 Auto Brakes II
2 credits/45 clock hours
Teaches skills to perform service checks and procedures to automotive foundation braking system and to identify components and types of ABS and traction control systems.

ASE 120 Basic Automotive Electricity
2 credits/45 clock hours
Introduces automotive electricity and includes basic electrical theory, circuit designs, and wiring methods. Focuses on multi-meter usage and wiring diagrams.

ASE 122 Automotive Electric Safety System
1 credit/15 clock hours
Teaches the student to Identify operation of vehicle lighting systems, Supplemental Inflatable Restraints (SIR), windshield wiper, driver warning systems and vehicle accessories.

ASE 123 Starting and Charging Systems
2 credits/45 clock hours
Covers the operation, testing and servicing of vehicle battery, starting and charging systems. Includes voltage testing of starter and generator, load testing and maintenance of a battery.

ASE 130 General Engine Diagnosis
2 credits/45 clock hours
Focuses on lecture and related laboratory experiences in the diagnosis and necessary corrective actions of automotive engine performance factors.

ASE 134 Automotive Fuel and Emission Systems I
2 credits/45 clock hours
Focuses on lecture and laboratory experiences in the diagnosis and repair of automotive fuel emission control systems, filter systems and spark plugs. Course also includes maintenance to diesel (DEF) systems.

ASE 140 Steering and Suspension I
2 credits/37.5 clock hours
Focuses on lecture and related experiences in the diagnosis and service of suspensions and steering systems and their components.

ASE 141 Suspension and Steering II
2 credits/30 clock hours
Covers design, diagnosis, inspection, and service of suspension and steering systems used on light trucks and automobiles. Course includes power steering and SRS service.

ASE 150 Man Drv Trn & Axle
2 credits/45 clock hours
Studies the operating principles and repair procedures relating to axle-shaft and universal joints.

ASE 151 Manual Transmission/Transaxles & Clutches
2 credits/30 clock hours
Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive manual transmissions, transaxles and clutches and related components.

 ASE 210 Auto PW R/ABS Brake Systems
2 credits/30 clock hours
Covers engine sealing requirements and repair procedures; engine fasteners, bolt torque and repair of fasteners. Course will also cover cooling system and basic engine maintenance.

ASE 221 Automotive/Diesel Body Electrical
4 credits/67.5 clock hours
Provides a comprehensive study of the theory, operation, diagnosis,
Program Information

and repair of vehicle accessories

ASE 231 Automotive Computers and Ignition Systems
2 credits/30 clock hours
Focuses on lecture and laboratory experiences in the inspection and testing of typical computerized engine control systems.

ASE 233 Auto Fuel Injection/Emissions
4 credits/60 clock hours
Focuses on lecture and related laboratory experiences in the diagnosis and repair of electronic fuel injection systems and modern exhaust systems.

ASE 240 Suspension and Steering III
2 credits/30 clock hours
Covers operation of steering and power steering systems. It will also include different alignment types and procedures.

ASE 250 Auto Trans/Transaxle Service
1 credit/15 clock hours
Emphasizes lecture and related experiences in the diagnosis and service of electronic suspensions and steering systems and their components.

ASE 251 Auto Trans/Transaxle Repair
3 credits/67.5 clock hours
Covers diagnosis, principles of hydraulics, principles of electronic components, power flow, theory of operation, remove and re-install transmission/transaxle, and replacement of components.

ASE 264 Intro to HVAC Systems
1 credit/15 clock hours
Covers basic operation of the Heating and Air Conditioning components.

ASE 265 HVAC Systems
4 credits/60 clock hours
Emphasizes lecture and related laboratory experiences in the diagnosis and service of vehicle heating and air conditioning systems and their components.

ASE 275 Special Topics: MLR Capstone
5 credits/112.5 clock hours
Exploration of current topics, issues and activities related to one or more aspects of the named discipline.

ASE 285 Independent Study
Provides laboratory experiences with a variety of work in the areas that the student received training during previous automotive classes.
Program Information

BARBER

The Barber program is an evening-only program. Classes are offered on a year-round basis in order to meet the state requirement for completion. Training during the first semester is an introduction to all subject areas and is achieved through theory and a lab setting. Intermediate and advanced training is the combination of theory pertaining to barbering and lab training which is achieved through a clinical set up with students working on patrons and/or mannequins.

Note: Colorado State Agency requires a minimum of 50 credit hours and/or 1500 clock hours. Upon meeting school requirements for receiving a certificate, a student may be eligible to register for the State Licensing Exam. Students will be prepared for the Colorado State Licensing Exam. Courses are taught concurrently, not individually, through competency-based, theory and practical instruction. Students must complete all coursework with a grade of “C” or better certifying as ready for state licensure testing. Courses are evaluated by examination and demonstration.

The following certificates may be earned:
Barber Certificate

BARBER CERTIFICATE

Courses required for this certificate:
BAR 103 Introduction to Hair & Scalp
BAR 107 Introduction to Shaving, Honing & Stropping
BAR 110 Introduction to Hair Coloring
BAR 120 Introduction to Hair Cutting
BAR 130 Introduction to Hair Styling
BAR 140 Introduction to Permanent Waves & Chemical Relaxers
BAR 166 Introduction to Facial Massage & Skin Care
COS 160 Introduction to Disinfection, Sanitation & Safety
BAR 108 Intermediate Shaving Honing & Stropping
BAR 111 Intermediate Hair Coloring
BAR 121 Intermediate Hair Cutting
BAR 131 Intermediate Hair Styling
BAR 141 Intermediate Permanent Waves & Chemical Relaxers
BAR 167 Intermediate Facial Massage & Skin Care
COS 150 Laws, Rules & Regulations
COS 161 Intermediate I: Disinfection, Sanitation & Safety
COS 260 Intermediate II: Disinfection, Sanitation & Safety
BAR 203 Advanced Hair & Scalp
BAR 207 Advanced Shaving, Honing & Stropping
BAR 211 Advanced Hair Coloring
BAR 220 Advanced Hair Cutting
BAR 231 Advanced Hair Styling
BAR 241 Advanced Permanent Waves & Chemical Relax
BAR 266 Advanced Facial Massage & Skin Care
BAR 275 Special Topics: Preparation for State Exam
COS 250 Management, Ethics, Interpersonal Skills, Sales
COS 261 Advanced Disinfection, Sanitation & Safety

Barber Certificate Total
Clock Hours: 1080  Credit Hours: 53

COURSE DESCRIPTIONS

BAR 103 Introduction to Hair & Scalp
1 credit/22.5 clock hours
Introduces various types of hair, scalp treatments and shampoos. Focuses on recognition and treatment of disorders of hair and scalp, product knowledge and proper massage techniques to help control these disorders and cleanse the hair and scalp. Covers terminology dealing with hair structure, scalp and hair disorders. Training is provided in a lab or classroom setting.

BAR 107 Introduction to Shaving, Honing & Stropping
1 credit/22.5 clock hours
Introduces the general principles of shaving to include hair texture, grain of the beard and analysis of the skin. Theory is combined with the practical application of proper shaving procedures and cutting strokes used on the face.

BAR 108 Intermediate Shaving, Honing & Stropping
1 credit/22.5 clock hours
Prerequisite: BAR 107
Focuses on theory and practical training related to mustache and beard designing and trimming. Practical applications are incorporated in specialized classes or in a supervised salon.

BAR 110 Introduction to Hair Coloring
3 credits/60 clock hours
Introduces theory pertaining to law of color, theory of color, chemistry of color, product knowledge, and analysis of hair and scalp. Focuses on basic techniques and procedures for the application of hair coloring.

BAR 111 Intermediate Hair Coloring
2 credits/45 clock hours
Prerequisite: BAR 110
Emphasizes theory and practical application of color products, formulations of color, and level and shades of color.

BAR 120 Introduction to Hair Cutting
3 credits/60 clock hours
Introduces theory relevant to patron protection angles and degree and analysis of hair textures related to hair cutting. Covers proper use and care of hair cutting implements. Introduces basic hair cutting techniques using scissors, razor, clippers, and thinning shears. Training is provided in a classroom or lab setting with students training on mannequins or models.

BAR 121 Intermediate Hair Cutting
3 credits/60 clock hours
Prerequisite: BAR 120
Focuses on theory related to facial shapes and head and body forms to determine the appropriate haircut. Practical application of hair cutting techniques are explored in specialized classes or in a supervised salon setting.
BAR 130 Introduction to Hair Styling
3 credits/60 clock hours
Combines theory with the practical application of airforming curling iron, finger waving, soft pressing and hard pressing.

BAR 131 Intermediate Hair Styling
3 credits/60 clock hours
Prerequisite: BAR 130
Focuses on the accepted methods of styling hair, air forming, finger waves, and hair pressing.

BAR 140 Introduction to Permanent Waves & Chemical Relaxers
3 credits/60 clock hours
Focuses on the analysis of hair and scalp, proper equipment and product knowledge. Covers basic techniques in permanent waving and chemical relaxing. Incorporates training in a classroom or lab setting on mannequins or models.

BAR 141 Intermediate Permanent Waves & Chemical Relaxers
3 credits/60 clock hours
Prerequisite: BAR 140
Focuses on theory and practical application of permanent waves and chemical relaxers in specialized classes or supervised salon setting. Students practice different wrapping techniques that are required by trend styles.

BAR 166 Introduction to Facial Massage & Skin Care
1 credit/22.5 clock hours
Emphasizes basic understanding of facial massage manipulations and the study of skin in both practical and theory applications. Covers the benefits derived from proper facial massage and a good skin care routine.

BAR 167 Intermediate Facial Massage & Skin Care
1 credit/15 clock hours
Prerequisite: BAR 166
Focuses on practical application dealing with anatomy, skin disorders, skin types and facial shapes. Students help patrons select proper skin care treatments.

BAR 203 Advanced Hair & Scalp
1 credit/22.5 clock hours
Prerequisite: BAR 103
Focuses on advanced theory and practical training of hair, scalp treatments and shampooing in a supervised salon setting. Advanced techniques prepare the student for employment. Covers student preparation for the State Licensing Exam on theory and practical procedures.

BAR 207 Advanced Shaving, Honing & Stropping
1 credit/22.5 clock hours
Prerequisite: BAR 108
Focuses on advanced training in shaving, honing and stropping. Practical and theory application is completed in specialized classes or supervised clinical training. Student will be prepared for State Licensing Exam.

BAR 211 Advanced Hair Coloring
3 credits/60 clock hours
Prerequisite: BAR 111
Provides continued instruction in advanced practical techniques for hair coloring with emphasis on recognition of color problems and color correction procedures. Covers advanced techniques and product knowledge to prepare the student for employment. Provides instruction for the State Licensing Exam pertaining to hair coloring.

BAR 220 Advanced Hair Cutting
3 credits/60 clock hours
Prerequisite: BAR 121
Provides theory and advanced techniques in all phases of hair cutting to ready the student for employment. Covers student preparation for State Licensing Exam on theory and practical procedures. Training is a combination of supervised work and specialized classes.

BAR 231 Advanced Hair Styling
3 credits/60 clock hours
Prerequisite: BAR 131
Focuses on theory and advanced techniques in all phases of hair styling to prepare the student for employment. Training is a combination of supervised salon (clinical) work and specialized classes. Includes student preparation for the State Licensing Exam relating to hairstyling.

BAR 241 Advanced Permanent Waves & Chemical Relaxers
2 credits/45 clock hours
Prerequisite: BAR 141
Focuses on advanced techniques to prepare the student for employment and examines changes in current industry standards. Provides instruction in specialized classes or a supervised salon setting. Covers student preparation for the State Licensing Exam pertaining to permanent waves and relaxers.

BAR 266 Advanced Facial Massage & Skin Care
1 credit/22.5 clock hours
Prerequisite: BAR 167
Emphasizes anatomy, skin disorders, skin types and facial shapes. Students guide patrons on selection of proper skin care treatments. Covers student preparation for State Licensing Exam on theory and practical procedures.

BAR 275 Special Topics: Preparation for State Exam
3 credits/67.5 clock hours
Prerequisite: BAR 109
Provides preparation for State Exam. Allows the student the opportunity to gain knowledge for the practical and/or written examination required by the Colorado State Agency.

BAR 275 Special Topics
1-6 credits/15-135 clock hours
Provides students with a vehicle to pursue in depth exploration of special topics of interest.
**Program Information**

**BAR 280 Supervised Barber Internship**
1-3 credits/45-135 clock hours
Prepares the student for entry into the job market by exposing them to actual shop experiences prior to graduation. Student is placed in a licensed barber shop.

**BAR 285 Independent Study**
1-6 credits/15-180 clock hours
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

**BAR 288 Barber Practicum**
1-10 Credits/15-225 clock hours
Allows students to continue practice in the following areas: disinfection, sanitation, safety, hair treatments, scalp treatments, shampooing, hair styling/haircutting, permanent waves/chemical relaxers, hair coloring, skin care, shaving and salon management.

**BAR 290 Advanced Barber Studies**
3 credits/60 clock hours
Allows advanced training in all course areas and focuses on student training for the State Licensing Exam. Hours will be arranged.

**COS 150 Laws, Rules and Regulations**
1 credit/15 clock hours
Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, and the effects these have on the student, licensed individual, salons and school owners.

**COS 160 Introduction to Disinfection, Sanitation, & Safety**
2 credits/30 clock hours
Introduces the various methods of disinfection, sanitation, and safety as used in the cosmetology industry. Includes classroom study of bacteriology and the terminology dealing with cosmetology.

**COS 161 Intermediate I: Disinfection, Sanitation, & Safety**
1 credit/22.5 clock hours
Prerequisite: COS 160
Focuses on the theory and daily practice of proper methods of disinfection, sanitation and safety procedures as related to all phases of cosmetology. Covers terminology and training of disinfection, sanitation and safety procedures. Also includes customer service in a supervised salon (clinical) setting or specialized class.

**COS 250 Management, Ethics, Interpersonal Skills & Salesmanship**
1 credit/22.5 clock hours
Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

**COS 260 Intermediate II: Disinfection, Sanitation, & Safety**
2 credits/45 clock hours
Prerequisite: COS 161
Provides continued study of theory and practice of proper methods of disinfection, sanitation and safety procedures as related to all phases of the industry. Covers terminology and training of disinfection, sanitation and safety procedures. The individual responsibility to provide a safe work environment is practiced.

**COS 261 Advanced Disinfection, Sanitation, & Safety**
1 credit/15 clock hours
Prerequisite: COS 260
Provides advanced training on decontamination and safety practices in a supervised salon and/or classroom setting. Examines advanced techniques that prepare the student for employment. Includes student preparation for the State Licensing Exam in decontamination and safety for all aspects of the industry. Study of OSHA requirements for schools and salon are done in a theory or practical setting.
Program Information

BUSINESS AND COMPUTER TECHNOLOGY

The Business and Computer Technology program introduces students to a variety of new technologies that are used within today’s business environments. Students will explore new web applications, be exposed to new software, and train on traditional Microsoft Office software. Office support and management skills, communication skills, computer skills, customer support, and new technologies will be studied and applied. Students will have the opportunity to earn industry certifications and practice critical skills needed to gain employment in many business occupations.

Topics studied throughout the program will vary as new technology and applications emerge. Examples of some of the topics of study include:

- Microsoft Office Suite
  - Word, Excel, Access
  - Powerpoint, Outlook

- Software Applications for Business
  - Photoshop
  - Online meeting and conference applications
  - Quickbooks

- Web 2.0 Applications
  - Google Docs and other business web applications

The following certificates may be earned:
Business and Computer Skills Certificate
Business Office Skills Certificate
Business and Computer Technology Certificate
Business and Computer Technology Expanded Certificate

*A keyboarding speed of 25 wpm is recommended before entering the program.

BUSINESS AND COMPUTER SKILLS CERTIFICATE
Certificate length 1 Semester

Courses required for this certificate:
BUS 116 Personal Finance
CIS 118 Intro to PC Applications
CIS 218 Advanced PC Applications
CIS 167 Desktop Publishing
CIS 136 M/S Office Specialist Crt: Word

Business and Computer Skills Certificate
Total: Clock Hours: 270 Credit: 13

BUSINESS OFFICE SKILLS CERTIFICATE
Certificate length 1 Semester

Courses required for this certificate:
CIS 115 Introduction to Computer Info Systems
CIS 203 Technology for Career Success
BUS 217 Business Communication/Report Writing
ACC 101 Fundamentals of Accounting
BTE 202 Office Simulation I

Business Office Skills Certificate
Total: Clock Hours: 270 Credit: 14

BUSINESS AND COMPUTER TECHNOLOGY CERTIFICATE
This certificate is a combination of the Business and Computer Skills certificate and the Business Office Skills certificate.

Certificate length 2 Semesters

Business and Computer Technology Certificate
Total: Clock Hours: 540 Credit: 27

BUSINESS AND COMPUTER TECHNOLOGY EXPANDED CERTIFICATE
This certificate is a combination of the Business and Computer Skills certificate, Business and Computer Technology certificate and the following course:

Certificate length 2 Semesters

Course required for this certificate:
BTE 285 Independent Study

Business and Computer Technology Certificate
Total: Clock Hours: 600 Credit: 29

COURSE DESCRIPTIONS

ACC 101 Fundamentals of Accounting
3 credits/60 clock hours
Presents the basic elements and concepts of accounting, with emphasis on the procedures used for maintaining journals, ledgers, and other related records, and for the completion of end-of-period reports for small service and merchandising businesses.

BTE 202 Office Simulation I
3 credits/60 clock hours
Provides experience in using in-basket exercises typical of those occurring in an office operation. It focuses on procedures and computer skills needed for successful performance in the workplace.
Program Information

**BTE 285 Independent Study**
2 credits/60 clock hours
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

**BUS 216 Personal Finance**
3 credits/60 clock hours
Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society, government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws impacting labor-management issues, and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

**BUS 217 Business Communication and Report Writing**
3 credits/60 clock hours
Emphasizes effective business writing and covers letters, memoranda, reports, application letters and resumes. Includes the fundamentals of business communication and an introduction to international communication.

**CIS 115 Introduction to Computer Information Systems**
3 credits/60 clock hours
This class focuses on an overview of the needs for and roles of computer information systems. It emphasizes computer requirements in organizations, history, hardware functions, programming, systems development, and computer operations.

**CIS 118 Intro PC Applications**
3 credits/67.5 clock hours
Introduces basic computer terminology, file management, and PC system components. Provides an overview of office application software including word processing, spreadsheets, databases, and presentation graphics. Includes the use of a web browser to access the internet.

**CIS 136 MS Office Specialist Certification: Word**
1 credit/15 clock hours
Prepares students for the Microsoft Office Specialist certification examination for Word. Students use software to determine strengths and weaknesses and elect to review and prepare for either the Core or Expert level exam.

**CIS 167 Desktop Publishing**
3 credits/60 clock hours
Introduces the concepts and applications for desktop publishing. Emphasizes page layout and design with techniques for incorporating text and graphics and final production of printed documents.

**CIS 203 Technology for Career Success**
2 credits/30 clock hours
This course prepares students with resources for career development and tools to succeed in a competitive labor market. Offers students an opportunity to build an employment focused electronic portfolio in preparation for career growth and lifelong learning after completing their program of study.

**CIS 218 Advanced PC Applications**
3 credits/67.5 clock hours
Covers the advanced capabilities of a PC software applications suite. Emphasizes solving business problems by integrating data from all of the software applications that facilitate the production of useful information. Printed documents, reports, slides, and forms are produced to communicate information.
Program Information

COLLISION REPAIR

The Collision Repair Technology Program duplicates a collision repair shop environment where work is performed on customer vehicles. The rigorous work load requires that the student be in good physical condition, have mastered reading and writing, and be mechanically inclined. The certificated student will have entry-level skills. This course uses the new I-CAR Advance Tech Curriculum.

The following certificates may be earned:
Non-Structural Repair Technician Certificate
Refinish and Paint Technician Certificate
Structural and Repair Diagnosis Certificate
Professional Collision Repair Certificate

NON-STRUCTURAL REPAIR TECHNICIAN CERTIFICATE

Certificate length
2 semesters

Courses required for this certificate:
ACT 101 Intro to Automotive Collision Technology
ACT 111 Metal Welding & Cutting I
ACT 121 Non-Structural Repair Preparation
ACT 122 Panel Repair & Replacements
ACT 123 Metal Finishing and Body Filling
ACT 124 Replace Weld on Exterior Panel
ACT 151 Plastics and Adhesives I
ACT 170 Automotive Collision Technology Lab Experiences I
ACT 211 Metal Welding and Cutting II
ACT 221 Moveable Glass and Hardware
Non-Structural Repair Technician
Certificate Total: Clock Hours: 540 Credit Hours: 26

REFINISH AND PAINT TECHNICIAN CERTIFICATE

Certificate length
1 semester

Courses required for this certificate:
ACT 141 Refinishing Safety
ACT 142 Surface Preparation I
ACT 143 Spray Equipment Operation
ACT 144 Refinishing I
ACT 241 Paint Defects
ACT 242 Surface Preparation II
ACT 243 Refinishing II
ACT 244 Final Detail
Refinish and Paint Technician
Certificate Total: Clock Hours: 300 Credit Hours: 16

STRUCTURAL DIAGNOSIS AND REPAIR CERTIFICATE

Certificate length
1 semester

Courses required for this certificate:
ACT 131 Structural Damage Diagnosis
ACT 132 Structural Damage Repair
ACT 172 Automotive Collision Technology Lab Experiences III
ACT 220 Structural Repair II
Structural Diagnosis and Repair
Certificate Total: Clock Hours: 240 Credit Hours: 11

PROFESSIONAL COLLISION REPAIR TECHNICIAN CERTIFICATE

Certificate length
4 semesters

Courses required for this certificate:
This certificate is a combination of the Non-Structural Repair Technician Certificate, Refinish and Paint Technician Certificate and the Structural Diagnosis and Repair Certificate.
Professional Collision Repair Technician
Certificate Total: Clock Hours: 1080 Credit Hours: 53

Electives Courses offered in this certificate are:
ACT 175 Special Topics
ACT 180 Automotive Repair Internship Level I

Additional fees may apply. Please contact our Advising Department (303)344-4910, ext 27969 or ext 27935.

COURSE DESCRIPTIONS

ACT 101 Intro to Automotive Collision Technology
4 credits/67.5 clock hours
Described as an orientation to the automotive collision repair industry. Students receive an overview of job possibilities as well as learn various types of automobile construction. Names, uses and maintenance procedures for a variety of tools and equipment are covered. Focuses on general collision repair and refinishing shop safety procedures with an emphasis on personal and environmental safety issues. Students also learn the proper handling and disposal of hazardous materials.

ACT 111 Metal Welding and Cutting I
3 credits/67.5 clock hours
Covers sheet metal oxygen-acetylene welding and MIG welding techniques including safety, materials, equipment and setups. Personal and vehicle protective measures prior to welding procedures is presented.
Program Information

**ACT 121 Non-Structural Repair Preparation**  
3 credits/67.5 clock hours  
This course covers the basic characteristics of preparation for automotive repair. Students familiarize themselves with damage analysis, extent of damage and the sequence of repair. It focuses on removal of vehicle components and protection of panels along with storage and labeling of parts. Safety procedures and equipment use are included.

**ACT 122 Panel Repair & Replacements**  
3 credits/67.5 clock hours  
Covers straightening techniques including tension pulls/stress relief, metal finishing, metal shrinking and use of fillers. Emphasizes the identification, handling and replacement of parts such as adjustment and alignment of bolt-on parts, fixed parts and accessories. Training covers the use of adhesives, sound deadeners and welding methods performed during repairs.

**ACT 123 Metal Finishing And Body Filling**  
3 credits/67.5 clock hours  
Covers metal finishing, metal shrinking and the use of cosmetic fillers. Emphasis is placed on the use of proper tools required to perform these tasks, including use, selection and safety procedures for tools and equipment selected.

**ACT 124 Replace Weld on Exterior Panel**  
3 credits/52.5 clock hours  
Covers the replacement of welded-on exterior panels such as quarters, roofs, cab panels, side panels, etc. Emphasis is placed on the use of proper tools required to perform these tasks, including use, selection, and safety procedures for tools and equipment selected.

**ACT 131 Structural Damage Diagnosis**  
3 credits/67.5 clock hours  
The course focuses on methods of frame measurement using dimension charts and service manuals. It includes the use of self-centering gauges and mechanical and electronic measuring. Appropriate terms and definitions of vehicle structures and vehicle diagnosis is covered including identification and analysis of damage. Includes the techniques for basic hook ups and safety procedures used in making corrective pulls.

**ACT 132 Structural Damage Repair**  
3 credits/67.5 clock hours  
This course continues the study and application of frame measurement and repair. The student applies methods found in dimension charts and service manuals for vehicle diagnosis and straightening. Training includes the replacement of a structural panel with the identification of damaged suspension components replaced according to manufacturer's recommendations.

**ACT 134 Refinishing Safety**  
1 credit/15 clock hours  
This course covers correct use of safety procedures used in refinishing. Proper fit and use of various types of protective equipment is emphasized. The identification of tools and equipment, with use and maintenance is covered including national guidelines for proper disposal and handling of hazardous materials.

**ACT 142 Surface Preparation I**  
2 credits/37.5 clock hours  
This course covers surface preparation for refinishing including cleaning, sanding, feather edging, chemical treatment of bare materials and priming. The application of primers, including rationale and use is covered. In addition the student learns skills for proper removal and storage of exterior trim and protection of adjacent panels.

**ACT 143 Spray Equipment Operation**  
2 credits/37.5 clock hours  
This course covers inspection, cleaning and determination of the condition of spray guns and related equipment. Students learn skills for adjusting spray guns by setting-up and testing spray gun operations.

**ACT 144 Refinishing I**  
2 credits/30 clock hours  
Provides the knowledge needed for application and use of automotive paint systems. Course includes locating color codes, mixing formulas, matching and selections of materials. Proper paint gun use and adjustments is taught for the product being applied. In addition, the student practices correct masking and detailing techniques.

**ACT 151 Plastics & Adhesives I**  
1 credit/22.5 clock hours  
Designed to teach the state-of-the-art repair for both rigid and flexible plastic components and choosing adhesives using the latest manufacturer's repair techniques.

**ACT 170 Automotive Collision Technology Lab Experiences I**  
2 credits/45 clock hours  
This course is designed to prepare the student to perform basic tasks for a specialized area in a controlled instructional lab.

**ACT 172 Automotive Collision Technology Lab Experiences III**  
1 credit/22.5 clock hours  
This course is a continuation of Lab experience. Designed to prepare the individual to perform basic tasks for a specialized area in a controlled instructional lab.

**ACT 211 Metal Welding And Cutting II**  
2 credits/45 clock hours  
This course covers MIG welding procedures of seam weld, stitch welds and destructive testing. Resistance spot welding, which includes two-sided spot weld, plasma cutting, safety, materials, and equipment and operating procedures, with emphasis on shop safety are also presented.

**ACT 220 Structural Repair II**  
4 credits/82.5 clock hours  
Students continue practice in structural damage analysis and measuring procedures on both, unitized and body-over-frame type vehicles. Proper methods for straightening, as well as replacing structural, mechanical, and electronic components are covered.
Program Information

ACT 221 Moveable Glass And Hardware
2 credits/37.5 clock hours
This course covers door glass, vent windows and glass mechanisms
(both electric and mechanical) with emphasis on removal and
replacement. In addition, interior trim panels, seats and headliners
are removed and replaced. Student learns proper care and
treatment of vehicle seat protectors plus the proper use of tools
required to perform these tasks.

ACT 241 Paint Defects
3 credits/67.5 clock hours
This course covers paint defects. Emphasizes the causes of paint
defects with methods to cure problems during and after refinishing
procedures. Students learn to identify the proper surface
preparations to apply prior to refinishing. Training includes using
paint equipment and determining paint film thickness with proper
temperatures for refinishing.

ACT 242 Surface Preparation II
2 credits/37.5 clock hours
This course emphasizes surface preparation for refinishing including
cleaning, sanding, feather edging, chemical treatment of bare metals
and priming. The application of primers, including why and where to
use them is covered.

ACT 243 Refinishing II
2 credits/45 clock hours
This course emphasizes surface preparation for refinishing including
cleaning, sanding, feather edging, chemical treatment of bare metals
and priming. The application of primers, including why and where to
use them is covered in this course.

ACT 244 Final Detail
2 credits/30 clock hours
This course focuses on the detailing procedures in paint refinishing
of vehicles. Methods and techniques are specialized to enhance
painting skills. Transfers and tapes methods with decals etc. are
demonstrated.

COMPUTER-AIDED DRAFTING

This program develops the student’s computer aided drafting skills
and technical knowledge required for employment. Students will
learn drafting software and apply it to the drafting industry. Students
will learn how to visualize and dimension objects, draw 2D (two
dimensional) and 3D (three dimensional) drawings, and will learn
how to render drawings.

Students will demonstrate AutoCAD customization using the latest
release of CAD software by creating engineering drawings.
Each student will write a resume, letter of application, follow-up
letter, and develop a drawing portfolio to use in their job search.

Students enrolling in the Computer-Aided Drafting program will
receive instruction in the following courses from one semester up
to two years. Refer to the course listings for certificates available
in the program. All course work must be completed with a grade
of “C” or better to count towards the Computer Aided Drafting
Program certificates.

The following certificates may be earned:
CAD - Basic Certificate
CAD - Intermediate Certificate
CAD – Advanced I Certificate
CAD – Advanced II Certificate
CAD - Basic Employment Skills
CAD - Advanced Employment Skills

CAD - BASIC CERTIFICATE
Courses required for this certificate:
EGT 101 Technical Drafting I
ETH 108 American Work Culture
CAD 101 Computer Aided Drafting I
CAD 102 Computer Aided Drafting II
CAD 160 AutoCAD Certificate Preparation I
COM 101 Employment Strategies

CAD Basic Certificate
Total Clock Hours: 270 Credit Hours: 14

CAD - INTERMEDIATE CERTIFICATE
This certificate is a combination of the CAD Basic Certificate and
the CAD-Intermediate Certificate
Courses required for this certificate:
CIS 117 Introduction to Technical Apps
EGT 102 Technical Drafting II
EGT 103 Applied Dimension and Tolerance
EGT 106 Introduction to Axonometric Views
EGT 107 Introduction to Sections and Auxiliary Views

CAD – Intermediate Certificate Total
Clock Hours: 540 Credit Hours: 28

CAD – ADVANCED I CERTIFICATE
This certificate is a combination of the CAD Basic Certificate,
CAD-Intermediate Certificate and CAD-Advanced I Certificate
Courses required for this certificate:
CAD 201 Computer Aided Drafting/Custom
CAD 202 Computer Aided Drafting/3D
EGT 289 Capstone

CAD – Advanced Certificate
Total Clock Hours: 785 Credit Hours: 40
Program Information

CAD – ADVANCED II CERTIFICATE
This certificate is a combination of the CAD Basic Certificate, CAD-Intermediate Certificate, CAD-Advanced I Certificate and CAD-Advanced II Certificate

Courses required for this certificate:
CAD 285 Independent Study
CAD 280 Internship
CIS 110 Introduction to the PC
CIS 120 Technology for Career Development

CAD – Advanced II Certificate
Total Clock Hours: 1065 Credit Hours: 54

Additional Certificates

CAD BASIC EMPLOYMENT SKILLS CERTIFICATE

Courses required for this certificate:
CAD 101 Computer Aided Drafting I
CAD 102 Computer Aided Drafting II
COM 101 Employment Strategies

CAD Basic Employment Skills Certificate
Total Clock Hours: 135 Credit Hours: 7

CAD ADVANCED EMPLOYMENT SKILLS CERTIFICATE

Courses required for this certificate:
CAD 201 Computer Aided Drafting/Custom
CAD 202 Computer Aided Drafting/3D
ETH 108 American Work Culture

CAD Advanced Employment Skills Certificate
Total Clock Hours: 135 Credit Hours: 7

COURSE DESCRIPTIONS

CAD 101 Computer Aided Drafting I
3 credits/60 clock hours
Focuses on basic computer aided drafting skills using the latest release of CAD software. Includes file management, Cartesian coordinate system, drawing set-ups, drawing aids, layer usage, drawing geometric shapes, editing objects, array, text applications, basic dimensioning, and Help access.

CAD 102 Computer Aided Drafting II
3 credits/60 clock hours
Focuses on advanced computer aided drafting skills using the latest release of CAD software. Includes blocks and wbblocks, polylines, multilines, polyline editing, advanced editing, editing with grips, hatching, isometric drawings, dimensions and dimension variables, paper space and viewports, templates, external references, and printing/plotting.

CAD 160 AutoCAD Certificate Preparation I
3 credits/60 clock hours
Prepares individuals for the assessment exams level I. This course shows how to prepare for engineering testing and evaluation of basic CAD drawings.

CAD 201 Computer Aided Drafting/Custom
3 credits/60 clock hours
Focuses on program customization using the latest release of CAD software. Includes customizing menus, customizing toolbars, attribute extraction, basic CAD programming, advanced dimensioning, path options, script files, and slide shows.

CAD 202 Computer Aided Drafting/3D
3 credits/60 clock hours
Focuses on construction of three-dimensional objects using the latest release of CAD software. Includes wireframe construction, surface modeling, solid modeling, extrusions, Boolean operations, 3D editing, 3D views, rendering, and 3D to 2D construction.

CAD 275 Special Topics
.25-6 credits/30-90 clock hours
Provides students with a vehicle to pursue in depth exploration of special topics of interest.

CAD 280 Internship
1-6 credits/15-120 clock hours
Provides students with the opportunity to supplement coursework with practical work experience related to their educational programs. Students work under the immediate supervision of experienced personnel at the business location and the direct guidance of the instructor.

CAD 285 Independent Study
1-6 credits/15-120 clock hours
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

CIS 110 Introduction to the PC
1 credit/15 clock hours
Provides the beginning computer user with hands-on experience in the elementary use of the personal computer. This course introduces the basic feature of and the terminology associated with personal computers, including topics such as database, spreadsheet, and word processing.

CIS 117 Introduction to Technical Applications
2 credits/30 clock hours
Reviews standard software packages available to support a microcomputer-based workstation. Included are description of hands-on work with word processors, spreadsheets, electronic presentations, and other common application packages.

CIS 120 Technology for Career Development
1 credit/15 clock hours
Prepare students to actively pursue a career path. This course will emphasize awareness of career opportunities through the use of career assessment tools, academic advising and career professionals. It will provide students with skills assessment tools, professional development activities, and information for creating and maintaining an electronic career portfolio.

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Program Information

COM 101 Employment Strategies
1 credit/15 clock hours
Offers students the development of skills that are needed to search for a job.

EGT 101 Technical Drafting I
3 credits/60 clock hours
Introduces the student to basic engineering graphics technology principles through development of basic entry-level drafting skills. Enables the student to develop skills in sketching, reading drafting scales, interpreting line types, lettering techniques, geometric construction, orthographic projection, and drawing reproduction.

EGT 102 Technical Drafting II
3 credits/60 clock hours
Introduces students to auxiliary views, pictorals, sections, threads, and fasteners, springs and intersections and developments.

EGT 103 Technical Drafting III
3 credits/60 clock hours
Introduces students to industrial dimensioning practices. Enables the student to develop skills in dimensioning techniques and learn to apply the ASME Y14.5M-1994 dimensioning standard.

EGT 106 Introduction to Axonometric Views
3 credits/60 clock hours
Introduces the principles of pictorial practices. Covers axonometric projection (isometric, oblique/cabinet and cavalier) and perspective drawing (one and two point perspectives).

EGT 107 Introduction to Sections and Auxiliary Views
3 credits/60 clock hours
Introduces the principles of how parts are represented in 2D space by using sectional views of parts to clarify internal detail, and projection of inclined planes that need to be shown in their true shape and size.

EGT 289 Capstone
6 credits/135 clock hours
Demonstrates that the student has master the drafting principles that are expected to be understood by drafters in either the mechanical or architectural disciplines.

ETH 108 American Work Culture
1 credit/15 clock hours
Covers what a student would need to know to go to work in an American culture. This course allows for a discussion of a variety of everyday issues encountered while living in America.
CONSTRUCTION TECHNOLOGY

The Construction Technology Program provides an opportunity for students to learn the fundamentals of blueprint reading, estimating building codes and ordinances, frame construction, roof framing, interior and exterior finishing and the safe operation and maintenance of tools and equipment. Students will spend time at a building site as well as in the classroom. They will receive instruction in blueprint reading, hand and power tool safety, house framing, and interior and exterior finish work.

Students must ride the school bus to and from the housing project site.

The following certificates may be earned:
Framing Certificate
Interior Carpenter Certificate
Advanced Framing Certificate
Advanced Interior Certificate
Construction Technology Certificate
Advanced Construction Methods Certificate

FRAMING CERTIFICATE
Certificate length
1 Semester

Courses required for this certificate:
CAR 103 Carpentry Basics
CON 106 Site Prep Through Foundation
CAR 104 Floor and Wall Construction
CAR 106 Construction and Roof Design

Framing Certificate Total:
Clock Hours: 270 Credit Hours: 15

INTERIOR CARPENTER CERTIFICATE
Certificate length
1 Semester

Courses required for this certificate:
CAR 134 Exterior Finishes and Trim
CAR 135 Thermal and Moisture Methods and Materials
CAR 146 Interior Finishes/Drywall Construction
CAR 147 Interior Carpentry
CON 109 Flooring, Tile and Wood

Interior Carpenter Certificate Total:
Clock Hours: 270 Credit Hours: 13

CONSTRUCTION TECHNOLOGY CERTIFICATE
This certificate is a combination of the Framing Certificate and the Interior Carpenter Certificate.

Certificate length
2 Semesters

Construction Technology Certificate Total:
Clock Hours: 540 Credit Hours: 28

ADVANCED FRAMING CERTIFICATE
Certificate length
1 Semester

Courses required for this certificate:
CON 113 Jobsite Planning Through Foundation
CON 130 Blueprint Reading
CAR 206 Advanced Floor and Wall Construction
CAR 207 Advanced Construction and Roof Design

Advanced Framing Certificate Total:
Clock Hours: 270 Credit Hours: 14

ADVANCED INTERIOR CARPENTER CERTIFICATE
Certificate length
1 Semester

Courses required for this certificate:
CAR 208 Advanced Exterior Finishes and Trim
CON 128 Cost Estimation
CAR 209 Advanced Interior Carpentry
CON 210 Advanced Flooring, Tile and Wood

Advanced Interior Carpenter Certificate Total:
Clock Hours: 270 Credit Hours: 13

ADVANCED CONSTRUCTION METHODS CERTIFICATE
This certificate is a combination of the Construction Technology Certificate, Advanced Framing Certificate and the Advanced Interior Carpenter Certificate.

Certificate length
4 Semesters

Advanced Construction Methods Certificate Total: Clock Hours: 1080 Credit Hours: 55

Elective courses offered in this certificate:
CON 285 Independent Study
Program Information

COURSE DESCRIPTIONS

CAR 103 Carpentry Basics
4 credits/60 clock hours
Provides a basic introduction to construction work for all crafts, safety concerns and procedures, and the safety and use of hand and power tools. This course specifically applies to construction work.

CAR 104 Floor And Wall Construction
4 credits/82.5 clock hours
Covers framing basics as well as the procedures for laying out and constructing a wood floor, and wall framing using common lumber as well as engineered building material. Includes instructions for selecting and installing metal framing for interior walls, exterior non-load bearing walls, and partitions.

CAR 106 Construction and Roof Design
4 credits/75 clock hours
Covers basic stair terminology and layout, also basic understanding of roof design and installation.

CAR 134 Exterior Finishes and Trim
4 credits/82.5 clock hours
Utilizes hands-on techniques to illustrate exterior moisture, trim, and exterior door and window installation. Student will explore various residential materials and methods. Estimation of time and material will be discussed as well as general business practices.

CAR 135 Thermal and Moisture Methods and Materials
1 credit/22.5 clock hours
Focuses on selection and installation of various types of insulating materials in walls, floors, and attics. Covers the uses and installation practices for vapor barriers and waterproofing materials.

CAR 146 Interior Finishes/Drywall Construction
1 credit/22.5 clock hours
Covers the use of gypsum wall board and the techniques of concealing joints and fasteners, construction methods, estimation and a variety of texture finishes.

CAR 147 Interior Carpentry
4 credits/82.5 clock hours
Covers material choices and installation techniques of various interior trim, including interior doors, baseboard, and casement. Includes an overview of additional interior trim choices. Covers interior doors and trim with focus on material choices, methods of work, and estimation.

CAR 206 Advanced Floor and Wall Construction
4 credits/82.5 clock hours
Expands upon those skills and knowledge learned in (CAR 104 Floor And Wall Framing) Covers complex floor, and wall framing issues and leadership/foreman responsibilities. Allows students to hone skills previously learned. Utilizes a hands-on approach to allow students to study floor, and wall framing.

CAR 207 Advanced Construction and Roof Design
4 credits/75 clock hours
Expands upon the first year course emphasizing construction of residential and commercial stairs. Covers complex stairs, including curved and multi-level stair construction. Includes alternatives to stringers, and finish. Emphasizes methods and materials for balusters and rails.

CAR 208 Advanced Exterior Finishes and Trim
4 Credits/82.5 clock hours
Expands upon those skills and knowledge learned in CAR134. An opportunity to hone their skills as an exterior carpenter as well as building their skills in a leadership roll.

CAR 209 Advanced Interior Carpentry
4 credits/82.5 clock hours
Expands upon the material covered in (CAR 147 Interior Carpentry) and includes more advanced techniques and in-depth discussion of various material choices. Covers estimating and efficiency studies. Includes in-depth study of premium interior doors and trim..Explores the craftsmanship and fine woodworking involved in many fine homes. Includes mantel and various fireplace designs, custom shelves and closets, and custom moulding.

CON 106 Site Prep Through Foundation
3 credits/52.5 clock hours
Introduces blue-print reading and how they apply to the construction site. Includes in-depth introduction to site layout (materials and methods). It also covers materials and methods for concrete forms and foundations. Includes various reinforcement methods such as re-bar and welded-wire fabric.

CON 109 Flooring, Tile and Wood
3 credits/60 hours
Covers installation and finishing of hardwood floors, laminate/engineered floors, and tile. Includes discussion on advantages and disadvantages of various choices available.

CON 113 Jobsite Planning through Foundation
4 credits/67.5 clock hours
Expands upon (CON 106 Site Prep Through Foundation) and gives students a chance to explore more complex plot plans and multi-unit site layouts. Includes a more in-depth look at the blueprints and how they apply to the job-site. Builds on course (CON 106 Site Prep Through Foundation) and expands on theories and concepts from the first year class. Offers opportunities to explore more complex systems and form requirements.

CON 128 Cost Estimation
2 credits/45 clock hours
Provides an overview of the estimation process. Bid requirements, and package are discussed along with an introduction to the CSI divisions.
Program Information

CON 130 Blueprint Reading
2 credits/45 clock hours
Focuses on the techniques for reading and using blueprints and specifications with an emphasis placed on those drawing and types of information that are relevant to the carpentry craft.

CON 210 Advanced Flooring, Tile and Wood
3 Credits/60 clock hours
Expands upon skills and knowledge learned in (CON 109 Flooring Tile and Wood). Focuses on estimation and ordering of flooring and tile products. Provides an opportunity to use more advanced layout and designs of various flooring and tile.

CON 285 Independent Study
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.
Program Information

COSMETOLOGY

The Cosmetology program provides training in hair, skin and nails. Classes will be held 4-8 hours daily on a year-round basis in order to meet the state requirement for completion. Training during the first semester is an introduction to all subject areas and is achieved through theory and a lab setting.

Intermediate and advanced training is the combination of theory pertaining to cosmetology and clinical training which is achieved through a clinical set-up with students working on patrons and/or mannequins.

Students may have the opportunity to participate in an internship during their advanced training as an extra elective.

Note: Colorado State Agency requires a minimum of 60 credit hours and/or 1800 clock hours. Upon meeting school requirements for receiving a certificate, a student may be eligible to register for the State Licensing Exam. Students will be prepared for the Colorado State Agency Licensing Exam.

Courses are taught concurrently, not individually, through competency-based, theory and practical instruction. Students must complete all coursework with a grade of “C” or better and all clusters must be completed before testing for state licensing. Courses are evaluated by examination and demonstration.

The following certificate may be earned:
Cosmetology Certificate

Courses required for this certificate:
COS 103 Shampoos/Rinses/Conditioners I
COS 110 Introduction to Hair Coloring
COS 120 Introduction to Hair Cutting
COS 130 Introduction to Hair Styling
COS 140 Introduction to Chemical Texture
COS 150 Laws, Rules and Regulations
COS 160 Introduction to Disinfection, Sanitation & Safety
EST 110 Introduction to Facials & Skin Care
NAT10 Introduction to Manicures & Pedicures
COS 111 Intermediate I: Hair Coloring
COS 121 Intermediate I: Hair Cutting
COS 131 Intermediate I: Hair Styling
COS 141 Intermediate I: Chemical Texture
COS 161 Intermediate I: Disinfection, Sanitation & Safety
COS 203 Shampoos/Rinses/Conditioners II
EST 111 Intermediate Facials & Skin Care
EST 212 Hair Removal
NAT 111 Intermediate Manicures & Pedicures
COS 210 Intermediate II: Hair Coloring
COS 220 Intermediate II: Hair Cutting
COS 230 Intermediate II: Hair Styling
COS 240 Intermediate II: Chemical Texture
COS 250 Management, Ethics, Interpersonal Skills & Salesmanship
COS 260 Intermediate II: Disinfection, Sanitation & Safety
COS 261 Advanced: Disinfection, Sanitation & Safety
EST 211 Facial Makeup
NAT 211 Application of Artificial Nails
COS 211 Advanced Hair Coloring
COS 221 Advanced Hair Cutting
COS 231 Advanced Hair Styling
COS 241 Advanced Chemical Texture
COS 250 Management, Ethics, Interpersonal Skills & Salesmanship
COS 275 Special Topics: Preparation for State Exam
EST 210 Advanced Massage & Skin Care
NAT 210 Advanced Manicures & Pedicures

Cosmetology Certificate
Total: Clock Hours: 1297.50  Credit Hours: 63

Electives offered in this certificate:
COS 278 Seminar/Workshop: Cosmetology Occupations
COS 279 Seminar/Workshop
COS 280 Internship
COS 285 Independent Study
COS 288 Practicum
COS 290 Professional Development/Continuing Education
Please visit www.pickenstech.org to view our catalog online for course descriptions.

Additional fees may apply. Please contact our Advising Department (303)344-4910, ext 27909 or ext 27935.

COURSE DESCRIPTIONS

COS 103 Shampoos/Rinses/Conditioners I
1 credit/22.5 clock hours
Introduces various types of scalp treatments and shampoos. Enables student to recognize and treat disorders of hair and scalp. Covers product knowledge and proper massage techniques to help control disorders and to cleanse the hair and scalp. Includes terminology dealing with hair structure, scalp and hair disorders. Provides training in a lab or classroom setting.

COS 110 Introduction to Hair Coloring
2 credits/37.5 clock hours
Provides theory pertaining to the law of color, theory of color, chemistry of color, product knowledge and analysis of hair and scalp. Covers basic techniques and procedures for the application of hair coloring.

COS 111 Intermediate I: Hair Coloring
2 credits/45 clock hours
Prerequisite: COS 110
Focuses on theory and practical application of color products, formulations of color, level and shades of color. Examines techniques in a specialized class or in a supervised salon setting.
# Program Information

**COS 120 Introduction To Haircutting**  
2 credits/37.5 clock hours  
Introduction to the theory relevant to patron protection, angles, elevations and the analysis of hair textures as related to hair cutting. Covers the proper use and care of hair cutting implements. Focuses on basic hair cutting techniques using all cutting implements, as well as disinfection, sanitation procedures as they relate to haircutting.

**COS 121 Intermediate I: Haircutting**  
2 credits/45 clock hours  
Prerequisite: COS 120  
Focuses on theory related facial shapes, head and body forms to determine the client’s appropriate haircut. Incorporates practical applications of hair cutting techniques in specialized classes or in the supervised salon (clinical setting).

**COS 130 Introduction to Hair Styling**  
2 credits/37.5 clock hours  
Combines theory with the practical application of roller placement, shaping, pincurls, finger waves, airforming, iron curling, soft pressing and hard pressing.

**COS 131 Intermediate I: Hair Styling**  
2 credits/45 clock hours  
Prerequisite: COS 130  
Focuses on the accepted methods of styling hair, air forming roller sets, fingerwaves, pincurls, braiding and hair pressing.

**COS 140 Introduction to Chemical Texture**  
1 credit/22.5 clock hours  
Introduces a combination of theory and practice focusing on the analysis of hair and scalp, proper equipment and product knowledge. Includes basic techniques in permanent waving and chemical relaxing. Provides training in a classroom or lab setting on mannequins or live models.

**COS 141 Intermediate I: Chemical Texture**  
1 credit/22.5 clock hours  
Prerequisite: COS 140  
Emphasizes theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables the student to practice different wrapping techniques required by trend styles.

**COS 150 Laws, Rules & Regulations**  
1 credit/15 clock hours  
Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, and the effects these have on the student, licensed individual, salons and school owners.

**COS 160 Introduction to Disinfection, Sanitation, & Safety**  
2 credits/30 clock hours  
Introduces the various methods of disinfection, sanitation, and safety as used in the cosmetology industry. Includes classroom study of bacteriology and the terminology dealing with cosmetology.

**COS 161 Intermediate I: Disinfection, Sanitation, & Safety**  
1 credit/22.5 clock hours  
Prerequisite: COS 160  
Focuses on the theory and daily practice of proper methods of disinfection, sanitation and safety procedures as related to all phases of cosmetology. Covers terminology and training of disinfection, sanitation and safety procedures. Also includes customer service in a supervised salon (clinical) setting or specialized class.

**COS 203 Shampoos/Rinses/Conditioners II**  
1 credit/22.5 clock hours  
Prerequisite: COS 103  
Provides theory and practical training in shampoos, rinses and conditioners. Examines advanced techniques to prepare the student for employment. Includes preparation for the State Licensing Exam in shampoos, rinses and conditioners.

**COS 210 Intermediate II: Hair Coloring**  
2 credits/45 clock hours  
Prerequisite: COS 111  
Provides continued instruction in the theory and practical application of color products, formulations of color, level and shades of color. Enables students to practice techniques in a specialized class or in a supervised salon setting.

**COS 211 Advanced Hair Coloring**  
2 credits/37.5 clock hours  
Prerequisite: COS 210  
Focuses on advanced cutting techniques using all the cutting tools. Emphasizes current fashion trends. Includes student preparation for the State Licensing Exam pertaining to hair coloring.

**COS 220 Intermediate II: Haircutting**  
2 credits/45 clock hours  
Prerequisite: COS 121  
Provides continued instruction in the theory related to facial shapes, head and body forms to determine the client’s appropriate haircut. Incorporates practical applications of haircutting techniques.

**COS 221 Advanced Haircutting**  
2 credits/37.5 clock hours  
Prerequisite: COS 220  
Focuses on advanced cutting techniques using all the cutting tools. Emphasizes current fashion trends. Includes student preparation for the State Licensing Exam.

**COS 230 Intermediate II: Hair Styling**  
2 credits/37.5 clock hours  
Prerequisite: COS 131  
Provides continued instruction on accepted methods of styling hair, air forming, roll set, finger waves and hair pressing. Examines techniques in specialized classes or in a supervised salon setting.
**Program Information**

**COS 231 Advanced Hair Styling**
1 credit/22.5 clock hours  
**Prerequisite:** COS 230  
Focuses on theory and advanced techniques in all phases of hair styling to prepare the student for employment. Training is a combination of supervised salon (clinical) work and specialized classes. Includes student preparation for the State Licensing Exam relating to hairstyling.

**COS 240 Intermediate II: Chemical Texture**
1 credit/22.5 clock hours  
**Prerequisite:** COS 240  
Provides continued instruction in the theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables students to practice different wrapping techniques required by trend styles.

**COS 241 Advanced Chemical Texture**
1 credit/22.5 clock hours  
**Prerequisite:** COS 240  
Focuses on advanced techniques to prepare the student for employment and the changes in current industry standards. Instruction is provided in specialized classes or supervised salon (clinical) setting. Includes student preparation for the State Licensing Exam pertaining to permanent waves and chemical relaxers.

**COS 250 Management, Ethics, Interpersonal Skills & Salesmanship**
1 credit/22.5 clock hours  
Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

**COS 260 Intermediate II: Disinfection, Sanitation, & Safety**
2 credits/45 clock hours  
**Prerequisite:** COS 161  
Provides continued study of theory and practice of proper methods of disinfection, sanitation and safety procedures as related to all phases of the industry. Covers terminology and training of disinfection, sanitation and safety procedures. The individual responsibility to provide a safe work environment is practiced.

**COS 261 Advanced Disinfection, Sanitation, & Safety**
1 credit/15 clock hours  
**Prerequisite:** COS 260  
Provides advanced training on decontamination and safety practices in a supervised salon and/or classroom setting. Examines advanced techniques that prepare the student for employment. Includes student preparation for the State Licensing Exam in decontamination and safety for all aspects of the industry. Study of OSHA requirements for schools and salon are done in a theory or practical setting.

**COS 262 Advanced Disinfection, Sanitation, & Safety II**
1 credit/15 clock hours  
This course is the extra hours/credits required for the hairstylist program, per State Board of Colorado Barber/Cosmetology Board. Provides advanced training on decontamination and safety practices in a supervised salon and/or classroom setting. Examines advanced techniques that prepare the student for employment. Includes student preparation for the State Board Licensing Examination in decontamination and safety for all aspects of the industry. Study of OSHA requirements for schools and salon are done in a theory or practical setting.

**COS 275 Special Topics: Preparation for State Exam**
3 credits/67.5 clock hours  
Provides preparation for the State Exam. Allows the student the opportunity to gain knowledge for the practical and/or written examination required by the Colorado State Agency.

**COS 278 Seminar/Workshop: Cosmetology Occupations**
1-6 credits/15-135 clock hours  
Offers unique, intense, short-term training and is available to licensed professionals within the Barber, Cosmetology, Esthetician, and Nail Technician Occupations. Provides opportunities to update knowledge and skills.

**COS 279 Seminar/Workshop**
1-12 credits/15-135 clock hours  
This course provides students with an experiential learning opportunity.

**COS 280 Internship**
1-12 credits/15-135 clock hours  
This course provides students with the opportunity to supplement coursework with practical work experience related to their educational programs. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor.

**COS 285 Independent Study**
1-12 credits/15-135 clock hours  
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

**COS 288 Practicum**
1-12 credits/15-225 clock hours  
Provides students with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor.

**COS 290 Professional Development/Continuing Education**
1-12 credits/15-60 clock hours  
Provides students with a vehicle to pursue in-depth exploration of special topics of interest.
**Program Information**

**EST 110 Introduction to Facials & Skin Care**
3 credits/60 clock hours
Provides a basic understanding of massage manipulations when providing facials and the study of skin in both theory and practical applications. Benefits derived from proper facial and good skin care routines. Training is conducted in a classroom or lab setting using mannequins or models.

**EST 111 Intermediate Facials & Skin Care**
2 credits/45 clock hours
Prerequisite: EST 110
Covers theory and practical application pertaining to anatomy, skin disorders, skin types and facial shapes. Students help patrons to select the proper skin care treatment. Practical and theory application can be done in specialized classes or supervised salon (clinical) setting using models or customer service.

**EST 210 Advanced Facials & Skin Care**
2 credits/45 clock hours
Prerequisite: EST 111
Provides the student with advanced techniques in facials and facial massage, skin care, and lash/brow tinting as allowed per State Board recent rulings. Theory and practical procedures ready the student for employment. Instruction is provided in specialized classes or in a supervised salon (clinical) setting. Student preparation for State Licensing Exam.

**EST 211 Facial Makeup**
1 credit/22.5 clock hours
Provides instruction on cosmetics and their functions. The importance of color theory, facial types and skin tones as they relate to facial makeup. Instruction from the basic makeup application to the corrective makeup procedure is taught. Disinfection and sanitation is taught as it pertains to all aspects of makeup.

**EST 212 Hair Removal**
3 credits/60 clock hours
Provides in-depth study and practice of hair removal and the practice of patron protection and safety. Training for general waxing and body waxing procedures are provided. Demonstration of disinfection and sanitation as it pertains to Colorado rules and regulations will be practiced.

**NAT 110 Introduction to Manicures & Pedicures**
3 credits/60 clock hours
Provides a basic introduction in the proper use of implements used in manicures and pedicures. Theory and practical application of proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and terminology dealing with manicures and pedicures is covered. Training is done in a classroom or lab setting using models or other techniques.

**NAT 111 Intermediate Manicures & Pedicures**
2 credits/45 clock hours
Prerequisite: NAT 110
Presents theory and practical application dealing with different types of manicures, pedicures, nail art and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of natural nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service. Proper sanitation and sterilization as it pertains to all aspects of manicures, pedicures and nail art is taught.

**NAT 210 Advanced Manicures & Pedicures**
2 credits/37.5 clock hours
Prerequisite: NAT 111
Presents theory and practical application dealing with different types of manicures, pedicures massage techniques and nail art. Theory and practical application of procedures, products, nail shapes and maintenance of the natural nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in a supervised salon (clinical) setting, using models or customer service.

**NAT 211 Application of Artificial Nails**
5 credits/97.5 clock hours
Provides advanced theory and practical application of nail wraps, tip overlays, acrylics and product knowledge to ready the student for employment. Theory and practical application of removal techniques for artificial nails is covered. Instruction is provided in specialized classes or in a supervised salon (clinical) setting using models or customer service. Student preparation for State Licensing Exam pertaining to artificial nails is covered.
Program Information

DENTAL ASSISTING

The Dental Assisting Program is a three semester program, and admits students twice a year in August and January.

The program learning components are competency based and include a combination of theory classes, laboratory classes, operatory skills practice, and clinical externships. Students must master all of the tasks to complete the program successfully. This program prepares students to assist the dentist at the chair side in the dental operatory, perform reception and clerical functions, and selected laboratory work. In addition, the student will gain skills required for direct patient care such as taking x-rays and impressions, preventive education, and nutritional counseling.

Note: students must be age 18 before enrolling in DEA 125 & DEA 131, as directed by the Colorado Board of Dental Examiners Rule & Regulations.

Simulated clinical situations are practiced prior to actual clinical assignments. Clinical assignments will include work in a variety of private dental offices and clinics. The Commission on Dental Accreditation has determined the Dental Assisting Program’s accreditation status to be “approved without reporting requirements”.

DENTAL ASSISTING CERTIFICATE

Certificate length 3 Semesters

Courses required for this certificate:
DEA 102 Principles of Clinical Practice
DEA 111 Dental Office Management
DEA 120 Introduction to Dental Practices
DEA 121 Dental Science I
DEA 122 Dental Science II
DEA 123 Dental Materials I
DEA 126 Infection Control
DEA 127 Dental Science III
DEA 132 Medical Emergencies
DEA 134 Prevention and Nutrition in Dentistry
DEA 124 Dental Materials II
DEA 175 Special Topics: Surgical Chairside Procedures
DEA 176 Special Topics: Advanced Chairside Procedures
DEA 180 Clinical Internship I
DEA 125 Dental Radiography
DEA 131 Advanced Dental Radiography
DEA 140 Dental Assisting National Board Review
DEA 182 Clinical Internship II and Seminar

Dental Assisting Certificate
Total: Clock Hours: 1237.5 Credit: 50

EXPANDED DUTY DENTAL ASSISTING COURSE

Course length 1 Quarter

Courses required:
DEA 275 Special Topics: Expanded Duty Dental Assisting

Expanded Duty Dental Assisting Certificate
Total: Clock Hours: 30 Credit Hours: 2

Electives offered in this certificate:
DEA 285 Independent Study

Accreditation

Upon successful completion, the student will qualify to enroll in the Expanded Duty Dental Assisting Program offered here at Pickens Technical College.

Pickens Technical College students can now earn a certificate or an Associate’s Degree through all cooperating Colorado Community and Junior Colleges, authorized by the CCCS, (Colorado Community College system). Check with the individual college for updates and/or degree requirement modifications.

COURSE DESCRIPTIONS

DEA 102 Principles of Clinical Practice
3 credits/67.5 clock hours
Includes techniques used in four handed dentistry, instrument identification, and armamentarium for tray set-ups. Covers sterilization and aseptic procedures.

DEA 111 Dental Office Management
2 credits/45 clock hours
Includes office management and clerical practices, scheduling appointments, completing daily records, insurance and tax forms, bookkeeping and recall systems, and ordering supplies.

DEA 120 Introduction to Dental Practices
1 credit/22.5 clock hours
Includes roles and responsibilities of the dental health team; educational background for the various specialties including general practitioner, hygienist, dental assistant; history, legal implications, ethical responsibilities and the role of professional organizations.

DEA 121 Dental Science I
3 credits/67.5 clock hours
Includes fundamentals of the oral structures as they apply oral histology, embryology, morphology, pathology, dental anatomy, and dental charting.

DEA 122 Dental Science II
3 credits/67.5 clock hours
Includes survey of human anatomy and physiology, the structure of the head and neck as applied to dental assisting, the function of the maxilla and mandible, processes, foramen, sutures, and major nerve and blood supply.
DEA 123 Dental Materials I
3 credits/67.5 clock hours
Includes fundamentals of dental materials as they apply to clinical and laboratory applications.

DEA 124 Dental Materials II
3 credits/67.5 clock hours
Includes type, compositions, and uses of elastomeric impression materials and the fabrication of custom impression trays and temporary crowns.

DEA 125 Dental Radiography
3 credits/60 clock hours
Focuses on the science of radiography, the application of radiographic techniques, and aseptic techniques.

DEA 126 Infection Control
3 credits/67.5 clock hours
Includes basic information concerning infection and disease transmission in the dental office. Emphasizes knowledge of microorganisms, with an emphasis on aseptic techniques, sterilization, and hazardous communication management.

DEA 127 Dental Science III
3 credits/67.5 clock hours
Includes in-depth study of oral defects, microorganisms and their effects on the human body with recognition and identification of pathological condition that most frequently occur orally. Emphasizes pharmacology and the drugs used in the prevention and treatment of pain and conditions of the oral cavity. Focuses on laboratory experiences and the procedures involved with local anesthesia and the knowledge of nitrous oxide administration in the dental office.

DEA 131 Advanced Dental Radiography
3 credits/60 clock hours
Includes theory and techniques of exposing intra-oral and extra-oral radiographs on adults, children, edentulous, and special needs patients. Covers dental anatomy radiographic interpretation and aseptic techniques. Enables the student to expose radiographs on the x-ray mannequin and patients. Students must be a minimum of eighteen years old.

DEA 132 Medical Emergencies
2 credits/45 clock hours
Includes techniques for taking and reading vital signs as well as Cardiopulmonary Resuscitation (CPR) for Health Care Providers. Emphasizes recognition, prevention, and management of medical emergency situations in the dental office. Covers completing and updating patient health history.

DEA 134 Prevention and Nutrition in Dentistry
2 credits/45 clock hours
Includes techniques in preventive dentistry with an emphasis on fluoride application and oral home care instruction. Includes nutrition as it applies to dental health and diet counseling. Covers techniques for coronal polishing.

DEA 140 Dental Assisting National Board Review
1 credit/15 clock hours Focuses on a review for the Dental Assisting National Board (DANB) Examination.

DEA 175 Special Topics: Surgical Chairsider Procedures
3 credits/60 clock hours
Provides students with a vehicle to pursue in depth exploration of special topics of interest. Focus is on surgical procedures commonly performed in general dentistry. Course will include tooth extractions, periodontal and endodontic surgical procedures. Students will practice preparing for surgical procedures and practice instrument transfer with each other. Students will also learn to place and remove surgical dressings and remove sutures.

DEA 176 Special Topics: Advanced Chairsider Procedures
5 credits/97.5 clock hours
Provides students with a vehicle to pursue in depth exploration of special topics of interest. Focus is on chairsider procedures associated with the dental specialties of prosthodontics, pediatric dentistry, orthodontic, and endodontics. The student will practice setting up operators for treatment and practice the procedures on dental mannequins.

DEA 180 Clinical Internship I
3 credits/135 clock hours
Includes the opportunity for clinical application of dental assisting techniques in a dental office or clinical setting as part of the American Dental Association’s requirement of 300 clinical internship hours.

DEA 182 Clinical Internship II and Seminar
4 credits/180 clock hours
Focuses on clinical practice in private or public dental offices or clinics with clinical work experience in both general dentistry and specialty fields on a rotating basis.

DEA 275 Special Topics: Expanded Duty Dental Assisting
2 credits/30 clock hours
Provides didactic and laboratory experience in packing, carving, finishing and polishing of Class I, II and V amalgams and Class III, IV and V tooth colored restorations and the fabrication of provisional restorations. Operative procedures include placement of matrices and wedges. Laboratory exercises involve the use of typodonts and prepared teeth that are utilized in restorative procedures. Use of principles of four-handed dentistry and time utilization are an integral part of fulfilling requirements leading toward proficiency in restorative procedures.

DEA 285 Independent Study
1-6 credits/30-180 clock hours
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.
Program Information

DIESEL POWER MECHANICS

Pickens Technical College offers a Medium/Heavy Truck Training Program composed of six individual classes specifically designed to train and educate students for entry level employment as M/H Truck Technicians. Each class is also designed to prepare students for its respective ASE M/H Truck Certification Test. Each individual class must be passed with a grade of "C" or better to obtain their respective certificate. There is also a composite certificate awarded for completing all six individual classes. Students will be trained on heavy/medium duty diesel trucks in six distinct areas: Preventive Maintenance, Steering & Suspension, Brakes, Electrical/Electricity, Diesel Engines and Special Topics. Students may enter the program at any one of the six classes.

The following certificates may be earned:
Medium and Heavy Trucks - Preventive Maintenance
Medium and Heavy Trucks – Brakes
Medium and Heavy Trucks - Electronics & Computers
Medium and Heavy Trucks - Diesel Engines
Medium and Heavy Trucks - Steering & Suspension
Medium and Heavy Trucks Diesel Mechanics Certificate

MEDIUM AND HEAVY TRUCKS - PREVENTIVE MAINTENANCE CERTIFICATE

Courses required for this certificate:
DPM 111 Preventive Maintenance I
DPM 211 Preventive Maintenance II
Medium and Heavy Trucks - Preventive Maintenance
Certificate Total: Clock Hours: 135 Credit Hours: 6

MEDIUM AND HEAVY TRUCKS – BRAKES CERTIFICATE

Courses required for this certificate:
DPM 206 Heavy Duty Brakes I
DPM 207 Heavy Duty Brakes II
Medium and Heavy Trucks – Brakes
Certificate Total: Clock Hours: 135 Credit Hours: 6

MEDIUM AND HEAVY TRUCKS - ELECTRONICS & COMPUTERS CERTIFICATE

Courses required for this certificate:
DPM 222 H/D Lighting & Instrumentation
ASE 120 Basic Auto Electricity
ASE 123 Battery, Starting, and Charging
ASE 221 Automotive Body Electrical
Medium and Heavy Trucks - Electronics & Computers
Certificate Total: Clock Hours: 270 Credit Hours: 12

MEDIUM AND HEAVY TRUCKS - DIESEL ENGINES CERTIFICATE

Courses required for this certificate:
DPM 103 Diesel Engines I
DPM 203 Diesel Engines II
DPM 106 Diesel Fuel Systems
DPM 210 Diesel Air Induction
Medium and Heavy Trucks - Diesel Engines
Certificate Total: Clock Hours: 270 Credit Hours: 12

MEDIUM AND HEAVY TRUCKS - STEERING & SUSPENSION CERTIFICATE

Courses required for this certificate:
DPM 140 Heavy Duty Steering & Suspension I
DPM 240 Heavy Duty Steering & Suspension II
Medium and Heavy Trucks - Steering & Suspension
Certificate Total: Clock Hours: 135 Credit Hours: 6

MEDIUM AND HEAVY TRUCKS - DIESEL MECHANICS CERTIFICATE

This certificate is a combination of Medium and Heavy Trucks - Preventive Maintenance, Medium and Heavy Trucks – Brakes, Medium and Heavy Trucks - Electronics & Computers, Medium and Heavy Trucks - Diesel Engines, Medium and Heavy Trucks - Steering & Suspension and Medium and Heavy Trucks Diesel Mechanics Certificate (Student will either have to take the Internship or Special Topics - instructor will determine proper placement) 6 credit hours each/135 clock hours
Medium and Heavy Trucks Diesel Mechanics
Certificate Total: Clock Hours: 1080 Credit Hours: 48

COURSE DESCRIPTIONS

ASE 120 Basic Auto Electricity
2 credits/45 clock hours
Introduces automotive electricity and includes basic electrical theory, circuit designs, and wiring methods. Focuses on multi-meter usage and wiring diagrams.

ASE 123 Battery, Starting, and Charging
2 credits/45 clock hours
Covers the operation, testing, and servicing of automotive battery, starting, and charging systems. Includes voltage and amperage testing of starter and generator, load testing and maintenance of a battery, and starter and generator overhaul.

ASE 221 Automotive Body Electrical
4 credits/90 clock hours
Provides a comprehensive study of the theory, operation, diagnosis, and repair of vehicle accessories.

DPM 103 Diesel Engines I
4 credits/90 clock hours
Covers the theory and operation of diesel engines with emphasis on cylinder heads and valve trains diagnosis and repair. Also
Program Information

introduces the cooling system’s importance with diagnosis and repair. Enables students to diagnose, test, and repair cylinder heads and cooling systems on diesel engines.

**DPM 106 Diesel Fuel Systems**
3 credits/67.5 clock hours
Covers the theory of operation and repair of fuel injection systems. Provides laboratory assignments that involve disassembly, assembly, and service procedures on fuel system components.

**DPM 111 Preventive Maintenance I**
3 credits/67.5 clock hours
Enables the student to perform preventive maintenance on heavy equipment and trucks, and complete appropriate maintenance records. Addresses the process of diagnostics and troubleshooting. Focuses on the importance of preventive maintenance.

**DPM 140 Heavy Duty Steering & Suspension I**
3 credits/67.5 clock hours
Emphasizes lecture and related lab in the diagnosis and service of Heavy Duty mechanical and air suspension systems, wheels/tires and pressure management systems.

**DPM 203 Diesel Engines II**
4 credits/90 clock hours
Covers the theory of operation and repair of diesel engines with emphasis on the cylinder block in big bore engines. Enables students to disassemble, inspect, and reassemble engines.

**DPM 206 Heavy Duty Brakes I**
3 credits/67.5 clock hours
Focuses on the various braking systems incorporated in heavy-duty trucks and heavy equipment. Includes a study of hydraulic brake systems and covers the diagnosis and service of the mechanical and electrical components.

**DPM 207 Heavy Duty Brakes II**
3 credits/67.5 clock hours
Teaches instruction in general service and maintenance procedures for the heavy-duty truck air brake system and its related pneumatic components. Operational checks, performance testing, and verifying system compliance with regulations (FMVSS No. 121) will be discussed.

**DPM 210 Diesel Air Induction**
4 credits/22.5 clock hours
Covers the theory of operation and repair of turbochargers, superchargers, intercoolers, and various induction systems. Examines factors regulating engine performance failure, and procedures for reclaiming engine performance.

**DPM 211 Preventive Maintenance II**
3 credits/67.5 clock hours
Focuses on preventive maintenance on heavy duty equipment as well as recording critical information for customer. Enables students to grasp the importance of preventive maintenance while gaining an understanding of how components work.

**DPM 222 H/D Lighting & Instrumentation**
4 credits/90 clock hours
Provides students with diagnosis and repair of lighting systems found on Medium /Heavy duty trucks and equipment. Emphasis on inspecting and testing of electrical circuits, switches and interfacing through data bus with on board computers.

**DPM 240 Heavy Duty Steering and Suspension II**
3 credits/67.5 clock hours
Emphasizes lecture and related lab in the diagnosis and service of Heavy Duty standard and air assisted steering along with chassis and frame alignment.

**DPM 275 Special Topics**
1-12 Credits/15-180 Clock hours
Provides students with a vehicle to pursue in depth exploration of special topics of interest.

**DPM 280 Internship**
6 credits/180 clock hours
Provides students with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor.

**DPM 285 Independent Study**
1-12 credits/15-180 clock hours
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.
ELECTRICIAN OCCUPATIONS

Students must ride the school bus to and from the housing site.

The following certificates may be earned:
Basic Electrical Occupations Certificate
Electrical Codes and Standards Certificate
Electrical Installation Certificate
Fire Alarm and Solar Installer Certificate
Electrician Occupations Certificate

BASIC ELECTRICAL OCCUPATIONS
TECHNOLOGY CERTIFICATE

Certificate length: 1 quarter

Courses required for this certificate:
EIC 105 Basics of AC & DC Electricity
EIC 124 Electrical Safety Requirements
EIC 102 Electrical Print Reading
Basic Electrical Occupations Technology
Certificate Total: Clock Hours: 135  Credit Hours: 9

ELECTRICAL CODES AND STANDARDS CERTIFICATE

Certificate length: 1 quarter

PRE-REQUISITES: EIC 105 Basics of AC & DC Electricity

Courses required for this certificate:
EIC 130 National Electrical Code I
EIC 110 Electrical Installations I
Electrical Codes and Standards Certificate
Total: Clock Hours: 135  Credit Hours: 8

ELECTRICAL INSTALLATION CERTIFICATE

PRE-REQUISITES: EIC 105 Basics of AC & DC Electricity &
EIC 124 Electrical Safety Requirements

Certificate length: 1 quarter

Courses required for this certificate:
EIC 120 Electrical Installations II
EIC 135 National Electrical Code II
Electrical Installation Certificate Total:
Clock Hours: 135  Credit Hours: 8

FIRE ALARM AND SOLAR INSTALLER CERTIFICATE

PRE-REQUISITES: EIC 105 Basics of AC & DC Electricity &

Certificate length: 1 quarter

Courses required for this certificate:
EIC 124 Electrical Safety Requirements
EIC 242 Fire Alarm Code I
ENY 130 Residential Solar Photovoltaic System
Fire Alarm and Solar Installer Certificate
Total: Clock Hours: 135  Credit Hours: 6

ELECTRICIAN OCCUPATIONS CERTIFICATE

Certificate length: 2 semesters

This certificate is a combination of the Basic Electrical Occupations Technology, Electrical Codes and Standards, Electrical Installation and the Fire Alarm and Solar Installer Certificates and the following course:

EIC 180 Internship
Electrician Occupations Certificate
Total: Clock Hours: 600  Credit Hours: 33

COURSE DESCRIPTIONS

EIC 100  Electrical Construction & Planning
4 credits/75 clock hours
Introduces the planning of electrical system installations from blueprints to the completed job, preparation of material lists, job sheets and time schedules for various phases of construction. Emphasizes the National Electrical Code.

EIC 102  Electrical Print Reading
4 credits/60 clock hours
Teaches the skills needed to interpret electrical drawings properly. This 15 hour seminar is critical for anyone involved in the design, construction, or maintenance of electrical systems.

EIC 105  Basics of AC & DC Electricity
4 credits/60 clock hours
Focuses on resistance, current, voltage and power in AC and DC circuits; measurements; computations of series and parallel circuits;
Program Information

circuit analysis and troubleshooting with basic test equipment.

**EIC 110 Electrical Installations I**
4 credits/75 clock hours
Covers residential building wiring in conformance with the current National Electrical Code and local codes using nonmetallic cable. Emphasizes proper use of tools and safety.

**EIC 120 Electrical Installations II**
4 credits/75 clock hours
Explores commercial and industrial building wiring in conformance with the current National Electrical Code and local codes using electric metallic tubing and other raceways. The emphasis is on proper use of tools and safety.

**EIC 124 Electrical Safety Requirements**
1 credit/15 clock hours
Focuses on training that is 100% practical and deals with every important aspect of OSHA's electrical safety-related work practices and how they apply. Teaches the safe installation and maintenance of electrical equipment. Covers the use of personal protective equipment.

**EIC 130 National Electrical Code I**
4 credits/60 clock hours
Focuses on the National Electrical Code and local code requirements for electrical installation. Covers chapters one through four of the National Electrical Code.

**EIC 135 National Electrical Code II**
4 credits/60 clock hours
Builds on course EIC 130 and covers chapters five through nine of the National Electric Code, including hazardous locations, special occupancies, conditions and equipment.

**EIC 180 Internship**
2 credits/60 clock hours
Provides students with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor.

**EIC 224 Understanding PLCs**
1.5 credits/30 clock Hours
Improves the individual's ability to read, interpret and analyze electrical ladder drawings. Acquaints the student with the basic electromechanical components commonly used in electrical control circuits, as well as solid-state relays and the role of programmable controllers.

**EIC 242 Fire Alarm Code**
4 credits/90 clock Hours
Covers Fire Alarm Code (NFPA72) and local codes terminology, symbols, diagrams, devices, circuits, and the wiring of fire alarm systems. The basic code layouts and principles involved in fire alarm design and construction also will be addressed. Students testing for NICET certifications can benefit from this class.

**ENY 130 Solar Photovoltaics Grid-tie**
2 credits/45 clock hours
Teaches the principles of a residential solar photovoltaic system. Site evaluation, system design, panel installation, wiring, grounding, bonding and commissioning are included in this course.
Program Information

ENTERPRISE COMPUTER SERVICE

The Computer Service/Network Technician is designed to prepare students for entry into the industry of servicing, maintaining and repairing computers, computer and networking systems. The program prepares students for the A+ and Network+ Service Technician Certification examination. These exams measure the knowledge of job tasks and behaviors expected of entry level technicians.

These programs (General Electronics Technology and Computer Service/Network Technician) articulate for the A.A.S. Degree.

The following certificates may be earned:
- A+ Technician Certificate
- Network Service Technician Certificate
- Security Fundamentals
- Enterprise Computer Service Technician Certificate
- Enterprise Computer Service Technician Expanded Certificate
- Mobile Apps Certificate (see page 62)
- Computer Service/Network Technology Certificate

A+ TECHNICIAN CERTIFICATE

Upon completion of this course the student will be ready to sit for the A+ certification exam. This exam measures the knowledge of job tasks and behaviors expected of an entry level A+ technician. The primary focus of the semester is to educate the student in hardware, software, and operating systems. This course involves objectives in the area of servicing, maintaining and repair of computers.

Certificate length 1 Quarter

Courses required for this certificate:
- CNG 121 Computer Technician I: A+
- CNG 122 Computer Technician II: A+
- CNG 130 PC Technology
- MAR 160 Customer Service

A+ Technician Certificate
Total: Clock Hours: 270 Credit Hours: 14

NETWORK SERVICE TECHNICIAN CERTIFICATE

Upon completion of this course the student will be ready to sit for the Net+ Certification exam. This exam measures the knowledge of job tasks and behaviors expected of entry level network technicians. The primary focus of the semester is to educate the student about connecting computers together (LANs). They will wire up both peer-to-peer and TCP/IP networks. They will describe how computer topologies function and how they are wired. The network software (protocols) needed to accomplish this is demonstrated and an understanding of the telephone system as it relates to computer communications (MODEMS) is covered. Network standards (802.x standards) are covered and emphasized in this course. The program also teaches concepts of wireless communications between computers.

Certificate length 1 Quarter

Courses required for this certificate:
- CNG 124 Networking I: Network+
- CNG 125 Networking II: Network+

Network Service Technician Certificate
Total: Clock Hours: 135 Credit Hours: 7

SECURITY FUNDAMENTALS CERTIFICATE

Certificate length 1 Quarter

Courses required for this certificate:
- CNG 131 Principles of Information Assurance
- BUS 117 Business Writing
- CNG 132 Network Security Fundamentals

Security Fundamentals Certificate
Total: Clock Hours: 135 Credit Hours: 7

ENTERPRISE COMPUTER SERVICE

TECHNICIAN CERTIFICATE

Certificate length 2 Semesters

This certificate is a combination of the A+ Technician Certificate, A+ Advanced Technician Certificate, Network Service Technician and the Security Fundamentals Certificate.

Enterprise Computer Service Technician Certificate
Total: Clock Hours: 540 Credit Hours: 28

ENTERPRISE COMPUTER SERVICE

TECHNICIAN EXPANDED CERTIFICATE

This certificate is a combination of the A+ Technician Certificate, Network Service Technician, Security Fundamentals Certificate and the following course:

Course required for this certificate:
- CNG 280 Internship

Enterprise Computer Service Technician Expanded Certificate
Total: Clock Hours: 600 Credit Hours: 30

COMPUTER SERVICE/NETWORK TECHNOLOGY

TECHNICIAN CERTIFICATE


Computer Service/Network Technology Technician Certificate
Total: Clock Hours: 1080 Credit Hours: 58
Program Information

COURSE DESCRIPTIONS

BUS 117 Business Writing
1 credit/15 clock hours
Focuses on specific business writing processes needed to produce business memos, email, good and bad news messages, reports, graphics in writing, electronic presentations and proofreading.

CNG 121 Computer Technician I: A+
4 credits/75 clock hours
Provides students with an in-depth look at personal computer hardware, introduces O.S. features and security concepts, and covers interpersonal skills, all of which are necessary for a successful entry-level computer service technician position. Provides extensive hands-on work with computer systems, PC setup and configuration, and basic maintenance and troubleshooting. This course helps prepare you for the CompTIA A+ Essentials Exam.

CNG 122 Computer Technician II: A+
4 credits/75 clock hours
Focuses on operating systems as well as installation of modems, tape backups, CD-ROM drives, and SCSI subsystems. Covers operating systems, Windows 9x, Windows NT and Windows 2000 installation, configuration and upgrading. Includes laser printers and backup power systems. This course prepares the student for the CompTIA A+ OS Technologies Exam.

CNG 124 Networking I: Network +
3 credits/60 clock hours
Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 125 Networking II: Network +
3 credits/60 clock hours
Continues to provide students with the knowledge necessary to implement and support a network. Focuses on the vendor-independent networking skills and concepts that affect all aspects of networking. The Networking I and II: Network + courses prepare students for the Network + certification.

CNG 130 PC Technology
3 credits/60 clock hours
Provides the student with an introduction to microcomputer technology as it pertains to IBM-compatible personal computers.

CNG 131 Principles of Information Assurance
3 credits/60 clock hours
Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, e-mail, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery, and business continuity. Computer forensics is introduced.

CNG 132 Network Security Fundamentals
3 credits/60 clock hours
Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, e-mail, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery, and business continuity. Computer forensics is introduced.

CNG 280 Internship
2 credits/60 clock hours
Provides students with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor.

COM 101 Employment Strategies
1 credit/15 clock hours
Offers students the development of skills that are needed to search for a job.

MAR 160 Customer Service
3 credits/60 clock hours
Enables students to learn the relationship of self to customers, problem solve and understand the importance of communicating with customers. Specific emphasis is given to managing customer expectations by building customer rapport and creating positive outcomes.
### Program Information

#### ESTHETICIAN

The Esthetician Program provides the student with specialized training in skin care, hair removal, day spa facial and body treatments. Advanced training includes skin care machines, professional make-up, facial massage, exfoliation treatment, aromatherapy, nutrition and health of skin. The program includes specialty treatments for problematic skin types, ingredient and product analysis, and salon business. Students may have the opportunity to participate in an internship during their advanced training as an extra elective. Students successfully completing the program will be prepared to take the Colorado State Agency Licensing Exam. Full program completers also receive a certificate for chemical peels and microdermabrasion after “License Examination”.

Note: Colorado State Agency requires a minimum of 20 credit hours and/or 600 clock hours. Upon meeting school requirements for receiving a certificate, a student may be eligible to register for the State Licensing Exam. Students will be prepared for the Colorado State Agency Licensing Exam.

Courses are taught concurrently, not individually, through competency-based, theory and practical instruction. Students must complete all coursework with a grade of “C” or better. All clusters must be completed before testing for state licensing. Courses are evaluated by examination and demonstration.

The following certificate may be earned:

Esthetician Certificate

#### COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Clock Hours</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COS 150</td>
<td>Laws, Rules &amp; Regulations</td>
<td>1</td>
<td>15 clock</td>
<td></td>
<td>Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, and the effects these have on the student, licensed individual, salons and school owners.</td>
</tr>
<tr>
<td>COS 250</td>
<td>Management, Ethics, Interpersonal Skills &amp; Salesmanship</td>
<td>1</td>
<td>22.5 clock</td>
<td></td>
<td>Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.</td>
</tr>
<tr>
<td>EST 110</td>
<td>Introduction to Facials &amp; Skin Care</td>
<td>3</td>
<td>60 clock</td>
<td>EST 110</td>
<td>Provides a basic understanding of massage manipulations when providing facials and the study of skin in both theory and practical applications. Benefits derived from proper facial and good skin care routines. Training is conducted in a classroom or lab setting using mannequins or models.</td>
</tr>
<tr>
<td>EST 111</td>
<td>Intermediate Facials &amp; Skin Care</td>
<td>3</td>
<td>60 clock</td>
<td>EST 110</td>
<td>Presents theory and the daily utilization and practice of the proper methods of disinfection, sanitation, and safety. Practical and theory application can be done in specialized classes or supervised salon (clinical) setting using models or customer service.</td>
</tr>
<tr>
<td>EST 160</td>
<td>Introduction to Disinfection, Sanitation, &amp; Safety</td>
<td>2</td>
<td>37.5 clock</td>
<td>EST 110</td>
<td>Introduces the various methods of disinfection, sanitation and safety as used today in the industry. Classroom study of bacteriology and the terminology dealing with disinfection, sanitation and safety.</td>
</tr>
<tr>
<td>EST 161</td>
<td>Intermediate Disinfection, Sanitation, &amp; Safety</td>
<td>3</td>
<td>60 clock</td>
<td>EST 160</td>
<td>Presents theory and the daily utilization and practice of the proper methods of disinfection, sanitation, and safety. Procedures as related to all phases of the industry. Training is provided in a supervised (clinical) setting.</td>
</tr>
<tr>
<td>EST 210</td>
<td>Advanced Facials &amp; Skin Care</td>
<td>2</td>
<td>45 clock</td>
<td>EST 111</td>
<td>Provides the student with advanced techniques in facials and facial massage, skin care, and lash/brow tinting as allowed per State Board recent rulings. Theory and practical procedures ready the student for employment. Instruction is provided in specialized classes or in a supervised salon (clinical) setting. Student preparation for State Licensing Exam.</td>
</tr>
</tbody>
</table>
EST 211 Facial Makeup
1 credit/22.5 clock hours
Provides instruction on cosmetics and their functions. The importance of color theory, facial types and skin tones as they relate to facial makeup. Instruction from the basic makeup application to the corrective makeup procedure is taught. Disinfection and sanitation is taught as it pertains to all aspects of makeup.

EST 212 Hair Removal
3 credits/60 clock hours
Provides in-depth study and practice of hair removal and the practice of patron protection and safety. Training for general waxing and body waxing procedures are provided. Demonstration of disinfection and sanitation as it pertains to Colorado rules and regulations will be practiced.

EST 230 Preparation for State Board
12 credits/67.5 clock hours
Provides preparation for State Boards. Allows the student the opportunity to gain knowledge in the practical and/or written examination required by the Colorado Board of Barber/Cosmetology.

EST 260 Advanced Disinfection, Sanitation & Safety
2 credits/45 clock hours
Prerequisite: EST 161
Provides advanced training on disinfection, sanitation, and safety as incorporated in a supervised salon (clinical) setting. Advanced techniques will ready the student for employment. Student preparation for the State Licensing Exam in theory and practical procedures for disinfection, sanitation and safety.

EST 290 Professional Development/Continuing Education
3 credits/60 clock hours
Allows advanced training in all course areas and allows student training for State Licensing Exam. Hours will be arranged. Chemical peel and microdermabrasion training, required by the Colorado State Agency, will be covered in this class.
FOUNDATIONS FOR HEALTHCARE PROFESSIONALS

Foundations for Healthcare Professionals is a program designed as a one- or two-semester course. One semester will focus on Nurse Assistant and the other semester will focus on First Responder. The program provides students with training in the basic skills needed to work in an entry level position in the healthcare profession.

The program has a high academic rigor and focuses on getting students job-ready. A good portion of learning will be hands on and scenario-based.

Upon successful completion of the program, the student will be eligible to take the Colorado State Board of Nursing Certification Exam and the Colorado Division of Fire Safety First Responder Exam.

Students enrolled in either Nurse Aide or First Responder are required to obtain and pass a criminal background check; the same successful background check may be utilized for both programs.

Classes begin in August and January.

The following certificate may be earned:
Nurse Aide Certificate
First Responder Certificate
Foundations for Healthcare Professionals Certificate

NURSE AIDE CERTIFICATE

Certificate length
1 semester

Courses required for this certificate:
HPR 101 Customer Service in Healthcare
HPR 175 Healthcare Special Topics
HPR 178 Medical Terminology
NUA 101 Nurse Aide Healthcare Skills
NUA 170 Nurse Aide Clinical Experience
Nurse Aide Certificate Total:
Clock hours: 266  Credit Hours: 13.5

FIRST RESPONDER CERTIFICATE

Certificate length
1 semester

Courses required for this certificate:
EMS 115 First Responder
HPR 106 Law & Ethics for Health Professions
HPR 179 Healthcare Seminar
HPR 190 Basic EKG Interpretation
First Responder Certificate Total:
Clock hours: 284  Credit Hours: 14.5

FOUNDATIONS FOR HEALTHCARE PROFESSIONALS CERTIFICATE

This certificate is a combination of the Nurse Aide Certificate and the First Responder Certificate.

Certificate length
2 semesters

Foundations for Healthcare Professionals
Certificate Total: Clock hours: 540  Credit Hours: 28

COURSE DESCRIPTIONS

EMS 115 First Responder
3 credits/45 clock hours
Provides the student with core knowledge and skills to function in the capacity of a first responder arriving at the scene of an emergency, providing supportive care until advanced EMS help arrives.

HPR 101 Customer Service in Healthcare
2 credits/30 clock hours
Introduces students to customer service theory and techniques specifically in the healthcare arena. This course will discuss therapeutic communication, conflict resolution and negotiation, as well as employee/employer relations. Exploration of diverse populations and cultural sensitivity will be addressed.

HPR 106 Law & Ethics for Healthcare Professions
2 credits/30 clock hours
Introduces student to the study and application medico-legal concepts in medical careers. This course seeks to establish a foundation for ethical behavior and decision making in health professions.

HPR 175 Special Topics
4.5 credits/101 clock hours
Provides students with a vehicle to pursue in depth exploration of special topics of interest.

HPR 178 Medical Terminology
2 credits/30 clock hours
Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology, psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

HPR 179 Healthcare Seminar
7.5 credits/179 clock hours
Provides students with an experiential learning opportunity.
Program Information

HPR 190 Basic EKG Interpretation
2 credits/30 clock hours
Provides instruction for interpretation of EKG strips, anatomy and physiology of the heart, using three-lead monitoring as a guide. Twelve-lead EKG may be discussed.

NUA 101 Nurse Aide Healthcare Skills
4 credits/75 clock hours
Prepares the student to perform the fundamental skills of the nurse aide. Basic nursing skills, restorative services, personal care skills, safety and emergency care issues are covered in theory and lab. The student will learn skills that address mental health needs as well as patient/resident/client rights.

NUA 170 Nurse Aide Clinical Experience
1 credit/30 clock hours
Applies knowledge gained from NUA 101 in a clinical setting. Prerequisite: Successful progress in NUA 101.
Program Information

GENERAL ELECTRONICS TECHNOLOGY

The General Electronics courses are taught over two semesters and consist of electronic theory, laboratory experiments, applied theamtics, and practical applications which prepare students to work with solid state and digital systems. Analog and Digital Electronics are both offered each semester.

Upon completion of the General Electronics Technology courses, the student has the option to seek employment as a Maintenance Technician, Electrical Equipment Technician or Electronic Test Technician. Students may also continue their electronic education in one of the two areas of emphasis.

This program participates in the CCCS common course numbering system for course transfer to Colorado Community Colleges.

The following certificates may be earned:

- Analog Electronics Technician Certificate
- Digital Electronics Technician Certificate
- General Electronics Technology Certificate
- General Electronics Technology Expanded Certificate
- Computer Service/Network Technology Technician Certificate

ANALOG ELECTRONICS TECHNICIAN CERTIFICATE

Certificate length
1 semester

Courses required for this certificate:

- ELT 106 Fundamentals of DC/AC
- ELT 134 Solid State Devices I
- ELT 136 Introduction to Transistors
- ELT 163 Soldering
- ELT 137 Advanced Transistors
- ELT 215 Operational Amplifiers

Analog Electronics Technician Certificate
Total: Clock Hours: 270 Credit Hours: 15

DIGITAL ELECTRONICS CERTIFICATE

Certificate length
1 semester

Courses required for this certificate:

- ELT 147 Digital Devices I
- ELT 148 Digital Devices II
- ELT 265 Microcontrollers
- ELT 268 Robotics Technologies
- ELT 258 Programmable Logic Controllers
- ELT 267 Introduction to Robotics

Digital Electronics Technician Certificate
Total: Clock Hours: 270 Credit Hours: 15

GENERAL ELECTRONICS TECHNOLOGY CERTIFICATE

This certificate is a combination of Analog Electronics Technician Certificate and the Digital Electronics Technician Certificate.

General Electronics Technology Certificate
Total: Clock Hours: 540 Credit Hours: 30

GENERAL ELECTRONICS TECHNOLOGY EXPANDED CERTIFICATE

This certificate is a combination of Analog Electronics and Digital Electronics and the following course:

ELT 280 Internship

General Electronics Technology Expanded Certificate
Total: Clock Hours: 800 Credit Hours: 32

COMPUTER SERVICE/NETWORK TECHNOLOGY TECHNICIAN CERTIFICATE


Computer Service/Network Technology Certificate
Total: Clock Hours: 1080 Credit Hours: 58

Please see Enterprise Computer Service Technician for more information.

COURSE DESCRIPTIONS

ELT 106 Fundamentals of DC-AC
3 credits /52.5 clock hours
Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting.

ELT 134 Solid State Devices I
3 credits/52.5 clock hours
Focuses on diode and transistor studies starting with a review of semiconductor materials. Emphasizes rectifier circuits, R-C and L-C filters, limiters and peak detectors, zener regulators, Schottky diodes, varactors/veristors, LED’s bipolar transistors, transistor approximation, load-lines, biasing techniques, saturation, operating point, AC models including small-signal operation, h-parameters, and data sheet understanding and interpolation.

ELT 136 Introduction to Transistors
2 credits/37.5 clock hours
Introduces the operation and applications of bipolar transistors, JFETs and MOSFETs. Includes switching circuits, single-stage small-signal amplifiers and troubleshooting.
Program Information

ELT 137 Advanced Transistors
3 credits/45 clock hours
Continues ELT 136 with specifications and additional applications of bipolar transistors, JFETs and MOSFETs. Covers voltage regulation, common-collector, and power amplifiers. Includes analysis of single and cascaded amplifier stages. Emphasizes troubleshooting.

ELT 147 Digital Devices I
3 credits/52.5 clock hours
Introduces the operation and application of logic gates, flip-flops, counters, shift registers, encoders-decoders and LED displays. Covers binary numbers, Boolean algebra and troubleshooting.

ELT 148 Digital Devices II
3 credits/45 clock hours
Continues ELT 147 with emphasis on the operation and application of programmable logic devices, synchronous counters, multiplexers, liquid crystal displays, ROM and RAM. Includes specifications of ICs, display multiplexing, and design and minimization of circuits. Troubleshooting is emphasized.

ELT 163 Soldering
1 credit/15 clock hours
Covers the theory and practice of high reliability hand soldering in the electronics field. Includes soldering practice with wire and terminal soldering as well as PCB soldering of through-hole and surface-mount devices.

ELT 215 Operational Amplifiers
3 credits/60 clock hours
Focuses on a study of integrated operational amplifiers and their applications. Troubleshooting is emphasized.

ELT 258 Programmable Logic Controllers
3 credits/60 clock hours
Covers the fundamentals of programmable logic controllers (PLCs) as they are applied to robotics and automation. Includes history, terminology, typical applications, hardware, and software. Incorporates lab and project activities that address operating, monitoring, programming, troubleshooting, and repairing PLC controlled lab trainers as well as actual industrial equipment.

ELT 265 Microcontrollers
2 credits/30 clock hours
Provides the necessary software and hardware knowledge and skills to develop a microcontroller system. Incorporates programming tools and development software.

ELT 267 Introduction to Robotics
1 credit/15 clock hours
Introduces basic robotics. Enables the student to program a robot in a higher-level language to perform various tasks. Covers building and interfacing of sensor circuits.

ELT 268 Robotics Technologies
3 credits/60 clock hours
Introduces industrial robotics as well as a survey of the technologies and equipment used in manufacturing automation and process control. Includes axis configurations, work envelopes, programming, troubleshooting, and maintenance. Incorporates a survey of automation topics including history, computer and hardwired controls, sensors and transducers, motors and actuators, fluid power, etc. and provides a preview of the other ELT classes that cover those subjects.

ELT 280 Internship
2 credits/60 clock hours
Provides students with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the business location.
HEATING AND AIR CONDITIONING

The Heating and Air Conditioning Service Technology Program prepares the student with entry level residential skills required by employers in this industry. It is industry focused, with the student being given the opportunity to earn their EPA certification, plus ICE certification, (Industry Competency Exams) administered by the Air Conditioning Heating & Refrigeration Institute, located in Arlington, Virginia. ICE exams are supported by the Refrigeration Service Engineers Society (RSES), Air Conditioning Contractors of America (ACCA), Gas Appliance Manufacturer’s Association (GAMA), Plumbing, Heating and Cooling Contractors Association (PHCC), Heating, Air Conditioning & Refrigeration Distributors International (HARDI) and the Air Conditioning, Heating & Refrigeration Institute (AHRI). The Heating Service Technology block consists of 270 hours of education in job safety, soldering and brazing, basic electricity, forced air gas furnace service, hydronic service, air flow problems, duct sizing, and troubleshooting gas fired equipment. Performance testing after repairs is emphasized. State-of-the-art Simutech computer simulation programs are used along with live equipment in the lab.

The Air Conditioning Service Technology block consists of 270 hours of basic refrigeration, refrigerant recovery training, principles of A/C operation, heat pumps, further air flow problems, analysis and troubleshooting the total system. Performance testing after repairs is emphasized. State-of-the-art Simutech computer simulation programs are used along with live equipment in the lab. An on-the-job internship program with Aurora Public Schools Maintenance Department is offered where students can get experience with accomplished HVAC Technicians.

The following certificates may be earned:
- Heating Service Technology Certificate
- Air Conditioning Service Technology Certificate
- Heating and Air Conditioning Service Technology Certificate

HEATING SERVICE TECHNOLOGY CERTIFICATE

Certificate length
1 semester

Courses required for this certificate:
- HVA 103 Basic Electricity
- HVA 106 Intro to Service Tech Training
- HVA 109 Residential Gas Boilers
- HVA 144 Residential Equipment Sizing
- HVA 146 Residential Load/Duct Design
- HVA 240 Servicing Forced Air Systems

Heating Service Technology Certificate
Total Clock Hours: 270 Credit Hours: 16

AIR CONDITIONING SERVICE TECHNOLOGY CERTIFICATE

Certificate length
1 semester

Courses required for this certificate:
- HVA 102 Basic Refrigeration
- HVA 111 Piping Skills for HVAC
- HVA 113 Refrigerant Recovery Training
- HVA 202 Troubleshooting & Customer Service
- HVA 261 A/C Systems Service and Repair

Air Conditioning Service Technology Certificate
Total Clock Hours: 270 Credit Hours: 16

HEATING AND AIR CONDITIONING SERVICE TECHNOLOGY CERTIFICATE

This certificate is a combination of the Heating Service Technology and the Air Conditioning Service Technology Certificates.

Certificate length
2 semesters

Heating and Air Conditioning Service Technology Certificate
Certificate Total: Clock hours: 540 Credit Hours: 32

COURSE DESCRIPTIONS

HVA 102 Basic Refrigeration
4 credits/67.5 clock hours
Introduces the theory of refrigeration, components, charging, recycling, and evacuation of refrigeration units.

HVA 103 Basic Electricity
3 credits/6/7.5 clock hours
Covers the basic electrical AC theory, including the study of Ohm’s Law to explain the operation of electrical devices.

HVA 106 Intro to Service Tech Training
1 credits/15 clock hours
Introducing the basics from which the student will build their knowledge and understanding of this great career. Studies include class and school policies, safety for the Service Tech, first aid, and basic physics as it applies to heat, matter and energy.

HVA 109 Residential Gas Boilers
2 credits/30 clock hours
This course covers the theory of operation of gas boilers as well as service and repair of them. Class is dedicated to the difference between boilers and gas furnaces, and training the students to be able to repair and maintain both systems. Students will train on live equipment as well as computerized troubleshooting. Students will be required to repair 20 boiler problems on Simutech Boiler Training.
Program Information

**HVA 111 Piping Skills for HVAC**
4 credits/67.5 clock hours
Studies the different types of tubing and piping materials used in HVAC/R applications. Studies the proper tubing and piping installation methods used in the HVAC/R field. Subjects covered will be the proper cutting and bending procedures including, pipe math and how to make piping offsets. Common types of piping joints will be discussed, including, swaging, flaring, soldering, and brazing. Also covered will be cutting and threading of steel pipe and other alternative mechanical piping connections. Shop projects will include both bench projects and also mock up installation projects.

**HVA 133 Refrigerant Recovery Training**
1 Credit/22.5 clock hours
Explains the laws regarding refrigerant recovery. The course includes hands-on use of recovery equipment. EPA certification is part of this course, students must pay $35.00 for this optional exam.

**HVA 144 Residential Equipment Sizing**
2 credits /30 clock hours
This class employs ACCA's Manual J Residential Load Calculation Procedure. It is the accepted industry standard, approved by ANSI, for the proper sizing and selection of HVAC equipment in residential homes. The eighth edition of Manual J is used to ensure that indoor environmental systems are as efficient, safe, and healthy as possible. The student will learn to design the home on computer, and correctly size the equipment to heat and cool the home. Basic CAD is included as part of this course. Computer skills are recommended. The student will learn to create professional Residential Load Calculations on the computer.

**HVA 145 Residential Duct Design**
2 credits /30 clock hours
Delivering fresh, conditioned air to each register, and returning an equal amount of return air back to the furnace is the key to making any furnace run at peak efficiency. The duct system is often overlooked and not given the attention it deserves when designing a system. It is important to assess a duct system to evaluate heating problems in a home. The student will design a professional duct system that takes into account the heat loss and heat gain, and infiltration of a home. CAD drawing is included to create professional duct designs according to ACCA Manual D guidelines.

**HVA 146 Residential Load/Duct Design**
4 credits/60 clock hours
Introduces the importance of equipment sizing by teaching how to properly perform heating and cooling load calculations on residential houses. After determining proper equipment sizing, then demonstrate how to design the ductwork system sizing for proper airflow throughout the house.

**HVA 202 Troubleshooting & Customer Service**
3 credits/67.5 clock hours
Covers field analysis of malfunctions on actual, in-house, heating, ventilation, refrigeration and air conditioning equipment. Customer interaction and diagnosis efficiency are stressed.
Program Information

LANDSCAPE MANAGEMENT

The Landscape Management Program is designed to prepare the student for entry-level employment in four specialty areas of this field: landscape, greenhouse, nursery and interior plantscaping. Coursework includes instruction about the materials, operations and business practices in each of these areas. All students complete the horticulture core and elective coursework as approved by the instructor. Persons wishing to enter the program other than at the start of the fall semester must have instructor approval before enrolling.

All classes train toward industry certifications. All coursework must be completed with a “C” or better to count towards one of the Landscape Management certificate.

The following certificates may be earned:
Entry-Level I Landscape Management Certificate
Entry-Level II Landscape Management Certificate
General Landscape Design Certificate
General Landscape Operations Certificate
Landscape Management Certificate
Landscape Assistant Certificate

GENERAL LANDSCAPE DESIGN CERTIFICATE

Certificate length 2 Semesters

Courses required for this certificate:
* HLT 101 Introduction to Horticulture
  * HLT 125 Landscape Drafting and Design
  HLT 130 Landscape Graphics Studio
  * HLT 221 Woody Landscape Plants I
  * HLT 222 Woody Landscape Plants II
  * HLT 224 Herbaceous Perennials
  * HLT 237 Landscape Construction and Bidding
  * HLT 250 Landscape Irrigation Design
  HLT 275 Special Topics

General Landscape Design Certificate
Total: Clock Hours: 517.5 Credit: 26

GENERAL LANDSCAPE OPERATIONS CERTIFICATE

Certificate length 2 Semesters

Courses required for this certificate:
CAD 101 Computer Aided Drafting I
* HLT 105 Greenhouse Management and Crops
HLT 106 Green Industry Equipment
* HLT 226 Indoor Plants
HLT 227 Indoor Plant Care and Development
* HLT 236 Landscape Construction
HLT 242 Turf grass Management
HLT 264 Arboriculture

General Landscape Operations Certificate
Total: Clock Hours: 472.5 Credit: 24

*The above courses are taken concurrently.

LANDSCAPE MANAGEMENT CERTIFICATE

The Landscape Management Certificate will be awarded after completion of both the General Landscape Design Certificate and the General Landscape Operations Certificate.

Certificate length 4 Semesters

Landscape management Certificate
Total: Clock Hours: 990 Credit: 50

ENTRY LEVEL I LANDSCAPE MANAGEMENT CERTIFICATE

Certificate length 2 Semesters

Courses required for this certificate:
* HLT 105 Greenhouse Management and Crops
HLT 106 Green Industry Equipment
HLT 125 Landscape Drafting and Design
HLT 130 Landscape Graphics Studio
* HLT 208 Commercial Pesticide License Training
* HLT 221 Woody Landscape Plants I
HLT 222 Woody Landscape Plants II
* HLT 226 Indoor Plants
HLT 227 Indoor Plant Care and Development
* HLT 236 Landscape Construction

Entry Level I Landscape Management Certificate
Total: Clock Hours: 472.5 Credit: 23

ENTRY LEVEL II LANDSCAPE MANAGEMENT CERTIFICATE

Certificate length 2 Semesters

Courses required for this certificate:
CAD 101 Computer Aided Drafting I
* HLT 101 Introduction to Horticulture
* HLT 105 Greenhouse Management and Crops
* HLT 224 Herbaceous Perennials
* HLT 237 Landscape Construction and Bidding
HLT 242 Turf grass Management
* HLT 250 Landscape Irrigation Design
HLT 264 Arboriculture
HLT 275 Special Topics

Entry Level II Landscape Management Certificate
Total: Clock Hours: 472.5 Credit: 25

LANDSCAPE ASSISTANT CERTIFICATE

Certificate length 2 semesters

Courses required for this certificate:
HLT 102 Landscape Assistant I
HLT 103 Landscape Assistant II

Landscape Assistant Certificate
Total: Clock Hours: 360 Credit: 8
COURSE DESCRIPTIONS

CAD 101  Computer Aided Drafting I
3 credits/45 clock hours
Focuses on basic computer aided drafting skills using the latest release of CAD software. Includes file management, Cartesian coordinate system, drawing set-ups, drawing aids, layer usage, drawing geometric shapes, editing objects, array, text applications, basic dimensioning, and Help access.

HLT 101  Introduction to Horticulture
4 credits/67.5 clock hours
Introduces the biology of horticultural plants, and basic horticultural practices.

HLT 102 Landscape Assistant I
4 credits/180 clock hours
Perform tasks related to industry activities, such as greenhouse work, landscape work and indoor plant care work. This extensive hands-on program provides students with practical skills related to industry activities typically performed during the fall.

HLT 103 Landscape Assistant II
4 credits/180 clock hours
This course is a continuation of HLT 102. Students perform tasks related to industry activities, such as greenhouse work, landscape work and indoor plant care work. This extensive hands-on program provides students with practical skills related to industry activities typically performed during the spring.

HLT 105  Greenhouse Management & Crops
4 credits/90 clock hours
Discusses greenhouse design, systems, management, and the major greenhouse crops and their cultural needs. This class trains for industry certification.

HLT 106  Green Industry Equipment
2 credits/45 clock hours
Introduces students to the basic concepts of maintenance, care and repairing equipment associated with the Green Industry. This instruction is designed to cover the knowledge and skills required of employers and employees in many areas of the landscape occupations such as lawn maintenance industry, landscaping and nurseries.

HLT 125  Landscape Drafting and Design
3 credits/67.5 clock hours
Allows students that wish to learn the basics of landscape design and planning so that they can produce simple gardens, or interpret plans for construction. The course discusses the principles and elements of design by looking at various landscape styles. Students learn the design process and basics of landscape graphics. They produce simple, scaled landscape drawing, and learn to interpret landscape plans for construction.

HLT 130  Landscape Graphics Studio
3 credits/67.5 clock hours
Introduces students to the basics of graphic communications used in landscape design and construction. Students learn the proper use of graphic tools and materials to manually produce site analyses, concept plan, preliminary plan, planting plan, and master plan documents in both plan and perspective views.

HLT 208 Commercial Pesticide License Training
3 credits/45 clock hours
Studies the requirements for the qualified supervisor license as outlined in the training manuals published by the Colorado Department of Agriculture. Students may elect to take the certified operator tests if they do not meet the experience qualifications for the qualified supervisors license. Areas studied will be for the general, weeds, agricultural insect, plant disease, and industrial right-of-way tests administered by the Colorado Department of Agriculture. Students may elect to take any of the other tests available.

HLT 221  Woody Landscape Plants I
3 credits/67.5 clock hours
Discusses the identification (common and botanical names), landscape usage and culture of regionally adapted plants. This course discusses deciduous shade and ornamental trees, and conifers (evergreen trees and shrubs).

HLT 222  Woody Landscape Plants II
3 credits/67.5 clock hours
Discusses the identification (common and botanical names), landscape usage and culture of regionally adapted plants. This course discusses deciduous and evergreen broadleaf shrubs and vines.

HLT 224  Herbaceous Perennials
4 credits/67.5 clock hours
Discusses the identification (common and botanical names), landscape usage and culture of herbaceous perennials common to Colorado landscapes.

HLT 226  Indoor Plants
2 credits/45 clock hours
Discusses the identification, usage, and culture of common interior plants. Topics include selection for various interior environments, interior plant maintenance, and specialty interior plant products.

HLT 227  Indoor Plant Care and Development
2 credits/45 clock hours
This course is currently under review and will be updated upon approval.
Program Information

HLT 236  Landscape Construction
4 credits/67.5 clock hours
Introduces students to the fundamentals of landscape construction, including construction equipment, safety practices, grading, deck, retaining wall, paving, and water feature construction. During labs students construct various landscape elements.

HLT 237  Landscape Construction Bidding and Estimating
2 credits/45 clock hours
Discusses the process of bidding for landscape construction. Plan reading, quantity takeoffs, bidding and estimating practices and processes are covered.

HLT 242  Turfgrass Management
4 credits/67.5 clock hours
Discusses the fundamentals of turfgrass establishment and maintenance as it is practiced at different cultural intensities. Topics include the growth and development of turfgrass plants, the turfgrass environment, turfgrass species selection and identification, turfgrass cultural practices, and turfgrass pest management.

HLT 250  Landscape Irrigation Design
3 credits/45 clock hours
Focuses on the hydraulic analysis of residential irrigation systems to determine design capacity and working pressure. Irrigation system components are examined and their application explained. Students analyze site conditions, and apply their knowledge of hydraulic analysis to produce sample irrigation designs.

HLT 264  Arboriculture
3 credits/67.5 clock hours
Discusses plant growth and development as it relates to trees and shrubs, and progresses to methods of planting, tree protection, pruning, and tree care. This class trains for industry certification.

HLT 275  Special Topics
1 credit/22.5 clock hours
Provides students with a vehicle to pursue in depth exploration of special topics of interest.

HLT 280  Internship
3 credits/135 clock hours
Provides students with the opportunity to supplement course work with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor/coordinator.

HLT 285  Independent Study
3 credits/135 clock hours
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.
MEDICAL ASSISTANT

The Medical Assisting Program is designed to prepare students to assist with administrative functions of the front of the Medical Office and also teaches the skills to help in the back of the Medical Office within the health care system of your community. Students successfully completing this program will be able to perform the administrative tasks of a medical receptionist including registering new patients, using proper telephone techniques, scheduling appointments, filing medical records, and typing medical reports during the first semester. Anatomy and Physiology and Medical Terminology are taught as well in the first semester. The second semester is devoted to working in the back of the Medical Office. Laboratory skills including phlebotomy, ECG technician, basics of Radiology, Sterile technique, handling laboratory specimens, medication administration and proper dosage calculations, emergency procedures and first aid will be taught. Essentially all the skills you will need to assist in the modern Medical Office will be addressed.

The following certificate may be earned:
Front-Office Medical Skills Certificate
Back Office Medical Skills Certificate
Medical Assisting Certificate
Medical Assisting Expanded Certificate

FRONT OFFICE MEDICAL SKILLS CERTIFICATE

Certificate length 1 Semester

Courses required for this certificate:
BIO 106 Basic Anatomy and Physiology
MOT 110 Medical Office Administration
MOT 120 Medical Office Financial Mgmt
MOT 136 Intro to Clinical Skills
HPR 178 Seminar: Medical Terminology

Front Office Medical Skills Certificate
Total: Clock Hours: 240 Credit: 15

BACK OFFICE MEDICAL SKILLS CERTIFICATE

Certificate length 1 Semester

Pre-requisite: BIO 106 Basic Anatomy and Physiology, HPR 178 Seminar: Medical Terminology

Courses required for this certificate:
MOT 130 Insurance Billing and Coding
MOT 140 Medical Assisting Clinical
MOT 150 Pharmacology-Medical Assts
MOT 138 Medical Assisting Laboratory

Back Office Medical Skills Certificate
Total: Clock Hours: 300 Credit: 14

MEDICAL ASSISTING CERTIFICATE

Certificate length 2 Semesters
This certificate is a combination of the Front Office Medical Skills certificate and the Back Office Medical Skills certificate.

Medical Office Technology Certificate
Total: Clock Hours: 540 Credit: 29

MEDICAL ASSISTING EXPANDED CERTIFICATE

Certificate length 2 Semesters
This certificate is a combination of the Medical Assisting certificate and the following courses:

Courses required for this certificate:
BTE 285 Independent Study
or
MOT 181 Administrative Internship

Medical Office Technology Certificate
Total: Clock Hours: 540 Credit: 29

Additional fees may apply. Please contact our Advising Department (303)344-4910, ext 27909 or ext 27935.

COURSE DESCRIPTIONS

BIO 106 Basic Anatomy and Physiology
4 credits/60 clock hours
This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program and the Medical Office Technology program.

BTE 285 Independent Study
2 credits/60 clock hours
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

HPR 178 Seminar: Medical Terminology
2 credits/30 clock hours
Introduces the student to the structure of medical terms with emphasis on combining and using the most common prefixes, roots, and suffixes. Includes terms related to clinical laboratory, diagnostic imaging, nuclear medicine and oncology, as well as major body systems. Classroom structure provides accepted pronunciation of terms and relative use in the healthcare setting.

MOT 110 Medical Office Administration
4 credits/60 clock hours
Introduces the administrative duties specifically used in medical offices.

MOT 120 Medical Financial Management
3 credits/45 clock hours
Covers the practical uses of accounts and records with emphasis on accounting principles and analysis for use in a medical office.
Program Information

MOT 130 Insurance Billing and Coding
3 credits/45 clock hours
Introduces outpatient coding with an ultimate goal to present a clear picture of medical procedures and services performed (CPT codes), correlating the diagnosis, symptom, complaint or condition (ICD-9 codes), thus establishing the medical necessity required for third-party reimbursement.

MOT 136 Intro to Clinical Skills
2 credits/60 clock hours
Provides hands on experience with the basic clinical skills required for assisting with patient care in an ambulatory setting. Delivers the theory behind each skill presented as well as proper technique for performing each skill. Includes knowledge and/or performance of universal precautions/OSHA regulations, HIPAA, medical asepsis, procedural gowning and gloving, patient draping and positioning, and measurement of vital signs.

MOT 138 Medical Assisting Laboratory
4 credits/92 clock hours
Introduces the student to basic routine laboratory skills and techniques for collection, handling, and examination of laboratory specimens often encountered in the ambulatory care setting. Emphasizes hands-on experience.

MOT 140 Medical Assisting Clinical
4 credits/92 clock hours
Provides hands on experience with the clinical skills required for assisting with patient care. Delivers the theory behind each skill presented as well as proper technique for performing each skill.

MOT 150 Pharmacology for Medical Assistants
3 credits/90 clock hours
Provides an overview of pharmacology language, abbreviations, systems of measurement and conversions. The Controlled Substances Act, prescriptions, forms of medications, patient care applications, drug classifications/interactions, and safety in drug therapy and patient care are presented. Information regarding the measurement of medications, dosage calculations, routes of administration, and commonly prescribed drugs in the medical office is provided.

MOT 181 Administrative Internship
2 credits/60 clock hours
Provides supervised placement in contracted facility for guided experience in application of knowledge and skill acquired in the classroom. Positions are non-paid due to CAAHEP requirement. Student must have permission by program coordinator to begin internship.
MOBILE APPS

Students will be creating applications for various mobile devices. Using Apple’s or Android’s SDK, students will learn the fundamentals of object-oriented programming with languages like JAVA and Objective C. The outcome at the end of the program is for students to create an application that they will be able to post on Apple’s App Store or Android’s Marketplace.

The following certificate may be earned:
Mobile Apps Certificate

INTRO TO PROGRAMMING MOBILE APPS
CERTIFICATE
Certificate length 1 Semester

Courses required for this certificate:
CSC 119 Introduction to Programming
CSC 240 Java Programming
CSC 233 Object Oriented Programming
CSC 241 Advanced Java Programming
Intro to Programming Mobile Apps Certificate
Total: Clock Hours: 270 Credit Hours: 12

ADVANCED MOBILE APPS TOOLS
CERTIFICATE
Students must complete the Intro to Programming for Mobile Apps Certificate in order to move onto the Advanced Mobile Apps Tools Certificate

Certificate length 1 Semester

Courses required for this certificate:
CSC 246 Mobile App Development
CSC 275 Special Topics: SDK Tools for Mobile Apps
CSC 285 Independent Study: Mobile App Design
Advanced Mobile Apps Tools Certificate
Total: Clock Hours: 270 Credit Hours: 12

MOBILE APPS CERTIFICATE
This certificate is a combination of the Intro to Programming Mobile Apps certificate and the Advanced Mobile Apps Tools certificate:

Certificate length 2 Semesters

Mobile Apps Certificate
Total: Clock Hours: 540 Credit Hours: 24

Additional fees may apply. Please contact our Advising Department (303)344-4910, ext 27909 or ext 27935.
MULTIMEDIA GRAPHIC DESIGN

The Multimedia Graphic Design program prepares students for a variety of print and digital related career paths that include graphic design, web design, illustration, layout and print design. First semester students will focus on design principles, the study of typography and color theory practices as well as learn how to use two software components for photo manipulation and digital art creation. Second semester students will learn to operate a variety of cutting edge software programs used by designers in conjunction with design related projects based around logo design, web design, animation and illustration. Students will learn to operate all software on both MAC and Windows based platforms.

Second year students develop and refine their design and software skills through a variety of projects that include poster design, annual reports, ad layouts, ad campaigns, web design, skills needed to be a freelance designer and becoming a freelance designer and assembling a professional portfolio for employability.

Prerequisite: Keyboarding skills, basic computer operating and file management skills
The ability to use a T-square, ruler and French curve for hand rendered compositions
Basic hand drawing and illustration skills

The following certificates may be earned:
Graphic Design I Certificate
Production Design I Certificate
Graphic Design II Certificate
Production Design II Certificate
Multimedia Graphic Design Specialist
Multimedia Graphic Production Specialist
Multimedia Graphic Design Specialist Expanded
Multimedia Graphic Production Specialist Expanded

GRAPHIC DESIGN I CERTIFICATE
Certificate length 1 Semester

The Graphic Design Certificate gives the student the skills to become a graphic designer. This certificate is comprised of classes that take you from learning the fundamentals of design to implementing your newly found skills through many projects including logo design, poster design and web design.

Courses required for this certificate:
MGD 109 Design and Color
MGD 111 Adobe Photoshop I
MGD 112 Adobe Illustrator I
MGD 114 Adobe InDesign
MGD 116 Typography I

Graphic Design Certificate - Year 1
Total: Clock Hours: 270 Credit: 12

DESIGN PRODUCTION I CERTIFICATE
Certificate length 1 Semester

The Production Design Certificate is a continuation of the Graphic Design Certificate. The student will learn the basics of production design, typography and layout. The most popular production software available will be used to create magazine layouts, posters and other advertising materials. Students will also learn the latest software to create and design web pages.

Prerequisite: Graphic Design I Certificate

Courses required for this certificate:
MGD 103 Intro to Production Design
MGD 141 Web Design I
MGD 175 ST: Interactive Prototyping
MGD 207 Illustration I

Design Production Certificate - Year 1
Total: Clock Hours: 270 Credit: 12

GRAPHIC DESIGN II CERTIFICATE
Certificate length 1 Semester

The Graphic Design II Certificate utilizes and expands the skills you have learned from the Graphic Design program in year one to create a strong portfolio. Students must have successfully completed Graphic Design program with a “C” or better to enter this program.

Prerequisites: Graphic Design I Certificate

Courses required for this certificate:
MGD 105 Typography and Layout
MGD 203 Design and Concept
MGD 211 Adobe Photoshop II
MGD 212 Adobe Illustrator II
MGD 213 Electronic Press

Graphic Design II Certificate - Year 2
Total: Clock Hours: 270 Credit: 12

DESIGN PRODUCTION II CERTIFICATE
Certificate length 1 Semester

This certificate is a continuation of the Production Design Certificate in year one. Students must have successfully completed the Production Design program with a “C” or better to enter this program.

Prerequisites: Design Production I Certificate

Courses required for this certificate:
MGD 133 Graphic Design I
MGD 208 Illustration II
MGD 241 Web Design II
MGD 288 Business for Creatives

Production Design II Certificate - Year 2
Total: Clock Hours: 270 Credit: 12
MULTIMEDIA GRAPHIC DESIGN SPECIALIST CERTIFICATE
This certificate is a combination of the Graphic Design I Certificate and the Design Production I Certificates.
Graphic Design Specialist Certificate
Total Clock Hours: 540 Credit Hours: 27

MULTIMEDIA DESIGN PRODUCTION SPECIALIST CERTIFICATE
This certificate is a combination of the Graphic Design II Certificate and the Design Production II Certificates.
Production Design Specialist Certificate
Total Clock Hours: 540 Credit Hours: 27

MULTIMEDIA GRAPHIC DESIGN SPECIALIST EXPANDED CERTIFICATE
This certificate is a combination of the Graphic Design I Certificate and the Design Production I Certificates.
Graphic Design Specialist Certificate
Total Clock Hours: 600 Credit Hours: 29

MULTIMEDIA DESIGN PRODUCTION SPECIALIST EXPANDED CERTIFICATE
This certificate is a combination of the Graphic Design II Certificate and the Design Production II Certificates.
Production Design Specialist Certificate
Total Clock Hours: 600 Credit Hours: 29

COURSE DESCRIPTIONS

MGD 103 Intro to Production Design
3 Credits/67.5 clock hours
Explores the use of tools, computer graphics techniques and design layout principles to produce professional graphic designs. Studies include printing basics, typography and digital color systems. Students use creative thinking to solve communication and design concepts for the output process. Co-requisite(s): MGD 141, MGD 176

MGD 105 Typography and Layout
3 Credits/60 clock hours
Covers the creation and production of graphic projects, emphasizing the layout creative design process, problem solving, and research. Provides experience producing thumbnails, roughs and digital layouts emphasizing refined creative typography.

MGD 109 Design and Color
3 Credits/60 clock hours
Covers the design process and creative problem solving, design and color theories, fundamentals, styles, stages area applied to workups, finished art, and presentations. Emphasis will be on line, form, composition, and continuity. Co-requisite(s): MGD 112

MGD 111 Adobe Photoshop I
3 Credits/45 clock hours
Concentrates on the high-end capabilities of a raster photo-editing software as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos. Co-requisite(s): MGD 116

MGD 112 Adobe Illustrator I
3 Credits/60 clock hours
Students will explore the processes of a vector drawing program on the computer. Students learn how to use the tools to create digital artwork that can be used in web design, print media and digital screen design. Co-requisite(s): MGD 109

MGD 114 Adobe InDesign
3 Credits/45 clock hours
Introduces students to InDesign, a page layout program which integrates seamlessly with other Adobe design programs. InDesign delivers creative freedom and productivity to DTP. Class discussions and independent projects supplement hands-on classroom work. Co-requisite(s): MGD 105

MGD 116 Typography I
3 Credits/60 clock hours
Introduces the history and concepts of typography as applied to graphic communications. Explores appropriate use of typography in a variety of design applications, emphasizing the basic design principles of typographic compositions and typesetting. Covers type recognition and typographic terms. Co-requisite(s): MGD 111

MGD 133 Graphic Design I
3 Credits/67.5 clock hours
Focuses upon the study of design layout and conceptual elements concerning graphic design projects such as posters, advertisements, logos and brochures.

MGD 141 Web Design I
3 Credits/67.5 clock hours
Introduces web site planning, design and creation using industry-standards-based web site development tools. Screen-based color theory, web aesthetics, use of graphics editors and intuitive interface design are explored. Co-requisite(s): MGD 103

MGD 175 Special Topics: Interactive Phototyping
3 Credits/67.5 clock hours
Provides students with a vehicle to pursue in depth exploration of special topics of interest.

MGD 203 Design and Concept
3 credits/60 clock hours
Covers the process of comprehensive problem solving of complex and advanced print design. Provides experience in digital production of designs, using multiple computer applications emphasizing concept.
MGD 207 Illustration I
3 credits/67.5 clock hours
Addresses methods and techniques used in the profession of illustration for advertising, brochures, books and other forms of printed communications. Course concentrates on developing expertise in producing line and continuous-tone black-and-white art with emphasis on design and the creation of art for reproduction.

MGD 208 Illustration II
3 credits/67.5 clock hours
Addresses methods and techniques used in the illustration profession beyond those covered in Illustration I. Course concentrates on developing expertise in producing color art for reproduction.

MGD 211 Adobe Photoshop II
3 credits/45 clock hours
Develops and reinforces image composition techniques learned in Adobe Photoshop I, MGD 111. Fundamentals are continuously reinforced as new design techniques are introduced.

MGD 212 Adobe Illustrator II
3 credits/45 clock hours
Enables the student to continue development of electronic drawing skills through practice and use of state-of-the-art illustration software.

MGD 213 Electronic PrePress
3 credits/67.5 clock hours
Explores in detail the electronic prepress process. Students examine steps for preparing a digital file for trapping, output considerations and proofing techniques. Creating effective electronic designs and efficient use of today’s software programs are also covered.

MGD 241 Web Design II
3 credits/67.5 clock hours
Expands on previously learned fundamentals of HTML introducing cascading style sheets, DHTML, JavaScripts and CGI forms. Color usage and interface design principles are emphasized in this course. In this course we will examine Web sites that employ more complex structures, optimal site architecture and navigation necessary for larger and more complex sites.

MGD 256 Graphic Design Production
3 credits/67.5 clock hours
Provides an opportunity to combine several draw and paint applications into one design and layout class. Students will explore advanced techniques in creating and designing computer art.

MGD 268 Business for Creatives
3 credits/67.5 clock hours
Presents a guide to freelance work and a study of business practices and procedures and models unique to creative occupations (graphic design, web design, animation, fine arts). Discussion includes determining charges, business forms, business planning, tax structure, licenses and registration, self-promotion (resume, website, portfolio, business identity package). Course may include visits by professionals in the field and discussion of career opportunities in a quickly changing career field.

MGD 285 Independent Study
2 credit/60 clock hours
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.
NAIL TECHNICIAN

The Nail Technician program provides specialized training in plain manicures, oil manicures and pedicures. Basic and advanced techniques are taught in acrylic nails, silk wraps, gels, nail art, and paraffin treatments. Proper usage of implements with the sanitation procedures, recognition of nail disorders and the appropriate treatments are incorporated into the curriculum. Students may have the opportunity to participate in an internship during their advanced training as an extra elective. Students completing the program will be prepared to take the Colorado State Licensing Exam.

Note: Colorado State Agency requires a minimum of 20 credit hours and/or 600 clock hours. Upon meeting school requirements for receiving a certificate, a student may be eligible to register for the State Licensing Exam. Students will be prepared for the Colorado State Agency Licensing Exam. Courses are taught concurrently, not individually, through competency-based, theory and practical instruction. Students must complete all coursework with a grade of “C” or better and all clusters must be completed before testing for state licensing. Courses are evaluated by examination and demonstration.

The following certificate may be earned:
Nail Technician Certificate

NAIL TECHNICIAN CERTIFICATE

Courses required for this certificate:
COS 150 Laws, Rules, & Regulations
COS 160 Introduction to Disinfection, Sanitation, & Safety
COS 161 Intermediate I: Disinfection, Sanitation, & Safety
COS 250 Management, Ethics, Interpersonal Skills & Salesmanship
NAT 110 Introduction to Manicures & Pedicures
NAT 111 Intermediate Manicures & Pedicures
COS 260 Intermediate II: Disinfection, Sanitation, & Safety
COS 261 Advanced Disinfection, Sanitation, & Safety
NAT 210 Advanced Manicures & Pedicures
NAT 211 Application of Artificial Nails
NAT 275 Special Topics: Preparation for State Exam

Nail Technician Certificate
Total: Clock Hours: 457.5 Credit Hours: 23

Additional fees may apply, Please contact our Advising Department (303)344-4910, ext 27909 or ext 27935.

COURSE DESCRIPTIONS

COS 150 Laws, Rules & Regulations
1 credit/15 clock hours
Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry, and the effects these have on the student, licensed individual, salons and school owners.

COS 160 Introduction to Disinfection, Sanitation, & Safety
2 credits/30 clock hours
Introduces the various methods of disinfection, sanitation, and safety as used in the cosmetology industry. Includes classroom study of bacteriology and the terminology dealing with cosmetology.

COS 161 Intermediate I: Disinfection, Sanitation, & Safety
1 credit/22.5 clock hours
Prerequisite: COS 160
Focuses on the theory and daily practice of proper methods of disinfection, sanitation and safety procedures as related to all phases of cosmetology. Covers terminology and training of disinfection, sanitation and safety procedures. Also includes customer service in a supervised salon (clinical) setting or specialized class.

COS 250 Management, Ethics, Interpersonal Skills & Salesmanship
1 credit/22.5 clock hours
Emphasizes the importance of salon management and the knowledge and skills necessary to build a successful business. Focuses on the importance of interpersonal skills and basic techniques in salesmanship and customer services. Integrates job readiness skills and professional ethics.

COS 260 Intermediate II: Disinfection, Sanitation, & Safety
2 credits/45 clock hours
Prerequisite: COS 161
Provides continued study of theory and practice of proper methods of disinfection, sanitation and safety procedures as related to all phases of the industry. Covers terminology and training of disinfection, sanitation and safety procedures. The individual responsibility to provide a safe work environment is practiced.

COS 261 Advanced Disinfection, Sanitation, & Safety
1 credit/15 clock hours
Prerequisite: COS 260
Provides advanced training on decontamination and safety practices in a supervised salon and/or classroom setting. Examines advanced techniques that prepare the student for employment. Includes student preparation for the State Licensing Exam in decontamination and safety for all aspects of the industry. Study of OSHA requirements for schools and salon are done in a theory or practical setting.

NAT 110 Introduction to Manicures & Pedicures
3 credits/60 clock hours
Provides a basic introduction in the proper use of implements used in manicures and pedicures. Theory and practical application of proper set-up, safety, sanitation, nail shapes, anatomy, product knowledge and terminology dealing with manicures and pedicures is covered. Training is done in a classroom or lab setting using models or other techniques.
Program Information

NAT 111 Intermediate Manicures & Pedicures
2 credits/45 clock hours
Prerequisite: NAT 110
Presents theory and practical application dealing with different types of manicures, pedicures, nail art and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of natural nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service. Proper sanitation and sterilization as it pertains to all aspects of manicures, pedicures and nail art is taught.

NAT 210 Advanced Manicures & Pedicures
2 credits/37.5 clock hours
Prerequisite: NAT 111
Presents theory and practical application dealing with different types of manicures, pedicures, massage techniques and nail art. Theory and practical application of procedures, products, nail shapes and maintenance of the natural nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in a supervised salon (clinical) setting, using models or customer service.

NAT 211 Application of Artificial Nails
5 credits/97.5 clock hours
Provides advanced theory and practical application of nail wraps, tip overlays, acrylics and product knowledge to ready the student for employment. Theory and practical application of removal techniques for artificial nails is covered. Instruction is provided in specialized classes or in a supervised salon (clinical) setting using models or customer service. Student preparation for State Licensing Exam pertaining to artificial nails is covered.

NAT 275 Special Topics: Preparation for State Exam
3 credits/67.5 clock hours
Provides preparation for State Exam. Allows the student the opportunity to gain knowledge for the practical and/or written examination required by the Colorado State Agency.
NURSE AIDE

This 105 hour program prepares the student to work as a nurse aide in an extended care facility, hospital or home health organization. Upon successful completion of NUA 101 and NUA 170, the student is eligible to take the Colorado Board of Nursing Certification Exam.

**NUA 101 Nurse Aide Theory** provides the student with 75 hours of class time devoted to theory/lab and **NUA 170** provides the student with 30 hours of clinical practice. Enrollment in NUA 170 is based upon successful progress in NUA 101.

The following certificate may be earned:
Nurse Aide Certificate

Courses required for this certificate are:
- NUA 101 Nurse Aide Health Care Skills
- NUA 170 Nurse Aide Clinical Experience

**Certificate Total Clock Hours: 105  Credit Hours: 5**

Additional fees may apply. Please contact our Advising Department (303)344-4910, ext 27909 or ext 27935.

COURSE DESCRIPTIONS

**NUA 101 Nurse Health Care Skills**
4 Credits/75 clock hours
Prepares the student to perform the fundamental skills of the nurse aide. Basic nursing skills, restorative services, personal care skills, safety and emergency care issues are covered in theory and lab. The student will learn skills that address mental health needs as well as patient/resident/client rights.

**NUA 170 Nurse Aide Clinical Experience**
1 Credit/30 clock hours
Applies knowledge gained from NUA 101 in a clinical setting or a simulated clinical environment. Prerequisite: Successful progress in NUA 101.
Program Information

POWER SPORTS TECHNOLOGY

This program is designed to cover basic elements of the Power Sports Technology trade to gain competency for entry level employment in the industry. The students will learn basic mechanical theory, vehicle system service and repair, engine overhaul procedures, trouble shooting, diagnostic procedure and electrical theory. Shop management, design and business practices are an integral part of the program. The focus of Power Sports Technology is motorcycles, snowmobiles, all terrain vehicles and personal watercraft. Students may enter the program in the fall and the spring.

The following certificate may be earned:
- Power Sports Technology Basic Technician Certificate
- Power Sports Technology Basic Technician Expanded Certificate
- Motorcycle Maintenance Technology Certificate
- Power Sports Technology Advanced Technology

POWER SPORTS TECHNOLOGY BASIC TECHNICIAN CERTIFICATE

Courses required for this certificate:
- SVT 101 Orientation and Safety
- SVT 102 Rolling Chassis
- SVT 103 SVT Electrical Theory
- SVT 104 2-Stroke Engines
- SVT 105 4-Stroke Engines
- SVT 106 Sport Vehicle Electrical Repair
- SVT 107 Sport Vehicle Drive Systems
- SVT 108 Sport Vehicle Trade Practices
- SVT 109 SVT Snow/ATV/PWC
- SVT 141 Math for Transportation I
- SVT 142 Math for Transportation II
- SVT 143 Physics for Transportation
- SVT 144 Transportation Communication

Power Sports Technology Basic Technician Certificate
Total: Clock Hours: 630 Credit Hours: 28

POWER SPORTS TECHNOLOGY BASIC TECHNICIAN EXPANDED CERTIFICATE

This certificate is a combination of the Power Sports Technology Basic Technician Certificate and the following course:

Courses required for this certificate:
- SVT 299 Independent Study

Total: Clock Hours: 607.5 Credit Hours: 27

POWER SPORTS TECHNOLOGY ADVANCED CERTIFICATE

This certificate is a combination of the Power Sports Technology Basic Technician Certificate and the following courses:

Courses required for this certificate:
- SVT 201 Advanced Rolling Chasis
- SVT 202 Advanced SVT Electrical Systems
- SVT 203 Advanced 2/4 Stroke Engines
- SVT 204 Simulated Shop Orientation
- SVT 205 SVT Internship

Total: Clock Hours: 1080 Credit Hours: 48

MOTORCYCLE MAINTENANCE TECHNOLOGY CERTIFICATE

Courses required for this certificate:
- SVT 160 Basic Motorcycle Repair
- SVT 165 Basic Motorcycle Repair II
- SVT 170 Basic Motorcycle Repair III
- SVT 175 Basic Motorcycle Repair IV
- SVT 180 Basic Motorcycle Repair IV

Total: Clock Hours: 180 Credit Hours: 8

Additional fees may apply. Please contact our Advising Department (303)344-4910, ext 27909 or ext 27935.

COURSE DESCRIPTIONS

SVT 101 Sport Vehicle Technology Orientation and Safety
1 credit/22.5 clock hours
Designed as an orientation to the sport vehicle repair industry. Students receive an overview of job possibilities as well as learn various types of sport vehicle construction. Focuses on general sport vehicle repair and service shop safety procedures with an emphasis on personal and environmental safety issues. Students also learn the proper handling and disposal of hazardous materials. Names, uses and maintenance procedures for a variety of tools and equipment are addressed.

SVT 102 Rolling Chassis
3 credits/67.5 clock hours
Designed to introduce students to the major “chassis” components of motorcycles. This class will provide training in the basic servicing of motorcycle frames, suspension, tire, wheel and brake systems. Diagnostic procedure, routine maintenance, minor repair, adjustment and special tools will be studied.
Program Information

SVT 103 Sport Vehicle Electrical Theory
2 credits/45 clock hours
Introduces automotive electricity and includes basic electrical theory, circuit designs, and wiring methods. Focuses on multi-meter usage and wiring diagrams.

SVT 104 2-Stroke Engines
2 credits/45 clock hours
Introduction to Basic Two-Stroke engine theory, operation and repair.

SVT 105 4-Stroke Engines
2 credits/45 clock hours
Introduction to Basic Four-Stroke engine theory, operation and repair.

SVT 106 Sport Vehicle Electrical Repair
2 credits/45 clock hours
Designed to expose students to the thought process required to correctly diagnose Sport Vehicle Electrical Systems as well as provide hand-on training to allow for learning of proper repair techniques.

SVT 107 Sport Vehicle Drive Systems
2 credits/45 clock hours
Designed to introduce students to Drive components used on modern Sport Vehicles, including Transmission Assemblies, clutch components, Chain and Belt Drive Systems.

SVT 108 Sport Vehicle Business Trade Practices
1 credit/22.5 clock hours
Designed to introduce students to the world of business development and ownership as related to the Sport Vehicle Industry.

SVT 109 Sport Vehicle Snowmobile/ATV/PWC
2 credits/45 clock hours
Designed to train students in the various unique aspects of Snowmobile, Personal Watercraft and ATV repair and maintenances.

SVT 114 Math for Transportation I
3 credits/67.5 clock hours
Covers material designed for career and technical or general studies students who need to study particular mathematical topics. Topics may include measurement, algebra, geometry, trigonometry, graphs, and/or finance. These are presented on an introductory level and the emphasis is on applications.

SVT 113 Physics for Transportation
3 credits/67.5 clock hours
Provides students with a vehicle to pursue in depth exploration of special topics of interest.

SVT 114 Transportation Communication
1 credit/22.5 clock hours
Offers students the development of skills that are needed to search for a job.

SVT 160 Basic Motorcycle Repair
1 credit/22.5 clock hours
Designed to expose current and prospective entry-level motorcycle technicians to basic motorcycle maintenance and repair. Focus will be placed on routine and preventative maintenance and producing. This class is the first in a series of classes (SVT160, SVT180 & SVT299) designed to produce a novice or apprentice-level mechanic. Topics covered in the class include basic safety, hand tool and shop procedure. One objective is to make the learner more familiar with mechanical concepts and more confident in their own ability. Course study may be tailored for each student’s specific area of need or interest.

SVT 165 Basic Motorcycle Repair II
1 credit/22.5 clock hours
Designed to build upon concepts and practices learned in SVT160 and expose current and prospective motorcycle mechanics to basic motorcycle maintenance and repair. Focus will be placed on routine and preventative maintenance. Topics covered will include study of motorcycle frame, suspension, tire and wheels. One objective is to make the learner more familiar with mechanical concepts and more confident in their own ability. Course study may be tailored for each students specific area of need or interest.

SVT 170 Basic Motorcycle Repair III
1 credit/22.5 clock hours
Designed to build upon concepts and practices learned in previous classes and expose current and prospective motorcycle mechanics to basic motorcycle maintenance and repair. Focus will be placed on routine and preventative maintenance. Topics covered will include study of motorcycle brakes and steering systems. One objective is to make the learner more familiar with mechanical concepts and more confident in their own ability. Course study may be tailored for each student’s specific area of need or interest.

SVT 175 Basic Motorcycle Repair IV
1 credit/22.5 clock hours
Designed to build upon concepts and practices learned in previous classes and expose current and prospective motorcycle mechanics to basic motorcycle maintenance and repair. Focus will be placed on routine and preventative maintenance. Topics covered will include study of motorcycle electrical and electronic systems. One objective is to make the learner more familiar with mechanical concepts and more confident in their own ability. Course study may be tailored for each student’s specific area of need or interest.

SVT 180 Basic Motorcycle Repair IV
1 credit/22.5 clock hours
Designed to build upon concepts and practices learned in previous classes and expose current and prospective motorcycle mechanics to basic motorcycle maintenance and repair. Focus will be placed on routine and preventative maintenance. Topics covered will include study of motorcycle engine diagnosis and repair as well as motorcycle fuel system operation, diagnosis and repair. One objective is to make the learner more familiar with mechanical concepts and more confident in their own ability. Course study may be tailored for each student’s specific area of need or interest.
Program Information

SVT 201 Advanced Rolling Chasis
4 credits/90 clock hours
Designed to build on previous learning and focus students skills as related to the major chassis components of motorcycles. This class will provide advanced training in the servicing and repair of motorcycle frames, suspension, tire, wheel and brake systems. Diagnostic procedure, routine maintenance, major repair, adjustment and special tools will be studied. Hands-on lab activity and actual line work will be the focus of this advanced curriculum.

SVT 202 Advanced SVT Electrical System
4 credits/90 clock hours
Advanced repair and troubleshooting of Sport Vehicle Electrical systems with an emphasis on Ignition and Charging system diagnosis and repair techniques.

SVT 203 Advanced 2/4 Stroke Engines
4 credits/90 clock hours
Focuses on lecture and related laboratory experiences in the diagnosis and necessary corrective actions of Sport Vehicle two and four stroke engine performance factors. Additionally, repair and renewal procedures for Sport Vehicles are thoroughly explored.

SVT 204 Simulated Shop Operation
6 credits/135 clock hours
Provides necessary training in general shop operations, including: documentation for basic business requirements, basic accounting techniques, shop insurance requirements, safety regulations, and customer relations. Provides necessary training in sport vehicle repair operation/shop format study including: training in general vehicle diagnosis, repair, follow-up inspection, and performance analysis of Sport Vehicles.

SVT 205 Internship
6 credits
Focuses on student working at an approved job site related to the Sport Vehicle industry. The student will complete tasks and meet practical objectives as assigning by the employer and agreed upon by the student and Instructor. An on-the-job learning experience at an approved Sport Vehicle related business.

SVT 299 Sport Vehicle Technology Independent Study
3 credits/67.5 clock hours
This course is designed to allow the student to focus on a topic of study as agreed upon between the student and the instructor. Course study will be tailored for each students specific needs.
Program Information

PRECISION & COMPUTER AIDED MACHINING

The Precision Machining Program consists of classroom and shop learning experiences which will permit the student successfully completing the program to be qualified as an entry-level machinist. Major contact areas covered in the program are machine shop safety; measuring instruments; blueprint reading; operation of general machine tools such as drill presses, mills, saws, lathes, grinders, and heat treating equipment. In addition, students will gain valuable experience in the Job Shop course through the design and production of customer projects. (Hours to be arranged by Instructor). A focal point of the Precision Machining program is instruction in the programming set-up, and operation of the computer numerical control (CNC) equipment. Apprenticeships may be available with local machine shops.

The following certificate may be earned:
- Precision Machining – Level I (Intermediate) Certificate
- Precision Machining (Advanced) Certificate
- Computer Aided Machining Certificate
- Precision and Computer Aided Machining Certificate

PRECISION MACHINING – LEVEL 1 (INTERMEDIATE) CERTIFICATE

This is a basic program, students are strongly encouraged to continue onto to the advanced level.

Certificate length 2 Semesters

Courses required for this certificate:
- MAC 101 Introduction to Machine Shop
- MAC 102 Blueprint Reading
- MAC 110 Introduction to Engine Lathe
- MAC 111 Intermediate Engine Lathe
- MAC 120 Introduction to Milling Machine
- MAC 121 Intermediate Milling Machine
- MAC 145 Production Manufacturing Concepts
- MAC 275 Special Topics: Machine Shop Math
- Precision Machining – Level I Certificate (Intermediate)

Total Clock Hours: 540 Credit Hours: 25

PRECISION MACHINING CERTIFICATE

This certificate is a combination of the Precision Machining - Level I Certificate and the following courses.

Certificate length 2 Semesters

Courses required for this certificate:
- MAC 201 Introduction to CNC Turning Operations
- MAC 202 CNC Turning Operations II
- MAC 205 Introduction to CNC Milling Operations
- MAC 221 Surface Grinder Setups and Operations
- MAC 222 Cylindrical Grinder Setups and Operations
- MAC 252 Practical Metallurgy
- MAC 258 Interpreting Engineering Drawings
- MAC 278 Machining Workshop
- Precision Machining (Advanced)Certificate

Total: Clock Hours: 1080 Credit Hours: 49

COMPUTER AIDED MACHINING CERTIFICATE

Four courses are offered in this area: CNC Machining, an introductory class, followed by CNC Programming and CNC Programming on a CAM system. These courses are for the machinist who wants to learn the programming, set-up and operation of the CNC equipment.

Certificate length 1 Semester

Courses required for this certificate:
- MAC 206 CNC Milling Operations II
- MAC 207 CNC Milling Lab
- MAC 240 CAD/CAM 2D
- MAC 241 CAD/CAM 2D Lab
- Computer Aided Machining Certificate

Total Clock Hours: 270 Credit Hours: 12

PRECISION AND COMPUTER AIDED MACHINING CERTIFICATE

This certificate is a combination of the Precision Machining – Level I, Precision Machining and the Computer Aided Machining Certificates.

Precision and Computer Aided Machining Certificate

Total Clock Hours: 1350 Credit Hours: 61

COURSE DESCRIPTIONS

MAC 101 Introduction to Machine Shop
3 credits/67.5 clock hours
Covers safety procedures, use of bench tools, layout tools, power saws, drill presses, precision measurement tools, and various hand tools related to the machine shop. Also included are sharpening drill
Program Information

bits and general purpose turning tools for the lathe and determining speeds and feeds for both the lathe and the milling machine.

MAC 102  Blueprint Reading
3 credits/60 clock hours
Students read blueprints and interpret symbols, notes dimensions and tolerances.

MAC 110  Introduction to Engine Lathe
3 credits/67.5 clock hours
Introduces basic lathe applications which will consist of identifying lathe components and controls, understanding turning safety, calculating speeds and feeds, using various tools and tool holders, identifying basic tool geometry, and the use of common lathe spindle tooling. Students will perform basic lathe operations, which will consist of facing, center-drilling, chuck turning, turning between centers, boring, grooving, tapers, knurling, and single point threading. Students will be required to produce specified parts to a tolerance of +/- .001 inch and perform facing and turning operations.

MAC 120  Introduction to Milling Machine
3 credits/67.5 clock hours
Teaches students to identify the major parts of the vertical mill, align a vise, use an indicator, edge finder, and boring head, determine speeds and feeds perform simple indexing, mill flat, square surfaces and slots, drill, bore, and tap holes, and work within a plus or minus .002 inch tolerance.

MAC 121  Intermediate Milling Machine
3 credits/67.5 clock hours
Prepares students to determine hole locations by coordinates and degrees, use a rotary table, use a jig bore to drill holes by the coordinate method, and work within plus or minus .001 inch tolerance.

MAC 145  Production Manufacturing Concepts
3 credits/67.5 clock hours
Familiarizes the student to concepts related to manufacturing environments. Topics will consist of, but not be limited to Material Identification, Shop Floor Management, Just-In Time Manufacturing, Kan-Ban Systems, Statistical Quality Control, Total Quality Management. Various lectures and demonstrations of these processes will be delivered. Students may be required to research, explore, and report on particular manufacturing processes or topics.

MAC 201  Introduction to CNC Turning Operations
3 credits/67.5 clock hours
Covers computer numerical control (CNC) lathe operations, control functions, the letter address system, the program format, and machine setup. G & M codes, control functions, the letter address system, and math issues related to CNC are included. This class is NOT offered on an open-entry, open-exit basis.

MAC 202  CNC Turning Operations II
3 credits/67.5 clock hours
Prepares students to write basic computer numerical control (CNC) lathe part programs. G and M codes, math related to CNC, setups, speeds and feeds, straight turning, spherical turning, threading, chamfering, tapering, drilling, tapping, boring, and grooving will be covered. Cutter compensations, sub-programming techniques, repetitive cycles, and both absolute and incremental will be incorporated into programs. Students will also proof and edit the programs to make them valid. This class is NOT offered on an open-entry, open-exit basis.

MAC 205  Introduction to CNC Milling Operations
3 credits/67.5 clock hours
Provides transitional information between conventional machining applications and the typical applications found in Computer Numerical Control Machining. Topics may consist of Numerical Control Systems, The Cartesian Coordinate System, High Efficiency Tooling Applications, Objectives of Numerical Control, Calculating Speed and Feed Rates, Defining and Calculating Tool Motion, Fixturing Requirements, Basic Program Structure, Programming Codes, and Basic Conversational Programming. Operations of NC machines will be required.

MAC 206  CNC Milling Operations II
3 credits/67.5 clock hours
Exposes the student to the principle operations of both vertical and horizontal CNC milling machines via lecture instruction methods, multi-media instruction methods, and manufacturing hands-on methods. The student will be exposed to the basic CNC machining center, principle operations, manual controls, programming methods, tool-offsets, G54-G59 work offsets, cutter radius compensation and tool selection methods. General operator skills and basic setup skills will be stressed.

MAC 207  CNC Milling Lab
3 credits/67.5 clock hours
Prepares students to write programs and run parts from both blueprints provided and individual student designs. Proofing and editing programs, sub-programs, managing cutter compensations, fixture offsets, and overall execution at the machine will be the primary focus.
Program Information

**MAC 221 Surface Grinder Setups and Operations**
3 credits/67.5 clock hours
Teaches students how to identify major parts and accessories of the surface finder and grind flat, vertical, and angular surfaces to a tolerance of .0002 position and size.

**MAC 222 Cylindrical Grinder Setups and Operations**
3 credits/67.5 clock hours
Teaches students to identify the major parts and accessories of the cylindrical grinder (both OD and ID) and work within a tolerance of plus or minus .0005 on the OD and plus or minus .001 ID cylindrical grinders.

**MAC 240 CAD/CAM 2D**
3 credits/52.5 clock hours
Provides the student with the essential concepts and techniques that are required to successfully create part geometry, generate tool path, verify tool path models, and post process the NC codes. The student will be exposed to a 2-axis machining, 3-axis machining wire frame and surface modeling, lathe programming, and DNC systems. Programming projects and models will be demonstrated in the CNC manufacturing lab.

**MAC 241 CAD/CAM 2D Lab**
3 credits/82.5 clock hours
Requires students to produce a variety of lab exercises on robotic machinery in conjunction with MAG 240. Aspects of toolpaths for contour, drill and pocket will be covered. Chaining geometry, setting parameters, and managing cutter compensations will be addressed in both multi-tool programs and remachining operations. Coursework will primarily focus on 2D geometry projects.

**MAC 252 Practical Metallurgy**
3 credits/67.5 clock hours
Offers a study of metallurgical terms and definitions in an effort to understand both the behavior of metals and their service to industry. Characteristics during heating, cooling, shaping, forming, and the stresses related to their mechanical properties are covered. The theory behind the alloys, heat treatment processes, and the impact they have on strength, toughness, hardness, elasticity, ductility, malleability, wear resistance and fatigue resistances is investigated.

**MAC 258 Interpreting Engineering Drawings**
3 credits/67.5 clock hours
Teaches students to interpret machine shop drawings starting with the simple and progressing to the more complex. All types of dimensioning, symbols, notes, and tolerances are interpreted.

**MAC 275 Special Topics**
1-6 credits/15-180 clock hours
This course provides students with a vehicle to pursue in depth exploration of special topics of interest. Elective for all Pathways.

**MAC 275 Special Topics: Individual Instruction**
1-6 credits/15-180 clock hours
This course provides students with a vehicle to pursue in depth exploration of special topics of interest.

**MAC 275 Special Topics: Machine Shop Math**
4 credits/75 clock hours
Covers material designed for career technical or general studies students who need to study particular mathematical topics. Topics may include measurement, algebra, geometry, trigonometry, graphs, and/or finance. These are presented on an introductory level and the emphasis is on applications.

**MAC 278 Machining Workshop**
3 credits/67.5 clock hours
Provides students with an experiential learning opportunity.
Program Information

PROFESSIONAL PHOTOGRAPHY

The Professional Photography program at Pickens Technical College is a comprehensive, two semester program designed to prepare students for entry into the photography career field. These courses will take you from the basics of Exposure Theory, 35mm SLRs, and B&W Photography through Studio Lighting, Digital Imaging, and a Professional Portfolio. Upon successful graduation, you will be prepared to freelance, serve as a photographer’s assistant or continue on with your photography education by transferring to one of Colorado’s community colleges. Students who complete all course work with a grade of C or better may earn both program certificates.

The Photographer’s Assistant Certificate is awarded after completion of the first semester while the Professional Photography Certificate is earned upon completion of the entire program. All courses are transferable to any community college in the state offering the program(s).

The following certificates may be earned:
Photographer’s Assistant Certificate
Professional Photography Certificate
Professional Photography II Certificate

PHOTOGRAPHER’S ASSISTANT CERTIFICATE

Certificate length
1 Semester

Courses required for this certificate:
PHO 101 Professional Photography
PHO 226 Digital Workflow Management
PHO 109 Photography Lab I
PHO 102 Professional Photography II
PHO 103 Commercial Color Photography I
PHO 177 Special Topics: Photography Lab II
Photographer’s Assistant Certificate
Total Clock Hours: 270 Credit Hours: 14

PROFESSIONAL PHOTOGRAPHY CERTIFICATE

This certificate is a combination of the Photographer’s Assistant Certificate and the following courses

Certificate length
2 Semesters

Courses required for this certificate:
PHO 205 Professional Digital Photography I
PHO 175 Special Topics: Lighting Principles & Flash
PHO 177 Special Topics: Photography Lab III
PHO 232 Professional Portraiture
PHO 201 Professional Photography III
PHO 177 Special Topics: Photography Lab IV
Professional Photography Certificate
Total Clock Hours: 540 Credit Hours: 28

PROFESSIONAL PHOTOGRAPHY II CERTIFICATE

This certificate is a combination of the Photographer’s Assistant Certificate, the Professional Photography Certificate and the following course:

Certificate length
2 Semesters

Courses required for this certificate:
PHO 285 Independent Study
Professional Photography Certificate
Total Clock Hours: 600 Credit Hours: 31

Additional fees may apply. Please contact our Advising Department (303)344-4910, ext 27909 or ext 27935.

COURSE DESCRIPTIONS

PHO 101 Professional Photography I
3 credits/45 clock hours
Introduces black and white photography as a fine art medium and develops skills necessary for basic camera and lab operations.

PHO 102 Professional Photography II
3 credits/60 clock hours
This course is a further exploration in camera and lab operations with an emphasis on individual creativity. It includes the development of a comprehensive portfolio.
Prerequisite: PHO 101 and PHO 226

PHO 103 Commercial Color Photography
3 credits/60 clock hours
Covers the fundamentals of color photography such as color theory and light, production, processing and printing color negatives.
Prerequisite: PHO 101 and PHO 226

PHO 109 Photography Lab
1 credit/22.5 clock hours
Introduces lab safety and proper equipment operation. Purpose is to insure that students spend the necessary time to complete shooting, digital and darkroom assignments. Includes outside shooting and study time as needed to pass the co-requisite courses.

PHO 175 Special Topics: Lighting Principles & Flash
3 credits/60 clock hours
This course is an exploration of lighting characteristics and the application of light ratios in the professional studio environment. Students will also learn the history and operation of electronic flash units. They will be able to calculate guide numbers, use manual and automatic flash modes, and use syncro-sun and shutter drag techniques. Prerequisite: All 1st semester courses + PHO 205

PHO 177 Special Topics: Photography Lab II
1 credit/22.5 clock hours
This is an intermediate lab reinforcing safety and also provides time to complete assignments. Includes outside shooting, digital darkroom, and study time as needed to pass the co-requisite courses.
Program Information

PHO 177 Special Topics: Photography Lab III
1 credit/22.5 clock hours
The purpose of this lab is to insure that students spend the necessary time to complete shooting digital and studio assignments. Includes outside shooting and study time as needed to pass the courses PHO 205 and PHO 175.

PHO 177 Special Topics: Photography Lab IV
1 credit/22.5 clock hours
This is an advanced lab for students. It will provide them time to complete digital darkroom and studio shooting for their graduation portfolio. Includes outside shooting and study time as needed to pass the final two courses.

PHO 201 Professional Photography III
3 credits/60 clock hours
Explores photography technique with emphasis on history, theory, and assimilation of ideas into the student's creative work. Includes the development of a comprehensive portfolio. Prerequisite: All 1st semester courses, PHO 205, 175 and 232

PHO 205 Professional Digital Photography I
3 credits/45 clock hours
Introduces the basic concepts of digital imaging as applied to photography. Using applicable technology and hands-on experience, modern developments are presented leading to the present applications of digital imaging which combine traditional photographic ideas with electronic media. Enables the student to learn how to operate image manipulation software using a variety of scanning equipment, software tools and output devices by executing new assignments and applying these technologies to their photographic process. Prerequisite: All 1st semester courses or equivalent

PHO 226 Digital Workflow Management
3 credits/60 clock hours
Teaches computer aided photography and darkroom techniques. The emphasis of this course is image-editing software, which can be used to color correct, retouch and composite photographic images. Other topics include image acquisition, storage, file management, special effects, and hard copy output. Prerequisite: PHO 101

PHO 232 Professional Portraiture
3 credits/60 clock hours
Teaches the technical and aesthetic aspects of studio and location portrait photography. This course explores the personal style of portraiture, history of the field and portraiture as a visual language and creative expression. This topic also includes lighting, composition, posing, and equipment selection. Prerequisite: All 1st semester courses, PHO 205 and 175

PHO 285 Independent Study
1-3 credits/15-60 clock hours
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor. Prerequisite: Instructor approval and all 1st semester courses.
PROPERTY MAINTENANCE TECHNICIAN

The Property Maintenance Technician program prepares students with entry level skills to perform inspection, preventive maintenance and repairs on residential and commercial properties. Successful graduates will possess knowledge and skills in the basic maintenance of carpentry, plumbing, electrical, major appliances, HVAC and other mechanical systems. Instruction will also include interior and exterior property maintenance finish work such as floors, walls, painting, window treatments, ceiling/exhaust fans and lighting.

The following certificate may be earned:
Property Maintenance Certificate

Certificate length
1 Semester

Courses required for this certificate:
CON 112 Basic Repairs for Home or Apartment
FMT 102 Facilities Maintenance: Electricity
FMT 103 Facilities Maintenance: Plumbing

Property Maintenance Technician Certificate
Total Clock Hours: 270 Credit Hours: 12

Additional fees may apply. Please contact our Advising Department (303)344-4910, ext 27909 or ext 27935.

COURSE DESCRIPTIONS

CON 112 Basic Repairs for Home or Apartment
4 credit/90 clock hours
Focuses on repair and maintenance of buildings. Covers preventative maintenance methods and skills.

FMT 102 Facilities Maintenance - Electricity
4 credit/90 clock hours
Focuses on electrical fundamentals as applied to residential and commercial facilities maintenance. Covers repair, service and maintenance of electrical systems and codes.

FMT 103 Facilities Maintenance - Plumbing
4 credit/90 clock hours
Addresses troubleshooting, servicing and repairing of plumbing systems found in commercial and industrial buildings. This course includes codes and safety practices.
**RESPIRATORY CARE**

The Respiratory Care Practitioner Program is designed to train certified and registered therapists in the care of patients with respiratory problems. Students are instructed in the basic sciences, cardiopulmonary physiology, pathophysiology, pharmacology, mechanical ventilation and provided clinical experience. The student will be CRT & RRT eligible after completion of both the Community College and Pickens Technical College components. The graduate will be eligible to take the NBRC, Certified Respiratory Therapist Exam (CRT) and Registered Respiratory Therapist Exams (RRT). Applicants must be physically able to exert up to twenty-five pounds of force to lift, carry, push, pull or otherwise move objects. Program attendance requires the ability to perceive attributes of objects such as size, shape, temperature, or texture by means of receptors in skin, particularly those in the fingertips. Must have the ability to discriminate and perceive differences in breath sounds and heart tones. Also, must be able to differentiate multiple skin and tissue colors. Students are required to complete a criminal background check prior to beginning clinical rotations.

**RESPIRATORY CARE CERTIFICATE**

Courses required for this certificate:
- RCA 105 Introduction to Respiratory Care
- RCA 132 Basic Tech. in Respiratory Care II
- RCA 151 Cardiopulmonary Anatomy & Physiology
- RCA 152 Cardiopulmonary Pathology
- RCA 161 Cardiopulmonary Diagnostics I
- RCA 165 Pharmacology of Cardiopulmonary Care
- RCA 230 Critical Care I
- RCA 251 Critical Care II
- RCA 252 Cardiopulmonary Diagnostics II
- RCA 253 Perinatal/Pediatric Respiratory Care
- RCA 121 Fundamentals of Clinical Skills
- RCA 259 Advanced Mechanical Ventilation
- RCA 232 Advanced Monitoring
- RCA 281 Internship II
- RCA 283 Internship III
- RCA 289 Capstone

**Respiratory Care Certificate**

*Total Clock Hours: 1125 Credit Hours: 53*

General Education requirements to be taken at Community College of Aurora to complete an Associates Degree

Students must meet all pre-requisite requirements for each course listed below
- MAT 107 Career Mathematics
- ENG 121 English Composition
- PSY 101 General Psychology
- CHE 101 Introduction to Chemistry I with Lab
- BIO 201 Human Anatomy & Physiology I
- BIO 202 Human Anatomy & Physiology II
- BIO 204 Microbiology

**Community College Credits Credit Hours: 26**

For questions, please contact the Pickens Technical College or the Community College of Aurora Advising Departments.

Additional fees may apply. Please contact our Advising Department (303)344-4910, ext 27909 or ext 27935.

**COURSE DESCRIPTIONS**

**BIO 201 Human Anatomy & Physiology I**
See Community College of Aurora Catalog for course information

**BIO 202 Human Anatomy & Physiology II**
See Community College of Aurora Catalog for course information

**BIO 204 Microbiology**
See Community College of Aurora Catalog for course information

**CHE 101 Introduction to Chemistry I with Lab**
See Community College of Aurora Catalog for course information

**ENG 121 English Composition**
See Community College of Aurora Catalog for course information

**MAT 107 Career Math**
See Community College of Aurora Catalog for course information

**PSY 101 General Psychology**
See Community College of Aurora Catalog for course information

**RCA 105 Introduction to Respiratory Care**
1 credit/15 clock hours
Introduces the profession of respiratory care including history of the profession; current and future role of the respiratory care professional; role, function and interrelationships of the several professional organizations; and medical terminology.

**RCA 121 Fundamentals of Clinical Skills**
3 credits/45 clock hours
Provides information necessary to function safely and efficiently in the clinical setting. It includes the study of universal precautions, infection control, asepsis, body mechanics, patient charting, communication skills, organizational skills, and basic patient assessment.

**RCA 132 Basic Techniques in Respiratory Care II**
5 credits/90 clock hours
Develops the knowledge of oxygen systems and humidity & aerosol therapy. Prepares the student in the techniques of spirometry, hyperinflation techniques and bronchial hygiene. Airway management skills are introduced.

**RCA 151 Cardiopulmonary Anatomy and Physiology**
3 credits/67.5 clock hours
Focuses on the structure of the pulmonary and cardiovascular systems. Addresses independent functional relationships.
Program Information

RCA 152  Cardiopulmonary Pathology
4 credits/60 clock hours

RCA 161  Cardiopulmonary Diagnostics I
1 credit/15 clock hours
Examines the technical concerns of an arterial blood gas determination and EKG techniques and interpretation.

RCA 165  Pharmacology of Cardiopulmonary Care
3 credits/45 clock hours
Focuses on a study of the principles of pharmacology and the pharmacologic properties and application of drugs commonly employed in the treatment of cardiopulmonary disease.

RCA 230  Critical Care I
2 credits/37.5 clock hours
Focuses on the care of critically ill patients. Includes advanced pulmonary physiology and pathophysiology, assessment and monitoring of acute and chronic respiratory failure, mechanical ventilation, and emergency respiratory care. Incorporates a laboratory portion that enables the student to develop skills essential for the assessment and treatment of the critically ill.

RCA 232  Advanced Monitoring
2 credits/30 clock hours
Develop the necessary skills required of Respiratory Care professionals to include monitoring and assessment of the patient requiring intensive care using both non-invasive and invasive data. Topics include: introduction to hemodynamic values and interpretation of the results; characteristics and indications of both bronchoscopy and sleep disorders; and introduction to research.

RCA 251  Critical Care II
3 credits/60 clock hours
Focuses on selected topic areas in critical care. Includes both technical and management concerns in the intensive care setting.

RCA 252  Cardiopulmonary Diagnostics II
1 credit/15 clock hours
Explores the procedures used in the diagnosis of pulmonary disease through pulmonary function testing.

RCA 253  Perinatal and Pediatric Respiratory Care
3 credits/45 clock hours
Focuses on the pathophysiology and technology that relates to the neonatal-pediatric patient.

RCA 259  Advanced Medical Ventilation
3 credits/45 clock hours
Provide the student with the opportunity to thoroughly probe into the function of mechanical ventilators and how ventilators actually work. It is important for the student to adjust the way they think about ventilators and how to begin to master their operation.

RCA 281  Internship II
9 credits/270 clock hours
Focuses on the care and analysis of the critically ill patient. Rotations into specialty areas are carried out as the schedule permits.

RCA 283  Internship III
9 credits/270 clock hours
Continues to address the care and analysis of the critically ill patient and specialty rotations. Attempts to more closely evaluate the student’s ability to manifest critical judgments in solving clinical problems and understanding professional/departmental activities.

RCA 289  Capstone
1 credit/15 clock hours
A demonstrated culmination of learning within a given program of study.
Program Information

VETERINARY ASSISTANT

This program prepares individuals in animal management, care, animal health and nutrition, animal handling, office administration skills and applicable standards and regulations.

All courses are aligned with the Community Colleges of Colorado. These commonly described courses facilitate transfer and articulation arrangements for Colorado’s secondary and community college students and ensure curriculum quality across the colleges.

The following certificate may be earned:
Small Animal Care Assistant
Veterinary Assistant

Prerequisite
Be willing to handle all animals, including snakes and arthropods, able to lift 20 pounds and have excellent attendance.

SMALL ANIMAL ASSISTANT CERTIFICATE

Certificate length
1 Semester

Courses required for this certificate:
VET 105 Small Animal Handling & Restraint
VET 111 Small Animal Assistant I
VET 101 Career Development Animals
VET 112 Small Animal Assistant II
VET 120 Office Procedures and Relations
Small Animal Assistant Certificate
Total Clock Hours: 247.5 Credit: 12

VETERINARY ASSISTANT

This certificate is a combination of the Small Animal Assistant Certificate and the below courses.

Certificate length
1 Semester

Courses required for this certificate:
HPR 178 Medical Terminology
VET 110 Small Mammals Pet Management
VET 106 Exotic Animal Handling
VET 107 Animal Ethics & Law

Veterinary Assistant Certificate
Total Clock Hours: 270 Credit: 24

COURSE DESCRIPTIONS

HPR 178 Medical Terminology
3 credits/45 clock hours
Introduces the student to the structure of medical terms with emphasis on using and combining the most common prefixes, roots and suffixes. Includes terms related to major body systems, oncology, psychiatry, as well as clinical laboratory and diagnostic procedures and imaging. Class structure provides accepted pronunciation of terms and relative use in the healthcare setting.

VET 101 Career Development Animals
2 credits/45 clock hours
This course assists the student in recognizing their career potential in the animal industry. It will supply the tools necessary to be competitive in the animal industry and provides students with the ability to make realistic decisions concerning education and occupational objectives.

VET 105 Small Animal Handling and Restraint
2 credits/45 clock hours
This is an introductory course in proper handling, restraint, safety and basic manipulation of animals that are encountered in a veterinary practice, animal shelter, or pet store. Hands on practice on companion/pet animals will be performed in this course.

VET 106 Exotic Animal Handling
2 credits/45 clock hours
Designed to provide students knowledge and skills required for veterinary technicians. This course focuses on exotic animal husbandry, handling, restraint, and specific problems encountered with exotic animals.

VET 107 Animal Ethics and Law
3 credits/45 clock hours
Covers an introductory overview of animal ethics and laws. Students will survey historical and current laws and issues in the animal industry.

VET 110 Small Mammals Pet Management
4 credits/90 clock hours
This course is designed to provide students with basic knowledge and management techniques regarding the small mammals, including the feline, canine and other pet species. Specific mammal problems and their solutions will be emphasized.

VET 111 Small Animal Assistant I
3 credits/67.5 clock hours
Introduces students to animal care skills necessary for small animal kennels, animal day care facilities, pet stores and animal clinics. The course focuses on fish and herptiles used in the pet industry and their care in captivity.
Program Information

VET 112 Small Animal Assistant II
3 credits/67.5 clock hours
Introduces students to animal care skills necessary for small animal kennels, animal day care facilities, pet stores and animal clinics. The course focuses on small mammals and birds used in the pet industry and their care in captivity.

VET 120 Office Procedures and Relations
2 credits/45 clock hours
Presents commonly encountered clinical procedures with the emphasis on the role of the veterinary technician in the management of veterinary patients and records. The course also includes introduction to veterinary management software and on-line veterinary services.

VET 180 Internship
1-6 credits/Up to 290 clock hours
Provides students with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor.

VET 285 Independent Study
1-6 credits/Up to 290 clock hours
Meets the individual needs of students.
WELDING

The Welding Program is designed to provide entry-level skills in welding. Students will receive training in oxyacetylene, shielded metal arc welding, gas metal arc and gas tungsten arc welding, flux cored arc welding and blueprint reading. Modern tools and equipment will be used throughout the training period to provide up-to-date training. The American Welding Society Plate Certification test is administered to determine welding competence.

COMBINATION WELDING CERTIFICATE
Certificate length: 1 Semester

Courses required for this certificate:
WEL 100 Safety for Welders
WEL 106 Blueprint Reading for Welders and Fitters
WEL 121 Structural Welding I
WEL 201 Gas Metal Arc Welding I
WEL 101 Allied Cutting Processes

Total Clock Hours: 270 Credit Hours: 16

AWS LEVEL I CERTIFICATE
Certificate length: 1 Semester

Courses required for this certificate:
WEL 122 Structural Welding II
WEL 203 Flux Cored Arc Welding I
WEL 124 Intro-Gas Tungsten Arc Welding
WEL 204 Flux Cored Arc Welding II

Total Clock Hours: 270 Credit Hours: 15

AWS LEVEL I.5 CERTIFICATE
Certificate length: 1 Semester

Courses required for this certificate:
WEL 202 Gas Metal Arc Welding II
WEL 224 Advanced Gas Tungsten Arc Welding
WEL 230 Pipe Welding I

Total Clock Hours: 270 Credit Hours: 12

AWS LEVEL II CERTIFICATE
Certificate length: 1 Semester

Courses required for this certificate:
WEL 231 Pipe Welding II
WEL 250 Layout & Fabrication
WEL 263 Applied Metal Properties

Total Clock Hours: 270 Credit Hours: 12

WELDING CERTIFICATE
This certificate is a combination of the all of the certificates offered.
Certificate length: 4 Semesters
Total Clock Hours: 1080 Credit Hours: 55

COURSE DESCRIPTIONS

WEL 100 Safety for Welders
1 credit/15 clock hours
Covers the hazards of welding on health and safety, locating essential safety information from a code or other standard, and identifying and applying shop safety procedures.

WEL 101 Allied Cutting Processes
4 credits/90 clock hours
Covers setting up equipment and performing cutting and gouging operations utilizing the oxyacetylene, air carbon arc, exothermic, and plasma arc cutting processes. This course will also provide an introduction to blueprint reading.

WEL 103 Basic Shielded Metal Arc I
4 credits/67.5 clock hours
Covers performing safety inspections, making minor repairs, adjusting operating parameters, and operating SMAW equipment utilizing E-6010 electrodes. Layout procedures and practices will also be introduced.

WEL 104 Basic Shielded Metal Arc II
4 credits/67.5 clock hours
Covers performing safety inspections, making minor repairs, adjusting operating parameters, and operating SMAW equipment utilizing E-7018 electrodes. Layout procedures will be practiced during this course.

WEL 106 Blueprint Reading for Welders and Fitters
4 credits/60 clock hours
Covers interpreting weld symbols on blueprints, identifying proper layout methods and tools, and proper joint design necessary for various welding processes.

WEL 113 Oxyfuel and Plasma Cutting
2 credits/45 clock hours
Outlines the skills needed to set up equipment and perform cutting and gouging operations utilizing the oxyacetylene and plasma arc cutting processes.

WEL 114 Oxyacetylene Welding
2 credits/45 clock hours
Teaches the skills necessary to perform safety inspections, make minor repairs, adjust operating parameters, operate oxyacetylene welding equipment, and perform oxyacetylene welding, brazing, and soldering operations.

WEL 121 Structural Welding I
3 credits/67.5 clock hours
Covers theory and practice in oxy-acetylene processes with emphasis toward AWS welder qualification with mild steel electrode E-7018 welding in horizontal and vertical position.
Program Information

WEL 122 Structural Welding II
3 credits/67.5 clock hours
Continues WEL 121 with final emphasis toward AWS welder qualification with mild steel electrode E-7018 qualification test in the 2G, 3G, and 4G position.

WEL 124 Introduction to Gas Tungsten Arc Welding
4 credits/67.5 clock hours
Covers welding in all positions and on various joint configurations using the GTAW (tig) welding process on carbon steel, stainless steel and aluminum. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints, and safety in the welding industry.

WEL 130 Maintenance Welding
2 credits/45 clock hours
Gives the student a basic understanding of the Oxyacetylene cutting and Arc welding processes, and introduction to the skills and techniques used to develop fillet and groove welds. Students will be introduced to oxyacetylene, shielded, gas metal arc welding equipment set up, and various welding techniques. Safety will be stressed during the course.

WEL 131 Intro to Industrial Welding
4 credits/45 clock hours
Provide the student with a basic understanding of commonly used welding techniques and procedures encountered in the industrial setting. Students are introduced the Plasma Arc (PAC), Oxy Fuel Cutting (OFC), Shielded Metal Arc (SMAW), Gas Metal Arc (GMAW), Gas Tungsten Arc (GTAW) welding processes. Safe welding, shop and material handling practices are emphasized throughout the course. Weld symbols, metal characteristics are introduced. Proper electrode selection and power settings are presented. Skills and techniques used to develop fillet and groove welds are introduced and demonstrated by the students.

WEL 201 Gas Metal Arc Welding I
4 Credits/67.5 clock hours
Covers safety inspections, minor repairs, operating parameters, operation of GMAW equipment on plain carbon steel utilizing short circuit and spray transfer, and fundamental metallurgy principles.

WEL 202 Gas Metal Arc Welding II
4 Credits/67.5 clock hours
Covers safety inspections, minor repairs, operating parameters, operation of GMAW equipment utilizing a variety of electrodes and base metals, and fundamental principles of welding metallurgy to welding, fabrication, and inspection.

WEL 203 Flux Cored Arc Welding I
4 credits/67.5 clock hours
Covers safety inspections, minor repairs, operating parameters, operation of FCAW equipment utilizing self shielded wire, and principles of joint design, preparation, and material selection to welding operations.

WEL 204 Flux Cored Arc Welding II
4 credits/67.5 clock hours
Covers safety inspections, minor repairs, operating parameters, operating FCAW equipment utilizing gas shielded wire, and applying fundamentals of welding applications and cost estimating to welding, fabrication, and inspection.

WEL 224 Advanced Gas Tungsten Arc Welding
4 Credits/90 clock hours
Covers welding in all positions on carbon steel, stainless steel and aluminum plate and carbon steel pipe with the GTAW process. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints, and safety in the welding industry.

WEL 230 Pipe Welding I
4 Credits/90 clock hours
Covers welding in all positions and on various joint configurations utilizing SMAW, GMAW, and FCAW equipment in a variety of positions on plain carbon steel pipe joints. Also covers evaluating and solving complex welding and fabrication problems and administering hands on training and supervision to other students during assigned fabrication and welding operations.

WEL 231 Pipe Welding II
4 Credits/90 clock hours
Covers welding in all positions on carbon steel, stainless steel and aluminum plate and carbon steel pipe with the GTAW process. Student should be familiar with basic metallurgy pertaining to the weldability of metals, structural joints, and safety in the welding industry.

WEL 240 Pipe Welding Certification
4 Credits/90 clock hours
Introduces theory and practice in modern welding methods of pressure pipe line and pipe systems. Emphasis toward welder qualification under various codes.

WEL 250 Layout and Fabrication
4 Credits/90 clock hours
Develops welding and associated skills in the use of drawings and blueprints in planning. Includes designing and layout projects.

WEL 263 Applied Metal Properties
4 Credits/90 clock hours
Introduces the study of metal properties, hardness testing, heat treatment, cold working microscopic examination and application of common commercial alloys in industry.

WEL 275 Special Topics: Pipe Layout and Fabrication
4 credits/90 clock hours
Develops pipe welding and associated skills in the use of drawings and blueprints in planning. Includes designs and layout projects.