

**COLORADO NORTHWESTERN
COMMUNITY COLLEGE**

**2009 – 2010
2010 – 2011**

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Colorado Northwestern Community College 2009-2010 CALENDAR

May 11-June 5		Nursing Summer Term
May 18-July 22		Aviation Maintenance Summer Term
May 25	Monday	Memorial Day (College Closed)
May 26-July 17		Aviation Tech Summer Term
May 26-July 17		Dental Hygiene Summer Term
May 26-June 26		First 5-Week Summer Term
May 26-July 31		10-Week Summer Term
June 29-July 31		Second 5-Week Summer Term
July 3	Friday	Independence Day Holiday (College Closed)
August 17	Monday	Full-time Faculty Return
August 17-18	Monday-Tuesday	Convocation / All College Meetings
August 19	Wednesday	New Students Not Previously Registered Arrive
		Advisor Training
August 20	Thursday	New Student Testing/Orientation
August 21	Friday	Advising/Registration for Students Not Previously Registered
August 23	Sunday	Previously Registered Sophomore Students Arrive
August 24	Monday	First Day of Classes
August 26	Wednesday	<u>Last Day to Register for Semester-Length Classes</u>
September 7	Monday	Labor Day (College Closed)
September 10	Thursday	<u>Last Day to Add (Instructor Approval)/Drop Semester-Length Classes</u>
October 19-23	Monday-Friday	Mid-Term Week
November 23-27	Monday-Friday	Thanksgiving Holiday for Faculty/Students
November 26	Thursday	Thanksgiving Holiday for Staff (College Closed)
November 23	Monday	<u>Last Day to Withdraw From Semester-Length Classes</u>
November 30-December 4	Monday-Friday	Pre-Registration for Spring Semester
December 14-18	Monday-Friday	Finals/Assessment Week
December 17	Thursday	Semester Ends 10:00 pm
December 18	Friday	Grades Due from Instructors - 12:00 noon
		Residence Halls Close - 10:00 am
Dec 25-Jan 1	Friday-Friday	Semester Break (College Closed)
January 4	Monday	Staff Return
January 7	Thursday	New Students Arrive/Testing/Orientation
		Full-Time Faculty Return
January 8	Friday	Advising/Registration
January 10	Sunday	Previously Registered Students Arrive
January 11	Monday	First Day of Classes
January 13	Wednesday	<u>Last Day to Register for Semester-Length Classes</u>
January 28	Thursday	<u>Last Day to Add (Instructor Approval)/Drop Semester-Length Classes</u>
March 1-5	Monday-Friday	Mid-Term Week
March 15-19	Monday-Friday	Spring Break for Faculty/Students (Staff Present)
March 30	Tuesday	Pre-Registration for Summer/Fall Semesters Begins
April 13	Tuesday	<u>Last Day to Withdraw From Semester-Length Classes</u>
April 15	Thursday	Honors Banquet 6:00pm (Rangely Campus)
May 3-7	Monday-Friday	Finals Week/Assessment Week
May 5	Wednesday	Semester Ends 10:00 pm
May 7	Friday	Student Recognition Night 5-7pm Center Craig (Craig Campus)
May 7	Friday	Grades Due from Instructors - 12:00 noon
		Residence Halls Close - 10:00 am (unless graduating)
May 7	Friday	Pinning Ceremony for Nursing 4:00pm (Craig Campus)
May 7	Friday	Wings Ceremony for Aviation at 7:00pm
May 8	Saturday	Pinning Ceremony for Dental Hygiene – 9:00 am (RHS)
May 8	Saturday	Commencement - 2:00 pm

Colorado Northwestern Community College is an equal opportunity educational institution and will not discriminate on the basis of race, color, national origin, gender, religion, age or disability in its activities, programs, or employment practices. For information regarding civil rights or grievance procedures, contact the Vice President for Administrative Services at CNCC, Rangely, CO.

Colorado Northwestern Community College reserves the right to change or withdraw without notice courses, curricula, policies, tuition, fees or any other information contained in this catalog for the following reasons, including but not limited to:

1. A lack of funds to operate a program or course;
2. Unavailability of instructors;
3. A change in administrative policy;
4. A change in laws, rules, or regulations of the State of Colorado.

Annually, Colorado Northwestern Community College informs students of the Family Education Rights and Privacy Act of 1974 (FERPA), as amended. This Act, with which the institution intends to fully comply, was designed to protect the privacy of educational records, to establish the right of students to inspect and review their educational records, and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. Students also have the right to file complaints with The Family Educational Rights and Privacy Act Office concerning alleged failure by the institution to comply with the Act. Additional information concerning FERPA is located in the Student Handbook. Questions concerning the Family Education Rights and Privacy Act may be referred to the Records Office.

CNCC may provide directory information or educational record information without the student's written permission. The following items are designated as "directory information".

- Student name
- Date of birth
- Major field of study
- Participation in officially recognized activities and sports
(weight and height of members of athletic teams)
- Dates of attendance
- Degrees and awards received
- Most recent educational institution attended
- College issued student e-mail account

Personal identifiers, such as the student's identification/social security number, cannot be designated as directory information. Students may elect to withhold directory information by notifying the Admissions and Records Office, in writing, within five days after the last day of registration. Requests for non-disclosure will be honored by the College for one academic year. Additional information may be obtained through the Admissions and Records Office.

In accordance with the Equity in Athletics Disclosure Act, CNCC annually compiles and makes available to prospective students, their parents, high school counselors, or any other person who requests it information on participation, revenue generated, and expenditures for varsity athletics. This information can be requested from the Office of Financial Aid or the Records Office.

Information concerning persons who are required by Colorado law to register as sex offenders, including registered sex offenders who are enrolled, employed, or volunteering at Colorado Northwestern Community College, may be obtained from the Rangely Police Department, 209 East Main, Rangely, CO, 81648, 970-675-8466 or the Rio Blanco County Sheriff's Department, Meeker, CO, 81641, 970-878-5023.

Graduation Rates: The four-year average graduation rate for first-time freshmen entering Colorado Northwestern Community College between 2005 and 2008 shows that 32% graduated within three years. Additionally, 16% of first-time freshmen who did not graduate transferred to continue their education.

GENERAL INFORMATION

History of the College

Colorado Northwestern Community College (CNCC) is a publicly supported two-year institution that was established in 1960. The main campus in Rangely was opened in 1962 as Rangely College to a freshman class composed of 82 students. Originally, the College was a branch of Mesa College in Grand Junction, Colorado, but the two were separated in 1970. In July of 1974, Rangely College officially became Colorado Northwestern Community College. It was deemed relevant to change the name since the College was serving many communities by that time. CNCC operated as an independent college under the governance of an elected Rangely Junior College District Board of Trustees, financed by legislative appropriation and district tax levy.

State legislation was subsequently approved whereby affiliated junior college districts could be created. In September 1989, a vote by the electorate in Moffat County created an affiliated junior college district, and activities as a CNCC branch campus began in Craig, Colorado beginning on January 1, 1990. A locally elected five-member Board of Control directed the development of the campus. A local tax provided the funds to expand course offerings in transfer, general education, and occupational programs.

On November 3, 1998, the electorate of both the Rangely Junior College District and the Moffat County Affiliated Junior College District voted to allow CNCC to join the Colorado Community College System (CCCS). The College became a member of the State Community College System on July 1, 1999.

To accomplish the College's Mission to serve the Northwestern portion of Colorado, CNCC maintains Service Area Centers in Meeker, Hayden and Oak Creek, in addition to the campuses in Rangely and Craig.

Rangely Campus

The main campus is in Rangely. The Town of Rangely is a small, rural community of approximately 2,300 people, located 90 miles north of Grand Junction and 50 miles east of Vernal, Utah. The local economic base comes from oil, coal, natural gas, and ranching along the White River. One of the interesting features for which this area is known is ancient American Fremont and Ute Indian pictographs (paintings on rock surfaces) and petroglyphs (carvings). The terrain is high desert with rolling hills and mesas covered with sagebrush, cedar, and piñon trees. One of the largest migrating deer herds in the nation is found between Rangely, Meeker and Rifle. Antelope, elk, bear, and other wildlife are also in abundance.



Rangely sits at 5,200 feet above sea level and is surrounded by some of the nation's most valuable natural resources. Within a 140 mile radius, you can find the Colorado National Monument, the Canyon Lands of Utah, the Flat Tops, the High Uintah Wilderness area, Flaming Gorge, and Dinosaur National Monument.

Rangely maintains a public park with picnic areas, playground equipment, and baseball and softball facilities. A

community recreation center includes an indoor swimming pool, hot tub, sauna, handball/racquetball courts, sun deck, and weight room. Cedar Ridges Golf Course provides a challenging nine holes of golf. Taylor Draw and Kenney Reservoir are nearby and provide opportunities for fishing and boating. A hospital and family clinic provide excellent medical services to the community and the College.

The CNCC Rangely Campus encompasses an area of 150 acres. The architecture, a blend of native stone and timber, is designed to reflect and complement the rugged beauty of the area. Seventeen buildings are located on campus, with a total square footage exceeding 300,000 square feet. There are three on-campus residence halls, with the newest hall opening in January 1994.



Craig Campus

Craig, a community of 12,000 people, is located just 42 miles west of Steamboat Springs and 90 miles north of Rifle off I-70. The area boasts beautiful, deep river canyons, sandstone buttes with petroglyphs, large alpine forest, rolling high plains, and mountains. The area is a haven for hunters, fishermen, backpackers, mountain bikers, rafters, skiers, and golfers. Craig's economy is inter-dependent on ranching, farming, energy extraction, and tourism.

Administrative offices are currently located and many classes are held in the Bell Tower, an office building located on the west side of Craig. Additionally, Trapper Health Club provides students with access to racquetball courts, weight training equipment, aerobic exercise classes, and more. CNCC has broken ground on a brand new educational facility, which is expected to be dedicated in 2010.

Service Areas

The Hayden, Meeker, and Oak Creek Centers develop courses and programs to meet the needs of these respective communities. Specially designed course work for self-improvement and job skills training/upgrading are offered along with traditional course work. Class scheduling is flexible, and classes are held in a variety of locations and facilities.

Accreditation

Colorado Northwestern Community College is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools (www.ncahlc.org). The Dental Hygiene program is accredited by the Commission on Dental Accreditation, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and the United States Department of Education. Aviation programs are certified and supervised by the Federal Aviation Administration.

CNCC Vision, Mission, and Goals

Colorado Northwestern Community College Vision Statement

CNCC will be the premier community college in Western Colorado.

Colorado Northwestern Community College Mission Statement

CNCC will provide accessible, affordable, quality education to prepare learners to achieve their educational, workplace, and personal goals.

Colorado Northwestern Community College Strategic Goals

Goal 1: Learners will be successful at CNCC and express satisfaction with their experience here.

Goal 2: CNCC will develop and maintain a sound fiscal base that is capable of supporting the educational mission of the College.

Goal 3: CNCC will develop quality, innovative classes and programs that meet the expressed needs of its learners and communities.

Goal 4: CNCC will build a community that employs open, effective, comprehensive, and accurate communication on all levels.

Goal 5: CNCC will implement and sustain a comprehensive assessment process that fosters innovation and continuous improvement in student learning.



ADMISSIONS

Admission for Regular Students

Students who are high school graduates or who have earned a General Education Development Certificate (GED) may be granted regular admission into the College. This does not include automatic admission into college-level English and math courses or admission into a particular program due to enrollment limits, academic requirements, or selective admissions. All students are subject to mandatory assessment and placement policies.

Admission for High School Students

Students who do not meet the requirements for regular admission, and students who intend to enroll under the Post Secondary Enrollment Options Act, may be admitted as **special students**. Special students are subject to mandatory assessment and placement policies. The statewide agreement among Colorado school districts requires the statewide agreement form be completed and submitted to the CNCC - Admissions & Records Office, 500 Kennedy Drive, Rangely, CO 81648. These forms may be obtained from your high school counselor, or from CNCC's Admissions & Records Office. Students under the age of 17 must be granted an Age Waiver, approved by the Vice President of Instruction and Student Affairs, and signed by the President of the College before classes begin. Age Waiver forms may be obtained from the Admissions and Records Office.

Admission Under Ability to Benefit (ATB)

A student without a high school diploma or GED (General Educational Development) credential may enroll in courses at Colorado Northwestern Community College and apply for federal financial aid if the student meets the following criteria:

1. The student is at least 17 years old and not attending high school; and
2. The student demonstrates an "ability to benefit" from postsecondary education by passing an appropriate test at the level specified by the United States Department of Education.

CNCC uses a computerized placement test, Accuplacer, for testing purposes. The Accuplacer Reading Comprehension, Sentence Skills, and Arithmetic tests are approved for Ability to Benefit purposes. The minimum scores for the subtests are:

Reading Comprehension	52
Sentence Skills	60
Arithmetic	36

An ATB candidate must meet or exceed the minimum scores on each of the three approved tests in a single testing experience. Candidates who do not meet or exceed all three passing scores must retake the complete set of three tests and pass all three tests in that administration.

Admission for Transfer Students

Transfer students seeking admission to Colorado Northwestern are to follow the procedures outlined under Admissions Procedures with the following exceptions:

Students who have completed 12 hours of college-level work are not required to submit high school transcripts.

College transcripts will be evaluated prior to registration to ascertain acceptable credits that will apply to the student's program of study. Courses for which the student has earned a grade of "D" or "F" will not be accepted for credit.

Students with a GPA below 1.5 may be admitted on academic probation.

In determining academic standing while attending CNCC, the GPA of a transfer student is computed on the basis of credits attempted at Colorado Northwestern only and will not include credits and grade points earned at other colleges.

Transfer of credit for vocational courses is determined by the program director of the occupational program in which the student is seeking a degree.

Admission for International Students

Applicants who are residents of another country are admitted to Colorado Northwestern after the Admissions and Records Office has received and approved the following:

- General Application for Admission
- High School Transcripts, translated to English (see Admissions Procedure for details)
- College Transcripts, translated to English (see Admissions Procedure for details)
- Certificate of Health (see Admission Procedure for details)
- Test of English as a Foreign Language (TOEFL) or successful completion of an English as a Second Language program and a recommendation from an English Instructor. **NOTE:** This test is not required of students from countries where English is the native language. Students with TOEFL scores below 53 (Internet-based test), or below 500 on the paper/pencil exam, may be denied admission.
- Financial statement outlining resources available and assuring support while the student is in the United States.
- Deposit of \$500 prior to issuance of an I-20. This deposit will be applied to the student's first semester expenses. The I-20 will be forwarded after the student is accepted and the \$500 deposit is received.



Application Procedure for Degree-Seeking Students or Students Enrolling Full-Time

Applicants for a degree or certificate are required to submit the following to the Admissions and Records Office.

1. **Application for Undergraduate Admission** - An Application for Admission may be completed online at www.cncc.edu. Paper application forms may be obtained from any Colorado high school or by writing or calling the Admissions Office at Colorado Northwestern.
2. **High School Transcripts** - Official seventh semester and/or final high school transcripts are recommended of all applicants who have or will graduate from high school. Applicants who have not graduated from high school are required to submit the results of the GED examination, unless seeking admission as a special student. High School transcripts are to be forwarded directly by the issuing institution to the Admissions Office. Transcripts presented by the applicant will not be considered official.
3. **College Transcripts** - Applicants who have attended college elsewhere must submit a transcript of all college work from each college attended. College transcripts are to be sent directly by the issuing institution to the Admissions Office. Transcripts carried by the applicant must be in a sealed, stamped envelope from the issuing institution to be considered official.

4. **Student Profile Report of the American College Test (ACT), Scholastic Aptitude Test (SAT), Accuplacer Assessment Scores, ASSET Assessment Scores, or Compass Assessment Scores** - ACT, SAT, Accuplacer, ASSET, or Compass examinations are not required, but are used in determining whether or not a student is required to take placement exams at CNCC prior to registration (see mandatory placement policy). Students who have taken any of the exams above **within the last two years** are encouraged to submit scores to the Admissions Office.
5. **Certificate of Health** - Students entering Colorado Northwestern for the first time and participating in varsity athletics and/or one of the criminal justice academies are required to present a certificate of good health by a family physician. In addition, students entering the Aviation Technology Program are required to obtain a physical from an FAA approved physician.
6. **Immunization Records** - (Primarily residential campus students and nursing students) All students who were born after 1956 and attending full-time must show documented proof of measles, mumps and rubella immunization (two doses after the first birthday), prove immunity, or request a waiver from immunization. A waiver from immunization is permitted for medical, religious, or philosophic reasons. In the event of a measles outbreak, these individuals will be denied access to the campus and can be quarantined. Additionally, since July 1, 2005, students should be vaccinated against Meningococcal disease. Students who are not vaccinated must review the information on meningococcal disease and sign a statement that they have decided not to obtain a vaccination against meningococcal disease. Students living in the residence halls must comply with this policy prior to occupancy. Failure to comply with this policy will result in withholding registration after the first semester of attendance until acceptable proof is obtained. *Nursing students must meet additional immunization requirements. Contact the Nursing Program for further information.*

Mandatory Assessment

Most students enrolling for the first time at Colorado Northwestern Community College and seeking a degree or certificate will be tested in the areas of reading, writing, and mathematics. The following students are exempt from the requirement of assessment:

1. Students who have earned a Bachelor's or Associate's degree.
2. Students who have successfully completed basic skills instruction in mathematics, writing, or reading are exempt from the requirement for assessment **in that subject area only**.
3. Students who have successfully completed a college-level course in English are exempt from the requirement for assessment in English and reading. Students who have successfully completed a college-level course in mathematics are exempt from the requirement for assessment in mathematics.
4. Students who have taken the ACT test within the two years prior to enrollment are exempt from assessment **in that subject area only** if they scored:

English	18
Reading	17
Mathematics	19 (MAT 120)
Mathematics	23 (MAT 121)

(Subject to change for the 2010-11 academic year)

However, our past experiences indicate that a significant number of students who score higher than the scores listed but below 23 in English and/or Reading experience difficulty in achieving success in college-level courses. If students' relevant ACT scores fall within the 18/19-22 range, we strongly advise students to take the appropriate placement exam to ensure that they are placed into courses that optimize their likelihood of success in college.

5. Students who have taken the SAT test within the two years prior to enrollment are exempt from assessment in **that subject area only** if they scored:

Verbal (English)	440
Verbal (Reading)	430
Mathematics	460

However, our past experiences indicate that a significant number of students who score higher than the scores listed but below 560 in Verbal and/or Mathematics experience difficulty in achieving success in college-level courses. If a student's relevant SAT scores fall within the 440/450-550 range, we strongly advise them to take the appropriate placement exam to ensure that they are placed into courses that optimize their likelihood of success in college.

6. Students who have taken one of the following college placement exams within five years prior to enrollment are exempt from assessment in **that subject area only** if they scored

<u>Reading</u>	
Asset	41
Accuplacer	80
Compass	75
<u>Writing</u>	
Asset	41
Accuplacer (Sentence Skills)	95
Compass	70
<u>Mathematics</u>	
Asset (Intermediate Algebra)	41
Accuplacer (Elementary Algebra)	85
Compass (Algebra)	55

7. Students who are enrolled in a certificate program that does not require college-level English or math courses.
8. Secondary students who are not enrolling in college-level English or math courses.

There is a small fee for Accuplacer placement testing at Colorado Northwestern Community College. Students may re-test one time at no additional cost for this re-testing.

Mandatory Placement

If a student's performance on a college placement exam indicates that the student needs basic skills instruction in reading, English and/or mathematics, the student **must** enroll in appropriate basic skills courses.

CNCC offers the following basic skills courses in reading, English, and mathematics:

REA 030	Basic Reading Skills
REA 060	Foundations of Reading
REA 090	College Preparatory Reading
ENG 030	Basic Writing Skills
ENG 060	Writing Fundamentals
ENG 090	Basic Composition
MAT 030	General Skills in Mathematics
MAT 060	Pre-Algebra
MAT 090	Introductory Algebra
MAT 099	Intermediate Algebra

Basic skills courses and/or guided experiences are also offered online through the Colorado Community College Online Consortium (www.ccconline.org) and at these other Colorado colleges:

Arapahoe Community College
Adams State College
Aims Community College
Community College of Aurora
Community College of Denver
Colorado Mountain College
Front Range Community College
Lamar Community College

Morgan Community College
Mesa State College
Northeastern Junior College
Otero Junior College
Pikes Peak Community College
Pueblo Community College
Red Rocks Community College
Trinidad State Junior College

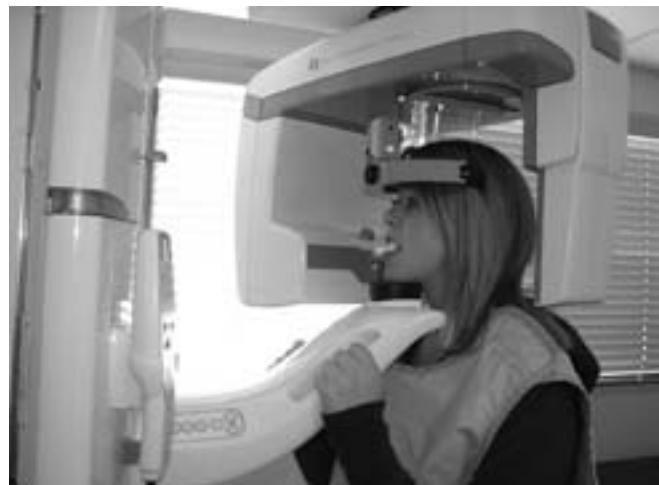
Basic skills courses are designed to help students develop the skills to be successful in college-level courses. However, they **do not** count toward graduation, and they **will not** transfer to a four-year institution.



Admission to the Aviation Technology Program

In addition to the steps outlined under Admissions Procedures, students wishing to reserve a position in the Aviation Program should submit a \$500 deposit to the CNCC Cashier for Flight Account by June 1. If your plans change and you do not wish to attend Colorado Northwestern, this deposit is refundable until August 1. After August 1, \$350 of the deposit is refundable.

Prior to the start of Fall Semester, all flight students will need to have in their **personal possession** a Medical Certificate/Student Pilot Certificate. This is accomplished by scheduling a physical exam, which must be performed by an FAA-designated Aviation Medical Examiner. There are three classes of medical certificates: first, second, and third. The third class will qualify for all flight training, and it is the minimum level of flight certificate. It is recommended, however, that flight students receive at least a second class medical, as this is the minimum level needed to fly for hire. The first class is the level required to fly for the airlines, and it is advised that students take this level of medical to avoid surprises later. After you receive your Medical Certificate/Student Pilot Certificate, keep it in your personal possession, just like your Driver's License. **Do not** mail it to CNCC. If help is needed finding a qualified doctor to give these medical exams, call the CNCC Flight Department (800-562-1105) to help locate the doctor nearest your home. A searchable list, by state and city, is also available on the web at <http://ame.cami.jcabi.gov>.



Admission to the Dental Hygiene Program

Application to Colorado Northwestern is the initial step for entrance into the Dental Hygiene Program. Dental hygiene currently admits 27 students per year and receives more applicants than can be accepted. Applications must be received in the Dental Hygiene office by February 1st, and an on-campus visit is encouraged as part of the application process. A complete application includes all materials listed under the Admissions Procedures. The following are requirements for application and are used in the evaluation process: General Application for Admission, Health Occupation Aptitude Examination, Letter of Self Recommendation, 3 Reference Forms (references must be made on the CNCC Reference Form), Official transcripts of all colleges attended sent to the Registrar's Office; exception, CNCC students may submit unofficial transcripts to the dental hygiene program. The following are not requirements for application but are used in the evaluation process: Dental Office Experience, both the employer and the applicant must sign the CNCC Form, or CNCC Pre-Dental Hygiene Internship, or certificate of completion from an accredited dental assisting school. Failure to submit all required materials by the deadline will negate the application process. It is the applicant's responsibility to verify that all materials have been forwarded to the dental hygiene program.

Prerequisites to be considered for the Dental Hygiene Program

Applicants must earn a minimum GPA of 2.8 and grades of "C" or better on all prerequisite courses and general education courses that apply to the Dental Hygiene Associate of Applied Science degree (it's not a requirement that prerequisite and general education classes be taken at CNCC).

- a. BIO 201 & 202, Human Anatomy and Physiology I,II
- b. BIO 204, Microbiology
- c. CHE 102 Introduction to Chemistry II
(CHE 102 is PREFERRED but CHE 109, General Organic, & Biochemistry or CHE 111 General Chemistry will be accepted in lieu of CHE 102)
- d. ENG 121, English Composition I

If selected, applicants must submit final official transcripts for all required courses to the Registrar's Office by June 1st. **NOTE:** The course numbers listed above are course numbers at CNCC. For equivalent courses at other colleges/universities, or if you have questions concerning any of the above requirements, contact the Admissions and Records Office at CNCC or visit www.cncc.edu. Complete application instructions and all application materials can be found on the CNCC website (www.cncc.edu) or obtained through the Dental Hygiene Program.



Admission to the Nursing Program

The nursing program consists of two distinct programs: Nurse Aide (graduates receive a certificate and are eligible to obtain a license from the state as a CNA), and Associate Degree in Nursing (graduates receive an Associate of Applied Science degree and are eligible to obtain state licensure as an RN).

Enrollment in the Nursing Program is limited to 24 students per year. Potential nursing students must pass the entrance exam within three attempts and all prerequisites must be finished in order to be placed on the wait list. To take 3 hour TEAS test, call the CNCC Nursing program at 970-824-1104, or email Darby McDermott at darby.mcdermott@cncc.edu for testing details.

Prerequisites for the Nursing Program

English Composition I	ENG 121
Human Anatomy and Physiology I	BIO 201
Human Anatomy and Physiology II	BIO 202
Microbiology	BIO 204
Human Growth and Development	PSY 235

Points are assigned for –

- Passing the TEAS admission test within three attempts
- Higher cumulative GPAs on prerequisite courses
- Successful completion of Medical Terminology; Pathophysiology (4 credits), and/or CNA
- Work experience in a health care field
- Previous college degree
- A handwritten paragraph of Director's choice.

Fingerprinting and a background check will be required; however, contact the Nursing Program office before completing the forms. A list of disqualifying offenses can be found on our website.

For more information, please visit our website at <http://www.cncc.edu/nursingweb/default.htm>.

Students with Disabilities

Any student with a temporary or permanent disability (mobility, visual, learning, mental, emotional, speech or health) should contact the Dean of Enrollment Services/Registrar (Rangely) or the Dean of Instruction (Craig) for assistance at least 4 weeks prior to the beginning of the semester. Appropriate documentation is required by CNCC to support the need for services the student may request. Arrangements for accommodations for a student with a disability seeking access to educational programs will be provided by the appropriate Dean.

Academic Advising

Advising services are designed to assist students in their academic pursuits at Colorado Northwestern. Students are assigned advisors knowledgeable of their program areas as well as College policies relevant to graduation and transfer.

In order to assure that students meet Associate Degree and/or Certificate requirements, and to assure maximum transferability of courses, the student and his or her advisor will have available to them a Program Worksheet. A proposed program will be outlined to assist the student in meeting degree or certificate requirements. Changes may be made in the program requirements only through mutual agreement of the student and the Program Director and approved by the Vice President of Instruction and Student Affairs.

Students entering Colorado Northwestern under a specific program will follow the initial requirements as outlined in the College Catalog as long as they are continuously enrolled either as a full-time or part-time student (excluding summer sessions). Breaks in enrollment may result in changes in the student's program requirements.

The student is ultimately and solely responsible for knowing the requirements of a particular degree or certificate as outlined in the College Catalog and fulfilling those requirements.



Registration

In order to become a student at Colorado Northwestern, an applicant must register on official forms provided by the College or through the online registration process at the appointed time. Credit will be given only for courses for which the student is registered. Students with no prior college experience are strongly encouraged to attend one of our scheduled **Student Orientation, Advising, Registration (SOAR)** programs held during July and just prior to the beginning of the fall semester.

Schedule Changes

Students are expected to arrange their academic schedule carefully and maintain this schedule throughout the semester. Necessary schedule changes are to be initiated through the Admissions and Records Office in conjunction with the permission of the student's advisor and the instructor of the course affected by the schedule change.

Students may add or drop courses from their schedules during the first 15 percent of the course meetings. Dropped courses within this time period will not be reflected on a student's transcripts and come with a 100-percent tuition refund.

Students may withdraw from a course any time through 80 percent of the course without penalty, and the grade assigned will be "W." Courses dropped after this time will result in a grade of "F" for the course. If extenuating

circumstances exist, the Vice President of Instruction and Student Affairs may change the “F” grade to “W.” No refund is granted for classes from which a student withdraws.

Withdrawal from the College

A student who decides to leave the college during a semester must make formal application to the Vice President of Instruction and Student Affairs for permission to do so. If permission is granted, the student is obligated to comply in full with established clearance procedures. Until the Registrar certifies the withdrawal to be complete, no refunds can be made and no transcripts will be issued (see change of schedule).

A statement of honorable dismissal will be given upon request if the student’s status regarding conduct, character, and scholarship is such as to permit continued enrollment at the college.

The official transcript for a student who withdraws from the college will reflect a “W” in each course for that semester.

Student Conduct

Colorado Northwestern students do not gain or lose any of the rights and responsibilities of other citizens by virtue of their student status. The College recognizes the student as an adult pursuing an education. Just as a student does not lose citizenship rights upon enrolling at a college, the student also does not become immune to society’s obligations and laws or to responsibilities of daily living in a broader society. In general, behavioral norms expected of the college student are those of common decency and decorum, recognition of the non-infringement upon the rights and property of others and of the College, honesty in academic work and all other activities, and observance of local, state, and federal laws. When students enter college, they take upon themselves certain social responsibilities and obligations including satisfactory performance and social behavior consistent with the lawful purposes of the College. Student conduct, therefore, is not considered in isolation within the college community but as an integral part of the educational process. All students are expected to know and abide by this code of student conduct. Ignorance is not an excuse. As members of the college community, students are also subject to the rules and regulations of the College that are stipulated in the *Student Handbook* and *College Catalog*.

Disciplinary action may be taken for failure to comply with rules and regulations of the school and for uncooperative attitude toward the school’s faculty, staff, or fellow students.



TUITION AND FEES SCHEDULE 2009 - 2010

Tuition and fees are subject to change by the State Legislature and Governing Board. Some courses have extra charges. See the 2009 Fall Class Schedule for more information. (Effective May 13, 2009)

TUITION

In-State tuition (resident with COF)	\$ 88.29 per credit hour
In-State Tuition (resident without COF)	\$156.29 per credit hour
Out-of-State Tuition (nonresident)	\$181.65 per credit hour
CCC Online Courses (resident with COF).....	\$156.09 per credit hour
CCC Online Courses (resident without COF).....	\$224.09 per credit hour
CCC Online Courses (Out-of-State).....	\$246.96 per credit hour

Additional Tuition for High-Cost Programs

Nursing (NUR).....	\$ 40.33 per credit hour
Dental Hygiene (DEH).....	\$ 84.97 per credit hour
Aviation Maintenance (AMT)	\$ 84.97 per credit hour
Aviation Flight Technology (AVT).....	\$121.43 per credit hour

FEES

College Fee

Student Government Fee	\$ 2.49 per credit hour
Student Activity Fee.....	\$ 5.04 per credit hour

Other Charges

Registration Fee (all students—non-refundable).....	\$ 11.48 per semester
Medium- and High-Cost Course CIP fee	\$ 6.08 per credit hour
CISCO Course Fee	\$ 16.62 per credit hour
Course Charge	\$ Vary per class
Library Fines.....	\$ Vary
Returned Check Fee	\$ 20.00

ROOM AND BOARD

Room Charges (Rangely): Per-Semester Rate*

	1 st Sem.	2 nd Sem.	3 rd Sem.	4 th Sem.	
		100%	100%	50%	50%
Ross Hall Double.....	\$1,153.00	1,153.00	577.00	576.00	
*Ross Hall Single.....	\$1,725.00	1,725.00	1,149.00	1,149.00	
Holland Hall Single	\$1,403.00	1,403.00	701.00	701.00	
Nichols Hall Double	\$ 779.00	779.00	390.00	389.00	
Nichols Hall Single	\$1,153.00	1,153.00	577.00	576.00	

*Ross Hall singles will be awarded only if space is available, and student always pays difference between double and single occupancy rates.

Board Charges: Per-Semester Rate

19 meals per week	\$1,782.00/semester
15 meals per week + Bronco points	\$1,782.00/semester
14 meals per week	\$1,693.00/semester

***NOTE: A housing deposit of \$100.00 per student is required for all College housing.**

College Opportunity Fund (COF)

The State of Colorado has put aside money to help with tuition expenses. The COF stipend is worth \$68 per credit-hour for the 2009-2010 academic year. You must apply for COF in order to receive the benefit. There are no income qualifications; however, you must be eligible for in-state tuition. You only apply once – then simply authorize the use of your stipend for your eligible undergraduate courses, provided you have not met your 145 credit lifetime limit. If you have not yet done so, apply for your stipend at www.cncc.edu, and click on the College Opportunity Fund logo in the lower right-hand corner of our homepage.

Tuition Assistance

Persons 62 years of age and over, as well as residents of the Rangely Junior College District or Moffat County Junior College District, will receive assistance for part or all of their tuition. For more information about this tuition assistance, please contact the Admission and Records Office, Financial Aid Office, or the Accounts Receivable Office.

Tuition Payment Policy

A student, by the act of registration, automatically incurs a financial obligation to CNCC. This obligation must be satisfied by appropriate payments to CNCC. This means that a student who registers for one or more classes is obligated to pay the full amount of his/her tuition and fees, whether or not the student attends class.

Students may choose one of two payment options:

- 1) full payment can be made at registration, or
- 2) payments can be made in three installments, with one-third due at registration.

Students who wish to pay in installments **must** make arrangements with the Account Receivable Office and sign a promissory note. There is a \$10.00 processing charge for promissory notes.

Summer Payments: All charges related to summer programs are due in full fifteen (15) days after the first day of class.

Students who anticipate receiving financial aid and who have their financial aid completed **prior to registration** will be asked to pay only the portion of the bill that will not be covered by financial aid. For those who **have not completed** their financial aid, one of the two methods described above must be elected. Any subsequent financial aid money received will be returned to the student to the extent that the bill has already been paid.

Students who fail to meet their financial obligation to CNCC will not be allowed to register, receive a diploma, or receive transcripts of the courses completed until all financial obligations to the College have been met. In addition, no information (dates of attendance, degrees awarded, courses taken, etc.) will be provided to a third party as long as a student has an outstanding balance on his or her account. If the account is placed in the hands of an agency or attorney for collection or legal action, the student will become obligated to pay additional costs incurred and permitted by the laws governing these transactions.

CNCC will accept Check, Money Order, Cash, Visa, Discover, and Master Card. There will be a \$20.00 charge for all returned checks.

Students Sponsored by a Third-Party Agency

A valid letter of sponsorship must be on file in the Accounts Receivable Office. Students must make arrangements for agency billing with Accounts Receivable in accordance with payment deadlines. Students are responsible for any charges not covered by their agency and are subject to late fees and refund guidelines.

It must be understood that each student is responsible for payment of his/her own expenses. The College is not responsible for making payment arrangements with parents, guardians, international agencies, or other third parties.

Refund Policy

The College will refund 100 percent of tuition and student fees collected if the student **officially** drops courses, **in writing**, through the Admissions and Records Office, or online through your “My Community Education” student registration menu, during the first 15 percent of the term (or class) for which tuition and fees were paid. There will be no refund if the student withdraws after the first 15 percent of the class or if a student fails to drop the course through the drop/add process, even if the student never attends the class. (Courses cannot be officially dropped via telephone.)

If a refund is requested, and a student has received financial aid, a portion of the refund may have to be returned to the Financial Aid program from which it came. Students are responsible for checking with the Financial Aid Office for information pertaining to this policy and to determine how the refund will be applied to financial aid programs. Refunds are made within 30 days after withdrawal/drop forms are received in the Accounts Receivable Office.

To receive a refund for a short class (one to five days in duration), students must submit a drop form to the Admissions and Records Office two working days prior to the first day of class. Some courses have special charges to cover expenses external to the college, have early refund dates, or may be non-refundable. Check class schedules or advertisement sheets for specific course information.

A full refund will be granted for classes canceled due to insufficient enrollment or closed due to student enrollment limits. For more information on payments or refunds, call the Accounts Receivable Office at 1-800-562-1105, ext. 200.

Residence Hall Deposit (for college-owned housing)

If written notification of contract cancellation by the applicant is given to the College and postmarked no later than June 30, the housing deposit will be refunded. If a housing application is received after June 30, written notification of cancellation must be received within two weeks of receipt of the housing application. If written notification is received after the above deadlines, the housing deposit will be forfeited.

Room and Board (for college-owned housing)

Refunds for room and board will be made on a prorated basis through the first nine weeks of the academic semester. Students will be charged ten percent of the total semester rate for each week or partial week of residence hall occupancy, beginning with the date of check-in. No refund will be made to students who leave the residence hall after completion of the ninth week of classes.

Determination of Residence Status for Tuition Purposes

The determination of a student’s residency status for tuition purposes is determined under State Law Title 23, Article 7, Colorado Revised Statutes 1973, as amended. A student’s tuition classification is determined before or at the time of registration. If, at a later date, the student believes that the residency classification is no longer correct, he or she may petition for a change of residency classification.

Petitions must be submitted to the Admissions and Records Office no later than 30 days prior to the first day of registration of the semester in which a student wishes to change. Any student who is denied residency after petitioning may appeal that decision. The appeal must be submitted to the Admissions and Records Office no later than two weeks after the negative decision has been sent to the student. A Residence Classification Appeals Board will meet to make the residence determination. The decision rendered by the appeals board is the final College determination.

Members of the armed forces (or their dependents) may be granted in-state status upon moving to Colorado on permanent change-of-station basis.

Questions regarding residency (tuition) status should be referred only to the Registrar. Opinions of others are not official or binding upon the institution. Residency of non-emancipated minors shall be that of the head of the family.

Determination of In-District Residence for Tuition Assistance Purposes

Provided in-state requirements have been met, establishment of bona-fide residence within the Rangely Junior College District requires that a person be employed within the district on a full-time basis for six consecutive months, with the expectation of continuing residency on a year-round basis, or that the student/parent owns property within the College District. Residency of non-emancipated minors shall be that of the head of the family. Student employment or temporary work will not be considered as criteria in establishing residency for tuition purposes.

Determination of Affiliated College District Residence for Tuition Assistance Purposes

Provided in-state requirements have been met, establishment of a bona-fide residence within the Moffat County Affiliated Junior College district requires that a person resides within the District on a full-time basis for six consecutive months with the expectation of continuing residency. Residency of non-emancipated minors shall be that of the head of the family.



FINANCIAL ASSISTANCE

A wide variety of financial assistance programs are available to both full-time and part-time degree/certificate seeking students. Since the extent of support and qualifying conditions are changed periodically by sponsoring agencies, the list that follows should be thought of as representative only. Inquiries concerning the most recent information should be addressed to the Office of Financial Aid at Colorado Northwestern.

Decisions on financial aid will not be made until after the student has been accepted for admission to the college.

Students applying for financial aid should complete the Free Application for Federal Student Aid (FAFSA), available at most high schools as well as from Colorado Northwestern. The FAFSA is also available on the Internet at <http://www.fafsa.ed.gov>. This form should be completed after the Federal Income Tax 1040/1040A/1040EZ has been filed. The paper process for completing the FAFSA will take three to six weeks. Completing the FAFSA on the web will greatly reduce the processing time. Approximately 30% of all financial aid applicants are pulled for verification and will be asked to provide additional documentation to the Financial Aid Office. Financial aid recipients, with files completed by May 1st, will receive first consideration for financial assistance. Applications received at the College after that date will be considered for any funds still available.

In addition to the Free Application for Federal Student Aid (FAFSA), students applying for financial aid must complete Colorado Northwestern's "Application for Financial Aid," available from the Office of Financial Aid or on CNCC's website, under Financial Aid, then forms and applications.

TYPES OF GRANTS/SCHOLARSHIPS

Federal Pell Grants

Federal Pell Grants are to help undergraduate students pay for their education after high school. It is the largest need-based student aid program. The Department of Education uses a standard formula, established by Congress, to evaluate the information students report when they complete the FAFSA. The formula determines Expected Family Contribution (EFC). If students' EFC is below a certain amount, they will be eligible for a Federal Pell Grant, assuming they meet all other eligibility criteria.

Academic Competitiveness Grant (ACG)

The Higher Education Reconciliation act of 2005 created the ACG for full-time students at degree-granting institutions who are eligible for Federal PELL Grants and are U.S. citizens. To be eligible, a student must be enrolled in the first or second academic year of his or her program of study, and have completed a rigorous secondary school program of study (after January 1, 2006, if a first-year student, and after January 1, 2005, if a second-year student). The ACG is renewable if a second-year student satisfactorily completes the first academic year with at least a cumulative 3.0 grade point average on a 4.0 scale. Year 1 ACG is \$750 and year 2 ACG is \$1,300.

Federal Supplemental Educational Opportunity Grants

Students demonstrating significant financial need, as determined by completion of the FAFSA, may be eligible for a Federal Supplemental Educational Opportunity Grant (FSEOG). Priority is given to students with an EFC of 200 or less. The value of an FSEOG at CNCC may vary from \$200 to \$2,000 per year.

Institutional Grants and Scholarships

Colorado Northwestern Community College has a variety of scholarships and grants available for both new and continuing students at all CNCC campuses and service area centers. Applicants must be planning to enroll in a degree or certificate program. Colorado residency is a requirement for all scholarships/grants, unless otherwise stated. The applications can be obtained directly from the Financial Aid Office or by accessing the Financial Aid section of the CNCC website under forms and applications.

CNCC Program Scholarship

Applicants for this scholarship are selected on the basis of a completed application and quality of their essay describing college and career goals. Eligibility criteria: a minimum GPA of 2.0 high school or college (whichever is most recent) or a GED. Annual Award: \$500
Renewable upon the completion of 24 credit hours with a cumulative GPA of 2.0.

CNCC Academic Scholarship

Applicants for this scholarship must graduate within the top 16% to 25% of their high school graduating class. Full-time attendance is required. Annual Award: \$1,500
Renewable upon the completion of 30 credit hours with a cumulative GPA of 3.0.

CNCC Presidential Honors Scholarship

Applicants for this scholarship must be either the Valedictorian or Salutatorian of their high school graduating class. Full-time attendance is required. Annual Award: \$2,000 plus an on-campus – double-occupancy room
Renewable upon the completion of 30 credit hours with a cumulative GPA of 3.25.

CNCC Presidential Scholarship

Recipients of this scholarship must graduate within the top 15% of their high school graduating class. Full-time attendance is required. Annual Award: \$2,000
Renewable upon the completion of 30 credit hours with a cumulative GPA of 3.25.

Alumni Family Scholarship

Applicants must be a dependent of a CNCC graduate. A minimum high school GPA of 2.0 or a GED is required. Full-time attendance is required. Annual Award: \$700
Renewable upon the completion of 24 credit hours with a cumulative GPA of 2.0.

First Generation Scholarship

Applicants must be the first member of their immediate family to attend college. A minimum high school GPA of 2.0 or a GED is required. Full-time attendance is required. Seventy percent of these awards will be need-based. Annual Award: \$700
Renewable upon the completion of 24 credit hours with a cumulative GPA of 2.0.

New Beginnings Scholarship

Applicants must be at least 25 years of age and enrolling in college for the first time. A minimum high school GPA of 2.0 or a GED is required. Full-time attendance is required. Annual Award: \$700
Renewable upon the completion of 24 credit hours with a cumulative GPA of 2.0.

Athletic Grants (Rangely Campus)

A limited number of Athletic Grants in varying amounts are available to outstanding high school athletes. These grants are awarded in all varsity sports supported by the College.
At the present time, athletic grants are available for men in baseball and basketball, and for women in softball, basketball, and volleyball.

Each individual must apply for federal and state financial aid through the Free Application for Federal Student Aid and the Office of Financial Aid in order to be considered for an Athletic Grant. Athletic Grants are not processed until the financial aid application process is complete. Financial aid awards are applied to student-athletes' accounts **before** athletic grants are applied.

Grants are awarded by the Colorado Northwestern Athletic Department and may be renewed each year, subject to the academic/athletic requirements of the College and those of the National Junior College Athletic Association.

CNCC Foundation Scholarship

Each year the CNCC Foundation provides scholarship opportunities to students attending Colorado Northwestern Community College. Some scholarships are program specific, while others are more general. A full listing of scholarship opportunities is available in the Financial Aid Office.

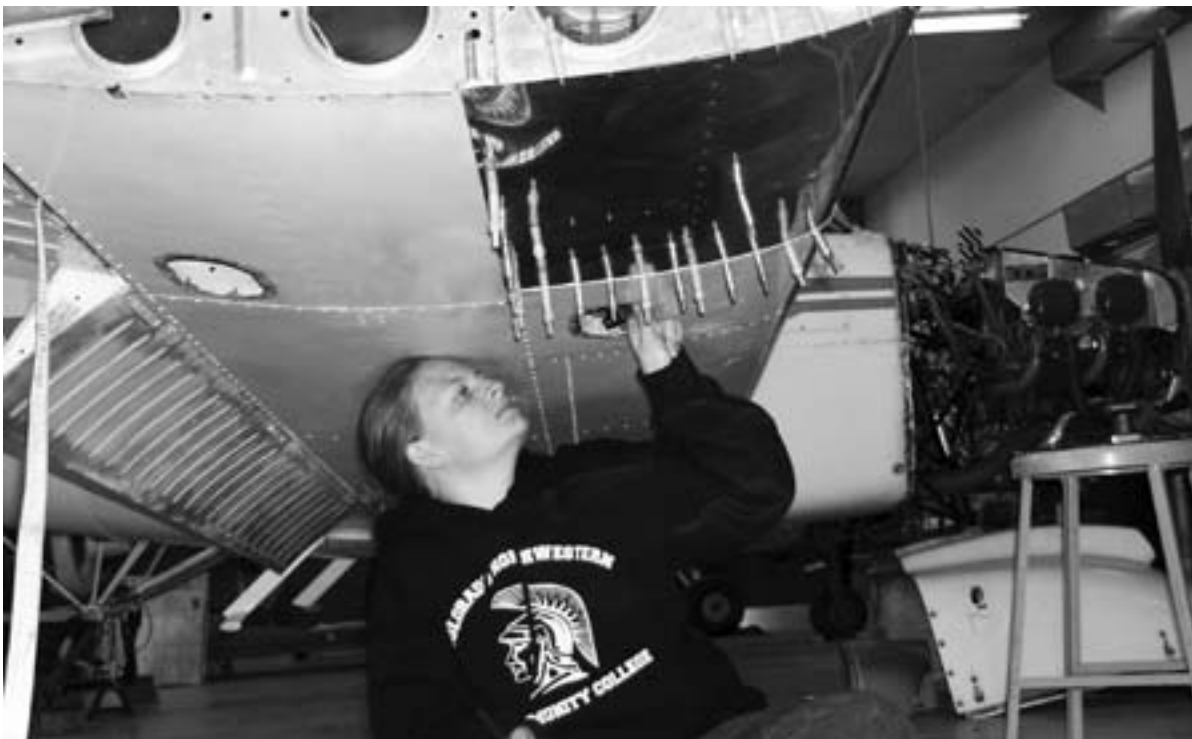
State-Funded Student Assistance Programs

The primary purposes of state-funded student financial aid are to provide financial resources to students who would otherwise be unable to pursue postsecondary education and to recognize and recruit outstanding students.

Colorado State Grant (“Colorado’s College Responsibility Program”)

The Colorado State Grant program is designed to assist needy Colorado residents who have demonstrated the least ability to pay for higher education, as determined by completion of the FAFSA. This grant program is available to students enrolling at least half-time (6 credit hours per semester). A level system for determining eligibility has been established by the State.

Level 1: Students with the least ability to pay (Expected Family Contribution (EFC) must be below 150% of that required of a Pell Grant). The award for this group of students is \$850, unless the remaining unmet need after other aid funds is less. For students enrolled prior to Fall 2009, the minimum award is \$1,000 or the maximum amount of unmet need, whichever is less.



Colorado Leveraging Education Assistance Partnership Program

This grant is federally and state funded and is available to the undergraduate Colorado resident “financially needy” student. (Based on the Free Application for Federal Student Aid).

LOANS

Federal Perkins Loan

Where need has been determined in accordance with established procedures, the student may borrow a total of \$10,000 in a two-year period. The interest rate is 5%. Repayment of these loans commences nine months after the student

leaves the school or completes his/her education. Up to 10 years may be allowed to repay the loan. The amount of payments depends upon the size of the debt, but usually at least \$50 per month must be paid. The school can agree to a lesser amount, but it must be due to extraordinary circumstances, such as prolonged unemployment.

If a student defaults on a Federal Perkins Loan and the school is unable to collect, the federal government will take action to recover the loan. All loans are reported to a national credit bureau.

Federal Direct Loan Program

CNCC is a Direct Lending school. In this loan program, the funds are obtained directly from the U.S. Treasury. This process involves fewer participants and provides a single point of contact for the school and the student/parents

The Federal Family Educational Loan Program allows students to borrow low-interest loans to assist in meeting the costs of higher education. Depending on students' financial need (cost of attendance less expected family contribution), the loan may be subsidized (the federal government pays the interest) or unsubsidized (the borrower pays the interest). If a student's loan is subsidized, the federal government pays the interest while the student is enrolled at least half-time and during a six month grace period. Repayment for interest and principal begins six months after the student has graduated or is no longer enrolled in at least six credit hours. If applicable, origination fees will be deducted prior to disbursement of funds. Students must complete a FAFSA to determine loan eligibility.

The loan program also encompasses the Federal PLUS Loan. Parents of dependent students may borrow up to the cost of education minus any other resources, provided they have good credit histories. Origination fees are deducted prior to disbursement of funds. Repayment begins 30 days after the final disbursement for the year. For additional information on lender choice, please contact the Financial Aid Office. Students must complete a FAFSA.

Work-Study

Colorado Northwestern is an Equal Opportunity Employer, which provides work opportunities to numerous students each year. The College adheres to the regulations set forth by the Department of Health, Education, and Welfare and the Colorado Commission on Higher Education, both of which govern the work-study and student employment programs.

Colorado Work-Study Program

The Colorado Work-Study Program is an employment program designed to allow Colorado resident undergraduate students to earn funds to assist in attending eligible educational institutions in Colorado. Employment may be on-campus or with non-profit organizations off-campus. Qualifying students average 10 to 20 hours per week and earn between \$1000 and \$3000 per academic year.

Federal College Work-Study

The Federal work-study program, administered by the Office of Financial Aid, provides part-time employment opportunities for qualified students. Students average 10-20 hours per week and earn between \$1,000 and \$3,000 per academic year.

Institutional Work-Study

A limited amount of funding is available through the institution for students who do not qualify for either Federal or Colorado work-study funds. Students average 10-20 hours per week and earn between \$1,000 and \$2,000 per academic year.

Veterans Assistance

All programs are approved for the training of veterans. All pertinent VA regulations are adhered to, including those pertaining to refunds.

Students who wish to qualify for Veterans Administration educational benefits should be prepared to finance their living expenses for a period of at least sixty days. This is the normal length of time required to complete a veteran's file in the regional office and for the issuance of monthly payments.

Regulations Concerning Satisfactory Progress

Students receiving financial aid or VA benefits have a responsibility to maintain certain academic standards and make satisfactory academic/incremental progress toward their degree or certificate.

Financial aid applicants must maintain academic/incremental progress on **all academic studies** whether or not they received financial aid.

This criterion represents minimum standards, which students must meet. The standards are based on full-time, three-quarter time, and half-time attendance in the degree or certificate program. In order to maintain satisfactory **incremental progress**, students must complete a minimum of 75% of CUMULATIVE attempted credits hours. For satisfactory **academic progress**, students must maintain a cumulative grade point average of 2.0.

Students failing to meet these requirements will be placed on financial aid probation for one semester. Students failing to meet the progress requirements a second semester will be placed on financial aid suspension. Reinstatement will be made only after students have completed the requirements to be considered making satisfactory progress.

Students will be eligible for financial assistance for up to 150% of the number of credits required to complete their degree/certificate program.

If further information is desired, contact the Office of Financial Aid and request a copy of the Standards of Satisfactory Academic/Incremental Progress.

Rights of Appeal

Students who feel that mitigating circumstances prevented them from maintaining satisfactory progress may appeal the financial aid suspension. A special appeal form must be completed and submitted to the Financial Aid Office. The appeal will be reviewed by a committee that will recommend continuation or suspension of financial aid to the Director of Financial Aid.

Student Records

Students and parents should be aware that all records and conversations between students, parents, and financial aid staff are confidential and that no public announcements shall be made of amounts awarded to individual students.

Special Note: If further information concerning grants, loans, and work-study is desired, visit our website at http://www.cncc.edu/financial_aid/default.htm or contact the Office of Financial Aid at (970)675-3204.

STUDENT SERVICES

The College is committed to providing students with a variety of educational and developmental opportunities, both within and outside the classroom. Responsibility for student development in areas complementary to the formal classroom environment rests with the Student Services staff, who foster programs that facilitate the student's social, cultural, emotional, academic, and recreational growth.

Health Services

The College does not provide insurance coverage for students. Each student is encouraged to have sufficient health insurance at enrollment. For students requiring health insurance, such as athletes, the College will provide the student with an optional plan that may be purchased by the student through an insurance vendor.

Colorado Northwestern does not offer an on-campus health clinic. Students in Rangely can receive medical services through Rangely Family Medicine and Rangely District Hospital (970) 675-501, and in Craig through Memorial Hospital (970) 824-9411 or The Care Clinic (970) 824-2273.



STUDENT LIFE AND HOUSING

Student Senate (Rangely and Craig)

The Associated Students of Colorado Northwestern Community College are the representative bodies and official voice of the students at CNCC in Rangely and Craig. These two groups play a vital role and work closely with College administration in developing and shaping student policies, expressing student opinions, and coordinating student activities and programs.

College Life (Rangely)

The Department of Student Life strives to provide meaningful educational, extracurricular, and recreational development as an integral part of one's experience at CNCC.

Activities: Student Life provides a variety of activities and leadership roles for student participation. Activities include student sponsored events, as well as paid performers.

Intramurals: The opportunity to organize and participate in intramural activities is available to all students. Examples of activities include co-recreational basketball, volleyball, sand volleyball, softball, golf, racquetball, dodge ball, pool, cards, tennis, and arena football leagues, as well as various intramural tournaments.

Outdoor Recreation: The Outdoor Recreation Program provides students with an opportunity to experience and plan many outdoor excursions. Through this program, students are able to experience the very essence of Northwestern Colorado through whitewater rafting, rock climbing, skiing, x-country skiing, biking, canoeing, camping, hiking, and fishing.



Student Housing

The Rangely Campus has three co-ed residence halls on campus, which can house 225 students. Single rooms are offered in Holland Hall. The residence hall areas are staffed with two full-time housing employees, and a supporting staff of 10 to 12 resident assistants. The residence hall staff enforces hall policies and provides educational programming for residents. Alcohol, drugs, tobacco, and weapons are prohibited. Refer to the *CNCC Student Handbook* for further information.

Plans are under way for housing on the Craig Campus.

Freshmen Live-In Requirement

All freshmen are required to live in the residence halls and participate in the board plan their first year at CNCC. Students who are 21 years of age, married, single parents, or living with a parent/guardian or close relative are not required to live on campus.

Deadline for Housing Application

Housing assignments for residence halls will not be made until the housing application, housing contract, and housing deposit have been received. Once these items have been received, the housing assignment will be made on a priority system based on the date they were received.

If written notification of contract cancellation by the applicant is given to the Department of Student Life and postmarked no later than June 30, the housing deposit will be refunded. If housing applications are received after June 30, written notification of cancellation must be received within two weeks of receipt of the housing application. If written notification is received after the above deadlines, the housing deposit will be forfeited.

LIBRARY SERVICES

The College library is located in the heart of the Rangely Campus, on the lower level of the McLaughlin Building. The collection reflects and supplements the College curriculum by offering over 27,000 items, including books, audio-visual materials, hard copy, and on-line periodicals and equipment. Reference, reserve, interlibrary loan, photocopying, Internet access, and software programs on networked computers are some of the many popular services offered through the library. Colorado Northwestern's library exists to serve the information and learning needs of students, faculty, staff, and the community.

LEARNING ASSISTANCE SERVICES

Learning Assistance Program

Students who need to improve their background in English, reading, math, and study skills will find the opportunity through the Learning Assistance Program. This academic support program may offer classes, small-group tutorials, and individual walk-in assistance or peer tutoring. Also, students who have not earned a high school diploma may prepare for the GED examination. For more information about CNCC's Learning Assistance Program, contact Learning Assistance on the Rangely Campus at 800-562-1105 (x234) or the Adult Learning Assistance Program (ALAP) on the Craig Campus at 800-562-1105 (x126).

Individual assistance in the Hayden, Meeker, and Oak Creek Service Areas may be arranged by contacting the Service Area Director at 800-562-1105 (x103).

Disabled Student Services

Tutorial and other services are available to students with temporary or permanent disabilities. Services for the learning disabled are provided. The computer labs in the Adult Learning Assistance Program at Craig are equipped with educational tools for persons with special needs.



INTERCOLLEGIATE ATHLETICS

Inter-collegiate athletic competition is offered for Rangely Campus students in men's basketball and baseball, and women's basketball, softball and volleyball. Affiliations include the Scenic West Athletic Conference (SWAC) and the National Junior College Athletic Association (NJCAA) Region XVIII. For more information about CNCC's intercollegiate athletic programs, contact the Dean of Academic Support Services at (970) 675-3341, the Athletic Coordinator at (970) 675-3356, or Information Central at (800) 562-1105.

ACADEMIC REGULATIONS

Academic Council

The Academic Council has the responsibility of approving the College's academic policies and its instructional courses and programs. The Vice President of Instruction and Student Affairs serves as Chairperson. Each instructional department of the College is represented on the Academic Council by one or more selected faculty members. Additionally, the Registrar, the Learning Center Coordinator, and representatives among the other CNCC academic service and support areas serve on the Academic Council.

Attendance Policy

College personnel believe that regular class attendance is necessary if students are to receive maximum benefits from their work, and students are expected to attend all sessions of the classes for which they are registered. The individual instructor may determine the appropriate attendance and tardiness policy for each class. Such a policy will be clearly outlined at the beginning of each semester. Students have the responsibility of learning the instructor's policy on attendance and abiding by it.

Students should explain the reasons for absence to their instructors. The student is responsible for making up work missed due to any absence, including those involving College-sponsored athletic, academic, or recreational trips.

Administrative Drop

An Administrative Drop may be issued by a faculty member for a student who has not been to class within the drop/add (census date) period.

Administrative Withdrawal

The College reserves the right to withdraw a student from one or more classes, or from all classes in which he/she is enrolled if, in the judgment of the Vice President of Instruction and Student Affairs, through consultation with other College personnel, such action is deemed in the best interest of the student and/or the College. Examples of reasons for administrative withdrawal are failure to pay registration tuition and fees; failure to provide admission credentials; failure to remove "holds" in a timely manner; or inappropriate behavior in class, laboratory, or field studies environments. In those instances where the student is administratively withdrawn from class or from the College due to inappropriate behavior in the learning environment, the student shall have the right of appeal to the Vice President of Instruction and Student Affairs, and finally to the President of the College.

It is ultimately the student's responsibility to officially drop or withdraw from a course through the Admissions and Records Office. Failure to do so may impact a student's grade, official transcript, and College financial account.

Student Credit Load

The minimum credit load to be a full-time student during a sixteen-week semester is twelve credit hours. Students expecting to complete an Associate Degree in two years will typically need to complete between 15 and 18 credit hours per semester. If a student has earned a cumulative grade of "B" (3.0) on a minimum of 15 semester hours of college studies, exclusive of physical education activity courses, he or she may enroll for an overload.

Except where otherwise prescribed by the student's specific program, eighteen semester credit hours is the maximum number of credits for which a student is allowed to enroll during a full sixteen-week semester, six semester hours for a student enrolled in a five-week summer term, nine semester hours in an eight-week summer term, and twelve semester hours for an entire eleven-week summer session. A student may exceed the enrollment limits outlined above only by recommendation of his or her advisor and the approval of the Vice President of Instruction and Student Affairs.

Instructional Delivery Methods

Classroom Instruction includes a minimum 15 hours of personal contact per credit hour. Instruction may include lectures, small group discussion, labs, fieldtrips, or other in-person delivery methods.

Hybrid Courses are courses that combine online and on campus instruction. Online instructional activities are substituted for a portion of the required scheduled course time. Internet access and an email address are required.

Interactive Video courses can be delivered from any CNCC site. The instructor may be located in Rangely, Craig, or Meeker and students can attend any one of those sites simultaneously. The instructor can see students at the various sites and the students can see the instructor, as well as the other students.

Online Learning courses give students the flexibility to do coursework from home, office, or anywhere with a computer and Internet connection.

CCOnline courses are offered by the Colorado Community Colleges Online (CCOnline) program. CCOOnline courses are taught by instructors across the Colorado Community College System, but will appear on your CNCC transcript if you register for them through CNCC. For details about CCOOnline courses, please consult the CCOOnline website at www.cconline.org.

Final Examinations

Final examinations are given in most courses, and students are responsible for taking all assigned final examinations as they are listed in the examination schedule. Final examinations will not be given in advance of the scheduled time.

Independent Study Policy

Application for Independent Study should be completed by the student and the instructor and approved by the Vice President of Instruction and Student Affairs **prior to the beginning of the semester** during which the proposed project will be brought to completion. The following conditions apply:

1. Approvals will be based on
 - a. the student's course load;
 - b. the student's grade point average;
 - c. availability of other courses from the same category;
 - d. assessment of the student's ability to successfully complete the course; and
 - e. extenuating circumstances necessitating the independent study request.
2. A maximum of 12 credits may be earned by independent study.
3. Independent study courses shall be completed within the term for which the student registered.

Credit for Prior Learning

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

1. Portfolio: Learning through experiences such as reading and study, work, and on-the-job training or special classes. A \$25.00 charge applies for each portfolio reviewed.
2. Standardized Testing: A satisfactory score on nationally accepted tests such as CLEP, DANTES, and ACT-PEP.
3. Published Guide: Learning in a nontraditional setting such as a military or industry classroom. It must be evaluated in a published guide by a nationally known organization such as the American Council on Education.
4. Challenge Exam: Institutionally approved exam (objective, essay, oral, hands-on, simulated demonstration, etc.) will be used to evaluate the competency of students in specific courses. These examinations are the equivalent of the comprehensive final examination for the courses challenged and are **available only at the option of and with the approval of individual instructors**.

A student may use CPL to fulfill all degree/certificate graduation requirements except for the mandatory 25% residency requirement. All work assessed for CPL must meet or exceed "C" level work. Minimum cut-off scores on standardized tests are set at "C" level work. Prior experience shall be evaluated only if requested by the student.

No letter grade will be posted on the student's transcript for any of the prior learning methods. The course title, course number, and semester hours only will be posted on student transcripts.

Credit awarded for prior learning through this policy may not be used to meet residency credit requirements for certificate or degree programs, and a student must be officially enrolled for at least one semester hour of credit at the College to participate in any option. No credit for prior learning will be posted on the transcript unless one semester hour is completed.

Credit awarded may be applied toward the courses included in the core curriculum of general education; however, credit awarded for prior learning shall not be included in the analysis to determine if the transcript will be stamped "core program completed." Students who intend to transfer to a four-year college or university should verify that the Credit for Prior Learning courses will, indeed, apply to the baccalaureate degree or program at that college or university.

Classification of Students

Freshman:	Student with fewer than 30 passing semester hours of college credit.
Sophomore:	Student with 30 or more passing semester hours of college credit.
Full-time Student:	Student carrying 12 or more semester hours of credit during a semester.
Part-time Student:	Student carrying fewer than 12 semester hours of credit during a semester.

Grading System:

Grades are earned in each course, and the grade is recorded on the student's permanent record. Grade definitions are as follows:

- A.....Superior (4 grade points per credit earned)
- B.....Good (3 grade points per credit earned)
- C.....Average (2 grade points per credit earned)
- D.....Poor (1 grade point per credit earned)
- F.....Failure (0 grade points per credit earned)
- W.....Withdrawal (not computed in grade point average)
- AD.....Administrative Drop (not computed in grade point average)
- AW.....Administrative Withdrawal (not computed in grade point average)
- I.....Incomplete (not computed in grade point average)
- S.....Satisfactory (not computed in grade point average, but included in hours earned)
- U.....Unsatisfactory (not computed in grade point average, and not included in hours earned)
- AU.....Audit (not computed in grade point average)
- R.....Repeat
- Z.....Grade not yet reported
- SP.....Satisfactory progress

I - Incomplete A temporary grade granted in light of an emergency situation, which has prevented the student from completing all requirements of the course on time. It is the responsibility of the student to document/verify the factors that have delayed his/her progress. To be assigned an "I" for the semester, the student must have completed 75 percent of the requirements of the course or show reasonable evidence that he/she can complete the remaining requirements through independent study. After careful consideration of the circumstances, the instructor will assign a date by which the remainder of the student's work must be completed in order to earn credit for the course. (The student must negotiate the conditions of the Incomplete with the instructor before the end of the term of the course.) Otherwise, the requirements of the course must be completed no later than the end of the next 16-week semester. Alternatively, if the instructor perceives that the intervening factors make it likely that the student will not be able to complete the course requirements within the time frame allowed, the instructor may petition the Vice President of Instruction and Student Affairs to grant the student a late withdrawal from the course instead of an Incomplete. In this event, the student may later re-enroll in the course and complete the work in a normal sequence. However, once an Incomplete has been granted, a late withdraw cannot be requested. An Incomplete Form must be completed and signed by both the Instructor and the Vice President of Instruction and Student Affairs and submitted to the Admissions and Records Office prior to the last day of the semester.

S – Satisfactory Satisfactory (S) indicates passing in a course taken for pass-fail. A grade of (S) will not affect the overall grade point average, but will increase the total number of credit hours completed. An (S) grade in all CNCC courses represents a performance in the course equal to a C or higher.

Full-time students at Colorado Northwestern are permitted one pass-fail option per semester on a non-cumulative basis. These can be applied only to elective courses and **do not apply to the Associate of Arts or Associate of Science degrees**. Intent to exercise this option must be declared before the drop-add period has expired. Changes from the pass-fail to the standard letter-grading system can be effected only upon approval of a petition directed to the Vice President of Instruction and Student Affairs.

AU - Audit

Indicates the student has audited the course for self-enrichment or to visit the class periodically as a method of reviewing subject matter. The "AU" is placed on the student's permanent record; however, is not computed in the student's grade point average or credits attempted/completed.

Changes "to" or "from" audit status must be made during the registration or add/drop period. The withdrawal procedures apply to audit students; however, the student is not required to regularly attend the class or be evaluated, although regular class attendance and participation is encouraged to assure maximum benefit from the audit experience.

All degree-seeking students, whether full- or part-time, are advised not to take courses on an audit basis as they are not applied towards degree requirements and are not considered as credit hours attempted for financial aid purposes.

W – Withdrawal

Indicates that a student dropped a course after the first 15 percent of the course, but prior to the first 80 percent of the course. A grade of "W" is not computed in the student's grade point average, but is posted on the student's official transcript.

Computation of Grade Point Average

A three-credit course with a grade of "A" would earn 12 grade points (3 credit hours times 4 quality points). Total grade points accumulated by a student are divided by total credits attempted (excluding W, P, and I grades) to calculate a student's cumulative grade point average, or GPA. Grades awarded for developmental courses will not be included in a student's grade point average.

Repeating Courses

All college-level courses may be repeated. Each registration for the course and each grade received will be listed on the transcript. On the transcript a notation will follow the course indicating that the course was repeated and designating whether the course will be included in the GPA. The highest grade will be used in the GPA calculation. There will be no limitations on course grades that are eligible for repeat. All credit hours earned for initial and repeated courses will be deducted from a student's remaining COF stipend eligible hours.

"Repeated" courses may be applied only one time to a certificate or degree, except for variable credit courses and designated courses that may be repeated for professional or personal development. Each institution will designate courses that may be "repeated" within program requirements.

Developmental courses are eligible to be repeated. All developmental courses will appear on the transcript. Individual colleges may choose to specify a limit for the number of times a developmental course may be repeated.

Change of Grade

A grade reported to the Records Office may be changed upon recommendation of the faculty member issuing the grade and then upon authorization by the Vice President of Instruction and Student Affairs.

Grade changes must be reported no later than one semester (not including the summer semester) following completion of the course.

ACADEMIC PROBATION, SUSPENSION, AND EXPULSION

Academic Standards

During a student's first twelve credits, Colorado Northwestern will monitor satisfactory progress through an Academic Alert process. The academic standards applies to all students who have completed thirteen (13) or more credits in residence while attending CNCC.

Based on course completion and cumulative grade point average standards, students earn an academic standing as follows:

- Good standing Cumulative Grade Point Average (CGPA) ≥ 2.00 for all classes completed in residence.
- Academic Alert Student has completed less than 13 credits with a Cumulative Grade Point Average (CGPA) < 2.00 for all classes completed in residence.
- Probation (initial) Cumulative Grade Point Average (CGPA) < 2.00 for all classes completed in residence.
- Probation (continuing) Cumulative Grade Point Average (CGPA) < 2.00 for all classes completed in residence and last Term Grade Point Average (TGPA) ≥ 2.00 .
- Suspension (initial) Cumulative Grade Point Average (CGPA) < 2.00 for all classes completed in residence and last Term Grade Point Average (TGPA) < 2.00 . Student may not register for the next term (fall, spring, or summer) following the suspension term. Student may register for the subsequent term after meeting with an academic advisor of the college. Students with unusual circumstances of a compelling nature may appeal their suspension. Approval of the student's appeal may allow, but does not guarantee, that the student will be allowed to register without a break in enrollment. Students returning from a suspension will be on Probation (continuing).
- Suspension (second) Cumulative Grade Point Average (CGPA) < 2.00 for all classes completed in residence and last Term Grade Point Average (TGPA) < 2.00 . Student may not register for the next two terms (fall, spring, or summer) following the suspension term. Student may register for the term following the two term break in enrollment after meeting with an academic advisor of the college. Students with unusual circumstances of a compelling nature may appeal their suspension. Approval of the student's appeal may allow, but does not guarantee, that the student will be allowed to register without a break in enrollment. Students returning from a suspension will be on Probation (continuing).
- Suspension (third) Cumulative Grade Point Average (CGPA) < 2.00 for all classes completed in residence and last Term Grade Point Average (TGPA) < 2.00 . Student is suspended from the college and may not register for two (2) calendar years. Students with unusual circumstances of a compelling nature may appeal their suspension. Approval of the student's appeal may allow, but does not guarantee, that the student will be allowed to register without a break in enrollment. Students returning from a suspension will be on Probation (continuing).

NOTE: Students' transcripts will include the following notation as appropriate: Good Standing, Probation, Continued Probation, and Suspension (Initial, Second, and Third).

Summer semester will be considered a s term of non-enrollment.

Academic standing at one institution does not affect academic standing at another institution.

The resources of the college's faculty, Learning Assistance Programs (Rangely and Craig Campuses), and the various CNCC advising and counseling services are available to assist students in improving their academic standing, but the final responsibility rests with the student. Specific programs may have additional academic standards. It is the student's responsibility to learn the academic policies for his/her specific program.

Expulsion

Expulsion from the college shall mean that the student is not allowed to enroll for any classes at the college for four semesters, including the summer semester. Expelled students wishing to re-enter the College must make application for readmission and will be readmitted at the discretion of the Vice President of Instruction and Student Affairs.

President's Academic Distinction List

Any student who completes 12 or more credit hours (not including developmental courses) in one semester and maintains a GPA of 4.0 will be placed on the President's Academic Distinction List.

Dean's List

Any student who completes 12 or more credit hours (not including developmental courses) in one semester and maintains a GPA of 3.5 to 3.99 is placed on the Dean's List.

Recalculation of Grade Point Average

A student who re-enrolls at Colorado Northwestern Community College after an absence of two or more years may petition the Vice President of Instruction and Student Affairs to have his/her cumulative hours recalculated. The petitioning student must be enrolled and have completed at least 6 hours with a 2.0 minimum GPA. Up to 30 credits can be excluded from the GPA. If the petition is approved, the student resumes his/her academic program and begins with a new cumulative grade point average. All courses taken will remain on the permanent record, but only courses with marks of "A", "B", "C" will be allowed toward degree requirements and count in the total hours earned.

Transcripts

The Records Office will send a transcript of credits to other collegiate institutions or outside agencies with a **written request** signed by the student. Official transcripts are free. No transcripts will be released as long as the student has outstanding obligations (financial or otherwise) at Colorado Northwestern.

The transfer of academic credit to the college is governed by the following policies and procedures:

- Courses accepted in transfer **MUST** match the content and meet or exceed the rigor of the accepting institution as determined by the professional judgment of the Transfer Evaluator or department Chair.
- Transfer credit is accepted as specified by legislated and Colorado Community College System (CCCS) articulation agreements.
- The college may examine credits to insure that the content is not outdated or obsolete.
- Courses will be evaluated against the Colorado Common Course Numbering System (CCCNS) Catalog.
- The official transcript will include courses taken at the institution and those transfer credits requested by the student.
- Courses will be transcribed with CCCNS course number, title, prefix and the number of credits awarded by the transferring institution.
- Grades for transfer courses will be recorded, but will not show on the official transcript or be reflected in the student's GPA.
- Pre-requisite courses below the 100 level will not be accepted in transfer but will be noted in the student's academic record.
- A grade of "C", "P", "S" or better is required for transfer. Transfer credit will not be awarded for courses with "D", "F" or "U" grades. Individual colleges may choose to grant an exception to this rule and accept transfer courses with a grade of "D" on a case-by-case basis.

- Credits earned at the home institution with a grade of “D” may be applicable to a degree or certificate as determined by the program.
- Transfer courses that have the GT designation will be flagged as GT courses. If the course is not present in the CCCNS then it will be transcribed with the prefix GTP for GT-Pathways, the course number 999 and the course title that matches the GT designation, eg., CO1, AH3, MA1, etc.
- Transfer credits will be awarded as governed by CCHE and State Board policies and System President procedures.

Transfer Dispute Appeals Process

Students may file an appeal if they feel that coursework was not properly evaluated.

1. Student should meet with the Transcript Evaluator and/or the Director of Admissions and Records to request clarification within 10 calendar days of the date of the evaluation.
2. The appeal must be submitted to the Director of Admissions and Records in writing within 15 calendar days of the date of the evaluation.
3. The decisions regarding course transferability and/or placement made in the initial transcript evaluation will be binding if the student fails to file a written appeal within 15 calendar days.
4. The Transfer Credit Appeal Committee will have 30 calendar days to review the student’s appeal and inform the student in writing of the committee’s decision on the appeal including the rationale for that decision. In addition, the student shall be informed in writing of the process for appealing this decision.
5. The student is informed by the committee of the remaining appeal options. Failure to do so will result in the committee’s decision being considered null and void. The student’s request prevails and cannot be overturned by the college.

Appeals beyond the initial decision should be made in writing to the Vice President of Instruction and Student Affairs, within 15 calendar days of the postmark date of the letter notifying the student of the committee’s decision. If the student fails to file an appeal within this time period, the original or initial decision shall be binding. The college will hear and reach a decision on the appeal within 15 calendar days after the appeal is filed. Next, The student will be notified in writing by the college of its decision regarding the transfer appeal and the rationale for the decision. In addition, the student may appeal the decision to CCCS.

Academic Dishonesty

Colorado Northwestern considers academic dishonesty, which includes cheating and plagiarism, to be an extremely serious offense, which will be dealt with by appropriate disciplinary action.

Cheating

The word “cheating” refers to the acts of giving, utilizing, or receiving unpermitted aid during examinations or in the preparation of reports or any other class work that the instructor will use as a basis for evaluation. The following are some specific examples of cheating; however, these examples are not necessarily the only forms of cheating. Students are cheating if:

- they prepare, prior to an exam, written information, which they then use during the exam without the instructor’s knowledge or permission.
- they obtain from or give to another student any unpermitted information during an exam or while preparing class work.
- they change the answers on an exam or an exercise after it has been returned, and then ask the instructor to re-grade that exam or exercise.
- they have another person prepare reports or take exams for them.
- they turn in, as their own, term papers or reports that have been either purchased or borrowed from another source.

Plagiarism

The word “plagiarism” refers to the use of another person’s work without giving proper credit to that person. When copying verbatim another person’s work (i.e., words, phrases, sentences, or entire passages), a student must credit that person through the use of quotation marks and appropriate documentation (e.g., MLA or APA Style). When paraphrasing another person’s work (i.e., borrowing but rewording that person’s facts, opinions, or ideas), a student must give proper credit through the use of appropriate documentation.

Actions Taken Against Academic Dishonesty

If an instructor ascertains an act of academic dishonesty, he or she may assign the student involved a double F (failing) grade for that exam or assignment. This means a student may receive two (2) failing (F) grades for that assignment, and will not be allowed to withdraw from the course. Furthermore, the instructor will report the incident to the Vice President of Instruction and Student Affairs who, after consulting with both the instructor and the student and after obtaining sufficient proof of dishonesty, may place that student on probation (second act). The student shall be notified in writing of the probationary action. If the same student commits a subsequent (third) act of academic dishonesty, then the Vice President may suspend or expel the student from the College.

Certain programs or disciplines may require stronger penalties for academic dishonesty. Information on such policies may be obtained from the appropriate Program Director, Department Chair, or the Vice President.

Academic Appeals Procedure

The purpose of the academic appeals procedure outlined below is to secure equitable solutions to problems of an academic nature that affect a student’s academic progress.

Academic appeals may be instituted in the following areas:

- Denial of program completion/graduation
- Academic dismissal from a program
- Final grades

Note: Appeals/grievances of a non-academic nature are filed with the Dean of Academic Support Services (Rangely) or the Dean of Instruction (Craig) in accordance with current student grievance procedures.

The academic appeals procedure may take one of two routes:

- a. **Informal Appeal** — This process must be used first. The student and instructor should attempt to resolve the problem on an informal basis whenever possible. If this fails, the student may meet with the instructor and the department chair to resolve the issue. If the issue is not resolved in the informal process, the student may initiate the formal appeal process.

- b. **Formal Appeal** — A formal appeal must be initiated according to the procedures and timelines listed below:

- Final grade appeals must be initiated by the student within thirty calendar days of the awarding of the grade.
- Denial of program completion/graduation or academic dismissal appeals from any program must be initiated within ten calendar days following the notification to the student.
- The student may initiate a formal appeal by submitting a written statement to the Vice President of Instruction and Student Affairs describing the exact nature of the complaint and the remedy the student is seeking. This written appeal must be submitted within the specified timelines as noted above.
- The Vice President of Instruction and Student Affairs will convene an administrative hearing.
- Participants in the administrative hearing will include the student, the instructor, and the Vice President of Instruction and Student Affairs.
- The student and the instructor may submit written statements by other individuals having information regarding the complaint.
- After the hearing, the Vice President of Instruction and Student Affairs will review all oral and written statements and reach a decision. Both student and instructor will receive written notification of the decision within ten calendar days after the hearing.

Petition for Review: Subsequent to the appeals decision by the Vice President of Instruction and Student Affairs, the student may submit a written request to the President for review of the proceedings. The Petition for Review must be submitted within ten calendar days of the notification of the initial decision. Failure to meet the ten-day deadline will result in the initial decision made by the Vice President of Instruction and Student Affairs as being final and not subject to additional review.

Graduation Requirements

Colorado Northwestern grants the degree of Associate of Arts, Associate of Science, Associate of Applied Science, Associate Degree in General Studies, and the Certificate of Completion. Students must meet degree/certificate requirements outlined in the College Catalog, maintain a minimum cumulative grade point average of 2.0 on all work attempted at CNCC, and maintain a minimum cumulative grade point average of 2.0 in all courses to be applied to the certificate or degree. Students desiring to obtain multiple degrees from CNCC (example – an AA and an AS), must have 12 unique credits applied to each degree. Certain programs may require higher standards on coursework applicable to the degree. Such requirements can be obtained from the appropriate Program Director or the Vice President of Instruction and Student Affairs. Students should consult with their advisor for specific requirements for each of the degrees. A minimum of 15 credit hours that apply toward the particular degree/certificate must be earned from Colorado Northwestern for graduation.

Students planning to graduate must file a Graduation Application with the Admissions and Records Office. The applications must be filed during the registration period of the semester in which the student intends to graduate.

NOTE: All new degree and certificate seeking students must complete AAA 101, College 101: The Student Experience (1 credit hour) in order to qualify for graduation. Exceptions to this requirement include 1) Students with 15 credits of college course work with a cumulative GPA of 2.5 or above and 2) Non-degree seeking, continuing education, and community education students.

Graduation Honors

Graduation honors recognizes outstanding academic achievement throughout a student's academic career at the home institution. The honors are awarded to students who complete the requirements for an associate degree and earn a 3.5 or better cumulative grade point average at the institution. Only college level courses completed at the institution will be included in the GPA calculation. Individual colleges may choose to designate a minimum number of credits to be earned in residence at the college to be eligible for graduation honors. The three levels of recognition are defined as follows and will be posted on the student's transcript –

Cum Laude (“with honor”)	3.50 to 3.749	Cumulative GPA
Magna Cum Laude (“with great honor”)	3.75 to 3.99	Cumulative GPA
Summa Cum Laude (“with highest honor”)	4.0	Cumulative GPA

Assessment of Student Learning

CNCC believes it is important to assess students' progress toward achieving their learning goals. Reviewing student assessment results helps College faculty and administration make changes that help improve teaching, learning, and student satisfaction. CNCC has identified two general education outcomes as priorities: 1) To equip students with skills necessary for creative problem solving, critical thinking, and analysis of values, and 2) To equip students with the communication skills necessary for effective listening, speaking, reading, and writing. The Test of Everyday Reasoning (TER), given at numerous colleges throughout the nation, is an assessment instrument used to measure critical thinking skills. It is an un-timed, paper-and-pencil test that takes approximately 45 to 60 minutes to complete. Because CNCC believes so strongly in the value of assessing what students have learned, the TER is a **requirement** for both incoming freshmen and graduating sophomores. Test results are published annually on the CNCC Website.

ACADEMIC TRANSFER PROGRAMS

Colorado Northwestern offers the Associate of Arts (AA) and the Associate of Science (AS) degrees for the student who wishes to transfer to a baccalaureate-level college or university. Each of the programs fulfills the General Education Core Transfer Program.

Career and transfer opportunities vary according to one's intended major of concentration. Students are encouraged to explore a range of subjects through elective course work in fine arts, behavioral sciences, natural sciences and mathematics, literature, business, and humanities. Students are assisted, through the academic advising program, to realistically assess their goals and aspirations.

GT Pathways

The Colorado Community College System has entered into a series of agreements between Colorado's community/junior colleges and Colorado's public four-year colleges and universities on a guaranteed transfer curriculum. These agreements assure transferability of general education courses among Colorado's public colleges and universities, ensuring access to higher education to students who wish to meet the lower division general education requirements of most baccalaureate degrees at a local community college before continuing at a four-year college or university.

The GT Pathways Program makes it possible for Colorado Northwestern Community College students to complete a core of general education curriculum requirements and be guaranteed transfer credit for these classes at Colorado's public four-year colleges and universities. Each Core course must be completed with a grade of "C" or better. Only courses taken after the Colorado Department of Higher Education approval date have transfer guarantees.

The State Guaranteed General Education Transfer Courses include five areas of study and credits for transfer, as indicated below.

AREAS OF STUDY	ASSOCIATE OF ARTS DEGREE	ASSOCIATE OF SCIENCE DEGREE
Communications	9 Semester Hours	9 Semester Hours
Mathematics	3 Semester Hours	4 Semester Hours
Science	8 Semester Hours	8 Semester Hours
Social and Behavioral Sciences	9 Semester Hours	9 Semester Hours
Arts and Humanities	9 Semester Hours	9 Semester Hours
TOTAL CREDITS	38 Semester Hours	39 Semester Hours

The 60 + 60 Transfer Plan

Students transferring from a two-year school to a four-year school may be entitled to additional guarantees. If students complete an AA or AS degree, 60 credit hours of the degree are guaranteed to transfer to the four-year school, once students are admitted. In addition, students should be able to finish a Bachelor's of Arts or Bachelor's of Science degree within another 60 credit hours.

Statewide articulation agreements prescribe specific general education requirements for the following professional degree programs: business, early childhood, elementary education, engineering, and nursing. Students should check with the school they wish to attend, so that they are clear about which credits will transfer beyond any that are guaranteed by the guaranteed transfer program or a statewide articulation agreement.

State Guaranteed General Education Transfer Courses

ANT 101	Cultural Anthropology (3)
ANT 107	Introduction to Archaeology (3)
ANT 111	Physical Anthropology (3)
ANT 215	Indians of North America (3)
ART 110	Art Appreciation (3)
ART 111,112	Art History I,II (3,3)
ART 207	Art History 1900 to Present (3)
AST 101,102	Astronomy I,II (4,4)
BIO 105	Science of Biology (4)
BIO 111,112	General College Biology I,II (5,5)
BIO 201,202	Anatomy & Physiology I,II (4,4)
BIO 204	Microbiology (4)
CHE 101,102	Introduction to Chemistry I,II (5,5)
CHE 105	Chemistry in Context (5)
CHE 111,112	General College Chemistry I,II (5,5)
DAN 125	History of Dance I (3)
ECO 101	Economics of Social Issues (3)
ECO 201,202	Principles of Macro/Micro Economics (3,3)
ECO 245	Environmental Economics (3)
ENG 121,122	English Composition I,II (3,3)
ETH 200	Introduction to Ethnic Studies (3)
FRE 211,212	French Language III,IV (3,3)
GEO 105	Geography (3)
GEO 106	Human Geography (3)
GER 211,212	German Language III,IV (3,3)
GEY 111	Physical Geology (4)
GEY 121	Historical Geology (4)
HIS 101,102	Western Civilization I,II (3,3)
HIS 111,112	World Civilization I,II (3,3)
HIS 201,202	U.S. History I,II (3,3)
HIS 247	Contemporary World History (3)
HUM 121	Humanities: Early Civilizations
HUM 122	Humanities: Medieval to Modern
HUM 123	Humanities: The Modern World
ITA 211,212	Italian Language III,IV (3,3)
JOU 105	Introduction to Mass Media
JPN 211,212	Japanese Language III,IV (3,3)
LIT 115	Introduction to Literature (3)
LIT 201,202	Masterpieces of Literature I,II (3,3)
LIT 205	Ethnic Literature (3)
LIT 211,212	Survey of American Literature I,II (3,3)
LIT 221,222	Survey of British Literature I,II (3,3)
LIT 225	Introduction to Shakespeare (3)
MAT 120	Mathematics for Liberal Arts (4)
MAT 121	College Algebra (4)
MAT 122	Trigonometry (3)
MAT 123	Finite Mathematics (4)
MAT 125	Survey of Calculus (4)
MAT 135	Introduction to Statistics (3)
MAT 155,156	Integrated Math I,II (3,3)
MAT 166	Pre-Calculus (5)
MAT 201,202,203	Calculus I,II,III (5,5,4)
MAT 204	Calculus III w/ Engineering Apps (5)
MAT 215	Discrete Mathematics (4)
MAT 255	Linear Algebra

MAT 261	Diff Equations w/ Engineering Apps (4)
MAT 265	Differential Equations (3)
MET 150	General Meteorology (4)
MUS 120	Music Appreciation (3)
MUS 121,122	Introduction to Music History I,II (3,3)
MUS 123	Survey of World Music (3)
PHI 111	Introduction to Philosophy (3)
PHI 112	Ethics (3)
PHI 113	Logic (3)
PHI 114	Comparative Religions (3)
PHI 214	Philosophy of Religion (3)
PHY 105	Conceptual Physics (4)
PHY 111,112	Physics: Algebra Based I,II (5,5)
PHY 211,212	Physics: Calculus Based I,II (5,5)
POS 105	Introduction to Political Science (3)
POS 111	American Government (3)
POS 205	International Relations (3)
POS 225	Comparative Government (3)
PSY 101,102	General Psychology I,II (3,3)
PSY 205	Psychology of Gender (3)
PSY 217	Human Sexuality (3)
PSY 226	Social Psychology (3)
PSY 227	Psychology of Death and Dying (3)
PSY 235	Human Growth and Development (3)
PSY 238	Child Development (3)
PSY 240	Health Psychology (3)
PSY 249	Abnormal Psychology (3)
RUS 211,212	Russian Language III,IV (3,3)
SCI 155,156	Integrated Science I,II (4,4)
SOC 101,102	Sociology I,II (3,3)
SOC 205	Sociology of Family Dynamics (3)
SOC 215	Contemporary Social Problems (3)
SOC 216	Sociology of Gender (3)
SOC 220	Sociology of Religion (3)
SOC 231	Sociology of Deviant Behavior (3)
SPA 211,212	Spanish Language III,IV (3,3)
THE 105	Introduction to Theatre Arts (3)
THE 211,212	Development of Theatre I,II (3,3)
WST 200	Introduction to Women Studies (3)

Approved Electives for Associate of Arts Degree

AAA (101, 109) ACC (121, 122), ANT, ART, AST, BIO, BUS (115, 216, 217, 226), CHE, CIS (118, 124), CNG 160, COM, CRJ (110, 210), CSC, ECO, EDU 221, ENG (121 or above), ENV 101, FRE, GEO, GER, GEY, GIS 105, HIS, HPR (102, 137, 178, 278, 205, 206, 216, 217), HUM, HWE (100, 237), ITA JOU, JPN, LIT, MAN 226, MAR 216, MAT (120 or above), MUS, NRE 102, PED (2 credits maximum), PER, PHI, PHO, PHY, POS, PSY, RUS, SCI, SOC, SPA, and THE

Approved Electives for Associate of Science Degree

AST, BIO, CHE, CIS (118, 124), CSC, GEY, MAT (121 or higher), PED (2 credits maximum), PHY, SCI

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CNCC Philosophy of General Education

General education at Colorado Northwestern Community College seeks to assist students in obtaining the knowledge, skills, and attitudes that enhance quality of life and the ability to function effectively in an ever-changing society. To meet this goal, all CNCC students, vocational and liberal arts, full-time and part-time, are provided with a variety of educational experiences, both within and outside the classroom.

CNCC emphasizes two general education outcomes for every student:

1. To equip students with skills necessary for creative problem solving, critical thinking, and analysis of values.
2. To equip students with the communication skills necessary for effective listening, speaking, reading, and writing.

ASSOCIATE OF ARTS LIBERAL ARTS

PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
	<u>GENERAL EDUCATION CORE – 39 credits</u>				
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
9	<u>COMMUNICATIONS</u>				
	English Composition I	ENG 121	_____	_____	_____
	English Composition II	ENG 122	_____	_____	_____
	**Public Speaking 115 or COM 125	COM _____	_____	_____	_____
	(**This requirement is a Colorado Community College System Requirement and is in addition to the State Guaranteed General Education Transfer Courses.)				
9	<u>ARTS AND HUMANITIES (Select 3 courses with no more than 2 courses from any single category):</u>				
	ARTS: ART 110, 111, 112, 207; MUS 120, 121, 122;	_____	_____	_____	_____
	THE 105, 211, 212; LIT/HUM: HUM 121, 122, 123;	_____	_____	_____	_____
	LIT 115, 201, 202, 205, 211, 212, 221, 222, 225;	_____	_____	_____	_____
	WAYS OF THINKING: PHI 111, 112, 113, 114, 214				
	FOREIGN LANGUAGES: FRE/GER/ITA/JPN/RUS/SPA 211, 212				
3	<u>MATHEMATICS (select 3 credits minimum)</u>				
	MAT 120, 121, 122, 125, 135, 155, 156, 166, 201, 202, 203,	MAT _____	_____	_____	_____
	204, 215, 261, 265				
9	<u>SOCIAL/BEHAVIORAL SCIENCES (Select 3 courses – one must be HIS – with no more than 2 courses from any single category):</u>				
	HIS: HIS 101, 102, 111, 112, 201, 202, 247; GEO: GEO 105, 106;	HIS _____	_____	_____	_____
	ECONOMICS & POLITICAL SYSTEMS: ECO 201, 202, 245;	_____	_____	_____	_____
	POS 105, 111, 205, 225; HUM. BEHAVIOR & SOC. SYSTEMS:	_____	_____	_____	_____
	ANT 101, 107, 111; PSY 101, 102, 205, 217, 226, 227, 235, 238, 249;				
	SOC 101, 102, 215, 216, 231				
8	<u>PHYSICAL AND LIFE SCIENCES (Select 2 courses. Credits over 8 will be applied to the elective category):</u>				
	AST 101, 102; BIO 105, 111, 112, 201, 202, 204;	_____	_____	_____	_____
	CHE 105, 101, 102, 111, 112; GEY 111, 121; MET 150;	_____	_____	_____	_____
	PHY 105, 111, 112, 211, 212; SCI 155, 156				
21	<u>ELECTIVES – 21 credits</u>				
	<u>ELECTIVES FROM OTHER ACADEMIC COURSES APPROVED IN THE AA COURSE LIST BELOW.</u>				
	(The list of approved courses for electives excludes vocational courses and remedial courses)				
	The elective hours may be chosen from the State	_____	_____	_____	_____
	Guaranteed General Education Transfer courses	_____	_____	_____	_____
	listed within each applicable degree plan or from	_____	_____	_____	_____
	any of the following courses:	_____	_____	_____	_____
	AAA (101, 109), ACC (121, 122), ANT, ART, AST, BIO,	_____	_____	_____	_____
	BUS (115, 216, 217, 226), CHE, CIS (118, 124), CNG 160,	_____	_____	_____	_____
	CRJ (110, 210), CSC, ECO, EDU 221, ENG (121 or above),	_____	_____	_____	_____
	ENV 101, FRE, GEO, GER, GEY, GIS 105, HIS,	_____	_____	_____	_____
	HPR (102, 137, 178, 278, 205, 206, 216, 217), HUM, HWE (100, 237),	_____	_____	_____	_____
	ITA, JOU, JPN, LIT, MAN226, MAR 216, MAT (120 or above),	_____	_____	_____	_____
	MUS, NRE 102, PED (2 credits maximum), PER, PHI, PHO, PHY	_____	_____	_____	_____
	POS, PSY, RUS, SCI, SOC, SPA, SPE, THE				

60 TOTAL REQUIRED HOURS FOR ASSOCIATE OF ARTS

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

ASSOCIATE OF ARTS

For the State-wide Articulation in

BUSINESS

PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
	<u>GENERAL EDUCATION CORE – 41 credits</u>				
1	College 101: The Academic Experience	AAA101	_____	_____	_____
9	<u>COMMUNICATIONS</u>				
	English Composition I	ENG 121	_____	_____	_____
	English Composition II	ENG 122	_____	_____	_____
	**Public Speaking 115 or SPE 125	COM ____	_____	_____	_____
	(**This requirement is a Colorado Community College System Requirement and is in addition to the State Guaranteed General Education Transfer Courses.)				
6	<u>ARTS AND HUMANITIES (Select 2 courses)</u>				
	ARTS: ART 110, 111, 112, 207; MUS 120, 121, 122;	_____	_____	_____	_____
	THE 105, 211, 212; LIT/HUM: HUM 121, 122, 123;	_____	_____	_____	_____
	LIT 115, 201, 202; WAYS OF THINKING: PHI 111, 112, 113				
8	<u>MATHEMATICS</u>				
	College Algebra MAT 121 OR Finite Mathematics MAT 123	MAT ____	_____	_____	_____
	Survey of Calculus	MAT 125	_____	_____	_____
9	<u>SOCIAL/BEHAVIORAL SCIENCES</u>				
	HIS 101, 102, 201, or 202	HIS ____	_____	_____	_____
	Principles of Macroeconomics	ECO 201	_____	_____	_____
	Principles of Microeconomics	ECO 202	_____	_____	_____
8	<u>PHYSICAL AND LIFE SCIENCES (Select 2 courses):</u>				
	AST 101, 102; BIO 105, 111, 112, 201, 202, 204;	_____	_____	_____	_____
	CHE 101, 102, 105, 111, 112; GEY 111, 121; MET 150; PHY 105, 111, 112, 211, 212, SCI 155, 156	_____	_____	_____	_____
20	<u>BUSINESS GRADUATION REQUIREMENTS – 20 credits</u>				
4	Accounting Principles I	ACC 121	_____	_____	_____
4	Accounting Principles II	ACC 122	_____	_____	_____
3	Introduction to Business	BUS 115	_____	_____	_____
3	Legal Environment of Business	BUS 216	_____	_____	_____
3	Business Communications & Report Writing	BUS 217	_____	_____	_____
3	Business Statistics	BUS 226	_____	_____	_____

61 TOTAL REQUIRED HOURS FOR ASSOCIATE OF ARTS

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Updated 5/13/2009

PROFESSIONAL/TECHNICAL AND INDIVIDUALIZED DEGREE PROGRAMS

GENERAL STUDIES PROGRAMS

The Associate Degree in General Studies is awarded to students who wish to arrange their own program. Guidelines require that a student pursuing an AGS must develop, in consultation with an academic advisor, a written statement of objectives and a plan of studies designed to meet those objectives. This degree can be designed to obtain professional job skills or to transfer to four-year colleges or universities.

This degree includes a basic core of General Education in specific disciplines. In addition, a student can choose elective credits in any academic discipline, area of personal interest, or occupational field.

Various transfer courses from this degree may be accepted in a four-year baccalaureate program; however, each course will be considered on an individual basis. It is **strongly suggested** that students work closely with their academic advisors in developing an AGS degree track for transfer purposes.

Associate Degree in General Studies	45
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Suggested Programs of Study

Aviation Technology	46
Criminal Justice	47
Fire Science-Wildland	48
Geographic Information Systems	49
Human Services	50
Marine Science and Oceanography	51
Natural Resource Management	52

CNCC Philosophy of Career & Technical Education

Career & Technical Education at CNCC seeks to assist students in gaining knowledge, skills, and attitudes that promote occupational competence and the ability to function effectively in the workplace. To meet this goal, students are provided with a variety of educational experiences inside and outside of the classroom.

ASSOCIATE OF GENERAL STUDIES

PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
1	GENERAL EDUCATION REQUIREMENTS – 15 credits				
	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	COMMUNICATIONS				
	English Composition I	ENG 121	_____	_____	_____
3	SOCIAL/BEHAVIORAL SCIENCE				
	Requirement satisfied by one of the following:	_____	_____	_____	_____
	ANT 101, 107, 111; ECO 201, 202, 245; GEO 105, 106;				
	HIS 101, 102, 111, 112, 201, 202, 247; POS 105, 111, 205, 225;				
	PSY 101, 102, 205, 217, 226, 227, 235, 238, 249; SOC 101, 102, 215, 216, 231				
3	SCIENCE				
	Requirement satisfied by one of the following:	_____	_____	_____	_____
	AST 101, 102; BIO 105, 111, 112, 201, 202, 204;				
	CHE 105, 101, 102, 111, 112; GEY 111, 121; MET 150;				
	PHY 105, 111, 112, 211, 212; SCI 155, 156				
3	MATH				
	Requirement satisfied by one of the following:	MAT _____	_____	_____	_____
	MAT 120, 121, 122, 123, 125, 135, 155, 156,				
	166, 201, 202, 203, 204, 215, 261, 265				
3	LITERATURE/HUMANITIES				
	Requirement satisfied by one of the following:	_____	_____	_____	_____
	ART 110, 111, 112, 207; LIT 115, 201, 202, 205,				
	211, 212, 221, 222, 225; MUS 120, 121, 122;				
	PHI 111, 112, 113, 114, 214; THE 105, 211, 212;				
	FRE/GER/ITA/JPN/RUS/SPA 211, 212				
15	GENERAL EDUCATION ELECTIVES – 15 credits				
	Requirement satisfied by any approved	_____	_____	_____	_____
	General Education elective, selected in	_____	_____	_____	_____
	Consultation with a Counselor or Academic Advisor	_____	_____	_____	_____
		_____	_____	_____	_____
		_____	_____	_____	_____
	SPECIALTY ELECTIVES – 30 credits				
30	Any approved course. Courses to be selected in	_____	_____	_____	_____
	Consultation with a Counselor or Academic Advisor.	_____	_____	_____	_____
	CO State guidelines require that any student who	_____	_____	_____	_____
	Pursues an Ass. Of Gen. Studies Degree “develop,	_____	_____	_____	_____
	In consultation with & with the approval of counselors	_____	_____	_____	_____
	And/or faculty advisors, a written statement of objectives	_____	_____	_____	_____
	& courses needed to satisfy those objectives”	_____	_____	_____	_____
	Therefore, to enroll in the Assoc. of Gen Studies Degree	_____	_____	_____	_____
	Program, it is necessary for your to meet with a	_____	_____	_____	_____
	Counselor (where appropriate, refer student to faculty advisor).	_____	_____	_____	_____

60 TOTAL REQUIRED HOURS FOR ASSOCIATE DEGREE IN GENERAL STUDIES

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

The above list of requirements to complete the Associate Degree in General Studies has been fully explained to me. I understand that it is my responsibility to see that all requirements are fulfilled prior to my expected date of graduation. If the requirements of this major change prior to my graduation, this contract insures that the change will have no effect on me unless I change majors. Required enrollment in learning assistance courses based on my ACCUPLACER scores may extend my program beyond two years. Breaks in enrollment may result in changes in my program requirements. **Updated 5/13/2009**

ASSOCIATE DEGREE IN GENERAL STUDIES
AVIATION TECHNOLOGY
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS - 23 credits</u>					
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
3	English Composition II	ENG 122	_____	_____	_____
3	Public Speaking	COM 115	_____	_____	_____
3	Principles of Macroeconomics OR Principles of Microeconomics	ECO _____	_____	_____	_____
4	College Algebra	MAT 121	_____	_____	_____
<u>HUMANITIES</u>					
Select from:					
6	ART 110, 111, 112; HUM 121, 122, 123; LIT 115, 201, 202; MUS 120, 121, 122; PHI 111, 112, 113; THE 105, 211, 212;	_____	_____	_____	_____
	Foreign Language 111, 112, 211, 212	_____	_____	_____	_____
<u>SPECIALIZED COURSE REQUIREMENTS – 30 credits</u>					
4	Private Pilot Ground School	AVT 101	_____	_____	_____
4	Private Pilot Flight	AVT 102	_____	_____	_____
4	Aviation Meteorology	AVT 105	_____	_____	_____
4	Instrument Pilot Ground School	AVT 111	_____	_____	_____
4	Instrument Pilot Flight	AVT 112	_____	_____	_____
2	Commercial Pilot Ground School	AVT 201	_____	_____	_____
3	Commercial Pilot Flight I	AVT 202	_____	_____	_____
4	Commercial Pilot Flight II	AVT 203	_____	_____	_____
1	Mountain Flying Ground School	AVT 205	_____	_____	_____
<u>RELATED COURSE REQUIREMENTS – 8 credits</u>					
5	Physics: Algebra Based I	PHY 111	_____	_____	_____
3	Select from HIS 101, 102, 201, 202	HIS _____	_____	_____	_____

61 TOTAL REQUIRED HOURS FOR ASSOCIATE DEGREE IN GENERAL STUDIES

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Updated 5/13/2009

ASSOCIATE DEGREE IN GENERAL STUDIES
CRIMINAL JUSTICE
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 29 credits</u>					
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
3	English Composition II	ENG 122	_____	_____	_____
3	Public Speaking	COM 115	_____	_____	_____
3	<u>MATHEMATICS</u> MAT 121, 135, 201, 202	MAT _____	_____	_____	_____
4	<u>SCIENCE</u> AST 101, 102; BIO 105, 111, 112; CHE 101, 102, 111, 112; GEY 111, 121; PHY 105, 111, 112, 211, 212	_____	_____	_____	_____
9	<u>HUMANITIES</u> ART 110, 111, 112; HUM 121, 122, 123; LIT 115, 201, 202; MUS 120, 121, 122; PHI 111, 112, 113; THE 105, 211, 212; Foreign Language 111, 112, 211, 212	_____	_____	_____	_____
3	Select 1 course from SPA 101, 111, 115, or ASL 101	_____	_____	_____	_____
<u>SPECIALIZED COURSE REQUIREMENTS – 27 credits</u>					
3	Introduction to Criminal Justice	CRJ 110	_____	_____	_____
3	Substantive Criminal Law	CRJ 111	_____	_____	_____
3	Procedural Criminal Law	CRJ 112	_____	_____	_____
3	Law Enforcement Operations	CRJ 125	_____	_____	_____
3	Judicial Function	CRJ 135	_____	_____	_____
3	Correctional Process	CRJ 145	_____	_____	_____
3	Constitutional Law	CRJ 210	_____	_____	_____
3	Human Relations and Social Conflict	CRJ 220	_____	_____	_____
3	Criminology	CRJ 230	_____	_____	_____
<u>RELATED COURSE REQUIREMENTS – 9 credits</u>					
3	General Psychology	PSY 101	_____	_____	_____
3	Introduction to Sociology I	SOC 101	_____	_____	_____
3	American Government	POS 111	_____	_____	_____

65 TOTAL REQUIRED HOURS FOR ASSOCIATE DEGREE IN GENERAL STUDIES

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**ASSOCIATE DEGREE IN GENERAL STUDIES
FIRE SCIENCE - WILDLAND
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS**

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
	<u>GENERAL EDUCATION REQUIREMENTS – 42 credits</u>				
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
	<u>COMMUNICATIONS</u>				
9	English Composition I	ENG 121	_____	_____	_____
	English Composition II	ENG 122	_____	_____	_____
	Public Speaking	COM 115	_____	_____	_____
4	<u>MATHEMATICS</u>				
	MAT 121, 201	MAT _____	_____	_____	_____
10	<u>PHYSICAL AND LIFE SCIENCE</u>				
	BIO 111, 112; CHE 111, 112;	_____	_____	_____	_____
		_____	_____	_____	_____
9	<u>HUMANITIES</u>				
	ARTS: ART 110, 111, 112; MUS 120, 121, 122;	_____	_____	_____	_____
	THE 105, 211, 212; LIT/HUM: HUM 121, 122, 123;	_____	_____	_____	_____
	LIT 115, 201, 202; WAYS OF THINKING: PHI 111, 112, 113;	_____	_____	_____	_____
9	<u>SOCIAL/BEHAVIORAL SCIENCES (Select 3 courses – one must be HIS – with no more than 2 courses from any single category):</u>				
	HIS: HIS 101, 102, 201, 202; GEO: GEO 105;	HIS _____	_____	_____	_____
	ECONOMICS & POLITICAL SYSTEMS: ECO 201, 202;	_____	_____	_____	_____
	POS 105, 111; HUM. BEHAVIOR & SOC. SYSTEMS:	_____	_____	_____	_____
	ANT 101, 111; PSY 101, 102; SOC 101, 102				
	<u>SPECIALIZED COURSE REQUIREMENTS – 19 credits</u>				
3	Introduction to Natural Resources Management	NRE 102	_____	_____	_____
4	Introductory Soil Science	AGY 240	_____	_____	_____
4	General College Ecology	BIO 222	_____	_____	_____
3	Natural Resource Policy and Administration	NRE 260	_____	_____	_____
3	Wildland Firefighting (S-130, S-190)	FST 152	_____	_____	_____
2	Intermediate Fire Behavior	FST 260	_____	_____	_____

61 TOTAL REQUIRED HOURS FOR ASSOCIATE DEGREE IN GENERAL STUDIES

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

ASSOCIATE DEGREE IN GENERAL STUDIES
GEOGRAPHIC INFORMATION SYSTEMS
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
	<u>GENERAL EDUCATION REQUIREMENTS – 42 credits</u>				
1	College 101: The Academic Experience	AAA 111	_____	_____	_____
	<u>COMMUNICATIONS</u>				
9	English Composition I	ENG 121	_____	_____	_____
	English Composition II	ENG 122	_____	_____	_____
	Public Speaking	COM 115	_____	_____	_____
4	<u>MATHEMATICS</u>				
	MAT 121, 201	MAT _____	_____	_____	_____
10	<u>PHYSICAL AND LIFE SCIENCE</u>				
	BIO 111, 112; CHE 111, 112;	_____	_____	_____	_____
		_____	_____	_____	_____
9	<u>HUMANITIES</u>				
	ARTS: ART 110, 111, 112; MUS 120, 121, 122;	_____	_____	_____	_____
	THE 105, 211, 212; LIT/HUM: HUM 121, 122, 123;	_____	_____	_____	_____
	LIT 115, 201, 202; WAYS OF THINKING: PHI 111, 112, 113;	_____	_____	_____	_____
9	<u>SOCIAL/BEHAVIORAL SCIENCES (Select 3 courses – one must be HIS – with no more than 2 courses from any single category):</u>				
	HIS: HIS 101, 102, 201, 202; GEO: GEO 105;	HIS _____	_____	_____	_____
	ECONOMICS & POLITICAL SYSTEMS: ECO 201, 202;	_____	_____	_____	_____
	POS 105, 111; HUM. BEHAVIOR & SOC. SYSTEMS:	_____	_____	_____	_____
	ANT 101, 111; PSY 101, 102; SOC 101, 102	_____	_____	_____	_____
	<u>SPECIALIZED COURSE REQUIREMENTS – 19 credits</u>				
3	Introduction to PC Applications	CIS 118	_____	_____	_____
3	ArcView GIS	GIS 105	_____	_____	_____
3	Global Positioning Systems for GIS	GIS 131	_____	_____	_____
1	Internship	GIS 180	_____	_____	_____
3	GIS Applications	GIS 205	_____	_____	_____
3	Introduction to Natural Resources Management	NRE 102	_____	_____	_____
3	Natural Resource Policy and Administration	NRE 260	_____	_____	_____

61 TOTAL REQUIRED HOURS FOR ASSOCIATE DEGREE IN GENERAL STUDIES

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

ASSOCIATE DEGREE IN GENERAL STUDIES
HUMAN SERVICES
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
	<u>GENERAL EDUCATION REQUIREMENTS – 25 credits</u>				
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
	<u>COMMUNICATIONS</u>				
3	English Composition I	ENG 121	_____	_____	_____
3	English Composition II OR Technical Writing	ENG _____	_____	_____	_____
3	Public Speaking	COM 115	_____	_____	_____
	<u>MATHEMATICS</u>				
3	College Algebra OR Introduction to Statistics	MAT _____	_____	_____	_____
	<u>SCIENCE</u>				
3	BIO 105, 111, 112, 116, 201, 202, 222, ENV 101	_____	_____	_____	_____
3	Introduction to Sociology	SOC 101	_____	_____	_____
	<u>HUMANITIES</u>				
3	Select one course from: HUM 103, 121, 122, 123; LIT 115, 145, 201, 202, 211, 212 or PHI 112	_____	_____	_____	_____
3	Select one course from SPA 101, 111, 115; or ASL 101	_____	_____	_____	_____
	<u>SPECIALIZED COURSE REQUIREMENTS – 12 credits</u>				
3	General Psychology I	PSY 101	_____	_____	_____
3	General Psychology II	PSY 102	_____	_____	_____
3	Substance Abuse	CRJ 143	_____	_____	_____
3	Contemporary Social Problems (SOC 215) or Human Relations and Social Conflict (CRJ 220)	_____	_____	_____	_____
	<u>RELATED COURSE REQUIREMENTS – 12 credits</u>				
3	Introduction to Sociology II	SOC 102	_____	_____	_____
3	Sociology of Family Dynamics	SOC 205	_____	_____	_____
3	Human Growth and Development	PSY 235	_____	_____	_____
3	Abnormal Psychology	PSY 249	_____	_____	_____
	<u>ELECTIVES – Choose 12 credit hours</u>				
3	American Government	POS 111	_____	_____	_____
3	American, State and Local Government	POS 125	_____	_____	_____
3	Human Relations	PSY 106	_____	_____	_____
3	Human Sexuality	PSY 217	_____	_____	_____
3	Child Abuse and Neglect	PSY 247	_____	_____	_____
3	Victims of Crime and Trauma	CRJ 150	_____	_____	_____

61 TOTAL REQUIRED HOURS FOR ASSOCIATE DEGREE IN GENERAL STUDIES

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Updated 5/13/2009

ASSOCIATE DEGREE IN GENERAL STUDIES
MARINE SCIENCE & OCEANOGRAPHY
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
	<u>GENERAL EDUCATION REQUIREMENTS – 42 credits</u>				
1	College 101: The Educational Experience	AAA 101	_____	_____	_____
9	<u>COMMUNICATIONS</u>				
	English Composition I	ENG 121	_____	_____	_____
	English Composition II	ENG 122	_____	_____	_____
	Public Speaking	COM 115	_____	_____	_____
4	<u>MATHEMATICS</u>				
	MAT 121, 201	MAT _____	_____	_____	_____
10	<u>PHYSICAL AND LIFE SCIENCES</u>				
	BIO 111, 112; CHE 111, 112;	_____	_____	_____	_____
		_____	_____	_____	_____
9	<u>HUMANITIES</u>				
	ARTS: ART 110, 111, 112; MUS 120, 121, 122;	_____	_____	_____	_____
	THE 105, 211, 212; LIT/HUM: HUM 121, 122, 123;	_____	_____	_____	_____
	LIT 115, 201, 202; WAYS OF THINKING: PHI 111, 112, 113;	_____	_____	_____	_____
9	<u>SOCIAL/BEHAVIORAL SCIENCES (Select 3 courses – one must be HIS – with no more than 2 courses from any single category):</u>				
	HIS: HIS 101, 102, 201, 202; GEO: GEO 105;	HIS _____	_____	_____	_____
	ECONOMICS & POLITICAL SYSTEMS: ECO 201, 202;	_____	_____	_____	_____
	POS 105, 111; HUM. BEHAVIOR & SOC. SYSTEMS:	_____	_____	_____	_____
	ANT 101, 111; PSY 101, 102; SOC 101, 102	_____	_____	_____	_____
	<u>SPECIALIZED COURSE REQUIREMENTS – 19 credits</u>				
4	General College Ecology	BIO 222	_____	_____	_____
2	Internship or NRE Seminar	BIO 275	_____	_____	_____
3	ArcView GIS	GIS 105	_____	_____	_____
3	Introduction to Natural Resources Management	NRE 102	_____	_____	_____
3	General Oceanography	NRE 251	_____	_____	_____
1	General Oceanography Laboratory (Must be completed elsewhere, e.g., Hawaii Pacific University, & transferred back to CNCC)	NRE 252	_____	_____	_____
3	Natural Resource Policy and Administration	NRE 260	_____	_____	_____

61 TOTAL REQUIRED HOURS FOR ASSOCIATE DEGREE IN GENERAL STUDIES

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

ASSOCIATE DEGREE IN GENERAL STUDIES
NATURAL RESOURCE MANAGEMENT
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
	<u>GENERAL EDUCATION REQUIREMENTS – 42 credits</u>				
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
9	<u>COMMUNICATIONS</u>				
	English Composition I	ENG 121	_____	_____	_____
	English Composition II	ENG 122	_____	_____	_____
	Public Speaking	COM 115	_____	_____	_____
4	<u>MATHEMATICS</u>				
	MAT 121, 201	MAT _____	_____	_____	_____
10	<u>PHYSICAL AND LIFE SCIENCES</u>				
	BIO 111, 112; CHE 111, 112;	_____	_____	_____	_____
		_____	_____	_____	_____
9	<u>HUMANITIES</u>				
	Ethics	PHI 112	_____	_____	_____
	ARTS: ART 110, 111, 112; MUS 120, 121, 122;	_____	_____	_____	_____
	THE 105, 211, 212; LIT/HUM: HUM 121, 122, 123;	_____	_____	_____	_____
	LIT 115, 201, 202; WAYS OF THINKING: PHI 111, 113;				
9	<u>SOCIAL/BEHAVIORAL SCIENCES (Select 3 courses – one must be HIS – with no more than 2 courses from any single category):</u>				
	HIS: HIS 101, 102, 201, 202; GEO: GEO 105;	HIS _____	_____	_____	_____
	ECONOMICS & POLITICAL SYSTEMS: ECO 201, 202;	_____	_____	_____	_____
	POS 105, 111; HUM. BEHAVIOR & SOC. SYSTEMS:	_____	_____	_____	_____
	ANT 101, 111; PSY 101, 102; SOC 101, 102				
	<u>SPECIALIZED COURSE REQUIREMENTS – 19 credits</u>				
3	Introduction to Natural Resources Management	NRE 102	_____	_____	_____
4	Introductory Soil Science	AGY 240	_____	_____	_____
4	General College Ecology	BIO 222	_____	_____	_____
2	Internship or NRE Seminar	BIO 275	_____	_____	_____
3	Natural Resource Policy and Administration	NRE 260	_____	_____	_____
3	ArcView GIS	GIS 105	_____	_____	_____

61 TOTAL REQUIRED HOURS FOR ASSOCIATE DEGREE IN GENERAL STUDIES

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

OCCUPATIONAL PROGRAMS

For the student who wishes to gain employment skills, Colorado Northwestern offers Associate of Applied Science Degrees and Certificates of Completion. Designed primarily for the student who wishes to go to work immediately, these programs may allow transferability of partial credit to a four-year college or university.

Occupational programs are developed in accordance with the needs of business, industry, and professions. Program Advisory Committees, consisting of leaders in enterprises related to these curricula, advise college staff on the availability of jobs, desired job skills, appropriate course content, and the facilities and equipment needed to effect the training. As additional needs of the workplace are identified, new programs will be developed and current programs will be revised to meet these emerging needs.

Associate of Applied Science Degrees

Accounting	54
Aviation Maintenance Technology	55
Aviation Technology	
Airplane	56
Helicopter	57
Banking and Financial Services	58
Civil Engineering Technology	59
Construction Technology	60
Cosmetology Occupations	61
Criminal Justice	
Law Enforcement	62
Seasonal Park Ranger	63
Dental Hygiene	64
Early Childhood Professions	65
Emergency Medical Services	66
Energy and Facilities Management	67
Horsemanship and Horse Management	
.....	68
Industrial Electrician	69
Nursing	70
Office Administrative Assistant/Business	
Computers	71
Power Plant Technology	72
Process Technology—Oil/Gas Emphasis	
.....	73
Process Technology	74

Occupational Certificates

Accounting	75
Automotive Technology – Basic	76
Automotive Technology – Advanced ..	76
Diesel Technology	77
Aviation Maintenance Technology	78

Occupational Certificates (cont.)

Aviation Technology	79
Private Pilot	79
Instrument	80
Commercial Pilot	80
Cockpit Resource Management	81
Multi-Engine	81
Certified Flight Instructor	82
Certified Instrument Flight Instructor	
.....	82
Banking and Financial Services	83
Construction Technology I	84
Construction Technology II	84
Cosmetology Occupations	
Cosmetology	85
Esthetician/Cosmetician	86
Hairstylist	87
Nail Technician	88
Criminal Justice	
Law Enforcement	89
Seasonal Park Ranger	89
Early Childhood Professions	
Director	90
Group Leader	90
Infant and Toddler	90
Emergency Medical Technology	
Basic	91
Intermediate	91
Professional	92
Geographic Information Systems	93
Horse Management	94
Horse Training	94
Massage Therapy	95
Power Plant Technology	96
Process Technology	97

ASSOCIATE OF APPLIED SCIENCE
ACCOUNTING
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
	<u>GENERAL EDUCATION REQUIREMENTS – 16 credits</u>				
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
	<u>COMMUNICATIONS</u>				
3	English Composition I	ENG 121	_____	_____	_____
	<u>MATHEMATICS</u>				
3	MAT 121 or above	MAT _____	_____	_____	_____
	<u>SOCIAL AND BEHAVIORAL SCIENCES (satisfied by one)</u>				
3	Select one from: Social/Behavioral Science; Humanities; Language; or Natural/Physical/Biological Science	_____	_____	_____	_____
3	Principles of Macroeconomics	ECO 201	_____	_____	_____
3	Principles of Microeconomics	ECO 202	_____	_____	_____
	<u>SPECIALIZED COURSE REQUIREMENTS – 33 credits</u>				
4	Accounting Principles I	ACC 121	_____	_____	_____
4	Accounting Principles II	ACC 122	_____	_____	_____
3	Income Tax	ACC 131	_____	_____	_____
4	Intermediate Accounting I	ACC 211	_____	_____	_____
3	Accounting Information Systems and E-Business	ACC 215	_____	_____	_____
3	Cost Accounting	ACC 226	_____	_____	_____
3	Introduction to Business	BUS 115	_____	_____	_____
3	Legal Environment of Business	BUS 216	_____	_____	_____
3	Business Communications/Report Writing	BUS 217	_____	_____	_____
3	PC Spreadsheet Concepts	CIS 155	_____	_____	_____
	<u>ELECTIVES – Choose 12 credits</u>				
3	Payroll Accounting	ACC 115	_____	_____	_____
3	Computerized Accounting	ACC 125	_____	_____	_____
3	Business Statistics	BUS 226	_____	_____	_____
3	Introduction to PC Applications	CIS 118	_____	_____	_____
3	Principles of Management	MAN 226	_____	_____	_____
3	Principles of Marketing	MAR 216	_____	_____	_____

61 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Updated 5/15/2009

ASSOCIATE OF APPLIED SCIENCE
AVIATION MAINTENANCE TECHNOLOGY
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 16 credits</u>					
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Composition I or Technical Writing	ENG _____	_____	_____	_____
3	Public Speaking	COM 115	_____	_____	_____
3	Small Business Management	MAN 216	_____	_____	_____
6	SOCIAL AND BEHAVIORAL SCIENCES (satisfied by two)				
	Principles of Macroeconomics	ECO 201	_____	_____	_____
	American Government	POS 111	_____	_____	_____
	General Psychology I	PSY 101	_____	_____	_____
	Introduction to Sociology I	SOC 101	_____	_____	_____
	Human Relations	PSY 106	_____	_____	_____
<u>CERTIFICATE REQUIRED COURSES – 89 credits</u>					
4	A&P Preparation	AMT 101	_____	_____	_____
4	Basic Electrics	AMT 102	_____	_____	_____
2	Weight & Balance/Ground Handling	AMT 103	_____	_____	_____
3	Regulations & Publications	AMT 104	_____	_____	_____
6	Materials & Processes	AMT 105	_____	_____	_____
2	Corrosion Control & Fluid Lines	AMT 106	_____	_____	_____
2	Wood, Fabric & Finishes	AMT 111	_____	_____	_____
6	Sheet Metal	AMT 112	_____	_____	_____
1	Aircraft Welding	AMT 113	_____	_____	_____
3	Assembly, Rigging & Inspection	AMT 114	_____	_____	_____
2	Composite Construction	AMT 115	_____	_____	_____
3	Hydraulic Systems	AMT 121	_____	_____	_____
4	Aircraft Electrics	AMT 122	_____	_____	_____
2	Instruments & Warning Systems	AMT 123	_____	_____	_____
2	Fuel Systems	AMT 124	_____	_____	_____
3	Miscellaneous Systems	AMT 125	_____	_____	_____
3	Aviation Electronics	AMT 126	_____	_____	_____
3	Landing Gear Systems	AMT 127	_____	_____	_____
4	Reciprocating Engine Theory	AMT 201	_____	_____	_____
3	Reciprocating Fuel Metering & Induction Systems	AMT 202	_____	_____	_____
2	Reciprocating Ignition Systems	AMT 203	_____	_____	_____
4	Reciprocating Engine Maintenance	AMT 205	_____	_____	_____
2	Reciprocating Propeller Systems	AMT 206	_____	_____	_____
2	Engine Electrics & Instrument Systems	AMT 207	_____	_____	_____
4	Turbine Engine Theory	AMT 211	_____	_____	_____
2	Turbine Fuel Systems	AMT 212	_____	_____	_____
3	Miscellaneous Turbine Systems	AMT 213	_____	_____	_____
4	Turbine Engine Maintenance	AMT 215	_____	_____	_____
1	Turbine Propeller Systems	AMT 216	_____	_____	_____
3	Trouble Shooting	AMT 218	_____	_____	_____

105 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

ASSOCIATE OF APPLIED SCIENCE
AVIATION TECHNOLOGY (AIRPLANE)
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 19 credits</u>					
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
3	English Composition II or Technical Writing	ENG _____	_____	_____	_____
3	Public Speaking	COM 115	_____	_____	_____
6	SOCIAL AND BEHAVIORAL SCIENCES (satisfied by two) ECO 201, 202; PSY 101, 102, 106; SOC 101, 102	_____	_____	_____	_____
3	Math Elective (MAT 100 or above)	MAT _____	_____	_____	_____
<u>SPECIALIZED REQUIRED COURSES – 46 credits</u>					
4	Private Pilot Ground School	AVT 101	_____	_____	_____
4	Private Pilot Flight	AVT 102	_____	_____	_____
4	Aviation Meteorology	AVT 105	_____	_____	_____
4	Instrument Pilot Ground School	AVT 111	_____	_____	_____
4	Instrument Pilot Flight	AVT 112	_____	_____	_____
2	Commercial Pilot Ground School	AVT 201	_____	_____	_____
3	Commercial Pilot Flight I	AVT 202	_____	_____	_____
4	Commercial Pilot Flight II	AVT 203	_____	_____	_____
1	Crew Resource Management	AVT 206	_____	_____	_____
1	Multi Engine Ground School	AVT 207	_____	_____	_____
2	Fundamentals of Instruction	AVT 211	_____	_____	_____
2	Flight Instructor Ground School	AVT 212	_____	_____	_____
2	Instrument Instructor Ground School	AVT 221	_____	_____	_____
1	Flight Instructor Flight or Mountain Flying Ground School or Simulator Lab I or Simulator Lab II	AVT 213 AVT 205 AVT 145 AVT 146	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____
1	Multi Engine Flight	AVT 208	_____	_____	_____
3	Aircraft Systems for Pilots – Airframe	AVT 140	_____	_____	_____
3	Aircraft Systems for Pilots - Powerplant	AVT 141	_____	_____	_____
<u>RELATED COURSE REQUIREMENTS – 3 credits</u>					
3	Select from MAN 200, 226, 227; BUS 115, 217; AVT 240	_____	_____	_____	_____
<u>ELECTIVES – 2 credits</u>					
2	Select from AVT 208, 312, 222, 223, 236, 237, 224	_____	_____	_____	_____

70 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

ASSOCIATE OF APPLIED SCIENCE
AVIATION TECHNOLOGY (HELICOPTER)
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
	<u>GENERAL EDUCATION REQUIREMENTS – 19 credits</u>				
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
3	English Composition II or Technical Writing	ENG ____	_____	_____	_____
3	Public Speaking	COM 115	_____	_____	_____
6	SOCIAL AND BEHAVIORAL SCIENCES (satisfied by two) ECO 201, 202; PSY 101, 102, 106; SOC 101, 102	_____	_____	_____	_____
3	Math Elective (MAT 100 or above)	MAT ____	_____	_____	_____
	<u>SPECIALIZED REQUIRED COURSES – 46 credits</u>				
4	Private Pilot Ground School	AVT 101	_____	_____	_____
4	Private Pilot Flight - Helicopter	AVT 104	_____	_____	_____
4	Aviation Meteorology	AVT 105	_____	_____	_____
4	Instrument Pilot Ground School	AVT 111	_____	_____	_____
4	Instrument Pilot Flight – Helicopter	AVT 114	_____	_____	_____
2	Commercial Pilot Ground School	AVT 201	_____	_____	_____
3	Commercial Pilot Flight I - Helicopter	AVT 204	_____	_____	_____
4	Commercial Pilot Flight II - Helicopter	AVT 214	_____	_____	_____
1	Crew Resource Management	AVT 206	_____	_____	_____
2	Fundamentals of Instruction	AVT 211	_____	_____	_____
2	Flight Instructor Ground School	AVT 212	_____	_____	_____
2	Instrument Instructor Ground School	AVT 221	_____	_____	_____
1	Flight Instructor Flight - Helicopter or Mountain Flying Ground School or Simulator Lab I or Simulator Lab II	AVT 215 AVT 205 AVT 145 AVT 146	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____
1	CFI Instrument - Helicopter	AVT 224	_____	_____	_____
3	Aircraft Systems for Pilots – Airframe	AVT 140	_____	_____	_____
3	Aircraft Systems for Pilots - Powerplant	AVT 141	_____	_____	_____
	<u>RELATED COURSE REQUIREMENTS – 3 credits</u>				
3	Select from MAN 200, 226, 227; BUS 115, 217; AVT 240	_____	_____	_____	_____
	<u>ELECTIVES – 2 credits</u>				
2	Select from AVT 208, 312, 222, 223, 236, 237, 224	_____	_____	_____	_____

69 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

ASSOCIATE OF APPLIED SCIENCE
BANKING AND FINANCIAL SERVICES
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
1	<u>GENERAL EDUCATION REQUIREMENTS – 19 credits</u> College 101: The Academic Experience	AAA 101	_____	_____	_____
	<u>COMMUNICATIONS</u>				
6	English Composition I Public Speaking 115 or COM 125 (*This requirement is a Colorado Community College System requirement and is in addition to the State Guaranteed General Education Transfer Courses.)	ENG 121 COM ____	_____	_____	_____
3	<u>ARTS AND HUMANITIES (Select 1 course)</u> ARTS: ART 110, 111, 112; MUS 120, 121, 122; THE 105, 211, 212; LIT/HUM: HUM 121, 122, 123; LIT 115, 201, 202; WAYS OF THINKING: PHI 111, 112, 113	____	_____	_____	_____
3	<u>MATHEMATICS</u> Mathematics for Liberal Arts MAT 120 OR higher	MAT ____	_____	_____	_____
6	<u>SOCIAL AND BEHAVIORAL SCIENCES</u>				
	Principles of Macroeconomics	ECO 201	_____	_____	_____
	Principles of Microeconomics	ECO 202	_____	_____	_____
	<u>SPECIALIZED COURSE REQUIREMENTS – 45 credits</u>				
4	Accounting Principles I	ACC 121	_____	_____	_____
4	Accounting Principles II	ACC 122	_____	_____	_____
3	Introduction to Business	BUS 115	_____	_____	_____
3	Legal Environment of Business	BUS 216	_____	_____	_____
3	Business Communications & Report Writing	BUS 217	_____	_____	_____
3	Business Statistics	BUS 226	_____	_____	_____
3	Introduction to PC Application	CIS 118	_____	_____	_____
3	Introduction to Finance	FIN 101	_____	_____	_____
3	Principles of Banking	FIN 105	_____	_____	_____
3	Money and Banking	FIN 226	_____	_____	_____
2	Law and Banking Applications	FIN 245	_____	_____	_____
3	Internship	FIN 285	_____	_____	_____
1	Business Ethics and Values	MAN 102	_____	_____	_____
1	Time Management	MAN 117	_____	_____	_____
3	Negotiations and Conflict Resolution	MAN 212	_____	_____	_____
3	Principles of Marketing	MAR 216	_____	_____	_____

64 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

ASSOCIATE OF APPLIED SCIENCE
CIVIL ENGINEERING TECHNOLOGY
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

<u>Required Credits</u>		<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
<u>GENERAL EDUCATION REQUIREMENTS – 20 credits</u>					
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
3	College Trigonometry	MAT 122	_____	_____	_____
4	Survey of Calculus	MAT 125	_____	_____	_____
4	Conceptual Physics	PHY 105	_____	_____	_____
5	General College Chemistry	CHE 111	_____	_____	_____
 <u>SPECIALIZED COURSE REQUIREMENTS – 50 credits</u>					
5	Civil Construction Materials	AEC 141	_____	_____	_____
3	Civil Construction Systems	AEC 223	_____	_____	_____
3	Civil Water/Environmental Systems	AEC 224	_____	_____	_____
6	Basic CAD	CAD 110	_____	_____	_____
3	Civil 3D CAD	CAD 233	_____	_____	_____
3	Engineering Graphics I	EGG 101	_____	_____	_____
5	Engineering Surveying I	EGG 260	_____	_____	_____
5	Engineering Surveying II	EGG 261	_____	_____	_____
2	Construction Planning & Estimating	ENT 135	_____	_____	_____
2	Soil Mechanics	ENT 210	_____	_____	_____
3	Concrete & Asphalt Tech	ENT 245	_____	_____	_____
3	Strength of Materials	ENT 247	_____	_____	_____
3	Global Positioning Systems for GIS	GIS 131	_____	_____	_____
4	Engineering Statics	TEC 235	_____	_____	_____

70 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Approved 7/31/2007
 Updated 5/13/2009

ASSOCIATE OF APPLIED SCIENCE - CONSTRUCTION TECHNOLOGY

PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits	Contact Hours		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 16 credits</u>						
1		College 101: The Academic Experience	AAA 101	_____	_____	_____
3	45	English Composition I or Technical Writing	ENG _____	_____	_____	_____
3	45	Public Speaking	COM 115	_____	_____	_____
3	45	Introduction to PC Applications	CIS 118	_____	_____	_____
3	45	<i>Math Requirement:</i> MAT 107, 120 , OR 121	MAT _____	_____	_____	_____
3	45	<i>Choose one course from the following:</i>	_____	_____	_____	_____
		ART 110, 111, 112; MUS 120, 121, 122; THE 150, 211, 212;				
		HUM 121, 122, 123; LIT 115, 201, 202; PHI 111, 112, 113;				
		HIS 101, 102, 201, 202; GEO 105; ECO 201, 202;				
		POS 105, 111; ANT 101, 111; PSY 101, 102; SOC 101, 102				
<u>SPECIALIZED COURSE REQUIREMENTS – 48 credits</u>						
1	15	Introduction to Carpentry	CAR 100	_____	_____	_____
1	15	Basic Safety	CAR 101	_____	_____	_____
1	22.5	Hand and Power Tools	CAR 102	_____	_____	_____
1	15	Job Site Layout and Blueprint Reading	CAR 105	_____	_____	_____
1	22.5	Form and Foundation Systems	CAR 115	_____	_____	_____
1	22.5	General Construction Framing	CAR 120	_____	_____	_____
1	22.5	Floor Framing	CAR 121	_____	_____	_____
1	22.5	Wall Framing	CAR 122	_____	_____	_____
1	22.5	Roofing Materials and Methods	CAR 125	_____	_____	_____
1	22.5	Windows and Exterior Doors	CAR 130	_____	_____	_____
1	22.5	Exterior Trim	CAR 131	_____	_____	_____
1	22.5	Thermal and Moisture Methods and Materials	CAR 135	_____	_____	_____
1	22.5	Stair Construction/Layout	CAR 140	_____	_____	_____
1	22.5	Interior Finishes – General	CAR 145	_____	_____	_____
1	22.5	Interior Finishes – Drywall Construction	CAR 146	_____	_____	_____
1	22.5	Interior Trim – General	CAR 150	_____	_____	_____
1	22.5	Interior Trim – Doors and Trim	CAR 151	_____	_____	_____
1	22.5	Interior Trim – Cabinets and Countertops	CAR 153	_____	_____	_____
1	22.5	Floor Finishes	CAR 160	_____	_____	_____
1	30	Clinical: Construction Lab I	CAR 170	_____	_____	_____
1	30	Clinical: Construction Lab I	CAR 171	_____	_____	_____
1	30	Clinical: Construction Lab I	CAR 172	_____	_____	_____
1	30	Clinical: Construction Lab I	CAR 173	_____	_____	_____
1	15	Special Topics: Deed and Land Research	CAR 175	_____	_____	_____
2	45	Advanced Site Layout	CAR 205	_____	_____	_____
1	22.5	Form and Foundation Systems II	CAR 215	_____	_____	_____
1	22.5	Advanced Framing – General	CAR 220	_____	_____	_____
2	45	Advanced Floor Systems	CAR 221	_____	_____	_____
2	45	Advanced Wall Systems	CAR 222	_____	_____	_____
2	45	Advanced Roofing Systems	CAR 223	_____	_____	_____
2	45	Advanced Stair Layout	CAR 240	_____	_____	_____
2	45	Advanced Interior Trim - General	CAR 250	_____	_____	_____
2	45	Advanced Interior Trim – Doors	CAR 251	_____	_____	_____
2	60	Clinical: Construction Lab II	CAR 270	_____	_____	_____
3	90	Clinical: Construction Lab II	CAR 271	_____	_____	_____
3	45	Special Topics in Construction Technology	CAR 275	_____	_____	_____

64 1320 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.) Updated 4/27/2009

**ASSOCIATE OF APPLIED SCIENCE
COSMETOLOGY OCCUPATIONS**

PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 17 credits</u>					
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	Communications: choose one course from ENG 121, 122; COM 115; SPE 125	_____	_____	_____	_____
3	Mathematics: MAT 107 or above	_____	_____	_____	_____
3	Social/Behavioral Sciences: choose one course from ANT 101; GEO 105; ECO 201, 202; PSY 101, 102, 235; SOC 101, 102	_____	_____	_____	_____
3	Applied Studies Elective: choose one course from BUS 115; MAN 226; SPA 101, 111	_____	_____	_____	_____
4	Science: choose one course from AST 101; BIO 105, 111, 201; CHE 101, 111; GEY 111	_____	_____	_____	_____
<u>SPECIALIZED COURSE REQUIREMENTS – 60 credits</u>					
1	Shampoos, Rinses, Conditioners I	COS 103	_____	_____	_____
2	Introduction to Hair Coloring	COS 110	_____	_____	_____
2	Introduction to Hair Cutting	COS 120	_____	_____	_____
2	Introduction to Hair Styling	COS 130	_____	_____	_____
1	Introduction to Chemical Texture	COS 140	_____	_____	_____
2	Introduction to Disinfection, Sanitation, and Safety	COS 160	_____	_____	_____
3	Introduction to Facials and Skin Care	EST 110	_____	_____	_____
2	Intermediate Facials and Skin Care	EST 111	_____	_____	_____
3	Introduction to Manicures and Pedicures	NAT 110	_____	_____	_____
2	Intermediate Manicures and Pedicures	NAT 111	_____	_____	_____
2	Intermediate I: Hair Coloring	COS 111	_____	_____	_____
2	Intermediate I: Hair Cutting	COS 121	_____	_____	_____
1	Intermediate I: Chemical Texture	COS 141	_____	_____	_____
1	Laws, Rules, and Regulations	COS 150	_____	_____	_____
1	Intermediate I: Disinfection, Sanitation, and Safety	COS 161	_____	_____	_____
2	Advanced Manicures and Pedicures	NAT 210	_____	_____	_____
5	Application of Artificial Nails	NAT 211	_____	_____	_____
2	Advanced Massage and Skin Care	EST 210	_____	_____	_____
1	Facial Makeup	EST 211	_____	_____	_____
3	Hair Removal	EST 212	_____	_____	_____
2	Intermediate I; Hair Styling	COS 131	_____	_____	_____
1	Shampoos, Rinses, Conditioners II	COS 203	_____	_____	_____
2	Intermediate II: Hair Coloring	COS 210	_____	_____	_____
2	Advanced Hair Coloring	COS 211	_____	_____	_____
2	Intermediate II: Hair Cutting	COS 220	_____	_____	_____
2	Advanced Hair Cutting	COS 221	_____	_____	_____
2	Intermediate II: Hair Styling	COS 230	_____	_____	_____
1	Advanced Hair Styling	COS 231	_____	_____	_____
1	Intermediate II: Chemical Texture	COS 240	_____	_____	_____
1	Advanced Chemical Texture	COS 241	_____	_____	_____
1	Management, Ethics, Interpersonal Skills, and Sales	COS 250	_____	_____	_____
2	Intermediate II: Disinfection, Sanitation and Safety	COS 260	_____	_____	_____
1	Advanced Disinfection, Sanitation, and Safety	COS 261	_____	_____	_____
77	TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE				

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

ASSOCIATE OF APPLIED SCIENCE
CRIMINAL JUSTICE – LAW ENFORCEMENT
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 22 credits</u>					
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
3	English Composition II	ENG 122	_____	_____	_____
3	Public Speaking	COM 115	_____	_____	_____
3	American Government	POS 111	_____	_____	_____
3	General Psychology I	PSY 101	_____	_____	_____
3	Introduction to Sociology I	SOC 101	_____	_____	_____
3	Select 1 course from SPA 101, 111, 235 or ASL 101	_____	_____	_____	_____
<u>SPECIALIZED COURSE REQUIREMENTS – 27 credits</u>					
3	Introduction to Criminal Justice	CRJ 110	_____	_____	_____
3	Substantive Criminal Law	CRJ 111	_____	_____	_____
3	Procedural Criminal Law	CRJ 112	_____	_____	_____
3	Law Enforcement Operations	CRJ 125	_____	_____	_____
3	Correctional Process	CRJ 145	_____	_____	_____
3	Criminal Evidence	CRJ 208	_____	_____	_____
3	Constitutional Law	CRJ 210	_____	_____	_____
3	Community Problem Solving	CRJ 221	_____	_____	_____
3	Criminology	CRJ 230	_____	_____	_____
<u>RELATED COURSE REQUIREMENTS – 17 credits</u>					
8	Basic Law	CRJ 105	_____	_____	_____
3	Arrest Control Techniques	CRJ 106	_____	_____	_____
3	Law Enforcement Operations	CRJ 107	_____	_____	_____
3	Firearms	CRJ 108	_____	_____	_____

66 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Renewed 4/5/2007
Updated 5/13/2009

ASSOCIATE OF APPLIED SCIENCE
CRIMINAL JUSTICE – SEASONAL PARK RANGER
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 22 credits</u>					
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
3	English Composition II	ENG 122	_____	_____	_____
3	Public Speaking	COM 115	_____	_____	_____
3	American Government	POS 111	_____	_____	_____
3	General Psychology I	PSY 101	_____	_____	_____
3	Introduction to Sociology I	SOC 101	_____	_____	_____
3	Select 1 course from SPA 101, 111 or ASL 101	_____	_____	_____	_____
<u>SPECIALIZED COURSE REQUIREMENTS – 27 credits</u>					
3	Introduction to Criminal Justice	CRJ 110	_____	_____	_____
3	Substantive Criminal Law	CRJ 111	_____	_____	_____
3	Procedural Criminal Law	CRJ 112	_____	_____	_____
3	Law Enforcement Operations	CRJ 125	_____	_____	_____
3	Correctional Process	CRJ 145	_____	_____	_____
3	Criminal Evidence	CRJ 208	_____	_____	_____
3	Constitutional Law	CRJ 210	_____	_____	_____
3	Community Problem Solving	CRJ 221	_____	_____	_____
3	Criminology	CRJ 230	_____	_____	_____
<u>RELATED COURSE REQUIREMENTS – 17 credits</u>					
6	Basic Law Enforcement Academy I	CRJ 101	_____	_____	_____
3	Arrest Control Techniques	CRJ 106	_____	_____	_____
3	Law Enforcement Operations	CRJ 107	_____	_____	_____
3	Firearms	CRJ 108	_____	_____	_____
1	Physical Training for Law Enforcement	CRJ 175	_____	_____	_____
1	National Park Service	CRJ 275	_____	_____	_____

66 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Renewed 4/5/2007
Updated 5/13/2009

ASSOCIATE OF APPLIED SCIENCE

DENTAL HYGIENE

PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

PREREQUISITES:

BIO 201 Human Anatomy and Physiology I (4)	CHE 102 Introduction to Chemistry II (5)	ENG 121 English Composition I (3)
BIO 202 Human Anatomy and Physiology II (4)	*CHE 109 General, Organic, & Biochemistry (4)	
BIO 204 Microbiology (4)	*CHE 111 General Chemistry I (5)	

*CHE 102 Introduction to Chemistry II is preferred but CHE 109, General Organic, & Biochemistry or CHE 111, General Chemistry I will be accepted in lieu of CHE 102

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 16 credits</u>					
1	Introduction to Computer Applications in DH	CIS 175	_____	_____	_____
1	Advanced Computer Applications in DH	CIS 175	_____	_____	_____
1	Current Issues and Ethics in DH	PHI 121	_____	_____	_____
0.5	CPR for Health Professionals	HPR 102	_____	_____	_____
0.5	CPR for Health Professionals	HPR 102	_____	_____	_____
3	Public Speaking	COM 115	_____	_____	_____
3	General Psychology I	PSY 101	_____	_____	_____
3	Introduction to Sociology I	SOC 101	_____	_____	_____
3	Human Nutrition	HWE 100	_____	_____	_____
<u>SPECIALIZED COURSE REQUIREMENTS – 66 credits</u>					
3	Pre-clinical Dental Hygiene Lecture/Supplemental Lecture	DEH 101/175	_____	_____	_____
3	Pre-clinical Dental Hygiene Care	DEH 102	_____	_____	_____
3	Dental Anatomy & Histology	DEH 103	_____	_____	_____
3	Dental Radiology	DEH 104	_____	_____	_____
2	Dental & Medical Emergencies	DEH 111	_____	_____	_____
2	Dental Hygiene Clinic Lecture	DEH 112	_____	_____	_____
2	Preventive Dentistry & Special Needs Patients	DEH 116	_____	_____	_____
3	Periodontics I/Immunology Aspects of Perio Disease	DEH 122/175	_____	_____	_____
1	Head & Neck Anatomy	DEH 123	_____	_____	_____
3	Clinical Practice of Dental Hygiene I	DEH 170	_____	_____	_____
3	Clinical Practice of Dental Hygiene I-A	DEH 171	_____	_____	_____
3	Dental Materials	DEH 126	_____	_____	_____
2	Applied Pharmacology	DEH 132	_____	_____	_____
2	Local Anesthesia	DEH 133	_____	_____	_____
1	Nitrous Oxide/Oxygen Sedation	DEH 138	_____	_____	_____
2	Clinic II Lecture (Clinic I-A Lecture)	DEH 201	_____	_____	_____
2	Community Dental Health I	DEH 204	_____	_____	_____
3	General & Oral Pathology	DEH 213	_____	_____	_____
2	Ethics & Practice Management	DEH 221	_____	_____	_____
1	Community Dental Health: Field Experience	DEH 225	_____	_____	_____
2	Periodontics II	DEH 242	_____	_____	_____
7	Clinical Practice of Dental Hygiene II	DEH 270	_____	_____	_____
2	Clinical Theory of Dental Hygiene Practice II	DEH 268	_____	_____	_____
7	Clinical Practice of Dental Hygiene III	DEH 271	_____	_____	_____
2	Clinical Theory of Dental Hygiene III	DEH 285	_____	_____	_____
<u>SUGGESTED OPTIONAL COURSES</u>					
1	Introduction to Dental Hygiene	HPR 175	_____	_____	_____
Variable	Pre-Dental Hygiene Internship	HPR 180	_____	_____	_____
1	National Boards Preparation	HPR 175	_____	_____	_____
1-6	Special Topics	DEH 275	_____	_____	_____

82 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Renewed 4/30/2007

Updated 5/2009

ASSOCIATE OF APPLIED SCIENCE
EARLY CHILDHOOD PROFESSIONS
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 19 credits</u>					
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
3	Career Math <i>or above</i>	MAT _____	_____	_____	_____
3	Public Speaking	COM 115	_____	_____	_____
3	General Psychology I	PSY 101	_____	_____	_____
3	Introduction to Sociology I	SOC 101	_____	_____	_____
3	Sociology of Family Dynamics	SOC 205	_____	_____	_____
<u>SPECIALIZED COURSE REQUIREMENTS – 33 credits</u>					
3	Introduction to Early Childhood Education	ECE 101	_____	_____	_____
3	Introduction to Early Childhood Lab Techniques	ECE 102	_____	_____	_____
3	Guidance Strategies for Children	ECE 103	_____	_____	_____
3	Infant and Toddler Theory and Practice	ECE 111	_____	_____	_____
3	Introduction to Infant and Toddler Lab Techniques	ECE 112	_____	_____	_____
3	Nutrition, Health, and Safety	ECE 205	_____	_____	_____
3	Curriculum Development: Methods and Techniques	ECE 220	_____	_____	_____
3	Administration of Early Childhood Care and Education Programs	ECE 240	_____	_____	_____
3	Administration: Human Relations for Early Childhood Education	ECE 241	_____	_____	_____
3	Exceptional Child	ECE 260	_____	_____	_____
3	Child Development	PSY 238	_____	_____	_____
<u>ELECTIVES – 10 credits</u>					
<i>(Select courses from the following:)</i>					
4	Accounting Principles I	ACC 121	_____	_____	_____
3	Word Processing Techniques I	BTE 155	_____	_____	_____
3	Business Communication and Report Writing	BUS 217	_____	_____	_____
3	Introduction to PC Applications	CIS 118	_____	_____	_____
3	Introduction to Operating Systems	CIS 124	_____	_____	_____
3	PC Spreadsheet Concepts: Excel	CIS 155	_____	_____	_____
1	Pre-licensing Training for Family Child Care Providers	ECE 100	_____	_____	_____
2	Art and the Young Child	ECE 126	_____	_____	_____
1	Music/Movement for the Young Child	ECE 147	_____	_____	_____
3	School Age Theory and Practice	ECE 191	_____	_____	_____
3	School Age Lab Techniques	ECE 192	_____	_____	_____
3	Language and Cognition for the Young Child	ECE 225	_____	_____	_____
3	Creativity and the Young Child	ECE 226	_____	_____	_____
3	Practicum: Early Childhood Education	ECE 288	_____	_____	_____
3	Special Topics	ECE _____	_____	_____	_____

62 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**ASSOCIATE OF APPLIED SCIENCE
EMERGENCY MEDICAL SERVICES**
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 19 credits</u>					
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
3	English Composition II	ENG ____	_____	_____	_____
	or				
	Technical Writing (ENG 131)				
3	Public Speaking	COM 115	_____	_____	_____
3	General Psychology I (PSY 101 or higher)	PSY ____	_____	_____	_____
3	Introduction to Sociology I (SOC 101 or higher)	SOC ____	_____	_____	_____
3	Math Elective (MAT 107 or above)	MAT ____	_____	_____	_____

SPECIALIZED COURSE REQUIREMENTS – 28 credits

9	EMT Basic	EMS 125	_____	_____	_____
1	EMT Basic Clinical	EMS 170	_____	_____	_____
2	EMT Intravenous Therapy	EMS 130	_____	_____	_____
6	EMT Intermediate I	EMS 203	_____	_____	_____
6	EMT Intermediate II	EMS 205	_____	_____	_____
3	EMT Intermediate Clinical	EMS 270	_____	_____	_____
1	ACLS	HPR 120	_____	_____	_____

RELATED COURSE REQUIREMENTS – 3 credits

3	<i>Select course(s) from:</i> CIS or BTE	_____	_____	_____	_____
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ELECTIVES – 11 credits

Select courses from:

11	ACC; BIO; BUS 115, 216, 217; CHE; CRJ; ECO 201, 202; EDU; EMS 150, 213, 214; EMS 175 (<i>maximum 3 credits</i>); FST; GIS; HPR 102*, 130, 190; HWE 104; MAN; MAT; PED (<i>maximum 2 credits</i>); PSY; SOC; SPA;	_____	_____	_____	_____
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61 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

*CPR for Professionals: Students must provide proof of current certification through transcripts or possession of current certification card.

This course of study has been designed to allow the student to self-select courses in a personalized career path if so desires; Management, Education, Public Safety (Fire, Law Enforcement) or preparation for EMT Paramedic.

Updated 5/13/2009

ASSOCIATE OF APPLIED SCIENCE
ENERGY AND FACILITIES MANAGEMENT TECHNOLOGY
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 23 credits</u>					
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
3	College Trigonometry	MAT 122	_____	_____	_____
4	Survey of Calculus	MAT 125	_____	_____	_____
4	Conceptual Physics	PHY 105	_____	_____	_____
5	General College Chemistry I	CHE 111	_____	_____	_____
3	ArcView GIS	GIS 105	_____	_____	_____
<u>SPECIALIZED COURSE REQUIREMENTS – 44 credits</u>					
3	Building Electrical/Mechanical Systems	AEC 221	_____	_____	_____
3	Building Service Systems	ARC 231	_____	_____	_____
6	Basic CAD	CAD 110	_____	_____	_____
3	Thermodynamics	EGG 230	_____	_____	_____
4	Basics of AC & DC Electricity	EIC 105	_____	_____	_____
4	AC Circuit Fundamentals	EIC 155	_____	_____	_____
4	Industrial Electrical Controls I	EIC 220	_____	_____	_____
4	Programmable Controllers	EIC 225	_____	_____	_____
3	Technical Experience	ENT 270	_____	_____	_____
3	Introduction to Energy Technologies	ENY 101	_____	_____	_____
4	Green and Sustainable Buildings	ENY 205	_____	_____	_____
3	Energy Systems Design	ENY 235	_____	_____	_____

67 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Approved 6/8/2007
 Updated 5/13/2009

ASSOCIATE OF APPLIED SCIENCE
HORSEMANSHIP AND HORSE MANAGEMENT
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

<u>Required Credits</u>	<u>GENERAL EDUCATION REQUIREMENTS – 16 credits</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Requirement (ENG 115 or above)	ENG _____	_____	_____	_____
3	PC Applications	CIS 118	_____	_____	_____
3	Mathematics Requirement (MAT 107 or above)	MAT _____	_____	_____	_____
6	General Education Electives (Choose 2 courses from the list of approved electives)	_____	_____	_____	_____
		_____	_____	_____	_____
<u>SPECIALIZED COURSE REQUIREMENTS – 47 credits</u>					
5	Outfitting & General Guiding	ADG 150	_____	_____	_____
2	Ranch Horsemanship Skills I	AGP 160	_____	_____	_____
4	Introduction to Equine Science	ASC 102	_____	_____	_____
2	Intermediate Western Equitation	ASC 243	_____	_____	_____
1	Stable Operations I	EQM 101	_____	_____	_____
1	Stable Operations II	EQM 102	_____	_____	_____
4	Horse Production	EQM 151	_____	_____	_____
3	Equine Evaluation	EQM 153	_____	_____	_____
2	Equine Reproduction	EQM 158	_____	_____	_____
3	Equine Management	EQM 251	_____	_____	_____
3	Fundamentals of Riding Instruction	EQT 200	_____	_____	_____
7	Basic Horsemanship & Equitation Skills	HTM 150	_____	_____	_____
7	Basic Care and Training	HTM 152	_____	_____	_____
1	Foal Training	HTM 155	_____	_____	_____
2	Internship	HTM 280	_____	_____	_____

63 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Revised 6/2009
 Updated 5/13/2009

ASSOCIATE OF APPLIED SCIENCE
INDUSTRIAL ELECTRICIAN
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 17 credits</u>					
1	College 101: The Educational Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
4	College Algebra	MAT 121	_____	_____	_____
3	Human Resources	PSY 106	_____	_____	_____
6	General Education Electives: Choose two classes from State Guaranteed Transfer courses in two disciplines in Science, Humanities, or SPE 115	_____	_____	_____	_____
<u>SPECIALIZED COURSE REQUIREMENTS – 50 credits</u>					
4	Electrical Construction and Planning	EIC 100	_____	_____	_____
4	Basics of AC & DC Electricity	EIC 105	_____	_____	_____
4	Electrical Installations I	EIC 110	_____	_____	_____
1.5	National Electric Code 2008	EIC 133	_____	_____	_____
1.5	Grounding and Bonding	EIC 144	_____	_____	_____
4	DC Circuit Fundamentals	EIC 150	_____	_____	_____
4	AC Circuit Fundamentals	EIC 155	_____	_____	_____
4	Electrical Instruments and Measurements	EIC 160	_____	_____	_____
4	Solid State Devices and Circuits	EIC 165	_____	_____	_____
4	Electrical Maintenance	EIC 167	_____	_____	_____
4	Electrical Code Calculations	EIC 169	_____	_____	_____
4	Industrial Electrical Controls I	EIC 220	_____	_____	_____
1.5	Understanding PLC's	EIC 224	_____	_____	_____
4	Programmable Controllers	EIC 225	_____	_____	_____
1.5	Mechanical Drives	EIC 227	_____	_____	_____

67 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Approved 7/31/2007
 Updated 5/13/2009

**ASSOCIATE OF APPLIED SCIENCE
NURSING**
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

PREREQUISITES:

BIO 201 Human Anatomy and Physiology I (4) **PSY 235 Human Growth and Development (3)** **ENG 121 English Composition I (3)**
BIO 202 Human Anatomy and Physiology II (4) **BIO 204 Microbiology (4)**

***COMPLETION OF PRACTICAL NURSING CERTIFICATE CREDITS IN ESCROW – 30 credit hours**

(Practical nurses articulating to the associate degree level are awarded or transfer in nursing credits equivalent to approximately one (1) year of full-time nursing courses – 30 credit hours)

***Practical Nurse Licensing by the Colorado Board of Nursing is required before admission to Specialized Second-Year Nursing Courses.**

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
8	Fundamentals of Nursing	NUR 109	_____	_____	_____
2	Basic Concepts of Pharmacology	NUR 112	_____	_____	_____
1	Dietary Nutrition	HPR 108	_____	_____	_____
3	Math for Clinical Calculations	MAT 103	_____	_____	_____
9	Medical and Surgical Nursing Concepts	NUR 106	_____	_____	_____
7	Obstetric and Pediatric Nursing	NUR 150	_____	_____	_____
4	Pathophysiology	BIO 216	_____	_____	_____
8	Advanced Concepts of Medical-Surgical Nursing I	NUR 206	_____	_____	_____
4	Nursing Care of Psychiatric Clients	NUR 211	_____	_____	_____
2	Pharmacology II	NUR 212	_____	_____	_____
6	Advanced Concepts of Medical-Surgical Nursing II	NUR 216	_____	_____	_____
5	Leadership, Management, and Trends	NUR 230	_____	_____	_____
3	Arts/Humanities or Social/Behavioral Sciences Elective	_____	_____	_____	_____

62 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

REQUIRED COURSE FOR STUDENTS WITH PRIOR LPN CERTIFICATION

4	Transition from LPN to ADN	NUR 189	_____	_____	_____
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OPTIONAL COURSE TO RECEIVE CERTIFICATE OF PRACTICAL NURSING (Between First and Second Years):

5	Transition into Practical Nursing	NUR 169	_____	_____	_____
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Updated 4/27/2009

ASSOCIATE OF APPLIED SCIENCE
OFFICE ADMINISTRATIVE ASSISTANT/BUSINESS COMPUTERS
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
	<u>GENERAL EDUCATION REQUIREMENTS – 16 credits</u>				
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
3	English Composition II	ENG 122	_____	_____	_____
3	Public Speaking	COM 115	_____	_____	_____
3	Math Elective (MAT 107 or above)	MAT _____	_____	_____	_____
3	SOCIAL/BEHAVIORAL SCIENCES (Satisfied by one)				
	ECO 201, 202; POS 111; PSY 101, 106; SOC 101	_____	_____	_____	_____
	<u>SPECIALIZED COURSE REQUIREMENTS – 37 credits</u>				
4	Accounting Principles I	ACC 121	_____	_____	_____
3	Introduction to Business	BUS 115	_____	_____	_____
3	Business Communications & Report Writing	BUS 217	_____	_____	_____
3	Principles of Management	MAN 226	_____	_____	_____
3	Introduction to PC applications	CIS 118	_____	_____	_____
3	Word Processing I	CIS 131	_____	_____	_____
3	Word Processing II	CIS 132	_____	_____	_____
3	Complete PC Database	CIS 145	_____	_____	_____
3	PC Spreadsheet Concepts	CIS 155	_____	_____	_____
6	Cooperative Education/Internship	BUS 187	_____	_____	_____
3	Ethics	PHI 112	_____	_____	_____
	<u>SPECIALIZED COURSE ELECTIVES (Select 4 courses)</u>				
3	Small Business Management	MAN 216	_____	_____	_____
3	Principles of Marketing	MAR 216	_____	_____	_____
3	Complete Presentation Graphics	CIS 165	_____	_____	_____
3	Desktop Publishing	CIS 167	_____	_____	_____
4	Computer Science I	CSC 160	_____	_____	_____
3	Mastering the Web	CWB 106	_____	_____	_____
3	Technical Writing	ENG 131	_____	_____	_____

64	TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE
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(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Pending Approval

ASSOCIATE OF APPLIED SCIENCE
POWER PLANT TECHNOLOGY
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 17 credits</u>					
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
3	Human Relations	PSY 106	_____	_____	_____
3	Career Math or equivalent	MAT 107	_____	_____	_____
4	Conceptual Physics	PHY 105	_____	_____	_____
3	Technical Writing	ENG 131	_____	_____	_____
 <u>SPECIALIZED COURSE REQUIREMENTS – 15 credits</u>					
3	Introduction to PC Applications	CIS 118	_____	_____	_____
3	Safety, Health, and Environment	PRO 110	_____	_____	_____
4	Coal and Ash Handling	PPT 113	_____	_____	_____
3	Print Reading for Manufacturing	ENT 106	_____	_____	_____
2	Water and Wastewater Treatment	ENT 250	_____	_____	_____
 <u>SPECIALIZED COURSE REQUIREMENTS – 37 credits</u>					
2	Basic Electricity	PPT 100	_____	_____	_____
2	Basic Plant Operations	PPT 105	_____	_____	_____
2	Plant Systems	PPT 110	_____	_____	_____
3	Plant Auxiliaries	PPT 112	_____	_____	_____
3	Plant Instrumentation (<i>optional</i>)	PPT 115	_____	_____	_____
3	Instrumentation and Control	PPT 116	_____	_____	_____
6	Power Generation Application	PPT 150	_____	_____	_____
4	Power Plant Protection	PPT 200	_____	_____	_____
4	Plant Protection – Electrical	PPT 201	_____	_____	_____
3	Power Plant Thermodynamics	PPT 205	_____	_____	_____
3	Steam Turbines	PPT 210	_____	_____	_____
3	Power Generation	PPT 215	_____	_____	_____

69 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Updated 5/13/2009

ASSOCIATE OF APPLIED SCIENCE
PROCESS TECHNOLOGY – OIL AND GAS EMPHASIS
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 20 credits</u>					
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
5	Chemistry 101 or Physical Geology (GEY 111)	_____	_____	_____	_____
3	Intro to PC Applications	CIS 118	_____	_____	_____
4	Conceptual Physics	PHY 105	_____	_____	_____
4	Survey of Algebra	MAT 106	_____	_____	_____

SPECIALIZED COURSE REQUIREMENTS – 31 credits

3	Introduction to Process Technology	PRO 100	_____	_____	_____
3	Safety, Health, and Environment	PRO 110	_____	_____	_____
4	Process Technology I: Equipment	PRO 120	_____	_____	_____
3	Instrumentation I	PRO 130	_____	_____	_____
4	Process Technology II: Systems	PRO 210	_____	_____	_____
4	Process Technology III: Operations	PRO 220	_____	_____	_____
3	Oil & Gas Production I	PRO 250	_____	_____	_____
3	Oil & Gas Production II	PRO 255	_____	_____	_____
3	ArcView GIS	GIS 105	_____	_____	_____
1	Workplace Communication	COM 100	_____	_____	_____

ELECTIVES – Choose 10 - 11 credits (depending on CHE101 or GEY 111 option)

Select courses from the following:

3	Instrumentation II	PRO 131	_____	_____	_____
3	Quality in Process Technology	PRO 230	_____	_____	_____
4	Process Troubleshooting	PRO 240	_____	_____	_____
2	Process Technology Internship	PRO 280	_____	_____	_____
3	GPS for Geographic Information Systems	GIS 131	_____	_____	_____

61 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Approved 2/21/2007
 Updated 5/13/2009

**ASSOCIATE OF APPLIED SCIENCE
PROCESS TECHNOLOGY
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS**

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 20 credits</u>					
1	College 101: The Educational Experience	AAA 101	_____	_____	_____
3	English Composition I	ENG 121	_____	_____	_____
5	Chemistry 101 or Above	CHE 101	_____	_____	_____
3	Intro to PC Applications	CIS 118	_____	_____	_____
4	Conceptual Physics	PHY 105	_____	_____	_____
4	Survey of Algebra	MAT 106	_____	_____	_____

SPECIALIZED COURSE REQUIREMENTS – 25 credits

3	Introduction to Process Technology	PRO 100	_____	_____	_____
3	Safety, Health, and Environment	PRO 110	_____	_____	_____
4	Process Technology I: Equipment	PRO 120	_____	_____	_____
3	Instrumentation I	PRO 130	_____	_____	_____
4	Process Technology II: Systems	PRO 210	_____	_____	_____
4	Process Technology III: Operations	PRO 220	_____	_____	_____
3	AreView GIS	GIS 105	_____	_____	_____
1	Workplace Communication	COM 100	_____	_____	_____

ELECTIVES – Choose 16 credits

Select courses from the following:

3	Instrumentation II	PRO 131	_____	_____	_____
3	Quality in Process Technology	PRO 230	_____	_____	_____
4	Process Troubleshooting	PRO 240	_____	_____	_____
3	Oil & Gas Production I	PRO 250	_____	_____	_____
3	Oil & Gas Production II	PRO 255	_____	_____	_____
2	Process Technology Internship	PRO 280	_____	_____	_____
3	GPS for Geographic Information Systems	GIS 131	_____	_____	_____

61 TOTAL REQUIRED HOURS FOR ASSOCIATE OF APPLIED SCIENCE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Approved 5/2/2007
Updated 5/13/2009

OCCUPATIONAL CERTIFICATES

OCCUPATIONAL CERTIFICATE ACCOUNTING *PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS*

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
	<u>GENERAL EDUCATION REQUIREMENTS – 14 credits</u>				
4	Accounting Principles I	ACC 121	_____	_____	_____
4	Accounting Principles II	ACC 122	_____	_____	_____
3	Payroll Accounting	ACC 115	_____	_____	_____
3	Introduction to Business	BUS 115	_____	_____	_____
	<u>RELATED COURSE REQUIREMENTS – 6 credits</u>				
3	Introduction to PC Applications	CIS 118	_____	_____	_____
3	PC Spreadsheet Concepts	CIS 155	_____	_____	_____

20 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

OCCUPATIONAL CERTIFICATE
AUTOMOTIVE TECHNOLOGY - BASIC
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits	<u>COURSE REQUIREMENTS</u>	Course Number	Transfer Credits	Credit Hours Completed	Grade
2	Introduction to the Automotive Shop	ASE 102	_____	_____	_____
2	Auto Maintenance I	ASE 103	_____	_____	_____
3	Brakes I	ASE 110	_____	_____	_____
2	Basic Auto Electricity	ASE 120	_____	_____	_____
2	Battery, Starting and Charging	ASE 123	_____	_____	_____
2	General Engine Diagnosis	ASE 130	_____	_____	_____
2	Ignition System Diagnosis and Repair	ASE 132	_____	_____	_____
2	Automotive Emissions	ASE 134	_____	_____	_____
3	Suspension and Steering	ASE 140	_____	_____	_____
2	U-Joint & Axle Shaft Service	ASE 150	_____	_____	_____
2	Manual Transmission/Transaxle and Clutches	ASE 151	_____	_____	_____
2	Differentials and 4WD/AWD Repair	ASE 152	_____	_____	_____
1	Engine Removal and Installation	ASE 160	_____	_____	_____
3	Brakes II	ASE 210	_____	_____	_____
4	Automotive Body Electrical	ASE 221	_____	_____	_____
2	Automotive Computers	ASE 231	_____	_____	_____
4	Fuel Injection and Exhaust	ASE 233	_____	_____	_____
1	Drivability Diagnosis	ASE 235	_____	_____	_____
1	Automatic Transmission/Transaxle Service	ASE 250	_____	_____	_____
1	Workplace Communications	COM 100	_____	_____	_____

43 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

OCCUPATIONAL CERTIFICATE
AUTOMOTIVE TECHNOLOGY - ADVANCED
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Completion of the Automotive Technology Basic Certificate Required or Instructor Approval

Required Credits	<u>COURSE REQUIREMENTS</u>	Course Number	Transfer Credits	Credit Hours Completed	Grade
5	Engine Repair and Rebuild	ASE 161	_____	_____	_____
3	Suspension and Steering II	ASE 240	_____	_____	_____
5	Automatic Transmission/Transaxle Repair	ASE 251	_____	_____	_____

13 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**OCCUPATIONAL CERTIFICATE
DIESEL TECHNOLOGY**
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

<u>Required Credits</u>	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
4	Diesel Engines I	DPM 103	_____	_____	_____
3	Heavy Duty Powertrains I	DPM 105	_____	_____	_____
3	Diesel Fuel Systems	DPM 106	_____	_____	_____
3	Preventative Maintenance I	DPM 111	_____	_____	_____
3	Hydraulic Systems I	DPM 121	_____	_____	_____
3	Hydraulic Systems II	DPM 122	_____	_____	_____
3	Heavy Duty Steering and Suspension	DPM 140	_____	_____	_____
4	Diesel Engines II	DPM 203	_____	_____	_____
3	Heavy Duty Powertrains II	DPM 205	_____	_____	_____
3	Heavy Duty Brakes I	DPM 206	_____	_____	_____
3	Heavy Duty Brakes II	DPM 207	_____	_____	_____
1	Diesel Air Induction	DPM 210	_____	_____	_____
4	Heavy Duty Lighting and Instrumentation	DPM 222	_____	_____	_____
3	Heavy Duty Steering and Suspension II	DPM 240	_____	_____	_____

43 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

OCCUPATIONAL CERTIFICATE
AVIATION MAINTENANCE TECHNOLOGY
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits	<u>COURSE REQUIREMENTS</u>	Course Number	Transfer Credits	Credit Hours Completed	Grade
4	A&P Preparation	AMT 101	_____	_____	_____
4	Basic Electrics	AMT 102	_____	_____	_____
2	Weight & Balance/Ground Handling	AMT 103	_____	_____	_____
3	Regulations & Publications	AMT 104	_____	_____	_____
6	Materials & Processes	AMT 105	_____	_____	_____
2	Corrosion Control & Fluid Lines	AMT 106	_____	_____	_____
2	Wood, Fabric & Finishes	AMT 111	_____	_____	_____
6	Sheet Metal	AMT 112	_____	_____	_____
1	Aircraft Welding	AMT 113	_____	_____	_____
3	Assembly, Rigging & Inspection	AMT 114	_____	_____	_____
2	Composite Construction	AMT 115	_____	_____	_____
3	Hydraulic Systems	AMT 121	_____	_____	_____
4	Aircraft Electrics	AMT 122	_____	_____	_____
2	Instruments & Warning Systems	AMT 123	_____	_____	_____
2	Fuel Systems	AMT 124	_____	_____	_____
3	Miscellaneous Systems	AMT 125	_____	_____	_____
3	Aviation Electronics	AMT 126	_____	_____	_____
3	Landing Gear Systems	AMT 127	_____	_____	_____
4	Reciprocating Engine Theory	AMT 201	_____	_____	_____
3	Reciprocating Fuel Metering & Induction Systems	AMT 202	_____	_____	_____
2	Reciprocating Ignition Systems	AMT 203	_____	_____	_____
4	Reciprocating Engine Maintenance	AMT 205	_____	_____	_____
2	Reciprocating Propeller Systems	AMT 206	_____	_____	_____
2	Engine Electrics & Instrument Systems	AMT 207	_____	_____	_____
4	Turbine Engine Theory	AMT 211	_____	_____	_____
2	Turbine Fuel Systems	AMT 212	_____	_____	_____
3	Miscellaneous Turbine Systems	AMT 213	_____	_____	_____
4	Turbine Engine Maintenance	AMT 215	_____	_____	_____
1	Turbine Propeller Systems	AMT 216	_____	_____	_____
3	Trouble Shooting	AMT 218	_____	_____	_____

89 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**OCCUPATIONAL CERTIFICATE
AVIATION TECHNOLOGY**
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
4	Private Pilot Ground School	AVT 101	_____	_____	_____
4	Private Pilot Flight	AVT 102	_____	_____	_____
4	Aviation Meteorology	AVT 105	_____	_____	_____
4	Instrument Pilot Ground School	AVT 111	_____	_____	_____
4	Instrument Pilot Flight	AVT 112	_____	_____	_____
2	Commercial Pilot Ground School	AVT 201	_____	_____	_____
3	Commercial Pilot Flight I	AVT 202	_____	_____	_____
4	Commercial Pilot Flight II	AVT 203	_____	_____	_____
1	Mountain Flying Ground School	AVT 205	_____	_____	_____
1	Crew Resource Management	AVT 206	_____	_____	_____
1	Multi Engine Ground School	AVT 207	_____	_____	_____
2	Fundamentals of Instruction	AVT 211	_____	_____	_____
2	Flight Instructor Ground School	AVT 212	_____	_____	_____
2	Instrument Instructor Ground School	AVT 221	_____	_____	_____
1	Flight Instructor Flight	AVT 213	_____	_____	_____
OR					
1	Multi Engine Flight	AVT 208	_____	_____	_____

39 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**OCCUPATIONAL CERTIFICATE
AVIATION TECHNOLOGY**
PRIVATE PILOT
Airplane Single Engine Land
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
4	Private Pilot Ground School	AVT 101	_____	_____	_____
4	Aviation Meteorology	AVT 105	_____	_____	_____

Completion of these classes is evidenced by passing the required FAA Private Pilot Knowledge Exam.

4	Private Pilot Flight	AVT 102	_____	_____	_____
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Completion of the Flight Phase is evidenced by passing the required FAA Private Pilot Airplane Single Engine Land Practical Exam

12 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**OCCUPATIONAL CERTIFICATE
AVIATION TECHNOLOGY
INSTRUMENT**
Instrument Rating, Airplane Single Engine Land
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits	<u>COURSE REQUIREMENTS</u>	Course Number	Transfer Credits	Credit Hours Completed	Grade
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PREREQUISITE: 50 HOURS OF CROSS-COUNTRY FLIGHT TIME AS PILOT IN COMMAND, OF WHICH AT LEAST 10 HOURS MUST BE IN AIRPLANES

OR

BE ENROLLED IN A PART 141 INSTRUMENT/COMMERCIAL COURSE

4	Instrument Pilot Ground School	AVT 111	_____	_____	_____
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Completion of this class is evidenced by passing the required FAA Instrument Rating Knowledge Exam.

4	Instrument Pilot Flight	AVT 112	_____	_____	_____
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Completion of the Flight Phases is evidenced by passing the required FAA Practical Exam for Instrument Airplane, Single Engine Land.

8 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**OCCUPATIONAL CERTIFICATE
AVIATION TECHNOLOGY
COMMERCIAL PILOT**
Airplane Single Engine Land
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits	<u>COURSE REQUIREMENTS</u>	Course Number	Transfer Credits	Credit Hours Completed	Grade
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PREREQUISITE: PRIVATE PILOT'S LICENSE WITH INSTRUMENT RATING

2	Commercial Pilot Ground School	AVT 201	_____	_____	_____
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Completion of this class is evidenced by passing the required FAA Commercial Pilot Knowledge Exam.

3	Commercial Flight I	AVT 202	_____	_____	_____
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4	Commercial Flight II	AVT 203	_____	_____	_____
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Completion of the Flight Phases is evidenced by passing the required FAA Practical Exam for Commercial Pilot, Airplane Single Engine Land.

9 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**OCCUPATIONAL CERTIFICATE
AVIATION TECHNOLOGY
COCKPIT RESOURCE MANAGEMENT
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS**

Required Credits	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
4	Instrument Pilot Ground School	AVT 111	_____	_____	_____
4	Instrument Pilot Flight	AVT 112	_____	_____	_____

Completion of these classes is evidenced by attaining an Instrument Rating on an airplane Single or Multi-Engine Land; Private or Commercial Certificate

1	Crew Resource Management	AVT 206	_____	_____	_____
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Completion of the Flight Phase is evidenced by satisfactorily passing the ground instruction and Flight Training Device portions of AVT 206, after having met the requirements of AVT 111 and 112

This certificate is patterned directly from the United Airlines Command, Leadership, and Response course that is mandatory for all their line pilots. It is increasingly becoming an item of emphasis in ALL flight training and nearly mandatory for all professional pilots.

9 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**OCCUPATIONAL CERTIFICATE
AVIATION TECHNOLOGY
MULTI-ENGINE
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS**

Required Credits	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
1	Multi-Engine Ground School	AVT 207	_____	_____	_____
1	Multi-Engine Flight	AVT 208	_____	_____	_____

Completion is evidenced by passing the required FAA Practical Exam for Airplane Multi-Engine Land.

2 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**OCCUPATIONAL CERTIFICATE
AVIATION TECHNOLOGY
CERTIFIED FLIGHT INSTRUCTOR**
Airplane Single Engine Land
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

<u>Required Credits</u>	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
PREREQUISITE: COMMERCIAL CERTIFICATE WITH INSTRUMENT RATING					
2	Fundamentals of Instruction	AVT 211	_____	_____	_____
2	Flight Instructor Ground School	AVT 212	_____	_____	_____

Completion of these classes is evidenced by passing the required FAA Knowledge Exams for Fundamentals of Instruction and Flight Instructor Airplane

1	Flight Instructor Flight	AVT 213	_____	_____	_____
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Completion of the Flight Phase is evidenced by passing the required FAA Practical Exam for Flight Instructor, Airplane Single Engine Land

5 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**OCCUPATIONAL CERTIFICATE
AVIATION TECHNOLOGY
CERTIFIED INSTRUMENT FLIGHT INSTRUCTOR**
Airplane Single Engine Land
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

<u>Required Credits</u>	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
PREREQUISITE: CERTIFIED FLIGHT INSTRUCTOR CERTIFICATE					
2	Instrument Instructor Ground School	AVT 211	_____	_____	_____

Completion of this class is evidenced by passing the required FAA Knowledge Exams for Instrument Instructor, Airplane.

1	Instrument Instructor Flight	AVT 222	_____	_____	_____
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Completion of the Flight Phase is evidenced by passing the required FAA Practical Exam for Instrument Instructor, Airplane Single Engine Land

3 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

OCCUPATIONAL CERTIFICATE
BANKING AND FINANCIAL SERVICES
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

<u>Required Credits</u>	<u>GENERAL EDUCATION REQUIREMENTS – 18 credits</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
4	Accounting Principles I	ACC 121	_____	_____	_____
3	Introduction to Finance	FIN 101	_____	_____	_____
3	Principles of Banking	FIN 105	_____	_____	_____
3	Money and Banking	FIN 226	_____	_____	_____
2	Law and Banking Applications	FIN 245	_____	_____	_____

15 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

OCCUPATIONAL CERTIFICATE CONSTRUCTION TECHNOLOGY I

PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits	Contact Hours	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
1	15	Introduction to Carpentry	CAR 100	_____	_____	_____
1	15	Basic Safety	CAR 101	_____	_____	_____
1	22.5	Hand and Power Tools	CAR 102	_____	_____	_____
1	15	Job Site Layout and Blueprint Reading	CAR 105	_____	_____	_____
1	22.5	Form and Foundation Systems	CAR 115	_____	_____	_____
1	22.5	General Construction Framing	CAR 120	_____	_____	_____
1	22.5	Floor Framing	CAR 121	_____	_____	_____
1	22.5	Wall Framing	CAR 122	_____	_____	_____
1	22.5	Roofing Materials and Methods	CAR 125	_____	_____	_____
1	22.5	Windows and Exterior Doors	CAR 130	_____	_____	_____
1	22.5	Exterior Trim	CAR 131	_____	_____	_____
1	22.5	Thermal and Moisture Methods and Materials	CAR 135	_____	_____	_____
1	22.5	Stair Construction/Layout	CAR 140	_____	_____	_____
1	22.5	Interior Finishes – General	CAR 145	_____	_____	_____
1	22.5	Interior Finishes – Drywall Construction	CAR 146	_____	_____	_____
1	22.5	Interior Trim – General	CAR 150	_____	_____	_____
1	22.5	Interior Trim – Doors and Trim	CAR 151	_____	_____	_____
1	22.5	Interior Trim – Cabinets and Countertops	CAR 153	_____	_____	_____
1	22.5	Floor Finishes	CAR 160	_____	_____	_____
1	30	Clinical: Construction Lab I	CAR 170	_____	_____	_____
1	30	Clinical: Construction Lab I	CAR 171	_____	_____	_____
1	30	Clinical: Construction Lab I	CAR 172	_____	_____	_____
1	30	Clinical: Construction Lab I	CAR 173	_____	_____	_____
1	15	Special Topics: Deed and Land Research	CAR 175	_____	_____	_____
24	540	TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE				

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

OCCUPATIONAL CERTIFICATE CONSTRUCTION TECHNOLOGY II

PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits	Contact Hours	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
2	45	Advanced Site Layout	CAR 205	_____	_____	_____
1	22.5	Form and Foundation Systems II	CAR 215	_____	_____	_____
1	22.5	Advanced Framing – General	CAR 220	_____	_____	_____
2	45	Advanced Floor Systems	CAR 221	_____	_____	_____
2	45	Advanced Wall Systems	CAR 222	_____	_____	_____
2	45	Advanced Roofing Systems	CAR 223	_____	_____	_____
2	45	Advanced Stair Layout	CAR 240	_____	_____	_____
2	45	Advanced Interior Trim - General	CAR 250	_____	_____	_____
2	45	Advanced Interior Trim – Doors	CAR 251	_____	_____	_____
2	60	Clinical: Construction Lab II	CAR 270	_____	_____	_____
3	90	Clinical: Construction Lab II	CAR 271	_____	_____	_____
3	45	Special Topics in Construction Technology	CAR 275	_____	_____	_____
24	545	TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE				

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

OCCUPATIONAL CERTIFICATE

COSMETOLOGY OCCUPATIONS - COSMETOLOGY

PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

PROGRAM REQUIREMENTS:

COURSE WORK	ASSESSMENT TEST SCORE	ACT SCORE
Reading 060	62	17
English 060	70	18
Math 030	56	19

Required Credits	Contact Hours	COURSE REQUIREMENTS	Course Number	Transfer Credits	Credit Hours Completed	Grade
1	30	Shampoos, Rinses, Conditioners I	COS 103	_____	_____	_____
2	60	Introduction to Hair Coloring	COS 110	_____	_____	_____
2	60	Introduction to Hair Cutting	COS 120	_____	_____	_____
2	60	Introduction to Hair Styling	COS 130	_____	_____	_____
1	30	Introduction to Chemical Texture	COS 140	_____	_____	_____
2	60	Introduction to Disinfection, Sanitation, and Safety	COS 160	_____	_____	_____
3	90	Introduction to Facials and Skin Care	EST 110	_____	_____	_____
2	60	Intermediate Facials and Skin Care	EST 111	_____	_____	_____
3	90	Introduction to Manicures and Pedicures	NAT 110	_____	_____	_____
2	60	Intermediate Manicures and Pedicures	NAT 111	_____	_____	_____
2	60	Intermediate I: Hair Coloring	COS 111	_____	_____	_____
2	60	Intermediate I: Hair Cutting	COS 121	_____	_____	_____
1	30	Intermediate I: Chemical Texture	COS 141	_____	_____	_____
1	30	Laws, Rules, and Regulations	COS 150	_____	_____	_____
1	30	Intermediate I: Disinfection, Sanitation, and Safety	COS 161	_____	_____	_____
2	60	Advanced Manicures and Pedicures	NAT 210	_____	_____	_____
5	150	Application of Artificial Nails	NAT 211	_____	_____	_____
2	60	Advanced Massage and Skin Care	EST 210	_____	_____	_____
1	30	Facial Makeup	EST 211	_____	_____	_____
3	90	Hair Removal	EST 212	_____	_____	_____
2	60	Intermediate I; Hair Styling	COS 131	_____	_____	_____
1	30	Shampoos, Rinses, Conditioners II	COS 203	_____	_____	_____
2	60	Intermediate II: Hair Coloring	COS 210	_____	_____	_____
2	60	Advanced Hair Coloring	COS 211	_____	_____	_____
2	60	Intermediate II: Hair Cutting	COS 220	_____	_____	_____
2	60	Advanced Hair Cutting	COS 221	_____	_____	_____
2	60	Intermediate II: Hair Styling	COS 230	_____	_____	_____
1	30	Advanced Hair Styling	COS 231	_____	_____	_____
1	30	Intermediate II: Chemical Texture	COS 240	_____	_____	_____
1	30	Advanced Chemical Texture	COS 241	_____	_____	_____
1	30	Management, Ethics, Interpersonal Skills, and Sales	COS 250	_____	_____	_____
2	60	Intermediate II: Disinfection, Sanitation and Safety	COS 260	_____	_____	_____
1	30	Advanced Disinfection, Sanitation, and Safety	COS 261	_____	_____	_____
60	1800	TOTAL REQUIRED HOURS FOR COMPLETION OF THE CERTIFICATE: COSMETOLOGY				

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

ELECTIVES (May be substituted for any Introduction, Intermediate, and Advanced Courses)

0.5 – 12	Special Topics	COS 275	_____	_____	_____
0.5 – 12	Seminar/Workshop: Cosmetology	COS 279	_____	_____	_____
0.5 – 12	Internship	COS 280	_____	_____	_____
1 – 12	Independent Study	COS 285	_____	_____	_____
0.5 – 12	Cosmetology Practicum	COS 288	_____	_____	_____
1 – 3	Capstone	COS 289	_____	_____	_____
0.25 – 12	Professional Development/Continuing Education	COS 290	_____	_____	_____

Upon successful completion of the specialized courses, student may be eligible to register for the Colorado Board of Barber/Cosmetology license examination.

OCCUPATIONAL CERTIFICATE
COSMETOLOGY OCCUPATIONS – ESTHETICIAN/COSMETICIAN
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

PROGRAM REQUIREMENTS:

COURSE WORK	ASSESSMENT TEST SCORE	ACT SCORE
Reading 060	62	17
English 060	70	18
Math 030	56	19

<u>Required Credits</u>	<u>Contact Hours</u>	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
3	90	Introduction to Facials and Skin Care	EST 110	_____	_____	_____
2	60	Intermediate Facials and Skin Care	EST 111	_____	_____	_____
2	60	Advanced Skin Care and Massage	EST 210	_____	_____	_____
1	30	Facial Makeup	EST 211	_____	_____	_____
3	90	Hair Removal	EST 212	_____	_____	_____
1	30	Laws, Rules, and Regulations	COS 150	_____	_____	_____
2	60	Intro to Disinfection, Sanitation, and Safety	COS 160	_____	_____	_____
1	30	Management, Ethics, Interpersonal Skills, and Sales	COS 250	_____	_____	_____
2	60	Intermediate II: Disinfection, Safety, and Sanitation	COS 260	_____	_____	_____
3	90	Advanced II: Disinfection, Safety, and Sanitation	COS 262	_____	_____	_____

20 600 TOTAL REQUIRED HOURS FOR COMPLETION OF THE CERTIFICATE: ESTHETICIAN

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

ELECTIVES (May be substituted for any Introduction, Intermediate, and Advanced Courses)

1-3	Esthetician Preparations for State Boards	EST 230	_____	_____	_____
0.5 – 12	Special Topics	EST 275	_____	_____	_____
1 – 12	Advanced Esthetician Studies	EST 278	_____	_____	_____
0.5 – 12	Supervised Esthetician Internship	EST 280	_____	_____	_____
0.5 – 12	Independent Study	EST 285	_____	_____	_____
0.5 – 12	Esthetician Practicum	EST 288	_____	_____	_____
0.5 – 12	Professional Development/Continuing Education	EST 290	_____	_____	_____

Specialized courses (20 credit hours) are required by the Colorado Board of Barber/Cosmetology. Upon successful completion of the specialized courses, student may be eligible to register for the Colorado Board of Barber/Cosmetology license examination.

Updated 5/11/2009

OCCUPATIONAL CERTIFICATE
COSMETOLOGY OCCUPATIONS - HAIRSTYLIST
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

PROGRAM REQUIREMENTS:

COURSE WORK	ASSESSMENT TEST SCORE	ACT SCORE
Reading 060	62	17
English 060	70	18
Math 030	56	19

<u>Required Credits</u>	<u>Contact Hours</u>	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
1	30	Shampoos, Rinses, Conditioners I	COS 103	_____	_____	_____
2	60	Introduction to Hair Coloring	COS 110	_____	_____	_____
2	60	Intermediate I: Hair Coloring	COS 111	_____	_____	_____
2	60	Introduction to Hair Cutting	COS 120	_____	_____	_____
2	60	Intermediate I: Hair Cutting	COS 121	_____	_____	_____
2	60	Introduction to Hair Styling	COS 130	_____	_____	_____
2	60	Intermediate I; Hair Styling	COS 131	_____	_____	_____
1	30	Introduction to Chemical Texture	COS 140	_____	_____	_____
1	30	Intermediate I: Chemical Texture	COS 141	_____	_____	_____
1	30	Laws, Rules, and Regulations	COS 150	_____	_____	_____
2	60	Introduction to Disinfection, Sanitation, and Safety	COS 160	_____	_____	_____
1	30	Intermediate I: Disinfection, Sanitation, and Safety	COS 161	_____	_____	_____
1	30	Shampoos, Rinses, Conditioners II	COS 203	_____	_____	_____
2	60	Intermediate II: Hair Coloring	COS 210	_____	_____	_____
2	60	Advanced Hair Coloring	COS 211	_____	_____	_____
2	60	Intermediate II: Hair Cutting	COS 220	_____	_____	_____
2	60	Advanced Hair Cutting	COS 221	_____	_____	_____
2	60	Intermediate II: Hair Styling	COS 230	_____	_____	_____
1	30	Advanced Hair Styling	COS 231	_____	_____	_____
1	30	Intermediate II: Chemical Texture	COS 240	_____	_____	_____
1	30	Advanced Chemical Texture	COS 241	_____	_____	_____
1	30	Management, Ethics, Interpersonal Skills, and Sales	COS 250	_____	_____	_____
2	60	Intermediate II: Disinfection, Sanitation and Safety	COS 260	_____	_____	_____
1	30	Advanced Disinfection, Sanitation, and Safety	COS 261	_____	_____	_____
3	90	Advanced II: Disinfection, Sanitation, and Safety	COS 262	_____	_____	_____

40 1200 TOTAL REQUIRED HOURS FOR COMPLETION OF THE CERTIFICATE: HAIRSTYLIST

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

ELECTIVES (May be substituted for any Introduction, Intermediate, and Advanced Courses)

0.5 – 12	Special Topics	COS 275	_____	_____	_____
0.5 – 12	Seminar/Workshop: Cosmetology	COS 279	_____	_____	_____
0.5 – 12	Internship	COS 280	_____	_____	_____
1 – 12	Independent Study	COS 285	_____	_____	_____
0.5 – 12	Cosmetology Practicum	COS 288	_____	_____	_____
1 – 3	Capstone	COS 289	_____	_____	_____

Upon successful completion of the specialized courses, student may be eligible to register for the Colorado Board of Barber/Cosmetology license examination.

OCCUPATIONAL CERTIFICATE
COSMETOLOGY OCCUPATIONS – NAIL TECHNICIAN
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

PROGRAM REQUIREMENTS:

COURSE WORK	ASSESSMENT TEST SCORE	ACT SCORE
Reading 060	62	17
English 060	70	18
Math 030	56	19

<u>Required Credits</u>	<u>Contact Hours</u>	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
3	90	Introduction to Manicures and Pedicures	NAT 110	_____	_____	_____
2	60	Intermediate Manicures and Pedicures	NAT 111	_____	_____	_____
1	30	Laws, Rules, and Regulations	COS 150	_____	_____	_____
2	60	Introduction to Disinfection, Sanitation, and Safety	COS 160	_____	_____	_____
1	30	Intermediate I: Disinfection, Sanitation, and Safety	COS 161	_____	_____	_____
2	60	Advanced Manicures and Pedicures	NAT 210	_____	_____	_____
5	150	Application of Artificial Nails	NAT 211	_____	_____	_____
1	30	Management, Ethics, Interpersonal Skills, and Sales	COS 250	_____	_____	_____
2	60	Intermediate II: Disinfection, Sanitation and Safety	COS 260	_____	_____	_____
1	30	Advanced Disinfection, Sanitation, and Safety	COS 261	_____	_____	_____

20 600 TOTAL REQUIRED HOURS FOR COMPLETION OF THE CERTIFICATE: NAIL TECHNICIAN

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

ELECTIVES (May be substituted for any Introduction, Intermediate, and Advanced Courses)

0.5 – 6	Special Topics	NAT 275	_____	_____	_____
0.5 – 6	Internship	NAT 280	_____	_____	_____
0.5 – 6	Independent Study	NAT 285	_____	_____	_____
0.5 – 10	Practicum	NAT 288	_____	_____	_____
3	Advanced Nail Technician Studies	NAT 290	_____	_____	_____

Specialized courses (20 credit hours) are required by the Colorado Board of Barber/Cosmetology. Upon successful completion of the specialized courses, student may be eligible to register for the Colorado Board of Barber/Cosmetology license examination.

Updated 5/11/2009

**OCCUPATIONAL CERTIFICATE
CRIMINAL JUSTICE – LAW ENFORCEMENT**
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits	<u>COURSE REQUIREMENTS</u>	Course Number	Transfer Credits	Credit Hours Completed	Grade
6	Basic Law Enforcement Academy I	CRJ 101	_____	_____	_____
12	Basic Law Enforcement Academy II	CRJ 102	_____	_____	_____
8	Basic Law	CRJ 105	_____	_____	_____
3	Arrest Control Techniques	CRJ 106	_____	_____	_____
3	Law Enforcement Driving	CRJ 107	_____	_____	_____
3	Firearms	CRJ 108	_____	_____	_____
1	Physical Training for Law Enforcement	CRJ 175	_____	_____	_____
1	National Park Service	CRJ 275	_____	_____	_____

37 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Renewed 4/5/2007

**OCCUPATIONAL CERTIFICATE
CRIMINAL JUSTICE – SEASONAL PARK RANGER**
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits	<u>COURSE REQUIREMENTS</u>	Course Number	Transfer Credits	Credit Hours Completed	Grade
6	Basic Law Enforcement Academy I	CRJ 101	_____	_____	_____
3	Arrest Control Techniques	CRJ 106	_____	_____	_____
3	Law Enforcement Driving	CRJ 107	_____	_____	_____
3	Firearms	CRJ 108	_____	_____	_____
1	Physical Training for Law Enforcement	CRJ 175	_____	_____	_____
1	National Park Service	CRJ 275	_____	_____	_____

17 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Renewed 4/5/2007

OCCUPATIONAL CERTIFICATE
EARLY CHILDHOOD PROFESSIONS - DIRECTOR
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

<i>Required Credits</i>	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
3	<i>Introduction to Early Childhood Education</i>	ECE 101	_____	_____	_____
3	<i>Introduction to Early Childhood Lab Techniques</i>	ECE 102	_____	_____	_____
3	<i>Guidance Strategies for Children</i>	ECE 103	_____	_____	_____
3	<i>Nutrition, Health, and Safety</i>	ECE 205	_____	_____	_____
3	<i>Curriculum Development: Methods and Techniques</i>	ECE 220	_____	_____	_____
3	<i>Administration of Early Childhood Care and Education Programs</i>	ECE 240	_____	_____	_____
3	<i>Administration: Human Relations for Early Childhood Education</i>	ECE 241	_____	_____	_____
3	Child Development	PSY 238	_____	_____	_____

24 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by bold print. State-approved elective courses are in plain lettering.)

OCCUPATIONAL CERTIFICATE
EARLY CHILDHOOD PROFESSIONS – GROUP LEADER
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

<i>Required Credits</i>	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
3	<i>Introduction to Early Childhood Education</i>	ECE 101	_____	_____	_____
3	<i>Introduction to Early Childhood Lab Techniques</i>	ECE 102	_____	_____	_____
3	<i>Guidance Strategies for Children</i>	ECE 103	_____	_____	_____
3	<i>Curriculum Development: Methods and Techniques</i>	ECE 220	_____	_____	_____
3	Child Development	PSY 238	_____	_____	_____

15 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by bold print. State-approved elective courses are in plain lettering.)

OCCUPATIONAL CERTIFICATE
EARLY CHILDHOOD PROFESSIONS – INFANT AND TODDLER
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

<i>Required Credits</i>	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
3	<i>Infant and Toddler Theory and Practice</i>	ECE 111	_____	_____	_____
3	<i>Introduction to Infant and Toddler Lab Techniques</i>	ECE 112	_____	_____	_____
3	Child Development	PSY 238	_____	_____	_____

9 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by bold print. State-approved elective courses are in plain lettering.)

OCCUPATIONAL CERTIFICATE
EMERGENCY MEDICAL TECHNOLOGY - BASIC
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
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PRE-REQUISITE: CPR FOR PROFESSIONALS (Student must provide proof of current certification through transcripts or possession of current certification card)

SPECIALIZED COURSE REQUIREMENTS – 10 credits

9	EMT Basic	EMS 125	_____	_____	_____
1	EMT Basic Clinical	EMS 170	_____	_____	_____

10 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

OPTIONAL

2	EMT Intravenous Therapy	EMS 130	_____	_____	_____
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Upon successful completion of the Specialized Course Requirements, students may apply to the Colorado Department of Public Health and Environment, Health Facilities and Emergency Medical Services Division, Pre-hospital Care Program EMT-Basic examination.

OCCUPATIONAL CERTIFICATE
EMERGENCY MEDICAL TECHNOLOGY – INTERMEDIATE
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
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PRE-REQUISITE: EMT BASIC CERTIFICATION (Student must provide proof of current certification through transcripts or possession of current certification card)

SPECIALIZED COURSE REQUIREMENTS – 17 credits

2	EMT Intravenous Therapy	EMS 130	_____	_____	_____
6	EMT Intermediate I	EMS 203	_____	_____	_____
6	EMT Intermediate II	EMS 205	_____	_____	_____
3	EMT Intermediate Clinical	EMS 270	_____	_____	_____

17 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

OPTIONAL

1	ACLS	HPR 120	_____	_____	_____
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Upon successful completion of the Specialized Course Requirements, students may apply to the Colorado Department of Public Health and Environment, Health Facilities and Emergency Medical Services Division, Pre-hospital Care Program EMT-Intermediate examination.

OCCUPATIONAL CERTIFICATE EMERGENCY MEDICAL TECHNOLOGY – PROFESSIONAL PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
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PRE-REQUISITE: EMT BASIC CERTIFICATION (Student must provide proof of current certification through transcripts or possession of current certification card)

SPECIALIZED COURSE REQUIREMENTS – Choose 8 credits

Select courses from the following:

1	Pediatric Education for Pre-hospital Professionals (PEPP)	EMS 150	_____	_____	_____
1 – 6	EMS Special Topics	EMS 175/275	_____	_____	_____
1	Pre-hospital Trauma Life Support (PHTLS)	EMS 213	_____	_____	_____
1	Basic Trauma Life Support (BTLS)	EMS 214	_____	_____	_____
1	Pediatric Advanced Life Support (PALS)	HPR 130	_____	_____	_____
2	Basic EKG Interpretation	HPR 190	_____	_____	_____
1	CPR Instructor	HWE 104	_____	_____	_____
1	ACLS	HPR 120	_____	_____	_____
2	EMT Intravenous Therapy	EMS 130	_____	_____	_____

8 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**OCCUPATIONAL CERTIFICATE
GEOGRAPHIC INFORMATION SYSTEMS
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS**

Required Credits	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
<u>SPECIALIZED COURSE REQUIREMENTS – 9 credits</u>					
3	ArcView GIS	GIS 105	_____	_____	_____
3	Global Positioning Systems for GIS	GIS 131	_____	_____	_____
3	GIS Applications	GIS 205	_____	_____	_____
<u>OPTIONAL</u>					
1	Internship	GIS 180	_____	_____	_____

8 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**OCCUPATIONAL CERTIFICATE
HORSE MANAGEMENT**
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 9 credits</u>					
3	English Requirement (ENG 115 or above)	ENG ____	_____	_____	_____
3	PC Applications	CIS 118	_____	_____	_____
3	Mathematics Requirement (MAT 107 or above)	MAT ____	_____	_____	_____
<u>SPECIALIZED COURSE REQUIREMENTS – 22 credits</u>					
4	Introduction to Equine Science	ASC 102	_____	_____	_____
1	Stable Operations I	EQM 101	_____	_____	_____
1	Stable Operations II	EQM 102	_____	_____	_____
4	Horse Production	EQM 151	_____	_____	_____
3	Equine Evaluation	EQM 153	_____	_____	_____
2	Equine Reproduction	EQM 158	_____	_____	_____
3	Equine Management	EQM 251	_____	_____	_____
4	Internship	HTM 280	_____	_____	_____

32 TOTAL REQUIRED HOURS FOR CERTIFICATE: HORSE MANAGEMENT

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**OCCUPATIONAL CERTIFICATE
HORSE TRAINING**
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

*Applicants must pass a riding test before being allowed to pursue this certificate.

Required Credits		Course Number	Transfer Credits	Credit Hours Completed	Grade
<u>GENERAL EDUCATION REQUIREMENTS – 4 credits</u>					
1	College 101: The Academic Experience	AAA 101	_____	_____	_____
3	English Requirement (ENG 115 or above)	ENG ____	_____	_____	_____
<u>SPECIALIZED COURSE REQUIREMENTS – 32 credits</u>					
4	Introduction to Equine Science	ASC 102	_____	_____	_____
3	Equine Evaluation	EQM 153	_____	_____	_____
3	Equine Management	EQM 251	_____	_____	_____
7	Basic Horsemanship and Equitation Skills	HTM 150	_____	_____	_____
7	Basic Care and Training	HTM 152	_____	_____	_____
1	Foal Training	HTM 155	_____	_____	_____
7	Specialized Training	HTM 253	_____	_____	_____

36 TOTAL REQUIRED HOURS FOR CERTIFICATE: HORSE TRAINING

**OCCUPATIONAL CERTIFICATE
 MASSAGE THERAPY
 PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS**

PROGRAM REQUIREMENTS:

COURSE WORK	ASSESSMENT TEST SCORE	ACT SCORE
Reading 090	80	17
English 090	95	18
Math 060	45(Elementary Algebra)	19

<u>Required Credits</u>	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
3	Career Communications	COM 105	_____	_____	_____
	OR				
3	English Composition I	ENG 121	_____	_____	_____
4	Basic Anatomy and Physiology	BIO 106	_____	_____	_____
	OR				
	Anatomy or Physiology for Massage Therapy	MST 106	_____	_____	_____
3	Human Nutrition	HWE 100	_____	_____	_____
1	Complementary Healing Methods	HHP 100	_____	_____	_____
1	Herbology	HHP 111	_____	_____	_____
1	Introduction to Reflexology	HHP 166	_____	_____	_____
0.5	Aromatherapy	HHP 202	_____	_____	_____
4	Kinesiology	HPR 217	_____	_____	_____
4	Basic Massage Therapy	MST 111	_____	_____	_____
3	Professional Massage	MST 113	_____	_____	_____
3	Clinical Massage	MST 184	_____	_____	_____
3	Pathology	MST 216	_____	_____	_____
2	Massage Therapy Business Practices	MST 204	_____	_____	_____
1	Capstone	MST 289	_____	_____	_____

33.5 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Updated 5/11/2009

**OCCUPATIONAL CERTIFICATE
POWER PLANT TECHNOLOGY**
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

<u>Required Credits</u>		<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
	<u>GENERAL EDUCATION REQUIREMENTS – 4 credits</u>				
3	Career Math or equivalent	MAT 107	_____	_____	_____
1	Workplace Communications	COM 100	_____	_____	_____
	<u>SPECIALIZED COURSE REQUIREMENTS – 27 credits</u>				
3	Introduction to PC Applications	CIS 118	_____	_____	_____
3	Safety, Health, and Environment	PRO 110	_____	_____	_____
4	Coal and Ash Handling	PPT 113	_____	_____	_____
3	Print Reading for Manufacturing	ENT 106	_____	_____	_____
2	Water and Wastewater Treatment	ENT 250	_____	_____	_____
2	Basic Electricity	PPT 100	_____	_____	_____
2	Basic Plant Operations	PPT 105	_____	_____	_____
2	Plant Systems	PPT 110	_____	_____	_____
3	Plant Auxiliaries	PPT 112	_____	_____	_____
3	Instrumentation and Control	PPT 116	_____	_____	_____

31 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

**OCCUPATIONAL CERTIFICATE
PROCESS TECHNOLOGY**
PROGRAM WORKSHEET AND GRADUATION REQUIREMENTS

<u>Required Credits</u>	<u>COURSE REQUIREMENTS</u>	<u>Course Number</u>	<u>Transfer Credits</u>	<u>Credit Hours Completed</u>	<u>Grade</u>
<u>SPECIALIZED COURSE REQUIREMENTS – 25 credits</u>					
3	Introduction to Process Technology	PRO 100	_____	_____	_____
3	Safety, Health, and Environment	PRO 110	_____	_____	_____
4	Process Technology I: Equipment	PRO 120	_____	_____	_____
3	Instrumentation I	PRO 130	_____	_____	_____
4	Process Technology II: Systems	PRO 210	_____	_____	_____
4	Process Technology III: Operations	PRO 220	_____	_____	_____
3	AreView GIS	GIS 105	_____	_____	_____
1	Workplace Communication	COM 100	_____	_____	_____

ELECTIVES – Choose 5 credits

Select courses from the following:

3	Instrumentation II	PRO 131	_____	_____	_____
3	Quality in Process Technology	PRO 230	_____	_____	_____
4	Process Troubleshooting	PRO 240	_____	_____	_____
3	Oil & Gas Production I	PRO 250	_____	_____	_____
3	Oil & Gas Production II	PRO 255	_____	_____	_____
2	Process Technology Internship	PRO 280	_____	_____	_____

30 TOTAL REQUIRED HOURS FOR OCCUPATIONAL CERTIFICATE

(State-approved core courses are indicated by **bold print**. State-approved elective courses are in plain lettering.)

Approved 5/2/2007

COURSE DESCRIPTIONS

Courses offered at Colorado Northwestern Community College are grouped into fields of study. The descriptions indicate the content of the courses and specify the prerequisites for each course.

This catalog is only a general description of courses and programs and is subject to modification. The listing of a course or program in the official catalog does not constitute a guarantee or contract that the particular course or program will be offered during a given year. This listing represents a sampling of courses offered by Colorado Northwestern. Additional courses may also be offered. For an exact schedule of fall, spring, and summer classes, consult the appropriate schedule of classes.

In general, courses numbered 101 to 199 are freshman level and those numbered 200 and above are sophomore level. Courses numbered below 100 are considered developmental and are not transferable. See your advisor.

The distribution of credit for lecture-laboratory-internship or field experience periods is as follows: 4(2-2-1). The figure outside the parenthesis indicates the number of credits per semester. Inside the parenthesis, the first figure indicates the number of contact hours spent in lectures each week for a semester, the second figure indicates the number of contact hours spent in laboratory each week for a semester, and the third figure indicates the number of contact hours spent in internship or field experiences each week for a semester. Courses will meet the number of required clock hours, but may be concentrated or altered to meet needs when published in the schedule.

Attention: Course numbers and descriptions are subject to change (see below).

Effective Fall Semester 2003, new State guaranteed transfer courses and a common course numbering system have been implemented to enhance the overall transfer of credits between Colorado community colleges and four-year institutions. As these initiatives evolve, some courses may change and/or program requirements may be altered. Consult your advisor periodically to review potential changes. Further information can be found at the Colorado Community Colleges System Website: www.cccs.edu.

"The Colorado Community College Common Courses (Common Course Numbering System—CCCNS) has been developed to facilitate ease of transfer for community college students from one community college to the other and from the community college to the four-year educational institutions, to improve program planning, to increase communication among all of the colleges, and to facilitate articulation arrangements from high schools to the community colleges. The scope includes all courses offered for credit at the community college, and the structure is content specific rather than program, department, or discipline specific. The goal of the CCCNS is to establish consistency in course offering across the system."

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

ACADEMIC ACHIEVEMENT

AAA 090 ACADEMIC ACHIEVEMENT STRATEGIES/3(3-0-0)

Develops personalized approaches to learn and succeed for easier transition into college. Topics include goal-setting, time management, textbook reading strategies, note-taking, test-taking, listening techniques, concentration and memory devices, and critical thinking for student success.

AAA 101 COLLEGE 101: THE STUDENT EXPERIENCE/1(1-0-0)

Introduces students to college culture and prepares them for the challenges they will face in higher education. Through a series of interactive seminars, students discover learning in a multicultural environment and use college and community resources to attain education and career goals.

AAA 109 ADVANCED ACADEMIC ACHIEVEMENT/3(3-0-0)

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

ACCOUNTING

ACC 115 PAYROLL ACCOUNTING/3(2-2-0)

Prerequisite: ACC 121.

Studies federal and state employment laws and their effects on personnel and payroll records. The course is non-technical and is intended to give students a practical working knowledge of the current payroll laws and actual experience in applying regulations. Students are exposed to computerized payroll procedures.

ACC 121 ACCOUNTING PRINCIPLES I/4(3-2-0)

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

ACC 122 ACCOUNTING PRINCIPLES II/4(3-2-0)

Prerequisite: ACC 121.

Continues the study of accounting principles as they apply to partnerships and corporations. Major topics include stocks and bonds, investments, cash flow statements, financial analysis, budgeting, and cost and managerial accounting.

ACC 125 COMPUTERIZED ACCOUNTING/3(1-4-0)

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

ACC 131 INCOME TAX/3(3-0-0)

Prerequisite: ACC 121 is strongly recommended.

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

ACC 135 SPREADSHEET APPLICATIONS FOR ACCOUNTING/3(3-0-0)

Prerequisites: ACC 122 or spreadsheet experience.

This course introduces spreadsheets as an accounting tool. Using an accounting perspective, the student applies fundamental spreadsheet concepts. The spreadsheet is used as a problem solving and decision making tool.

ACC 211 INTERMEDIATE ACCOUNTING I /4(4-0-0)

Prerequisite: ACC 122.

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

ACC 226 COST ACCOUNTING I/3(3-0-0)

Prerequisite: ACC 122 or equivalent with minimum grade of C. Studies cost accumulation methods and reports. Focuses on the concepts and procedures of job order, process, standard, and direct cost systems, budgeting, planning, and control of costs.

ACC 287 COOPERATIVE EDUCATION/3(3-0-0)

Prerequisite: Instructor permission.

Provides an opportunity to gain practical experience in applying occupational skills and/or to develop specific skills in a practical work setting. The instructor works with the student to select an appropriate work site, establish learning objectives, and coordinate learning activities with the employer or work site supervisor. For Accounting majors only.

ADVENTURE GUIDE**ADG 150 OUTFITTING AND GENERAL GUIDING/5(5-0-0)**

Teaches the fundamental skills needed to plan and implement guided backcountry trips using horses and mules.

AGRICULTURE CROPS & SOILS**AGY 240 INTRODUCTORY SOIL SCIENCE/4(3-2-0)**

Prerequisite: CHE 101 or 111.

Focuses on formation, physical properties, chemical properties and management of soils emphasizing conditions that affect plant growth.

AGRICULTURAL PRODUCTION**AGP 160 RANCH HORSEMANSHIP SKILLS/2(2-0-0)**

Offers an introduction to the skills utilized in ranching operations where horses are involved in moving, sorting, and restraining

cattle. Emphasis is placed on safety, proper techniques and in developing proficiency in equipment selection and care, basic horsemanship, riding, and roping.

ARCHITECTURAL DRAWING**ARC 231 BUILDING SERVICE SYSTEMS/3(3-0-0)**

Introduces mechanical and electrical systems used in buildings to provide comfort and utility within the structure, and the inter-relationship of architecture and Engineering considerations and functions.

ARCHITECTURAL STUDIES**AEC 141 CIVIL CONSTRUCTION MATERIALS/5(5-0-0)**

Prerequisites: MAT 090, ENG 090

Investigates the composition, properties and testing of heavy/civil construction materials including soils, aggregates, Portland cement concrete, asphaltic/bituminous materials, ferrous and nonferrous metals, and structural timber. Laboratory experiments are performed to supplement lecture topics, including applied testing of Portland cement, concrete, steel, aluminum and asphalt.

AEC 221 BUILDING ELECTRICAL/MECHANICAL SYSTEMS/3(3-0-0)

Acquaints the student with electrical and mechanical equipment and systems in buildings. Lectures cover the basic principles of electrical distribution, artificial lighting, fire protection, plumbing systems and heating, ventilating and air conditioning (HVAC) systems.

AEC 223 CIVIL CONSTRUCTION SYSTEMS/3(3-0-0)

Prerequisite: AEC 141

Provides an introductory study of planning, design, construction and operation principles related to heavy/civil construction projects including earthwork, structures, highways, streets, and roads, bridges, tunnels, railways, airports, and urban mass transit systems. Computation, drawing interpretation and route surveying exercises are performed to supplement lecture topics.

AEC 224 CIVIL WATER/ENVIRONMENTAL SYSTEMS/3(3-0-0)

Prerequisites: MAT 090, ENG 090

Study of water supply and treatment, wastewater collection and treatment, storm water control, waste management and pollution control. Computations on hydraulics, hydrology, water supply and sewer lines, and overland and ditch drainage are introduced.

AVIATION MAINTENANCE TECHNOLOGY**AMT 101 A&P PREPARATION/4(3-2-0)**

Covers basic subjects, such as mathematics, physics and aircraft drawings and provides a foundation for further studies in the A&P program.

AMT 102 BASIC ELECTRICS/4(3-2-0)

Covers basic ac and dc electric theory as applied to aircraft systems.

AMT 103 WEIGHT & BALANCE AND GROUND HANDLING/2(1-2-0)

Emphasizes aircraft weight and balance theory and the performance of weight and balance calculations. Also covers the requirements for ground handling, servicing, taxiing and towing aircraft.

AMT 104 REGULATIONS & PUBLICATIONS/3(2-2-0)

Focuses on the Federal Aviation Administration and manufacturer's publications pertaining to aircraft operation and maintenance.

AMT 105 MATERIALS AND PROCESSES/6(5-2-0)

Focuses on aircraft structures, materials, and hardware, the use of precision measuring tools, and methods of non-destructive testing.

AMT 106 CORROSION CONTROL AND FLUID LINES/2(1-2-0)

Emphasizes the causes of corrosion and methods to prevent and treat corrosion in aircraft structures. Covers construction of rigid and flexible aircraft fluid lines.

AMT 111 WOOD, FABRIC, AND FINISHES/2(1-2-0)

Focuses on application, maintenance and repair of aircraft structural wood and fabric covering materials, and the application and maintenance of protective finishes.

AMT 112 SHEET METAL/6(3-6-0)

Covers characteristics of various aluminum alloys, the procedures and precautions used when working with them, the selection of appropriate hardware, and the principles of making repairs to aluminum structures.

AMT 113 AIRCRAFT WELDING/1(.5-1-0)

Focuses on varieties and methods of working with aircraft steel and the principles of soldering, silver soldering, gas arc and heliarc welding. Emphasizes gas welding of thin wall steel tubing.

AMT 114 ASSEMBLY, RIGGING AND INSPECTION/3(1.5-3-0)

Focuses on materials and principles of aircraft control rigging and the replacement of structural aircraft components. Performs 100-hour and special inspections.

AMT 115 COMPOSITE CONSTRUCTION/2(1-2-0)

Introduces composite materials as applied to aircraft construction and the maintenance and repair of items made of these materials.

AMT 116 AIRCRAFT ADVANCED COMPOSITE CONSTRUCTION AND REPAIR II/3(2-2-0)

Prerequisite: AMT 115.

Continues AMT 115. Wet and prepreg repairs to monolithic and sandwich panel structures will be emphasized. Repairs will involve room temperature, oven, and hot bond cures. Repair of bonded metal structures will also be covered along with damage evaluation and safety issues.

AMT 117 AIRCRAFT SHEET METAL II/3(2-2-0)

Prerequisite: AMT 112.

Continues AMT 112. Skills developed in AMT 112 will be used in the repair of light and heavy sheet metal structures.

AMT 121 HYDRAULIC SYSTEMS/3(1.5-3-0)

Focuses on hydraulic principles, hydraulic fluids, system components, and operation of hydraulic and pneumatic systems.

AMT 122 AIRCRAFT ELECTRICS/4(2-4-0)

Prerequisite: AMT 102.

Focuses on the operation, troubleshooting and repair of aircraft electrical systems with emphasis on alternators, motors, and lighting systems and the wiring, control and circuit protection devices for each.

AMT 123 INSTRUMENT AND WARNING SYSTEMS/2(1.5-1-0)

Emphasizes aircraft flight instrument theory and operation and the inspection, maintenance and installation requirements for these systems.

AMT 124 FUEL SYSTEMS/2(1-2-0)

Focuses on the operation of aircraft fuel systems and the procedures utilized in inspecting, troubleshooting, and maintaining these systems.

AMT 125 MISCELLANEOUS SYSTEMS/3(2-2-0)

Studies airframe systems including communication, navigation, fire warning and extinguishing, and cabin atmospheric control systems.

AMT 126 AVIATION ELECTRONICS/3(2-2-0)

Prerequisite: AMT 102 or 122.

Studies alternating current, capacitive and inductive circuits with emphasis on solid state and optical electric devices.

AMT 127 LANDING GEAR SYSTEMS/3(1.5-3-0)

Focuses on operation, troubleshooting, and repair of aircraft landing gear systems.

AMT 201 RECIPROCATING ENGINE THEORY/4(3-2-0)

Emphasizes the theory, operating principles, and construction features of aircraft reciprocating engines.

AMT 202 RECIPROCATING FUEL METERING AND INDUCTION SYSTEMS/3(2-1-0)

Reviews aircraft fuel delivery system components and operating principles. Studies carburetor and fuel injection system controls that meter fuel to the engine.

AMT 203 RECIPROCATING IGNITION SYSTEMS/2(1-2-0)

Introduces aircraft piston engine ignition systems, including classifications, components, theory, starting systems, maintenance, servicing, and repair.

AMT 205 RECIPROCATING ENGINE MAINTENANCE/4(1-6-0)

Prerequisite: AMT 201.

Focuses on engine maintenance and overhaul procedures and includes an actual engine overhaul.

AMT 206 RECIPROCATING PROPELLER SYSTEMS/2(1-2-0)

Introduces the study of aircraft propellers including fixed pitch, constant speed, feathering, reversing, and de-icing systems.

AMT 207 ENGINE ELECTRICS AND INSTRUMENT SYSTEMS/2(1-2-0)

Studies electric systems that apply to engine operation with emphasis on starting and generating systems. Also includes the pressure, temperature, position and speed indicating instruments that pertain to engine operation.

AMT 211 TURBINE ENGINE THEORY/4(3-2-0)

Focuses on the theory, operating principles, and construction features of turbine aircraft engines.

AMT 212 TURBINE FUEL SYSTEMS/2(1-2-0)

Studies turbine engine fuel delivery, fuel control operation, fuel control design, and maintenance procedures.

AMT 213 MISCELLANEOUS TURBINE SYSTEMS/3(1.5-3-0)

Studies turbine engine starting, ignition, instrument and fire protection systems and the maintenance of these systems.

AMT 215 TURBINE ENGINE MAINTENANCE/

4(1-6-0) Prerequisite: AMT 211.

Focuses on maintenance and inspection practices pertaining to turbine aircraft engines.

AMT 216 TURBINE PROPELLERS/1(.5-1-0)

Covers turbo-prop system components, operations, and maintenance, including operation of a feathering and reversing turbo-prop.

AMT 218 TROUBLESHOOTING/3(1.5-3-0)

Introduces students to principles of troubleshooting and a method of analyzing problems assisting students to better understand aircraft systems and extend the principles to troubleshooting of complex aircraft systems.

AMT 251 HELICOPTER MAINTENANCE I/3(2-2-0)

Introduces students to safe practices, basic helicopter airframe maintenance practices, and 100-hour inspection procedures. This is an elective course for the student pursuing a career in helicopter maintenance.

AMT 252 HELICOPTER MAINTENANCE II/3(2-2-0)

Prerequisite: AMT 251 or consent of instructor.

Provides instruction on helicopter powerplant systems and continued application of the skills and concepts acquired in AMT 251 with hands-on work emphasis, including rotor blade balancing, tracking, flight control rigging. This is an elective course for the student pursuing a career in helicopter maintenance.

ANIMAL SCIENCE**ASC 243 INTERMEDIATE WESTERN EQUITATION/2(2-0-0)**

Provides the student basic to intermediate horsemanship and maneuvers, improved body position, and advanced control.

ASC 245 EQUINE EVALUATION/3(3-0-0)

Focuses on a system of development for evaluating a horse's conformation and its relationship to performance. Covers various aspects of evaluating horses while enhancing the student's deductive reasoning and public speaking skills.

ANTHROPOLOGY**ANT 101 CULTURAL ANTHROPOLOGY/3(3-0-0)**

Studies human cultural patterns and learned behavior. Includes linguistics, social and political organization, religion, culture and personality, culture change, and applied anthropology. *This course is one of the Statewide Guaranteed Transfer courses (GT-SS3).*

ANT 107 INTRODUCTION TO ARCHAEOLOGY/3(3-0-0)

Introduces the science of recovering the human prehistoric and historic past through excavation, analysis, and interpretation of material remains. Includes a survey of the archaeology of different areas of the Old and New Worlds. Also includes the works of selected archaeologists and discussions of major archaeological theories.

ANT 111 PHYSICAL ANTHROPOLOGY/3(3-0-0)

Studies human biology and its effects on behavior. Includes principles of genetics and evolution, vertebrates and primates, human origins, human variation, and ecology. *This course is one of the Statewide Guaranteed Transfer courses (GT-SS3).*

ANT 215 INDIANS OF NORTH AMERICA/3(3-0-0)

Studies the Indians of North America from the origins of native peoples in the New World, through the development of geographic culture areas, to European contact and subsequent contemporary Native American issues.

ANT 275 SPECIAL TOPICS/0.5-6

Provides opportunity for off-campus field experience or study of a special topic in anthropology. Field study may occur at archaeological sites, museums, host educational institutions, within ethnographic situations, or other anthropologically appropriate places. Study of a special topic may include that derived from physical anthropology, cultural anthropology, archaeology, or other anthropological discipline.

AQUACULTURE**AQT 101 INTRODUCTION TO AQUACULTURE/3(3-0-0)**

Introduces students to today's Aquaculture Industry. Emphasizes terminology, historical background and basic principles and practices. Commonly cultured fish species and other products of aqua cultural significance are covered. Local, state and federal policies governing aquaculture operations as well as career opportunities are discussed. Students study factors to consider before starting a business.

ART**ART 110 ART APPRECIATION/3(3-0-0)**

Introduces the cultural significance of the visual arts, including media, processes, techniques, traditions, and terminology. *This course is one of the Statewide Guaranteed Transfer courses (GT-AH1).*

ART 111 ART HISTORY I/3(3-0-0)

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

This course is one of the Statewide Guaranteed Transfer courses (GT-AH1).

ART 112 ART HISTORY II/3(3-0-0)

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

This course is one of the Statewide Guaranteed Transfer courses (GT-AH1).

ART 119 LETTERING/3(3-0-0)

Introduces the manipulation of materials, tools, and styles of lettering and their uses as fine art media.

ART 121 DRAWING I/3(3-0-0)

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

ART 122 DRAWING II/3(3-0-0)

Prerequisite: ART 121.

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

ART 123 WATERCOLOR I/3(3-0-0)

Provides an introduction to the basic techniques and unique aspects of materials involved in the use of either transparent or opaque water media or both. Color theory is included.

ART 131 2-D DESIGN/3(3-0-0)

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

ART 135 FIBER DESIGN I/3(3-0-0)

Introduces basic fiber design. Explores basic studies and approaches to fiber design, ranging from the uses of dyes, prints, painting, and threads to an appreciation of the properties of various kinds of fiber and textiles.

ART 146 STAINED GLASS I/3(3-0-0)

Develops a basic understanding and approach to stained glass. Students gain an understanding of and appreciation for the properties of glass and the nature of finished stained glass construction.

ART 147 STAINED GLASS II/3(3-0-0)

Prerequisite: ART 146.

A continuation of Stained Glass I, students advance to a clearer but still basic understanding and approach to stained glass. Students gain a greater understanding of and appreciation for the properties of glass and the nature of finished stained glass construction.

ART 154 SCULPTURE I/3(3-0-0)

Introduces the fundamentals of sculpture such as modeling, casting, carving, and the processes of assemblage.

ART 156 FIGURE DRAWING I/3(3-0-0)

Introduces the basic techniques of drawing the human figure.

ART 161 CERAMICS I/3(3-0-0)

Introduces traditional and contemporary ceramic forms and processes including hand building and throwing on the potter's wheel.

ART 162 CERAMICS II/3(3-0-0)

Prerequisite: ART 161.

A continuation of ART 161, this course emphasizes skill, technique and form.

ART 207 ART HISTORY 1900 TO PRESENT/3(3-0-0)

Provides students with the knowledge base to understand the visual arts as related to Modern and Contemporary visual art. Surveys world art of the twentieth century, including Modernism to Post-Modernism. *This course is one of the Statewide Guaranteed Transfer courses (GT-AH1).*

ART 211 PAINTING I/3(3-0-0)

Explores basic techniques, materials, and concepts used in opaque painting processes in oil or acrylic painting to depict form and space on a two-dimensional surface.

ART 212 PAINTING II/3(3-0-0)

Prerequisite: ART 211 or instructor's permission.

This course further explores techniques, materials, and concepts used in opaque painting processes in oil or acrylic painting, with emphasis on composition and content development.

ART 231 ADVANCED 2-D DESIGN/3(3-0-0)

Prerequisite: ART 131.

Provides continued study of the principles and elements of two-dimensional design with an emphasis on visual communication for further application in fine art, commercial art, and/or applied arts.

AMERICAN SIGN LANGUAGE**ASL 101 BASIC SIGN LANGUAGE I/3(3-0-0)**

Provides students with the basic knowledge of communicating with the deaf community. Students will develop basic vocabulary and conversational skills and will be introduced to aspects of the deaf culture and community.

ASL 102 BASIC SIGN LANGUAGE II/3(3-0-0)

Prerequisite: ASL 101 or instructor's permission.

Continues the sequence for students who want to learn basic conversational patterns to communicate with the Deaf community. The material covers basic vocabulary and conversational skills, and aspects of the Deaf culture and community.

ASL 121 AMERICAN SIGN LANGUAGE I/5(5-0-0)

Exposes the student to American Sign Language. Readiness activities are conducted focusing on visual/receptive skills and basic communication. Utilizes the direct experience method. Students must complete this course with a 'B' or higher or pass the ASL proficiency test with a score of at least 80% or better prior to registering for ASL 122 if planning to enroll in the Interpreter Preparation Program.

ASL 122 AMERICAN SIGN LANGUAGE II/5(5-0-0)

Prerequisite: Successful completion of ASL 121 or passing the ASL 121 proficiency exam.

Develops a basic syntactic knowledge of American Sign Language (ASL), basic vocabulary and basic conversational skills. Incorporates vital aspects of deaf culture and community. The direct experience method is used to enhance the learning process. Students must complete this course with a 'B' or higher or pass the ASL 121 proficiency test at 80% or better prior to acceptance into the Interpreting and Transliterating Preparation program.

ASTRONOMY**AST 101 ASTRONOMY I/4(3-2-0)**

Focuses on the history of astronomy, the tools of the astronomer and the contents of the solar system including the planets, moons, asteroids, comets, and meteoroids. Incorporates laboratory experience. *This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).*

AST 102 ASTRONOMY II/4(3-2-0)

Emphasizes the structure and life cycle of the stars, the sun, galaxies, and the universe as a whole, including cosmology and relativity. Incorporates laboratory experience. *This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).*

AVIATION TECHNOLOGY

AVT 101 PRIVATE PILOT GROUND SCHOOL/4(4-0-0)

Prepares student for the Private Pilot Airplane, Single Engine, Land FAA Knowledge Exam.

AVT 102 PRIVATE PILOT FLIGHT/4(4-0-0)

Prerequisite: AVT 101 or equivalent instruction and Instructor permission.

Focuses on flight training in preparation for the Private Pilot Airplane, Single-Engine, Land FAA Practical Test, and completing requirements for the Private Pilot Certificate.

AVT 105 AVIATION METEOROLOGY/4(4-0-0)

Focuses on recognition, interpretation and evaluation of atmospheric weather as it relates to and affects aviation.

AVT 106 PINCH-HITTER PILOT/1(1-0-0)

Prepares the non-pilot passenger to participate in airplane flight, and to take over and successfully land the airplane should the pilot become incapacitated.

AVT 111 INSTRUMENT PILOT GROUND SCHOOL/4(4-0-0)

Prerequisite: Private Pilot Certificate.

Focuses on preparation for the FAA Instrument Rating Knowledge Exam.

AVT 112 INSTRUMENT PILOT FLIGHT/4(4-0-0)

Prerequisites: Private Pilot Certificate, or Instructor permission.

Focuses on flight training in preparation for the Instrument Rating, Single Engine Airplane FAA Practical Test, and completing requirements for the Instrument Rating.

AVT 114 INSTRUMENT PILOT FLIGHT – HELICOPTER/4(4-0-0)

Teaches the necessary knowledge needed to pass the FAA Rotorcraft Helicopter Instrument written and practical tests.

AVT 140 AIRCRAFT SYSTEMS FOR PILOTS – AIRFRAME/3(3-0-0)

Covers the study of the basic mechanical systems and structural components of aircraft to supplement instruction received in flight training.

AVT 141 AIRCRAFT SYSTEMS FOR PILOTS – POWERPLANT/3(3-0-0)

Study of the basic operating systems of aircraft powerplants to supplement instruction received in flight training.

AVT 145 SIMULATOR LAB I/1(1-0-0)

Prerequisites: Private Pilot Certificate, Airplane Single or Multi-Engine Land.

Reviews attitude instrument flight for the student who desires instruction in addition to their normal Instrument Training, or for rated Pilots desiring to upgrade or refresh their skills utilizing the Flight Training Device.

AVT 146 SIMULATOR LAB II/1(1-0-0)

Prerequisite: AVT 145.

Continues training in the Flight Training Device for those having completed AVT 145 (Simulator Lab I).

AVT 201 COMMERCIAL PILOT GROUND SCHOOL/2(2-0-0)

Prerequisites: Private Pilot Certificate with Instrument Rating or Department Chair permission.

Prepares the student for the Commercial Pilot Airplane, Single Engine, Land FAA Knowledge Exam.

AVT 202 COMMERCIAL FLIGHT I/3(3-0-0)

Prerequisite: Private Pilot Certificate with an Instrument Rating or Department Chair permission.

This course is the first of a two-part sequence of flight training in preparation for the Commercial Pilot Certificate, Airplane, Single Engine Land FAA Practical Test. Consists of the cross country aeronautical experience required for the Commercial Certificate.

AVT 203 COMMERCIAL FLIGHT II/4(4-0-0)

Prerequisites: Commercial Flight I or Department Chair permission.

Continuation of flight training in preparation for the Commercial Pilot, Airplane Single Engine, Land FAA Practical Test, completing requirements for the Commercial Pilot Certificate.

AVT 204 COMMERCIAL FLIGHT I – HELICOPTER/2(2-0-0)

Focuses on the first part of a two-part sequence of flight training in preparation for the Commercial Pilot Helicopter FAA Practical Test. Consists of training and review of those maneuvers required for private pilot helicopter certification with emphasis placed on student performance of these maneuvers to commercial helicopter pilot proficiency standards, as well as the introduction of additional maneuvers required for the Commercial Pilot Helicopter Certificate.

AVT 205 MOUNTAIN FLYING GROUND SCHOOL/1(1-0-0)

Prerequisite: Private Pilot Certificate or Department Chair permission.

Acquaints the student with the unique aspects of flying in mountainous terrain and the additional knowledge and proficiency necessary for safe and efficient operation in mountain and high altitude terrain.

AVT 206 CREW RESOURCE MANAGEMENT/1(1-0-0)

Prerequisite: Instrument Rating.

Focuses on classroom instruction coupled with Line Oriented Flight Training (LOFT) in a Flight Training Device. Covers the knowledge, skills, and attitudes necessary to enhance safety and operate effectively as a member of an airplane crew.

AVT 207 MULTI-ENGINE GROUND SCHOOL/1(1-0-0)

Prerequisite: Private or Commercial Pilot Certificate for Airplane Single Engine Land.

Prepares the student for the FAA Practical Test for Private or Commercial Pilot, Airplane Multi-Engine Land.

AVT 208 MULTI-ENGINE FLIGHT/1(1-0-0)

Prerequisite: Private or Commercial Airplane, Single Engine, Land Pilot Certificate.

Focuses on flight training in preparation for the Airplane, Multi-Engine Rating and completing requirements for this Rating.

AVT 211 FUNDAMENTALS OF INSTRUCTION/2(2-0-0)

Prerequisite: Commercial Pilot Certificate with Instrument Rating.

Focuses on preparation for the FAA Fundamentals of Instructing Knowledge Exam.

AVT 212 FLIGHT INSTRUCTOR GROUND SCHOOL/2(2-0-0)

Prerequisite: AVT 211 or equivalent.

Focuses on preparation for the FAA Flight Instructor Airplane Knowledge Exam.

AVT 213 FLIGHT INSTRUCTOR FLIGHT/1(1-0-0)

Prerequisite: AVT 211 and 212, or equivalent instruction and Department Chair permission.

Focuses on flight training in preparation for the Flight Instructor Airplane, Single-Engine Land FAA Practical Test, completing requirements for the Flight Instructor Certificate.

AVT 214 COMMERCIAL FLIGHT II – HELICOPTER/5(5-0-0)

Continues flight training in preparation for the Commercial Pilot Helicopter FAA Practical Test, completing requirements for the Commercial Pilot Certificate.

AVT 215 FLIGHT INSTRUCTOR FLIGHT – HELICOPTER/1(1-0-0)

Focuses on flight training in preparation for the Flight Instructor Helicopter FAA Practical Test, and completing requirements for the Flight Instructor Helicopter Certificate.

AVT 221 INSTRUMENT INSTRUCTOR GROUND SCHOOL/2(2-0-0)

Prerequisite: Flight Instructor Certificate – Airplane Single Engine Land, or consent of Department Chair.

Focuses on preparation for the FAA Instrument Instructor Knowledge Exam.

AVT 222 INSTRUMENT INSTRUCTOR FLIGHT/1(1-0-0)

Prerequisite: Flight Instructor Certificate, Airplane Single Engine Land.

Focuses on flight training in preparation for the Flight Instructor Instrument Airplane, Single-Engine Land FAA Practical Test, completing requirements for the Instrument Instructor Certificate.

AVT 223 MULTI-ENGINE INSTRUCTOR FLIGHT/1(1-0-0)

Prerequisite: Flight Instructor – Airplane Single Engine Land Certificate.

Focuses on flight instruction in preparation for the addition of Multi-Engine Rating to the Flight Instructor Airplane Single Engine Land Certificate.

AVT 224 CFI INSTRUMENT – HELICOPTER/1(1-0-0)

Teaches necessary knowledge and skills to pass the FAA Flight Instructor Instrument Rotorcraft Helicopter written and practical tests.

AVT 235 PILOT REFRESHER FLIGHT/1(1-0-0)

Prerequisite: Pilot Certificate.

Provides a refresher to allow a Certificated Pilot to maintain or regain proficiency. May count as a Flight Review when the requirements of CFR Part 61.56 are met.

AVT 236 TAILWHEEL TRANSITION FLIGHT

1(1-0-0) Prerequisite: Private Pilot Certificate and Instructor permission.

Focuses on flight training in preparation to receive the Tail-Wheel Endorsement from a Certificated Flight Instructor.

AVT 237 BASIC AEROBATICS/1(1-0-0)

Prerequisite: Private Pilot Certificate, Airplane Single Engine Land.

Introduces the student to the unusual attitudes of flight with emphasis on technique and recovery from inadvertent unusual attitudes. Maneuvers may include but are not limited to stalls,

spins, aileron rolls, loops, Cuban eight, barrel rolls, split « s », and cloverleaf. The FAA required parachutes are provided. All flights in this course are dual only.

AVT 240 AIRPORT MANAGEMENT/3(3-0-0)

Studies the modern airport and the factors involved in its management. Various management functions of administration, finance, capital finance, operation, maintenance and public relations are analyzed.

AVT 241 AIRLINE TRANSPORT PILOT FLIGHT/

1(1-0-0) Prerequisite: 1500 hours pilot time, at least 23 years of age, at least a current third class medical certificate, have passed the ATP Knowledge Exam within the previous two years, and be able to meet the requirements of CFR Part 61, Subpart G.

Focuses on flight instruction in preparation for the FAA Airline Transport Pilot Practical Test.

BIOLOGY**BIO 104 BIOLOGY: A HUMAN APPROACH/4(3-2-0)**

Develops a basic knowledge of the structure and function of the human body by studying the body's structure as a series of interrelated systems. Includes cardiovascular, respiratory, digestive, lymphatic, musculoskeletal, nervous, endocrine, reproductive and urinary systems, and genetics. Emphasizes disease prevention and wellness. This course includes laboratory experience.

BIO 105 SCIENCE OF BIOLOGY/4(3-2-0)

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Explores biology as a science - a process of gaining new knowledge - as is the impact of biological science on society. Includes laboratory experiences. Designed for non-science majors. *This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).*

BIO 106 BASIC ANATOMY AND PHYSIOLOGY/4(3-2-0)

Focuses on basic knowledge of body structures and function, and provides a foundation for understanding deviations from normal and disease conditions. This course is designed for individuals interested in health care and is directly applicable to the Practical Nursing Program, Paramedic Program and the Medical Office Technology program.

BIO 110 FOUNDATIONS OF COLLEGE BIOLOGY/5(4-2-0)

Emphasizes general concepts of biology as a science and includes basic chemistry, cell structure and function, genetics, and evolution. A preliminary course designed for students pursuing human anatomy and physiology. Includes laboratory experience.

BIO 111 GENERAL COLLEGE BIOLOGY I WITH LAB/5(4-2-0)

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function, and the metabolic processes of respiration, and photosynthesis, as well as cell reproduction and basic concepts of heredity. This course includes laboratory experience. *This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).*

BIO 112 GENERAL COLLEGE BIOLOGY II WITH LAB/**5(4-2-0)** Prerequisite: Successful completion of BIO 111(Grade C or better) or instructor permission.

A continuation of Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. This course includes laboratory experience. *This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).*

BIO 115 HUMAN GENETICS/3(3-0-0)

Focuses on a study of the inheritance of human traits. It is a non-mathematical study for the non-science major. Includes Mendelian, non-Mendelian, sex-linked, blood type traits, inherited diseases and ethics.

BIO 143 ECOLOGY OF COLORADO/3(3-0-0)

Studies the natural environments in Colorado. Explores the vast natural environments of Colorado and the plants and animals that inhabit the life zones of our majestic plains, mountains, and valleys. Discovers the interrelationships of man and his Colorado environment - past, present, and future. Through an inquiry approach, the student examines the changing needs and roles of our environments. Field trips include Roxborough State Park, Garden of the Gods, Mt. Evans, Pikes Peak, Deer Creek Canyon, Daniels Park, Barr Lake or others.

BIO 152 WILDLIFE BIOLOGY/3(3-0-0)

Studies the biology of wild mammals, birds, and fish. Focuses on conservation of wildlife and fisheries resources.

BIO 154 BIOLOGY OF PLANTS/4(2-4-0)

Focuses on the diversity of plants, the structure and function of plants, the ecology of plants, and human use of plants. Emphasizes seed-producing vascular plants, especially flowering plants. Laboratory and field experience is included.

BIO 201 HUMAN ANATOMY & PHYSIOLOGY I/4(3-2-0)

Prerequisite: BIO 111 or instructor permission..

Focuses on an integrated study of the human body including the histology, anatomy, and physiology of each system. Examines molecular, cellular, and tissue levels of organization plus integuments, skeletal, articulations, muscular, nervous, and endocrine systems. Includes a mandatory hands-on laboratory experience covering experimentation, microscopy, observations, and dissection. This is the first semester of a two-semester sequence. *This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).*

BIO 202 HUMAN ANATOMY & PHYSIOLOGY II/4(3-2-0)

Prerequisite: BIO 201 or equivalent, or instructor permission.

Focuses on the integrated study of the human body and the histology, anatomy, and physiology of the following systems and topics: cardiovascular, hematology, lymphatic and immune, urinary, fluid and electrolyte control, digestive, nutrition, respiratory, reproductive, and development. Includes a mandatory hands-on laboratory experience involving experimentation, microscopy, observations, and dissection. This is the second semester of a two-semester sequence. *This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).*

BIO 204 MICROBIOLOGY/4(3-2-0)

Prerequisite: BIO 111 or equivalent, or instructor permission.

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification, and identification. The laboratory experience includes culturing, identifying, and controlling microorganisms with an emphasis on their role in infectious disease. *This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).*

BIO 216 HUMAN PATHOPHYSIOLOGY/4(4-0-0)

Prerequisites: BIO 201, 202 or instructor permission.

Focuses on the alterations in physiological, cellular, and biochemical processes, the associated homeostatic responses, and the manifestations of disease.

BIO 222 GENERAL COLLEGE ECOLOGY/4(3-2-0)

Prerequisite: BIO 111 or equivalent, or instructor permission.

Studies the interrelationships between organisms and their environment. Applies evolutionary theory to the study of composition and function of aquatic and terrestrial ecosystems, population biology, pollution, and the effects of man on ecosystems. Includes laboratory and field experiences.

BIO 228 FIELD BIOLOGY III/4(3-2-0)

Prerequisite: BIO 111 or equivalent, or instructor permission

Involves in-depth field study of natural environments within and outside of the United States. The course varies from seven to twenty-one days in length. Focuses on the identification of organisms, as well as an examination of ecological concepts and principles. Requires hands-on laboratory and field experience (includes extensive hiking).

BIO 281 INTERNSHIP/2 (2-0-0)

Prerequisite: BIO 111 or equivalent or Instructor permission.

Covers a specific topic within Biology, as determined by the instructor. Reflects the special expertise of the faculty and/or the special needs of the students.

BUSINESS TECHNOLOGY**BTE 100 COMPUTER KEYBOARDING/1(0-2-0)**

Designed for students who have minimal or no keyboarding skills. Introduces the touch method of keyboarding, as well as the basic operation and functions of the equipment. Emphasizes learning the alphanumeric keyboard, proper technique, and speed control.

BTE 156 BUSINESS MATHEMATICS WITH CALCULATORS/4(3-2-0)

Covers basic business mathematics using the touch system on electronic calculators to solve business problems.

BUSINESS**BUS 115 INTRODUCTION TO BUSINESS/3(3-0-0)**

Focuses on the operation of the American business system. Covers fundamentals of the economy, careers and opportunities, marketing, management, production, governmental regulations, tools of business and social responsibilities.

BUS 181 INTERNSHIP/1-6

Prerequisite: Program Advisor's approval.

Provides students with hands-on training in their career field. Occurs in a business setting arranged through a Student Work Experience (SWE)/Internship Coordinator, or by utilizing a current employment organization. Student is expected to work a minimum of 7.5 hours per week. Students attend 3 seminars during the semester of enrollment. Class utilizes cooperative work experience or project methods depending on the individual situation.

BUS 187 COOPERATIVE EDUCATION/ INTERNSHIP/0.5-6

Provides students with the opportunity to supplement course work with practical work experience related to their educational program and occupational objectives. Students are placed at approved work stations related to their program of study. They work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor/coordinator.

BUS 216 LEGAL ENVIRONMENT OF BUSINESS/3(3-0-0)

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(3-0-0)

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

BUS 226 BUSINESS STATISTICS/3(3-0-0)

Prerequisite: Survey of Algebra or instructor permission. Focuses on statistical study, descriptive statistics, probability, and the binominal distribution, index numbers, time series, decision theory, confidence intervals, linear regression, and correlation. Intended for the business major.

BUS 281 INTERNSHIP/1-6

Prerequisite: BUS 181 or instructor permission. Provides continued instruction and the opportunity for students to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor.

COMPUTER ASSISTED DRAFTING**CAD 101 COMPUTER AIDED DRAFTING I/3(3-0-0)**

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(3-0-0)

Focuses on advanced computer aided drafting skills using the latest release of CAD software. Includes blocks and wblocks, polylines, multilines, polyline editing, advanced editing, editing with grips, hatching, isometric drawings, dimensions and dimension variables, paper space and viewports, templates, external references, and printing/plotting.

CAD 110 BASIC CAD/6(6-0-0)

Prerequisite: EGG 101 or instructor permission. Serves all emphasis areas of engineering graphics. Includes fundamentals of layout, construction and dimensioning techniques as applied to two-dimensional drawings; systems and database management; and production of computer-generated drawings to ASME, AIA and other applicable specifications.

CAD 202 COMPUTER AIDED DRAFTING 3-D/3(3-0-0)

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 233 CIVIL 3D CAD/3(3-0-0)

Prerequisite: CAD 110. Provides students with the basics to advanced software application necessary to produce 3D Civil models and 2D drawings using the latest release of the Civil 3D software. This course will cover topics including components and program interface, linework, geometry, 2D to 3D civil CAD applications.

CAD 260 CAD PROJECT/2(2-0-0)

Prerequisite: CAD 202. Focuses on a final computer aided drafting project in the student's area of special interest.

CARPENTRY**CAR 100 INTRODUCTION TO CARPENTRY/1(1-0-0)**

Provides a basic introduction to construction work for all crafts. This course specifically applies to construction sites.

CAR 101 BASIC SAFETY/1(1-0-0)

An overview of safety concerns and procedures in the construction field.

CAR 102 HAND AND POWER TOOLS/1(.5-.5-0)

Focuses on basic hand and power tools including stationary tools. Emphasizes a hands-on approach to proper and safe use of these tools as it applies to the construction environment and is taught in conjunction with a lab or framing class.

CAR 105 JOB SITE LAYOUT AND BLUEPRINT READING/1(1-0-0)

Introduces blue-print reading and how they apply to the construction site. Includes in-depth introduction to site layout (materials and methods).

CAR 115 FORM & FOUNDATION SYSTEMS/1(.5-.5-0)

Covers materials and methods for concrete forms and foundations. Includes various reinforcement methods such as re-bar and welded-wire fabric.

CAR 120 GENERAL CONSTRUCTION FRAMING/1(.5-.5-0)

Instructs students in basic framing methods and materials utilizing a hands-on framing lab. Covers floor, wall, and roof framing.

CAR 121 FLOOR FRAMING/1(.5-.5-0)

Covers framing basics as well as the procedures for laying out and constructing a wood floor using common lumber as well as engineered building materials.

CAR 122 WALL FRAMING/1(.5-.5-0)

Focuses on the procedures for laying out and framing walls and ceilings, including roughing-in door and window openings, construction corners and partition Ts, bracing walls and ceilings, and applying sheathing.

CAR 125 ROOFING MATERIALS AND METHODS/1(.5-.5-0)

Covers application techniques and estimation of asphalt and wood roofing products and accessories including gutters and flashing.

CAR 130 WINDOWS AND EXTERIOR DOORS/1(.5-.5-0)

Describes the various types of windows, skylights, and exterior doors and provides instructions for installing them. Includes instructions for installing weather-stripping and locksets.

CAR 131 EXTERIOR TRIM/1(.5-.5-0)

Teaches cornice and rake construction, corner, window and door trim, installation of soffit, frieze, fascia and similar trim items and includes estimation and proper selection.

CAR 135 THERMAL AND MOISTURE METHODS AND MATERIALS/1(.5-.5-0)

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 140 STAIR CONSTRUCTION/LAYOUT/1(.5-.5-0)

Covers the various types of wooden stairs used in residential and commercial construction, along with procedures for laying out stairs, cutting out stringers and installing and finishing stairs.

CAR 145 INTERIOR FINISHES--GENERAL/1(.5-.5-0)

Presents an overview of interior finishes. Covers installation and finishing of drywall, suspended ceilings, and general painting and other wall covering.

CAR 146 INTERIOR FINISHES—DRYWALL CONSTRUCTION/1(.5-.5-0)

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 150 INTERIOR TRIM—GENERAL/1(.5-.5-0)

Covers material choices and installation techniques of various interior trim, including interior doors, baseboard, and casement. Includes an overview of additional interior trim choices.

CAR 151 INTERIOR TRIM—DOORS AND TRIM/1(.5-.5-0)

Covers interior doors and trim with focus on material choices, methods of work, and estimation. Teaches in conjunction with a construction lab experience to provide application of techniques covered in classroom environment.

CAR 153 INTERIOR TRIM—CABINET/ COUNTERTOPS/1(.5-.5-0)

Covers the selection/installation/terminology of factory built cabinets and countertops. Includes various types and design and examines estimation of cost.

CAR 160 FLOOR FINISHES/1(.5-.5-0)

Prerequisite: Instructor permission.

Covers installation and finishing of hardwood floors, laminate/ engineered floors, and tile. Includes discussion on advantages and disadvantages of various choices available.

CAR 170 CLINICAL: CONSTRUCTION LAB I/1(0-2-0)

Continues to build upon the principles that are expected to be understood by students in the construction discipline.

CAR 171 CLINICAL: CONSTRUCTION LAB I/1(0-2-0)

Continues to build upon the principles that are expected to be understood by students in the construction discipline.

CAR 172 CLINICAL: CONSTRUCTION LAB I/1(0-2-0)

Continues to build upon the principles that are expected to be understood by students in the construction discipline.

CAR 173 CLINICAL: CONSTRUCTION LAB I/1(0-2-0)

Continues to build upon the principles that are expected to be understood by students in the construction discipline.

CAR 175 SPECIAL TOPICS: DEED AND LAND RESEARCH/1(1-0-0)

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

CAR 205 ADVANCED SITE LAYOUT/2(1-1-0)

Prerequisites: CAR 105 or instructor permission.

Expands upon CAR105 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.

CAR 215 FORM AND FOUNDATION SYSTEMS II/1(.5-.5-0)

Prerequisites: CAR 115 or instructor permission.

Builds on course CAR 115 and expands on theories and concepts from the first year class. Offers opportunities to explore more complex systems and form requirements.

CAR 220 ADVANCED FRAMING—GENERAL/1(.5-.5-0)

Prerequisites: CAR 120 or instructor permission.

Expands upon abilities learned in CAR 120. Utilizes a hands-on approach to allow students to study floor, wall, and roof framing.

CAR 221 ADVANCED FLOOR SYSTEMS/2(1-1-0)

Prerequisites: CAR 121 or instructor permission.

Expands upon skills and knowledge learned in CAR 121 and focuses on an in-depth look at floor framing. Allows students to hone skills previously learned.

CAR 222 ADVANCED WALL SYSTEMS/2(1-1-0)

Prerequisites: CAR 122 or instructor permission.

Expands upon those skills and knowledge learned in CAR 122. Covers complex wall framing issues and leadership/foreman responsibilities.

CAR 223 ADVANCED ROOFING SYSTEMS/2(1-1-0)

Prerequisites: CAR 125 or instructor permission.

Builds on those skills learned in CAR 125. Offers an opportunity for students to hone skills and apply knowledge to more complex systems of roof framing.

CAR 240 ADVANCED STAIR LAYOUT/2(1-1-0)

Prerequisites: CAR 140 or instructor permission.

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 250 ADVANCED INTERIOR TRIM – GENERAL/2(1-1-0)

Prerequisites: CAR 150 or instructor permission.

Expands upon the material covered in CAR150 and includes more advanced techniques and in-depth discussion of various material choices. Covers estimating and efficiency studies.

CAR 251 ADVANCED INTERIOR TRIM—DOORS/2(1-1-0)

Prerequisites: CAR 151 or instructor permission.

Expands upon material covered in CAR151. Includes in-depth study of premium interior doors and trim, including full mortise lock sets, furniture grade trim, and techniques for matching existing high-end and antique woodworking.

CAR 270 CLINICAL: CONSTRUCTION LAB II/2(0-4-0)

Continues to build upon the principles that are expected to be understood by students in the construction discipline.

CAR 271 CLINICAL: CONSTRUCTION LAB II/3(0-6-0)

Continues to build upon the principles that are expected to be understood by students in the construction discipline.

CAR 275 SPECIAL TOPICS IN CONSTRUCTION TECHNOLOGY/3(1-2-0)

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

CHEMISTRY**CHE 101 INTRODUCTION TO CHEMISTRY I/5(3-4-0)**

Co-requisite: MAT 090.

Includes the study of measurements, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base, gas laws, and condensed states. Laboratory experiments demonstrate the above concepts qualitatively and quantitatively. Designed for non-science majors, students in occupational and health programs, or students with no chemistry background. *This course is one of the Statewide Guaranteed Transfer courses. GT-SC1*

CHE 102 INTRODUCTION TO CHEMISTRY II 5(3-4-0)

Prerequisite: CHE 101 or instructor permission.

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

This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).

CHE 105 CHEMISTRY IN CONTEXT/5(4-2-0)

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

laboratory experience and is designed for non-science majors. *This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).*

CHE 109 GENERAL, ORGANIC AND BIOCHEMISTRY/4(3-2-0)

Focuses on fundamentals of inorganic, organic and biochemistry primarily for students in health science, non-science majors and/or students in the occupational and health related career areas. Includes the study of measurement, atomic theory, chemical bonding, nomenclature, stoichiometry, solutions, acid and base chemistry, gas laws, condensed states of matter and nuclear chemistry, nomenclature of organic compounds, properties of different functional groups, nomenclature of various biological compounds, their properties and biological pathways.

CHE 111 GENERAL COLLEGE CHEMISTRY I/5(3-4-0)

Prerequisite: One year high school chemistry or equivalent, or instructor permission.

Co-requisite: College algebra or permission of instructor.

Focuses on basic chemistry and measurement, matter, chemical formulas, reactions and equations, stoichiometry and thermochemistry. This course covers the development of atomic theory culminating in the use of quantum numbers to determine electron configurations of atoms, and the relationship of electron configuration to chemical bond theory and molecular orbital theory. The course includes gases, liquids, and solids and problem-solving skills are emphasized through laboratory experiments. *This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).*

CHE 112 GENERAL COLLEGE CHEMISTRY II/5(3-4-0)

Prerequisite: CHE 111, MAT 121.

Presents concepts in the areas of solution properties, chemical kinetics, chemical equilibrium, acid-base and ionic equilibrium, thermodynamics, electrochemistry, nuclear chemistry, and organic chemistry. This course emphasizes problem solving skills and descriptive contents for these topics. Laboratory experiments demonstrate qualitative and quantitative analytical techniques. *This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).*

CHE 211 ORGANIC CHEMISTRY I/5(4-2-0)

Prerequisite: CHE 112.

Focuses on compounds associated with the element carbon including structure and reactions of aliphatic hydrocarbons and selected functional group families. The course covers nomenclature of organic compounds, stereochemistry, reaction mechanisms such as SN1, SN2, E1 and E2. Laboratory experiments demonstrate the above concepts plus the laboratory techniques associated with organic chemistry.

CHE 212 ORGANIC CHEMISTRY II/5(4-2-0)

Prerequisite: CHE 211.

Continues the investigation into the chemistry of carbon-based compounds, their reactions and synthesis including the structure, physical properties, reactivities, and synthesis of organic functional groups not covered in the first semester. The course explores functional groups including alcohols, ethers, aromatics, aldehydes, ketones, amines, amides, esters, and carboxylic acids and the reactions and reaction mechanisms of aromatic compounds. An introduction to biochemical topics may be included if time permits. Laboratory experiences demonstrate the above concepts and the laboratory techniques associated with organic chemistry.

COMPUTER INFORMATION SYSTEMS

CIS 110 INTRODUCTION TO THE PC/1(1-0-0)

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 115 INTRODUCTION TO COMPUTER INFORMATION SYSTEMS/3(3-0-0)

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

CIS 118 INTRODUCTION TO PC APPLICATIONS/3(3-0-0)

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 124 INTRODUCTION TO OPERATING SYSTEMS/3(3-0-0)

Introduces concepts, terminology and hands-on skills in the use of DOS and Windows. Emphasizes navigation, file manipulation, file creation and troubleshooting.

CIS 128 WINDOWS COMPLETE/3(3-0-0)

Introduces the functions and capabilities of Microsoft Windows. Includes configuring and modifying the operating system environment.

CIS 130 INTRODUCTION TO THE INTERNET/1(1-0-0)

Enhances the student's knowledge of the Internet and its resources. Individuals learn terminology in dealing with the Internet. Includes privacy and copyright issues with information retrieved from the Internet. Students experience the use of e-commerce, multimedia and e-mail. Explores searching the Internet and credibility of information obtained with searches.

CIS 131 WORD PROCESSING I/1(1-0-0)

Prerequisite: Ability to keyboard by touch.

Gives the student an introductory working knowledge of word processing. The student will create, edit, format, save, and print documents. The student will use spell check, grammar check, and thesaurus features. The student will format text, paragraphs, and pages, change margins and use the find and replace feature as well as create envelopes and labels.

CIS 132 WORD PROCESSING II/1(1-0-0)

Prerequisite: CIS 131 or instructor permission.

Increases the student's working knowledge of word processing. In this module, the student will learn to use the merge function. The student will create multiple page reports using headers, footers, footnotes, endnotes, and page numbers. The student will create and format documents using columns and tables.

CIS 133 WORD PROCESSING III/1(1-0-0)

Prerequisite: CIS 131 & 132 or instructor permission.

Increases the student's working knowledge of word processing. In this module, the student will learn to use borders, drawing, word art, and graphics. The student will create macros, charts, outlines, styles, and fill-in forms. The student will also sort and select records. This course is the third in a series of modules.

CIS 145 COMPLETE PC DATABASE/3(3-0-0)

Prerequisite: CIS 118.

Explores a complete array of database skills. Includes table, query, form, and report creation and modification. Other topics include application integration and automation of database tasks within the database.

CIS 155 PC SPREADSHEET CONCEPTS/3(3-0-0)

Exposes the student to a wide range of uses of the electronic spreadsheet with special emphasis on using it as a business tool. Includes fundamentals and terms, creating and saving workbooks, entering and using formulas, formatting, printing, multiple-page workbooks, creating charts, entering and using functions, managing lists, and simple macros.

CIS 165 COMPLETE PRESENTATION GRAPHICS: POWERPOINT/3(3-0-0)

Focuses on the development of presentation graphics materials including graphs, charts, illustrations, and diagrams. Emphasizes effective communication through computerized presentations. Covers features of PowerPoint and effective presentation techniques.

CIS 167 DESKTOP PUBLISHING/3(3-0-0)

Prerequisite: Knowledge of word processing.

Introduces the concepts and applications for desktop publishing using word processing software. Emphasizes page layout and design with techniques for incorporating text and graphics and final production of printed documents.

CIS 240 DATABASE DESIGN AND DEVELOPMENT/3(3-0-0)

Introduces the basic concepts of relational databases, data storage, and retrieval. Covers database design, data modeling, transaction processing, and introduces the Structured Query Language for databases.

CIS 267 MANAGEMENT OF INFORMATION SYSTEMS/3(3-3-0)

Introduces the concepts and techniques of managing computer-based information resources. Includes hardware, software, personnel, control techniques, and the placement and integration of information systems resources within the organization.

COMMUNICATIONS

COM 105 CAREER COMMUNICATIONS/3(3-0-0)

Develops skills needed in obtaining and keeping a job. Includes job searching, applications, resumes, interviews, and the dynamics of customer, peer, and managerial relationships. Emphasizes speaking, writing, listening, critical reading skills, and vocabulary development essential to the employment world.

COM 115 PUBLIC SPEAKING/3(3-0-0)

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

COM 125 INTERPERSONAL COMMUNICATION/ 3(3-0-0)

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

COM 205 VOICE AND DICTION/3(3-0-0)

Studies the physiological production of the speaking voice and methods for improving the quality of the spoken word in general American speech.

COM 226 ORAL INTERPRETATION/3(3-0-0)

Excites and exposes the student to the potential offered in the reading and performing of great literature such as is found in prose, poetry, and drama.

COM 230 ARGUMENTATION AND DEBATE/3(3-0-0)

Prerequisite: COM 115 or instructor permission.

Acquaints the student with the theory of argumentation, including reasoning, evidence, refutation, critical thinking, and extemporaneous speaking. It includes practice in preparation and oral analysis of selected arguments and styles of debating.

COSMETOLOGY

Student must be 16 years of age and have appropriate assessment scores to enroll in this program. (ACCUPLACER Reading 62, English 70, Math 56)

COS 103 SHAMPOO/RINSES/CONDITIONERS I/1(1-0-0)

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(1-2-0)

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(1-2-0)

Focuses on theory and practical application of color products, formulations of color, level and shades of color. Examines techniques in a specialized class or in a supervised salon setting.

COS 120 INTRODUCTION TO HAIR CUTTING/2(2-0-0)

Introduction to the theory relevant to patron protection, angles, élévations, and the analysis of hair textures as related to hair cutting. Covers the proper use and care of hair cutting implements. Focuses on basic hair cutting techniques using all cutting implements. Disinfection, sanitation procedures as they relate to haircutting.

COS 121 INTERMEDIATE I: HAIRCUTTING/2(1-2-0)

Focuses on theory related facial shapes, head and body forms to determine the clients appropriate haircut. Incorporates practical applications of hair cutting techniques in specialized classes or in the supervised salon (clinical setting).

COS 130 Introduction to Hair Styling/2(1-2-0)

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(0-4-0)

Focuses on the accepted methods of styling hair, air forming roller sets, finger waves pin curls braiding and hair pressing.

COS 140 INTRODUCTION TO CHEMICAL TEXTURE/1(0-2-0)

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:CHEMICALTEXTURE/1(0.5-1-0)

Emphasizes theory and practical application of permanent waves and chemical relaxers in specialized classes or a supervised salon setting. Enables the student to practice different wrapping techniques required by trend styles.

COS 150 LAWS, RULES AND REGULATIONS/1(1-0-0)

Provides instruction on the laws, rules and regulations and how they govern the cosmetology and barber industry. This affects the student, licensed individual, salons and school owners.

COS 160 INTRODUCTION TO DISINFECTION, SANITATION & SAFETY/2(2-0-0)

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(0.5-1-0)

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(0.5-1-0)

Provides theory and practical training in shampoos, rinses and conditioners. Examines advanced techniques to prepare the student for employment. Includes preparation for the State Board Licensing Examination in shampoos, rinses and conditioners.

COS 210 Intermediate II: Hair Coloring/2(1-2-0)

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(1-2-0)

Provides continued instruction on advanced theory and practical techniques in hair coloring. Focuses on the recognition of color problems and color correction procedures. Covers advanced techniques and product knowledge to prepare the student for employment. Prepares the student for the State Board Licensing Examination pertaining to hair coloring.

COS 220 INTERMEDIATE II: HAIRCUTTING/2(1-2-0)

Provides continued instruction in the theory related to facial shapes, head and body forms to determine the client's appropriate haircut. Incorporates practical applications of haircutting techniques.

COS 221 Advanced Hair Cutting/2(1-2-0)

Focuses on advanced cutting techniques using all the cutting tools. Emphasizes current fashion trends. Includes student preparation for the State Licensure examination.

COS 230 Intermediate II: Hair Styling/2(1-2-0)

Provides continued instruction on accepted methods of styling hair, air forming, roll set, finger waves and hair pressing. Examines techniques in specialized classes or in a supervised salon setting.

COS 231 Advanced Hair Styling/1(0.5-1-0)

Focuses on theory and advanced techniques in all phases of hair styling to prepare the student for employment. Training is a combination of supervised salon (clinical) work and specialized classes. Includes student preparation for the State Board Licensing Examination relating to hairstyling.

COS 240 Intermediate II: Chemical Texture/1(0-2-0)

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(0.5-1-0)

Focuses on advanced techniques to prepare the student for employment and the changes in current industry standards. Instruction is provided in specialized classes or supervised salon (clinical) setting. Includes student preparation for the State Board Licensing Examination pertaining to permanent waves and chemical relaxers.

COS 250 MANAGEMENT, ETHICS, INTERPERSONAL SKILLS & SALESMANSHIP/1(1-0-0)

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(1-2-0)

Provides continued study of theory and practice of proper methods of sterilization, disinfection, sanitation and safety procedures as related to all phases of the industry. Covers terminology and training of disinfection, sanitation and safety procedures. The individual responsibility to provide a safe work environment is practiced.

COS 261 ADVANCED DISINFECTION, SANITATION & SAFETY/1(1-0-0)

Provides advanced training on decontamination and safety practices in a supervised salon and/or classroom setting. Examines advanced techniques that prepare the student for employment. Includes student preparation for the State Board Licensing Examination in decontamination and safety for all aspects of the industry. Study of OSHA requirements for schools and salon are done in a theory or practical setting.

COS 262 Advanced II: Disinfection, Sanitation & Safety/3(2-2-0)

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/0.5-6

Provides students with a vehicle to pursue in depth exploration of special topics of interest.

COS 279 SEMINAR/WORKSHOP: COSMETOLOGY OCCUPATIONS/0.5-6

This course provides students with an experiential learning opportunity.

COS 280 Internship/0.5-6

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/1-10

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

COS 288 COSMETOLOGY PRACTICUM/0.5-10

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 289 CAPSTONE/1-3

Student must have acquired 1,000 hours or better. Provides advanced training in all course areas and prepares student for the State Board of Cosmetology Licensing Exam. Hours will be arranged.

COS 290 Professional Development/Continuing Education/0.5-12

Provides students with a vehicle to pursue indepth exploration of special topics of interest.

CRIMINAL JUSTICE**CRJ 101 BASIC POLICE ACADEMY I/6(6-0-0)**

Prerequisite: Not open enrollment course. Requires special application.

Conforms to POST standards and state certification requirements as well as the basic skills and knowledge necessary to perform the entry level duties of a peace officer. Emphasis will be on simulating actual situations utilizing a lecture and laboratory mode of learning.

CRJ 102 BASIC POLICE ACADEMY II/12(12-0-0)

Prerequisite: Not open enrollment course. Requires special application.

Conforms to POST standards and state certification requirements as well as the basic skills and knowledge necessary to perform the entry level duties of a peace officer. Emphasis will be on simulating actual situations utilizing a lecture and laboratory mode of learning.

CRJ 105 BASIC LAW/8(8-0-0)

Prerequisite: Not an open enrollment course. Requires special application.

Conforms to POST standards and state certification requirements as well as the basic skills and knowledge necessary to perform the entry level duties of a peace officer. Emphasis will be on United States Constitution, arrest, search and seizure, interrogation and confessions, rules of evidence, Colorado Criminal Code, Colorado Traffic Code, Colorado Children's Code, Liquor Code and controlled substances.

CRJ 106 ARREST CONTROL TECHNIQUES/3(3-0-0)

Prerequisite: Not an open enrollment course. Requires special application.

Covers the skills, knowledge and abilities necessary to effectively maintain control of a suspect when making an arrest. Emphasizes the continuum of force and de-escalation of force.

CRJ 107 LAW ENFORCEMENT DRIVING/3(3-0-0)

Prerequisite: Not an open enrollment course. Requires special application.

Covers the skills, knowledge and abilities required for operation of a law enforcement vehicle. Emphasizes defensive driving. Enables students to demonstrate skills by driving a vehicle under simulated conditions.

CRJ 108 FIREARMS/3(3-0-0)

Prerequisite: Not an open enrollment course. Requires special application.

Discusses the skills, knowledge and abilities necessary to safely use police firearms. Students will demonstrate skills by firing weapons on a firing range. The student will demonstrate basic safety techniques and will explain the firearms role within the continuum of force.

CRJ 110 INTRODUCTION TO CRIMINAL JUSTICE/3(3-0-0)

Introduces a study of the agencies and processes involved in the criminal justice system: the legislature, the police, the prosecutor, the public defender, the courts, and corrections. Includes an analysis of the roles and problems of the criminal justice system in a democratic society, with an emphasis upon inter-component relations and checks and balances.

CRJ 111 SUBSTANTIVE CRIMINAL LAW/3(3-0-0)

Prerequisite: CRJ 110 or equivalent.

Teaches legal definitions of crime, purposes and functions of the law, historical foundations, and the limits of the criminal law.

CRJ 112 PROCEDURAL CRIMINAL LAW/3(3-0-0)

Prerequisite: CRJ 110 or equivalent.

Covers constitutional and procedural considerations affecting arrest, search and seizure, post-conviction treatment, origin, development, philosophy, and constitutional basis of evidence. Focuses on degrees of evidence and rules governing admissibility, judicial decisions interpreting individual rights, and an analysis of case studies from arrest through final appeal.

CRJ 125 LAW ENFORCEMENT OPERATIONS/3(3-0-0)

Prerequisite: CRJ 110 or equivalent.

Examines the complexity and multi-dimensional aspects of the law enforcement role and career; law enforcement discretion; law enforcement values and culture in modern America. Covers the role and functions of law enforcement in occupational, social, political and organizational context.

CRJ 145 CORRECTIONAL PROCESS/3(3-0-0)

Prerequisite: CRJ 110 or equivalent.

Focuses on the post-conviction corrections process, the development of a correctional philosophy, theory, and practice, a description of institutional operation, programming and management, and community-based corrections, probation, and parole.

CRJ 175 PHYSICAL TRAINING FOR LAW ENFORCEMENT/1 (1-0-0)

Provides the student with basic physical fitness training needed for a law enforcement career. The program utilizes the fitness and training standards as recommended by the Cooper Institute and Fit Force. The course is a combination of weight training and physical exercise that includes cardio-vascular development through outdoor running. The instructor also covers the students' development of a healthy life style through proper nutrition and regular exercise.

CRJ 208 CRIMINAL EVIDENCE/3(3-0-0)

Reviews the basic principles of evidence in state and Federal criminal proceedings. Includes analysis of the Federal Rules of Evidence and the Colorado Evidence Rules, as well as evidentiary and procedural requirements in the courts. The course will focus on evidence questions in the context of the examination of witnesses, competency, privilege, relevancy, hearsay, burden of proof and the presentation of scientific and demonstrative evidence. Constitutional guidelines affecting evidence collection and admissibility will also be reviewed.

CRJ 210 CONSTITUTIONAL LAW/3(3-0-0)

Prerequisite: CRJ 110 or equivalent.

Focuses on the powers of government as they are allocated and defined by the United States Constitution. Includes intensive analysis of United States Supreme Court decisions.

CRJ 221 COMMUNITY PROBLEM SOLVING/3(3-0-0)

Explores community oriented policing and problem solving strategies. Emphasizes the development of skills and tools necessary to implement a program. Focuses on handling stress, problem solving, and verbal communication techniques. Examines special problems that affect the police and community including victims' rights, ethics, crime prevention, gangs, ethnic intimidation, and child abuse.

CRJ 230 CRIMINOLOGY/3(3-0-0)

Prerequisite: CRJ 110 or equivalent.

Examines the question of crime causation from legal, social, political, psychological and theoretical perspectives. Covers the history and development of criminology.

CRJ 275 NATIONAL PARK SERVICE/1(1-0-0)

Covers the basic law enforcement standards as set by the National Park Service for certification as a Level II Seasonal Law Enforcement Officer. Emphasis will be on simulating actual situations utilizing a lecture and laboratory mode of learning.

CRJ 280 INTERNSHIP/3(3-0-0)

A study which provides an opportunity to participate in a structured/supervised work setting in a recognized criminal justice agency. The intern will work under the supervision of experienced personnel with a college instructor providing coordination.

COMPUTER SCIENCE**CSC 150 VISUAL BASIC PROGRAMMING/3(3-0-0)**

Introduces programming and applications development for the Microsoft Windows Programming environment using Visual Basic for Windows.

CSC 160 COMPUTER SCIENCE I: (LANGUAGE)/ 4(4-0-0)

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

CSC 161 COMPUTER SCIENCE II: (LANGUAGE)/ 4(4-0-0)

Prerequisite: CSC 160 or instructor permission.
Continues the structured algorithm development and problem solving techniques begun in Computer Science I. Enables students to gain experience in the use of data structures and design of larger software projects. Requires intensive computer laboratory experience.

CSC 225 COMPUTER ARCHITECTURE/ ASSEMBLY LANGUAGE PROGRAMMING/4(4-0-0)

Prerequisite: CSC 160, or equivalent or Instructor permission.
Introduces concepts of computer architecture, functional logic, design and computer arithmetic. Focuses on the mechanics of information transfer and control within a computer system. Includes symbolic programming techniques, implementing high level control structures, addressing modes and their relation to arrays, subprograms, parameters, linkage to high level languages and the assembly process.

CSC 230 C PROGRAMMING PLATFORM/3(3-0-0)

Prerequisite: MAT121 or instructor permission.
Introduces C programming language - a 'mid level' language whose economy of expression and data manipulation features allow a programmer to deal with the computer at a 'low level.'

CSC 240 JAVA PROGRAMMING/3(3-0-0)

Prerequisite: MAT 106 or instructor permission.
Introduces the Java programming language and covers basic graphics, events/procedures, user interface, and libraries. Enables the student to write and execute a variety of Java programs. Incorporates Java Applets into HTML.

COMPUTER WEB BASED**CWB 110 COMPLETE WEB AUTHORING/3(3-0-0)**

Explores the complete set of web authoring skills using HTML and/or other scripting languages. Includes links, backgrounds, controlling text and graphic placement, tables, image maps, frames and forms.

CWB 130 COMPLETE WEB EDITING TOOLS/3(3-0-0)

Provides tools used for designing and building Web pages that are easy to use and have a pleasing look. The student will develop Web pages using a web page development program. Use of images, forms, frames, tables, templates and layers will be covered.

DENTAL HYGIENE**DEH 101/175 PRE-CLINICAL DENTAL HYGIENE & PRE-CLINIC SUPPLEMENTAL LECTURE/3(3-0-0)**

Prerequisite: Enrollment in the Dental Hygiene Program.
Includes basic dental hygiene theory and development of basic clinical skills. Lectures, demonstrations and laboratory experiences are related to dental hygiene patient treatment, including aseptic techniques and practices; extraoral and intraoral examination; patient education instruction and the role of dental biofilm, recognition, detection, and documentation of dental restorations, carious lesions, and anomalies.

DEH 102 PRE-CLINICAL DENTAL HYGIENE LAB/3(0-6-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
An introduction to the clinical environment; the fundamentals of instrumentation using assessment instruments and universal scalars, with guided practice sessions on typodonts, manikins, and student partners.

DEH 103 DENTAL ANATOMY AND HISTOLOGY/3(2-2-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Focuses on a study of the anatomical and histological features of the teeth and other oral structures of the oral cavity. Includes terminology, anatomical landmarks, and tooth identification. Introduces histology, the embryology of the face and oral and nasal cavities, development of the teeth, and the histological features of the various components of the teeth and surrounding structures.

DEH 104 DENTAL RADIOLOGY/3(2-2-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Introduces principles of x-radiation production and safety factors; application and theory of properly exposing, processing, mounting and evaluating radiographs; identification of normal anatomic landmarks and pathologic conditions. Focuses on utilization of the laboratory in performing procedures necessary to produce quality radiographs.

DEH 111 DENTAL & MEDICAL EMERGENCIES/2(2-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Introduces the management of emergency situations in the dental office setting. Emphasizes reduction of risk for emergencies, identification and management of anxiety, and stress recognition protocol. Provides practical skills applicable to dental hygienists and the scope of responsibility for medical emergency management as dictated by state dental practice law. Covers the basic categories of emergencies, causes and management. Includes content and use of emergency kits and oxygen support systems.

DEH 112/175 DENTAL HYGIENE CLINIC LECTURE/2(2-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Focuses on prevention through patient education. Includes dental hygiene clinical procedures, such as assessment, instrument sharpening, sealants, selective polishing, fluoride applications, treatment planning, as well as instrumentation instruction.

DEH 116 PREVENTIVE DENTISTRY AND SPECIAL NEEDS PATIENTS/2(2-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Focuses on application of the basic sciences in maintaining healthy oral tissues for all patient populations. Emphasizes plaque and plaque-related diseases and the basic philosophy involved in controlling and/or preventing disease. Addresses the role of the dental hygienist in etiology, epidemiology of disease, primary preventive efforts, oral health education, nutrition and dietary measures, and preventive agents.

DEH 122/175 PERIODONTICS I/IMMUNOLOGY ASPECTS OF PERIO DISEASE/3(3-0-0)

Prerequisite: First-semester DEH course work.
Introduces the principles of periodontics. Focuses on recognition of the tissues in health and disease, macro and micro-anatomy of the periodontium, and histopathology of periodontal diseases and other related gingival conditions. Provides the theory and discussion of periodontal assessment, etiology, epidemiology, inflammatory process/immune response, and the AAP classification system.

DEH 123/175 HEAD AND NECK ANATOMY/1(1-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Focuses on the study of head and neck anatomy with emphasis on the muscles of mastication, the lymphatics, the TMJ, the nerve and vascular supply, and the oral cavity.

DEH 124 CLINICAL PRACTICE OF DENTAL HYGIENE I/3(3-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Provides clinical experience in patient skills assessment, instrumentation, and additional preventative and prophylactic clinical procedures.

DEH 125 CLINICAL PRACTICE OF DENTAL HYGIENE 1-A/3(3-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Continues patient care sessions for the performance of traditional dental hygiene treatment. Enables the student to provide treatment to periodontally involved patients utilizing advanced instrumentation and power scaling.

DEH 126 DENTAL MATERIALS/2(1-1-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Provides the dental hygiene student with a sound knowledge of the science of dental materials. Covers didactic and laboratory experiences and the physical properties, basic chemistry, and the clinical applications of the materials used in the practice of dentistry.

DEH 132 APPLIED PHARMACOLOGY/2(2-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Covers general pharmacology and reviews drugs that may influence the management of dental hygiene patients. Enables the student to develop sufficient knowledge of pharmacology to permit safe and effective medical evaluation of patients for dental hygiene treatment.

DEH 133 LOCAL ANESTHESIA/2(1-1-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Provides a working knowledge of the theory and practice of local anesthesia as applied to the practice of dentistry/dental hygiene. Emphasizes mastery of the armamentarium and techniques of regional anesthesia. Covers the knowledge and skills necessary to administer local anesthetics proficiently and safely.

DEH 138 NITROUS OXIDE/OXYGEN SEDATION/1(1-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Provides a working knowledge of the latest equipment and methods of nitrous oxide/oxygen sedation administration in the dental office.

DEH 170 CLINICAL PRACTICE OF DENTAL HYGIENE II/3(3-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Provides clinical experience in patient skills assessment, instrumentation and additional preventative and prophylactic clinical procedures, while promoting and emphasizing professionalism and a strong sense of team participation and work ethic.

DEH 171 CLINICAL PRACTICE OF DENTAL HYGIENE 1-A/3(0-0-6)

Prerequisite: Enrollment in the Dental Hygiene Program.
Continues patient care sessions for the performance of traditional dental hygiene treatment. Enables the student to provide treatment to periodontally involved patients utilizing advanced instrumentation and power scaling.

DEH 175 SPECIAL TOPICS/0.5-6

Exploration of current topics, issues and activities related to one or more aspects of the named discipline.

Pre-Clinic Supplemental Lecture/1(1-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Explores basic dental hygiene theory and development of basic skills. Focuses on the application of diagnostic, preventative and therapeutic procedures and includes an introduction to dentistry and dental hygiene, dental and medical terminology, infection control, the removal of tooth deposits, patient medical and dental histories, preventive instruction and treatment planning.

Immunology Aspects of Perio Disease/1(1-0-0)

Prerequisite: First-semester DEH course work.
Introduces the principles of periodontics. Focuses on recognition of the tissues in health and disease, macro and microanatomy of the periodontium, and histopathology of periodontal diseases and other related gingival conditions. Provides the theory and discussion of periodontal assessment, etiology, epidemiology, inflammatory process/immune response, and the AAP classification system.

Head and Neck Lab/1(.25-1.5-0)

Prerequisite: Enrollment in the Dental Hygiene Program.
Focuses on the study of head and neck anatomy with emphasis on the muscles of mastication, the lymphatics, the TMJ, the nerve and vascular supply, and the oral cavity.

DEH 201 CLINIC II LECTURE/2(2-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program. Continues development of clinical skills with an introduction to Gracey curets, developing treatment plans for the periodontal patient and establishing maintenance schedule for oral health. Addresses special techniques for calculus detection. Allows student to demonstrate and practice through lab activities. Focuses on the patient with special needs. Student has sophomore standing in Dental Hygiene Program.

DEH 204 COMMUNITY DENTAL HEALTH I/2(2-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program. Course provides instruction in the concepts, methods and issues of dental public health. Emphasis is placed on evidence-based criteria for effective promotion and prevention of dental disease in the public health setting. Concepts of dental health education and program planning in the community setting are reinforced through case based materials, including methods of assessment, planning, implementation and evaluation of effectiveness. Course activities will reinforce skills in speaking and writing effectively in preparation for the subsequent community dental health field experience course.

DEH 213 GENERAL AND ORAL PATHOLOGY/3(3-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program. Focuses on the fundamentals of general pathology and the disease process. Covers oral pathology with emphasis on recognition and identification of pathologic conditions that most frequently occur around the oral cavity. Helps students identify appropriate referral mechanisms to render a definitive diagnosis.

DEH 221 ETHICS AND PRACTICE MANAGEMENT/2(2-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program. Focuses on the transition from an educational environment to a working dental business. Enables the student to learn management skills of operating a dental office. Emphasizes opportunities for self-exploration in development of personal and professional goals. Examines professional ethics, legal issues, and the relationship to the licensed practice of dental hygiene.

DEH 225 COMMUNITY DENTAL HEALTH II: FIELD EXPERIENCE/1(0.5-0.5-0)

Prerequisite: Enrollment in the Dental Hygiene Program. Provides practical application of community dental health theory and opportunities to conduct needs assessments on a variety of populations. Emphasizes meeting the educational needs of specific populations through program planning, implementation and evaluation. Incorporates supervised field experiences in low-income, school and other public facilities as well as private health and education oriented organizations.

DEH 242 PERIODONTICS II/2(2-0-0)

Prerequisite: Second -semester DEH course work. Continues to explore theoretical/clinical preparations with emphasis on dental hygiene process of care, treatment planning, non-surgical treatment, evaluation of treatment, and maintenance needs of the periodontal patient. Develops research and decision making skills with use of library and Internet resources relating to risk factors, etiologic agents, and treatment modalities. Includes comprehensive periodontal assessment, supplemental diagnostics, periodontal pharmacology, and evidence based treatment planning.

DEH 268 Clinical Theory of Dental Hygiene II/2(2-0-0)

Provides the didactic theory for clinical practice of dental hygiene skills at the beginning of the second year of dental hygiene curriculum. Builds on clinic theory from first year cur-

riculum to provide the knowledge base needed for treatment of patients with more advanced periodontal disease and medical/health factors. Focuses on: periodontal charting and documentation, interpretation of periodontal factors on radiographs, use of treatment planning in the dental hygiene process of care, legal parameters of record keeping and informed consent, use of oral photography, application of sealants, treatment of dental hypersensitivity, application of chemotherapeutics and professional oral irrigation, application of ergonomics in dentistry, clinical dental hygiene treatment considerations for patients with history of cardiac complications and diabetes.

DEH 270 CLINICAL PRACTICE OF DENTAL HYGIENE II/7(0-0-14)

Prerequisite: Enrollment in the Dental Hygiene Program. Covers patient care sessions for the performance of traditional dental hygiene treatment. Continues and expands periodontal patient care and special patient care sessions. Focuses on clinical competence in margination and polishing of restorations, nutrition counseling, oral irrigation, chemotherapeutics and OSHA compliance.

DEH 271 CLINICAL PRACTICE OF DENTAL HYGIENE III/7(0-0-14)

Prerequisite: Enrollment in the Dental Hygiene Program. Continues patient care session with emphasis on attaining a level of competency and efficiency for successful performance in clinical board exams and private practice. Focuses on clinical skill development in tobacco cessation, product selection, patient communications, curettage and special topics developed patient treatments. Provides elective extra-mural clinical sites for additional practice.

DEH 275 SPECIAL TOPICS/0.5-6

Provides students with a vehicle to pursue in depth exploration of special topics of interest.

Dental Materials/2(1-2-0)

Prerequisite: Enrollment in the Dental Hygiene Program. Provides the dental hygiene student with a sound knowledge of the science of dental materials. Covers didactic and laboratory experiences and the physical properties, basic chemistry, and the clinical applications of the materials used in the practice of dentistry.

Clinic I-A Lecture/2(2-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program. Continues development of clinical skills with an introduction to Gracey curets, developing treatment plans for the periodontal patient and establishing maintenance schedule for oral health. Addresses special techniques for calculus detection. Allows student to demonstrate and practice through lab activities. Focuses on the patient with special needs. Student has sophomore standing in Dental Hygiene Program.

Advanced Clinical Skills/2(2-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program. Focuses on dental hygiene theory and laboratory experiences with major topics related to advanced clinical skills, including advanced instrumentation fulcrums, root morphology, periodontal files, periodontal file sharpening, mini curettes, after five curettes, nabors probe, universal focus spray ultrasonics, and scaling implants.

**DEH 285 CLINICAL THEORY OF DENTAL HYGIENE III/
2(2-0-0)**

Prerequisite: Enrollment in the Dental Hygiene Program. Serves as the capstone course of the final semester of a two-year curriculum. Prepares the student for two major goals: basic competence for transition to provision of dental hygiene services in private practice; and the ability to successfully pass both written National Boards examinations and regional dental hygiene clinical examinations. Emphasizes the application of case based learning. Major topics include: cosmetic bleaching, air powered polishing devices, application of the re-evaluation process in treatment planning for periodontally involved cases, preparation for the CRDTS regional clinical exam process, application of an effective tobacco cessation process, technique and process for gingival curettage, technique and process for amalgam polishing and margination, care of cosmetic dental restorations, and maintenance of implants.

EARLY CHILDHOOD EDUCATION

ECE 100 PRE-LICENSING TRAINING FOR FAMILY CHILD CARE PROVIDERS/1(1-0-0)

Provides the educational training necessary to meet the hours and categories of training required by the Colorado Department of Human Services to open a licensed child care facility for children ages 2-12, with no more than two children under the age of two. Upon completion of 15 hours of training, in the areas listed below, the student will have met the academic training requirements of the Colorado Department of Human Services, needed to open a licensed child care facility for children ages 2-12, with no more than two children under the age of two.

ECE 101 INTRODUCTION TO EARLY CHILDHOOD EDUCATION/3(3-0-0)

Provides an introduction to Early Childhood Education. Includes the eight key areas of professional knowledge: Child Growth and Development; Health, Nutrition and Safety; Developmentally Appropriate Practices; Guidance; Family and Community Relationships; Diversity; Professionalism; Administration and Supervision. Focuses on ages birth through age eight.

ECE 102 INTRODUCTION TO EARLY CHILDHOOD LAB TECHNIQUES/3(0-6-0)

Prerequisite or Co-requisite: ECE 101. Focuses on a classroom seminar and placement in a child care setting. The supervised placement provides the student with the opportunity to observe children, to practice appropriate interactions, and to develop effective guidance and management techniques. Addresses ages birth through age 8.

**ECE 103 GUIDANCE STRATEGIES FOR CHILDREN/
3(3-0-0)**

Explores guidance theories, applications, goals, techniques and factors that influence expectations, classroom management issues, and prosocial skills. Addresses ages birth through age 8.

ECE 104 CHILD STUDY/2(2-0-0)

Focuses on child observation aimed at integrating the student's understanding of applied child development. Emphasizes children's development from birth through the elementary years.

ECE 111 INFANT AND TODDLER THEORY & PRACTICE/3(3-0-0)

Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition issues.

ECE 112 INTRO TO INFANT/TODDLER LAB TECHNIQUES/3(0-6-0)

Prerequisite or Co-requisite: ECE 111. Includes a classroom seminar and placement in an infant and/or toddler setting. The supervised placement provides the student with the opportunity to observe, to practice appropriate interactions and to develop effective guidance and nurturing techniques with infants and/or toddlers. Addresses ages prenatal through age 2.

ECE 126 ART AND THE YOUNG CHILD/2(2-0-0)

Prepares students to plan and implement a comprehensive and developmentally appropriate art program for young children. Investigates the development of self-taught art techniques in young children.

ECE 127 MUSIC/MOVEMENT FOR THE YOUNG CHILD/1(1-0-0)

Focuses on the purposes of incorporating music and movement into the early childhood curriculum. Through active participation with hands-on experiences, students work with the concepts of age and developmental appropriateness when designing fun activities with both subjects.

ECE 191 SCHOOL AGE THEORY AND PRACTICE/3(3-0-0)

Emphasizes processes for planning and implementing developmentally appropriate environments, materials, and experiences in school age programs, working with children ages 6 – 12 years of age. Provides expression and problem-solving skills in school age children.

ECE 192 SCHOOL AGE LAB TECHNIQUES/3(3-0-0)

Co-requisite: ECE 191. Incorporates lab experience in before/after school, summer camp, or elementary school programs. Focuses on planning and implementing developmentally appropriate curriculum for school age children. Includes assisting the supervising teacher in all activities.

**ECE 205 NUTRITION, HEALTH AND SAFETY/
3(3-0-0)**

Focuses on nutrition, health and safety as a key factor for optimal growth and development of young children. Includes nutrient knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities and communication with families. Addresses ages from prenatal through age 8.

ECE 220 CURRICULUM DEVELOPMENT: METHODS AND TECHNIQUES/3(3-0-0)

Provides an overview of early childhood curriculum development. Includes processes for planning and implementing developmentally appropriate environments, materials and experiences, and quality in early childhood programs.

ECE 225 LANGUAGE AND COGNITION FOR THE YOUNG CHILD/3(3-0-0)

Prerequisite: PSY 238 or Instructor permission.
Examines theories of cognitive and language development as a framework for conceptualizing the way children acquire thinking skills. Includes observing, planning, facilitating, creative representation, and evaluating strategies within the context of play. Focuses on language, science, math, problem solving and logical thinking. Addresses ages birth through age 8.

ECE 226 CREATIVITY AND THE YOUNG CHILD/3(3-0-0)

Provides an emphasis on encouraging and supporting creative self expression and problem solving skills in children. Explores creative learning theories and research. Focuses on developmentally appropriate curriculum strategies in all developmental domains. Addresses ages birth through age 8.

ECE 236 CHILD GROWTH/DEVELOPMENT LABORATORY/1(1-0-0)

Covers the growth and development of the child from conception through the elementary school years. Emphasizes physical, cognitive, language, social and emotional domains and the concept of the whole child and how adults can provide a supportive environment. Addresses ages from prenatal through age 12.

ECE 240 ADMINISTRATION OF EARLY CHILDHOOD CARE AND EDUCATION PROGRAMS/3(3-0-0)

Examines Colorado's minimal licensing requirements, as well as optimal standards pertaining to the operation of programs for young children. Focuses on the director's administrative skills and role as a community advocate for young children. Addresses ages birth through age 12.

ECE 241 ADMINISTRATION: HUMAN RELATIONS FOR EARLY CHILDHOOD EDUCATION/3(3-0-0)

Focuses on the human relations component of an early childhood professional's responsibilities. Includes director-staff relationships, staff development, leadership strategies, parent-professional partnerships, and community interaction.

ECE 260 EXCEPTIONAL CHILD/3(3-0-0)

Presents an overview of typical and atypical developmental progression. Includes planning techniques, learning strategies, legal requirements and accommodations and adaptations that are necessary in order to create an integrated classroom environment for a child with a wide range of exceptionalities. Focuses on ages birth through age 8.

ECE 285 INDEPENDENT STUDY/1-3

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

ECE 288 PRACTICUM: EARLY CHILDHOOD EDUCATION/0.5-7

Provides students with advanced field experience opportunities in early childhood education programs.

ECONOMICS

ECO 201 PRINCIPLES OF MACROECONOMICS/3(3-0-0)

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

theory, the Federal Reserve System, money and banking, and international trade.

This course is one of the Statewide Guaranteed Transfer courses (SG-SS1).

ECO 202 PRINCIPLES OF MICROECONOMICS/3(3-0-0)

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

This course is one of the Statewide Guaranteed Transfer courses (GT-SS1).

ECO 245 ENVIRONMENTAL ECONOMICS/3(3-0-0)

Introduces students to contemporary environmental issues and policies meant to reduce environmental degradation. Includes market failures, analytical tools, government pollution reduction policies for air, water, and natural environments and their effectiveness.

This course is one of the Statewide Guaranteed Transfer courses (GT-SS1).

EDUCATION

EDU 114 STUDENT BEHAVIOR MANAGEMENT FOR PARAEDUCATORS/3(3-0-0)

Provides students knowledge in the areas of behavior modification; teaching appropriate behaviors; contingency contracts; observing and recording behavior; lunchroom supervision; and playground supervision.

EDU 141 BASIC INSTRUCTIONAL TECHNIQUES FOR PARAEDUCATORS/3(3-0-0)

Provides students with knowledge in the areas of delivering instruction; grouping students; reading with students; modifying instructional materials; using technology; and utilizing adaptive equipment.

EDU 221 INTRODUCTION TO EDUCATION/3(3-0-0)

Prerequisite: College level reading and writing as demonstrated on college level placement scores.

Corequisite: Field-Experience component, if not embedded in the class.

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

EDU 240 TEACHING THE EXCEPTIONAL LEARNER/3(3-0-0)

Focuses on the individual differences and modifications that are necessary in the educational practices of the exceptional learner. Incorporates an additional 10-hour 0-credit, pre-professional, supervised, field based experience. Together with this experience, a portfolio and field experience reflective journal is required of all students.

ELECTRICITY INDUSTRIAL/COMMERCIAL**EIC 100 ELECTRICAL CONSTRUCTION AND PLANNING/4(4-0-0)**

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 104 BASICS OF INDUSTRIAL ELECTRICITY/1.5(1.5-0-0)

Focuses on resistance, current, voltage and power in AC and DC circuits; measurements; computations of series and parallel circuits; circuit analysis; and troubleshooting with basic test equipment.

EIC 105 Basics Of AC & DC Electricity/4(4-0-0)

Focuses on resistance, current, voltage and power in AC and DC circuits; measurements; computations of series and parallel circuits; circuit analysis and troubleshooting with basic test equipment.

EIC 110 ELECTRICAL INSTALLATIONS I/4(4-0-0)

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 132 NATIONAL ELECTRIC CODE 2005/1.5(1.5-0-0)

Focuses on the National Electrical Code and local code requirements for electrical installation.

EIC 144 GROUNDING AND BONDING/1.5(1.5-0-0)

Prepares the student in the latest technology and techniques available for code and standards-compliant grounding and bonding systems. Focuses on grounding and bonding requirements as they relate to Article 250 and other articles of the NEC. Covers installation, testing and inspection procedures for II power systems. Includes rules to minimize the risk of electricity as a source of electric shock, and as an ignition source for fires.

EIC 150 DC CIRCUIT FUNDAMENTALS/4(4-0-0)

Covers the principles of DC electricity and magnetism with emphasis on Ohm's, Kirchoff's and Watt's laws to analyze circuits voltage current and power. Addresses common measuring instruments and safety.

EIC 155 AC CIRCUIT FUNDAMENTALS/4(4-0-0)

Covers the principles of AC electricity, magnetism, inductive and capacitive circuits; use of phasors to represent AC quantities; the concept of reactive volt-amperes and power factor; and use of instruments, including VOM's and oscilloscopes. Explores the principles of polyphase alternating current systems, Wye and Delta circuit configurations, and safety procedures.

EIC 160 ELECTRICAL INSTRUMENTS AND MEASUREMENTS/4(4-0-0)

Covers the proper techniques for using electrical instruments, including volt/ohm, amp, phase rotation, oscilloscopes and recording meters. Focuses on instrument transformers for journeymen and in-plant electricians.

EIC 165 SOLID STATE DEVICES AND CIRCUITS/4(4-0-0)

Explores the basic properties of diodes, transistors, triacs, SCRs and other solid state devices. Covers applications of solid state devices in control and power conversion and the circuits in equipment likely to be encountered in power installations.

EIC 167 ELECTRICAL MAINTENANCE/4(4-0-0)

Introduces students to common electrical repairs, electrical systems, tools and test equipment. Includes replacing or repairing devices such as receptacles, light fixtures and ballasts, circuit breakers, fuses and switches. Addresses electrical safety and code applications.

EIC 169 ELECTRICAL CODE CALCULATIONS/4(4-0-0)

Discusses calculations used in the application of the National Electrical Code. Emphasizes sizing of branch circuit and feeder conductors and calculating ratings of protective devices.

EIC 220 INDUSTRIAL ELECTRICAL CONTROLS I/4(4-0-0)

Studies the application of electrical and electromechanical sensing/control devices; heating, ventilating and air conditioning applications; motor control, conveyor drives and other industrial applications. Students design control systems to meet assigned conditions, use principles of relay logic to prepare correct ladder diagrams and wire up, test and trouble-shoot their systems in the laboratory. The course stresses accuracy, safety and National Electric Code requirements.

EIC 224 UNDERSTANDING PLC's/1.5(1.5-0-0)

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 225 PROGRAMMABLE CONTROLLERS/4(4-0-0)

Studies the use of solid-state control equipment, primarily the programmable controller and associated solid-state sensors to control equipment, machinery or complete processes. Includes concepts of solid-state logic, characteristics of solid-state sensors; conversions of relay logic control systems to programmable control systems; and microprocessor-based systems and remote control of processes. Enables the student to design, implement and test control systems in the laboratory to meet specifically-assigned control problems. Emphasizes accuracy, safety and National Electrical Code requirements.

EIC 227 MECHANICAL DRIVES/1.5(1.5-0-0)

Covers the basics of mechanical drives including chain drives, belt drives, bushings, couplings, gear drives, bearings, and lubrication. Includes power transmission physics, shafts, keyways and keyseats, prime movers, gearing, chain drives, belt drives, bushing couplings, bearings, lubrication, clutches, brakes and torque limiters, mechanical variable speed drives.

EMERGENCY MEDICAL SERVICES

EMS 115 FIRST RESPONDER/3

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

EMS 116 FIRST RESPONDER REFRESHER/2

Prerequisite: Current First Responder Certification, and CPR card.

Provides the First Responder student with needed updates and review materials to renew and maintain the First Responder certificate.

EMS 125 EMT BASIC/9

Co-requisite: EMS 170.

Enables the student after successful completion of this course to take the EMT Certification Examination subject to the requirements of the Colorado Department of Health and Environment. Includes written and practical examinations. Student must be at least 18 years of age.

EMS 126 EMT BASIC REFRESHER/3

Prerequisite: Current CPR card, current or less than 36 months expired EMT Basic certification.

Provides required didactic and skills review for renewing EMT students. Accommodates the needs of the re-entry EMT student.

EMS 130 EMT INTRAVENOUS THERAPY/2

Prerequisite: Current EMT Basic certification, or proper licensure.

Focuses on cognitive and skill practice as required by Colorado Pre-hospital Care program for EMT Basic level IV approval. Examines criteria, procedures and techniques for ICV therapy, discusses fluid and electrolyte balance and principles and treatment for shock.

EMS 150 PEDIATRIC EDUCATION FOR PREHOSPITAL PROFESSIONALS/1

Prerequisite: EMT-Basic or approval from Program Coordinator. Provides the student with core knowledge and skills necessary to provide emergency care to the pediatric patient.

EMS 170 EMT BASIC CLINICAL/1

Co-requisite: EMS 125 or EMS 126, depending on student status.

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

EMS 203 EMT INTERMEDIATE I/6

Prerequisite: Valid EMT-Basic, HEP B vaccination, Current CPR cards, high school grad or GED, CPT 80, Math.

Course provides preparatory information and is the first part of the EMT Intermediate program.

EMS 205 EMT-INTERMEDIATE II/6

Prerequisite: EMT Intermediate I.

Serves as the second course for EMT Intermediate certification.

EMS 206 EMT INTERMEDIATE REFRESHER/3

Prerequisite: Current EMT I certificate, or less than 36 months expired.

Meets or exceeds minimum requirements for renewing EMT Intermediate or EMT Intermediates in the re-entry program.

EMS 213 PREHOSPITAL TRAUMA LIFE SUPPORT/1

Prerequisite: EMT Basic or higher.

Provides basic and/or advanced trauma life support information and skill practice.

EMS 214 BASIC TRAUMA LIFE SUPPORT/1

Prerequisite: EMT Basic or higher.

Provides students with information and skill practice to treat trauma patients in the pre-hospital environment.

EMS 270 CLINICAL: EMT INTERMEDIATE/3

Prerequisite: EMS 203 and 205.

Co-requisite: EMS 205 as needed.

Provides the EMT-I student with the required field experiences as required by the Colorado Department of Health.

ENERGY TECHNOLOGY

ENY 101 INTRODUCTION OF ENERGY TECHNOLOGIES/3(3-0-0)

Introduces the energy technologies in use today and those that are in the research stage as possible alternatives. Presents technologies including active solar heating, passive solar heating, wind energy systems, biomass, photovoltaics, co-generation, low and high head hydro, hydrogen, geothermal, power towers and energy storage systems.

ENY 205 GREEN AND SUSTAINABLE BUILDINGS/4(3-0-0)

Allows students to understand sustainable design including building design, Leadership in Energy and Environmental Design (LEED) certification and building auditing. Topics include green building, passive thermal architecture, super installation, tight envelopes, renewable energy sources for heating, cooling and electrical power.

ENY 235 ENERGY SYSTEMS DESIGN/3(3-0-0)

Integration of energy system functions in a typical building including : codes and standards ; energy economics ; electrical system organization ; waste heat recovery ; utility system optimization ; HVAC building system optimization.

ENGINEERING

EGG 101 ENGINEERING GRAPHICS I/3(3-0-0)

Prerequisites: MAT 090, ENG 090

Provides an application of engineering graphics as a communication form and a tool to solve three-dimensional design problems. Topics include: Orthographic, axonometric, and isometric projections, sections and auxiliary views, the geometry of lines, planes, and curved surfaces. This course is an introduction to PC-based, menu driven, 3D Computer Aided Design Systems, Spreadsheets, and Freehand Drawing.

EGG 230 THERMODYNAMICS/3(3-0-0)

Explores fundamental concepts and basic theory, including first and second laws of thermodynamics, properties, states, thermodynamic functions, cycles, mixtures, and chemical and phase equilibrium.

EGG 260 ENGINEERING SURVEYING I/5(5-0-0)

Prerequisites: MAT 090, ENG 090

Focuses on plane surveying including pacing, chaining, horizontal and vertical distances, care and use of engineering levels, transits and theodolites. Emphasizes the proper survey note procedures, and surveying terminology. Covers various procedures in the calculation of bearings, azimuths and slope reduction.

EGG 261 ENGINEERING SURVEYING II/5(5-0-0)

Prerequisite: 260

Introduces land surveying including legal terminology, riparian rights, legal descriptions, common law, statutory law, and the public land survey system. Addresses construction surveying including note keeping, construction etiquette, building layout, slope staking, and horizontal and vertical curves. Covers topographic surveying, x, y, z coordinates using total stations, and data collection.

ENGINEERING TECHNOLOGY**ENT 106 PRINT READING FOR MANUFACTURING/3(3-0-0)**

Focuses on blueprint reading techniques related to manufacturing operations. Covers basic drafting standards, sketching, machine shop math, symbol interpretation, tolerancing, and dimensioning standards.

ENT 135 CONSTRUCTION PLANNING AND ESTIMATING/2(2-0-0)

Prerequisites: MAT 090, ENG 090

Provides students with a basic knowledge of the construction planning and estimating process. Includes estimating documentation, spreadsheets, monitoring, and control of construction costs.

ENT 210 SOIL MECHANICS/2(2-0-0)

Prerequisites: MAT 090, ENG 090

Emphasizes basic principles of soil mechanics and proper testing procedures as they relate to construction.

ENT 245 CONCRETE AND ASPHALT TECHNOLOGY/3(3-0-0)

Prerequisite: AEC 141

Focuses on the study of Portland cement concrete and bituminous pavements. Covers manufacturing, mix design, and placement of these materials.

ENT 247 STRENGTH OF MATERIALS/3(3-0-0)

Prerequisite: TEC 235

Serves as an extension of Statics and includes the study of mechanical properties of materials and their limitations in engineering design by the study of stresses, strains, torsion forces, shear forces, and deflections placed upon these materials.

ENT 250 WATER & WASTEWATER TREATMENT/(2-0-0)

Focuses on the study of the operation of water and wastewater facilities.

ENT 270 TECHNICAL EXPERIENCE/3(3-0-0)

Incorporates professional work experience directly related to the area of training.

ENGLISH**ENG 030 BASIC WRITING SKILLS/2(2-0-0)**

Prerequisite: Writing Assessment

Focuses on sentence and basic paragraph structure and development. Enables the student to review and improve grammar, usage, and punctuation skills while employing critical thinking strategies and the writing process to respond to a wide variety of writing situations.

ENG 060 WRITING FUNDAMENTALS/3(3-0-0)

Prerequisite: Writing Assessment

Focuses on paragraph structure and development and introduces the formal essay. Enables the student to review and improve grammar, usage, and punctuation skills while employing critical thinking strategies and the writing process to respond to a wide variety of writing situations.

ENG 090: BASIC COMPOSITION/3(3-0-0)

Prerequisite: Writing Assessment

Emphasizes critical thinking as students explore writing for specific purposes and audiences. Enables the student to develop skills required for college-level writing while reviewing paragraph structure and focusing on essay development.

ENG 121 ENGLISH COMPOSITION I/3(3-0-0)

Prerequisite: Writing Assessment

Emphasizes the planning, writing, and revising of compositions, including the development of critical and logical thinking skills. This course includes a minimum of five compositions that stress analytical, evaluative, and persuasive/argumentative writing. *This course is one of the Statewide Guaranteed Transfer courses (GT-CO1).*

ENG 122 ENGLISH COMPOSITION II/3(3-0-0)

Prerequisite: Successful completion of ENG 121.

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative, and/or persuasive papers that incorporate research. *This course is one of the Statewide Guaranteed Transfer courses (GT-CO1).*

ENG 131 TECHNICAL WRITING I/3(3-0-0)

Prerequisite: Writing assessment or 'C' or better in ENG 100

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing, and revising clear, readable documents for industry, business, and government.

ENG 221 CREATIVE WRITING I/3(3-0-0)

Prerequisite: Eng 121 or instructor's permission.

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

ENVIRONMENTAL SCIENCE**ENV 101 INTRODUCTION TO ENVIRONMENTAL SCIENCE/4(4-0-0)**

Introduces the student to the basic concepts of ecology and the relationship between environmental problems and biological systems. Includes discussions on biology, chemistry, geology, energy, natural resources, pollution and environmental protection.

EQUINE MANAGEMENT**EQM 101 STABLE OPERATIONS I/1(1-0-0)**

Focuses on the routine daily care, grooming, feeding, stable sanitation, daily health, and feed records of horses.

EQM 102 STABLE OPERATIONS II/1(1-0-0)

Builds on EQM 101 and continues focus on the routine daily care, grooming, feeding, stable sanitation, daily health, and feed records of horses.

EQM 151 HORSE PRODUCTION/4(4-0-0)

Focuses on the external anatomy, and internal anatomy and physiology including skeleton, joints, muscles, digestive system, urinary-excretory system, respiratory system, circulatory system, nervous system, skin and hair. Covers the elements of conditioning these systems for various levels of training.

EQM 158 EQUINE REPRODUCTION/2(2-0-0)

Introduces horse reproduction and the various breeding and management practices found on breeding farms. Covers physiology of the mare and stallion reproductive systems, care of the stallion and the mare, mare heat detection, breeding, care of pregnant mares, foaling, problems in the foal, and care of the foal and yearling.

EQM 251 EQUINE MANAGEMENT/3(3-0-0)

Covers practical aspects of horse and stable management, feeds and nutrition, diseases and wounds, unsoundness and blemishes, castration, immunization, worming, health care, care of feet and legs, organizing stable routine and activities, stable records and stable construction. Focuses on marketing methods and promotional advertising methods for stables, trainers and horses.

EQUINE TRAINING**EQT 200 FUNDAMENTALS OF RIDING INSTRUCTION/3(3-0-0)**

Develops the basic skills needed to become effective teachers of riding. Through classroom and arena assignments, students have the opportunity to gain confidence, learn methods of organization, develop lesson plans and practice teaching techniques. Students learn techniques in teaching basic skills for western horsemanship.

EQT 253 APPLIED HORSEMANSHIP/5(5-0-0)

Provides the student intermediate to advanced horsemanship and maneuvers, with emphasis on individual work.

ESTHETICIAN

Student must be 16 years of age and have appropriate Accuplacer scores.

EST 101 INTRODUCTION TO STERILIZATION, SANITATION & SAFETY/2(2-0-0)

Introduces the various methods of sterilization, sanitation and safety as used today in the industry. Classroom study of bacteriology and the terminology dealing with sterilization and sanitation.

EST 105 INTRODUCTION TO ELECTRICITY, CHEMISTRY & LIGHT THERAPY/4(4-0-0)

Introduces the various forms of electricity as related to estheticians. Chemistry as related to theory, products and knowledge. Light therapy theory and practical application as used in the industry.

EST 106 INTRODUCTION TO MASSAGE, SKIN CARE & MAKEUP/3(1-4-0)

Provides a basic understanding of massage manipulations and the study of skin in both theory and practical applications. Benefits derived from proper massage and a good skin care routine. Training is conducted in a classroom or lab setting using mannequins or models.

EST 110 Introduction to Facials and Skin Care/3(3-0-0)

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(1-2-0)

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 151 INTERMEDIATE STERILIZATION, SANITATION & SAFETY/1(0-0-3)

Prerequisite: EST 101; Presents theory and the daily utilization and practice of the proper methods of sterilization, sanitation and safety. Procedures as related to all phases of the industry. Training is provided in a supervised (clinical) setting.

EST 155 INTERMEDIATE ELECTRICITY, CHEMISTRY & LIGHT THERAPY/4(2-4-0)

Prerequisite: EST 105

Covers the study of Electricity, Chemistry and Light Therapy in theory and practical applications. To enable students to analyze and improve the condition of the skin using safe and proper procedures.

EST 156 INTERMEDIATE MASSAGE, SKIN CARE & MAKEUP/3(1-0-6)

Prerequisite: EST 106

Covers theory and practical application pertaining to anatomy, skin disorders, skin types and facial shapes. Students help patrons select proper skin care treatment and make-up. Practical and theory application can be done in specialized classes or supervised salon (clinical) setting using models or customer service.

EST 201 ADVANCED STERILIZATION, SANITATION & SAFETY/1(0-0-3)

Prerequisite: EST 151

Provides advanced training on sterilization, sanitation and safety is incorporated in a supervised salon (clinical) setting. Advanced techniques will ready the student for employment. Student preparation for the State Board Licensing Examination in theory and practical procedures for sterilization, sanitation and safety.

EST 205 ADVANCED ELECTRICITY, CHEMISTRY & LIGHT THERAPY/4(0-0-12)

Prerequisite: EST 155

Provides advanced training in Electricity, Chemistry and Light Therapy is incorporated in a supervised salon (clinical) setting. Advanced techniques will ready the student for employment. Students will prepare for State Board Licensing Examination pertaining to above areas.

EST 206 ADVANCED MASSAGE, SKIN CARE & MAKEUP/3(0-0-9)

Prerequisite: EST 156

Provides the student with advanced techniques in massage, skin care, make-up, lash-brow tinting and waxing. Theory and practical procedures ready the student for employment. Instruction is provided in specialized classes or in a supervised salon (clinical) setting. Student preparation for State Board Licensing Examination.

EST 210 Advanced Massage & Skin Care/2(1-2-0)

Provides the student with advanced techniques in massage, skin care, and lash/brow tinting. Theory and practical procedures ready the student for employment. Instruction is provided in specialized classes or in a supervised salon (clinical) setting. Student preparation for State Board Licensing Examination.

EST 211 Facial Make-up/1(1-0-0)

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(3-0-0)

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 ESTHETICIAN PREPARATION FOR STATE BOARDS/1(0-2-0)

Provides preparation for State Boards allows the student the opportunity to gain knowledge in the practical examination required by the Colorado Board of Barber/Cosmetology.

EST 275 Special Topics/0-12

Provides students with a vehicle to pursue in depth exploration of special topics of interest.

EST 278 ADVANCED ESTHETICIAN STUDIES/0-12

Student must have 550 contact hours in a state-approved esthetician program.

Allows advanced training in all course areas and allows student training for State Board of Cosmetology Licensing Examination. Hours will be arranged and credits will vary.

EST 280 INTERNSHIP/0-12

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 instruction.

EST 285 Independent Study/0-12

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

EST 288 ESTHETICIAN PRACTICUM/0-12

Prerequisite: EST 201, EST 205, EST 206;

Allows students to continue their practice in the following courses: Sterilization, Sanitation, Safety, Electricity, Chemistry, Light Therapy, Massage, Skin Care, Make-up, and Salon Management.

EST 290 Professional Development/Continuing Education/0-12

Provides students with a vehicle to pursue indepth exploration of special topics of interest.

FINANCE

FIN 101 Introduction to Finance/3(3-0-0)

Provides an in-depth study of the US monetary system, the role of banks as financial intermediaries, and the types of financing. Includes international financial markets and international financial instruments used in importing and exporting, analysis of stock and bond values, the role and process of the stock and bond markets and the derivative marketplace. Enables the student to produce a cash budget, analyze financial statements including all financial ratios used in credit analysis, and determine capital requirements and financing arrangements.

FIN 105 Principles of Banking/3(3-0-0)

Explores nearly every aspect of banking as a solid foundation for any career in the financial services industry. Just as the industry is constantly changing, this course is continually being revised to provide specific up-to-date information.

FIN 201 PRINCIPLES OF FINANCE/3(3-0-0)

Provides factual knowledge of financial institutions and the monetary system used in the United States in relationship to the global economy. Examines tools and techniques such as capital budgeting, time value of money, analysis of financial statements, cost of capital, and risk analysis to analyze business decisions, plan and determine project and firm value, and evaluate sources of financing.

FIN 226 Money and Banking/3(3-0-0)

Presents a fundamental treatment of how money functions in the U.S. and world economies. Includes the concept of money supply, the Federal Reserve System, the role banks play as a money creator and participant in the nation's payment mechanism. Examines how the various types of financial institutions operate, the working of monetary and fiscal policies, and the role of a Central Bank and International Banking.

FIN 240 Law and Banking Principles/3(3-0-0)

Serves as a banker's guide to law and legal issues with special emphasis on the Uniform Commercial Code. Examines sources and applications of banking law, contracts, bankruptcy, torts and crimes, real and personal property, and the legal implications of consumer lending.

FIN 285 Independent Study/0-12

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

FRENCH

FRE 111 FRENCH LANGUAGE I/5(3-4-0)

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading and writing the French language.

FRE 112 FRENCH LANGUAGE II/5(3-4-0)

Prerequisite: FRE 111 or instructor permission.
Continues French I in the development of functional proficiency in listening, speaking, reading and writing the French language.

FRE 211 FRENCH LANGUAGE III/3(2-2-0)

Prerequisite: FRE 112 or instructor permission.
Continues French I and II in the development of increased functional proficiency in listening, speaking, reading and writing the French language. Note: The order of the topics and the methodology will vary according to individual texts and instructors. *This course is one of the Statewide Guaranteed Transfer courses (GT-AH4).*

FRE 212 FRENCH LANGUAGE IV/3(2-2-0)

Prerequisite: FRE 211 or instructor permission.
Continues French I, II and III in the development of increased functional proficiency in listening, speaking, reading and writing the French language. Note: The order of the topics and the methodology will vary according to individual texts and instructors. *This course is one of the Statewide Guaranteed Transfer courses (GT-AH4).*

FIRE SCIENCE TECHNOLOGY

FST 100 FIREFIGHTER I/9(5-8-0)

Addresses the requirements necessary to perform at the first level of progression as identified in National Fire Protection Association (NFPA) 1001, Firefighter Professional Qualifications. This is a lecture and lab course for meeting the NFPA 1001, level I, standard using IFSTA Essentials.

FST 102 INTRODUCTION TO FIRE SCIENCE AND SUPPRESSION/3(3-0-0)

Introduces the fire service organization and operation from past to present operations. Includes operation and organization of federal, state, local and private protection forces. Emphasizes extinguishing methods and equipment, special extinguishing agents, and special hazard considerations. Serves as a prerequisite for students having no previous fire suppression training or experience.

FST 107 HAZARDOUS MATERIALS OPERATIONS (LEVEL I)/3(3-0-0)

Introduces hazardous materials incidents, recognizing and identifying hazardous materials, planning response, implementing response procedures, decision making, and continued evaluation at the awareness and operation level.

FST 150 INTRODUCTION TO FIRE PREVENTION EDUCATION/3(3-0-0)

Focuses on conducting prevention and education needs assessment, targeting audiences; development and delivery of prevention and education programs. Includes methods of conducting fire prevention and safety inspections.

FST 152 WILDLAND FIREFIGHTING/3(3-0-0)

Introduces a basic understanding of wildland fire and the strategies and tactics involved during suppression operations. Includes fire line safety, emphasizing the wildland fire orders and watch out situations. Students receive training qualifying them as Certified Wildland Firefighters under the Incident Command System, recognized by the National Wildfire Coordinating Group. Covers fire behavior, fire weather, fuel types, safety equipment and guidelines, incident size up, determining resource needs, aircraft identification and capabilities, direct vs. indirect attack, burn-out, backfiring and map reading.

FST 260 INTERMEDIATE FIRE BEHAVIOR/2(2-0-0)

Analyzes the effects of fuels, weather, topography and fire behavior on the wildland fire environment. Acquaints prospective fire line supervisors in wildland fire behavior for effective and safe fire management operations

GENERAL EQUIVALENCY DIPLOMA

GED 010 PRE-GED PREPARATION/1-12

Presents material for the student who needs review before doing GED preparation. Diagnostic tests determine skill level; help is available in writing skills, reading, and math.

GED 011 GED PREPARATION/1-12

Prerequisite: A minimum score of 35 on individual GED Pre-tests or GED 010.

Presents material for students who need to prepare for the GED tests: Language Arts, Writing; Language Arts, Reading; Mathematics; Science; and Social Studies.

GEOGRAPHY

GEO 105 WORLD REGIONAL GEOGRAPHY/3(3-0-0)

Facilitates an understanding of spatial relationships between and among the geographic regions of the world. Includes demographic and cultural (political, economic, and historic) forces related to the physical environments of selected regions. Focuses on analysis of interrelationships between developed and developing regions, and the interactions between human societies and natural environments.

This course is one of the Statewide Guaranteed Transfer courses (GT-SS2).

GEO 106 HUMAN GEOGRAPHY/3(3-0-0)

Introduces geographic perspectives and methods with applications to the study of human activities. Emphasizes the distribution of humans, adjustments to the natural environment, and land use practices.

This course is one of the Statewide Guaranteed Transfer courses (GT-SS2).

GEOLOGY

GEY 111 PHYSICAL GEOLOGY/4(3-2-0)

Studies the materials of the earth, its structure, surface features and the geologic processes involved in its development. This course includes laboratory experience.

This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).

GEY 121 HISTORICAL GEOLOGY/4(3-2-0)

Prerequisite: GEY 111 or permission of instructor.

Studies the physical and biological development of the earth through the vast span of geologic time. Emphasizes the investigation and interpretation of sedimentary rocks, the record of ancient environments, fossil life forms, and physical events, all within the framework of shifting crystal plates. Course includes laboratory experience. *This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).*

GEY 208 GEOLOGY FIELD TRIP/3

Prerequisite: Permission of instructor.

Involves in-depth field studies into the geology of specific regions both within and outside Colorado. Trips lasting from one to several days length to study the area constitute the major activity of the course. The specific area of investigation is indicated in the schedule of classes each time the course is offered.

GEOGRAPHIC INFORMATION SYSTEMS

GIS 101 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS/3(3-0-0)

Prerequisite: Successful completion of GIS 110.

Surveys the development and operation of automated geographic information systems. Focuses on the fundamentals of using computers to draw maps. Incorporates study of cartographic fundamentals such as map projections, map scales, selective display of data on maps, and various computer software applications in GIS.

GIS 105 ARCVIEW GIS/3(3-0-0)

Introduces the fundamentals of GIS including cartographic principles, hardware, and software requirements, raster, and vector data structures, and data sources, accuracy, and acquisition, spatial data databases and spatial analysis. Hands-on experience with vector data utilizing ArcView software includes use of map scales, coordinate systems, determining spatial relationships, map features and attributes, map overlays, and basic operations with databases. Student will learn to create charts and graphs and full map layouts. A final project is required.

GIS 110 INTRODUCTION TO CARTOGRAPHY/ 3(3-0-0)

Examines a broad range of map types, emphasizing maps as a communication system with both symbology and specific organizational hierarchies. Discussion and demonstration focuses on essential cartographic principles and practices used for designing maps, with emphasis on cartographic protocol resulting in the effective communication of both qualitative and quantitative information.

GIS 131 GLOBAL POSITIONING SYSTEMS FOR GEOGRAPHIC INFORMATION SYSTEMS/3(2-2-0)

Prerequisite: Successful completion of GIS 105

Introduces the terminology, hardware, and technological principles of GPS. Students will receive an introduction in the fundamentals of using a basic hand-held GPS unit. Data will be integrated with pre-existing spatial data. Fundamentals of mapping and map reading will be covered. Garmin GPS units will be used initially, followed with Trimble GeoExplorers and Pathfinder Office software. Final student projects integrate GPS data within ArcView projects.

GIS 180 INTERNSHIP/0.5-6

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.

GIS 205 GIS APPLICATIONS/3(3-0-0)

Prerequisite: Successful completion of GIS 105.

Presents a sequel to GIS 105 with a deeper look at the principles of GIS, including both raster and vector data structures, data conversion, map algebra, spatial analysis, modeling, and networks. Various ways that GIS is currently being used in science, business, and government will also be presented. ArcView Network Analyst, Spatial Analyst, and 3D Analyst software will be utilized and a final project is required.

GIS 211 SPATIAL DATA MODELING AND ANALYSIS/ 4(4-0-0)

Introduces the student to a variety of techniques for modeling and analyzing spatial data in a GIS. Includes network analysis, TINs, raster grids, pattern analysis, and time series mapping.

GIS 280 INTERNSHIP/0.5-6

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.

HISTORY

HIS 101 HISTORY OF WESTERN CIVILIZATION I/ 3(3-0-0)

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

HIS 102 HISTORY OF WESTERN CIVILIZATION II/ 3(3-0-0)

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

HIS 111 WORLD CIVILIZATIONS I/3(3-0-0)

Enables the student to view history up to 1500 CE in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders, to provide a better appreciation for different cultures. *This course is one of the Statewide Guaranteed Transfer courses(GT-HI1).*

HIS 112 WORLD CIVILIZATIONS II/3(3-0-0)

Enables students to view history post 1500 CE in a broad global sense. Focuses on the common denominators among all people. This approach goes beyond political borders to provide a better appreciation for different cultures. *This course is one of the Statewide Guaranteed Transfer courses (GT-HI1).*

HIS 201 U.S. HISTORY I/3(3-0-0)

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

This course is one of the Statewide Guaranteed Transfer courses (GT-HI1).

HIS 202 U.S. HISTORY II/3(3-0-0)

Explores events, trends, peoples, groups, cultures, ideas, and institutions in United States History, including the multiple perspectives of gender, class, and ethnicity, between the period of the American Civil War and the present. Focuses on developing, practicing, and strengthening the skills historians use while constructing knowledge in the discipline.

This course is one of the Statewide Guaranteed Transfer courses (GT-HI1).

HIS 225 COLORADO HISTORY/3(3-0-0)

Presents the story of the people, society, and cultures of Colorado from its earliest Native Americans, through the Spanish influx, the explorers, the fur traders and mountain men, the gold rush, railroad builders, the cattlemen and farmers, the silver boom, the tourists, and the modern state.

HIS 235 HISTORY OF THE AMERICAN WEST/3(3-0-0)

Traces the history of the American West, from the Native American cultures and the frontier experiences of America's earliest, eastern settlers, through the Trans-Mississippi West, across the great exploratory and wagon trails, and up to the present West, be it urban, ranching, reservation, resource management, or industrial. Emphasizes the north and central parts of the West.

HIS 247 CONTEMPORARY WORLD HISTORY/3(3-0-0)

Investigates the major political, social, and economic developments, international relationships, scientific breakthroughs, and cultural trends that have shaped the various global regions and nation-states from 1900 to the present. Emphasizes the interactions of global regions and nation-states. *This course is one of the Statewide Guaranteed Transfer courses (GT-HI1).*

HOLISTIC HEALTH PROFESSIONAL**HHP 100 COMPLEMENTARY HEALING METHODS/1(1-0-0)**

Explores some of the more widely used alternative/ complimentary healing methods. Expands the student's health horizons and enables the student to converse in a knowledgeable manner with patients and practitioners.

HHP 111 HERBOLOGY I/1(1-0-0)

Explores the pharmacokinetics and composition of herbs and their effect on the body systems. Focuses on the habitat, harvesting, storage and usage of a select group of herbs. The use of herbs in health maintenance and the healing of disease predates written history. Herbs have been found by archeologists in Paleolithic burials and throughout literature on the ancient Chinese and Egyptians verified by modern scientific research.

HHP 166 INTRODUCTION TO REFLEXOLOGY/1(1-0-0)

Teaches the student foot anatomy, basic hand stroke and foot reflex points.

HHP 202 AROMATHERAPY/0.5 (0.5-0-0)

While much ancient wisdom on the use of essential oils in health maintenance and the healing of disease has been lost, some tantalizing data from the ancient Egyptians exists and has been verified by modern scientific research. Explores the pharmacokinetics and neurophysiology of essential oils, looking into their origins, extraction, storage, and usage. Enables the student to observe a large number of essential oil remedies and their applications.

HEALTH PROFESSIONAL**HPR 102 CPR FOR PROFESSIONALS: (LIST CERTIFICATION)/0.5**

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

HPR 103 CPR FOR PROFESSIONALS RENEWAL/0.5

Prerequisite: Current healthcare provider CPR card. Provides opportunity for currently certified CPR providers to renew certificates.

HPR 108 DIETARY NUTRITION/1(1-0-0)

Studies the basic principles in clinical practice involved in the assistance of health care. The course will cover factors which influence the nutritional status of individuals, methods of nutritional assessment and support, and diet modification for specific disease states.

HPR 120 ACLS/1(1-0-0)

Prerequisite: Current basic life support health care provider C certification.

Presents the required material for ACLS completion. It will cover arrhythmias, medications, therapeutic modalities for life threatening arrhythmias, airway management, and other treatment modalities used in cardiac and respiratory arrest.

HPR 121 ACLS RECERTIFICATION/.5(.5-0-0)

Prerequisite: ACLS completion with current card. Presents the required material for ACLS recertification. It will cover rhythm recognition, cardiac drugs, cardiac monitors, and case based scenarios.

HPR 130 PEDIATRIC ADVANCED LIFE SUPPORT/1

Prerequisite: Current CPR card—must include child and infant CPR. Provides students the needed information and skills as required be health care agencies for pediatric emergencies.

HPR 155 INTRODUCTION TO HOME HEALTH NURSING CARE/3(3-0-0)

Introduces home health nursing from the standpoint of services provided by these agencies. Funding for home health care, community support services, role of the nurse and family, as well as documentation will be explored.

HPR 175 Introduction to the Dental Hygiene Profession/1(1-0-0)

An introduction to fundamental concepts and practices related to dentistry and dental hygiene in particular, and as they relate to other healthcare professions. Topics include professionalism, the history of dental hygiene, basic oral anatomy, and the dental specialties. Two hours of observation in CNCC's Dental Hygiene clinic will be required. (This course is not required for entry into the Dental Hygiene Program, but is strongly recommended.)

HPR 178 SEMINAR: MEDICAL TERMINOLOGY/ 1-4

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.

HPR 175 National Boards Preparation/1(1-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program. Provides formal review sessions for second year dental hygiene students preparing to sit for the National Board Examination in March

HPR 180 PRE-DENTAL HYGIENE INTERNSHIP/2(0-0-6)

Provides students with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor.

HPR 190 BASIC EKG INTERPRETATION/2

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

HPR 217 KINESIOLOGY/4(3-2-0)

Prerequisite: BIO 201 or instructor permission. Focuses on mechanical principles of kinematics, kinetics, muscle physiology, and neurophysiology and the interaction to produce function. Joint and muscle structure and function with application is a main focus.

HORSE TRAINING MANAGEMENT

HTM 152 BASIC CARE AND TRAINING/7(7-0-0)

Provides each student with one horse to start and train in the following: show in halter; grooming properly; biting and driving; standing still while being saddled, bridled and mounted; working on the rail; taking proper leads; backing and loping circles, stopping, two-tracking; and opening gates. The students will also receive instruction in basic hoof care and proper stable management. This course will end with the student participating in the HTM Semester Horse Show.

HTM 155 FOAL TRAINING/1(1-0-0)

Provides each student with one or more weanlings to train in the following objectives; show at halter; load in trailer; and pick up all four feet. This course will last two weeks.

HTM 260 INTRODUCTION TO INTERNSHIP/1(1-0-0)

Acquaints students with employer/employee relations, public relations, and expectations of internship prior to leaving campus.

HTM 280 INTERNSHIP/5(5-0-0)

Provides each student with placement in the horse industry under a prominent person who specializes in the student's main area of interest for the spring semester. At the end of the semester, the student will return to campus for a seminar and analysis of the internship. Students must maintain a 2.5 GPA in HTM courses and 2.0 GPA in related courses to be placed on internship.

HUMANITIES

HUM 103 INTRODUCTION TO FILM ART/3(3-0-0)

Studies the relationships among film's stylistic systems, narrative systems and audience reception. Students view, discuss and critically analyze a variety of films which represent key historical and aesthetic periods as well as a variety of genres and themes. The course incorporates the vocabulary stylistic systems (for instance, cinematography, editing and art direction) and narrative systems (for instance, story structure and character motivation) as both relate to the kinds of meanings a film conveys.

HUM 121 HUMANITIES: EARLY CIVILIZATIONS I/3(3-0-0)

Introduces students to the history of ideas that have defined cultures through a study of the visual arts, literature, drama, music, and philosophy. It emphasizes connections among the arts, values, and diverse cultures, including European and non-European, from the Ancient world to 1000 C.E.

This course is one of the Statewide Guaranteed Transfer courses (GT-AH2).

HUM 122 OF HUMANITIES: MEDIEVAL - MODERN/3(3-0-0)

Examines written texts, visual arts and musical compositions to analyze and reflect the evolution and confluence of cultures in Europe, Asia and the Americas from 800 C.E. to 1750 C.E. Any two of the three Survey of Humanities courses equal a sequence. *This course is one of the Statewide Guaranteed Transfer courses (GT-AH2) .*

HUM 123 HUMANITIES: THE MODERN WORLD/3(3-0-0)

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

HUM 163 FILM CRITICISM/3(3-0-0)

Considers different approaches to film criticism, including the journalist, humanist, auteurist, genre, social science, historical, and ideological/theoretical approaches. Students will view and analyze films applying each of the critical approaches through class discussion and other assignments.

HEALTH AND WELLNESS

HWE 100 HUMAN NUTRITION/3(3-0-0)

Introduces basic principles of nutrition with emphasis on personal nutrition. Satisfies nutrition requirement of students entering health care professions.

HWE 103 COMMUNITY FIRST AID AND CPR/1

Uses demonstration videos, instructor led practice and work-book/textbook study to prepare for certification in Adult/Child/Infant CPR and Community First Aid.

HWE 104 CPR INSTRUCTOR COURSE/1

Prerequisite: Current HCP CPR card.
Provides information for the potential CPR instructor. Course requirements, renewal information and current content are discussed. Practice teaching is included in course.

HWE 105 CPR INSTRUCTOR RENEWAL/0.5

Prerequisite: Current CPR instructor card.
Provides update information and review of CPR skills for the CPR instructor.

HWE 111 HEALTH AND FITNESS/3(3-0-0)

Studies health and fitness in the U.S. today. The course will look at personal health issues, managing stress, nutrition and healthy life styles.

HWE 175 SPECIAL TOPICS/0.5-6

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

JOURNALISM**JOU 105 INTRODUCTION TO MASS MEDIA/3(3-0-0)**

Places the mass media in an historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy.(GT-SS3)

JOU 106 FUNDAMENTALS OF REPORTING/3(3-0-0)

Introduces news writing, reporting and interviewing with an emphasis on clarity, accuracy, completeness, timeliness and fairness.

JOU 175 SPECIAL TOPICS/0.5-6

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

JOU 180 JOURNALISM INTERNSHIP I/2(0-0-6)

Student reporters will compile information through interviews and research to write regular news, feature, opinion, and entertainment stories for the Spartan Times, CNCC's weekly student newspaper. Photographers will create media to complement reporter stories and convey information visually. Reporters and photographers will also help create and post timely information online. Regular training via workshops and guest speakers is required. See position job descriptions for additional duties.

JOU 206 INTERMEDIATE NEWSWRITING AND EDITING/3(3-0-0)

Prerequisite: Placement Level Eng 121, REA 090, and JOU 106. Presents how to gather information as an investigative reporter through research of local, state and federal government publications, how to cover police beat and city hall, how our courts and regulatory agencies function, and how to cover other challenges as the environment, religion, science, medical, public safety and business.

JOU 280 JOURNALISM INTERNSHIP II/3(0-0-9)

Core staff positions vary in their job responsibilities, though all are essential to producing the Spartan Times each week. The Business Manager takes care of advertising, billing, business contacts, and financial tracking. The Art Editor works with and trains photographers, as well as using graphic tools to create ads and edit photos. The Layout-Design Editor creates the issue's design each week using InDesign. The Editor-in-Chief edits incoming pieces, trains reporters, and oversees other core staff positions. A Web Maintenance/Design position may also be added in Fall 2009. All positions require regular meetings and training, as well as some reporting and photography as needed.

JOU 221 NEWSPAPER DESIGN I/3(3-0-0)

Prerequisite: Level placement scores ENG 121 and REA 090. Provides students with experience in news writing, editing, design, layout and advertising for newspaper production. Students may be required to work on the college newspaper or other news-oriented publications.

LITERATURE**LIT 115 INTRODUCTION TO LITERATURE/3(3-0-0)**

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

LIT 201 MASTERPIECES OF LITERATURE I/3(3-0-0)

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

LIT 202 MASTERPIECES OF LITERATURE II/3(3-0-0)

Examines significant writings in world literature from the seventeenth century to the present. Emphasizes careful reading and understanding of the works and their cultural backgrounds. *This course is one of the Statewide Guaranteed Transfer courses (GT-AH2).*

LIT 205 ETHNIC LITERATURE/3(3-0-0)

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

LIT 211 SURVEY OF AMERICAN LITERATURE I/3(3-0-0)

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

LIT 212 SURVEY OF AMERICAN LITERATURE II/3(3-0-0)

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

LIT 221 SURVEY OF BRITISH LITERATURE I/3(3-0-0)

Provides an overview of British literature from the Anglo-Saxon period through the 17th century. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers.

This course is one of the Statewide Guaranteed Transfer courses (GT-AH2).

LIT 222 SURVEY OF BRITISH LITERATURE II/3(3-0-0)

Provides is an overview of British literature from the 18th century to the present. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. *This course is one of the Statewide Guaranteed Transfer courses (GT-AH2).*

LIT 225 INTRODUCTION TO SHAKESPEARE/3(3-0-0)

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

LIT 245 LITERATURE OF THE AMERICAN WEST/3(3-0-0)

Examines works in various genres by writers of the American West. It investigates the dominant themes and social and historical backgrounds.

LIT 255 CHILDREN'S LITERATURE/3(3-0-0)

Evaluates the criteria for selecting appropriate literature for children through exploration of genres, age levels, values taught through literature, and the literary and artistic quality of various texts.

LIT 269 POPULAR LITERATURE AND CULTURE/3(3-0-0)

Explores special interests in literature, such as Detective Fiction and Science Fiction.

MANAGEMENT**MAN 102 BUSINESS ETHICS AND VALUES/1(1-0-0)**

Discusses behavior and identifies what is ethical and appropriate behavior and what is not. This course will identify the role of integrity, character, honesty, self-control, self-sacrifice, and core values in developing ethical and effective behavior in the workplace.

MAN 117 TIME MANAGEMENT/1(1-0-0)

Provides students with the conceptual knowledge and tools to make better use of their time in the management function.

MAN 212 NEGOTIATION AND CONFLICT RESOLUTION/3(3-0-0)

Presents proper techniques in negotiation and conflict resolution. Key practices that determine successful negotiation are explored. This course covers principles of conflict resolution including business policies, accepted business practices contracts, labor union contracts, pay raises and starting salaries.

MAN 216 SMALL BUSINESS MANAGEMENT/3(3-0-0)

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

MAN 226 PRINCIPLES OF MANAGEMENT/3(3-0-0)

Presents a survey of the principles of management. Emphasis is on the primary functions of planning, organizing, leading and controlling with a balance between the behavioral and operational approach.

MAN 287 COOPERATIVE EDUCATION/ INTERNSHIP/0.5-6

Prerequisite: MAN 226 or permission of instructor.

Provides students with the opportunity to supplement course work with practical work experience related to their educational program and occupational objectives. Students are placed at approved work stations which are related to their program of study. They work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor/coordinator.

MARKETING**MAR 111 PRINCIPLES OF SALES/3(3-0-0)**

Prerequisite: BUS 115

Enables the student to understand and develop ethical sales techniques and covers the role of selling in the marketing process. Areas of emphasis include behavioral considerations in the buying and selling process and sales techniques.

MAR 117 PRINCIPLES OF RETAILING/3(3-0-0)

Emphasizes the study of the basic principles and techniques of merchandising, operations, layout, store organization, site location, and customer service with an emphasis on retailing operations.

MAR 187 COOPERATIVE EDUCATION/ INTERNSHIP/0.5-6

Provides students with the opportunity to supplement course work with practical work experience related to their educational program and occupational objectives. Students are placed at approved work stations which are related to their program of study. They work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor/coordinator.

MAR 216 PRINCIPLES OF MARKETING/3(3-0-0)

Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to businesses and the individual consumer.

MAR 220 PRINCIPLES OF ADVERTISING/3(3-0-0)

Examines the principles and practices of advertising and its relationship to business in order to promote a business or organization. Areas of major emphasis include advertising principles, strategies, media, copy and layout, and ethical considerations.

MAR 278 SEMINAR/0.5-6

Provides students with an experiential learning opportunity.

MASSAGE THERAPY**MST 105 LIFESTYLE WELLNESS/2(0.5-3-0)**

Provides opportunity to learn and apply specific wellness principles to your individual lifestyle. Student completes self-analysis of health behaviors and how lifestyle affects health status.

MST 106 A&P FOR MASSAGE THERAPY/4(4-0-0)

Provides a general knowledge of the anatomy and physiology of the body systems with focus on the anatomy and physiology of the muscular and skeletal systems. This course is designed specifically for individuals specializing in massage therapy.

MST 111 BASIC MASSAGE THERAPY/4(2-4-0)

Introduces theory and techniques of therapeutic massage, including understanding of physiological benefits of massage as well as proper body mechanics and appropriate draping. Focuses on basic strokes of Swedish massage. Students also learn techniques of seated massage.

MST 113 PROFESSIONAL MASSAGE/3(1.5-3-0)

Continues the study of Integrative Therapeutic Massage techniques with emphasis on assessing and meeting client's needs. Students give massage in supervised in-class clinicals, applying appropriate therapeutic intervention.

MST 184 CLINICAL MASSAGE/3(1.5-3-0)

Applies skills in a clinical setting. Focuses on improvement of massage therapy skills, ethics, and communication.

MST 204 MST BUSINESS PRACTICES/2(2-0-0)

Assists the practitioner of massage therapy to envision, market, establish, and maintain a professional massage therapy practice.

MST 216 PATHOLOGY FOR MASSAGE THERAPY/3(3-0-3)

Focuses on basic knowledge of disease and injury to assist the massage therapist to promote healing, ease pain and discomfort, and avoid complications during therapy. With a broad perspective of pathology and specific pathophysiology of diseases contributing to the need for massage therapy, this course provides the foundational science for safe practice.

MST 275 SPECIAL TOPICS/0.25-6

Provides students with a vehicle to pursue in depth exploration of special topics of interest.

MST 289 CAPSTONE/0.5-12

Demonstrates the culmination of learning within a given program of study.

MATH**MAT 030 FUNDAMENTALS OF MATHEMATICS/2(2-0-0)**

Prerequisite: Math assessment
Includes the vocabulary, operations and applications of whole numbers, decimals and basic fractions and mixed numbers.

MAT 060 PRE-ALGEBRA/3(3-0-0)

Prerequisite: Successful completion of MAT 030 (grade of C or better) or math assessment.
Further the study of fractions and mixed numbers. Also included are vocabulary, operations and applications of ratio, proportion, percent, area, perimeter, US and metric measures, integers, and an introduction to algebraic expressions and the solution of basic first-degree equations.

MAT 090 INTRODUCTORY ALGEBRA/4(4-0-0)

Prerequisite: Successful completion of MAT 060 (grade of C or better) or assessment.
Includes first-degree equations, inequalities, formulas, polynomials, factoring polynomials, solving quadratic equations by factoring, coordinate geometry, graphing linear equations and applications. Algebraic fractions and systems of linear equa-

tions may be included.

MAT 099 INTERMEDIATE ALGEBRA/4(4-0-0)

Prerequisite: Successful completion of MAT 090 (Grade C or better) or assessment.

Emphasizes problem solving with further study of equations, slope, inequalities, systems of equations, polynomials, quadratic equations, rational expressions, rational exponents, radical expressions, graphing and applications. A graphing calculator or equivalent software may be utilized.

MAT 103 MATH FOR CLINICAL CALCULATIONS/3(3-0-0)

Prerequisite: MAT 090 or assessment.
Provides a review of general mathematics, introductory algebra and an opportunity to learn systems of measurement and methods of solving problems related to drug dosage and intravenous fluid administration. It is designed for students in the health disciplines. Topics may include algebra, graphs, measurement and conversion between various systems of measurement.

MAT 107 CAREER MATH/3(3-0-0)

Prerequisite: MAT 060 or assessment.
Covers material designed for career technical or general studies students who need to study particular mathematical topics. Topics may include measurement, algebra, geometry, trigonometry, graphs, and/or finance. These are presented on an introductory level and the emphasis is on applications.

MAT 108 TECHNICAL MATHEMATICS/4(4-0-0)

Prerequisite: MAT 060 (Grade of C or better) or assessment.
Covers material designed for career technical or general studies students who need to study particular mathematical topics. Topics may include measurement, algebra, geometry, trigonometry, graphs, and/or finance. These are presented on an introductory level and the emphasis is on applications.

MAT 120 MATHEMATICS FOR LIBERAL ARTS/4(4-0-0)

Prerequisite: ACT Math Score of 19, Accuplacer Elementary Algebra score of 85, or successful completion of MAT 099 (grade C or better).
Develops mathematical and problem-solving skills. Appropriate technological skills are included. Content is selected to highlight connections between mathematics and the society in which we live. Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. Additional content will include one topic in geometry, numeration systems, decision theory, or management science.
This course is one of the Statewide Guaranteed Transfer courses. (GT-MA1)

MAT 121 COLLEGE ALGEBRA/4(4-0-0)

Prerequisite: Successful completion of MAT 099 (Grade C or better) or assessment.
Includes a brief review of intermediate algebra, equations, and inequalities, functions and their graphs, exponential and logarithmic functions, linear and non-linear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations.
This course is one of the Statewide Guaranteed Transfer courses (GT-MA1).

MAT 122 COLLEGE TRIGONOMETRY/3(3-0-0)

Prerequisite: MAT 121 or equivalent.
Covers topics including trigonometric functions (with graphs and inverse functions), identities and equations, solutions of triangles, complex numbers, and other topics as time permits. This

is a traditional prerequisite course to the calculus sequence. *This course is one of the Statewide Guaranteed Transfer courses (GT-MA1).*

MAT 123 FINITE MATHEMATICS/4(4-0-0)

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

MAT 125 SURVEY OF CALCULUS/4(4-0-0)

Prerequisite: MAT 121 or permission of instructor.
Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science and/or social science majors. *This course is one of the Statewide Guaranteed Transfer courses (GT-MA1).*

MAT 135 INTRODUCTION TO STATISTICS/3(3-0-0)

Prerequisite: Survey of Algebra or equivalent competency.
Includes data presentation and summarization, introduction to probability concepts and distributions, statistical inference—estimation, hypothesis testing, comparison of populations, correlation and regression. *This course is one of the Statewide Guaranteed Transfer courses (GT-MA1).*

MAT 155 INTEGRATED MATH I/3(3-0-0)

Engages students in the concepts of school mathematics, the course will include the recognition of numerical and geometric patterns and their application to a variety of mathematical situations; mathematical problem-solving, reasoning, critical thinking, and communication; algebraic thinking, representation, analysis, manipulation, generalizations and extensions. *This course is one of the Statewide Guaranteed Transfer courses (GT-MA1).*

MAT 156 INTEGRATED MATH II/3(3-0-0)

Furtheres MAT 155 concepts, the course will include fundamentals of probability, statistics, and Euclidean geometry. Mathematical problem-solving, reasoning, critical thinking and communication will continue to be an integral part of this sequence. *This course is one of the Statewide Guaranteed Transfer courses (GT-MA1).*

MAT 166 PRE-CALCULUS 5(5-0-0)

Prerequisite: Survey of Algebra or equivalent
Reviews college algebra and college trigonometry intended for those planning to take calculus. Topics include algebraic manipulations, properties of algebraic and trigonometric functions and their graphs, trig identities and equations, conic sections, polar coordinates and parametric equations. *This course is one of the Statewide Guaranteed Transfer courses (GT-MA1).*

MAT 201 CALCULUS I/5(5-0-0)

Prerequisite: MAT 121 and MAT 122 or equivalent.
Introduces single variable calculus and analytic geometry. Includes limits, continuity, derivatives, and applications of derivatives as well as indefinite and definite integrals and some applications. *This course is one of the Statewide Guaranteed Transfer courses (GT-MA1).*

MAT 202 CALCULUS II/5(5-0-0)

Prerequisite: MAT 201 or permission of instructor.

Continuation of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals, and infinite series.

This course is one of the Statewide Guaranteed Transfer courses (GT-MA1).

MAT 203 CALCULUS III/4(4-0-0)

Prerequisite: MAT 202 or equivalent.
Completes the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. *This course is one of the Statewide Guaranteed Transfer courses (GT-MA1).*

MAT 204 CALCULUS III WITH ENGINEERING APPLICATIONS/5(5-0-0)

Includes all the topics of MAT 203 Calculus III with an additional emphasis on word problems and problem solving. This is the third course in the three-course calculus sequence. This course will additionally contain a thorough examination of multiple integration. This will include double and triple integrals, line integrals, Stokes' and Green's Theorems, and their applications. A graphing calculator is required for this course. *This course is one of the Statewide Guaranteed Transfer courses (GT-MA1).*

MAT 215 DISCRETE MATHEMATICS/4(4-0-0)

Prerequisites: MAT 125 or MAT 201 Recommended: one high-level programming language.
Includes formal logic, algorithms, induction proofs, counting and probability, recurrence relations, equivalence relations, graphs, shortest-path, and tree traversal. This course is designed for mathematics and computer science students. *This course is one of the Statewide Guaranteed Transfer courses (GT-MA1).*

MAT 261 DIFFERENTIAL EQUATIONS WITH ENGINEERING APPLICATIONS/4(4-0-0)

Prerequisites: MAT 203 or equivalent
Introduces ordinary differential equations. The content of this course includes all the topics of MAT 265 Differential Equations with an additional emphasis on applications and problem solving. A graphing calculator is required for this course. *This course is one of the Statewide Guaranteed Transfer courses (GT-MA1).*

MAT 265 DIFFERENTIAL EQUATIONS/3(3-0-0)

Prerequisite: MAT 202 (Calculus II)
Emphasizes techniques of problem solving and applications. Topics include first, second, and higher order differential equations, series methods, approximations, systems of differential equations, and Laplace transforms. *This course is one of the Statewide Guaranteed Transfer courses (GT-MA1).*

METEOROLOGY

MET 150 GENERAL METEOROLOGY/4(4-0-0)

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

MULTIMEDIA GRAPHIC DESIGN

MGD 103 PRODUCTION DESIGN/3(3-0-0)

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.

MUSIC

MUS 100 FUNDAMENTALS OF MUSIC/3(3-0-0)

Designed to help the beginning music student, or those students with a limited background in music theory, study the basic elements of music, including notation, rhythm, scales, key signatures, intervals and chords.

MUS 110 MUSIC THEORY I/3(3-0-0)

Prerequisite: MUS 100 or permission of instructor.

Presents music fundamentals, diatonic four-part harmony, analysis, ear training, and keyboard harmony. For music majors transferring to a 4-year program.

MUS 111 MUSIC THEORY II/3(3-0-0)

Prerequisite: MUS 110.

Presents chromatic four-part harmony, analysis, ear training, and keyboard harmony.

MUS 120 MUSIC APPRECIATION/3(3-0-0)

Covers the basic materials of music, musical forms, media, genres and musical periods. Emphasizes the development of tools for intelligent listening and appreciation. *This course is one of the Statewide Guaranteed Transfer courses (GT-AH1).*

MUS 121 MUSIC HISTORY I/3(3-0-0)

Studies the various periods of music history with regard to the composers, esthetics, forms, and genres of each period. Considers music from the Middle Ages through the Classical period. *This course is one of the Statewide Guaranteed Transfer courses (GT-AH1).*

MUS 122 MUSIC HISTORY II/3(3-0-0)

Studies the various periods of music history with regard to the composers, aesthetics, forms, and genres of each period. Considers music from the early Romantic period to the present. *This course is one of the Statewide Guaranteed Transfer courses (GT-AH1).*

MUS 131 MUSIC CLASS I/2

Prerequisite: Instructor permission.

Applies the fundamentals of music to the voice or specific musical instruments. This course also introduces basic techniques, repertoire, and sight-reading.

MUS 132 MUSIC CLASS II/2

Prerequisite: Instructor permission.

Applies the fundamentals of music to the voice or specific musical instruments. The course also introduces basic techniques, repertoire, and sight-reading.

MUS 133 MUSIC CLASS III/2

Prerequisite: Instructor Permission.

Applies the fundamentals of music to the voice or specific musical instruments. The course also introduces basic techniques, repertoire, and sight-reading.

MUS 134 MUSIC CLASS IV/2

Prerequisite: Instructor permission.

Applies the fundamentals of music to the voice or specific musical instruments. The course also introduces basic techniques, repertoire, and sight-reading.

MUS 141 PRIVATE INSTRUCTION (SPECIFY)/1-2

Prerequisite: Class instruction or instructor permission.

An additional fee is required.

1 credit primarily for non-music majors. 2 credits for music majors planning to transfer to 4 year school. Offers private instruction consisting of a thirty or sixty minute lesson per week. Participation in a student performance is required at least once each term for 1 credit. Regular attendance at and participation in student performances is required for 2 credits.

MUS 142 PRIVATE INSTRUCTION (SPECIFY)/1-2

Prerequisite: Class instruction or instructor permission.

An additional fee is required.

1 credit primarily for non-music majors. 2 credits for music majors planning to transfer to 4 year school. Offers private instruction consisting of a thirty or sixty minute lesson per week. Participation in a student performance is required at least once each term for 1 credit. Regular attendance at and participation in student performances is required for 2 credits.

MUS 143 PRIVATE INSTRUCTION (SPECIFY)/1-2

Prerequisite: Class instruction or instructor permission.

An additional fee is required.

1 credit primarily for non-music majors. 2 credits for music majors planning to transfer to 4 year school. Offers private instruction consisting of a thirty or sixty minute lesson per week. Participation in a student performance is required at least once each term for 1 credit. Regular attendance at and participation in student performances is required for 2 credits.

MUS 144 PRIVATE INSTRUCTION (SPECIFY)/1-2

Prerequisite: Class instruction or instructor permission.

An additional fee is required.

1 credit primarily for non-music majors. 2 credits for music majors planning to transfer to 4 year school. Offers private instruction consisting of a thirty or sixty minute lesson per week. Participation in a student performance is required at least once each term for 1 credit. Regular attendance at and participation in student performances is required for 2 credits. May be repeated for credit more than once per individual institution policy.

MUS 151 ENSEMBLE I/1

Prerequisite: Instructor permission.

Rehearses and performs various types of musical literature.

MUS 152 ENSEMBLE II/1

Prerequisite: Instructor permission.

Rehearses and performs various types of musical literature.

MUS 153 ENSEMBLE III/1

Prerequisite: Instructor permission.

Rehearses and performs various types of musical literature.

MUS 154 ENSEMBLE IV/1

Prerequisite: . Instructor permission

Rehearses and performs various types of musical literature.

NAIL TECHNICIAN

Student must be 16 years of age and have appropriate Accuplacer scores before enrolling in this program.

NAT 110 INTRODUCTION TO MANICURES & PEDICURES/3(1-4-0)

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(1-2-0)

Presents theory and practical application dealing with different types of manicures, pedicures, nail art and massage techniques. Theory and practical application of procedures, products, nail shapes and maintenance of natural nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service. Proper sanitation and sterilization as it pertains to all aspect of manicures, pedicures and nail art is taught.

NAT 210 ADVANCED MANICURES & PEDICURES/2(1-2-0)

Presents theory and practical application dealing with different types of manicures, pedicures massage techniques and nail art. Theory and practical application of procedures, products, nail shapes and maintenance of the natural nails is covered. Students learn to recognize different nail disorders and their proper treatment. Training is done in a specialized class or in supervised salon (clinical) setting, using models or customer service.

NAT 211 APPLICATION OF ARTIFICIAL NAILS/5(2-6-0)

Provides advanced theory and practical application of nail wraps, tip overlays, acrylics and product knowledge to ready the student for employment. Theory and practical application of removal techniques for artificial nails is covered. Instruction is provided in specialized classes or in supervised salon (clinical) setting using models or customer service. Student preparation for state board licensing examination pertaining to artificial nails is covered.

NAT 275 Special Topics/0.5-12

Provides students with a vehicle to pursue in depth exploration of special topics of interest.

NAT 280 Internship/0.5-12

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 instruction.

NAT 285 Independent Study/.05-12

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

NAT 288 PRACTICUM/0.5-12

Prerequisite: Student must be 16 years of age.

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.

NATURAL RESOURCES

NRE 100 FOUNDATIONS OF FORESTRY/3(3-0-0)

Presents the principles of forest science, dendrology, forest fire behavior, and silviculture principles.

NRE 102 INTRODUCTION TO NATURAL RESOURCES MANAGEMENT/3(3-0-0)

Covers an overview of our natural resources, the environmental concerns related to their management, and the agencies in charge of management of natural resources.

NRE 103 OCEANOGRAPHIC FIELD TECHNIQUES/3(2-2-0)

Introduces working safely and efficiently from a coastal research vessel. Includes topics such as maritime terminology, positioning and navigation, basic maritime weather, shipboard sampling and measurement techniques. Includes lectures and field sessions aboard the R /V Kaholo. Required for incoming freshmen and strongly recommended for transfer students. Taught at Hawaii Pacific University.

NRE 104 FIELD WORK SAFETY TECHNIQUES/3(2-2-0)

Introduces safety skills and attitudes necessary for efficient performance of marine science field work. Topics include CPR, first aid, and lifesaving (all with certification), as well as training in snorkeling and recognition of marine hazards. Includes lectures and field sessions. Required for incoming freshmen and strongly recommended for transfer students. Taught at Hawaii Pacific University.

NRE 121 INTRODUCTION TO HYDROLOGY/3(3-0-0)

Introduces the movement of ground and surface water. Basic flow equations and graphs are used.

NRE 204 RANGE MANAGEMENT AND RESTORATION/4(4-0-0)

Prerequisite: AGY 240.

Covers management of rangelands, important plants, rangeland communities, and restoration practices to restore disturbed ecosystems. Students will learn field measurement techniques of ecosystem components.

NRE 205 WILDLIFE AND FISHERIES MANAGEMENT PRINCIPLES/3(3-0-0)

Covers theory, philosophy, and applications for study and management of wildlife and fisheries resources. Field and laboratory methods used in wildlife management also covered.

NRE 211 ENVIRONMENTAL POLICIES AND ECONOMICS/3(3-0-0)

Covers interactions, resources, economics and politics; government and environment policy. Evaluation of alternative resource use patterns and land use plans. Discussion and analysis of current environmental issues and the impact of economic growth.

NRE 219 BIOLOGICAL ISSUES IN RECLAMATION/4(2-4-0)

Addresses the biological issues of reclamation such as what constitutes an exotic species, planting practices, time tables, seed mixture selection, and preparation of soils.

NRE 221 ADVANCED HYDROLOGY/3(2-2-0)

Prerequisite: NRE 121.

Continues to expand the knowledge of hydrology by moving into the applied aspects of wetland and stream management.

NRE 226 WETLANDS MONITORING/3(2-0-2.5)

Prerequisites: ENG 131, MAT 135, BIO 154, NRE 237.

Covers the aspect of compliance with local, state, and federal regulations, written reports, and oral reporting and the actual sampling procedures and analysis.

NRE 227 RECLAMATION SITE MONITORING/3(2-0-2.5)

Prerequisites: ENG 131, MAT 135, BIO 154, NRE 219.

Covers the aspect of compliance with local, state, and federal regulations, written reports, and oral reporting and the actual sampling procedures and analysis.

NRE 237 WETLANDS REGULATORY 4/3(2-0-5)

Prerequisite: AGY 240.

Refers to the Federal wetlands delineation training program.

NRE 238 WETLANDS REGULATORY 5/3(2-0-2.5)

Prerequisite: AGY 240, NRE 237.

Refers to the Federal wetlands delineation training program.

NRE 251 GENERAL OCEANOGRAPHY I/3(3-0-0)

Prerequisite: BIO 111/112 or CHE111/112, NRE 103/104

Provides a comprehensive introduction to modern geological and chemical oceanography. Includes earth history, plate tectonics, geophysics, geochemistry, marine sediments, the hydrosphere, physical properties of salt water, major and minor components of seawater, and ocean-atmosphere interactions. Taught at Hawaii Pacific University.

NRE 252 GENERAL OCEANOGRAPHY I LABORATORY/1(0-2-0)

Prerequisite: BIO 111/112 or CHE111/112, NRE 103/104

Covers the lab work that accompanies NRE 251 which is the introduction to modern geological and chemical oceanography. Includes earth history, plate tectonics, geophysics, geochemistry, marine sediments, the hydrosphere, physical properties of salt water, major and minor components of seawater, and ocean-atmosphere interactions. Taught at Hawaii Pacific University.

NRE 260 NATURAL RESOURCE POLICY AND ADMINISTRATION/3(3-0-0)

Examines the management complex environmental and natural resource policy issues. Taking into account new developments, trends, and issues that have arisen in recent years, this course begins with the recognition that it is not the environment that needs to be managed, but human action relating to the environment.

NURSING ASSISTANT**NUA 101 CERTIFIED NURSE AIDE HEALTH CARE SKILLS/4(4-0-0)**

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 ASSISTANT CLINICAL EXPERIENCE/1(0-2-0)

Prerequisite: Successful completion of NUA 101.

Applies knowledge gained from NUA 101 in a clinical setting.

NURSING**NUR 101 PHARMACOLOGY CALCULATIONS/1(1-0-0)**

Prerequisite: Acceptance into a professional nursing program. Introduces the nursing student to the concepts and techniques of dosage calculations and medication administration by a variety of routes. Learners will apply basic math concepts to complex conversion of dosages between and among various systems of weights and volumes. Learners will apply critical thinking skills to the calculation and administration of medications by oral and parenteral (including intravenous) routes of administration.

NUR 106 MEDICAL AND SURGICAL NURSING CONCEPTS/9(3.5-1-10)

Introduces the student to the role of the nurse in assessing and meeting the medical and surgical nursing needs of adults across the life span in various health care settings. The student learns nursing concepts to assist the patient in achieving optimal functioning. Knowledge from foundational nursing, the sciences, pharmacology, and nutrition along with the continued integration of mental health and cultural concepts provides foundations for nursing care planning for medical and surgical clients.

NUR 109 FUNDAMENTALS OF NURSING/8(2-6-6)

Introduces theories and skills basic to the role of the nurse as provider of care, manager of care and member of the nursing profession. Emphasis is placed on introduction to critical thinking and the nursing process. Students will demonstrate a beginning level of competence in providing therapeutic nursing care for clients with common health alterations across the health continuum.

NUR 112 BASIC CONCEPTS OF PHARMACOLOGY/2(2-0-0)

Prerequisite: Successful completion of preceding required program course work or permission of program director.

Introduces the basic concepts of pharmacology related to the actions, therapeutic and adverse effects, interactions of drugs, drug classifications, and the basic pharmacology of commonly used medications. Emphasis is placed on nursing considerations and client education. Learners will apply knowledge gained in selected clinical settings in caring for clients across the lifespan.

NUR 150 OBSTETRIC AND PEDIATRIC NURSING/7(3-2-6)

Provides a family centered approach to professional nursing practice of the childbearing family and children across the health continuum. Emphasis is placed on the care of the perinatal client and children from birth through adolescence. The impact of psychosocial and cultural values and practices are explored. Legal and ethical accountability are integrated throughout the course.

NUR 169 TRANSITION INTO PRACTICAL NURSING/5(2-0-6)

Provides the student with a transition into the practical nurse role. Emphasis is placed on professionalism in nursing, communication, entry into practice, provider and manager of care and nursing management and leadership. The student assumes the role of the practical nurse as they manage patient care.

NUR 189 TRANSITION FROM LPN TO ADN/4(2-4-0)

Focuses on assisting the LPN to transition into a new role as an Associate Degree Nursing Student. Emphasis will be placed on roles and responsibilities of the ADN, nursing process, critical thinking, legal and ethical issues, and nursing practice issues related to specialized skills and the care of special populations.

NUR 206 ADVANCED CONCEPTS OF MEDICAL-SURGICAL NURSING I/8(3-1-9)

Prerequisite: Successful completion of preceding required program course work or permission of program director. Focuses on the role of the registered professional nurse as care provider, teacher, manager, professional, and advocate in meeting the nursing needs of adults across the life span. Utilizing the nursing process, the student is expected to integrate previous learning to assist the patient and family in achieving optimal functioning in various health care settings.

NUR 211 NURSING CARE OF PSYCHIATRIC CLIENTS/4(1-2-4)

Prerequisite: Successful completion of preceding required program course work or permission of program director. Develops concepts of psychosocial integrity and emphasizes the function and responsibility of nursing in promoting and maintaining mental health of individuals and families. This course emphasizes communication and caring through the application of the therapeutic relationship and nursing process in the care and treatment of common clinical conditions/disorders.

NUR 212 PHARMACOLOGY II/2(2-0-0)

Builds upon the concepts introduced in NUR 112 Pharmacology I regarding the safe administration of medications to clients across the health continuum. Utilizing the nursing process the student demonstrates understanding of the role of the nurse as provider of care, manager of care, and member of the profession. Emphasis is placed upon the therapeutic use of medications in the nursing care of individuals with complex health needs. The student is introduced to the calculation of complex intravenous drip rates.

NUR 216 ADVANCED CONCEPTS OF MEDICAL-SURGICAL NURSING II/6(2-0-8)

Prerequisite: Successful completion of preceding required program coursework or permission of program director. Continues to focus on the role of the registered professional nurse as care provider, teacher, manager, professional, and advocate in meeting the complex medical and surgical health care needs of adult clients. Utilizing the nursing process, the student is expected to integrate previous learning to assist the patient and family in achieving optimal functioning in various complex health care situations and settings.

NUR 230 LEADERSHIP, MANAGEMENT, AND TRENDS/5(1.5-0-7)

Introduces students to current trends in leadership and management concepts affecting the healthcare continuum and the practice of nursing. The student assumes the role of provider, manager of care and member of the discipline at the entry level into professional nursing. There is a practicum for application which may occur across the healthcare continuum, as the student manages groups of clients and health care personnel. The course will facilitate transition from student to the role of the graduate nurse.

NUR 288 PRACTICUM: HEALTH AND PHYSICAL ASSESSMENT FOR NURSING PRACTICE/1-3

Prerequisite: Successful completion of preceding required program course work or permission of program director. Develops skills of nursing assessment across the life span using effective communication, interview techniques and beginning physical assessment. The course develops critical thinking skills in assessment, data analysis and derivation of actual/potential health needs.

PHYSICAL EDUCATION/1-2

Below is a partial list of physical education activity offerings:

PED 100	Beginning Golf
PED 101	Baseball
PED 102	Volleyball
PED 103	Softball
PED 104	Racquetball
PED 105	Basketball
PED 106	Tennis
PED 108	Beginning Swimming
PED 109	Advanced Swimming
PED 112	Conditioning Lab
PED 113	Fitness Concepts
PED 116	Weight Training
PED 117	Cross Training
PED 119	Fitness Circuit Training
PED 121	Step Aerobics
PED 124	Mountain Biking
PED 125	Bowling
PED 126	Water Aerobics
PED 127	Introduction to Fly Fishing
PED 129	Scuba Diving
PED 135	Intermediate Tennis
PED 136	Advanced Weight Training
PED 146	Martial Arts
PED 154	Backpacking
PED 200	Advanced Golf

VARSITY SPORTS/1

PED 137	Men's Basketball
	Women's Basketball
	Baseball
	Softball
	Volleyball

PHYSICAL EDUCATION & RECREATION**PER 113 INTRODUCTION TO PHYSICAL EDUCATION AND SPORT/2(2-0-0)**

Focuses on the field of physical education and sports. Includes trends, precedents and their effects in the health and total wellness of those involved.

PER 126 INTRODUCTION TO COACHING/2(2-0-0)

Acquaints the learner with the knowledge, requirements and responsibilities of coaching, including sport philosophy, sport medicine, and sport management. Fulfills requirements for ACEP Leader Level I.

PER 128 INTRODUCTION TO RECREATION/2(2-0-0)

Studies the history, principles, philosophy, and contemporary problems and trends of recreation and their influence upon today's American society.

PER 175 SPECIAL TOPICS/0.5-6

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

PER 188 ATHLETIC TRAINING PRACTICUM I/1-3

Prerequisite: PER 231

Provides the opportunity for students to observe and gain experience in the techniques used in an athletic training room.

PER 231 INTRODUCTION TO SPORT & EXERCISE INJURY MANAGEMENT/2(2-0-0)

Offers instruction in identification and management of basic sports injuries. Enables the student to practice taping techniques, injury care and basic modes of rehabilitation following injury.

PER 250 SOCIAL RECREATION AND LEADERSHIP/3(3-0-0)

Enables the student to study effective leadership methods and techniques used in social recreation programming. Students experience actual settings of appropriate activities in community organizations with different age groups.

PER 252 PRINCIPLES OF OUTDOOR RECREATION/3(3-0-0)

Includes lecture and practical outdoor experience relating to problems and trends in outdoor recreation.

PER 253 OUTDOOR LEADERSHIP/2(2-0-0)

Introduces the development, acquisition, and application of outdoor leadership skills and knowledge. Focuses on the latest information philosophy, and techniques necessary to safely conduct outdoor programs and expeditions as an outdoor leader. Skills are applied under actual field conditions. Emphasizes minimal impact camping, wilderness ecology, judgment and decision making, group dynamics and trip logistics. These skills enhance effectiveness as an outdoor leader.

PER 260 SPORTS OFFICIATING/2(2-0-0)

Provides knowledge on basic fundamentals for all officials - how to deal with crowds and knowing the state organizations and their purposes.

PER 288 ATHLETIC TRAINING PRACTICUM II/2-3

Prerequisite: PER 188.

Provides the opportunity for students to gain advanced experience in the techniques used in an athletic training room.

PHILOSOPHY**PHI 111 INTRODUCTION TO PHILOSOPHY/3(3-0-0)**

Prerequisite: College level reading and writing skills.

Introduces significant human questions and emphasizes understanding the meaning and methods of philosophy. Includes human condition, knowledge, freedom, history, ethics, the future, and religion. *This course is one of the Statewide Guaranteed*

Transfer courses (GT-AH3).

PHI 112 ETHICS/3(3-0-0)

Prerequisite: College level reading and writing skills.

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

PHI 113 LOGIC/3(3-0-0)

Prerequisite: College level reading and writing skills.

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

PHI 114 COMPARATIVE RELIGIONS/3(3-0-0)

Prerequisite: College level reading and writing skills.

Introduces students to the similarities and differences among concepts predominant in the major world religions, comparing sociological, philosophical, and phenomenological similarities between major world faiths. It is designed to transfer to any four-year college philosophy, religious studies, or humanities department. *This course is one of the Statewide Guaranteed Transfer courses (GT-AH3).*

PHI 121 CURRENT ISSUES AND ETHICS IN DENTAL HYGIENE/1(1-0-0)

Prerequisite: Enrollment in the Dental Hygiene Program.

Discusses current issues in dental hygiene and heightens student's awareness of ethical issues and choices for action. Includes a library project and an opportunity to facilitate a discussion.

PHI 214 PHILOSOPHY OF RELIGION/3(3-0-0)

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

PHOTOGRAPHY**PHO 101 PHOTOGRAPHY I/3(2-2-0)**

Introduces black and white photography as a fine art medium and develops skills necessary for basic camera and lab operations.

PHO 102 PHOTOGRAPHY II/3(2-2-0)

Prerequisite: Photography 101 or demonstrated competency.

This course is a further exploration in camera and lab operations with an emphasis on individual creativity. It includes the development of a comprehensive portfolio.

PHO 202 PHOTOGRAPHY III/3(2-2-0)

Prerequisite: PHO 101 and PHO 102 or demonstrated competency.

Explores photography technique with emphasis on history, theory, and assimilation of ideas into the students' creative work. Includes the development of a comprehensive portfolio.

PHO 275 SPECIAL TOPICS/0.5-6

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

PHYSICS**PHY 105 CONCEPTUAL PHYSICS/4(3-2-0)**

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

PHY 111 PHYSICS: ALGEBRA BASED I WITH LAB/5(4-2-0)

Prerequisite: MAT 121.

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

PHY 112 PHYSICS: ALGEBRA BASED II WITH LAB/5(4-2-0)

Prerequisite: PHY 111.

Expands upon PHY 111 and covers sound waves, electric fields, electric circuits, magnetic fields, optics, and modern physics. Explores the concepts and theories presented in class through demonstrations and hands-on experiments.

This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).

PHY 211 PHYSICS: CALCULUS-BASED I WITH LAB/5(4-2-0)

Prerequisite: MAT 201.

Enables the student to examine the truth about physical reality through reasoning, mathematics and experimentation. Covers kinematics, force, gravity, energy, momentum, torque, rotational dynamics, fluids and waves. The concepts and theories presented in class are explored through demonstrations and hands-on experiments. This first semester calculus-based physics course is recommended for students entering engineering or one of the advance sciences.

This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).

PHY 212 PHYSICS: CALCULUS-BASED II WITH LAB/5(4-2-0)

Prerequisite: PHY 211.

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

POLITICAL SCIENCE**POS 105 INTRODUCTION TO POLITICAL SCIENCE/3(3-0-0)**

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

POS 111 AMERICAN GOVERNMENT/3(3-0-0)

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

POS 125 AMERICAN STATE AND LOCAL GOVERNMENT/3(3-0-0)

Emphasizes the structure and function of state, county, and municipal governments including their relations with each other and with national government. Includes a study of Colorado government and politics.

POS 205 INTERNATIONAL RELATIONS/3(3-0-0)

Examines relationships among modern nation states. Topics include diplomacy, nationalism, ideologies, power and influence, conflict and cooperation, the role of non-state actors, the international economy and theoretical attempts to understand international behavior. *This course is one of the Statewide Guaranteed Transfer courses (GT-SS1).*

POS 215 CURRENT POLITICAL ISSUES/3(3-0-0)

Incorporates an in-depth analysis of critical issues in political science. Examines current topics and issues.

POS 225 COMPARATIVE GOVERNMENT/3(3-0-0)

Focuses on a comparison of the basic features of selected developed and developing countries. Topics include ideologies, political parties, interest groups, and governmental institutions. *This course is one of the Statewide Guaranteed Transfer courses (GT-SS1).*

POWER PLANT TECHNOLOGY**PPT 100 BASIC ELECTRICITY/2(2-0-0)**

Basic electrical theory, batteries, generators, motors, transformers, solenoids, relays, fuses, and circuit breakers are all covered in this topic. Many of the terms related to the production and use of electrical power are explained, and safe and efficient power production is emphasized.

PPT 105 BASIC PLANT OPERATION/2(2-0-0)

Provide an introduction to the major systems and components that make up a modern power plant. Students learn how electric power is produced and distributed; how boilers, turbines, and condensers operate; and what the general responsibilities of plant operators are during all phases of plant operation. Specific attention is given to the flow of water and steam through the steam cycle, how combustion occurs, types of boilers and turbines, operation of steam cycle support systems, bearings and lubrication, turbine control, pollution control, and plant safety.

PPT 110 PLANT SYSTEMS/2(2-0-0)

Introduces students to operation and function of components found in typical plant systems and how water and steam flow through these systems. Students should also be familiar with the symbols used to represent various components on system diagrams and with the operator checks important to maintaining efficient operation of plant systems and components.

PPT 112 PLANT AUXILIARIES/3(3-0-0)

Introduces the auxiliary equipment associated with the flow of fluids through plant systems. It discusses how fluid flows through piping systems; how fluid flow is affected by valves, traps, and strainers; and how centrifugal pumps and positive displacement pumps operate. Also examined in this topic are compressors, fans, and heat exchangers.

PPT 115 PLANT INSTRUMENTATION/3(3-0-0)

Introduce power plant instrumentation to the student. Emphasis will be given on the common types of instruments that measure and indicate pressure, flow, level, and temperature. Students learn how such values are transmitted to various plant locations and how to read and use piping and instrumentation diagrams (P&IDs). Coverage includes both pneumatic and electronic control systems and equipment.

PPT 116 INSTRUMENTATION AND CONTROL/3(3-0-0)

Introduces students to power plant process control. Emphasis will center on the full range of pertinent equipment. Students will learn how to use pneumatic and electronic controls, actuators, sensors, transmitters, relays, and indicators. Students are introduced to terms such as setpoint, control point, deviation, proportional band, reset, rate, span, feedback, and feedforward. Combustion control diagrams for the following systems are also explained: a typical three-element boiler drum level control system, a fuel and air flow metering and control system, a typical hotwell level control system, and a steam temperature control system.

PPT 175 SPECIAL TOPICS/05-6

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

PPT 180 INTERNSHIP/05-6

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.

PPT 200 POWER PLANT PROTECTION/4(4-0-0)

Introduces typical devices used to protect personnel and prevent damage to plant equipment. Also covered are generator, bus, and line differential protection, as well as high- and low-pressure protection. The material presented includes trip and alarm logic for chemical protection, turbine protection, boiler protection, and generator protection.

PPT 201 PLANT PROTECTION - ELECTRICAL/4(4-0-0)

Introduces typical devices used to protect personnel and prevent damage to plant equipment. Devices covered include fuses over current relays, and over- and under-voltage relays. The course covers practices for electrical protection of plant equipment and personnel.

PPT 205 POWER PLANT THERMODYNAMICS/3(3-0-0)

Familiarize students with the basic laws governing heat in motion in a power plant. The course explains basic thermodynamic principles and shows how they apply to the efficiency of plant processes. After completing this unit, trainees should be able to explain the basic principles of thermodynamics and why they are important to power plant operation. Students should also be familiar with temperature/entropy charts and explain how they are used to determine and compare the efficiency of various processes in a plant cycle. *NOTE: This course is designed to be conceptual in nature; emphasis of algebraic and/or calculus based Thermodynamics such as EGG 230 is not intended.*

PPT 210 STEAM TURBINES/3(3-0-0)

Explains various topics from steam turbine design, construction, and operation, including the tandem and cross-compound designs typically found in power stations to control and instrumentation systems. Other subjects covered include turbine startup, normal operations, procedures during abnormal and emergency conditions, and operator responsibilities.

PPT 215 POWER GENERATION/3(3-0-0)

Introduces the basic elements of generator design, protection, and operation. Students are introduced to the theoretical aspects of reactive power in power systems by analyzing the inductive and capacitive components of the system, with an emphasis on megavar loading as it is affected by the excitation system. The generator's auxiliary systems, including hydrogen cooling systems, stator cooling systems, seal oil systems, and generator degassing procedures, are also introduced, and the function and types of exciters commonly found in power plants are examined.

PPT 220 ENVIRONMENTAL PROTECTION/2(2-0-0)

Identify a plant's effects on the environment, including air pollution controls, circulating water systems, wastewater systems, and pertinent laws and regulations. Various sources of environmental damage are covered, such as heat, chemical contamination of groundwater, excessive noise, sulfur oxides, nitrogen oxides, particulate stack emissions, unburned hydrocarbons, fuel oil spills, and coal dust. Students are also introduced to the most common types of flue scrubbers (wet and dry process), techniques for controlling nitrogen oxides, principles of filter bag house operation, and electrostatic precipitators.

PPT 275 SPECIAL TOPICS/0.5-6

Provides students with a vehicle to pursue in depth exploration of special topics of interest.

PPT 280 INTERNSHIP/0.5-6

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.

PROCESS TECHNOLOGY**PRO 100 INTRODUCTION TO PROCESS TECHNOLOGY/3(3-0-0)**

Provides an overview or introduction into the field of Process Operations within the process industry. The course will introduce the roles and responsibilities of process technicians, the environment in which they work, and the equipment and systems in which they operate.

PRO 110 SAFETY, HEALTH, AND ENVIRONMENT/3(3-0-0)

Provides an introduction to the field of safety, health, & environmental concerns within the process industry. Within this course, you will be introduced to various types of plant hazards, safety and environmental systems and equipment, and the regulations under which processing plants are governed.

PRO 120 PROCESS TECHNOLOGY I: EQUIPMENT/4(4-0-0)

Provides an overview or introduction into the field of equipment within the process industry. This course will introduce many process industry-related equipment concepts including purpose, components, operation, and the Process Technician's role for operating and troubleshooting the equipment.

PRO 130 INSTRUMENTATION I/3(3-0-0)

Provides an introduction to the field of Instrumentation and covers process variables and the various instruments used to sense, measure, transmit and control these variables. This course also introduces control loops and the elements that are found in different types of loops, such as controllers, regulators and final control elements. The course concludes with a study of instrumentation drawings and diagrams and a unit on troubleshooting instrumentation.

PRO 131 INSTRUMENTATION II/3(3-0-0)

Introduces the student to switches, relays and annunciator systems and moves on to discuss signal conversion and transmission. Controllers, control schemes and advanced control schemes are covered at a level appropriate for the process technician. The student then moves on to learn about digital control, programmable logic control and distributed control systems before ending the course with a discussion of instrumentation power supplies, emergency shutdown systems and instrumentation malfunctions.

PRO 210 PROCESS TECHNOLOGY II: SYSTEMS/4(4-0-0)

Studies the interrelationship of process equipment and process systems: arranging process equipment into basic systems; describing the purpose and function of specific process systems; explaining how factors affecting process systems are controlled under normal conditions; and recognizing abnormal process conditions. In addition, it introduces the concept of system and plant economics.

PRO 220 PROCESS TECHNOLOGY III: OPERATIONS/4(4-0-0)

Provides an introduction to the field of operations within the process industry. Students will use existing knowledge of equipment, systems, and instrumentation to understand the operation of an entire unit. Students study concepts related to commissioning, normal startup, normal operations, normal shutdown, turnarounds, and abnormal situations, as well as the Process Technician's role in performing the tasks associated with these concepts within an operating unit.

PRO 230 QUALITY IN PROCESS TECHNOLOGY/3(3-0-0)

Provides an introduction to the field of Quality within the Process Industry. This course will introduce many process industry-related quality concepts including operating consistency, continuous improvement, plant economics, team skills and statistical process control (SPC).

PRO 240 PROCESS TROUBLESHOOTING/4(4-0-0)

Provides instruction in the different types of troubleshooting techniques, procedures, and methods used to solve process problems. Topics include application of data collection and analysis, cause-effect relationships, and reasoning.

PRO 250 OIL AND GAS PRODUCTION I/3(3-0-0)

Familiarize the student with the duties and responsibilities of the oil and gas production technician. Specifically, students will be able to discuss the history of the oil market, concepts surrounding exploration and geology, fundamentals of drilling and well completion, and describe the operation of the equipment and systems used by the oil and gas production technician today.

PRO 255 OIL AND GAS PRODUCTION II/3(3-0-0)

Familiarize the student with the duties and responsibilities of the oil and gas production operations technician. Specifically, the course covers the following topics: the natural gas treatment, dehydration and compressions system and equipment; the produced water treatment and handling system and equipment; auxiliary systems and equipment; artificial lift and enhanced recovery techniques; pumping and transportation systems; safety, health and environmental considerations relative to the field of oil and gas production; and an introduction to petroleum refining and processing.

PRO 280 INTERNSHIP/0.5-6

Provides students with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor.

PSYCHOLOGY**PSY 101 GENERAL PSYCHOLOGY I/3(3-0-0)**

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

PSY 102 GENERAL PSYCHOLOGY II/3(3-0-0)

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

PSY 106 HUMAN RELATIONS/3(3-0-0)

Emphasizes the development and practice of effective interpersonal skills on and off the job.

PSY 110 CAREER DEVELOPMENT/3(3-0-0)

Assists the student in recognizing their career potential, and provides tools for making realistic decisions concerning educational and occupational objectives.

PSY 116 STRESS MANAGEMENT/3(3-0-0)

Identifies the physiological, emotional and behavioral aspects of stress. Techniques of stress reduction and management are explored and applied, including nutrition, exercise, assertiveness, time management, and financial management. This course is not designed for transfer.

PSY 205 PSYCHOLOGY OF GENDER/3(3-0-0)

Examines gender comparisons in work, courtship, family life, and sexual behavior throughout the life span. *This course is one of the Statewide Guaranteed Transfer courses (GT-SS3).*

PSY 215 PSYCHOLOGY OF ADJUSTMENT/3(3-0-0)

Emphasizes personal growth and the development of interpersonal skills. Focuses on the practical application of psychological principles and theories in achieving self-understanding and personal growth.

PSY 217 HUMAN SEXUALITY/3(3-0-0)

Surveys physiological, psychological, and psychosocial aspects of human sexuality. Topics include relationships, sexual identity, and sexual health.

PSY 226 SOCIAL PSYCHOLOGY/3(3-0-0)

Prerequisite: 3 credit hours of general psychology or general sociology or instructor permission.

Focuses on the behavior of humans in social settings including attitudes, aggression, conformity, cooperation and competition, prejudice, and interpersonal attraction.

This course is one of the Statewide Guaranteed Transfer courses (GT-SS3).

PSY 227 PSYCHOLOGY OF DEATH AND DYING/3(3-0-0)

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

PSY 235 HUMAN GROWTH & DEVELOPMENT/3(3-0-0)

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

PSY 237 CHILD AND ADOLESCENT PSYCHOLOGY/3(3-0-0)

Explores human development from conception through adolescence, emphasizing physical cognitive, emotional, and psychosocial factors.

PSY 238 CHILD DEVELOPMENT/3(3-0-0)

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

PSY 245 EDUCATIONAL PSYCHOLOGY/3(3-0-0)

Focuses on the relationships between theory, research, and practice in the areas of learning, child development, motivation, and educational assessment.

PSY 247 CHILD ABUSE AND NEGLECT/3(3-0-0)

Examines the causes and effects of physical, sexual, and psychological abuse and neglect. Intervention and prevention strategies are emphasized.

PSY 249 ABNORMAL PSYCHOLOGY/3(3-0-0)

Prerequisite: 3 credits of general psychology or Instructor permission.

Examines abnormal behavior and its classification, causes, treatment, and prevention.

READING**REA 030 BASIC READING SKILLS/2(2-0-0)**

Prerequisite: Accuplacer score 20-39; Compass score 1-39. Focuses on strategies for word attack, vocabulary development, stages of reading and basic reading comprehension.

REA 060 FOUNDATIONS OF READING/3(3-0-0)

Prerequisite: Assessment scores appropriate for placement. Focuses on strategies for vocabulary development, improved reading comprehension, and enrichment.

REA 090/ COLLEGE PREPARATORY READING/3(3-0-0)

Prerequisite: Assessment scores appropriate for placement. Enables the student to apply strategies for improving comprehension, developing vocabulary, and increasing rate for reading college textbooks.

SMALL BUSINESS MANAGEMENT**SBM 101 STARTING A SMALL BUSINESS/1(1-0-0)**

Provides a brief overview of various topics related to starting a small business. Some topics are types of businesses, location, image, insurance, permits, and licenses.

SBM 106 RECORDKEEPING FOR A SMALL BUSINESS/1(1-0-0)

Provides an overview of recordkeeping for a small business. Students learn basic bookkeeping skills and key recordkeeping requirements.

SBM 108 MARKETING FOR A SMALL BUSINESS/1(1-0-0)

Provides a brief overview of the marketing functions applied to a small business. Topics include planning a marketing strategy, promoting a business, competitive analysis, and customers and prospects.

SCIENCE**SCI 155 INTEGRATED SCIENCE I/4(4-0-0)**

Examines the nature of energy and matter, their interactions and changes, and the application of fundamental concepts to the study of our natural world. *This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).*

SCI 156 INTEGRATED SCIENCE II/4(4-0-0)

Examines earth and biological systems, living and non-living environments, through the application and refinement of fundamental energy and matter concepts.

This course is one of the Statewide Guaranteed Transfer courses (GT-SC1).

SOCIOLOGY**SOC 101 INTRODUCTION TO SOCIOLOGY I/3(3-0-0)**

Examines the basic concepts, theories, and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class, and race.

This course is one of the Statewide Guaranteed Transfer courses (GT-SS3).

SOC 102 INTRODUCTION TO SOCIOLOGY II/3(3-0-0)

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

SOC 205 SOCIOLOGY OF FAMILY DYNAMICS/3(3-0-0)

Prerequisite: SOC 101 or consent of the instructor.

Develops an understanding of marriage, family and kinship. It examines the family as an institution and how social, cultural and personal factors influence family relations. The stability and diversity of the family will be explored, along with current trends and some alternative lifestyles.

This course is one of the Statewide Guaranteed Transfer courses (GT-SS3).

SOC 215 CONTEMPORARY SOCIAL PROBLEMS/3(3-0-0)

Explores current social issues that result in societal problems. It focuses on such issues as civil liberties, gender discrimination, substance abuse, crime, poverty, and social change. *This course is one of the Statewide Guaranteed Transfer courses (GT-SS3).*

SOC 216 SOCIOLOGY OF GENDER/3(3-0-0)

Gives students the theoretical and factual background necessary to understand the phenomenon of gender stratification in American and other cultures. Students will be exposed to a history of gender stratification in human societies, theoretical explanations for this and insights into the consequences of gender differentiation in our world today.

This course is one of the Statewide Guaranteed Transfer courses (GT-SS3).

SOC 231 THE SOCIOLOGY OF DEVIANT BEHAVIOR/3(3-0-0)

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

SOC 237 SOCIOLOGY OF DEATH AND DYING/3(3-0-0)

Prerequisite: ENG 090 or testing into ENG 121.

Provides an opportunity to familiarize students and professionals with the needs and issues surrounding dying and death. This course will provide sociological, psychological, religious, historical and anthropological perspectives for interpreting contemporary American customs dealing with dying, death and bereavement. We will examine the professions associated with death and dying, such as hospice, funeral and crematory institutions, and medical care.

SPANISH**SPA 101 CONVERSATIONAL SPANISH I/3(3-0-0)**

Offers beginning students the skills necessary to understand and speak Spanish. The material includes basic vocabulary, grammar, and expressions that are used in daily situations and in travel.

SPA 102 CONVERSATIONAL SPANISH II/3(3-0-0)

Prerequisite: SPA 101 or permission of instructor.

Offers students the skills necessary to understand and speak Spanish. The material continues to cover basic conversations patterns, expressions, and grammar.

SPA 111 SPANISH LANGUAGE I/5(5-0-0)

Deals with the development of functional proficiency in listening, speaking, reading and writing the Spanish language. Note: The order of the topics and methodology will vary according to individual texts and instructors.

SPA 112 SPANISH LANGUAGE II/5(5-0-0)

Prerequisite: SPA 111 or permission of instructor.

Continues Spanish Language I in the development of functional proficiency in listening, speaking, reading and writing the Spanish language. Note: The order of the topics and the methodology will vary according to individual texts and instructors.

SPA 115 SPANISH FOR THE PROFESSIONAL I/3(3-0-0)

Prerequisite: College Level Reading.

Designed as an introduction to a working knowledge of the target language, cultural behaviors and values useful in various professional fields such as health care, law enforcement, bilingual education, business, and others.

SPA 211 SPANISH LANGUAGE III/3(3-0-0)

Prerequisite: SPA 112 or permission of instructor.

Continues Spanish Language I and II in the development of increased functional proficiency in listening, speaking, reading and writing the Spanish language. Note: The order of the topics and the methodology will vary according to individual texts and instructors. *This course is one of the Statewide Guaranteed Transfer courses (GT-AH4).*

SPA 212 SPANISH LANGUAGE IV/3(3-0-0)

Prerequisite: SPA 211 or permission of instructor.

Continues Spanish Language I, II and III in the development of increased functional proficiency in listening, speaking, reading and writing the Spanish language. Note: The order of the topics and the methodology will vary according to individual texts and instructors. *This course is one of the Statewide Guaranteed Transfer courses (GT-AH4).*

TECHNICAL STUDIES**TEC 235 ENGINEERING STATICS/4(4-0-0)**

Prerequisites: PHY 105, MAT 121, MAT 122

Covers the principles of statics including forces, equilibrium, structures, distributed forces, and friction. It is designed for students planning on studying engineering.

THEATER**THE 105 INTRODUCTION TO THEATRE ARTS/3(3-0-0)**

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

THE 111 ACTING I/3(2-2-0)

Covers basic acting techniques and approaches including scene study, improvisation, and script analysis. It includes practical application through classroom performance.

THE 112 ACTING II/3(2-2-0)

Prerequisite: THE 111 or instructor permission. THE 105 is strongly advised.

Continues to explore basic acting techniques and approaches including scene study, improvisation, and intermediate script analysis. It includes practical application through classroom performance.

THE 116 TECHNICAL THEATRE/3(2-2-0)

Introduces hands-on methods of constructing and painting scenery and properties and operating stage lighting. Students also learn the proper procedures of using shop equipment and serving on stage crews.

THE 131 THEATRE PRODUCTION I/3(0-6-0)

Prerequisite: ENG 060, REA 090, THE 111, and/or THE 112 or Instructor permission.

Allows students to put into practice theories of theatre production. Participation in set construction, scenic artistry, costuming, lighting, sound, acting, stage managing, and administration is available.

THE 132 THEATRE PRODUCTION II/3(0-6-0)

Prerequisite: ENG 060, REA 090, THE 111, and/or THE 112 or Instructor permission.

Allows students to put into practice theories of theatre production. Participation in set construction, scenic artistry, costuming, lighting, sound, acting, stage managing, and administration is available.

THE 135 STAGE MAKEUP I/2(2-0-0)

Covers makeup design and application techniques. Techniques include basic corrective, character, old age, and fantasy application.

THE 211 DEVELOPMENT OF THEATRE I/3(3-0-0)

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

THE 212 DEVELOPMENT OF THEATRE II/3(3-0-0)

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

THE 216 THEATRE LIGHTING AND DESIGN/3(3-0-0)

Prerequisite: THE 116 or instructor permission.

Focuses on the theory and practice of stage lighting. Topics include basic electrical theory, color theories, rigging and design of lighting for the performing arts.

THE 218 READERS THEATRE/3(2-2-0)

Prerequisite: COM 205.

Studies ensemble interpretation of literature—poetry, prose, and drama, primarily through the medium of the spoken word.

THE 231 THEATRE PRODUCTION III/3(0-6-0)

Prerequisite: ENG 060, REA 090, THE 111, and/or THE 112 or Instructor permission.

Allows students to put into practice theories of theatre production. Participation in set construction, scenic artistry, costuming, lighting, sound, acting, stage managing, and administration is available.

THE 232 THEATRE PRODUCTION IV/3(0-6-0)

Prerequisite: ENG 060, REA 090, THE 111, and/or THE 112 or Instructor.

Allows students to put into practice theories of theatre production. Participation in set construction, scenic artistry, costuming, lighting, sound, acting, stage managing, and administration is available.

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