ARAPAHOE COMMUNITY COLLEGE

Catalog 2005-06

Vision Statement

To be an innovative, learning-centered community college recognized as a vital link in the economic vitality of the community and as a leader in education.

Mission Statement

To provide an accessible, responsive learning environment that facilitates the achievement of educational, professional, and personal goals by our students and other members of our communities in an atmosphere that embraces academic excellence, diversity, and innovation.

Statement of Values

Learning

We value upholding the highest academic standards and supporting the personal growth of each individual–ideals that nurture lifelong learning and an entrepreneurial spirit.

Integrity

We value the free exchange of ideas in an environment that embraces honesty, personal responsibility, as well as intellectual and cultural diversity.

Collegiality

We value fostering relationship with our students, our communities, and our colleagues in an atmosphere of mutual respect, open communication, and trust.

Arapahoe Community College is a learning-centered educational institution. As such, the college routinely conducts assessments of student academic achievement. These include assessments at the classroom, course, program and institutional level. Participation in outcomes assessment is expected of all students. It is only through the assessment process that Arapahoe Community College can understand itself better; thereby better serve its students.

5900 S. Santa Fe Drive　　P. O. Box 9002　　Littleton, CO 80160-9002

303-797-4ACC (4222)　　www.arapahoe.edu

Please visit **www.arapahoe.edu** for the most current, updated catalog information.

Directory

Main College Number
303-797-4ACC (4222)

ACC@DTC   303-734-3704
  Colorado Computer Center 303-721-7611
  Employee Development   303-734-3703

Admissions Center (Information Central)
303-797-4ACC (4222)

Admissions and Records   303-797-5621
                Fax: 303-797-5970

Announcement Line   303-797-5700 x 9

Advising/Counseling Center
303-797-5664

Art & Design Center   303-797-5958

Arts, Humanities & Social Sciences
  Division   303-797-5979

Assessment   303-797-5659

Arapahoe/Douglas Career and
  Technical School   303-797-5080

Bookstore   303-797-5676

Business and Professional Services Division
303-797-5873

Campus Police Dept.   303-797-5800

Career Center   303-797-5805

Career Testing   303-797-4ACC (4222)

Cashier's Office   303-797-5638

Center for Academic Resources
303-797-5937 v/tty

Chief Academic Officer   303-797-5702

Chief Operating Officer 303-797-5704

Child Development Center 303-797-5678

Community Education   303-797-5722

Disability Services   303-797-5937

Employment and Human Resources
303-797-5720

Events Line   303-797-5750

Fitness Center   303-797-5850

Financial Aid   303-797-5661

Foundation   303-797-5712

GED/pre-GED   303-797-5722

Health, Math, Science & Engineering
  Division   303-797-5911

Hope/Lifetime Learning Tax Credit Hotline
303-797-5637

Information Central
303-797-4ACC (4222)

Instructional Testing Center 303-797-5993

Job Placement   303-797-5805

Library   303-797-5726

President   303-797-5701

Student Affairs   303-797-5674

Switchboard   303-797-4ACC (4222)

Tutoring (Center for Academic Resources)
303-797-5937

University Center at Chaparral (Parker)
303-734-4UCC (4822)

Veterans Programs   303-797-5662

TTY users Relay Colorado 1-800-659-2656

College Calendar 2005–2006

Summer Semester 2005

April 1	**Graduation Application Deadline date for Summer Semester**
April 11-May 27	Summer/Fall registration, Touch-tone & CCCWeb (continuing students only)
April 18-May 27	Summer/Fall registration, Touch-tone & CCCWeb (new students begin)
May 23-27	**Walk-in registration on MTWR 8am-7pm; F 8am-5pm; S 8am-noon**
May 28-30	**Memorial Day Holiday – College Closed: No Services Available**
May 31 (Tuesday)	**SUMMER TERM BEGINS (10-week classes begin)**
June 13 (Monday)	**8-WEEK CLASSES BEGIN**
July 2-4	**Independence Day recognized - College Closed: No Services Available**
August 8 (Monday)	**8-week and 10-week** classes end[1]
August 8	**Weekend** classes end – End of Summer term
August 9	Deadline for grades entered into Web for Faculty (noon)
August 12	Deadline for Weekend classes grades entered into Web for Faculty (noon)

* CLASS SESSIONS	SESSION DATES
10 week classes	May 31 - August 8
8 week classes	June 13 - August 8

Some classes begin and end at other times. Please contact your division assistant for course specific census and withdrawal dates.

[1] SPECIAL NOTE: Ten week classes falling on Monday will be short one day due to the 4th of July holiday. This will need to be compensated with an extra day on August 15th or extra time scheduled during the term.

Fall Semester 2005

April 11-Aug. 26	Summer/Fall registration, Touch-tone & CCCWeb (continuing students only)
April 18-Aug. 26	Summer/Fall registration, Touch-tone & CCCWeb (new students begin)
July 1	Graduation Application Deadline date for Fall Semester
August 22-26	Walk-in registration on MTWR 8am-7pm; F 8am-5pm; S 8am-12 noon; (Faculty Days MTWRF)
August 27 (Saturday)	**FALL SEMESTER BEGINS – Weekend Classes Begin**
Sept. 3-5	**Labor Day Holiday – College Closed: No Services Available**
October 10	**Columbus Day – College open - classes in session**
November 1	Graduation Application Deadline date for **Spring** Semester
November 11	**Veterans Day – College open - classes in session**
November 21-22	**In service days, CLASSES NOT IN SESSION** *(labs & practicums may be scheduled)* Offices Open 8am-5pm (Faculty Days)
November 23	**Fall Break, CLASSES NOT IN SESSION, Offices Open 8am-5pm**
November 24	**Thanksgiving – College closed: No Services Available**
November 25	**College open** – CLASSES NOT IN SESSION, Office Open 8am-5pm
Nov. 26-27	Weekend classes **DO <u>NOT</u> MEET**, College closed: No Services Available
Dec. 19 (Monday)	Last day of classes, end of Fall Semester
Dec. 20	**Faculty Day**
December 23	Deadline - grades entered into Web for Faculty (noon)
Dec. 24 - Jan.2	Holiday Season - College closed: No Services Available
January 3 (Monday)	College open

* CLASS SESSION	SESSION DATES
15 week classes	August 27 - December 19

Some classes begin and end at other times. Please contact your division assistant for course specific census and withdrawal dates.

Spring Semester 2006

November 1	Graduation Application Deadline date for Spring Semester
Nov. 7-Jan. 16	Spring registration, Touch-tone & CCCWeb (continuing students only)
Nov. 14-Jan. 16	**Spring registration, Touch-tone & CCCWeb (new students begin)**
January 9-13	Walk-in registration on MTWR 8am-7pm; F 8am-5pm; S 8am-12 noon; (Faculty Days MTWRF)
January 16	Martin Luther King, Jr. Birthday – College open, Faculty Day, *classes not in session (Offices may close from 8:00 a.m. until 10:00 a.m. IF all staff plan on attending the Martin Luther King, Jr. Birthday celebration on campus.)*
January 17 (Tuesday)	**SPRING SEMESTER BEGINS**
February 20	President's Day - College open, classes in session
March 13-19	Spring Break – CLASSES NOT IN SESSION, Offices Open 8am-5pm
April 1	**Graduation Application Deadline date for Summer Semester**
May 5 (noon)	Deadline for Spring Graduate grades to be entered into Web for Faculty
May 8 (Monday)	Last Day of Classes - End of Spring Semester
May 9	Faculty Day
May 12	Deadline - ALL grades due in Web for Faculty (noon)
May 13	GRADUATION DAY, Faculty Day

* CLASS SESSION	SESSION DATES
15 week session	January 17 - May 8

Please contact your division assistant for course-specific census and withdrawal dates. Some classes begin and end at other times.

*The facility may be open during holidays for facility rentals and Community Education activities. Please contact campus police for facility availability during holidays.

Please visit **www.arapahoe.edu** for the most current, updated catalog information.

Welcome!

Thank you for considering Arapahoe Community College (ACC) as you continue your education. Whether you are taking our transfer courses and plan to continue toward a bachelor's degree at a four-year institution, upgrading your job skills, considering a career change, earning a certificate or an associate's degree, or you recognize the value of life-long learning for its own sake, ACC has much to offer.

Arapahoe Community College was the Denver metro area's first community college, founded in 1965. Over the decades, ACC's main and extended campus buildings have increased in number, size and technological capability, and the demographic makeup of its student body has changed with the times. However, small class size, individual attention from faculty whose first priority is teaching, academic excellence and affordability have remained the hallmarks of an ACC education.

ACC is a comprehensive community college offering state-of-the-art learning experiences in more than 90 degree and certificate programs to approximately 12,000 students per year. Its early childhood education, interior design, mortuary science and nursing programs have recently been recognized as among the best such programs in the region.

Can you fit in at ACC? The answer is an unqualified "yes"! ACC students range in age from teens to senior citizens in educational background from high school dropouts to students with Ph.D.'s. Students arrive at our learning environment via car, light rail, wheelchair, bicycle leg-power, bus, and the Internet. Approximately 38% of our students receive financial aid. As an ACC student, your support services range from courses to "brush up" your academic skills to tutoring to the Honors Institute to help you transfer to a prestigious university. Study and library space, recreation space, space in which to "just relax" and a cafeteria are provided for students on the main campus for those times "in between" classes. Cultural diversity is celebrated with frequent College events, and ACC and the Spring International Language Center host international students from 35 countries around the world. If you are undecided about your educational goals and directions, our advisors will work with you individually to help you identify your academic passion!

Our interesting and varied Community Education programs attract over 8,000 life-long learners each year for non-credit classes. ACC@DTC provides personal, professional and computer training in the Denver Tech Center area. ACC also offers courses through the University Center at Chaparral in Parker.

As a learning-centered institution, ACC's highest priority is to provide you with a high-quality education and the support you need to succeed academically and continue your development into a well-rounded, socially-responsible individual. ACC strives to engage you in the learning process as a full partner assuming primary responsibility for your own choices.

We welcome you to Arapahoe Community College!

Dr. Berton L. Glandon
President

Contents

About Arapahoe Community College

A brief history

Arapahoe Community College, metro-Denver's oldest community college, dates back to 1964 when a group of Littleton residents began exploring the need for a local junior college. They presented their research in a proposal to the local school districts. After much effort and dedication of community leaders, business people, school officials and citizens, voters cast their ballots in 1965 to establish the first two-year college in the greater Denver area. The following September, Arapahoe Junior College opened its doors to 550 students.

In 1970, residents voted again, this time to have the College join the Colorado Community College and Occupational Education System. The local junior college district was dissolved and Arapahoe Junior College was given the name we know it by today—Arapahoe Community College (ACC).

Arapahoe Community College's 51-acre main campus is located in Littleton, Colorado, adjacent to the downtown area. From the college, you can enjoy a panoramic view of the Colorado Rockies. Downtown Denver lies just 10 miles due north.

Over the years, ACC has continued to grow in both enrollment and course offerings. It currently has over 7200 students and 90 degree and certificate programs. The majority of classes are held in the Main building completed in 1974. Designed by Eugene D. Sternberg and Associates, the massive concrete building is an internationally-recognized example of the Brutalism style of architecture. A large Annex added in 1977 houses additional classrooms, laboratories, the Colorado Gallery for the Arts, automotive area and physical education facilities including a gymnasium, swimming pool and the Fitness Center.

The West Alamo Center at Prince Street and Alamo Street in downtown Littleton was acquired by the College in 1990 and renamed the Art and Design Center. Located within a couple of blocks of the Main building, this unique structure houses ACC's art, fine art, design and some technology programs, as well as the Arapahoe/Douglas Career and Technical School.

The North Building directly north of the Main building's main entrance houses ACC's Law Enforcement Academy and the Child Development Center, as well as many credit and non-credit classes.

An ACC education is also available at the college's ACC@DTC facility in the Denver Tech Center in Greenwood Village. ACC@DTC houses ACC's corporate training arm which includes the Colorado Computer Center and Employee Development offerings. Other courses are also offered at this location convenient to those working along the I-25 corridor.

ACC's Douglas County presence is at the University Center at Chaparral (UCC) in Parker, Colorado. Opened in January 2000, UCC is maintained by ACC and operated by a unique partnership. Partners include ACC, the University of Denver, the University of Colorado at Denver and the Douglas County School Districts..

In the fall of 2001, ACC completed a $13 million, two-year renovation of the main campus building with the Weber Center for Learning Resources (library) as the architectural centerpiece. Also included in the renovation were a new main entrance and classrooms with the fiberoptic technological capability for connecting to global educational resources.

A rapidly-expanding part of the College's operations is the area of distance learning. More and more classes and programs are being offered online and through telecourses.

Always regarded as a leader in higher education, ACC is well positioned to serve the educational needs of residents and employers in the south metro area well into the future.

Our door is open

Arapahoe Community College is an open-door admissions institution. If you have a high school diploma, General Education Development (GED) certificate, or are not in high school and 16 years of age or older, you will be admitted. Please remember that admission does not guarantee enrollment in any specific programs and courses. You may be required to meet prerequisites designed to help you successfully complete a course of study.

Admission may be denied in accordance with the State Board for Community Colleges and Occupational Education Board Policy BP 4-10.

Accreditation

Arapahoe Community College is accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools. The Commission can be reached at: 30 North LaSalle Street, Suite 2400, Chicago, IL 60602-2504.
Telephone: 312-263-0456.

The following programs hold accreditation as listed: Automotive Service Technology, National Automotive Technician Education Foundation Inc. (NATEF); Certified Nursing Assistant, Colorado State Board of Nursing; Emergency Medical Technician, Colorado State Department of Health, Emergency Medical Services Division; Health Information Technology, American Health Information Management Association, Law Enforcement Academy, Colorado P.O.S.T. (Peace Officer Standard and Training Board); Paralegal, American Bar Association; Medical Laboratory Technology, National Accrediting Agency for Clinical Laboratory Sciences; Medical Office Technology, Commission on Accreditation of Allied Health Education Programs on recommendation of the Committee on Accreditation for Medical Assistant Education; Mortuary Science, American Board of Funeral Service Education; Nursing (Registered), Colorado State Board of Nursing; Pharmacy Technician, American Society of Health Systems Pharmacists; Physical Therapist Assistant, Commission on Accreditation in Physical Therapy Education.

Addresses and phone numbers for these accrediting agencies are listed within the description of each specific degree or certificate.

Web Site (www.arapahoe.edu)

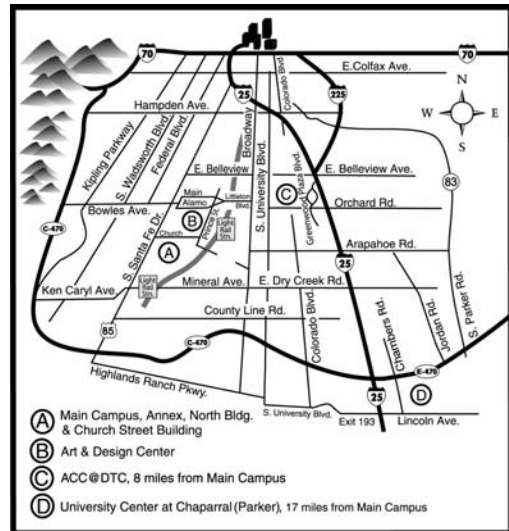Check out Arapahoe Community College's web site! On our web site you will find valuable information that can be used for managing your educational goals. By its very nature, Arapahoe Community College's web site is dynamic and will constantly change in order to provide you with the latest information available. Check it out. Tell us what information you would like to see.

Our address or URL is http://www.arapahoe.edu.

Arapahoe Community College's Extended Campuses

Arapahoe Community College • Littleton

5900 S. Santa Fe Drive • 303.797.4ACC

www.arapahoe.edu

(A) Main Campus, Annex, North Bldg. & Church Street Building

(B) Art & Design Center

(C) ACC@DTC, 8 miles from Main Campus

(D) University Center at Chaparral (Parker), 17 miles from Main Campus

Art & Design Center • Littleton

2400 W. Alamo Avenue • 303.797.4ACC

www.arapahoe.edu

University Center at Chaparral • Parker

15653 Brookstone Dr. • 303.734.4UCC

www.arapahoe.edu • www.the-university-center.org

Arapahoe Community College at UCC is an extended campus facility offering courses in General Education Transfer, Business Transfer, Technology and Community Education (non-credit). Check the semester schedule for current course offerings. UCC partners include ACC, the University of Denver, the University of Colorado at Denver and the Douglas County School District.
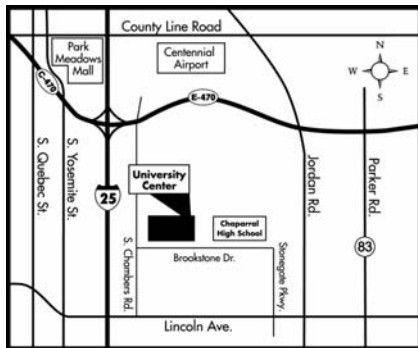
ACC@DTC • Denver Tech Center

5660 Greenwood Plaza Blvd. • 303.734.3701

www.arapahoe.edu • www.coloradotraining.com

Arapahoe Community College at the Denver Tech Center is an extended campus facility offering courses in the following areas: Business Transfer, General Education Transfer, Technology, Real Estate, Activity Professionals' Training, Community Education (non-credit), Colorado Computer Center and Employee Development Center. Check the semester schedule for current course offerings.
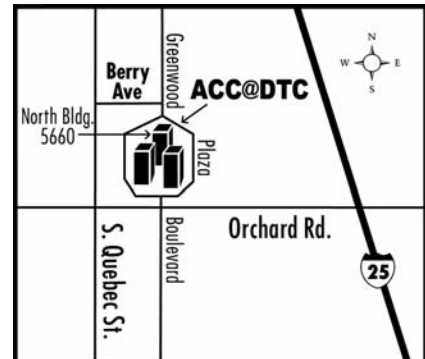
ACC@DTC

ACC@DTC includes the Employee Development Center and the Colorado Computer Center. ACC@DTC is located at the Triad extended campus at 5660 Greenwood Plaza Boulevard, Suite 111 in the Denver Tech Center.

Employee Development provides customized training and consulting to individuals and business from entry level through the executive level. Our programs include, but are not limited to: Medical Transcription, RN Refresher, Spanish, ESL, Project Management, Six Sigma, ISO 9000 and Lean Manufacturing. The training may be delivered onsite at your business or at our facility and can be customized for you.

The Colorado Computer Center (CCC) is an integral part of ACC@DTC. CCC provides a broad scope of fast-track computer classes from the basic skills classes to the highest technical training in preparation for industry and vendor certifications. Flexible scheduling is offered to the individual and corporate clients at our training center located at ACC@DTC extended campus in the Denver Tech Center, but may also be delivered onsite at your business.

CCC programs include, but are not limited to: Microsoft Office application classes, A+ and Network+, Cisco CCNA and CCNP, MCSE, iNET+, WebMaster, Linux/Apache/MySQL/PHP (LAMP) and PHP/MySQL. Many of the technical classes offer COLLEGE CREDIT and are part of ACC's Associate of Applied Science degree programs. Call 303-734-3701 for the latest schedule of classes.

ADDITIONAL SERVICES:

Room Rentals—ACC@DTC also offers classroom and computer lab rentals for your training and meeting needs. Catering and technical support are additional options for these rentals.

Training Grants – Grant monies are available for companies that are hiring new employees and/or re-training existing staff. Companies must meet the State of Colorado's requirements and competitively apply for the funding.

For more information about ACC@DTC programs and services, call 303-734-3701 or visit coloradotraining.com.

Community Education (non-credit courses)

The Community Education Education Program at Arapahoe Community College is a self-supporting program. Each year, approximately 8,000 students enroll in ACC Community Education courses and programs. Hundreds of non-credit classes are advertised and offered each season (4 terms per year). Many new courses are offered each term to meet the changing needs of the community.

Check out our web site at www.arapahoe.edu. Click on Community Ed. You can register for classes online with a credit card or call 303-797-5722. The Community Education office is located in A1215 on the first floor of the Annex building near the tennis courts. Office hours are from 8 a.m.–5 p.m. Monday through Friday.

Broad topic areas include:

Arts and Crafts – Courses focusing on drawing, painting, photography, and general crafts

Adult Basic Education – Courses for GED preparation and English as a Second Language

Business – Courses designed for the small business entrepreneur

Career – Workshops, seminars, and certificated programs designed to assist those in finding, changing or training for a career

Computer – Courses for the home computer user, in three and six-hour formats using the latest software

Cuisine – Featuring healthy cooking, desserts and cuisine from around the world

Language and Culture – Courses for travelers, business interests or for pleasure

Home and Garden – Workshops for in and outside of the home for the do-it-yourselfer

Health – Courses promoting a healthy life using traditional and alternative methods

Leisure – Courses include sports and recreational activities, day excursions, genealogy, bridge, etc.

Money Matters – Courses to improve your financial security

Music – Courses to develop musical interests and talents

Online – Courses in a variety of interest areas that can be completed online at home or work

Self-Development – A mixture of courses including writing, spirituality and other topics

Seniors – Courses specifically for people over 55, including Elderhostel

Youth College – Courses for children in grades K-12, and the Evening High School Program

COURSE FORMATS: Formats vary from 1-10 sessions per term depending on the course topic.

COURSE LOCATIONS: Courses are held at the ACC Main Campus, Art and Design Center, ACC@DTC, The Hudson Gardens & Events Center, Littleton High School, Newton Middle School, Options School, Euclid Middle School, Englewood High School, Sheridan Area Vocational School, Highlands Ranch High School, University Center at Chaparral in Parker and numerous other locations including art studios and private businesses.

COURSE INSTRUCTORS: Over two hundred part-time instructors teach in the program each term. Some have degress in their respective subject areas. All are experts in their fields.

GED: GENERAL EDUCATION DEVELOPMENT

If you are planning to take the GED High School Equivalency exam, we will help you prepare. A $5.00 GED Pretest determines your needs. It is given in the Testing Center and no appointment is necessary. After taking the pretest, you will know if your scores are sufficient to pass all or part of the exam as well as the areas you need to obtain more knowledge. Classes are available to help acquire the knowledge you will need to have a sufficient score to pass the exam. You can register for non-credit classes that are held during the day and in the evening. If your scores are sufficient in any of the subject areas, you may take those parts of the official GED test in our testing center. You must be 17 years of age to take the GED test. For information about the GED Pretest or Official test, contact the Testing Center at 303-797-5993. For more information about GED classes, call the Community Education Program at 303-797-5722.

Application/Registration Checklist

1. Complete the ACC Application for Admission (last page of this catalog, online at www.arapahoe.edu, in the center of the semester schedule or available from Information Central) and return to ACC:

   > In person: to Information Central (M2800)
   > Online: www.arapahoe.edu
   > Fax: to 303-797-5970

   The earlier you apply, the earlier you can register! If any of the following categories apply to you, you will also need to include the documents indicated. No additional information is needed for high school graduates, GED holders or high school non-graduates who are 18 years of age or older.

   Transfer Students: If you wish to transfer credits toward a degree, your official transfer transcript must be sent directly from the transfer institution to Admissions and Records, Arapahoe Community College, P.O. Box 9002, Littleton CO 80160-9002.

   International Students: Completed International Student Application Form; proof of high school graduation from an accredited high school or GED; completed International Student Affidavit of Financial Support; and proof of English proficiency. A complete packet of information on international student admission is available at your request from ACC's International Student Advisor at 303-797-5651.

   High School Students: High school students must be at least 16 years of age and either junior or senior status. The statewide agreement among Colorado school districts requires the statewide agreement form be completed and forwarded to Admissions and Records, Arapahoe Community College, P.O. Box 9002, Littleton, CO 80160-9002. These forms may be obtained at your high school, or at ACC's Information Central. See below and page 8 for additional information.

2. Apply for Financial Aid if needed. You will be asked to complete a Free Application for Federal Student Aid (FAFSA).

   > In person: Information Central (M2800)
   > Online: www.fafsa.ed.gov
   > Financial Aid office: Make an appointment at 303-797-5661 (M2115)

3. Take the Computerized Placement Test (CPT) in the Testing Office (M2280). Call 303-797-5659 for hours.

   To take the CPT at the ACC@DTC campus, call 303-734-3701 or at UCC (Parker), call 303-734-4UCC (4822) to make an appointment. This no-fail untimed test assesses your readiness for college-level coursework by measuring skills in reading, English and math. It is required by the Colorado Community College System, of which ACC is a member. Results of the assessment are used in developing a plan for academic success at the College and for initial course selection. No computer experience is necessary to take the CPT. All students enrolling in a degree program, recent high school graduates, and students enrolling in college-level English or math classes MUST take CPT unless they meet exemption criteria (see Student Services/Information–Assessment–Basic Skills section of this catalog for a list of exemption criteria). To receive an exemption, you must present documentation to an advisor or faculty member. No appointment is necessary to take the test on the main campus, but allow approximately 2 hours for CPT completion before closing times at the Testing Center. You must present a photo ID when taking the test. A $10.00 charge will be assessed for taking the placement test. Results are available immediately. CPT test accommodations are provided to qualified students with disabilities by contacting Disability Services in M2710, 303-797-5937 v/tty. For more information, please refer to Student Services/Information—Assessment—Basic Skills section of this catalog.

4. New Students: Attend a Group Advising Session (dates, times and reservations through the Advising/Counseling Office at M2010 or 303-797-5651). For academic planning, bring CPT, ACT, SAT scores and/or college transcripts with you.
   OR:

5. Students transferring from other colleges and continuing ACC students: Meet with an Advisor in the Advising/Counseling Office at M2010 (to assist you with the application process, transcripts, academic planning, course selection, registration, financial aid, Veterans' benefits, international student assistance and services for students with disabilities) or a program faculty advisor to review your CPT results and discuss course selections. Call 303-797-5664 for walk-in advising times or to set an appointment.

If you are seeking a degree or a certificate, one of the above advising options is strongly recommended. Students taking classes to enhance job skills or for personal interest are welcome, but not required to attend.

6. Contact Disability Services (M2710 or 303-797-5893 v/tty) to request academic accommodations and for specialized consultation if needed.

7. Register for classes. Register early to ensure the best schedule. You will be notified of your acceptance to ACC after you have fulfilled the above requirements. When time for registration approaches, ACC will mail you a registration pass.

   By phone: Touch-tone phone instructions are found in the semester schedule. (PIN# from registration pass and SSN required.)

   In person: At Information Central (M2800)

   Online: at www.arapahoe.edu (PIN# from registration pass and SSN required)

   Fax: a letter with your name, PIN# from registration pass, SSN and course call numbers to 303-797-5970

8. Pay for your classes with a credit card through the phone Touch-tone system, the web site or with cash, check or credit card at the Cashier's window (M2300) by the deadline listed in the semester schedule. See the schedule for information about deferred payments.

9. Pick up your Parking Permit from Parking Services (M2600). (Bring your receipt from the Cashier's Office if you paid in person or from Information Central if you paid online or by Touch-tone.)

10. Pick up your Student I.D. from Student Life (M2820). (Bring your receipt from the Cashier's Office if you paid in person or from Information Central if you paid online or by Touch-tone.)

Congratulations! You are now an Arapahoe Community College student! Please take advantage of all of the support services available to you as a student. Read this course catalog through, keep it in a safe place and refer to it often for policies and procedures guidance. Save yourself time, effort and money by consulting with your advisor regularly for your academic and career needs.

Admissions Information for High School Students

(Age 16 and Older)

If you would like to get a jumpstart on college, you have a variety of options at ACC.

Post-secondary Enrollment Options Act

You must be a junior or senior attending a public high school. Generally under this option, you will receive both high school and college credit for ACC classes that are passed satisfactorily. If approved by your school district, you may also be eligible for prepaid or reimbursed tuition. Generally, student fees, books and transportation are not reimbursable.

1) Meet with your high school counselor and complete the Statewide Agreement form. Your counselor will forward the form to the appropriate party for approval. Your school district office or counseling department should mail the approved form to Admissions and Records, Arapahoe Community College, P.O. Box 9002, Littleton, CO 80160-9002.

2) Complete an ACC Application for Admission and the items on the Checklist for Application/Registration in this catalog.

High School students not participating in the Post-secondary Enrollment Options Act:

If you wish to take classes at ACC with no expectation of earning high school credit or reimbursement from your school district, complete an ACC Application for Admission and the other items on the Checklist for Application/Registration in this catalog.

Home-schooled students:

If you are home schooled and age 16 or older, this is an excellent opportunity to earn credits toward a college degree while completing your secondary studies. Complete an ACC Application for Admission and the other items on the checklist for Application/Registration in this catalog. For further information, contact Howard Fukaye at 303-797-5622.

Residency, Tuition and Fees

Residency

You will be classified as an in-state or out-of-state student according to the information provided on your application for admission. You may appeal your classification if you feel you meet the requirements by submitting a "Petition for In-State Tuition Status" along with the documentation it requests to ACC's Information Central by the deadline date (10th day of the term) for the semester in which you are seeking a classification change. Residency requirements are determined by the Colorado Tuition Classification Law [CRS 23-7-101 et seq. 1973, as amended]. Non-resident tuition represents the cost of your education at public institutions. When a student is classified as a Colorado resident for tuition purposes, the difference between the non-resident and resident tuition is paid by taxpayers of the State of Colorado. Therefore, tuition classification, as mandated by state statute, is adhered to rigorously at Arapahoe Community College.

Who Qualifies for In-State Status

To qualify for in-state tuition, you (or your parents or legal guardian if you are under 23 years old and not emancipated) must have been domiciled in Colorado for at least one year prior to the first day of the semester that you seek residency. Domicile for tuition purposes is determined by two factors: 1) your ability to show a permanent place of residence in Colorado, and 2) your ability to demonstrate your intent to remain in Colorado. Several ways you can prove your intent include providing evidence of:

- Paying Colorado income taxes
- Being permanently employed in Colorado
- Owning residential Colorado real estate
- Holding a Colorado driver's license or vehicle registration
- Registering to vote

If you have been classified as a non-resident for tuition purposes, you may submit a petition for residency, (forms available at Information Central). The deadline to submit a petition is the 10th day of the term for which you are petitioning.

If your residency petition is denied, you may appeal in writing to the Tuition Classification Hearing Board. The Office of Admissions and Records will answer your questions about residency status.

In-State Status for Active Duty Military

Non-resident active duty military personnel and their dependents qualify for in-state status by providing the following documents:

- Certification from your base personnel office that you are on active duty with a permanent duty station in Colorado (TDY and Reserve Duty do not qualify.)
- A photocopy of both sides of your military or dependent ID card

Please re-submit your documentation for each semester that you wish to be classified as in-state. You can submit the above forms to Information Central.

WUE

WUE is the Western Undergraduate Exchange, a program of the Western Interstate Commission for Higher Education (WICHE). Through WUE, students in most western states may enroll in many two-year and four-year college programs at a reduced tuition level—150 percent of the institution's regular resident tuition. WUE is considerably less than non-resident tuition.

To be eligible for WUE, a student must be a resident of one of the participating states: Alaska, Arizona, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington or Wyoming.

To qualify, a WUE application form must be submitted no later than 10 days from the beginning of the term in which you are enrolling. Applications are available on campus at our Information Central counter or they can be faxed or mailed. Please contact the Admissions and Records Office for further information at 303-797-5624, or email linda.sulsberger@arapahoe.edu.

Information on WUE can be obtained through their website, www.wiche.edu. General questions about WUE may be sent by email to info-sep@wiche.edu or addressed to Student Exchange Programs, Western Interstate Commission for Higher Education, P.O. Box 9752, Boulder, Colorado 80301-9752 or call 303-541-0214.

Tuition and Fees

Tuition, fees and charges are mandatory and support essential activities and services, student organizations and special events. Tuition is based upon credit load and residency status. For further details on residency status, please see the residency section. Fees and charges are assessed to help defray costs and/or finance student activities and organizations. **Tuition, fees and charges are subject to change without notice.** Students with unpaid debts to ACC or any of its auxiliary enterprises will not be allowed to register until debts have been paid. For detailed tuition and fee rates, please see the semester schedule for view at www.arapahoe.edu. **(see rate table below)**

Refunds and Withdrawal Policy

Our refund policy is enforced for several reasons. When you enroll in a class you reserve a space that is no longer available to others. At the same time, the state commits to paying a portion of the costs of offering you that course. Even if you officially withdraw, the state loses its investment in that space—while ACC loses the other percentage of expenses that your tuition and fees cover. That is why we adhere to these guidelines:

Dropping Classes

If you drop a class during the first 15 percent of the class term, you will receive a 100 percent refund. No refunds will be granted after that time. Deadline dates for refunds are listed in semester class schedules or on the billing statement which may be obtained from Information Central or from the Cashier's Office.

Withdrawing From Classes

You can withdraw from a class after 15 percent of the class term has passed and before 80 percent of the class term has passed by filling out a Schedule Adjustment Form and submitting it to Information Central prior to the deadline date for withdrawals. Refunds are not given for withdrawals.

If you withdraw after the first 15 percent of the term and have an unpaid balance, you remain obligated to pay this amount. Unpaid balances are sent to State Collections and a collection fee is assessed.

Complete Withdrawal From The College

Schedule Adjustment Forms are available at Information Central. If illness or other circumstances prevent you from withdrawing in person, you may withdraw via touch-tone or via CCC web.

Official withdrawal, under any circumstances, does not relieve students of debts to Arapahe Community College.

ARAPAHOE COMMUNITY COLLEGE
FALL 2005 TUITION RATES
(Subject to change without notice)

Total Tuition (per credit Hour)	Total Tuition	COF Stipend**	Student Share of Tuition	Registration Fee	Parking Fee*	Student Activity Fee	Student Building Fee	Course Fee*	Total Cost of Attendance
Resident	152.60	79.83	72.77	10.40	8.65	2.20	2.20	5.70	182.45
Resident Hybrid	178.83	79.83	99.00	10.40	8.65	2.20	2.20	5.70	208.68
Resident Nursing	185.80	79.83	105.97	10.40	8.65	2.20	2.20	5.70	215.65
Resident ACCOnline	228.40	79.83	136.57	10.40	8.65	0.00	2.20	5.70	253.15
Resident CCCOnline	228.40	79.83	148.57	10.40	8.65	0.00	2.20	5.70	253.15
Non-Resident	345.15	0.00	345.15	10.40	8.65	2.20	2.20	5.70	375.00
Non-Resident CCCOnline	228.40	0.00	228.40	10.40	8.65	0.00	2.20	5.70	253.15

* The Parking Fee may be waived if you do not plan on parking on campus. Course Fees are assessed only for certain high cost courses to defray the cost of materials, supplies and equipment.

** The State of Colorado historically subsidized higher education for in-state students by giving money directly to the colleges. In 2004 the Colorado Legislature enacted a new law establishing the College Opportunity Fund ("COF"). Under this new law, starting in the Fall semester 2005, the State will give this money for the subsidy to students by sending it to the institution the student designates. This money, known as College Opportunity Fund Stipends, will be applied to an in-state student's tuition if the student applies for and authorizes the use of the stipend. The college you are attending will receive the money and it will appear as a credit on your tuition bill. Currently the College Opportunity Fund (COF) stipend is estimated to be worth $79.83 per credit hour.

ESTIMATED BASE TUITION CALCULATION

Total estimated base in-state tuition	$152.60
Minus estimated "College Opportunity Fund Stipend"	79.93
Student's estimated share of in-state tuition	$72.67

Student Services/Information

Accommodations for Students with Disabilities

In accordance with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act, Arapahoe Community College provides students with documentable disabilities academic accommodations based on an individual needs assessment. Support services may include:

- Test accommodations
- Readers
- Scribes
- Interpreters and/or amplification devices
- Ergonomic furniture and equipment
- Materials in alternative formats
- Note takers
- Assistive computer equipment
- Class assistants

To request accommodations, contact Disability Services located in the Center for Academic Resources room M2710 or call 303-797-5937 (v/tty).

Students with disabilities are responsible for providing documentation of disability from a qualified professional. Please refer to the Learning-Centered Opportunities—Center for Academic Resources section of this catalog.

Admissions

Please see Application/Registration section of this catalog.

Address Changes

Please see Student Services/Information—Records section of this catalog. You can update your address information online at www.arapahoe.edu under the Current Students section.

Advising/Counseling

This office offers general information and the services detailed below. Specialized counseling is available for students with disabilities and international students. Test interpretation, degree audits and transfer credit evaluation are also offered.

Academic counseling: A long-term approach toward your college and career plans that takes into account your learning style, aptitude and skills.

Advising: Semester-by-semester advice about course scheduling to ensure that you fulfill basic requirements and reach your academic goals.

Career: On-site career decision-making seminars, career assessment tests with group interpretation and comprehensive career library. See "Career Exploration" under Assessment in this section of the catalog for more information.

Disabilities: See Disability Services in the Learning-Centered Opportunities—Center for Academic Resources section of this catalog.

Personal: Help for students having trouble adjusting to college or facing personal difficulties. We can help put problems into perspective.

Referral: Information and contacts with outside agencies that may be better prepared to meet specific student needs. We can make referrals to community resources such as the Department of Social Services and mental health clinics.

Services for individuals with special needs: Qualifying economically and educationally disadvantaged students, including single parents and displaced homemakers, can network with one another and receive scholarship information. Professional staff provides support if you need short-term personal or career guidance. They will help you define problems and refer to you to other helpful sources.

Testing for Basic skills assessment will assist in the initial selection of courses. Career testing can guide career research. National tests that assess non-college learning for college credit are provided. Academic advising is also available from faculty program advisors. Consult your division office for contacts.

Jumpstart Program

Our mission is to provide an early intervention program with the goal of optimizing student success for first-time, full-time students. The Jumpstart Program provides students with strategies for academic success including time management, study skills, stress management, class load, and referral to other campus services. Jumpstart students will be contacted for customized support and educational planning by letter and phone to meet with their assigned advisor.

Annual Required College Disclosures

The following disclosures are annually published on the college's website at www.arapahoe.edu and /or in the catalog, student handbook or other college publications:

- The Campus Security Report
- The consequences of drug and alcohol violations
- The manner in which the college calculates student refunds and repayments
- The graduation and transfer in/out rates

Assessment

Basic Skills

If you are a first-time college student enrolling in a degree or certificate program, or you are planning to enroll in college-level English or math, or you are a recent high school graduate, you must complete assessment in English, reading and mathematics.

The purpose of assessment is to provide you and your advisor with information that will be useful in selecting courses and planning for success in college. The Computerized Placement Test (CPT) provides you with competency scores in English, reading and math. The assessment costs $10, is untimed, and takes approximately 2 hours to complete.

You can take this individualized test at the Testing Center (M2280) on a walk-in basis. (Call Information Central at 303-797-4ACC for Testing Center days and hours.) Please plan to begin testing at least two hours BEFORE the closing time.

Testing is also available at the college's extended campus sites, ACC@DTC (303-734-3701) and the University Center at Chaparral (303-734-4822). Contact the appropriate site for testing information.

CPT test accommodations are provided to qualified students with disabilities. To request accommodations, contact Disability Services in M2710 or call 303-797-5937 v/tty.

If you are a new student enrolling in a degree program, you must take the CPT unless you have documents that show you:

- Have achieved these minimum scores on the ACT college entrance exam within the past 2 years: Mathematics 19, Writing 18 and Reading 17; or:
- Have achieved these minimum scores on the SAT college entrance exam within the past 2 years: Mathematics 460, Writing 440 and Reading 430; or:
- Have achieved these minimum scores on the CPT (Accuplacer) placement test within the past 2 years:

Please visit **www.arapahoe.edu** for the most current, updated catalog information.

Elementary Algebra 85, Sentence Skills 95, and Reading Comprehension 80; or:

- Met one of the following criteria for exemption from assessment. Exemptions include students who:
  a) have successfully completed a college-level mathematics and college-level writing course; or:
  b) have successfully completed necessary remedial course(s), if required, in mathematics, writing, and reading (successfully completed refers to a student who earns a grade of "C" or higher.); or:
  c) have earned an associate's degree or higher; or
  d) are a concurrently enrolled high school student until you are matriculated by the institution as a degree-seeking undergraduate; or:
  e) are a non-degree seeking undergraduate (unless recent high school graduate referenced above) until you become degree-seeking

To receive an exemption, a student must present documentation to an advisor/counselor or faculty member. Some programs at ACC require specific minimum CPT scores for admission. Please refer to the specific degree/certificate in this catalog or online at www.arapahoe.edu. A $10 charge will be assessed for all students who wish to take the placement test. This charge is payable at the testing facility. Students are allowed to retake the CPT after 24 hours and then every 30 days after retaking the test the first time. (A $10 charge will be assessed for each portion of the CPT the student wishes to retake.) **If you test below college level in two or more of the college placement test subject areas, you will be required to meet with an academic advisor prior to registering and may be required to enroll in certain courses.**

The College provides materials for students who want to review skills before taking the CPT. These materials are available online at www.arapahoe.edu on the Testing Center page.

Attendance

Please refer to the Academic Standards Attendance section of this catalog.

Bookstore

ACC's bookstore, located on the first floor of the main campus building, is the official source for new and used required books. You can also order books online at www.efollett.com. Book refund and buy-back policies are detailed in your semester schedule. Also available in the campus bookstore are school supplies, paperbacks, software, ACC gifts and apparel, study guides, greeting cards, technology supplies and other student necessities.

Campus Police Department

The Campus Police Department consists of professional police officers and staff dedicated to working in partnership with the campus community to protect and enhance a positive, secure, learning-centered environment. Campus Police Officers are sworn, commissioned police officers with full powers of arrest provided to them by Colorado Revised Statutes, Title 24, Article 7, Part 1. Campus Police Officers work seven days a week throughout the year responding to calls for law enforcement and general safety services at the Littleton campus. Campus Police Officers take reports of criminal incidents, respond to alarms, assist in medical emergencies, investigate traffic accidents and criminal acts provide

security for campus social events and present community-oriented policing programs. Campus Police Officers have jurisdiction on the Littleton campus, including the Littleton city streets that run through and are adjacent to the campus properties.

Safety Escort Services

When walking on campus, you are encouraged to walk with another person and use well-lit and well-traveled routes. The Campus Police Department will escort members of the campus community to their cars. To obtain this service, call ext. 5800 or 303-797-5800.

Parking Services

All ACC main campus and Art & Design Center lots require an ACC permit. Permit costs are automatically charged to your account when you register for classes at ACC. Permits are reissued each year. Parking is on a first-come, first-served basis. Permits allow for parking in all ACC lots, except Lot J, but do not guarantee a parking space. The Art & Design Center Lot J requires a "J" permit. "J" semester permits are ONLY available to current students who are registered for classes at the Art & Design Center. Decal permits are valid in lots A-I and K and L for current registered ACC students.

To obtain a permit for your vehicle, bring your ACC cashier's receipt to the Parking Services Department. A permit will be issued to a specific vehicle to be permanently affixed to the lower left hand corner, inside front windshield of the vehicle. One additional semester permit can be purchased at the Parking Services office.

Visitor and short-term, time-controlled parking is available on the streets surrounding the main college campus at no charge. Temporary day passes to park in ACC's lots are available to students, staff and campus visitors for a nominal fee at Parking Services.

Permit and other parking violations are enforced at all times. Parking fines range from $15 – $100.

Motorist Assistance Program (M.A.P.)

This service is designed to assist the campus community experiencing vehicle problems on the main campus and the Art & Design Center. Services include jump-starting a battery or unlocking a car door. To obtain this service, call extension 5800 or 303-797-5800.

Security Phones

Main campus classrooms are equipped with in-house security phones. The Campus Police Department can be reached by calling ext. 5911. If no immediate answer, call 9-911. The Art & Design Center also has in-house phones in open public areas for those in need to call the Police at the numbers above.

Lost and Found

The Campus Police Department houses ACC's Lost and Found. Students at extended campus locations should return found items to, and check for lost items at, the front desk of that facility. Items found at those locations will be kept there for a short time before being sent to the main campus Lost and Found, located in the Campus Police Office.

Jeanne Clery Disclosure Of Campus Security Policy & Campus Crime Statistics Act

The Clery Act Report is accessible on the ACC web page (www.arapahoe.edu) and printed copies are available through the Campus Police Department. Sex offender information is available at Colorado's Convicted Sex Offender web site, http://sor. state.co.us. The Clery Act covers five main requirements:

1. Campus crime and security policy disclosures
2. Statistical reporting and publication
3. Timely warning provisions
4. Substantive policy, procedural and victims rights provisions and
5. Open police logs

Please, read the report; get involved by taking an active part in promoting safety and well-being. Be mindful of your personal safety, use common sense and use campus resources to protect that safety. Report crimes, violations, accidents, suspicious persons/incidents and medical assists to the Campus Police Department Office at x5911 or 303-797-5911. If no immediate answer, call 9-911.

Cancellation of Classes

If a class is cancelled, staff will make every effort to notify students before they arrive at class. In addition, notices printed on standardized posters will be posted in or near the classroom. If there is no posted notice and your instructor does not appear, check with the division office.

Insufficient Enrollment

The Vice President for Instruction may cancel any course with insufficient enrollment. Every effort is made by staff to contact students affected by these cancellations. In addition, notices of classes cancelled for insufficient enrollment are posted on the classroom door.

Weather/Emergency Closures

Please see the Student Services/Information – Closures of College section of this catalog.

Career Center

Career Exploration

Trying to choose a career? Career testing can help you make one of the more important decisions in your life through self assessments that help you discover your work-related personal characteristics. ACC provides the tests listed below for a nominal charge. Call 303-797-5805 for information.

Myers Briggs Type Indicator (MBTI); Strong Interest Inventory (SII) are available.

Career Services

We provide up-to-date information on career exploration and development and career decision making. We can help you develop a plan to fit your needs and steer you in the direction you want to go, based on realistic self-knowledge. Specifically, we can provide you with the following information:

- Career assessment workshops for people who want a place to start in their research
- A career library with information about occupations, career planning, interviewing and resume skills
- Computer software packages that give you updated information on current occupations, pay ranges, schools that offer programs and employers who hire in the occupation. Software also includes information on scholarships.
- Videotapes and audiotapes on topics that enhance your career and job search.

We also offer you the opportunity to sit down with a career counselor to explore your career options.

Employment Services

We offer:
- Full-time, part-time, temporary and seasonal employment postings
- Online career leads with Monster.com
- Resume Critique
- Job Fairs

In addition, we are available to answer specific questions about job searching and interviewing.

Child Development Center

Put your child in good hands while you attend class, study or work. If you're an ACC student, staff or community member, you can enroll your child in our Child Development Center. The Center, staffed by professionals and ACC Early Childhood Education students, operates in conjunction with ACC and Student Services and is located in the North building on the main campus. It is designed to meet the developmental and educational needs of children aged two and one-half years to thirteen years old.

Call or drop by the Child Development Center to get on the waiting list. Families will be enrolled from the waiting list on a space-available basis. Charges include a registration fee, block and hourly rates. Tuition includes lunch, snacks and educational materials. For more information, please contact the Center at 303-797-5678.

Closures of College

Call 303-797-5700, ext. 9, or check our web site at www.arapahoe.edu if you have any questions about whether ACC is closed due to extreme weather or other emergency conditions. Major television and radio stations will also be alerted to College closures.

Code of Conduct

Please see Academic Standards – Student's Rights, Freedoms and Responsibilities section of this catalog.

College Catalog

The official Arapahoe Community College Catalog is posted on the college's web site at www.arapahoe.edu. Due to printing schedules, the Catalog is subject to change without notice. See the College web site for the most up-to-date information. The online Catalog will be updated periodically with new courses and programs. Please see an Academic Advisor (M2010) or Program Advisor to determine which catalog best meets your needs.

Comment Cards

As a learning-centered institution, ACC is committed to listening to and responding to students' compliments, complaints, suggestions, and comments. Comment cards are located in each ACC facility as well as an online comment card at www.arapahoe.edu in the About Us section. Comment cards are collected on a regular basis by the President's Office staff. They can be submitted anonymously or students can request a personal, direct response.

Credit Evaluation through Published Guides

Experience in the Armed Forces or Industrial and Corporate Training programs may transfer as credit. Check with the Office of Admissions and Records to find out if your experience qualifies.

Credit for Prior Learning

You may be able to earn credit for your non-college or experience-based learning that has been attained outside the sponsorship of accredited postsecondary education institutions. Credit for Prior Learning includes learning acquired from work and life experiences; correspondence and extension courses; individual study and reading; civic, community and volunteer work; and participation informal courses and in-service training sponsored by associations, business, government and industry. Credit for Prior Learning is not awarded for experience but for college-level learning, which entails knowledge, skills, and competencies that students have obtained as a result of their prior learning experiences. ACC may award a maximum of 50% of credit requirements toward a degree or certificate (maximum of 25% may be used for Portfolio method) for prior learning.

Prior learning credit will be awarded only to courses listed in the ACC catalog. No letter grade is assigned for prior learning credits. Prior learning credits are transcripted after one semester hour has been completed at ACC. Credits granted through prior learning are not eligible for financial aid or veterans' education assistance. Credit for Prior Learning may not be applied to courses in the core general education curriculum for the purpose of determining whether the core curriculum has been completed and the transcript should be stamped "core program completed."

Fifty percent of degree requirements may be earned through a combination of the following four methods available for awarding Credit for Prior Learning: Standardized Tests, Institutional Challenge Examinations, Industry Certifications, Published Guides and Portfolios.

National standardized placement tests such as College Level Examination Program (CLEP), both general and subject examinations; Advanced Placement Program (AP); Defense Activity for Nontraditional Education Support program (DANTES); Regents College Exams; and other nationally recognized testing, training, licensing or certification programs will be used to assess levels of knowledge, skills and competencies of students. The institutional copy of official scores from the national standardized placement test must be submitted to the Office of Admissions and Records.

Institutional Challenge Examinations such as objective tests; essays; and oral, hands-on or simulated demonstrations will be used to evaluate the competency of students in specific courses. Institutional examinations are the equivalent of the comprehensive final examination for the courses challenged. Experience in the Armed Forces or Industrial and Corporate Training programs may transfer in as credit after it has been evaluated through published guides.

Learning which has been acquired through work and life experiences must be substantiated through a formal portfolio assessment program. Students must enroll in a course designed to assist students in identifying, describing and documenting skills and knowledge gained through prior learning experiences. The learning must be demonstrable, must have both a theoretical and an applied component, and must be college level, currently applicable and the equivalent of a specific course to the student's certificate or degree requirements.

For additional information about credit for prior learning options, please call the Advising Center at 303-797-5651 or cpl@arapahoe.edu.

Drug and Alcohol Abuse Prevention Program

Arapahoe Community College is a state system community college governed by the State Board for Community Colleges and Occupational Education. The Board policy requires the College to comply with the Drug Free Schools and Communities Amendments of 1989 (PL 101-226 in Federal law.) A copy of this policy, (BP3-24), is available in the College's Human Resources Office.

Emergency Messages

There is no paging system at ACC, but emergency message delivery will be provided through the Campus Police Department (303-797-5911). We cannot tell callers where a student can be found, but we will make every effort to locate a student with a message about a REAL emergency (family/medical). To assist us in locating a particular student as quickly as possible, it is suggested that students give a copy of their current class schedule to their day care providers, child's school or significant other who may need to contact them in case of emergency.

Equal Opportunity

Arapahoe Community College (ACC) is an equal opportunity employer and does not unlawfully discriminate on the basis of race, sex, creed, color, age, national origin, veteran status or individual disability in the admission or access to, treatment of, or employment in, its educational programs or activities. The College complies with regulations of Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments Act of 1972 in regard to sex discrimination and Section 504 of the Vocational Rehabilitation Act of 1973 in regard to disability discrimination, as well as other applicable Federal and State laws and regulations pertaining to discrimination.

Inquiries or specific complaints of alleged discrimination concerning the Equal Opportunity policy and/or compliance with Federal and State regulations should be directed to ACC's Chief Operating Officer (who also functions as the ADA Coordinator for Facilities), Arapahoe Community College, 5900 S. Santa Fe Drive, P.O. Box 9002, Littleton CO 80160-9002, phone 303-797-5704. Inquiries or specific student complaints of alleged discrimination concerning academic accommodations provided in the classroom or through ACC's Office of Disability Services should be directed to the College's Dean of Students (who also functions as the ADA Coordinator for Academic Accommodations), Arapahoe Community College, 5900 S. Santa Fe Drive, P.O. Box 9002, Littleton CO 80160-9002, phone 303-797-5601. Complaints may also be filed with the Vice President for Legal Affairs and Vocational Education Administration, Colorado Community College System, 9101 E. Lowry Blvd., Denver, Colorado 80230-6011, phone 303-595-1549; or the Office for Civil Rights, U.S. Department of Education, Region VIII, Federal Office Building, 1244 Speer Blvd., Suite 310, Denver, Colorado, 80204, phone 303-844-5695.

Please visit **www.arapahoe.edu** for the most current, updated catalog information.

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Financial Aid and Veterans Programs

ACC offers a variety of VA, financial aid grants, scholarships, student loans, workstudy programs and opportunities to assist you with the cost of your college education. In most cases, you can receive financial assistance for tuition and fees, books and supplies, room and board, transportation and miscellaneous expenses. Ask for a copy of ACC's Financial Aid Handbook or visit our website at www.arapahoe.edu.

How to Apply for Financial Aid

To apply, you must be a U.S. citizen or eligible non-citizen and not be in default on any federal student loans or owe a repayment on a federal grant. Visit the Office of Financial Aid to obtain the Free Application for Federal Student Aid (FAFSA) or apply online at www.fafsa.ed.gov. The ACC FAFSA School Code is 001346. Financial Aid Advisors are available to assist you with completing the online application should you choose this option. Please call 303-797-5661 for an appointment.

If your file is selected in a process called verification, you may be required to provide the following additional information or documents:

- ACC Financial Aid Supplemental Information Form
- ACC Application for Admission
- Your (and your parents') tax returns
- Additional Income & Asset Information (TANF, SSI, Business Income, etc.)
- Verification Worksheets
- Other information as requested

The financial aid deadline date is May 1. Students who apply by this date will receive first priority to receive the most funds.

Student Rights and Responsibilities

Students applying for financial aid have certain rights and responsibilities as stated below:

Student Rights:

You have the right to:

1. Know what financial assistance is available from Arapahoe Community College, including information on Federal, State and other financial aid programs.
2. Know the deadline or priority dates for submitting applications for each of the financial aid programs available.
3. Know the cost of attending ACC and the refund and repayment policy.
4. Know the criteria used by ACC to select financial aid recipients.
5. Know how the college determines financial need. This process includes how costs for tuition, room and board, books and supplies, travel, personal insurance, and miscellaneous expenses are considered in establishing cost of attendance.
6. Know what resources (such as parental contribution, financial aid, private scholarships, income, assets, and other resources) are considered in calculating financial need.
7. Know what portion of your financial need, as computed by ACC, has been met.
8. Request an explanation of the various programs included in your financial aid package, and appeal for a review of your award if you feel that it does not adequately meet your needs.
9. Know what portion of your financial aid package is a loan that must be repaid. If your award package does contain a loan, you have a right to know the interest rate, the total amount that must be repaid, the repayment procedure, the length of time you have to repay the loan, and when the payment is scheduled to begin.
10. Know what portion of your financial aid package is earnings from part-time employment, (Federal or State work-study) and conditions of employment, and how and when you will be paid.
11. Know how the college determines whether you are making satisfactory progress in your course of study, and what happens to your financial assistance if you do not maintain satisfactory academic progress.
12. Know the completion of graduation rate for students.
13. Know campus security policies and crime statistics.
14. Know what facilities and services are available to students with disabilities.

Student Responsibilities:

You have the responsibility to:

1. Complete all application materials on time and make sure the various forms are sent to the right place.
2. Complete your application accurately. Errors can result in delays in your considerations for financial assistance. Intentional misreporting of information on applications for Federal financial aid funds is a violation of the law and is considered a criminal offense subject to penalties under the U.S. Criminal Code.
3. Promptly return all additional information, documentation, verification, and/or corrections requested by either the Office of Financial Aid or the agency to which you submitted your application.
4. Read and understand all documentation you are asked to sign, and keep copies for your personal records.
5. Accept full responsibility for agreements you sign.
6. Notify your lender(s) of changes in your name, address, and/or student status if you have borrowed a loan.
7. Perform the work you have agreed to in accepting a college work-study award.
8. Know and comply with the refund/repayment policies and procedures of Arapahoe Community College.
9. Understand the conditions under which each element of your financial aid package is offered and comply with the criteria for retention of your financial aid awards.
10. Notify the Office of Financial Aid if you receive assistance of any kind, from any source, that was not reported on your application for financial aid. This includes, but is not limited to:
    - Private scholarships and/or grants
    - Social Security payments
    - Veterans Benefits
    - Aid to Dependent Children
    - Bureau of Indian Affairs (BIA) awards
    - JTPA assistance
11. Students are advised to keep records of tuition and fees charged, books, supplies, etc. for all semesters they attended during a calendar year. Students are required to report financial aid, with the exception of loans, to the Internal Revenue Service as income if the aid received is greater than the tuition and fees charged less the amount paid for books and supplies. Students are strongly encouraged to contact the IRS for specific details.

12. Enroll for classes that apply toward your degree. Classes taken by audit or challenge do not qualify as financial aid hours attempted and will not be considered eligible for aid.
13. Students must prove "ability to benefit." This would include a high school diploma, GED or they must take a placement test (ASSET or COMPASS) and receive scores designated by the Department of Education.
14. Students can not have violated any federal or state drug possession or sale law.

Contact Financial Aid for more information: 303-797-5661.

Obtain the ACC Financial Aid Handbook for More Information

Below are just some of the federal and state grant, scholarship and workstudy programs available. Please visit the Office of Financial Aid for more information or visit online at www.arapahoe.edu.

Grants

Federal Pell Grant

This federally funded assistance is available to students needing help with college expenses. Awards vary, depending on the amount of support your family can provide. A federal formula determines the size of your award.

Federal Pell Grants are intended to build a base of financial support that can be supplemented with other kinds of assistance if necessary.

Federal Supplemental Education Opportunity Grant (SEOG)

This program is designed to be awarded first to those applicants with extreme need. Priority is given to students who are eligible for the maximum in a Federal Pell Grant.

Colorado Student Grant

State funds are available to Colorado residents with financial need. Awards vary depending upon student's need. Funding is provided by the Colorado General Assembly.

Leverage Education Assistance Program

These funds are awarded to Colorado residents with exceptional financial need. Awards vary per year, and are dependent upon the student's need.

Scholarship Search Center

Students are encouraged to visit the ACC Scholarship Search Center in the Financial Aid Office for the many scholarship opportunities available. New scholarships arrive daily. Students are also welcome to access the many free scholarship web sites using one of the computers available at the Search Center. To find out more about ACC scholarships and many others, we recommend the following website links:
- www.arapahoe.edu
- www.fastweb.com
- www.wiredscholar.com
- www.finaid.org
- www.scholaraid.com

In general, scholarships do not have to be repaid and are based on merit, talent or academic promise. Visit the Office of Financial Aid for more details or to obtain the ACC Scholarship Brochure.

Loans – Federal Family Educational Loan Program

Federal Stafford Loans

This loan is offered as either subsidized or unsubsidized. The amount of the loan that a student is eligible to apply for is dependent upon year in college, program length, need, dependency status, etc. Students who can demonstrate financial need through the FAFSA are eligible to borrow a subsidized Federal Stafford Loan. Loans that are subsidized do not accrue interest as long as you are enrolled as at least a halftime student. Repayment and a variable interest rate begin six months after the student is no longer enrolled half time. Students who cannot demonstrate financial need for any or all of the maximum loan each year may be eligible to receive an unsubsidized Federal Stafford Loan. The student is required to pay the interest on this loan from the time the loan is disbursed by the lender. The Federal Stafford Loans are provided through private lending institutions such as banks, savings and loans or credit unions. They are guaranteed by the State of Colorado or another guaranty agency, and are reinsured by the Federal Government.

Federal Parent Loan Program (PLUS)

Parents of dependent students may qualify for this loan program authorized by Congress. Check with the Financial Aid Office for details.

Work Study

Colorado Work Study

If you're a Colorado resident, you may qualify for this program. Students approved for this program work up to 20 hours per week. The program is funded by the State of Colorado.

Federal Work Study

Part-time campus employment is available through work study to assist you with your college expenses. The Federal Government funds this program.

Colorado No-Need Work Study

Even if you are unable to demonstrate financial need, you may still be eligible for a work study program if you are a Colorado resident. No-Need Work Study pay varies per hour and you can work a maximum of 20 hours per week on campus. You must submit a Free Application for Federal Student Aid to apply. Please contact the Financial Aid Office for application forms and additional information.

Federal Financial Aid Return of Title IV Funds Policy

Financial aid students at Arapahoe Community College receiving Title IV funds who completely withdraw, officially or unofficially, within 60 percent of the term may owe a repayment of funds received. Cases such as these will be examined to determine if a repayment is applicable. If so, the refund will be calculated and returned in accordance with Federal legislation.

Students may also be required to repay Title IV Refunds in the following order:
- Unsubsidized Federal Stafford Loan
- Subsidized Federal Stafford Loan
- Federal Parent Loan to Undergraduate Students (PLUS loan)
- Federal Pell Grant

- Federal Supplemental Educational Opportunity Grant
- State of Colorado Student Financial Aid Programs
- Arapahoe Community College Financial Assistance
- Programs
- Student

Contact the Financial Aid Office for specific criteria for all aid programs listed above, or visit our website at: www.arapahoe.edu.

Veterans' Educational Assistance Programs

ACC has been approved for several education and training programs by the Colorado State Approving Agency for the Veterans' Education Program. Some of those programs include:

- The GI Bill (Chapter 30)
- Active Duty (Chapter 1606)
- Dependents' Benefits for Deceased or Disabled Veterans (Chapter 35)
- Vocational Rehabilitation

To Apply

Visit the Office of Financial Aid & VA to begin the application process. In general, you will need the following before your benefits can be determined and awarded:

- Copy of your DD214
- Suffice Number or NOBE
- Form 22/1990 for New Veterans obtaining Benefits
- Form 22/1995 for Veterans Continuing their Benefits

Transcript Evaluation Form for Previous Credits

Should you wish to be considered for Advanced Payment, you must complete your application a minimum of 30 days prior to the semester start. Applicants must be prepared to pay their own tuition and fees and books and supplies while the U.S. Veterans Administration processes their certification/application. Please contact the ACC Veterans Certifying Official at 303-797-5662 for more information. See also Academic Standards – Attendance section of this catalog.

Food Services

Cafeteria

ACC's cafeteria on the first floor of the main campus building offers self-serve and made-to-order foods for breakfast, lunch and dinner. They serve foods such as pizza by the slice, deli sandwiches, main entrees, grill items, Mexican bar and salad bar along with a variety of beverages. Hours of operation are posted outside the cafeteria. Family members and the general public are also welcome to purchase meals from the cafeteria and enjoy them in the dining area. A microwave oven is available for students who wish to heat food they've brought from home. Catering for special meeting and events is available. ACC@DTC facility houses a deli with limited hours and there are several food locations near UCC.

Vending Machines

Throughout ACC you will find quality vending machines with well-stocked brand name products containing candy, snacks, and hot and cold beverages. If you have any problems with these machines on the Main Campus, contact the Cashier's Office on the 2nd floor; problems with the vending machines at the Art & Design Center should be taken to AD427E between 8 a.m. and 4 p.m. Difficulties with vending machines at the ACC@DTC or UCC facilities will be handled with the staff at the front desks.

Coffee Cart

The Coffee Shack, serving espresso beverages, chai tea, flavored hot teas, hot chocolate, sweet rolls, biscottis, muffins, etc. year round and iced beverages in the summer, is located on the Main Campus, 2nd floor lobby.

Grade Reports

Grades are not mailed automatically. Your grades are available to you after they are posted at the end of each semester. You may access your grades through the Touch-tone system 303-389-0058 or through our web site at www.arapahoe.edu. If you want a hard copy of your grades, select that option on the Touch-tone system and a grade mailer will be sent to you. (Requests for fall semester grade mailers are mailed in January due to the college closure over the holidays.) Or you may print a copy of your grades off the Student Information Online terminals in the second floor lobby of the main building.

Housing

Information about off-campus housing is available on a bulletin board on the first floor of the main campus building. To place an advertisement for housing needed or housing available, fill out a card provided on the bulletin board. For more information, contact the Student Affairs Office.

Information Central

Information Central, conveniently located on the second floor of the main campus building, provides one-stop enrollment services to prospective, new and continuing students. You can also call Information Central at 303-797-4ACC (4222). Check ACC's web site for information and e-mail links at www.arapahoe.edu.

Lost and Found

Please refer to Student Services/Information – Campus Police Department listing for the main campus. Students at the ACC@DTC and UCC facilities should check with the front desk for assistance with lost/found items. After a period of time, these items are sent to the Lost and Found at the main campus. Please be sure to label your books and personal items.

Minority Student Support

Umoja (Unity) Student Alliance was created to enhance cultural diversity at ACC and provide a support system for minority students. Call 303-797-5674 for more information.

Name Changes

If your name changes due to marriage, divorce or for other reasons, please contact Information Central immediately.

Open Computer Lab

The Open Computer Lab is located on the first floor of the main building for ACC student use with current I.D. The computers offer Internet access and Microsoft software as well as specialized instructional software programs. E-mail access is also offered.

Payment Options

Do not wait for a bill. Unless your account is paid in full, or you have a deferred payment plan in place by the semester payment deadline (published in the semester schedule), you may be dropped from your classes for non-payment. Consult your semester schedule for payment option details.

Records

Student Academic Records and Access

ACC keeps an active, cumulative record of every student's application, correspondence and other important details. Under the direction of the Registrar, the Office of Admissions and Records keeps the following information in your student file:

- Personal data: your name, address, phone number, gender and student number. Please be sure to keep your address current with Information Central to ensure that all information sent from the College reaches you.
- Educational background: any high schools or colleges you attended and the transcripts you submitted from those institutions
- Your major and degree expectations
- Degrees you have earned
- Your college transcript, including the hours you attempted, grades, credits and your dates of enrollment
- Courses, credits and hours you are currently taking. Copies of your records can be made for you at a nominal charge.

Once you leave the College, your file is stored under an "inactive" classification. After one year your file is archived and later destroyed in accordance with the regulations of the Colorado State Archives.

Transcripts

Transcript copies are $3.00 if requested online or $5.00 if requested by any other means. Same day transcript processing is available for $10.00 each. You must request them in writing either by mailing your request to Admissions and Records, Arapahoe Community College, P.O. Box 9200, Littleton CO 80160-9002; faxing your request to 303-797-5970; stopping by Information Central to complete a Transcript Request Form; or by filling out the online form at CCC Web through ACC's web site. Please allow two to three days for processing your request. We cannot release transcripts to students with unmet financial obligations. ACC is not authorized to release or certify transcripts sent from other colleges or universities.

Transfer Transcripts and Official Credit Evaluations

You must be enrolled in ACC to have a credit evaluation. To have your transcripts evaluated, complete a Request for Transfer Evaluation form at Information Central. The form is also located on ACC's web site at www.arapahoe.edu. Evaluations will be processed when this form is received and all official transfer transcripts have been received. NOTE: Official transcripts must be sent DIRECTLY to ACC from the institutions you attended. Your transfer credit will be examined course by course based upon your degree or certificate requirements. You will receive confirmation of your applicable credit – generally within two to three weeks after all documentation is received by ACC.

Privacy Act and The Security of Your File

The Office of Admissions and Records takes responsibility for the security of your academic records. Under the Federal Family Educational Rights and Privacy Act, the information in your file

may only be released under specific conditions. As a current or former student of ACC, you have complete access to your records [in compliance with the requirements under the Federal Family Educational Rights and Privacy Act of 1974 (Public Law 93-389 Subsection 513,88 Stat. 571; 29 U.S.C. 1232 q).] You may view them upon request at the Office of Admissions and Records. If you feel your records contain an error, you may appeal in writing to the Director of Admissions and Records. If necessary, you may also appeal to the Academic Standards Committee.

Your name and enrollment status at ACC are considered public information. ACC will respond to inquiries in this regard, whether they are made in person, by phone or in writing.

Other items, listed below, may appear in college directories and publications or be disclosed by staff to anyone inquiring in person, by phone or in writing:

- Your date of birth
- Your major or division
- Dates of your enrollment
- Number of hours you are currently taking or completed previously
- Degrees you have earned
- Honors you have received

Your name may be released for graduation listings and lists of special awards, honors and events released to the news media. Your name and degree may be released to employers for follow-up graduate surveys. You can prevent disclosure of those items by filing a written request with the Office of Admissions and Records that they be withheld unless you grant written permission. If a student does not wish the College to release the directory information, a Confidential Hold form must be completed at Information Central. A student who has requested restricted release of information cannot perform any personal business with ACC over the phone or online. These students must conduct all of their business in person to protect the student's privacy. This includes, but is not limited to, using telephone and online registration and grading, calls from the student's family, child's school or daycare, etc.

All other information contained in your records is considered private and not open to the public without your written consent. Only the following individuals, because of their official function, have access to this information:

- ACC officials (A School Official is: a. A person employed by the college in an administrative, supervisory, academic, research or support staff position. b. A person employed by or under contract to the college to perform a special task, such as the attorney or auditor. c. A student serving on an official committee, such as disciplinary or grievance committee, or who is assisting another school official in performing his or her tasks).
- Officials at other schools and colleges where you apply
- Officials of Colorado collegiate institutions that have transfer agreements with ACC and who wish to contact graduates
- State or federal education authorities
- Official evaluating your application for financial aid
- State and local officials requesting reporting data
- Organizations conducting studies for educational institutions or agencies
- Accrediting organizations
- Parents of dependent students (proof of dependency is required)
- Veterans Administration

Under the following circumstances, ACC may also provide information without your consent:

- Judicial orders
- Emergencies, where the information contained in your file

Please visit **www.arapahoe.edu** for the most current, updated catalog information.

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is needed to protect your safety, health or welfare, or that of other persons

A complete copy of the Family Educational Rights and Privacy Act is available in the Office of Admissions and Records.

Record of Disability

Documentation of disability provided to the office of Disability Services is maintained in a limited-access file. In accordance with the Americans with Disabilities Act, Section 504 of the Rehabilitation Act and the Family Educational Rights and Privacy Act, all documentation is confidential. Under the following circumstances your educational records maintained by disability services will be released:

- When other ACC staff or faculty require information from your records for a legitimate educational interest or for the health and safety of yourself or others
- When you sign a written request asking Disability Services to release your records to a specific ACC department or person
- To off-campus authorities as authorized by law.

Security Phones

Please refer to Student Services/Information–Campus Police Department–Security Phones listing in this catalog.

Sexual Harassment

This policy, which is based on BP 3-120 and SP 3-120a, is as follows: Board policy requires equal employment opportunity as well as affirmative action and references federal laws protecting the rights of individuals regardless of their sex. Sexual harassment of students and System employees is prohibited. Employees should know that when a power differential between the individuals involved exists, romantic or sexual relationships may lead to charges of sexual harassment.

State of Colorado and Federal Law, and State Board Policies and Procedures prohibit sexual harassment of students and College employees.

Sexual harassment is defined as unwelcome sexual advances, request for sexual favors, and other verbal or physical conduct of a sexual nature when one or more of the following criteria are met:

1. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or academic status in a course, program or activity.
2. Submission to, or rejection of, such conduct by an individual is used as the basis of employment or academic educational decisions affecting such individual.
3. Such conduct is sufficiently severe, persistent or pervasive to have the purpose or effect of unreasonably interfering with an individual's work/academic educational performance or creating an intimidating, hostile, or offensive working/learning environment.
4. Matters having sexual connotation, which arise as part of the legitimate educational curricula and do not exploit students to a private advantage, would not violate college policy unless used in an improper manner. Examples of sexual harassment may include, but are not necessarily limited to:
   a. Physical Assault
   b. Direct or implied threats that submission to sexual advances will be a condition of employment, work status, promotion, grades or letter of recommendation;
   c. Direct proposition of a sexual nature;
   d. Subtle pressure for sexual activity;
   e. A pattern of conduct intended to discomfort or humiliate, or both, a reasonable person at whom the conduct was directed that includes one or more of the following:
      1. Touching, patting, hugging or brushing against a person's body;
      2. Remarks of a sexual nature about a person's clothing or body;
      3. Remarks about sexual activity or speculation about previous sexual experience; or
      4. The display in the work or educational arena of sexually suggestive objects or pictures.

For further information about this policy or procedures, contact ACC's Office of Human Resources at 303-797-5720.

Smoking

Smoking and the sale of tobacco products are prohibited in all campus buildings pursuant to State Executive Order D003690. Smoke-free building entrances include the following: the Main entrance to the main campus building, the south entrance of the North Building (Child Development Center side) and the 3rd floor balcony of the main building. Smoking is also prohibited on the 4th floor balcony of the main building. Smoking on the North and East second floor balconies of the main building is restricted to the north portion of those balconies.

Student Bill of Rights

The General Assembly implemented the Student Bill of Rights (C.R.S. 23-1-125) to assure that students enrolled in public institutions of higher education have the following rights:

a) A quality general education experience that develops competencies in reading, writing, mathematics, technology and critical thinking through an integrated arts and science experience.

b) Students should be able to complete their associate of arts and associate of science degree programs in no more than sixty credit hours or their baccalaureate programs in no more than one hundred twenty credit hours unless there are additional degree requirements recognized by the commission;

c) A student can sign a two-year or four-year graduation agreement that formalizes a plan for that student to obtain a degree in two or four years, unless there are additional degree requirements recognized by the commission;

d) Students have a right to clear and concise information concerning which courses must be completed successfully to complete their degrees;

e) Students have a right to know which courses are transferable among the state public two-year and four-year institutions of higher education;

f) Students, upon successful completion of core general education courses should have those courses satisfy the core course requirements of all Colorado public institutions of higher education;

g) Students have a right to know if courses from one or more public higher education institutions satisfy the students' graduation requirements;

h) A student's credit for the completion of the core requirements and core courses shall not expire for ten years from the date of initial enrollment and shall be transferable.

Student Class Definitions

Your academic year classification is made according to the number of credit hours you have completed. We use the following definitions to determine your classification:

Freshman: A student who has successfully completed fewer than 30 semester credit hours.

Sophomore: A student who has successfully completed 30 or more semester credit hours.

Student Handbook

The Student Handbook is an essential resource for students at ACC. In addition to providing detailed information about renting a locker to posting items on the bulletin boards, this handbook also contains information about Student Rights and Responsibilities and the Code of Conduct and the Club Handbook. Pick up your free copy at the Student Affairs Office, M2820, and at the front desk of the ACC@DTC and UCC facilities.

Student I.D. Cards

You can obtain your Student ID card from the office of Student Affairs. Your ACC Student ID card is required to check out books and materials from the library or to use the pool or Open Computer Lab and to buy/sell books in the bookstore. Your card will be valid for 2 years. Replacement cards are available from the Office of Student Affairs for a $10.00 charge.

Student Affairs

Student organizations, recreational sports, clubs and activities are an essential part of campus life. The Student Affairs Office is the initial point of contact for student-related grievance filings or judicial affairs issues. For more information on the various ways the Student Affairs Office can help you, please stop by M2820 or call 303-797-5668 and talk to one of our friendly staff.

Student Government

The Student Leadership Council is elected by the student body during the spring semester. This group works to represent your interests in issues such as student activities, welfare and jurisdiction. With the assistance of the Director of Student Affairs, the Student Leadership Council:

• Decides how to allocate the Student Activities Fee Budget;

• Recommends policies that govern student-funded facilities;

• Serves as a representative voice in administrative decision making.

For more information, stop by the Student Leadership Council Office or call 303-797-5871.

Student Publications

The Arapahoe Observer newspaper is written and published by students for students approximately every two weeks. The student newspaper is funded with ACC student fees. Aspiring journalists, photographers, graphic designers and those interested in newspaper production and advertising sales are invited to join the staff. Drop by the office or call 303-797-5666 for more information. *The Arapahoe Observer* can be picked up free from distribution boxes around campus.

Clubs and Organizations

Over 20 different clubs and organizations are available for students. Stop by the Student Life office for a current listing or for information on how to join or start a new club.

Student Rights, Responsibilities and Code of Conduct

Please see Academic Standards–Students' Rights, Freedoms and Responsibilities section of this catalog.

Telephones

The main campus building, the Church Street Building and University Center at Chaparral have pay phones for student use. The ACC@DTC building and the North building have courtesy phones in the hallways – dial 9 to get an outside line for local calls only. Touch-tone registration phones are also located in the main campus building next to Information Central. All pay phones in the main campus building are wheelchair accessible and some have volume control for those with a hearing loss. A TTY pay phone is located on the first floor just outside of M1950.

Testing

Please refer to Student Services/Information–Assessment section of this catalog.

Website

www.arapahoe.edu

Wireless Internet Access

ACC provides Internet access for students with personal laptops from certain areas on campus and from many of the instructional computer classrooms on campus. Please contact Technology Support Services at 303-797-5700 or extension 3199 from a campus phone to learn which areas have access and to learn the steps required to connect personal wireless devices to the ACC network.

Learning-Centered Opportunities

Arapahoe/Douglas Career and Technical School

The Arapahoe/Douglas Career and Technical School is a division of Arapahoe Community College. It is intended to be the career/technical education wing of the home high schools in the school district consortium comprised of Cherry Creek, Douglas County, Englewood, Littleton and Sheridan school districts. Programs offered on a cooperative basis are designed to be an integral part of the program of studies conducted by each school. The curriculum offerings are designed for students who may be planning to enter the labor market upon graduation from high school as well as students who plan to continue their educational endeavors by enrolling in related fields of study at community colleges and universities. The Carpentry program is also offered to post-secondary students at ACC. For instructional program offerings or further information, visit their web site at www.actsinfo.org or call 303-797-5080.

Accelerated Courses

Accelerated courses require less classroom time than traditional classes. Accelerated classes have additional hours by arrangement with significant outside classroom coursework.

Arrangement (ARGMT) Courses

Arrangement courses require students to complete projects or other required class activities with faculty direction.

Auditing Courses

Please refer to the Academic Standards – Auditing Courses section of this catalog.

Bachelor's Degree

By combining on-campus classes at ACC with online courses through Franklin University in Ohio, you can earn a bachelor's degree in the following undergraduate majors: Business Administration; Computer Science; Digital Communication; Health Care Management; Management Information Sciences; Public Safety Management and Technical Management. For more information, call 1-888-341-6237 or visit www.alliance.franklin.edu.

CCC Online

Colleges in the Colorado Community College System are sharing human and financial resources to deliver degree programs via the Internet. CCC Online allows students to earn associate degrees through web site coursework and regular communication with faculty and fellow students who may be anywhere in the world. Students will use tools of the Internet including chatrooms, threaded discussions, audio, video, webliographics and more. CCC Online is located at 9075 E. Lowry Blvd., Denver, CO 80220, 1-800-801-5040. For more information visit the CCC Online website at www.ccconline.org. Please note: a higher tuition rate is charged for CCC Online courses.

Center for Academic Resources

Our Center for Academic Resources provides a variety of support services including, Disability Services and Tutorial Services. These programs are located in the Center for Academic Resources in M2710. Phone 303-797-5937 v/tty.

Disability Services

Our function is to assist the College in providing access accommodations for students with disabilities to college courses, programs, services, activities and facilities both on and off-campus. Disability Services serves as a resource to students, faculty, staff and other community members to provide information, training, and professional development in the areas of the Americans with Disabilities Act, Section 504, of the Vocational Rehabilitation Act, legal trends, general access issues, cultural considerations, accommodations and accessible technology.

Support Services

The provision of services is based on an individual needs assessment. Support services may include:
- Test Accommodations
- Interpreters for students who are Deaf or Hearing Impaired
- Specialized orientations for support services
- Self-advocacy training and ADA/504 information
- Certification of diagnostic records for accommodations
- Classroom materials or college publications in alternative formats such as Braille, audiotape, enlarged print or electronic
- Use of specialized equipment such as enlargement or amplification devices
- Access to assistive technology
- Referral to on or off-campus resources

Tutorial Services

Our function is to provide a student-centered learning environment that will augment instructional offerings at Arapahoe Community College. Tutorial Services is specifically designed to enhance self-directed learning strategies to improve academic achievement and performance.

Free academic assistance in occupational and transfer degree programs is available to students who have a verifiable need. Students must follow CPT course recommendations and/or fulfill prerequisite course requirements to qualify for tutoring.

To get started, students will complete a brief intake form, meet with the coordinator to determine specific needs, and schedule a short series of appointments at designated times.

Cultural Opportunities

Performance Opportunities

Students are invited to join the ACC Jazz Band, ACC Orchestra or our Theatre program for performance opportunities.

Colorado Gallery of the Arts (A1300)

The Colorado Gallery of the Arts (CGA) is one of ACC's treasures. The gallery hosts a number of local and regional art exhibitions each year, attracting artists and art lovers from the greater Denver community. CGA also hosts the ACC Art and Graphic Design & Illustration Students' exhibitions each spring. Exhibitions generally last four to five weeks. Admission is free; however, hours are limited. Call 303-797-5649 for dates and times. The Colorado Gallery of the Arts is located on the first floor of the Annex building near the tennis courts.

Diversity

ACC has a number of groups and staff dedicated to enhancing the understanding among diverse groups of people through special events, lectures and other learning-centered initiatives. Contact the ACC College Communications Department at 303-797-5709 for information about upcoming events or check for press releases posted at www.arapahoe.edu.

International Events

Arapahoe Community College joins with Spring International Language Center to present such cultural events as International Day and the annual International Dinner with community host families. These events highlight the cultures of ACC's international student body. Contact the ACC Communications Department at 303-797-5709 for information about upcoming events or check for press releases posted at www.arapahoe.edu.

Jantzen Gallery
(100 Building of Art & Design Center)

The Jantzen Gallery is a smaller gallery hosting exhibitions of art by current students and visiting artists-in-residence. Stop by!

Fitness Center

ACC's Fitness Center offers fitness programs for people of all abilities. You'll have access to state-of-the-art exercise equipment, an indoor track and a six-lane, indoor pool. The environment is supportive, not competitive. Personal guidance by a professionally-trained and dedicated staff is always available. You may start your fitness program at any time. Call 303-797-5850 for details.

Flex Courses

Flex courses provide flexibility of learning at your own pace. Instructors will be available during posted hours in the classroom. Instructors will answer your questions, support your progress and promote your success.

Developmental Studies

Rapid skill development is the goal of developmental studies. If you need to boost your basic skills to succeed in college, you are encouraged to sign up for our courses. Developmental Studies offers a combination of classroom instruction and individually-guided learning. Non-English speaking students are encouraged to register for an English as a Second Language course.

Specific Developmental Studies courses include:

AAA	090	Academic Achievement Strategies
AAA	103	College Orientation
AAA	109	Advanced Academic Achievement
ENG	060	Writing Fundamentals
ENG	090	Basic Composition
ESL	022	Intermediate Grammar
ESL	043	Advanced Reading
ESL	053	Advanced Composition
MAT	030	Fundamentals of Mathematics
MAT	060	Pre Algebra
MAT	090	Introductory Algebra
REA	060	Foundations of Reading
REA	090	College Preparatory Reading
REA	112	Speed Reading

Those functioning below the secondary level on educational achievement or placement tests, or who need longer-term remedial education, should contact the Center for Academic Resources or the Counseling Department.

Great Books Achievement Awards

ACC is proud to be one of six community colleges nationwide chosen to participate in the National Great Books Consortium. Some sections of transfer courses, labeled "GB," will include some readings from authors identified in the 1990 Great Books series published by the Encyclopedia Britannica and the University of Chicago. The sections differ in no other way from other sections of the same course or equivalent courses at other colleges. Students who complete a Great Books section of a course with a B or better may apply those credits toward a Great Books Achievement Award Certificate, which will be awarded upon completion of 12 credit hours of Great Books sections. In addition, students will be noted at graduation, and the Great Books sections will be noted on their transcripts.

Hybrid Courses

Hybrid courses have less classroom time than traditional classes and provide additional online activities and online class content. Students who do not have a computer with Internet access may use computers at the Open Computer Lab to meet the online requirements of the hybrid class.

Independent Study

We aim to meet your individual needs and to foster strong faculty and student connections. Independent study, a course format that allows you to learn and study at your own pace under the guidance of an ACC instructor, is just one way that we attain this goal.

Many courses in this catalog can be set up for Independent Study. Courses may also be designed outside of our offerings. All Independent Study programs must be approved by the appropriate division dean.

If you're interested in pursuing an Independent Study course, talk to your advisor or an instructor. You'll need to complete a contract when you register that outlines the course title, credits, learning objectives and strategies. For additional information, please contact the Office of Admissions and Records.

Inter-Institutional Registration with Metropolitan State College

You may register for classes (100 and 200 level only), at Metropolitan State College on a space-available basis. You'll pay ACC tuition and fees and earn credit at ACC for Metro courses.

Begin registration at ACC. Inter-institutional forms and information on limitations and registration are available at Information Central.

Late Start

Late start classes begin later than the second week of the semester. Late start classes are identified in the semester schedule with their dates in bold ink.

Library

Please see Learning-Centered Opportunities–Weber Center for Learning Resources section of this catalog.

Military Credit

You can be granted ACC credit for satisfactorily completing courses while serving in the military. ACC uses the *Guide to the Evaluation of Educational Experiences in the Armed Services,* published by the American Council on Education, to determine transferable hours. The credit will appear on your transcripts only after you have completed one semester hour at ACC and it will not be assigned a grade or quality points.

Service Members Opportunity College (SOC)

Arapahoe Community College belongs to the Servicemembers Opportunity College, an organization of over 400 colleges and universities providing educational opportunities to military personnel around the world. As an SOC member, ACC is committed to overcoming the obstacles to education that a military lifestyle presents. Assistance includes easing the transfer of course credits and granting credit for learning through military training and experiences.

SOC has been developed by educational representatives of the Armed Services, the Office of the Secretary of Defense and a consortium of thirteen national higher education associations. It is sponsored by the American Association of State Colleges and Universities (AASCU) and the American Association of Community and Junior Colleges (AACJC).

Online Courses

Online courses are delivered via the Internet. You must have access to a computer with a reliable Internet connection as well as an e-mail account. Students who do not have a computer with Internet access may use computers at the Open Computer Lab to meet the online requirements of the online class.

Phi Theta Kappa

Phi Theta Kappa is a prestigious, international academic honor society for two-year college students. Founded in 1918 by an assembly of two-year college presidents, Phi Theta Kappa today has over 1300 active chapters and 125 alumni chapters. ACC's chapter is Sigma Phi, chartered in 1968. You may qualify for membership if you have 1) enrolled in a degree program at ACC, 2) accumulated twelve credit hours at ACC, 3) earned a cumulative GPA of 3.5 or higher at ACC, 4) demonstrated moral character, and 5) been recommended by an ACC faculty member. Candidates are invited to join each spring and fall semester.

Phi Theta Kappa focuses on four Hallmarks: Scholarship, Service, Leadership and Fellowship. Members participate in service-oriented activities, pursue active leadership roles, and organize fund-raisers and fellowship activities. The Society selects an interdisciplinary, current topic for study every two years. At ACC a transfer credit course based on the Honors Topic, HON 275 is open to all students. Many four-year schools designate transfer scholarships for members of Phi Theta Kappa.

If you are interested in joining Phi Theta Kappa, contact Advisor Sallie Wolf at 303-797-5794.

Professional Achievement Awards

ACC's Professional Achievement programs respond to working adults' needs for convenient, short-term educational programs which teach concepts you can use on the job immediately. These are no-nonsense, high impact, application-oriented experiences designed by professional practitioners. Many of these programs can be completed within a year or less, following fast track and accelerated schedules. A "C" or better is required in each class to receive the award. Transfer credit may not exceed 50% of the credits applied to the award. Successful students will receive a "Professional Achievement Award." For more information, consult your semester schedule.

Reserve Officers Training Corps (ROTC)

ACC students are eligible to participate in the ROTC programs listed below. You must be willing to commute.

Air Force Reserve Officer Training Corps (AFROTC)

Under an agreement with the University of Colorado at Boulder, ACC students may enroll in CU's AFROTC program. Freshman and sophomores commute to Boulder weekly for classes and the Leadership Laboratory. ROTC credits apply toward elective credit in both ACC's Associate of Arts and Associate of General Studies degrees.

Juniors continuing in the Professional Officer Course must transfer to CU or to an institution under the cross-town agreement. The U.S. Air Force ROTC offers two baccalaurete degree programs that lead to commission in the Air Force. Graduate students may be commissioned after completing 12 hours of the professional officer course and a six-week summer training program. For more information, contact: U.S. Air Force Reserve Officer Training Corps (AFROTC), Campus Box 371, University of Colorado, Boulder, CO 80309. Telephone (303) 492-8351.

Army Reserve Officer Training Corps (ROTC)

Under an agreement with the University of Colorado at Boulder, ACC students may enroll in CU's Army ROTC program. Freshman and sophomores commute to Boulder or other designated locations weekly for classes. ROTC credits apply toward elective credit in both ACC's Associate of Arts and Associate of General Studies degrees.

Under the cross-enrolled agreement, ACC students shall be considered as members of the University of Colorado at Boulder Corps of Cadets, and as such, may participate in any military function. Further, such students are eligible for participation in host battalion extracurricular activities. For more information, contact: Department of Military Science, 1310 Maple St. Bldg. 1020, Golden, CO 80401, (303) 273-3394.

Spring International Language Center

Spring International Language Center, a private, intensive English as a Second Language (ESL) program, has been affiliated with ACC since 1979. Spring offers six levels of instruction, 23 hours per week. Students in levels 5 and 6 can take six credits of college classes while completing their English. Graduates of Level Six can enter ACC without a TOEFL score. For information, call 303-797-0100; e-mail spring@spring-usa.com; or visit the web site at www.spring-usa.com.

Telecourses

Telecourses are delivered via televised lectures. These lectures are available on Channel 6 and /or in the ACC Media Center Viewing Room and /or through a tape rental program.

Academic Standards

Here is what you can expect of us… and what we will expect of you!

Please read this section carefully. If you have additional questions, talk to your counselor, advisor, or someone at the Office of Admissions and Records. Division deans can also assist you in situations requiring an educational judgment. You have the right to appeal any policy interpretation provided by an ACC official.

Academic Load and Limitations

Goals vary from student to student. Many students come to ACC to earn an associate's degree. Others, including continuing education students, seek a certificate or the skills taught in a single course. This section is here to give you an idea of the course load that is right for you.

To earn a "C", the average student should plan to spend two hours out of class for every hour in class.

To earn an associate's degree in two years, you must take an average of 15-18 credit hours each fall and spring semester. Semesters last about 15 weeks. By taking additional summer courses, you may graduate sooner or carry lighter course loads.

Full-time status is 12 or more credit hours per semester. One semester hour usually requires about 50 minutes in class per week and two hours of preparation. While the amount of time and work needed for success may change from semester to semester, in general, you will be kept busy if you are taking a full student load. We encourage working students or those with below-average grades to take fewer semester credit hours.

If you wish to take more than 20 credit hours in a semester, you'll need to obtain permission from an academic advisor and/or the Vice President for Instruction.

Academic Probation/ Suspension

(Not Related to Financial Aid Suspension)

Conditions of Academic Probation

A student who has completed a minimum of 15 cumulative credit hours at ACC must maintain a minimum cumulative Grade Point Average (GPA) of 2.0. Transfer credits from other institutions will not be calculated in the GPA. A cumulative GPA lower than a 2.0 will place a student on academic probation.

The Office of Admissions and Records will provide written notification to a student placed on academic probation or academic suspension. The probation process includes meeting with an academic advisor during each semester of probation. Probation will be in effect until the student's ACC cumulative GPA reaches a minimum of 2.0. Probationary status will not be noted on the student's transcript.

Conditions of Academic Suspension

While on academic probation, the student must maintain a minimum SEMESTER GPA of 2.0 based on hours completed for EACH semester of attendance. A student who falls below the 2.0 semester GPA for any term while on probation will be placed on academic suspension.

A student on suspension will be notified in writing by the Dean of Students. Suspension denies the student enrollment in credit courses at ACC for subsequent semesters. A suspended student may request written approval through an academic advisor to enroll in Developmental Studies courses (below 100 course number). Academic suspension will be noted on the student's transcript.

Appeal of Academic Suspension

A student may appeal suspension by submitting a written appeal form to the Manager of Advising no later than 10 working days after being notified of suspension. The student must complete the Suspension Appeal Form with an advisor prior to submitting it to the Manager of Advising. The Manager of Advising will deny or approve the student's appeal. When a student's appeal is approved, he/she may enroll under probationary status.

Academic Renewal

"Academic renewal" refers to procedures for a one-time exclusion of a maximum of 15 semester hours of credit from the calculation of the grade point average. ACC may award academic renewal to a student only one time for prior failing grades and only to currently enrolled ACC students. Academic renewal applies only to courses taken at ACC. A maximum of 15 credits failed at ACC may be removed from the GPA calculation. At the time of application for academic renewal, the student MUST MEET certain criteria listed on the Academic Renewal Request Form. Academic renewal is available to all ACC students who enroll for classes after August 1, 2002 and may be applied to courses taken prior to this date. Academic Renewal Request Forms are available at Information Central.

The original grade received will remain on the official transcript. The following note will be added to the official transcript: "Academic Renewal Awarded (excluded from GPA)."

Add/Drop

You may add or drop a class during the first 15 percent of the course term. Look for specific dates in the ACC schedule. Schedule Adjustment forms are available at Information Central. Please refer to our refund policy under Tuition and Fees in this catalog.

Attendance

Students are expected to attend all classes except in the case of illness or emergency. Instructors will inform you of their individual policies. Students who miss too many sessions may be advised to withdraw from a course.

Auditing Courses

You are welcome to take a course without earning credit, but will be charged the same tuition and fees. Your request to audit a course or change back to credit status can be made through the withdrawal deadline of the course. Instructor approval is required after the add/drop period is over. Audit students are expected to follow our attendance and withdrawal policies. No credit is earned for courses taken by audit. Courses taken by audit are not eligible for financial aid or Veteran's educational benefits. Alternate Grading Option forms are available at Information Central.

Course Substitutions

If you believe you have mastered the subject matter of a class which is required for your degree or certificate, you may seek to have the course(s) substituted. Obtain a Course Substitution Petition from Information Central and meet with your departmental advisor. Some required courses are eligible to be substituted by the departmental advisor and the appropriate dean; substitutions for other courses must be approved by the advisor, dean and the Academic Standards committee. Your departmental advisor will assist you with determining the correct substitution method. Credit is not granted by a substitution; the petition must include how the credit requirement will be satisfied.

Grading System

The Office of Admissions and Records keeps a permanent academic record of your college progress. If you are attending ACC under VA benefits, we advise you to study the section on Grades and Veteran's benefits in the following pages.

Letter Grades

A grading system is used to evaluate the level of your academic achievement. The following letter grades are awarded for each course and entered on your academic record.

- A Excellent
- B Good
- C Average
- D Poor
- F Failure
- I Incomplete—further work must be completed (see requirements under "Guidelines for Grades and Symbols")
- IP In progress—applies to GED, FLEX, and PED Fitness Center courses only
- S Satisfactory—the student has passed at the level of C or above (Satisfactory/Unsatisfactory option)
- U Unsatisfactory—the student has not satisfactorily passed the course (Satisfactory/Unsatifactory option)
- CR Credit Awarded—No letter grade

These symbols may also appear on your academic records, but they are not awarded by an instructor:

- AU The student audited the course
- AW Administrative Withdrawal. College administration withdrew the student from this course. This course is not calculated in hours completed or GPA.
- W The student withdrew from the course
- Z or (blank) No grade has been submitted by instructor

Guidelines for Grades and Symbols

ACC faculty use the following guidelines to establish grading criteria. They may be applied differently according to program requirements.

Grade A – Indicates Distinction for Work

The student has demonstrated superior mastery of achievement of course objectives.

Grade B – Above Average Achievement

The student has demonstrated better-than-acceptable mastery of the course objectives and/or additional objectives.

Grade C – Acceptable

The student has demonstrated acceptable mastery or achievement of the course objectives.

Grade D – A Less Than Acceptable, Passing Grade

The student has demonstrated less-than-acceptable mastery or achievement of course objectives. In some programs it may be necessary to repeat the course in order to advance, as D-level achievement is not satisfactory for advancement in the same or related studies. Credit may not transfer.

Grade F – Failure

The student remained enrolled in the course but has not demonstrated achievement of course objectives.

S – Satisfactory Completion (Used only with the Satisfactory/Unsatisfactory option).

1. The student is adequately prepared to advance to the next class in the sequence. This equates to a grade of "C" or better.
2. The student's overall G.P.A. is not affected even though the student earns credit for the course.

U – Unsatisfactory Completion of the Course (Used only with the Satisfactory/Unsatisfactory option).

1. The student has not completed the course satisfactorily.
2. The course will not affect either the student's G.P.A. or total number of credit hours.

Provisions of the Satisfactory/ Unsatisfactory option:

1. You may take any course under the Satisfactory/ Unsatisfactory option but may earn no more than 18 credit hours this way.
2. You may select to take a course for a Satisfactory/Unsatisfactory grade through the withdrawal period of the course. You must complete a form in the Admissions and Records office to select this option.

I – Incomplete.

Incompletes may be given to students who, because of illness or circumstances beyond their control, are unable to complete their course work within the semester.

An Incomplete is given only if you have completed at least 80 percent of the term with a passing grade, and have provided evidence to the instructor that you are unable to continue.

An Incomplete Grade Form must be filed by the instructor with the Office of Admissions and Records when submitting class grades. The form must be signed by both instructor and student. It will list:

- the work that you must submit to complete the course
- the time period in which the work must be completed (not to exceed the following semester—Summer excluded), and
- the grade to be assigned if the work is not completed. The grade assigned by the instructor will be posted on the transcript and the "I" removed if the work is not completed in the time period established on the form.
- If a grade is not assigned by the instructor on the incomplete form, or, if an incomplete form is not submitted, the grade will revert to an "F."

IP – In Progress.

This symbol indicates continuous registration in open enrollment courses. Please make an effort to maintain consistent attendance for open enrollment courses during the semester if you have this designation. If you fail to do so, the IP will be changed to an F.

AU – Audit.

Some students prefer to "audit" a course for self-enrichment or review without earning a grade or college credit. You can request to audit by submitting the appropriate form to Information Central by the withdrawal deadline date for the course. After the add/drop period, you must also obtain your instructor's signature. Courses taken by audit are not eligible for financial aid or Veteran's educational benefits.

AW – Administrative Withdrawal.

College administration withdrew the student from these courses. These courses are not calculated in hours completed or G.P.A.

W – Officially Withdrawn from a Course.

You may withdraw from a class at any time within the first 80 percent of the class term at the Records Office. The class will still appear on your transcript along with a "W" grade. However, a "W" will not affect your credit or cumulative G.P.A. Students who do not officially withdraw by the deadline date will be graded by the instructor. **A "W" cannot be submitted as a final grade.** The College may initiate withdrawal in some instances, such as death, veteran non-attendance, or disciplinary action, or if the student does not meet the specific prerequisite(s).

Students who wish to withdraw from a course, but wish to continue attending class, should change their enrollment status to "audit" no later than the withdrawal deadline for the course. (first 80%)

(Blank)—Grade not submitted by instructor.

This designation indicates that the instructor has not yet submitted a grade. Please speak to your instructor for an explanation or final grade.

Grade Point Average or G.P.A.

1. Your grade point average is computed with the following formula:

Add:

The number of credits for courses with a grade of A multiplied by 4; plus

The number of credits for courses with a grade of B multiplied by 3; plus

The number of credits for courses with a grade of C multiplied by 2; plus

The number of credits for courses with a grade of D multiplied by 1; plus

The number of credits for courses with a grade of F multiplied by 0 Divide:

The above total by the number of credit hours you attempted. The result is your G.P.A.

2. Only the credits and grade points you earn at ACC will be used to compute the semester and cumulative G.P.A. appearing on your ACC transcript. However, your G.P.A. for graduation is calculated using ACC as well as the transfer credits that apply toward your degree or certificate.

Honor Roll

Students carrying a minimum of 12 credits of course work per semester and who earn grade point averages of 3.70 and above are transcripted on the President's List. Students carrying a minimum of 12 credits of course work per semester and who earn a grade point average from 3.5 to 3.69 are transcripted on the Dean's List.

Grade Corrections

1. Grades Are Not Grievable.
2. If you find omissions or errors in your grade report, ask the Admissions and Records Office to review the record.
3. If you find a computational error or you wish to have an I (Incomplete) converted to a letter grade, notify your instructor or the appropriate department.
4. The grade of AU (Audit), S (Satisfactory), or U (Unsatisfactory) continues as your permanent grade unless you repeat the course. At that time, you can take it for a letter grade of A, B, C, D or F.

Grade Reports

Your grades will be available to you after grades are posted at the end of each semester. You may access your grades through the Touch-Tone System at (303) 389-0058 or via the Student Personal Information system on CCCWeb. After your grades are listed, you will be given the option to have a hard copy mailed to you. Make sure the Records Office has your current address.

Grades and Veterans Benefits

If you are eligible to receive veterans educational benefits, you must make sufficient academic progress to retain your full educational benefits. Your cumulative G.P.A will be computed by your A, B, C, D, F and S grades. Grades of "I" or "U" are reported to the VA Regional Office as non-punitive grades. The VA may deny some of your benefits for the semester you received an "I" or "U" grade, unless you change those grades by the end of the next regular semester.

Under "mitigating circumstances," you may appeal this decision.

Grades of "W" are also reported to the VA Office and include the date of withdrawal. Once again, you may be denied some of your benefits, unless your mitigating circumstances are accepted by the VA.

VA students must earn at least a 2.0 G.P.A. each semester or risk being placed on probation. Those who do not improve their grades by the end of the next semester may be subject to suspension of their benefits.

If your benefits are suspended, reinstate them by 1) undergoing academic progress counseling with The Veterans Affairs Office (M2145), or 2) completing a semester of credit hours equal or greater to the hours you were taking in the semester your benefits were terminated. The VA will certify payment if your cumulative G.P.A. for the semester is 2.0 or above.

Veterans are not awarded benefits for courses assigned an "AU" (Audit) designation or for credit awarded through prior learning (i.e. portfolio, challenge, etc.)

You are responsible for keeping the Veteran's Affairs Office (M2145) informed of any changes in your enrollment status, address and/or phone number while attending ACC. You must make sure that the classes you are registered for apply toward your degree. If you have any questions, contact the Veterans Affairs Office. Failure to do so may affect your monthly check.

Veterans Attendance

Because the VA's regulations must be strictly enforced, accurate records are kept on veteran progress and class attendance. If you miss class for more than a period of two weeks and do not make arrangements with your instructor, your absences will be reported to the Veterans Affairs Office. This office then certifies this information to the Regional VA Office, which reduces the training time effective to the last day of your attendance. This may result in a change of certification and loss of your benefits.

Repeat Courses

You may repeat any course. A new grade will be recorded under the following guidelines:

If you complete the repeat of a course after June 1, 1987, you can request that the original course and grade have a notation under the course title which reads "Repeat (excluded from G.P.A.)" If you do not make this request, all instances of the course will remain on the transcript and be calculated into the GPA; however, for graduation purposes, a course will only count once within any single degree or certificate program, and will be "flagged" as repeated during the degree check process.

Please make your request to have the previous instance of a course flagged as a repeat by completing the form at Information Central or click on "commonly used forms" at www.arapahoe.edu.

Student Rights, Freedoms Responsibilities and Code of Conduct

We pride ourselves on college spirit—with this is the commitment to individual rights and freedoms, but also an expectation that students conduct themselves in a responsible manner. We believe that with open communication, collaboration and compromise we can work through problems on an informal basis with all parties directly involved. However, for more serious violations that cannot be resolved informally, a written complaint may be sent to the Student Affairs Coordinator.

Judicial and grievance procedures along with academic honesty policies are delineated in the ACC Student Handbook. The Student Handbook is available in the Student Affairs Office, M2820 or at www.arapahoe.edu.

Graduation

We are ready to help in any way, **but you bear the responsibility for fulfilling your graduation requirements.** We encourage you to file your graduation application 12 months prior to your projected term of graduation or at least by the semester deadline before you plan to graduate. Please check that you have completed at least 50 percent of your degree or certificate before filing your graduation application.

You can informally check on your degree/certificate through the division of your declared major. If you have not yet declared a major, check with the Counseling Office. Also, the Counseling Office can do a preliminary graduation evaluation for students completing the AA, AS or AGS degree.

Occasionally, degree requirements change. You will be allowed, however, to go by the requirements listed in any catalog published while you were a student, with the following conditions:

- You must select from a catalog that contains your program
- You cannot combine catalogs
- If you left ACC and returned more than a year later, you may only select from catalogs in effect after your re-admittance

You cannot use a catalog more than six years old at the time of your graduation.

To obtain a degree from ACC, you must:

1. Satisfy admission requirements
2. **File an application for graduation at Information Central. Deadline Dates are: Summer Semester–April 1; Fall Semester–July 1; Spring Semester–November 1**
3. Achieve a cumulative grade point average of 2.0 or better in coursework applicable to your degree
4. Fulfill the published course requirements for an associate degree
5. Complete one semester credit in physical education. Please refer to your program for the specific physical education requirements needed to satisfy your degree. You may also meet this requirement through active military service. Credit will be awarded as recommended by the ACE guide. This requirement may be substituted, only if:
   - You submit a medical exemption from your physician, chiropractor, or podiatrist to the Office of Admissions and Records
   - You're 35 years of age or older at the time of your most recent admission to the college, unless specifically required by your program.
   - If you are using a catalog for your graduation requirements that was in effect before your 35th birthday, you must satisfy the physical education requirement (if this requirement is to be substituted, you must complete appropriate credit to substitute for physical education).
6. Fulfill the degree residency requirement in any one of the following ways:
   - All of your program requirements at ACC
   - Fulfill at least 45 semester credits in coursework applicable to the degree at ACC, then complete the remaining program coursework at approved colleges or universities and transfer those applicable credits to ACC
   - Complete your final coursework applicable to the degree at ACC (a minimum of 15 semester credits) after transferring in applicable credits toward your program from approved colleges or universities.

To obtain a certificate, you must:

1. Satisfy admission requirements
2. **File an application for graduation at Information Central. Deadline Dates are: Summer Semester–April 1; Fall Semester–July 1; Spring Semester–November** 1
3. Fulfill the published course requirements
4. Achieve a cumulative grade point average of 2.0 or better in coursework applicable to your certificate and complete at least 50 percent of your semester credits at ACC. These credits must be in courses applicable to your certificate.

Special Graduation Considerations:

1. There is a specific policy (AP9-9) governing the awarding of multiple degrees. Before beginning a second degree, please request a copy of the policy from the Office of Admissions and Records or see an academic advisor.
2. Content in a course may change as new information or technology becomes available. Some changes are so critical that dated courses may no longer satisfy current requirements for the degree or certificate. Courses taken within the 6 year catalog limit will not be subject to this review unless otherwise specified in the catalog by the department.
3. If any of the following apply to you, please refer to the appropriate sections of this catalog for specific requirements and limitations:
   a. Credit for Prior Learning
   b. ROTC Credit
   c. Courses graded as Satisfactory/Unsatisfactory

Graduation Checklist

Students who complete their degree and/or certificate requirements may receive their diplomas at the end of the semester in which they satisfy the requirements, provided they have also completed the graduation application process described below. Cards will be mailed to these students notifying them that they may pick up their diplomas at Information Central. (Diplomas are only mailed to graduating students living outside the Denver metro area.) Graduates may also choose to walk and receive their diplomas at the Commencement exercises.

Students are encouraged to participate in Commencement exercises.

A full semester before you intend to graduate:

__ Complete a Graduation Application available from Information Central or printed off ACC's web site.

__ Submit the completed application, along with the processing charge(s) as indicated on the application, to the Cashier's Office in person or via mail to Cashier's Office, Arapahoe Community College, P.O. Box 9200, Littleton CO 80160-9002 or fax to 303-797-5973.

__ Verify your address with the College. This can be done online from www.arapahoe.edu (Current Students section) or by calling the Office of Admissions and Records at 303-797-5621.

__ Expect a letter from the Graduation Coordinator officially informing you of your remaining requirements.

__ Initiate any Course Substitution Petitions.

__ If qualified and interested, join Phi Theta Kappa Honor Society.

During the following Spring Semester (at which you intend to walk at Commencement):

__ Update address with College if necessary. (see above)

__ Summer, Fall, and Spring semester graduating classes should expect to receive detailed ceremony information via mail by the 3rd week of March. If you do not receive a letter by the end of March, call 303-797-5630.

__ Immediately return the Participation Form enclosed within the ceremony information packet to Information Central.

The graduation ceremony will be held on the ACC lawn with unlimited guest seating. The date is published in this document under College Calendar. However, in the event of inclement weather, the location of an alternate indoor site will be provided. Under these circumstances, seating will be limited on a first-come, first-served basis.

__ Register with the ACC Alumni Association by completing and mailing the postage-paid alumni association card included in your information packet.

__ Purchase your cap, gown and tassel for the ceremony from the ACC Bookstore on the date(s) published in the ceremony information packet. You may also choose to purchase a ring and/or invitations (optional).

__ Expect to receive additional information by the end of April with explicit instructions for the day of the ceremony. If you do not receive a letter, call 303-797-5630.

Within 4-6 weeks after the Ceremony:

__ Expect to receive a proof of your graduation photo and order form from the photographer so you may place an order. If you do not receive this after six weeks, and you are interested in seeing your photo, contact the photographer listed in your information packet.

Congratulations!

Statewide Transfer of AA or AS Degrees

The AA or AS degree will transfer to Colorado public four-year colleges' and universities' liberal arts and sciences degrees:

IF YOU

✓ Complete your AA or AS degree including 35 credits of state-guaranteed general education courses, and

✓ earn a C grade or better in each course

THEN

✓ at least 60 hours of your AA/AS degree will transfer completely, upon admission, to a baccalaureate Liberal Arts and Sciences major in Colorado's public four-year institutions*

AND

✓ you are guaranteed to be able to finish your liberal arts and sciences baccalaureate degree in just another 60 hours.

*See your transfer advisor as soon as possible for a list of degrees applicable. Special articulation agreements exist for Teacher Education, Business, and Engineering that specify which lower-division credits you need. Certain majors require essential lower-division prerequisites. Please see an advisor for information about obtaining a transfer guide that will help you select lower-division credits that will speed you on your way to finishing the baccalaureate degree.

Credit earned for prior learning, Advanced Placement, correspondence courses, CLEP and other tested-only credit may not apply. The institution to which you transfer will evaluate these credits according to its own policies.

Programs of Instruction

A.A.— Associate of Arts   A.S.— Associate of Science   A.A.S.— Associate of Applied Science   A.G.S.— Associate of General Studies

Arapahoe Community College's degree and certificate programs are presented in this section.

Please visit **www.arapahoe.edu** for the most current, updated catalog information.

* Indicates that this program is also offered online.

Your AA or AS Degree will transfer to all Colorado Public 4-Year Colleges and Universities

Colorado's agreement among public colleges and universities guarantees that when you complete your AA or AS degree – at least 60 credit hours of course work carrying a C grade or better in every course–you can transfer to any baccalaureate Liberal Arts and Sciences major (e.g., English, history, mathematics) and graduate after earning an additional 60 credit hours. While you are guaranteed not to have to take more than 60 hours to graduate, to finish within two years depends on the number of credits you take each semester at the four-year institution, the course sequencing in your major (e.g., some upper-division major courses require that you complete lower-division major courses) and course availability.

This agreement does not apply to Nursing, Business, Teacher Education, or Engineering as all four of these have statewide articulations that have specific lower division requirements.

Save time by seeing your transfer advisor at your earliest opportunity for "transfer guides." In addition to showing you which lower division courses are required for articulated programs such as Business, these guides will tell you which lower division courses will be best suited for your intended major and you can be sure to complete the prerequisites for sequenced coursework before transferring to a four-year college.

This AA/AS transfer agreement applies to courses completed at any Colorado community college. Credit earned for prior learning, Advanced Placement, correspondence courses, CLEP and other tested-only credit may not apply. The institution to which you transfer will evaluate these credits according to its own policies.

For a copy of the Colorado Commissions Transfer Policy go to www.cccs.edu or www.state.co.us/cche.html.

Students who begin courses at Arapahoe Community College prior to Fall Semester 2003 will have the option of completing the Community College Transfer Core that has existed since 1989 or completing the new Guaranteed Transfer Courses. Students who opt to complete the Community College Transfer Core must have all core course work completed before the end of Summer Semester 2005. Upon completion of the Transfer Core all core classes will be guaranteed to transfer. If the Transfer Core is not completed, courses will be evaluated on a course-by-course basis. Please see the 2002-2003 ACC College Catalog or ACC's website at www.arapahoe.edu for additional CORE information.

Completion of both the Transfer Core and an AA or AS degree with a grade of "C" or better in each of the courses in the Transfer may qualify the student to transfer under the Statewide Transfer Policy (60 + 60), but it does not guarantee it.

Students beginning classes in the Fall of 2003 or after must follow the guidelines established for the new Guarantee Transfer Courses.

Student Appeals Policy

If you:
- graduated with an AA/AS degree,
- completed 35 credits of state-guaranteed general education courses, and
- earned a C or better in each course,

AND

- your transcript evaluation indicates that you need more than 60 hours to complete your bachelor's degree, you can file an appeal.

Contact your transfer advisor at your community college who will provide you with the student appeals policy and process. You also may find the policy at www.cccs.edu or www.state.co.us/cche/students/index.html.

Colorado's Guaranteed Transfer Course

In 2001, the Colorado General Assembly established that 35-37 general education credits will transfer among all Colorado public higher-education institutions. The credits fall within the following General Education Categories:

General Education categories and courses	Sem Hr Credits
Communication:	**6**
ENG 121	
ENG 122	
Mathematics:	**3-5**
Select one course from the following:	
MAT 120, 121, 125, 135, 201, 202	
Arts and Humanities	**9**
Select three courses with no more than	
2 courses from 1 category-	
Art: ART 110,111, 112:	
MUS 120, 121, 122; THE 105, 211, 212	
Humanities: HUM 121,122,123	
Literature: LIT 115, 201, 202;	
Ways of Thinking Courses: PHI 111, 112,113	
Social and Behavioral Sciences	**9**
Select 3 courses of which 1 must be history with	
no more than 2 courses from any 1 category:	
History Courses:	
HIS 101, 102, 201, 202	
Economic and Political Systems :	
ECO 201, 202; POS 105, 111	
Geography Course:	
GEO 105	
Human Behavior and Social Systems :	
Courses:	
ANT 101, 111; PSY 101,102; SOC 101,102	
Physical and Life Sciences	**8**
Select 2 laboratory courses from the following:	
AST 101, 102; BIO 105,111, 112;	
CHE 101, 102, 111, 112; GEY 111, 121;	
PHY 111, 112, 211, 212	

Degree Requirements

Customized Articulation Agreements

In addition to our highly transferable Associate of Arts and Associate of Science degrees, the College has established customized transfer articulation agreements for the following "normal" non-transferable programs. This allows students to transfer directly into four-year degree programs. Please meet with an advisor to ensure correct course selection to meet transfer agreement requirements.

CCCS articulation agreements can be found at www.cccs.edu/EdService/Transfer.html.

Associate of Arts Degree Core

Students completing any guaranteed Transfer Course as listed on page 30 of the College Catalog are guaranteed acceptance of the course at any public four-year college or university in Colorado.

The new State Guaranteed Transfer Courses and the new Colorado Community College General Education requirements have been incorporated into the degree. Completion of the degree with a grade of "C" or better in every course guarantees that the student can transfer to any Colorado public 4-year institution AND complete specified liberal arts or science baccalaureate degree in an additional 60 credits.

NOTE: This guarantee excludes majors in Education, Business, Engineering or Nursing.

General Education Core

I. Communications   **(9 credit hours)**

ENG 121	English Composition I	3
ENG 122	English Composition II	3
SPE 115	Public Speaking OR	
SPE 125	Interpersonal Communication	3

II. Art and Humanities   **(9 credit hours)**

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

Art

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

Humanities

HUM 121	Survey of Humanities I	3
HUM 122	Survey of Humanities II	3
HUM 123	Survey of Humanities III	3

Literature

LIT 115	Intro to Literature	3
LIT 201	Masterpieces of Literature I	3
LIT 202	Masterpieces of Literature II	3

Ways of Thinking

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

III. Mathematics   **(3 credit hours minimum)**

MAT 120	Mathematics for Liberal Arts	4
MAT 121	College Algebra	4
MAT 125	Survey of Calculus	4
MAT 135	Introduction to Statistics	3
MAT 201	Calculus I	5
MAT 202	Calculus II	5

IV. Social and Behavioral Sciences   **(9 credit hours)**

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

Economic and Political Systems

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

Human Behavior and Social Systems

ANT 101	Cultural Anthropology	3
ANT 111	Physical Anthropology	3
PSY 101	General Psychology I	3
PSY 102	General Psychology II	3
SOC 101	Intro to Sociology I	3
SOC 102	Intro to Sociology II	3

Geography

GEO 105	World Regional Geography	3

History

HIS 101	Western Civilization I	3
HIS 102	Western Civilization II	3
HIS 201	U.S. History I	3
HIS 202	U.S. History II	3

V. Physical and Life Science   **(8 credit hours)**

(Credits over 8 will be applied to the electives category)

AST 101	Astronomy I	4
AST 102	Astronomy II	4
BIO 105	Science of Biology	4
BIO 111	General College Biology I with Lab	5
BIO 112	General College Biology II with Lab	5
CHE 101	Introduction to Chemistry I with Lab	5
CHE 102	Introduction to Chemistry II with Lab	5
CHE 111	General College Chemistry I with Lab	5
CHE 112	General College Chemistry II with Lab	5
GEY 111	Physical Geology	4
GEY 121	Historical Geology	4
PHY 111	Physics: Algebra-Based I with Lab	5
PHY 112	Physics: Algebra-Based II with Lab	5
PHY 211	Physics: Calculus-Based I with Lab	5
PHY 212	Physics: Calculus-Based II with Lab	5

VI. Physical Education[1]   **(1 credit hour)**

PED activity course

VII. Electives   **(21 credit hours)**

Courses from the following list must be selected to bring the total credit hours to 60. Please note that in some disciplines only certain courses apply.

ACC (121, 122 only), ANT, AST, ART, BIO (100 or above), BUS (ll5,216, 217 only), CHE, CIS (only the following: 115, 118), CSC (160, 161, 225, 230 only), ECO, ECE (101, 102, 111, 205, 220, 226, 285 only), EDU, ENG *(above ENG 132),

GEO, GEY, HIS, HON, HUM, JOU, LIT, MME, MAT (MAT 121 or higher), MUS, PED, PHI, PHR, PHY (PHY 111 or above), POS, PSY, SOC, SPE, THE, and any foreign language numbered 111-112, 211-212.

Total   **60**

[1]The PED requirement will be waived for students who are 35 years of age or older at the time of most recent admission to the college. Appropriate credit must be taken to substitute for the hour waived.

*Not all independent study or special topics courses may apply.

ASSOCIATE OF ARTS DEGREE –BUSINESS TRANSFER EMPHASIS

See also AAS, Business Adminstration

The Associate of Arts degree with a Business Transfer Emphasis is designed for the student who wishes to transfer to a Colorado 4-year public college or university. Students who complete this program, maintain a minimum 2.0 cumulative GPA and earn a 'C' or better in all courses shall be fully considered for admission into the business programs offered by state 4-year public colleges or universities. This agreement does not guarantee admission to the School of Business. However, it does guarantee that admitted students who follow the condition of this agreement will be guaranteed complete transfer of the AA degree up to the maximum allowable course credits. If a student is offered admission, the student will enter with junior standing in the School of Business, provided that the AA degree includes all courses specified below.

Students who have earned two-year degrees other than the AA in Business or who have not fully completed the degree requirements will be evaluated on a course-by-course basis. Individual business courses may transfer and count toward the graduation requirements for a 4-year business degree, but the transferable courses are limited to the course equivalents of the courses specified in the curricula of the 4-year Business Administration degree programs. The 4-year college or university will accept all eligible credits earned within ten years of transfer. Courses earned more than 10 years earlier will be evaluated on an individual basis. Students should review the business degree requirements of the 4-year college or university of their interest when making plans to transfer.

This agreement is between the Colorado Public Community/Junior Colleges and the following Colorado public 4-year institutions of higher education: Adams State College, Colorado State University, Colorado State University-Pueblo, Fort Lewis College, Mesa State College, Metropolitan State College of Denver, University of Colorado at Boulder, University of Colorado at Colorado Springs, University of Colorado at Denver, University of Northern Colorado and Western State College.

General Education Requirements
(40 credit hours)

Communications		(9 credit hours)
ENG	121 College Composition	3
ENG	122 Composition II	3
SPE	115 Public Speaking	3
Mathematics		**(8 credit hours)**
MAT	123 Finite Mathematics OR	
MAT	121 College Algebra	4
MAT	125 Survey of Calculus	4
Social Sciences		**(9 credit hours)**
ECO	201 Principles of Macroeconomics	3
ECO	202 Principles of Microeconomics	3

Select (1) History Elective from the following list:

HIS	101 Western Civilization I	3
HIS	102 Western Civilization II	3
HIS	201 U.S. History I	3
HIS	202 U.S. History II	3
Arts & Humanities		**(6 credit hours)**

Select (1) Arts & Humanities Elective from the following list:

ART	110 Appreciation	3
ART	111 Art History I	3
ART	112 Art History II	3
ART	121 Survey of Humanities I	3
ART	122 Survey of Humanities II	3
ART	123 Survey of Humanities III	3
HUM	121 Survey of Humanities I	3
HUM	122 Survey of Humanities II	3
HUM	123 Survey of Humanities III	3
LIT	115 Introduction to Literature	3
LIT	201 Masterpieces of Literature I	3
LIT	202 Masterpieces of Literature II	3
MUS	120 Music Appreciation	3
MUS	121 Introduction to Music History I	3
MUS	122 Introduction to Music History II	3
PHI	111 Introduction to Philosophy	3
PHI	112 Ethics	3
PHI	113 Logic	3
THE	105 Introduction to Theater Arts	3
THE	211 Development of Theater I	3
THE	212 Development of Theater II	3
Science		**(8 credit hours)**

Select (2) lab-based science courses from the following list: (Credits over 8 may be applied to the electives category at the 4-year institution.)

AST	101 Astronomy I	4
AST	102 Astronomy II	4
BIO	105 Science of Biology	4
BIO	111 General College Biology I with Lab	5
BIO	112 General College Biology with II with Lab	5
CHE	101 Introduction to Chemistry I with Lab	5
CHE	102 Introduction to Chemistry II with Lab	5
CHE	111 General College Chemistry II with Lab	5
CHE	112 General College Chemistry II with Lab	5
GEY	111 Physical Geology	4
GEY	121 Historical Geology	4
PHY	111 Physics: Algebra-Based I with Lab	5
PHY	112 Physics: Algebra-Based II with Lab	5
PHY	211 Physics: Calculus-Based I with Lab	5
PHY	212 Physics: Calculus-Based II with Lab	5

Business Graduation Requirements
(20 credit hours)

Accounting		(8 credit hours)
ACC	121 Principles of Accounting I	4
ACC	122 Principles of Accounting II	4
General Business		**(12 credit hours)**
BUS	115 Introduction to Business	3
BUS	216 Legal Environment of Business	3
BUS	217 Business Communications	3
BUS	226 Business Statistics	3

Total credit hours for Associate of Arts Business
60 credit hours

ASSOCIATE OF ARTS DEGREE –MUSIC EMPHASIS

Core Curriculum Required   **38 credits**
May include MUS 120 Music Appreciation, 3 credits
  (MUST include MUS 121 and 122 Music History I and II, 6 credits)

MUS Core Classes:

MUS 110/112* Music Theory/SS/ET I Lab	4 credits
MUS 111/113 Music Theory/SS/ET II Lab	4 credits
MUS 131** Music Class	2 credits
Total	**10 credits**

*Students with no background in theory should take Music Fundamentals (MUS 100) or pass an equivalency exam before taking MUS 110/112.

**Piano majors should take Guitar or Voice Class. Voice, Instrumental and Theory/Composition majors should take Piano Class unless already having a strong background in piano, in which case either Guitar or Voice class should be taken.

MUS Area of Emphasis:
Piano/voice/instrument majors:
 A) Private lessons: four semesters from MUS 141, 142, 241, 242, 243, 244   (2 credits each)
    OR
Theory/composition majors:
 B) Private instrument/voice: two semesters from MUS 141, 142, 241, 242   (2 credits each)
Private composition: four semesters from MUS 241, 242, 243, 244 (2 credits each)   **8 credits**
    AND:
Ensemble (chorus/inst.):
      MUS 151, 152, 251, 252 (1 credit each)   **4 credits**
   OR OPTION C:
Music industry/business/technology majors
C) Music Business (MUS 167 or 275—course soon to be included in CCCNS) (3 credits)

Private lessons: 4 credits from MUS 141, 142, 241, 242, 243, 244 (2 credits each)

Ensemble: 2 credits from MUS 151, 152, 251, 252 (1 credit each)

Other class or independent study related to subject, such as Music Recording or History of Jazz MUS 125 (3 credits)

Total for option C	**12 credits**
Total	**60 credit hours**

Associate of Science Degree Core

  Students completing any Guaranteed Transfer Course listed on page 30 of the College Catalog are guaranteed acceptance of the course at any public four-year college or university in Colorado.

  The new State Guaranteed Transfer Courses and the new Colorado Community College General Education requirements have been incorporated into the degree. Completion of the degree with a grade of "C" or better in every course guarantees that the student can transfer to any Colorado public 4-year institution AND complete a specified liberal arts or science baccalaureate degree in an additional 60 credits.

  NOTE: This guarantee excludes majors in Education, Business, Engineering or Nursing.

General Education Core

I. Communications   **(9 credit hours)**

ENG	121	English Composition I	3
ENG	122	English Composition II	3
SPE	115	Public Speaking OR	
SPE	125	Interpersonal Communication	3

II. Arts and Humanities   **(9 credit hours)**
Select 3 courses with no more than 2 courses from any one category:

Art

ART	110	Art Appreciation	3
ART	111	Art History 1	3
ART	112	Art History II	3
MUS	120	Music Appreciation	3
MUS	121	Introduction to Music History I	3
MUS	122	Introduction to Music History II	3
THE	105	Introduction to Theater Arts	3
THE	211	Development of Theatre I	3
THE	212	Development of Theatre II	3

Humanities

HUM	121	Survey of Humanities I	3
HUM	122	Survey of Humanities II	3
HUM	123	Survey of Humanities III	3

Literature

LIT	115	Introduction to Literature	3
LIT	201	Masterpieces of Literature I	3
LIT	202	Masterpieces of Literature II	3

Ways of Thinking

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

III. Mathematics   **(4 credit hours minimum)**

MAT	121	College Algebra	4
MAT	125	Survey of Calculus	4
MAT	201	Calculus I	5
MAT	202	Calculus II	5

IV. Social and Behavioral Sciences   **(9 credit hours)**
Select 3 courses 1 which must be history, with no more 2 courses from any 1 category.

Economic and Political Systems

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

Geography

GEO	105	World Regional Geography	3

History

HIS	101	Western Civilization I	3
HIS	102	Western Civilization II	3
HIS	201	U.S. History I	3
HIS	202	U.S. History II	3

Human Behavior and Social Systems

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

PSY 102 General Psychology II		3
SOC 101 Intro to Sociology I		3
SOC 102 Intro to Sociology 11		3

V. Physical and Life Science (8 credit hours)

(Credits over 8 will be applied to the electives category)

AST 101 Astronomy I		4
AST 102 Astronomy II		4
BIO 111 General College Biology I with Lab		5
BIO 112 General college Biology II with Lab		5
CHE 111 General College Chemistry I with Lab		5
CHE 112 General College Chemistry II with Lab		5
GEY 111 Physical Geology		4
GEY 121 Historical Geology		4
PHY 111 Physics: Algebra-Based I with Lab		5
PHY 112 Physics: Algebra-Based II with Lab		5
PHY 211 Physics: Calculus-Based I with Lab		5
PHY 212 Physics: Calculus-Based II with Lab		5

VI. Physical Education[1] (1 credit hour)

PED activity course

VII. Restricted Math/Science Electives

(20 credit hours)

Courses from the following list must be selected to bring the total credit hours to 60. Please note that in some disciplines only certain courses apply. Associate of Science students should work with an advisor to select courses appropriate to their major.
AST, BIO (100 or above), CHE, CIS (only the following:115, 118), CSC (only the following: 160, 161, 225, 230), EGG, GEY, MAT (MAT 121 or above),
PHY, (*PHY 111 or above).

Total 60 credit hours

[1]The PED requirement will be waived for students who are 35 years of age or older at the time of most recent admission to the college. Appropriate credit must be taken to substitute for the hour waived.

*Not all independent study or special topics courses may apply.

Associate of General Studies Degree Requirements

I. Communications (9 credit hours)

Select 2 courses

*ENG 121 English Composition I		3
*ENG 122 English Composition II		3
END 131 Technical Writing I		3

Select 1 course

SPE 115 Public Speaking		3
SPE 125 Interpersonal Communication		3
SPE 225 Organizational Communication		3

II. Humanities (9 credit hours)

*ART 110 Art Appreciation		3
*ART 111 Art History I		3
*ART 112 Art History II		3
ART 141 Jewelry and Metalwork I		3
ART 161 Ceramics I		3
ART 211 Painting I		3
ART 231 Watercolor I		3
(FOL)111 Foreign Language I		5
(FOL)112 Foreign Language II		5
(FOL)211 Foreign Language III		3
(FOL)212 Foreign Language IV		3
(ARA, ASL, FRE, JPN, SPA and LAT)		
*HIS 101 Western Civilization I		3
*HIS 102 Western Civilization II		3
HIS 137 Contemporary World History		3
*HIS 201 U.S. History I		3
*HIS 202 U.S. History II		3
*HUM121 Survey of Humanities I		3
*HUM122 Survey of Humanities II		3
*HUM123 Survey of Humanities III		3
*LIT 115 Intro to Literature I		3
*LIT 201 Masterpieces of Literature I		3
*LIT 202 Masterpieces of Literature II		3
LIT 211 Survey of American Literature I		3
LIT 221 Survey of British Literature I		3
LIT 255 Children's Literature		3
MUS100 Fundamentals of Music Theory		3
*MUS120 Music Appreciation		3
*MUS121 Intro to Music History I		3
*MUS122 Intro to Music History II		3
*PHI 111 Intro to Philosophy		3
*PHI 112 Ethics		3
*PHI 113 Logic		3
SPE 115 Public Speaking		3
SPE 125 Interpersonal Communication		3
SPE 225 Organizational Communication		3
*THE 105 Intro to Theatre Arts		3
*THE 211 Development of Theatre I		3
*THE 212 Development of Theatre II		3

III. Social Sciences (9 credit hours)

*ANT 101 Cultural Anthropology		3
ANT 107 Intro to Archaeology		3
*ANT 111 Physical Anthropology		3
ECO 105 Intro to Economics		3
*ECO 201 Principles of Macroeconomics		3
*ECO 202 Principles of Microeconomics		3
ECO 205 Contemporary Economic Issues		3
*GEO 105 World Regional Geography		3
GEO106 Human Geography		3
GEO107 Physical Geography		3
GEO165 Human Ecology		3
*HIS 101 Western Civilization I		3
*HIS 102 Western Civilization II		3
HIS 137 Contemporary World History		3
*HIS 201 U.S. History I		3
*HIS 202 U.S. History II		3
*POS 105 Intro to Political Science		3
*POS 111 American Government		3
POS 125 American State and Local Government		3
POS 205 International Relations		3
POS 216 Comparative Government		3
*PSY 101 General Psychology I		3
*PSY 102 General Psychology II		3
PSY 116 Stress Management		3
PSY 235 Human Growth and Development		3
*SOC 101 Intro to Sociology I		3
*SOC 102 Intro to Sociology II		3
SOC 205 Marriage and The Family		3

Please visit **www.arapahoe.edu** for the most current, updated catalog information.

SOC 215 Contemporary Social Problems   3

IV. Sciences   **(3 credit hours)**

Course	Credits
*ANT 111 Physical Anthropology	3
*AST 101 Astronomy I	4
*AST 102 Astronomy II	4
*BIO 105 Science of Biology	4
*BIO 111 General College Biology I	5
*BIO 112 General College Biology II	5
BIO 115 Human Genetics	3
BIO 201 Human Anatomy and Physiology I	4
BIO 202 Human Anatomy and Physiology II	4
*CHE 101 Intro to Chemistry I	5
*CHE 102 Intro to Chemistry II	5
*CHE 111 General College Chemistry I/Lab	5
*CHE 112 General College Chemistry II/Lab	5
CIS 115 Intro to Computer Information Systems	3
CIS 118 Intro to PC Applications	3
CSC 150 Visual Basic Programming	3
CSC 160 Computer Science I (Java)	4
CSC 161 Computer Science II (Java)	4
*GEY 111 Physical Geology	4
*GEY 121 Historical Geology	4
PHY 100 Elementary Physics	3
PHY 105 Conceptional Physics	4
*PHY 111 Physics: Algebra-Based I	5
*PHY 112 Physics: Algebra-Based II	5
*PHY 211 Physics: Calculus-Based I	5
*PHY 212 Physics: Calculus-Based II	5

V. Math (MAT 120 or above)   **(3 credit hours)**

Course	Credits
*MAT120 Mathematics for Liberal Arts	4
*MAT121 College Algebra	4
*MAT125 Survey of Calculus	4
*MAT135 Intro to Statistics	3
MAT179 Computer Applications for Statistics	1
*MAT201 Calculus I	5
*MAT202 Calculus II	5

VI. Physical Education[1]   **(1 credit hour)**

PED activity course

The PED requirement will be waived for students who are 35 years of age or older at the time of most recent admission to the college. Appropriate credit must be taken to substitute for the hour waived.

VII. Electives   **(27 credit hours)**

Selected from any credit-bearing course numbered at or above 100[1] which is offered by the College.

[1]MAT courses must be numbered 120 or above. ENG courses must be numbered 121 or above. Foreign Language must be numbered 111-112, 211-212.

*Courses marked with an asterisk are a part of the General Transfer Curriculum (GT 25).

Total   **61 credit hours**

ASSOCIATE OF GENERAL STUDIES BROADBAND TECHNICAL MANAGEMENT

The following AGS degree in Broadband Technical Management is designed by ACC and NCTI to provide a degree path for technicians in the broadband industry. The curriculum in this program is designed for broadband technicians and requires hands-on activities with the supervision of an on-site training coordinator. To participate it is recommended that students be employed by or participate in an internship with a broadband company that subscribes to NCTI as their training provider. Upon completion, those who wish to continue their education will be accepted as juniors at Franklin University and DeVry University through an articulation agreement between those institutions and Arapahoe Community College, and the Indiana Institute of Technology and NCTI.

The Associate of General Studies (AGS) degree allows students the unique option of building job-specific degrees to suit their career choices.

Major Courses   **23 credit hours**

Course		Credits
CTC	107 Installer	3
CTC	109 Installer Technician	4
CTC	111 Service Technician	4
CTC	113 System Technician	4
CTC	127 Fiber Installation and Activation	2
CTC	128 Fiber Testing and Maintenance	2
CTC	165 Advanced Technician	4

Choose Three   **9 credit hours**

Course		Credits
CTC	118 Broadband Digital Installer	3
CTC	119 DSL Installation	3
CTC	117 Computers and Broadband Modems	3
CTC	120 Understanding Voice and Data Networks	3
CTC	124 Troubleshooting Advanced Services	3

General Education Courses   **31 credit hours**

Course		Credits
BUS	115 Introduction to Business	3
BUS	216 Legal Environment of Business	3
CIS	118 Intro to PC Applications	3
ENG	121 English Composition I	3
MAN	116 Principles of Supervision	3
MAN	226 Principles of Management	3
MAR	216 Principles of Marketing	3
MAT	108 Technical Mathematics or higher	4
PSY	101 General Psychology I OR	
PSY	116 Stress Management	3
SPE	115 Public Speaking OR	
SPE	125 Interpersonal Communication	3

Physcial Education*   **(1 credit hour)**

PED activity course   1

*The PED requirement may be waived for students who are 35 years of age or older at the time of most recent admissions to the college. Appropriate credit must be taken to substitute for the hour waived.

Total   **64 credit hours**

ASSOCIATE OF GENERAL STUDIES BROADBAND BUSINESS MANAGEMENT

This Associate of General Studies (AGS) degree allows students the unique option of building job-specific degrees to suit their career choices. The AGS combines courses from an NCTI certificate, based on industry-specific competencies, with electives and general requirements.

To begin, the student completes the courses in an NCTI certificate of choice and combines them with electives to earn at least 27 credit hours. The remaining credit hours come from general requirement courses. The result is a degree that demonstrates job-specific expertise and general business knowledge, all while providing unparalleled opportunity to succeed.

Major Courses (27–29 credit hours)
General Education (34-36 credit hours)
I. Communications (9 credit hours)
ENG 121 English Composition I 3
ENG 131 Technical Writing I 3
SPE 115 Public Speaking OR
SPE 125 Interpersonal Communications 3
II. Humanities (9–11 credit hours)
PHI 112 Ethics 3
FOL 111-112 or 211-212 3–5
Choose Foreign Language and one additional course from the following:
HIS 201 US History I 3
LIT 115 Introduction to Literature I 3
SPE 125 Interpersonal Communication 3
(if not taken to meet the communication reqiuirement)
III. Social Sciences (9 credit hours)
ECO 201 Principles of Macroeconomics 3
PSY 101 General Psychology I OR
PSY 116 Stress Management 3
SOC 101 Intro to Sociology I 3
IV. Sciences (3 credit hours)
CIS 118 Intro to PC Applications 3
V. Math (3 credit hours)
MAT 121 or higher 3
VI. Physcial Education* (1 credit hour)
PED activity course (1 credit hour)
*The PED requirement may be waived for students who are 35 years of age or older at the time of most recent admissions to the college. Appropriate credit must be taken to substitute for the hour waived.

BROADBAND DIGITAL MANAGEMENT

Certificate

Students completing this certificate will be among the elite in the broadband industry, well-suited to supervise those who deploy and service cable modems, constant bit rate (CBR) telephony, and digital video in broadband networks. Holders of this certificate can expect to work as managers of field service technicians, bandwidth access technicians, headend technicians, NOC technicians, etc. with broadband companies that are deploying advanced services.

BUS 115 Introduction to Business 3
CTC 107 Installer (or choose one from restricted electives) 3
CTC 109 Installer Technician 4
CTC 111 Service Technician 4
CTC 117 Computers and Broadband Modems 3
CTC 118 Broadband Digital installer 3
CTC 124 Troubleshooting Advanced Services 3
MAN 116 Principles of Supervision 3
Restricted Electives
CTC 113 Systems Technician 4
CTC 165 Advanced Technician 3
CTC 120 Understanding Voice and Data Networks 3
Total **26 credit hours**

BROADBAND TELEPHONY TECHNOLOGY MANAGEMENT

Certficate

This certificate is for professionals hoping to advance in the rapidly growing field of broadband telephony. Those completing this certificate can expect to work with broadband cable, RBOCs, LECs, CLECs, and DSL companies that are deploying advanced services such as ISDN, DSL, VDSL, and digital video. Also, individuals who have worked in the telephone industry will find this option helpful to move beyond POTS into supervision of full service broadband telephony technicians.

Major Courses **23**
CTC 107 Installer 3
CTC 109 Installer Technician 4
Choose CTC 111 or CTC 116 **3–4**
CTC 111 Service Technician 4
CTC 116 Fiber Optics Technician 3
Plus ALL of the Following: **15**
BUS 115 Introduction to Business 3
CTC 117 Computers and Broadband Modems 3
CTC 119 DSL Installation 3
CTC 120 Understanding Voice and Data Networks 3
MAN 116 Principles of Supervision 3
Total **26–27 credit hours**

BROADBAND TECHNICAL MANAGEMENT

Certificate

Broadband cable industry professionals completing this option will find success as managers of line technicians, maintenance technicians, fiber optics technicians, and headend technicians, to name a few. These individuals will manage the personnel, processes, and technologies used in design, construction, installation, maintenance, and service of broadband coaxial and fiber networks.

CTC 107 Installer (or choose one from restricted electives) 3
CTC 109 Installer Technician 4
CTC 111 Service Technician 4
CTC 113 System Technician 4
CTC 127 Fiber Installation and Activation 2
CTC 128 Fiber Testing and Maintenance 2
CTC 165 Advanced Technician 4
MAN 116 Principles of Supervision 3
MAN 226 Principles of Management 3
Restricted Electives
CTC 117 Computer and Broadband Modems 3
CTC 118 Security+ 3
CTC 120 Understanding Voice and Data Networks 3
CTC 124 Networking I: Network + 3
Total **29 credit hours**

BROADBAND CUSTOMER SERVICE REPRESENTATIVE

Certificate

Students will use this option to gain the knowledge they need to perform as effective and efficient customer service representatives, as well as achieve the credibility associated with a college certificate. They will learn the technical and people skills needed to be the valuable interface between broadband companies and customers.

BTE	100	Computer Keyboarding	1
CIS	118	Intro to PC Applications	3
CIS	145	Complete PC Database	3
CTC	108	Broadband Cable Overview	1
CTC	121	Understanding Broadband Technology	3
MAR	110	Introduction to Sales	1
MAR	160	Customer Service	3
PSY	101	General Psychology I OR	
PSY	116	Stress Management	3
Total			**18 credit hours**

BROADBAND CUSTOMER SERVICE MANAGEMENT

Certificate

This certificate prepares students for careers as broadband customer service managers, giving them both the technical and managerial skills to perform their jobs.

BUS	115	Introduction to Business	3
CIS	118	Intro to PC Applications	3
CTC	121	Understanding Broadband Technology	3
ENG	121	English Composition I	3
MAN	116	Principles of Supervision	3
MAN	226	Principles of Management	3
MAR	110	Introduction to Sales	1
MAR	160	Customer Service	3
PSY	101	General Psychology I OR	
PSY	116	Stress Management	3
Total			**25 credit hours**

BROADBAND TECHNICAL SERVICE REPRESENTATIVE

Certificate

Those completing this certificate will be well versed in the technologies used to deploy video, voice and data services through broadband networks. They will also develop the skills needed to provide the initial level of technical support in customer service centers and network operations centers.

BTE	100	Computer Keyboarding	1
CIS	118	Intro to PC Applications	3
CIS	145	Complete Database	3
CTC	120	Understanding Voice and Data	3
CTC	121	Understanding Broadband Technology	3
CTC	123	Basic Broadband Troubleshooting	3
MAR	110	Introduction to Sales	1
MAR	160	Customer Service	3
PSY	101	General Psychology I OR	
PSY	116	Stress Management	3
Total			**23 credit hours**

BROADBAND HIGH-SPEED DATA TECHNICAL SERVICE REPRESENTATIVE

Certificate

This certificate is helpful for individuals looking to move into high-speed data call center support and management roles, as well as those in sales, marketing and administrative functions in organizations that offer HSD service. Individuals completing this certificate will possess an in-depth knowledge of the technologies used to deploy, troubleshoot and support data services through broadband networks. Graduates will be uniquely qualified to manage services related to the deployment and initial, intermediate, and advanced technical support of high-speed data in customer care and network operations centers.

BTE	100	Computer Keyboarding	1
CIS	118	Intro to PC Applications	3
CTC	120	Understanding Voice and Data	3
CTC	121	Understanding Broadband Technology	3
CTC	123	Basic Broadband Troubleshooting	3
CTC	125	High-Speed Data Customer Service	2
CTC	126	Advanced High-Speed Data Customer Service	3
MAR	110	Introduction to Sales	1
MAR	160	Customer Service	3
PSY	101	General Psychology I OR	
PSY	116	Stress Management	3
Total			**25 credit hours**

ASSOCIATE OF GENERAL STUDIES –ENGINEERING EMPHASIS

Students must meet with the ACC Engineering Department Advisor to plan their program of study. Please contact Henry Weigel at 303-797-5831 or henry.weigel@arapahoe.edu.

General Education Requirements for AAS Degrees

The **ASSOCIATE IN APPLIED SCIENCE** degrees require that a minimum number of courses must be completed from the approved general education list. The Associate of Arts, the Associate of Science and Associate of General Studies degree requirements listed previously already contain the general education options for those degrees.

Definition of General Education

General education for the AGS and AAS degrees is defined by State Board Policy (BP 9-40). General education is "general" in several clearly identifiable ways: it is not directly related to a student's formal technical, vocational or professional preparation; it is a part of every student's course of study, regardless of his or her area of emphasis; and is intended to impart common knowledge, intellectual concepts, and attitudes which every educated person should possess.

Courses approved as General Education	Credit Hours
*ANT 101 Cultural Anthropology	3
ANT 107 Intro to Archaeology	3
*ANT 111 Physical Anthropology	3
ARC 125 History of Architecture	3
*ART 110 Art Appreciation	3
*ART 111 Art History I	3
*ART 112 Art History II	3
ART 141 Jewelry and Metalwork I	3
ART 161 Ceramics I	3
ART 211 Painting I	3
ART 231 Watercolor I	3
*AST 101 Astronomy I	4
*AST 102 Astronomy II	4
*BIO 105 Science of Biology	4
*BIO 111 General College Biology I	5
*BIO 112 General College Biology II	5
BIO 115 Human Genetics	3
BIO 201 Human Anatomy and Physiology I	4
BIO 202 Human Anatomy and Physiology II	4
BTE 102 Keyboarding Applications	2
BUS 115 Intro to Business	3
BUS 116 Personal Finance	3
BUS 216 Legal Environment of Business	3
*CHE 101 Intro to Chemistry I	5
*CHE 102 Intro to Chemistry II	5
*CHE 111 General College Chemistry I/Lab	5
*CHE 112 General College Chemistry II/Lab	5
CIS 115 Intro to Computer Information Systems	3
CIS 118 Intro to PC Applications	3
CSC 150 Visual Basic Programming	3
CSC 160 Computer Science I (Java)	4
CSC 161 Computer Science II (Java)	4
*ECO 105 Intro to Economics	3
*ECO 201 Principles of Macroeconomics	3
ECO 202 Principles of Microeconomics	3
ECO 205 Contemporary Economic Issues	3
ELT 100 Basic Electronics	3
*ENG 121 English Composition I	3
*ENG 122 English Composition II	3
ENG 131 Technical Writing I	3
(FOL)111 Foreign Language I	5
(FOL)112 Foreign Language II	5
(FOL)211 Foreign Language III	3
(FOL)212 Foreign Language IV	3
(ARA, ASL, FRE, JPN, SPA and LAT)	
*GEO 105 World Regional Geography	3
GEO 106 Human Geography	3
GEO 107 Physical Geography	3
GEO 165 Human Ecology	3
*GEY 111 Physical Geology	4
*GEY 121 Historical Geology	4
GDI 145 Video Computer Graphics	3
*HIS 101 Western Civilization I	3
*HIS 102 Western Civilization II	3
*HIS 201 U.S. History I	3
*HIS 202 U.S. History II	3
*HUM121 Survey of Humanities I	3
*HUM122 Survey of Humanities II	3
*HUM123 Survey of Humanities III	3
HWE100 Human Nutrition	3
HWE103 Standard First Aid-Adult CPR	1

Courses approved as General Education	Credit Hours
INV 115 Investments/Stocks and Bonds	3
LAW 225 Constitutional and Administrative Law	3
*LIT 115 Intro to Literature I	3
*LIT 201 Masterpieces of Literature I	3
*LIT 202 Masterpieces of Literature II	3
LIT 211 Survey of American Literature I	3
LIT 221 Survey of British Literature I	3
LIT 255 Children's Literature	3
MAN116 Principles of Supervision	3
MAN226 Principles of Management	3
MAR 106 Marketing Your Image	3
MAR 216 Principles of Marketing	3
MAT090 Introductory Algebra	4
(applicable only to specified vocational degrees)	
MAT106 Survey of Algebra	4
MAT111 Graphing Calculator Techniques	1
MAT 108 Technical Mathematics	4
*MAT120 Mathematics for Liberal Arts	4
*MAT121 College Algebra	4
*MAT125 Survey of Calculus	4
*MAT135 Intro to Statistics	3
MAT179 Computer Applications for Statistics	1
*MAT201 Calculus I	5
*MAT202 Calculus II	5
MUS 100 Fundamentals of Music Theory	3
*MUS 120 Music Appreciation	3
*MUS 121 Intro to Music History I	3
*MUS 122 Intro to Music History II	3
PED Any physical activity course	1
*PHI 111 Intro to Philosophy	3
*PHI 112 Ethics	3
*PHI 113 Logic	3
PHO 101 Photography I	3
PHY 100 Elementary Physics	3
PHY 105 Conceptional Physics	4
(does not apply to the AS core)	
*PHY 111 Physics: Algebra-Based I	5
*PHY 112 Physics: Algebra-Based II	5
*PHY 211 Physics: Calculus-Based I	5
*PHY 212 Physics: Calculus-Based II	5
*POS 105 Intro to Political Science	3
*POS 111 American Government	3
POS 125 American State and Local Government	3
POS 205 International Relations	3
POS 216 Comparative Government	3
*PSY 101 General Psychology I	3
*PSY 102 General Psychology II	3
PSY 116 Stress Management	3
PSY 235 Human Growth and Development	3
*SOC 101 Intro to Sociology I	3
*SOC 102 Intro to Sociology II	3
SOC 205 Marriage and The Family	3
SOC 215 Contemporary Social Problems	3
SPE 115 Public Speaking	3
SPE 125 Interpersonal Communication	3
SPE 225 Organizational Communication	3
*THE 105 Intro to Theatre Arts	3
*THE 211 Development of Theatre I	3
*THE 212 Development of Theatre II	3

*General Education courses marked with an asterisk are a part of the General Transfer Curriculum (GT 25).

Please visit **www.arapahoe.edu** for the most current, updated catalog information.

Associate of Applied Science Degrees and Certificate Programs

The common goal of all Associate of Applied Science degrees and occupational certificate programs is to prepare students for employment in specific occupations. The programs for the degrees consist of major courses as well as related general education courses. While many of these courses may transfer to a four year college or university, the programs themselves do not have transferability as their primary goal. Students are encouraged to discuss career goals and educational objectives with a counselor or advisor prior to enrolling in these programs. Courses numbered below 100 cannot be used to satisfy elective requirements for AAS degrees.

ACCOUNTING

Associate of Applied Science Degree

This program is designed to prepare the student for entry-level positions in the bookkeeping/accounting field. This would include clerical positions in specialized areas such as an accounts payable, accounts receivable and payroll, as well as positions with a more total involvement in accounting.

Major Courses		(32 credit hours)
ACC 121	Principles of Accounting I	4
ACC 122	Principles of Accounting II	4
ACC 115	Payroll Accounting	3
ACC 131	Income Tax I	3
ACC 135	Spreadsheet Applications for Accounting	3
ACC 226	Cost Accounting	3
ACC 229	Managerial Accounting	3
ACC 287	Cooperative Education OR	
ACC 289	Capstone	3
BUS 217	Business Communications & Report Writing	3
FIN 101	Introduction to Finance	3

General Education Courses	(15-18 credit hours)
BUS 216 The Legal Environment	3
ECO 201 or ECO 202	3
ENG 121 or ENG 131	3
MAT 106/111 or higher	3-5
SPE 125 or SPE 225 or SPE 115	3-4

Restricted Electives (13 credit hours)

Select at least six hours from Area One and six hours from Area Two. The remaining hour may be selected from either area. Please consult with an Advisor for selection of electives best suited to your needs.

Area One—Business Electives—select at least six hours
   Any Course with the following prefixes:
BTE,BUS,ECO,FIN,INV,MAN,MAR
Area Two—ACC/CIS Electives—select at least six hours
   Any course with the following prefix, not already required:
ACC,CIS,CNG,CSC

Physical Education ²	(1 credit hour)
PED activity course	1
Total	**61–64 credit hours**

¹ Students without a good background in algebra should take the math requirement prior to taking ACC 122.

² The PED requirement will be waived for students who are 35 years of age or older at time of at time of most recent addisssion to the college. Appropriate credit must be taken to substitute for the hour waived.

ACTIVITY PROFESSIONALS' TRAINING BASIC/ADVANCED

Certificates

The activity profession is unique in health care because the focus is on "what is RIGHT with the person rather than what is wrong." The activity professional is offered flexibility and creativity while improving the quality of life of older adults residing in nursing homes, assisted living facilities, retirement communities and community-based adult day programs.

Students will learn how to meet the psychosocial, physical and cultural needs of the older adult through a diverse activity program. Students will learn program planning, physical and social aspects of aging, regulatory requirements, documentation guidelines and administrative techniques. Classroom instruction will include presentations from a variety of experts in the activity and aging field. After successfully completing the activity professional training the student is qualified according to federal OBRA regulations to be an activity director employed in a nursing home. This program is the only State-approved training program in Colorado. The student is also a step closer towards national certification by the National Certification Council for Activity Professionals.

The Basic APT classes 101 through 103 are co-requirements that meet for eight-hour sessions three times a month for four months. Practicum experience includes 90 hours working in an activity department under the direction of a certified activity professional. The Advanced Activity Professionals' Training Certificate consists of courses that comprise the advanced curriculum established by the National Certification Council of Activity Professionals and the National Association of Activity Professionals.

The Basic certificate is not eligible for financial aid. Contact the Financial Aid Office for further information.

All courses required for this certificate must be completed with a C or better.

BASIC ACTIVITY PROFESSIONALS' TRAINING CERTIFICATE		(10 credit hours)
APT 101	Basic Activity Professional Training—Part 1	4
APT 102	Basic Activity Professional Training—Part 2	4
APT 188	Basic Practicum	2
Total		**10 credit hours**

ADVANCED ACTIVITY PROFESSIONALS' TRAINING CERTIFICATE		(33 credit hours)
Basic Activity Professionals' Training Certificate		10
APT 201	Advanced Documentation and Regulatory Compliance	2
APT 202	Administrative Practices in Activity Profession	2
APT 203	Volunteer Management	2
APT 204	Community Relations and Communications	2
APT 288	Advanced Management Practicum	2
*HPR 178	Medical Terminology	3

Electives		(10 credit hours)
Select 10 credit hours from the following:		
*ART 110	Art Appreciation	3
*ART 111	Art History 1	3
ART 161	Ceramics 1	3
CIS 115	Intro to Computer Information Systems	3
ENG 123	English Composition	3
HPR 240	Role of Death & Bereavement in Society	3
HUM 100	Intro to Arts and Humanities	3
*HWE 100	Human Nutrition	3
MUS 100	Fundamentals of Music Theory	3

MUS 120	Music Appreciation	3
PSY 101	General Psychology 1	3
*PSY 235	Human Growth and Development	3
SOC 101	Intro to Sociology	3

*Available as Internet courses

Total   **33 credit hours**

ADMINISTRATIVE ASSISTANT

Associate of Applied Science Degree

The Administrative Assistant Program will prepare the student for a career in the challenging environment of the business office. The student will develop skills in language and communication, human relations, customer/client support, organization and management, and professionalism. Also included is instruction in computers, specialized technology, electronic communications, electronic information systems, and administrative support activities. The student will learn techniques for handling challenging responsibilities using creativity, judgment and decision-making skills. Employment opportunities exist in most business sectors including public, private, government and non-profit agencies and institutions. From accounting, insurance and banking to engineering, travel and law, Administrative Assistants can be found working in a variety of offices.

For additional information, please contact : Connie Strain, 303-797-5872 or connie.strain@arapahoe.edu.

Major Courses		**(41-42 credit hours)**
ACC 101	Fundamentals of Accounting OR	3
ACC 121	Principles of Accounting	4
BTE 103	Keyboarding Applications I	3
BTE 125	Records Management	3
BTE 156	Business Math with Calculators	4
BTE 166	Business Editing Skills	3
BTE 202	Office Simulation	3
BTE 225	Administrative Office Management	3
BTE 287	Cooperative Education /Internship	3
BUS 217	Business Communication & Report Writing	3
CIS 118	Introduction to PC Applications	3
CIS 135	Complete PC Word Processing	3
CIS 155	PC Spreadsheets Concepts: Excel	3
CIS 167	Desktop Publishing	3
CIS 140	Microsoft Outlook	1

General Education Requirements		**(15 credit hours)**
BUS 115	Intro to Business	3
MAR 106	Marketing Your Image	3
ENG 121	English Composition	3

Choose 6 credit hours from the following:

BUS 116	Personal Finance	3
MAN 226	Principles of Management	3
POS 125	American State & Local Government	3
SPE 115	Public Speaking	3

Restricted Electives		**(6 credit hours)**

Choose 6 credit hours from the following:

BTE 100	Computer Keyboarding	1
BTE 102	Keyboarding Applications I	2
BTE 108	Ten Key by Touch	1
BTE 111	Keyboarding Speedbuilding I	2
BTE 209	Basics of Machine Transcription	1

CIS 128	Windows Complete	3
CIS 130	Intro to the Internet	1
CIS 145	Complete Database	3
CIS 161	Presentation Graphics	1
MAN 128	Human Relations	3
MAR 160	Customer Service	3

Physical Education[1]	**(1 credit hour)**
PED 101or PED activity course	1

Total   **63-64 credit hours**

APPLIED TECHNOLOGY

Associate of Applied Science Degree

Students desiring to complete the Associate of Applied Science (AAS) Degree in Applied Technology will complete the technical course work contained in a State-approved career and technical education program certificate * at one of the four area vocational technical schools (AVTS). The four AVTs are: Delta-Montrose Area Vocational Technical Center, Emily Griffith Opportunity School, San Juan Basin Area Vocational Technical School and Pickens Tech Center.

The general education and other degree requirements will be completed at Arapahoe Community College. The AAS degree will be conferred by Arapahoe Community College after the general education and other degree requirements have been completed.

The approved career and technical education certificate programs at the AVTS prepare students with technical, applied academic and employability skills. Credit in varying amounts from these certificate programs will be applicable to the community college's AAS degree in Applied Technology.

Students may enroll concurrently at both institutions, an AVTS and Arapahoe Community College. Students must comply with the regulations and requirements relating to admission and attendance at each institution.

Minimum requirements for the Associate of Applied Science (AAS) Applied Technology degree include:

1. 60 semester credits of course work.
2. Arapahoe Community College will accept up to 42 credit hours of course work from an approved Certificate at an AVTS.
3. Cumulative GPA of 2.0 or higher.
4. General education course credits of 15-18 semester credits.
5. Minimum of 18 semester credits earned at Arapahoe Community College to include:

General Education Requirements:	**Semester Credits**
English: ENG 121 or ENG 131	3
Speech: SPE 115 or SPE 125	3
Humanities: Selected from general education lists	3
Mathematics: MAT 121 or higher	3
Natural Science: Selected from the general education list	3
Social Science: Selected from general education list	3
	15-credit minimum

6. Students completing an AVTS certificate of less than 42 hours must complete additional hours at Arapahoe Community College from the approved General Education list. These credit hours should be selected to complement the certificate from the AVTS and be consistent with the student's future plans. Students transferring a certificate with thirty or fewer hours will complete a minimum of twelve hours in a single technology-based discipline.

The disciplines are: Architectural Technology (ARC), Automotive Technology (ATC, AUT), Computer-Aided Drafting, Computer Graphics (CAD), Computer Information Systems (CIS), and Convergent Technologies (CTC), Electronics Engineering Technologies (CTC), and Electronics Engineering Technologies (ELT). The specific courses must be selected in consultation with a department advisor and be approved by the advisor.

*A state approved career and technical education program is a program that is approved by the State Board for Community Colleges and Occupational Education (SBCCOE) and is current.

ARCHITECTURAL TECHNOLOGY

Associate of Applied Science Degree (AAS)

The Architectural Technology program provides students with the development of skills necessary to become a competent draftsperson. Graduates of the program will be dealing with residential drawings as well as commercial structures. New students are encouraged to talk or meet with an Architectural Technology faculty advisor before first semester registration.

The student will also be introduced to a number of architectural and building trade-related topics. From the "History of Architecture" to "Surveying," the student will be expanding their knowledge of this industry. Diversified courses within the Architectural Technology program provide a foundation for employment within the varied building design and construction industry.

Major Courses		(48 credit hours)
ARC	101 Intro to Architectural Drawing	5
ARC	102 Residential Architecture	5
ARC	116 Building Materials	3
ARC	121 Building Structure Analysis	3
ARC	125 History of Architecture	3
ARC	205 Commercial Drawing Practice I	4
ARC	215 Architectural Graphics	3
ARC	216 Estimating I	3
ARC	218 Surveying	3
ARC	226 Construction Scheduling	3
ARC	231 Building Service Systems	3
ARC	236 Codes/Zoning/Specifications	3
ARC	255 Architectural Seminar	1
CAD	101 Computer Aided Drafting I	3
CAD	102 Computer Aided Drafting II	3

General Education Courses	(16 credit hours)
ART 110, 111, or 112	3
ENG 121 or 131 English	3
MAT 108 Technical Mathematics	4
SPE 115, 125, or 225 Speech	3

Elective:
Humanities/Behavioral Studies from the
General Education Course List — 3

Physical Education	(1 credit hour)
PED Activity Course *	1

Total Degree Credits — **65 credit hours**

*The PED requirement may be waived for students who are 35 years of age or older at the time of most recent admissions to the college. Appropriate credit must be taken to substitute for the hour waived.

ARCHITECTURAL DRAFTING

Certificate

The Architectural Drafting certificate provides the education background and basic technical training necessary for the student to seek employment within one of the areas architectural firms. Students will be prepared for a variety of job-entry positions that include draftsperson, or computer aided design technician.

Major Courses		(35 credit hours)
ARC	101 Intro to Architectural Drawing	5
ARC	102 Residential Architecture	5
ARC	116 Building Materials	3
ARC	121 Building Structure Analysis	3
ARC	125 History of Architecture	3
ARC	215 Architectural Graphics	3
CAD	101 Computer Aided Drafting I	3
CAD	102 Computer Aided Drafting II	3
CAD	201 Computer Aided Drafting/Custom	3
MAT	108 Technical Mathematics	4

ARCHITECTURAL CONTRACTS & MATERIALS

Certificate

The Architectural Drafting certificate provides the education background and basic technical training necessary for the student to seek employment within one of the areas architectural firms. Students will be prepared for a variety of job-entry positions that include draftsperson, or computer aided design technician.

Major Courses		(27 credit hours)
ARC	107 Blueprint Reading (Residential/Commercial)	3
ARC	116 Building Materials	3
ARC	216 Estimating I	3
ARC	218 Surveying	3
ARC	226 Construction Scheduling	3
ARC	228 Contracts, Bonds & Insurance	3
ARC	236 Codes/Zoning/Specifications	3
ARC	231 Building Service Systems	3
ENG	131 Technical Writing	3
Total		**27 credit hours**

RESIDENTIAL DRAFTING

Certificate

Major Courses		(16 credit hours)
ARC	101 Intro to Architectural Drawing	5
ARC	102 Residential Architecture	5
CAD	101 Computer Aided Drafting I	3
CAD	102 Computer Aided Drafting II	3
Total		**16 credit hours**

AUTOMOTIVE SERVICE TECHNOLOGY

Associate of Applied Science Degree or Certificate

These 2-year Certificate and Associate of Applied Science degree programs are designed to prepare students for employment in the automotive service industry as technicians and will help prepare students for the ASE certification examinations.

Both the certificate and the A.A.S. degree may be earned at the same time or individually. The certificate includes only the automotive courses. The combination of automotive and academic courses end in an A.A.S. degree as listed below. The automotive training is organized into four outstanding "Tracks" that students may pursue: The general college program called the Automotive Service Technology Program (ATEC); a General Motors-specific program called GM Automotive Service Educational Program (ASEP)\; a DaimlerChrysler-specific program called DaimlerChrysler College Apprenticeship program (CAP); and a Nissan-specific program called the Nissan Denver Technician Apprenticeship Program. Any student who completes the AAS degree requirements is also eligible for the Automotive Technology Certificate. The ATEC program is an A.A.S. degree and/or Certificate program that covers a variety of manufacturers. The corporate programs (CAP, ASEP and Nissan) are manufacturer-specific apprenticeship programs that require that the student be working as an apprentice in a DaimlerChrysler, GM or Nissan dealership. While any college student wishing to study Automotive Service Technology may enroll in the ATEC program, the corporate programs are selective and require the candidates to apply to and be accepted into their programs. For more specific information on the automotive programs and the acceptance procedures for the corporate programs, please call the automotive department at 303-797-5846 or email us at automotive@arapahoe.edu.

The National Automotive Technician Education Foundation, Inc. accredits the Automotive Service Technology Programs and can be reached at 101 Blue Seal Drive, Leesburg VA, 20175. Telephone 703-669-6650.

AUTOMOTIVE COURSES			(60 credit hours)
ASE	102	Introduction to the Automotive Shop	2
ASE	110	Brakes I	3
ASE	120	Basic Automotive Electricity	2
ASE	123	Battery, Starting and Charging Systems	2
ASE	130	General Engine Diagnosis	2
ASE	132	Ignition System Diagnosis and Repair	2
ASE	134	Automotive Emissions	2
ASE	140	Suspension and Steering I	3
ASE	150	U-Joint & Axle Shaft Service	2
ASE	151	Manual Transmission/Trans & Clutches	2
ASE	152	Differentials & 4WD/AWD Service	2
ASE	160	Automotive Engine Removal & Install	1
ASE	161	Engine Disassembly, Diagnosis & Assemb	5
ASE	210	Brakes II	3
ASE	220	Specialized Electronics Training	2
ASE	221	Body Electrical	4
ASE	231	Automotive Computers	2
ASE	233	Fuel Injection and Exhaust Systems	4
ASE	235	Drivability Diagnosis	1
ASE	240	Suspension and Steering II	3
ASE	250	Automatic Transmission/Transaxle Serv.	1
ASE	251	Automatic Trans/Transaxle Diagnosis	5
ASE	265	Heating & Air Conditioning	5
Total Automotive Credit Hours			**60**

GENERAL EDUCATION COURSES			(17 credit hours)
ENG	121	English Composition I	3
CIS	118	Introduction to PC Applications	3
MAT	108	Technical Mathematics	4
PHY	101	Elementary Physics	4
SPE	125	Interpersonal Communication	3
Total General Education Credit Hours			**15**
Total			**77 credit hours**

AUTOMOTIVE SERVICE MANAGEMENT

Certificate

This program is designed as a work co-op program for a student interested in a job as an automotive service writer. The student must maintain employment in an automotive service department as a service writer in conjunction with the courses taken at ACC. The courses are sequenced in the automotive area. The academic courses may be taken prior to or in conjunction with the automotive courses. Dealerships are particularly interested in female service writers as women are under-represented in the automotive service field.

AUTOMOTIVE COURSES			(33 credit hours)
ASE	102	Introduction to Auto Shop	2
ASE	110	Brakes I	3
ASE	120	Basic Automotive Electricity	2
ASE	123	Battery, Starting and Charging Systems	2
ASE	130	General Engine Diagnosis	2
ASE	132	Ignition System Diagnosis and Repair	2
ASE	134	Automotive Emissions	2
ASE	140	Suspension and Steering I	3
ASE	150	U Joint & Axle Shaft Service	2
ASE	210	Brakes II	3
ASE	233	Fuel Injection and Exhaust Systems	4
ASE	250	Automatic Transmission/Transaxle Serv.	1
ASE	265	Heating & Air Conditioning	5
Total Automotive Credit Hours			**33**

GENERAL EDUCATION COURSES			(13 credit hours)
ENG	121	English Composition I	3
CIS	118	Intro to PC Applications	3
BTE	100	Computer Keyboarding	1
BUS	115	Intro to Business	3
SPE	125	Interpersonal Communication	3
Total General Education Credit Hours			**13**
Total			**45 credit hours**

ELECTRICAL/ELECTRONICS, ENGINE PERFORMANCE & BRAKES   1-Year Certificate

ASE	110	Brakes I	3
ASE	120	Basic Automotive Electricity	2
ASE	123	Battery, Starting and Charging Systems	2
ASE	130	General Engine Diagnosis	2
ASE	132	Ignition System Diagnosis and Repair	2
ASE	134	Automotive Emissions	2
ASE	210	Brakes II	3

ASE	220	Specialized Electronics Training	2
ASE	221	Body Electrical	4
ASE	231	Automotive Computers	2
ASE	233	Fuel Injection and Exhaust Systems	4
ASE	235	Driveability Diagnosis	1
Total			**29 credit hours**

STEERING/SUSPENSION, POWERTRAIN, HEATING & AIR CONDITIONING — 1-Year Certificate

ASE	140	Suspension and Steering I	3
ASE	150	U-Joint & Axle Shaft Service	2
ASE	151	Manual Transmission/Trans & Clutches	2
ASE	152	Differentials & 4WD/AWD Service	2
ASE	160	Automotive Engine Removal & Install	1
ASE	161	Engine Disassembly, Diagnosis & Assemb	5
ASE	240	Suspension and Steering II	3
ASE	250	Automatic Transmission/Transaxle Serv.	1
ASE	251	Automatic Trans/Transaxle Diagnosis	5
ASE	265	Heating & Air Conditioning	5
Total			**29 credit hours**

BUSINESS ADMINSTRATION

(See also A.A. Business Transfer Emphasis)
Associate of Applied Science Degree

The Associate of Applied Science degree in Business Administration is designed to provide students with the skills needed in diverse public and private organizations. The program provides the business, management and marketing skills necessary for success in entry-level positions requiring foundations of greater responsibility, authority and leadership. Students who complete the program will be viewed by potential employers as having a broad-based education necessary for today's team-oriented and globally-competitive environment.

The Business Administration program prepares students for careers in business, as well as providing students with instructional resources for the purpose of ongoing enhancement of skills.

This program may transfer to other colleges or universities and apply toward a bachelor's degree. Contact the ACC Counseling Office or a Faculty Advisor in Business Administration for details.

Major Courses (34 credit hours)

ACC	121	Principles of Accounting I	4
BUS	115	Introduction to Business	3
BUS	216	Legal Environment of Business	3
BUS	217	Business Communications/Report Writing	3
FIN	101	Principles of Finance	3
MAN	128	Human Relations	3
MAN	215	Organizational Behavior	3
MAN	224	Leadership (Capstone Course)	3
MAN	226	Principles of Management	3
MAN	230	Corporate Responsibility	3
MAR	216	Principles of Marketing	3

General Education Courses (19 credit hours)

MAR	106	Marketing Your Image (was BUS125 Career Strategies)	3
BUS	226	Business Statistics	3
CIS		Must be CIS 118 or higher*	3
CIS	168	Presentation Graphics	1
ECO	201	Principles of Macroeconomics or	
ECO	202	Principles of Microeconomics	3

ENG	121	English Composition I	3
SPE	115	Public Speaking	3
		* CIS 118 recommended	

Physical Education (1 credit hour)

PED___	Activity Course***	1

***The PED requirement may be waived for students who are 35 years of age or older at the time of most recent admission to the college. Appropriate credit must be taken to substitute for the hour waived.

Discipline Emphasis;
Student must choose one of the following areas of emphasis:

GENERAL BUSINESS OPTION (9 credit hours)

The General Business Option prepares students for entry-level positions in a broad range of business occupations. It continues the students' exposure to major areas in the business world, as well as giving the student flexibility in designing a program to fit his or her specific needs.

Restricted Electives (9 credit hours)
Student must choose 9 credit hours from the courses listed below:

BUS	116	Personal Finance	3
BUS	203	Introduction to International Business	3
BUS	241	Cultural Diversity in Business	3
BUS	287	Coop Education/Internship	3
___	___	Any course(s) with the prefixes: ACC, BTE, BUS, CIS, FIN, MAN, MAR, REE, or other, with Department Chair approval	3–9

MANAGEMENT OPTION (9 credit hours)

The Management Option prepares students for entry-level positions in business, government and nonprofit organizations. For those who are already managers, the emphasis is designed to improve and broaden their skills by keeping abreast of the most current technological and theoretical aspects of Management.

Restricted Electives (9 credit hours)
Students must take 9 credit hours from the following:

BUS	287	Coop Education/Internship	3
CIS	202	Automated Project Management: MS Project	3
MAN	116	Principles of Supervision	3
MAN	200	Human Resource Management	3
MAN	201	Human Resource Management II	3
MAN	216	Small Business Management	3
MAN	240	Strategic Management	3
MAN	241	Project Management in Organizations	3
MAN	243	Project Management Practicum	3

MARKETING OPTION (9 credit hours)

The Marketing Option prepares students for entry-level positions which deal with directing the activities of the organization toward the satisfaction of consumer wants and needs. This involves an understanding of consumer behavior; promotional, sales and pricing strategies; product management; and physical distribution, all of which prepare the student for a wide variety of opportunities.

Restricted Electives (9 credit hours)
Student must take 9 credit hours from the following:

BUS	287	Coop Education/Internship	3
MAR	111	Principles of Sales	3
MAR	117	Principles of Retailing	3
MAR	126	Merchandising	3
MAR	160	Customer Service	3
MAR	220	Principles of Advertising	3

MAR 235 Consumer Behavior	3
MAR 249 Strategic Marketing	3

SMALL BUSINESS MANAGEMENT OPTION
(9 credit hours)

The Small Business Management Option is designed to prepare those interested in a career in owning or managing a small business, as well as to enhance the skills of those already involved in entrepreneurship. The courses are designed to stimulate the entrepreneurial spirit by giving the student the knowledge and ability needed to profitably respond to the environment of the small businessperson.

Required Course:	**(3 credit hours)**
MAN 216 Small Business Management	3

Restricted Electives:	**(6 credit hours)**

Student must take 6 credit hours from the following:

BUS 116 Personal Finance	3
BUS 203 Introduction to International Business	3
BUS 241 Cultural Diversity in Business	3
MAR 111 Principles of Sales	3
MAR 117 Principles of Retailing	3
MAR 160 Customer Service	3
MAR 220 Principles of Advertising	3
BUS 287 Coop Education/Internship	3

EVENT MANAGEMENT OPTION   (9 credit hours)

The Event Management Option prepares students for entry-level event management and marketing positions for both large and small businesses, and community relations positions for government and nonprofit agencies or for self-employment.

Required Course:	**(3 credit hours)**
MAN 205 Event Planning	3

Restricted Electives:	**(6 credit hours)**

Student must take 6 credit hours from the following:

BUS 287 Coop Education/Internship	3
MAN 216 Small Business Management	3
MAR 111 Principles of Sales	3
MAR 160 Customer Service	3
MAR 220 Principles of Advertising	3

REAL ESTATE BROKER LICENSING OPTION
(11 credit hours)

Successful completion of the courses in this option will satisfy the educational requirement of the Colorado Real Estate Commission to sit for the Real Estate Broker's Licensing Examination.

Required Courses:	**(11 credit hours)**
REE 103 Real Estate Law & Practice	6
REE 104 Colorado Real Estate Contracts/Regulations	5

REAL ESTATE APPRAISER OPTION   (11 credit hours)

Successful completion of REE 118 and REE 119 in this option will satisfy the educational requirement of the Colorado Board of Real Estate Appraisers to sit for the Registered Appraiser Examination.

Required Courses	**(11 credit hours)**
BUS 287 Coop Education/Internship	3
REE 115 Introduction to Real Estate	3
REE 118 Real Estate Appraisal	4
REE 119 Uniform Standards of Professional Appraisal Practice (USPAP)	1

TRAVEL AND TOURISM OPTION   (9 credit hours)

This option prepares individuals for career opportunities in the Travel and Tourism industry. The program emphasizes travel careers with a variety of employers, as well as the enhancement of the skills of those already employed in the industry.

Restricted Electives	**(9 credit hours)**

Student must take 9 credit hours from the following:

BUS 287 Coop Education/Internship	3
TRA 120 Travel Reservations	3
TRA 125 Airline Reservations	3
TRA 128 Travel Destinations	3
TRA 141 Leisure Travel	3
TRA 230 Home-based Travel Agent	3

BUSINESS ADMINSTRATION

Certificates

These certificate programs offer opportunities for students to add a wide range of business-related courses to their expertise for advancement in their jobs, to enhance skills needed in the business and/or public workforce sectors, or in endeavors involving self-employment and entrepreneurship. Twenty-four certificates are offered: Contemporary Business, International Business, Leadership, Contemporary Management, Human Resource Management, Supervision, Organizational Behavior, Project Management, Contemporary Marketing, Consumer Behavior, Retail Management, Sales Management, Real Estate Broker, Real Estate Appraiser, Small Business Management, Travel and Tourism, Human Resource Specialist, and Management for Professional and Technical Employees.

ADVERTISING MEDIA

This certificate is designed to enhance the knowledge and skills of those interested in graphic design or marketing careers, and for entrepreneurs. Marketing and advertising principles are covered with an overview of graphic design technologies and practices.

Required Courses	**(15 credit hours)**
MAR 216 Principles of Marketing	3
MAR 220 Principles of Advertising	3
ART 131 Design I	3
MGD 101 Introduction to Computer Graphics	3
MGD 103 Production Design (prerequisites: ART 131 and MGD 101)	3
Total	**15 credit hours**

CONSUMER BEHAVIOR

This certificate is for individuals who wish to obtain a better understanding of consumer actions and feeling that may influence the development of marketing strategies. Courses can be applied to the AAS in Business Administration.

Required Courses	**(9 credit hours)**
MAR 160 Customer Service	3
MAR 216 Principles of Marketing	3
MAR 235 Consumer Behavior	3
Total	**9 credit hours**

CONTEMPORARY BUSINESS

For students who wish to gain a basic knowledge of today's business environment. Courses can all be applied to the AAS in Business Administration.

Required Courses	(9 credit hours)
BUS 115 Introduction to Business	3
BUS 216 Legal Environment of Business	3
MAN 230 Corporate Responsibility	3
Total	**9 credit hours**

CONTEMPORARY MANAGEMENT

This certificate is designed for both line and staff managers in the business and public sectors, and for those who wish to learn the planning, supervision and management techniques and skills needed to improve workforce productivity. Courses can be applied to the AAS in Business Administration.

Required Courses	(9 credit hours)
MAN 116 Principles of Supervision	3
MAN 226 Principles of Management	3
MAN 240 Strategic Management	3

CUSTOMER SERVICE

This certificate is for individuals who are in a business, management or marketing profession and would like to enhance their customer service skills or develop a customer service plan for their organization or business. Courses can be applied to the AAS in Business Administration.

Required Courses	(9 credit hours)
MAR 160 Customer Service	3
MAR 111 Principles of Sales	3
MAR 235 Consumer Behavior	3
Total	**9 credit hours**

CONTEMPORARY MARKETING

Designed to give students a solid foundation in marketing concepts and strategies. The courses explore marketing strategies and how those strategies fit into the overall pattern of business success. Courses can be applied to the AAS in Business Administration.

Required Courses	(9 credit hours)
MAR 216 Principles of Marketing	3
MAR 235 Consumer Behavior	3
MAR 249 Strategic Marketing	3
Total	**9 credit hours**

DIRECT MARKETING

This certificate is designed for an individual already in a marketing career or an entrepreneur to understand all aspects of direct marketing from using marketing/advertising principles and basic design of direct mail pieces to gathering customer information and developing and maintaining databases.

Required Courses	(12 credit hours)
MAR 216 Principles of Marketing	3
MAR 220 Principles of Advertising	3
CIS 167 Desktop Publishing	3
CIS 240 Database Design and Development	3
Total	**12 credit hours**

HUMAN RESOURCE MANAGEMENT

This certificate is designed to enhance the skills of those who are seeking employment that deals with a practical approach to current issues in Human Resource Management, including laws, compensation programs, and evaluation policies and procedures. These courses can be applied to the Human Resource Specialist Certificate and to the AAS in Business Administration.

Required Courses	(9 credit hours)
MAN 200 Human Resource Management I	3
MAN 201 Human Resource Management II	3
MAN 215 Organizational Behavior	3
Total	**9 credit hours**

HUMAN RESOURCE SPECIALIST

This certificate is designed for individuals pursing careers as Human Resource Specialists in large organizations, or Human Resource Managers in smaller organizations, or those already so employed who wish to upgrade or enhance their skills. The program concentrates heavily on the connection between organizations and productivity and how these are affected by the concepts, issues and practices of contemporary Human Resource Management. Courses can be applied to an AAS degree in Business Administration.

Required Courses	(30 credit hours)
MAR 106 Marketing Your Image	3
BUS 216 Legal Environment of Business	3
MAN 116 Principles of Supervision	3
MAN 128 Human Relations	3
MAN 200 Human Resource Management I	3
MAN 201 Human Resource Management II	3
MAN 215 Organizational Behavior	3
MAN 224 Leadership	3
MAN 226 Principles of Management	3
MAN 230 Corporate Responsibility	3
Total	**30 credit hours**

INTERNATIONAL BUSINESS

This certificate is designed for students entering one of the fastest and most challenging segments of business today, the international market. Completion of these courses will provide a good understanding of the interdisciplinary nature of international business. Courses can be applied to the AAS in Business Administration.

Required Courses	(9 credit hours)
BUS 115 Introduction to Business	3
BUS 203 Introduction to International Business	3
BUS 241 Cultural Diversity in Business	3
Total	**9 credit hours**

LEADERSHIP

This certificate will help individuals assess and develop personal leadership skills, including the increasingly important relationship between effective leadership and the situation. Courses can be applied to the AAS in Business Administration.

Required Courses	(9 credit hours)
MAN 215 Organizational Behavior	3
MAN 224 Leadership	3
MAN 230 Corporate Responsibility	3
Total	**9 credit hours**

MANAGEMENT FOR PROFESSIANAL AND TECHNICAL EMPLOYEES

This certificate is designed specifically for individuals who have professional or technical expertise and are in a management position, anticipate moving into a management position, or plan on starting their own business. To qualify for this certificate individuals must:

1. Have a minimum of an Associate of Applied Science degree in a technical area or three years of documented work experience in a technical area, and
2. Complete the required course work at Arapahoe Community College.

Required Courses	(15 credit hours)
BUS 115 Introduction to Business	3
BUS 216 Legal Environment of Business	3
MAN 116 Principles of Supervision	3
MAN 128 Human Relations	3
MAN 230 Corporate Responsibility	3

Restricted Electives	(3-4 credit hours)

Student must select one course from the following:

ACC 121 Principles of Accounting	4
MAN 216 Small Business Management	3
MAR 216 Principles of Marketing	3
Total	**18-19 credit hours**

ORGANZATIONAL BEHAVIOR

This certificate is for individuals whose professions require them to interact with others on a regular basis, or who are involved in any aspect of organizational development. The certificate focuses on psychological, interpersonal and behavioral dynamics. Courses can be applied to the AAS in Business Administration.

Required Courses	(9 credit hours)
MAN 128 Human Relations	3
MAN 215 Organizational Behavior	3
MAN 226 Principles of Management	3
Total	**9 credit hours**

PROJECT MANAGEMENT

This certificate is designed to enable individuals to initiate, plan, execute and control project events, and to bring project events to a timely conclusion. The certificate concentrates on teaching task specialists to work cross-functionally and in ad hoc project teams. Courses can be applied to the AAS degree in Business Administration.

Required Courses	(9 credit hours)
MAN 241 Project Management in Organizations	3
CIS 202 Automated Project Management – MS Project	3
MAN 243 Project Management in Action	3
Total	**9 credit hours**

REAL ESTATE APPRAISAL

Successful completion of REE 118 and REE 119 in this certificate will satisfy the educational requirement of the Colorado Real Estate Commission to sit for the Real Estate Appraisal Examination. Courses can be applied to the AAS in Business Administration.

Required Courses	(8 credit hours)
REE 115 Real Estate Law and Practice	3
REE 118 Real Estate Appraisal	4
REE 119 Uniform Standards of Professional Appraisal Practice (USPAP)	1
Total	**8 credit hours**

REAL ESTATE BROKER

This certificate is designed for students who wish to complete the hours of education requirements of the Colorado Real Estate Commission for Broker Licensing. Individuals who successfully complete this course of study will be awarded an REC 33 Certificate, which will enable them to sit for the State Broker Licensing examination. Courses can be applied to the AAS in Business Administration.

Required Courses	(11 credit hours)
REE 103 Real Estate Law & Practice	6
REE 104 Colorado Real Estate Contracts/Regs	5
Total	**11 credit hours**

RETAIL MANAGEMENT

For individuals who are interested in the retailing profession as a career, or who are already in the retailing industry and wish to enhance their skills. Courses can be applied to the AAS in Business Administration.

Required Courses	(9 credit hours)
MAR 111 Principles of Sales	3
MAR 117 Principles of Retailing	3
MAR 126 Merchandising	3
Total	**9 credit hours**

SALES MANAGEMENT

For individuals who are interested in the sales profession as a career, or who are already in the sales profession and wish to enhance their knowledge about this increasingly important segment of American business. Courses can be applied to the AAS in Business Administration.

Required Courses	(9 credit hours)
MAR 111 Principles of Sales	3
MAR 160 Customer Service	3
MAR 216 Principles of Marketing	3
Total	**9 credit hours**

SALES MANAGEMENT II

For individuals who are interested in the sales profession as a career in sales and/or sales management. This certificate offers individuals a more comprehensive background in sales and/or sales management. Courses can be applied to the AAS in Business Administration.

Required Courses	(12 credit hours)
MAR 111 Principles of Sales OR	
MAR 216 Principles of Marketing	3
MAR 160 Customer Service	3
MAR 245 Sales Management	3
MAR 235 Consumer Behavior	3
Total	**12 credit hours**

SMALL BUSINESS MANAGEMENT

This certificate is designed for those who are interested in the entrepreneurial aspect of the business environment and want to develop the knowledge and skills needed to understand and function profitably in the small business environment. The certificate is designed to give the student the basic tools he or she will need for immediate use, and the courses required can also be applied to the Small Business Option of the AAS degree in Business Administration.

Required Courses	(27 credit hours)	
ACC 235 Computerized Accounting for Small Businesses	3
BUS 216 Legal Environment of Business	3
BUS 217 Business Communications	3
CIS __ Must be CIS 118 or higher*	3
MAN 216 Small Business Management	3
MAN 230 Corporate Responsibility	3
MAR 111 Principles of Sales	3
MAR 160 Customer Service	3
MAR 216 Principles of Marketing	3

*CIS 118 recommended

Restricted Electives	(3 credit hours)
Student must select one course from the following:
MAN 116 Principles of Supervision	3
MAR 117 Principles of Retailing	3
MAR 220 Principles of Advertising	3
SPE 115 Public Speaking	3
Total	**30 credit hours**

SMALL BUSINESS SALES AND MARKETING

This certificate is designed for individuals who wish to enhance their skills utilizing customer service skills as well as marketing and advertising principles in small business marketing. Courses can be applied to the AAS in Business Administration.

Required Courses	(12 credit hours)
MAR 111 Principles of Sales or MAR 117 Principles of Retailing or Principles of Marketing	3
MAR 220 Principles of Advertising	3
MAR 160 Customer Service	3
MAR 217 E-Commerce Marketing	3
Total	**12 credit hours**

SUPERVISION

This certificate is designed for individuals who wish to enhance their skills in the supervision of people at the front line of management. The course work required for this certificate is especially suited both to those already in a supervisory position and also to those anticipating moving into a supervisory position. Courses can be applied to the AAS in Business Administration.

Required Courses	(9 credit hours)
MAN 116 Principles of Supervision	3
MAN 128 Human Relations	3
MAN 226 Principles of Management	3
Total	**9 credit hours**

TRAVEL AND TOURISM

The Travel and Tourism Certificate is designed to prepare individuals for career opportunities in one of the fastest growing fields in Colorado. In addition to travel agencies, career opportunities exist with airlines, cruise lines, hotels and as corporate travel planners. Courses may also apply to AAS in Business Administration.

Required Courses	(24 credit hours)
MAR 106 Marketing Your Image	3
BUS 217 Legal Environment of Business	3
CIS __ Must be CIS 118 or higher*	3
MAN 116 Principles of Supervision	3
MAR 111 Principles of Sales	3
TRA 120 Travel Reservations	3
TRA 128 Travel Destinations	3
TRA 141 Leisure Travel	3

*CIS 118 recommended

Restricted Electives	(6 credit hours)
Student must select two courses from the following:
ACC 101 Fundamentals of Accounting	3
TRA 125 Airline Reservations	3
TRA 230 Home-Based Travel Agency	3
BUS 287 Internship	3
Total	**30 credit hours**

WEB-BASED DESIGN/MARKETING

This certificate is designed to enhance the knowledge and skills of individuals interested in business careers or entrepreneurs. Marketing, advertising principles and design principles are applied with a basic understanding of developing and maintaining a website.

Required Courses	(12 credit hours)
MAR 117 Principles of Retailing	3
MAR 217 E-Commerce Marketing	3
CIS 130 Introduction to the Internet	3
MGD 141 Web Design I	3
Total	**12 credit hours**

BUSINESS TECHNOLOGIES

Certificates

OFFICE ADMINISTRATION

This certificate will prepare the student for entering a business environment to become an office professional. The student will develop skills in touch keyboarding and applications, electronic office procedures, word processing, language skills, electronic information systems and human relations communications.

Major Courses	(25 credit hours)
BTE 102 Keyboarding Applications I	2
BTE 125 Records Management	3
BTE 156 Business Math with Calculators	4
BUS 115 Introduction to Business	3
BUS 217 Business Communication and Report Writing	3
CIS 135 Word Processing Complete	3
CIS 118 Intro to PC Applications	3
CIS 140 Microsoft Outlook	1
MAR 106 Marketing Your Image	3

Restricted Electives   **(5 credit hours)**

Students must select 5 credit hours from the following list:

ACC	101	Fundamentals of Accounting OR	
ACC	121	Principles of Accounting I	3-4
BTE	108	Ten Key by Touch	1
BTE	111	Keyboarding Speed Building I	2
BTE	202	Office Simulation	3
BTE	166	Business Editing Skills	3
BTE	225	Administrative Office Management	3
CIS	167	Desktop Publishing	3
___	___	Any course(s) with the prefixes: ACC, BTE, BUS.	

CIS, FIN, MAN, MAR, REE.

Total   **30 credit hours**

BOOKKEEPING & OFFICE

This certificate will prepare the student for entering the job market in positions in bookkeeping and/or work in an accounting department. The student will develop skills in basic accounting including the accounting cycle, computerized accounting, keyboarding and ten key by touch as well as business math. Also taught are computer skills such as electronic spreadsheets, word processing, and electronic office procedures.

Major Courses   **(32-33 credit hours)**

ACC	101	Fundamentals of Accounting OR	
ACC	121	Principles of Accounting	3-4
ACC	115	Payroll Accounting	4
ACC	235	Computerized Accounting for Small Businesses OR	
ACC	245	Computerized Accounting with a Professional Package	3
BTE	102	Keyboarding Applications I	2
BTE	108	Ten Key by Touch	1
BTE	125	Records Management	3
BTE	156	Business Math with Calculators	4
BUS	217	Business Communication & Report Writing	3
CIS	118	Intro to PC Applications	3
CIS	135	Word Processing Complete	1
CIS	140	Microsoft Outlook	1
CIS	155	PC Spreadsheet Concepts:Excel	3

Total   **32-33 credit hours**

LEGAL SECRETARY

This certificate will prepare the student to enter a legal office environment to become an office professional. The student will develop skills in keyboarding applications, word processing, language skills, computer applications, human relations, communications and office procedures as they relate to a legal office.

Major Courses   **(35 credit hours)**

BTE	102	Keyboarding Applications I	2
BTE	103	Keyboarding Applications II	3
BTE	120	Electronic Office Procedures	2
BTE	125	Records Management	3
BTE	166	Business Editing Skills	3
BTE	238	Legal Office Procedures	3
BUS	217	Business Communication & Report Writing	3
CIS	118	Introduction to PC Applications	3
CIS	135	Word Processing Complete	3
CIS	140	Microsoft Outlook	1
PAR	110	Legal Analysis	3
PAR	115	Intro to Law	3
PAR	117	Family Law	3

Total   **35 credit hours**

CARPENTRY

Certificate

This certificate program provides entry-level skill training in a variety of building trades. This competency-based program features hands-on learning in the actual construction of a house on site. Students will enjoy learning the basic skills of framing, floors, walls and roofs. Students will perform hands-on skills in the trades of siding, roofing, masonry, drywall and interior finish carpentry. Students will be exposed to other building trades such as: plumbing, HVAC, electrical and concrete finishing. Upon completion of this program, students can look forward to employment in the many diversified areas of building trades.

Second year students will go beyond basic skills and/or specialize in trades that include framing, door and window installation, interior and exterior finish, all phases of carpentry and masonry. This includes exposure to reidential plumbing, electrical and HVAC. Classrooom instruction and evaluation parallels the on-the-job training of students. Paid on-the-job internships are also available through a cooperative component that requires students to work a minimum of 15 hours per week in an approved training station. Credit from the job training will be evaluated on a satisfactory/unsatisfactory basis, and classroom credit will be evaluated with a letter grade.

CARPENTRY I CERTIFICATE   **(16 credits)**

CAR	101	Construction Safety	1
CAR	102	Hand and Power tools	1
CAR	105	Job Site Layout and Blueprint reading	1
CAR	115	Form and Foundation Systems	1
CAR	121	Floor framing	1
CAR	122	Wall Framing	1
CAR	123	Roof Framing	1
CAR	125	Roofing Materials and Methods	1
CAR	130	Windows and Exterior Doors	1
CAR	131	Exterior Trim	1
CAR	145	Interior Finishes-General	1
CAR	146	Interior Finishes-Drywall Construction	1
CAR	151	Interior Trim-Doors and Trim	1
CAR	153	Interior Trim-Cabinets and Countertops	1
CAR	160	Floor Finishes	1

Total   **16**

CARPENTRY II CERTIFICATE   **(15–19 credits)**

CAR	215	Form and Foundation Systems II	1
CAR	221	Advanced Floor Systems	2
CAR	222	Advanced Wall Systems	2
CAR	223	Advanced Roofing Systems	2
CAR	250	Advanced Interior Trim-General	2
CAR	251	Advanced Interior Trim-Doors	2
CAR	254	Advanced Interior Trim-Special	2
CAR	275	Special Topics	2–6

Total   **15–19 Credits**

COMPUTER AIDED DRAFTING

Certificate

This certificate program is for individuals who seek in-depth training on a PC CADD System as an automated drafting tool. Individuals will be introduced to computer literacy, AutoCAD software, icons, libraries, slides, 3-D applications, customizing, programming and plotting.

Major Courses

CAD 101	Computer Aided Drafting I	3
CAD 102	Computer Aided Drafting II	3
CAD 201	Computer Aided Drafting/Custom	3
CAD 202	Computer Aided Drafting/3D	3
CAD 249	AutoLisp Programming	3
CIS 118	Introduction to PC Application	3
MAT 108	Technical Mathematics	4

Drafting/Design elective or portfolio of related work   6-10
experience. Select one of the following groups: a, b, c, or d

    a. ARC 101, 102
    b. MGD 212, 207
    c. DRT 101, 102
    d. IND 111, 211

Total Certificate Credits   28-32

Financial Aid is only available for the coursework in the following three Computer Aided Drafting Certificates as part of the ultimate educational goal of obtaining an AAS degree as indicated on your college application. Please visit the Office of financial Aid for more details.

COMPUTER AIDED DRAFTING—3D

Certificate

Major Courses   (6 credit hours)

CAD 202	Computer Aided Drafting/3D	3
CAD 217	3D Studio Viz	3
Total		**6 credit hours**

COMPUTER AIDED DRAFTING—2D

Certificate

Major Courses   (6 credit hours)

CAD 101	Computer Aided Drafting I	3
CAD 102	Computer Aided Drafting II	3
Total		**6 credit hours**

COMPUTER AIDED DRAFTING— CUSTOM

Certificate

Major Courses   (6 credit hours)

CAD 201	Computer Aided Drafting/Custom	3
CAD 249	AUTOLISP Programming	3
Total		**6**

COMPUTER GRAPHICS

See Multimedia/Graphic Design

COMPUTER INFORMATION SYSTEMS

Associate of Applied Science Degree

The Computer Information System (CIS) degree is a two-year, 62-63 semester hour vocational degree program in business computer usage, management, programming, and operations. Emphasis is on learning to use the computer as a tool in a business environment. The CIS graduate will have a solid foundation in both business and information system skills. Job opportunities exist in traditional entry-level business positions as well as the more specialized areas of junior programmer, computer operator, systems analyst trainee, computer salesperson, user support, documentation specialist or data librarian.

TRANSFER TO REGIS— BS IN COMPUTER INFORMATION SYSTEMS

This program will transfer to the Regis University for Professional Studies toward a Bachelor of Science in Computer Information Systems. Specific course sequences and requirements apply. Contact the ACC Counseling Office or a Faculty Advisor in Computer Information Systems for specific details.

Major Courses   (31 credit hours)

ACC	121	Principles of Accounting I	4
BUS	217	Business Communication and Report Writing	3
CIS	116	Logic and Program Design	3
CIS	240	Database Design and Development	3
CIS	266	Topics in Computers	3
CIS	267	Management of Information Systems	3
CIS	268	Systems Analysis & Design	3
CIS	287	Cooperative Education Career Training*	3
CSC	116	Logic and Program Design	3
MAN	128	Human Relations OR	3
MAN	224	Leadership	3
MAN	226	Principles of Management	3

General Education Courses: (18 credit hours)**

BUS	115	Introduction to Business	3
CIS	115	Introduction to Computer Information Systems	3
CIS	118	Introduction to PC Applications	3
ECO	201	Principles of Macroeconomics OR	
ECO	202	Principles of Microeconomics	3
ENG	121	English Composition I OR	3
ENG	131	Technical Writing I	
MAT	121	College Algebra OR	
MAT	135	Introduction to Statistics	3

Physical Education**   (1 credit hour)**

PED	101	or PED activity course	1

Option A

Option A is designed for traditional students pursuing a degree or certificate through ACC's regular campus programs. For additional information, please contact cisadvising@arapahoe.edu.

Programming Language   (3-4 credit hours)

Select a course from the following:

CSC	150	Visual Basic Programming	3
CSC	160	Computer Science I: (JAVA)	4
CSC	161	Computer Science II: (JAVA)	4
CSC	230	C Programming: Platform	3
CSC	233	Object-oriented Programming in C++	4
CSC	234	C++ Programming	4

Restricted Electives **(9 credit hours)**

Must be fulfilled by selecting 9 credit hours of additional CIS and/or CSC courses

*Coop education may be waived and substituted for students with equivalent work experience. An approved substitution form must be submitted to the Records Office.

**Students intending to transfer to the School for Professional Studies program at Regis University should see an advisor before selecting their General Education and Elective courses.

****The PED requirement will be waived for students who are 35 years of age or older at the time of most recent admission to the college. Appropriate credits must be taken to substitute for the hour waived.

Option B

Option B is designed for those students pursuing a degree or certificate through ACC@DTC or ACC's Academic Partners. For additional information, please contact ACC@DTC at 303-734-3701 or the Academic Credit Coordinator at ccpd@arapahoe.edu.

Programming Language **(3-6 credit hours)**

Select a course from the following:

CSC	150	Visual Basic Programming	3
CSC	160	Computer Science I: (JAVA)	4
CSC	161	Computer Science II: (JAVA)	4
CSC	230	C Programming: Platform	3
CSC	233	Object-oriented Programming in C++	4
CSC	234	C++ Programming	4
CSC	236	C# Programming	4
CSC	250	Programming with MS ADO.NET	3
CSC	251	Programming with MS in Visual Basic.NET	3
CSC	252	MS Visual Basic.NET	3
CIS	245	Data Modeling and Relational Databases	3
CIS	250	Programming with MS ADO.NET	3
CIS	251	Programming in Visual Basic.NET	3
CSC	252	MS Visual Basic.NET Application Development	3
CSC	261	Programming with C#.NET	3
CSC	253	MS ASP.NET Web Application Development	3
CSC	240	Java Programming	3
CSC	241	Advanced Java Programming	3
CSC	255	ADO.NET Programming	3
CSC	258	Analyzing Requirements and Defining Microsoft.NET Solution Architectures	3
CSC	257	Building COM+ Applications Using Microsoft.NET Enterprise Services	3
CSC	262	MS C#.NET Application Development	3
CSC	263	MS ASP.NET XML Web Services Development	3
CIS	245	Data Modeling and Relational Databases	3
CSC	236	C# Programing	4

Restricted Electives **(9 credit hours)**

Must be fulfilled by selecting 9 credit hours of additional CIS and/or CSC courses

*Coop education may be waived and substituted for students with equivalent work experience. An approved waiver form must be submitted to the Records Office.

**Students intending to transfer to the School for Professional Studies program at Regis University should see an advisor before selecting their General Education and Elective courses.

Total **62-65 credit hours**

COMPUTER PROGRAMMING

Certificate

The Computer Programming Certificate has two options. The student must select and complete the entire major sequence in the Business Option or the Math/Science/Engineering Option; 9 hours of Programming Environments; and 12 hours of Programming Language classes (as described below).

Business Option

Major Core Courses **(20–21 credit hours)**

ACC	121	Principles of Accounting I	4
BUS	115	Introduction to Business	3
CIS	115	Introduction to Computer Information Systems OR	
CIS	118	Introduction to PC Applications	3
CIS	268	Systems Analysis and Design I	3
CSC	116	Logic and Program Design	3
MAT	121	College Algebra OR	
MAT	135	Introduction to Statistics	3
MAT	179	Computer Applications for Statistics	1

Math/Science/Engineering Option

Major Core Courses **(14 credit hours)**

CIS	287	Coop	3
CNG	124	Networking I: Network +	3
CSC	116	Logic and Program Design	3
MAT	201	Calculus I*	5

*See Prerequisites

Programming Environments **(9 credit hours)**

CIS	128	Windows Complete	3
CIS	220	Fundamentals of Unix	3
CIS	232	Unix Shell Programming	3

Programming Languages **(12 credit hours)**

Students must include one sequence
(e.g. CSC 150 & CSC 151 or CSC 160 & CSC 161).
The remaining courses must be a different Language from your sequence courses. Select from the following:

CSC	150	Visual Basic Programming	3
CSC	151	Advanced Visual Basic Programming	3
CSC	156	Visual Basic.Net Programming	4
CSC	157	Advanced Visual Basic.Net Programming	4
CSC	160	Computer Science I	4
CSC	161	Computer Science II	4
CSC	230	C programming: Platform	3
CSC	233	Object Oriented Programming in C++	4
CSC	234	C++ Programming	4
CSC	236	C# Programming	4
CSC	237	Advanced C# Programming	4

Total **35-42 credit hours**

COMPUTER TECHNICIAN

Certificate

The Computer Technian program prepares individuals for entry-level jobs in the personal computer industry involving the installation, upgrading and servicing of personal computer systems and computer networks. Three common examples of positions in which a graduate of this program might be employed are retail computer store technician, field service technician for a computer/network systems reseller, and in-house computer/network technician for a large company.

Students in this program gain extensive experience with computer hardware, software and networks. Upon successful completion of the program, the student is prepared to take the CompTIA A+ certification exam, the competency standard for service technicians in the computer industry.

Major Courses	(25 credit hours)	
CIS	118 Intro to PC Applications[1]	3
CIS	124 PC Operating Systems	3
CIS	128 Complete Windows	3
CNG	121 Computer Technology I: A+	4
CNG	122 Computer Technology II: A+	3
CNG	124 Networking I: Network+	3
CNG	125 Networking II: Network+	3
CNG	255 Industry Certification	3

Restricted CIS Electives   (2 credit hours)
Select any electives totaling at least 2 credit hours from the following prefixes: CIS, CSC, CNG

Total   27 credit hours

[1]Students may substitute all of following courses for CIS 118: CIS 131, CSC 161, CIS 145, and CIS 155. Program Advisor: 303-797-5886, cisadvising@arapahoe.edu.

COMPUTER NETWORK TECHNOLOGY

Associate of Applied Science Degree

The Computer Network Technology program prepares individuals for jobs in the computer networking field. Students in this program gain hands-on experience with computer hardware, software and networks. Upon successful completion of the program, the student will have the needed background to prepare to take the exams for Network+; Microsoft MCSE, CWNA, Cisco CCNA and the National Association of Communications Systems Engineers (NACSE) NANS certification; these are the competency standards for network specialists in the computer industry.

Major Courses	(28 credit hours)	
CIS	124 Intro to Operating Systems	3
CIS	118 Intro to PC Applications	3
CIS	202 Automated Project Mgmt: MS Projects	3
CIS	287 Coop Education Training	3
CNG	121 Computer Technician I: A+	4
CNG	124 Networking I: Network +	3
CNG	125 Networking II: Network +	3
CNG	131 Network Security Fundamentals	3
CNG	224 Microsoft Windows Wireless Network	3

General Education Courses	(13 credit hours)	
MAT	121 College Algebra	4
SPE	125 Interpersonal Communication	3
ENG	131 Technical Writing I	3
MAN	230 Corporate Responsibility	3

Electives   (0-15 credit hours)
Depending on program emphasis students will select 0-15 credit hours from the CIS, CNG, CWB or CSC program area. Please see faculty advisor for information.

Computer Network Technology Tracks:
Choose 1 from the following tracks:

MCSA Windows Server 2003 (MCSA)
(14 credit hours)

CNG	211 Windows XP Configuration	3
CNG	212 Manage a MS Windows Server Environment	4
CNG	213 Implement a MS Windows Server Environment	4
CNG	226 Implementing and Managing MS Exchange	3

MCSE Windows Server 2003   (21-26 credit hours)

CNG	211 Windows XP Configuration	3
CNG	212 Manage a MS Windows Server Environment	4
CNG	213 Implement a MS Windows Network Infrastructure	4

Microsoft Certified System Engineer Elective Classes (choose 4 of the following):

CNG	215 Managing a Microsoft Windows Network Environment	3
CNG	221 Design MS Windows Active Directory and Network Infrastructure	3
CNG	214 Plan a MS Windows Server Network Infrastructure	4
CNG	216 Plan a MS Windows Server Active Directory Infrastructure	4
CNG	227 Administering a Microsoft SQL Server Database	3
CIS	253 Programming a Microsoft SQL Server 2000 Database	3
CIS	252 Querying a Microsoft SQL Server 2000 with Transact-SQL	3
CNG	239 Deploying and Managing Microsoft Internet Security and Acceleration Server 2000	3
CNG	226 Implementing and Managing Microsoft Exchange Server 2003	4
CNG	222 Designing a Windows Secure Network	3
CNG	223 Designing a MS Windows 2000 Network Infrastructure	3
CNG	219 Deploying and Managing Microsoft Commerce Server 2000	2

Cisco Network Administrator (CCNA)
(3-6 credit hours)

CNG	230 Fast Track CCNA 1 & 2	3
CNG	231 Fast Track CCNA 1 & 2	3

Cisco Network Administrator (CCNA)
(20 credit hours)

CNG	260 CISCO Network Associate I	5
CNG	261 CISCO Network Associate II	5
CNG	262 CISCO Network Associate III	5
CNG	263 CISCO Network Associate IV	5

Cisco Certified Network Professional (CCNP)
(20 credit hours)

CNG	265 Cisco Network Professional I	5
CNG	266 Cisco Network Professional II	5
CNG	267 Cisco Network Professional III	5
CNG	268 Cisco Network Professional IV	5

UNIX NETWORK ADMINISTRATION   (16 credit hours)

CIS	220	Fundamentals of Unix (Linux)	3
CIS	221	Advanced Unix (Linux)	3
CIS	222	UNIX System Administration	3
CIS	232	Unix Shell Programming	3
CSC	269	Programming in Perl	3
CSC	160	Computer Science I (Language)	4

COMPUTER AND NETWORK SECURITY   (21 credit hours)

CIS	220	Fundamentals of UNIX (Linux)	3
CIS	221	Advanced UNIX (Linux)	3
CNG	253	Firewalls and How They Work	3
CNG	136	Guide to Disaster Recovery	3
CNG	225	Wireless Network Security	3
CNG	257	Network Defense and Counter Measures	3
CNG	258	Computer Forensics	3
Total			**62–67 credit hours**

NETWORKING CERTIFICATES

Choose one of the following tracks.

This program is specifically designed to prepare students as entry-level Microsoft 2003 Network Administrators. Students are encouraged to take the Microsoft Technical Certification tests to receive the MCP, MCSA and MCSE certification from Microsoft.

Note: Arapahoe Community College has no control over curriculum changes made by the agencies mentioned above.

Certificate

MICROSOFT CERTIFIED SYSTEM ADMINSTRATOR (MCSA)
(14 credit hours)

CNG	211	Windows XP Configuration	3
CNG	212	Manage a MS Window Server Environment	4
CNG	213	Implement a MS Windows Network Infrastructure	4
CNG	226	Implementing and Managing MS Exchange	3

Certificate

MCSE WINDOWS SERVER 2003
MICROSOFT CERTIFIED SYSTEMS ENGINEER 2003

CORE CLASSES			**(3 CLASSES)**
CNG	211	Windows XP Configuration	3
CNG	213	Implement a MS Windows Network Infrastructure	4
CNG	212	Manage a MS Windows Server Environment	4

MICROSOFT CERTIFIED SYSTEM ENGINEER ELECTIVE CLASSES (choose 4 from the following):

CNG	215	Managing a Microsoft Windows Network Environment	3
CNG	221	Design MS Windows Active Directory and Network Infrastructure	3
CNG	214	Plan a MS Windows Server Network Infrastructure	4
CNG	216	Plan a MS Windows Server Active Directory Infrastructure	4
CNG	227	Administering a Microsoft SQL Server Database	3
CIS	253	Programming a Microsoft SQL Server 2000 Database	3
CIS	252	Querying a Microsoft SQL Server 2000 with Transact-SQL	3

CNG	239	Deploying and Managing Microsoft Internet Security and Acceleration Server 2000	3
CNG	226	Implementing and Managing Microsoft Exchange Server 2003	4
CNG	222	Designing a Windows Secure Network	3
CNG	223	Designing a MS Windows 2000 Network Infrastructure	3
CNG	219	Deploying and Managing Microsoft Commerce Server 2000	2

Certificate

This program is specifically designed to prepare students as entry-level Cisco Administrators. Students are encouraged to take the Cisco Technical Certification tests to receive the CCNA certification from Cisco.

Note: Arapahoe Community College has no control over curriculum changes made by the agencies mentioned above.

Cisco Network Administrator (CCNA)
(20 credit hours)

CNG	260	CISCO Network Associate I	5
CNG	261	CISCO Network Associate II	5
CNG	262	CISCO Network Associate III	5
CNG	263	CISCO Network Associate IV	5

Certificate

This program is specifically designed to prepare students as entry-level Cisco Professionals. Students are encouraged to take the Cisco Technical Certification tests to receive the CCNP certification from Cisco.

Note: Arapahoe Community College has no control over curriculum changes made by the agencies mentioned above.

Cisco Certified Network Professional (CCNP)
(20 credit hours)

CNG	265	Cisco Network Professional I	5
CNG	266	Cisco Network Professional II	5
CNG	267	Cisco Network Professional III	5
CNG	268	Cisco Network Professional IV	5

Certificate

This program is specifically designed to prepare students as entry-level Unix administrators. This certificate covers different platforms of UNIX, including Solaris and Linux. This will provide students with the background to prepare for the Solaris System Administrator certification exam.

UNIX Network Administration   (15 credit hours)

CIS	220	Fundamentals of Unix	3
CIS	222	UNIX System Administration	3
CIS	232	Unix Shell Programming	3
CSC	269	Programming in Perl	2
CSC	160	Computer Science I (Language)	4

Certificate

This program is specifically designed to prepare students as entry-level Computer/Networking Security Technicians. Students are encouraged to take the CWSP and Security+ tests to receive the industry certifications.

Note: Arapahoe Community College has no control over curriculum changes made by the agencies mentioned above.

Computer and Networking Security

			(21 credit hours)
CIS	220	Fundamentals of UNIX (Linux)	3
CIS	221	Advanced UNIX (Linux)	3
CNG	253	Firewalls and How They Work	3
CNG	136	Guide to Disaster Recovery	3
CNG	225	Wireless Network Security	3
CNG	257	Network Defense and Counter Measures	3
CNG	258	Computer Forensics	3

MICROCOMPUTER SPECIALIST CERTIFICATE

The Microcomputer Specialist Certificate program is designed to provide the student with skills in microcomputer usage, including:

- Selecting, installing, operating and tailoring many of the primary software packages used by today's businesses
- Developing customized software applications
- Performing simple hardware tasks
- Setting up and providing support to users on a local area network
- Creating and maintaining web pages
- Providing support and training to other computer users in an office environment

Upon completion, students will be prepared for an entry-level position in computing, such as help desk technician, software trainer, application developer and office computer specialist.

The student must complete 38 hours to obtain the certificate. The major courses consist of 24 credit hours of courses which provide a basic working knowledge of operating systems, software applications, usage of the Internet and network software. In addition to the major courses, students will be required to select and complete all 14 credit hours of courses in one of the two specialization tracks: Applications Development and Support, or Web Page Authoring.

Major Core Courses (23 credit hours)

CIS	124	Introduction to Operating Systems	3
CIS	128	Windows Complete	3
CIS	130	Introduction to the Internet	1
CIS	145	Complete PC Database	3
CIS	155	PC Spreadsheets: Excel	3
CIS	287	Cooperative Internship*	3
CNG	121	Computer Technology I: A+	4
CNG	124	Networking I: Network +	3

Applications Development and Support Track (13 credit hours)

CIS	168	Presentation Graphics I	1
CIS	218	Advanced PC Applications	3
CSC	150	Visual Basic Programming	3
**Electives			6

Web Authoring Track (14 credit hours)

CWB	110	Complete Web Authoring	3
CWB	164	XML I	3
MGD	141	Web Design I	3
**Electives			5
Total			**36-37 credit hours**

**An elective may be any CIS or CSC course not specifically listed as a program requirement. Other electives may be selected with the approval of the program advisor. Program Advisor: 303-797-5886, cisadvising@arapahoe.edu.

NETWORK SPECIALIST

Certificate

A+, Network +, Microsoft, Cisco and NACSE Certificate

The Network Specialist certificate program prepares individuals for jobs in the computer network field. The student will have a background in computer and network hardware, software and operating systems. Common examples of positions in which a graduate of this program might be employed are network administration specialist for a computer/network systems reseller, in-house network administrator and network consultant.

Student in this program gain hands-on experience with computer hardware, software and networks. Upon successful completion of the program the student is prepared to take the exams for A+; Network +; or the Microsoft MCSE, or Cisco CCNA; and the National Association of Communications Systems Engineers (NACSE) NANS Certifications, the competency standards for network specialists in the computer industry.

Major Courses 34 credit hours

CIS	110	Introduction to OperatingSystems	3
CIS	128	Windows Complete	3
CIS	287	Cooperative Education	3
CNG	108	Network Analysis and Design	3
CNG	121	Computer Technology I: A+	4
CNG	122	Computer Technology II: A+	3
CNG	124	Networking I: Network +	3
CNG	125	Networking II: Network +	3
CNG	255	Industry Certification	3
CIS/CNG		Electives	6
		May be any CIS or CNG class not previously taken	

Choose 1 from the following tracks (9-24 Credit Hours)

WINDOWS NETWORK ADMINISTRATION (24 Credit Hours)

CNG	211	Windows XP Configuration	3
CNG	212	Manage a MS Window Server Environment	4
CNG	213	Implement a MS Windows Network Infrastructure	4
CNG	215	Managing a Microsoft Windows Network Environment	3
CNG	216	Plan a MS Windows Server Active Directory Infrastructure	4
CNG	222	Designing a Windows Secure Network	3
CNG	226	Implementing and Managing MS Exchange	3

CISCO NETWORK ADMINISTRATION (20 credit hours)

CNG	260	Cisco Network Associate I	5
CNG	261	Cisco Network Associate II	5
CNG	262	Cisco Network Associate III	5
CNG	263	Cisco Network Associate IV	5

UNIX NETWORK ADMINISTRATION (12 credit hours)

CIS	220	Fundamentals of UNIX	3
CIS	232	UNIX Shell Programming	3
CIS	222	UNIX for System Administrators	3
CSC	269	Programming in PERL	3

NETWORK SALES (9 credit hours)

CNG	108	Network Analysis and Design	3
MAR	111	Principles of Sales	3
MAR	160	Customer Service	3

WEB AND INTRANET ADMINISTRATION (9 credit hours)

CWB 106	Mastering the Web	3
CWB 110	Complete Web Authoring	3
CWB 164	XML I	3
Total		**43–58 credit hours**

COMPUTER SUPPORT PROFESSIONAL

Associate of Applied Science

The Computer Support Professional program prepares individuals for positions in the computer support field. The student will have a background in computer hardware, software and operating systems. Students in this program gain theoretical and hands-on experience with computer hardware, applications and networking technologies that is primarily vendor neutral. Upon successful completion of the program, the student is prepared to take the exams for A+, net+, and security+, as well as Microsoft MCP.

Major Courses		**(37–38 credit hours)**
CIS 118	Intro PC Applications	3
CIS 124	Intro to Operating Systems	3
CIS 220	Fundamentals of UNIX (LINUX)	3
CSC 116	Program Logic and Design	3
CNG 121	Computer Technician I: A+	4
CNG 122	Computer Technician II: A+	3
CNG 124	Network+ I	3
CNG 125	Network+ II	3
CNG 131	Networking Security Fundamentals	3
CNG 211	Window XP Configuration	4
CNG 224	Microsoft Windows Wireless Networks	3
CNG 255	Industry Certification A+	3

General Education Courses		**(15-16 credit hours)**
ENG 131	Technical Writing	3
MAT 121	College Algebra	3
MAN 224	Leadership	3
MAN 230	Corporate Responsibility	3
SPE 115	Public Speaking OR	4
SPE 125	Interpersonal Communication	3

Physical Education		**(1 credit hour)**

Elective Courses:		**(9-12 credit hours)**

Choose 3 courses from the list below
  (Must include at least one programming language)

CSC 156	Visual Basic.Net Programming	4
CSC 157	Advanced Visual Basic.Net Programming	4
CSC 160	Computer Science I	4
CSC 161	Computer Science II	4
CSC 233	Object Oriented Programming in C++	4
CSC 234	C++ Programming	4
CSC 236	C# Programming	4
CSC 237	Advanced C# Programming	4
CNG 251	Anti Virus Concepts	3
MAN 242	Project Management Tools and Techniques	3
MAR 216	Principles of Marketing	3
SPE 225	Organizational Communications	3
Total		**62–67 credit hours**

MICROSOFT CERTIFIED SYSTEM ENGINEER (MCSE)

Certificate

This program is specifically designed to prepare students as entry-level Microsoft 2000 Network Administrators. Students are encouraged to take the Microsoft Technical Certification tests to receive the MCP and MCSEW certification from Microsoft.

Note: Arapahoe Community College has no control over curriculum changes made by the agencies mentioned above.

Major Courses		**(24 credit hours)**
CNG 211	Windows XP Configuration	3
CNG 212	Manage a MS Window Server Environment	4
CNG 213	Implement a MS Windows Network Infrastructure	4
CNG 215	Managing a Microsoft Windows Network Environment	3
CNG 216	Plan a MS Windows Server Active Directory Infrastructure	4
CNG 222	Designing a Windows Secure Network	3
CNG 226	Implementing and Managing MS Exchange	3
Total		**24 credit hours**

CONSTRUCTION SUPERVISION

Associate of Applied Science Degree

Students completing the AAS degree in Construction Supervision have prepared themselves for supervisory/administrative roles within the construction industry. The curriculum incorporates course work in mathematics, architectural principles, business and construction technology. New students are encouraged to meet with a Construction Supervision faculty advisor before first semester registration.

The student may select from two program options. The student completing Option A may continue his/her education at Colorado State University in the department of Manufacturing Technology. Many of ACC's credits apply to the CSU degree. For details on this contact the department chair at Arapahoe Community College. The student who is intending on transfering to CSU may complete Option B for AAS in Construction Supervision.

Major Courses		**(39 credit hours)**
ACC 121	Principles of Accounting I	4
ARC 101	Intro to Architectural Drawing	5
ARC 107	Blueprint Reading for Building Trades	3
ARC 116	Building Materials	3
ARC 121	Building Structure Analysis	3
ARC 216	Estimating I	3
ARC 218	Surveying	3
ARC 226	Construction Scheduling	3
ARC 228	Contracts, Bonds, and Insurance	3
ARC 231	Building Service Systems	3
ARC 236	Codes/ Zoning/ Specifications	3
CAD 101	Computer Aided Drafting I	3

General Education Courses		**(15 credit hours)**
ENG 121	English Composition I	3
MAN 116	Principles of Supervision	3
MAT 122	College Trigonometry	3
SPE 115	Public Speaking	3
Elective	Humanities Cat III, B	3

Physical Education   **(1 credit hour)**
PED activity course*   1
 *The PED requirement may be waived for students who are 35
  years or older at the time of most recent admission to the College.
  Appropriate credit must be taken to substitute for the hour waived.

Restricted Electives
Students must complete option A or option B as listed below:

CSU Transfer (Option A)   **(13 credit hours)**
BUS   216 Legal Environment of Business   3
ECO   202 Principles of Microeconomics   3
MAN   224 Personal Leadership Development   3
MAT   125 Survey of Calculus   4
Option A Program Total   **68 credit hours**

Construction Supervision (Option B) (15 credit hours)
CAR   101 Basic Safety   1
CAR   102 Hand and Power Tools   1
CAR   105 Job Site Layout & Blueprint Reading   1
CAR   115 Form & Foundation Systems   1
CAR   121 Floor Framing   1
CAR   122 Wall Framing   1
CAR   123 Roof Framing   1
CAR   125 Roofing Materials & Methods   1
CAR   130 Windows and Exterior Doors   1
CAR   131 Exterior Trim   1
CAR   145 Interior Finishes-General   1
CAR   146 Interior Finishes-Drywall Construction 1
CAR   151 Interior Trim-Doors & Trim   1
CAR   153 Interior Trim- Cabinets & Countertops 1
CAR   160 Floor Finishes   1
Option B Program Total   **70 credit hours**

*Financial Aid is only available for the coursework in the following
certificate as part of the ultimate educational goal of obtaining an AAS
degree as indicated on your college application. Please visit the Office
of Financial Aid for more details.*

CONSTRUCTION ESTIMATING

Certificate
Major Courses   **(6 credit hours)**
ARC   107 Blueprint Reading (Residential/Commercial)   3
ARC   216 Estimating I   3
Total   **6 credit hours**

CONVERGENT TECHNOLOGIES

Associate of Applied Science Degree or Certificates

This program is designed to help prepare students to work in
technical positions in communications fields—including cable
television, satellite, telephone companies with communication
network applications and other related industries. Program content
has been structured to give a basic education to all graduates
entering this field. Emphasis has been placed on providing a
common core of training for all students due to the convergence
of the communication industries.

Major Courses   **(24 credit hours)**
CIS   115 Introduction to Computer Information Systems 3
CTC   150 Data Communications   3
CTC   161 Voice Communications   3
CTC   215 Optical Networks   3
CTC   220 Regulations and Standards   3
ELT   106 Fundamentals of DC-AC   3
ELT   112 Advanced DC-AC   3
MAN   224 Leadership OR
MAN   116 Principles of Supervision   3
General Education Courses   **(19 credit hours)**
BUS   115 Introduction to Business   3
ECO   201 Macroeconomics   3
ENG   121 English Composition I OR
ENG   131 Technical Writing I   3
MAT   108 Technical Mathematics**   4
SPE   115 Public Speaking   OR
SPE   125 Interpersonal Communication OR
PSY   116 Stress Management OR
PHI   113 Logic   3
Select one of the following:
BTE 102, BUS 116, ECO 202, MAR 106,
MAR 216, MAN 226   3
 **Students taking courses online, may substitute MAT 121
  (4 credit hours)

Students must choose one of the following Degree Options in
which to focus. Only Major Courses above, or classes common
to another Option will transfer between Options.

A certificate may be awarded for the completion of the Major
Courses and the Option Courses, (without completion of the
General Education courses).

COMMUNICATION TECHNOLOGY OPTION
                                     (20 credit hours)
CTC   160 Cable Communications   3
CTC   163 Video Technology   3
CTC   166 Emerging Technologies   2
CTC   275 Special Topics   3
Electives (Choose from the electives below)   9

NETWORK TECHNICIAN OPTION   **(19 credit hours)**
CNG   129 Network Cabling   2
CTC   160 Cable Communications   3
CTC   162 Telecommunications Constructions &
             OSHA Safety   3
CTC   166   Emerging Technologies   2
CTC   267   Telecommunications Installation, Splicing
             & Repair   3
Elective (Choose from the electives below)   6

TELECOMMUNICATIONS ENGINEERING OPTION
                                     (21 credit hours)
CAD   101 Computer Aided Drafting I   3
CTC   160 Cable Communications   3
CTC   240 Telecommunications Engineering &
             Outside Plant   3
CTC   255 Field Studies: Engineering Planning   3
ECO   202 Microeconomics   3
Elective (choose from the electives list below)

Central Office Technician Option (18 credit hours)

CNG	129 Network Cabling	2
CTC	160 Cable Communications	3
ELT	160 Digital ICs	3
Elective (choose from the electives below)		10

Electives		**(6 -10 credit hours)**
CIS	131 Word Processing I	1
CIS	155 PC Spreadsheet Concepts: Excel	3
CNG	224 Microsoft Windows Wireless Network	3
CNG	118 Security +	3
CTC	280 Co-op Internship*	3

A Convergent Technologies course not previously taken or a course from another technical discipline. (Department Chair approval required)

Physical Education[1]	**(1 credit hour)**
PED activity course	1

Total	**60–65 credit hours**

*Students may substitute equivalent work experience for CTC 280 with approval from the department chair. A waiver/substitution form must be submitted to the Records Office.

[1] The Physical Education requirement will be waived for students who are 35 years of age or older at the time of their most recent admission to the College. Appropriate credit must be taken to substitute for the hour waived.

CRIMINAL JUSTICE

Associate of Applied Science Degree

The Criminal Justice AAS Degree is designed for students seeking a career in Criminal Justice. Semester hours obtained by students who attend the Law Enforcement Academy can be used as electives in this program. This program is articulated to Metropolitan State College for students continuing in the Criminal Justice and Criminology program.

Major Courses		**(27 credit hours)**
CRJ	110 Intro to Criminal Justice	3
CRJ	111 Substantive Criminal Law	3
CRJ	112 Procedural Criminal Law	3
CRJ	125 Law Enforcement Operations	3
CRJ	135 Judicial Function	3
CRJ	145 Correctional Process	3
CRJ	210 Constitutional Law	3
CRJ	220 Human Relations/Social Conflict	3
CRJ	230 Criminology	3

General Education Courses		**(15-17 credit hours)**
PSY	101 General Psychology I, or PSY 102 General Psychology II	3
ENG	121 English Composition I	3
ENG	122 English Composition II	3
SPE	115 or 125 or 225	3
CIS	115 or ENG 131, or SOC 101, or 102, or SPA 111, or 112, or any other foriegn language course	3-5

Restricted Courses	**(18 credit hours)**

Note: This elective and the PED requirement can be met by those students who complete the Law Enforcement Academy. All other students must select electives from courses with the prefixes of: ACC, CIS, CRJ, CSC, EMS, FIR, PAR, SPA, or any GE transfer course, as listed on page 36.

Students transferring to Metro State College in the criminal justice program should select their elective courses after consulting with their advisor. Students should meet with the faculty advisor to plan and select electives. Department guidelines apply.

Physical Education [1]	**(1 credit hour)**
PED activity course	1

Total	**61–63 credit hours**

[1] The PED requirement will be waived for students who are 35 years of age or older at the time of most recent admission to the college. Appropriate credit must be taken to substitute for the hour waived.

LAW ENFORCEMENT ACADEMY

Certificate

The Law Enforcement Academy is a P.O.S.T. (Peace Officer Standard and Training) certified program accredited through the Colorado P.O.S.T. Board. The Academy enables graduates to become certified as peace officers in Colorado. The Academy program consists of 34 semester credit hours.

Perequisites: A personal interview with a member of the Academy Staff is required prior to enrolling in the Academy. Contact the Criminal Justice Department in room N1170, 303-797-5793.

CRJ	101 Basic Police Academy I	8
CRJ	102 Basic Police Academy II	6
CRJ	103 Basic Police Academy III	2
CRJ	104 Basic Police Academy IV	1
CRJ	105 Basic Law	6
CRJ	106 Arrest Control Techniques	3
CRJ	107 Law Enforcement Driving	3
CRJ	108 Firearms	3
PED	110 Life Fitness/Fitness Center	1
PED	116 Weight Training	1

Total	**34 credit hours**

DIGITAL MEDIA TECHNOLOGIES

Associate of Applied Science Degree

This program provides students with entry-level skills in fields related to interactive media. Students can earn an Associate of Applied Science or a certificate in Digital Media Technologies with emphasis in Training and Support, Web Design & Authoring, or Digital Media Development. Students are prepared for careers such as web designer, training support specialist, instructional designer, media asset developer, digital media specialist, multimedia content developer, multimedia programmer, and digital artist. Students will develop a high level of skill and proficiency with industry software and hardware. Students will design and develop media projects for inclusion in professional portfolios.

This program requires extensive use of a computer for prolonged periods of time, basic computer skills, and a balance of analytical and creative abilities. It is strongly suggested that students have a familiarity with the personal computer and file management before entering the program.

Major Core		**(23 credit hours)**
MAN 241	Project Management	3
MGD 101	Introduction to Computer Graphics (formerly GDI 106)	3
MGD 102	Introduction to Multimedia (formerly GDI 120)	3
MGD 111	Adobe Photoshop I (formerly GDI 200)	3
MGD 112	Adobe Illustrator I (formerly GDI 160)	3
MGD 161	Director I (formerly GDI 270)	3

MGD 278 Seminar/Workshop (formerly GDI 265) 2
MGD 287 Cooperative Education (formerly GDI 290) 3

General Education Courses   **(15-16 credit hours)**
ENG 121 English Composition I   OR
ENG 131 Technical Writing I 3
MAT 123 Finite Mathematics   OR
MAT 135/179 Intro to Statistics   OR
CSC 116 Logic & Program Design 3-4
SPE 115 Public Speaking   OR
SPE 125 Interpersonal Communication 3
Select six (6) additional credit hours from the approved
general education list. 6

Physical Education[1]   **(1 credit hour)**
PED   Activity Course 1

TRAINING AND SUPPORT TRACK   **(23 credit hours)**
CIS 118 Introduction to PC Applications 3
CIS 168 Presentation Graphics 1
CIS 218 Advanced PC Applications 3
CWB 165 Complete Web Authoring 3
EDU 260 Introduction to Adult Learning 3
EDU 261 Learning and Teaching with Technology 3
EDU 262 Learning Outcomes & Assessment 1
EDU 263 Teaching & Learning Online 3
EDU 265 Instructional Design 3
Total   **62–63 credit hours**

WEB DESIGN & AUTHORING TRACK   **(18 credit hours)**
CWB 110 Complete Web Authoring 3
MGD 133 Graphic Design I (formerly GDI 103) OR
ART 131 Design I 3
MGD 141 Web Design I (formerly GDI 260) 3
MGD 143 Web Motion Graphic Design I
              (formerly GDI 273) 3
MGD 155 LightWave I (formerly GDI 246) 3
MGD 164 Digital Video Editing I (formerly GDI 241) 3
Total   **60–61 credit hours**

DIGITAL MEDIA DEVELOPMENT TRACK   **(24 credits)**
MGD 128 Multimedia Hardware (formerly GDI 240) 3
MGD 133 Graphic Design I (formerly GDI 103) OR
ART 131 Design I 3
MGD 143 Web Motion Graphic Design I
              (formerly GDI 273) 3
MGD 155 LightWave I (formerly GDI 246) 3
MGD 164 Digital Video Editing I (formerly GDI 241) 3
MGD 211 Photoshop II (formerly GDI 259) 3
MGD 250 Emerging Multimedia Technologies
              (formerly GDI 271) 3
MGD 264 Digital Video Editing II (formerly GDI 243) 3
Total   **63–64 credit hours**

[1] The PED requirement will be waived for students who are 35
years of age or older at the time of most recent admission to the
college. Appropriate credit must be taken to substitute for the
hour waived.

DIGITAL MEDIA DEVELOPMENT CERTIFICATE
ART 131 Design I 3
MAN 241 Project Management 3
MGD 101 Introduction to Computer Graphics
              (formerly GDI 106) 3

MGD 102 Introduction to Multimedia
              (formerly GDI 120) 3
MGD 111 Adobe Photoshop I (formerly GDI 200) 3
MGD 112 Adobe Illustrator I (formerly GDI 160) 3
MGD 128 Multimedia Hardware (formerly GDI 240) 3
MGD 133 Graphic Design I (formerly GDI 103) OR
MGD 143 Web Motion Graphic Design I
              (formerly GDI 273) 3
MGD 155 LightWave I (formerly GDI 246) 3
MGD 161 Director I (formerly GDI 270) 3
MGD 164 Digital Video Editing I (formerly GDI 241) 3
MGD 211 Photoshop II (formerly GDI 259) 3
MGD 250 Emerging Multimedia Technologies
              (formerly GDI 271) 3
MGD 264 Digital Video Editing II
               (formerly GDI 243) 3
MGD 278 Seminar/Workshop (formerly GDI 265) 2
MGD 287 Cooperative Education (formerly GDI 290) 3
Total   **47 credit hours**

TRAINING AND SUPPORT CERTIFICATE
MAN 241 Project Management 3
MGD 101 Introduction to Computer Graphics
              (formerly GDI 106) 3
MGD 102 Introduction to Multimedia
              (formerly GDI 120) 3
MGD 111 Adobe Photoshop I (formerly GDI 200) 3
MGD 112 Adobe Illustrator I (formerly GDI 160) 3
MGD 161 Director I (formerly GDI 270) 3
MGD 278 Seminar/Workshop (formerly GDI 265) 2
MGD 287 Cooperative Education (formerly GDI 290) 3
CIS 118 Introduction to PC Applications 3
CIS 218 Advanced PC Applications 3
CWB 165 Complete Web Authoring 3
EDU 260 Introduction to Adult Learning 3
EDU 261 Learning and Teaching with Technology 3
EDU 262 Learning Outcomes & Assessment 1
EDU 263 Teaching & Learning Online 3
EDU 265 Instructional Design 3
Total   **45 credit hours**

WEB DESIGN & AUTHORING CERTIFICATE
ART 131 Design I 3
CWB 165 Complete Web Authoring 3
MAN 241 Project Management 3
MGD 101 Introduction to Computer Graphics
              (formerly GDI 106) 3
MGD 102 Introduction to Multimedia (formerly GDI 120) 3
MGD 111 Adobe Photoshop I (formerly GDI 200) 3
MGD 112 Adobe Illustrator I (formerly GDI 160) 3
MGD 133 Graphic Design I (formerly GDI 103) OR
MGD 141 Web Design I (formerly GDI 260) 3
MGD 143 Web Motion Graphic Design I
              (formerly GDI 273) 3
MGD 155 LightWave I (formerly GDI 246) 3
MGD 161 Director I (formerly GDI 270) 3
MGD 164 Digital Video Editing I (formerly GDI 241) 3
MGD 278 Seminar/Workshop (formerly GDI 265) 2
MGD 287 Cooperative Education (formerly GDI 290) 3
Total   **41 credit hours**

EARLY CHILDHOOD PROFESSIONS

Arapahoe Community College does have articulation agreements dealing with early childhood and elementary education teacher preparation. Contact Cheyne Bamford, 303-797-5788 for information.

Students must take the CPT Placement Test before enrolling in ECE/EDU courses. CPT scores of 83 in reading and 86 in writing are strongly recommended.

The Early Childhood Education Program is designed to prepare people to work with young children in a variety of settings. The Group Leader and Director Certificates are designed to meet the educational requirements established by the Colorado Department of Human Services. People who wish to work in licensed early childhood care and education programs may complete the certificate sequence of courses for group leaders or directors and may go on to earn an A.G.S. degree with an emphasis in early childhood education. The Colorado Department of Human Services does require experience with young children in early childhood programs. Contact Cheyne Bamford for specific information, 303-797-5788.

GROUP LEADER CERTIFICATE

The Group Leader certificate is not eligible for financial aid. Contact the Financial Aid Office if further clarification is needed.

Major Courses		(15 credit hours)
ECE	101 Introduction to Early Childhood Education	3
ECE	102 Introduction to EC Lab Techniques	3
ECE	103 Guidance Strategies for Children	3
ECE	220 Curriculum Development Methods and Techniques	3
PSY	238 Child Development	3
Total		**15 credit hours**

DIRECTOR CERTIFICATE

Complete Major Courses required for Group Leader Certificate   **(15 credit hours)**

Administrative Courses		(9 credit hours)
ECE	205 Nutrition, Health and Safety	3
ECE	240 Administration of Early Childhood Care and Education Programs	3
ECE	241 Administration: Human Relations for Early Childhood Professions	3

AND

Behavior Science	(6 semester hours)
PSY 101, 102 OR 247	3
SOC 101, 102 OR 205	3

OR

Restricted Electives   **(6 semester hours)**
Select 6 credit hours from the following:
ECE 111, 112, 125, 127, 126, 175, 178, 179, 185-187, 225, 226, 228, 260, 275, 278, 279, 285, EDU 233, 234, 242, or LIT 255

Total	**30 credit hours**

ELECTRONICS ENGINEERING TECHNOLOGY

This program is being discontinued. No new students are being admitted to this program.

Associate of Applied Science Degree

The study of Electronics Engineering Technology leads to employment in Research & Development, Production and Service in the electronics industry. Electronics Engineering Technicians build, test, troubleshoot and repair electronic systems in the fields of computer, medical, consumer and industrial electronics, as well as in telecommunications, robotics, instrumentation and avionics.

Major Courses		(44 credit hours)
ELT	106 Fundamentals of DC/AC	3
ELT	109 Quality Business Practices	1
ELT	112 Advanced DC/AC	3
ELT	113 Advanced Circuit Analysis	4
ELT	136 Introduction to Transistors	2
ELT	137 Advanced Transistors	3
ELT	138 Power Control Devices	2
ELT	139 Optoelectronic Devices	2
ELT	147 Digital Devices I	3
ELT	148 Digital Devices II	3
ELT	149 Digital Devices Troubleshooting	2
ELT	161 Electromechanical Troubleshooting	1
ELT	163 Soldering	1
ELT	215 Operational Amplifiers	3
ELT	216 Analog Integrated Circuits	2
ELT	225 Communication Electronics I	3
ELT	227 FCC License Preparation[1]	1
ELT	261 Microprocessors	3
ELT	267 Introduction to Robotics	1
COM	101 Employment Strategies	1

General Education Courses		(14 credit hours)
MAT	108 Technical Mathematics	4
ENG	121 English Composition I, OR	
ENG	131 Technical Writing I	3
Electives	General Education Approved	7

Restricted Electives	(2 credit hours)

Select 2 credit hours (minimum) of CAD, CIS, CNG, CSC, CTC, MTE elective[2]

Physical Education[2]	**(1 credit hour)**
PED activity course	1
Total	**61 credit hour**

This program is partially transferable to the Metropolitan State College of Denver and to the University of Southern Colorado toward a BS in Electrical Engineering Technology. Please consult an ELT faculty member for a course of study.

[1]The ELT 227 course requirement may be waived without substitution with documented proof of the possession of the FCC license.

[2]The PED requirement will be waived for students who are 35 years of age or older at the time of most recent admission to the College. If waived, students must substitute 1 credit of General Education Approved elective.

ELECTRONICS ASSEMBLER CERTIFICATE

The following 3 certificate programs are being discontinued. No new students are being admitted to the Electronic Assembler, Electronics Engineering or the Vendor Service programs.

The electronics assembler certificate prepares students for jobs in the manufacturing field. Students will gain knowledge and skills for manufacturing electronic systems. Mechanical ability is assumed.

This certificate is not eligible for financial aid. Contact the Financial Aid Office if further clarification is needed.

ELT	101	Survey of Electronics OR	3
ELT	106	Fundamentals of DC/AC	3
ELT	163	Soldering	1
Total			**4 credit hours**

ELECTRONICS ENGINEERING TECHNOLOGY CERTIFICATE

The electronics engineering technology certificate allows students to demonstrate comprehensive knowledge and skills in electronics for jobs in related fields, like manufacturing, CAD, telecommunications, photonics, metrology and industrial maintenance. All courses transfer directly into the Associate degree program in electronics engineering technology, for those who wish to continue in electronics.

ELT	106	Fundamentals of DC/AC	3
ELT	112	Advanced DC/AC	3
ELT	136	Introduction to Transistors	2
ELT	138	Power Control Devices	2
ELT	139	Optoelectronic Devices	2
ELT	147	Digital Devices I	3
ELT	163	Soldering	1
ELT	215	Operational Amplifiers	3
ELT	261	Microprocessors	3
Total			**22 credit hours**

VENDOR SERVICE TECHNICIAN CERTIFICATE

The vendor service technician certificate enables students to seek employment with companies that service vending and dispensing machines of, for example, food, drink, tickets, money or stamps. Mechanical ability is assumed.

This certificate is not eligible for financial aid. Contact the Financial Aid Office if further clarification is needed.

ELT	101	Survey of Electronics OR	3
ELT	106	Fundamentals of DC/AC	3
ELT	161	Electromechanical Troubleshooting	1
Total			**(4 credit hours)**

EMERGENCY MEDICAL SERVICES CERTIFICATE PROGRAMS

Contact the Financial Aid Office for information regarding Financial Aid for any of these programs.

EMT—Basic Certificate	10 hours
EMT—Basic Enhanced Certificate	27 hours
EMT—Intermediate Certificate	14 hours
EMT—Paramedic Certificate	45 hours

EMT BASIC CERTIFICATE

This 10 credit hour certificate program provides the basic skills to work ambulance, apply for firefighting positions, work as an EMT-tech in emergency departments and work ski patrols. EMS 125 satisfies the state requirements for Basic EMT Certification. Those who successfully complete EMS 125 will be eligible to take the Colorado State EMT written examination.

In addition, the student needs to enroll in EMS 170 EMT–Basic Clinical where the student will do up to 45 hours of clinical experience in emergency departments, nursing homes, on fire rescue and ambulance.

Admission Requirements (Prequistites):

1) Minimum of 18 years of age upon completion of program to be eligible to take the State written certification exam.
2) Current CPR certificate (American Heart Association Health Care provider, or American Red Cross Professional Rescuer).
3) Hepatitis B vaccination, tetanus within 10 years.
4) MMR vaccinations.
5) Colorado Bureau of Investion (CBI) criminal background check.
6) If not exempt, student must take the CPT placement test and score at least 80 in reading and 86 in sentence skills. Call the division office for program guides (303-797-5888).

Accreditation of this program is through the Colorado Department of Health, Emergency Medical Services Division. This agency may be reached at 4300 Cherry Creek Drive South, Denver, CO 80222-1530. Telephone: 303-692-2980.

Major Courses			**(10 credit hours)**
EMS	125	EMT–Basic	9
EMS	170	EMT–Basic Clinical	1
Total			**10 credit hours**

EMT BASIC ENHANCED CERTIFICATE

This 27 hour EMT–B enhanced certificate provides additional training to improve the EMT's employability and prepare the student for paramedic school. Many of the enhanced certificate classes are prerequisites for entrance into the EMT—Paramedic Program. Consult an advisor for appropriate electives.

Major Courses			**(23 credit hours)**
EMS	125	EMT-Basic	9
EMS	170	EMT Basic Clinical	1
BIO	201	Human Anatomy and Physiology I	4
BIO	202	Human Anatomy and Physiology II	4
ENG	121	English Composition	3
CCN	230	Basic EKG Interpretation	2
Electives			**(3 credit hours)**
Students must take at least 3 credit hours from the following:			
EMS	130	IV Training	2
EMS	134	The Geriatric Patient	1
EMS	136	EMT/Paramedic Safety Issues in the field	1
EMS	138	Basic Trauma Life Support	1
EMS	150	Pediatric Education for the Prehospital Professions	1
EMS	213	Prehospital Trauma Life Support	1
HPR	178	Medical Terminology	3
Total			**27 credit hours**

EMT Intermediate Certificate

This program is offered in partnership with Healthone EMS in Englewood, CO.

This 15 credit hour certificate program prepares the EMT–I to bring expert emergency medical care to patients of emergencies, minimize patient discomfort, prevent futher injury and reduce recuperative time.

The program consists of 240 hours of didactic and lab sessions, 175 hours clinical experience. The EMT–I typically provides pre-hospital care in a wide variety of circumstances. The program meets the Colorado Department of Public Health and Environment requirements.

Prequisites:
1) Current EMT-Basic Certificate
2) IV Certification
3) Current CPR Card
4) HEP B Series; Tetanus
5) MMR vaccinations
6) CBI criminal background check
7) 1 year field experience
8) CPT Placement Scores:
   a) 80 in Reading   b) 80 in Math

Major Courses		(15 credit hours)
EMS 203	EMT Intermediate I	6
EMS 205	EMT Intermediate II	6
EMS 270	EMT Intermediate Clinicals	3
Total		**15 credit hours**

EMT Paramedic Certificate

This program is offered in partnership with Healthone EMS in Englewood, CO and is accredited by the Commission on Accreditations of Allied Health Educations Programs. This program is offered three times per year, twice as a full-time program (starting in January or July of each year) and once per year as a part-time program (starting in May).

The student must have the following prerequisites to be considered for entrance into this program:

1) One year of documented EMT Basic or Intermediate field experience
2) Basic ECG Interpretation class
3) IV Certification
4) Current CPR Card
5) HEP B vaccination
6) MMR vaccination
7) Tetanus vaccination
8) CBI criminal background check
9) One year of college-level Anatomy and Physiology (8 credit hours), BIO 201 and 202 will meet this requirement.
10) Must receive an acceptable grade on the HOBIT EKG and EMT–Basic entrance exams

The applicant must apply directly to Healthone EMS and to the College. Please call Healthone EMS at 303-788-6317 for more information, or the Health, Math, Science and Engineering Division Office at 303-797-5888.

The Paramedic Program has 4 components: Lecture, Lab, Clinical, Field internships

This is approximately 1200 hours. The student must complete all course work, lecture, lab, clinicals, and field internship, as well as pass all academic and practical components before sitting for the National Registry Certification Examination.

Following are many of the topics covered: EMS systems, paramedic roles and responsibilities, injury and illness prevention, medical/legal issues, ethics, pathophysiology, pharmacology, medication administration, patient assessment, trauma management, respiratory system management, cardiovascular management, management of medical emergencies, pediatric management, management of obstetric and gynecologic emergencies, management of emotional crisis, assessment bases management and EMS operations.

Major Courses		(45 credit hours)
EMS 225	Fundamentals of Paramedic Practice	3
EMS 226	Fundamentals of Paramedic Practice Lab	2
EMS 227	Paramedic Special Considerations	3
EMS 228	Paramedic Special Considerations Lab	2
EMS 229	Paramedic Pharmacology	3
EMS 230	Paramedic Pharmacology Lab	2
EMS 231	Paramedic Cardiology	5
EMS 232	Paramedic Cardiology Lab	1
EMS 233	Paramedic Medical Emergencies	4
EMS 234	Paramedic Medical Emergencies Lab	1
EMS 235	Paramedic Trauma Emergencies	4
EMS 236	Paramedic Trauma Emergencies Lab	1
EMS 237	Paramedic Internship Preparatory	2
EMS 280	Paramedic Internship I	6
EMS 281	Paramedic Internship II	6
Total		**45 credit hours**

Engineering Technologies With Special Emphasis

Associate of Applied Science Degree (AAS)

An associate degree in this program will provide the educational background and basic technical training necessary for the graduate to seek employment with one of the area manufacturing or engineering industries. Students will be prepared for a variety of job entry positions whose titles include draftsperson, junior designer, and computer aided design technician.

General Education Courses		(16 credit hours)
CIS 118	Introduction to PC Applications	3
ENG 121 or ENG 131	English	3
MAT 108	Technical Mathematics	4
SPE 115	Public Speaking	3
Elective:	Humanities/Behavioral Studies from the General Education Course List	3

Physical Education[1]	(1 credit hour)
PED activity course	1

[1]The PED requirement may be waived for students who are 35 years of age or older at the time of most recent admissions to the College. Appropriate credit must be taken to substitute for the hour waived.

Computer Courses		(20 credit hours)
CAD 101	Computer Aided Drafting I	3
CAD 102	Computer Aided Drafting II	3
CAD 201	Computer Aided Drafting/Custom	3
CAD 202	Computer Aided Drafting/3D	3
CAD 217	3D Studio Viz	3
CAD 249	Auto LISP Programming	3
CIS 103	Windows Fundamentals	1
CIS 130	Introduction to the Internet	1

Choose one of the following sections:

ARCHITECTURE

ARC 107	Blueprint Reading Residential/Commercial	3
ARC 101	Introduction to Architectural Drawing	5
ARC 102	Residential Architectural	5
ARC 116	Building Materials	3
ARC 121	Building Structure Analysis	3
ARC 215	Architectural Graphics	3
ARC 231	Building Service System	3
CAD 225	Architectural Desktop/Autodesk	3
Total		**65 credit hours**

The ELT program is being discontinued. No new students will be added to the Electronics w/ PCB Design emphasis.

ELECTRONICS W/ PCB DESIGN

ELT 106	Fundamentals of DC-AC	3
ELT 112	Advanced DC-AC	3
ELT 136	Introduction to Transistors	2
ELT 138	Power Control Devices	2
ELT 139	Optoelectronic Devices	2
ELT 147	Digital Devices I	3
ELT 163	Soldering	1
ELT 215	Operational Amplifiers	3
ELT 261	Microprocessors	4
MTE 141	Printed Circuit Board ECAD/CAM	3
Total		**63 credit hours**

MECHANICAL

DRT 101	Technical Drafting I	3
DRT 102	Technical Drafting II	3
DRT 105	Blueprint Reading	3
DRT 109	Descriptive Geometry	3
MTE 120	Manufacturing Process	3
TEC 201	Engineeering Materials	3
TEC 205	Geometric Dimensioning and Tolerancing	3
CAD 254	Mechanical Desktop/Autodesk	3
Total		**61 credit hours**

FINANCIAL SERVICES

Associate of Applied Science

This degree provides individuals opportunities in a array of financial services industries such as banking, mortgage banking, insurance and brokerage companies.

Major Courses		**(23 credit hours)**
ACC 121	Principles of Accounting I	4
ACC 122	Principles of Accounting II	4
BUS 216	Business Law and the Legal Env	3
BUS 217	Business Com & Report Writing	3
BUS 226	Business Statistics	3
FIN 101	Introduction to Finance	3
SPE 115	Speech	3

General Education Courses		**(27 credit hours)**
ECO 201	Principles of Macroeconomics	3
ECO 202	Principles of Microeconomics	3
ENG 121	English Composition I	3
INV 115	Investments/Stocks and Bonds	3
MAT 121	College Algebra	4
MAT 125	Survey of Calculus	4
Science: One lab-based course that is state guaranteed		4

Arts & Humanities:

One state guaranteed Arts and Humanities course	3
Total	**25 credit hours**

Emphasis: Student must choose an area of emphasis in Finance, Banking, Mortgage Banking and Insurance as follows:

Physical Education* –	**(1 credit hour)**
PED 101 PED activity course	1

*The PED requirement will be waived for students who are 35 years or older at the time of most recent admissions to the College. Appropriate credit must be taken to substitute for the hour waived.

FINANCE TRACK		**(9-11 credits hours)**

The Finance Track prepares students for entry level positions in a broad range of financial occupations.

ACC 118	Analyzing Financial Statements	3
BTE 108	Ten Key by Touch	1
FIN 201	International Finance/Economics	3
FIN 226	Money and Banking	3
FIN 260	Retirement Pension Planning	3
INS 154	Risk Management	3
INV 215	Advanced Investments	3
INS 269	Personal Financial Planning	3
MAN 230	Corporate Responsibility	3
REE 115	Intro to Real Estate	3
FIN 287	Cooperative Education	3

BANKING TRACK		**(9-11 credits hours)**

The Banking Track prepares students for entry-level positions at commercial banks. Many of the courses are offered at Center for Financial Training Western States.

ACC 118	Analyzing Financial Statements	2-3
FIN 105	Principles of Banking	1-3
FIN 125	Teller Training	1
FIN 131	Residential Mortgage Lending	2
FIN 205	Consumer Lending Series	1-3
FIN 211	Commercial Lending	2-3
FIN 226	Money and Banking	3
FIN 240	Law and Banking Principles	2-3
FIN 245	Law and Banking Applications	2
FIN 250	Financial Marketing for Bankers	2
FIN 255	Understanding and Selling Bank Products	2
FIN 287	Cooperative Education Training	3
MAN 230	Corporate Responsibility	3
INV 215	Advanced Investment	3

MORTGAGE BANKING TRACK		**(9-11 credit hours)**

This track prepares students for entry-level positions at mortgage banking firms. Many of the courses are offered at Mortgage Training Institute.

ACC 118	Analyzing Financial Statements	3
FIN 131	Residential Mortgage Lending	3
FIN 132	Residential Mortgage Loan Origination	1-3
FIN 133	Residential Mortgage Loan Processing	1-3
FIN 137	FHA for Loan Officers	.5
FIN 138	FHA for Loan Processors	.5
FIN 226	Money and Banking	3
FIN 237	Advance Loan Processing	.5
FIN 287	Cooperative Education Career Training	3
INV 215	Advanced Investments	3
MAN 230	Corporate Responsibility	3
REE 115	Intro To Real Estate	3

INSURANCE TRACK   (9-11 credit hours)

This track prepares students for entry-level positions at insurance companies. Many of the courses are offered through LOMA.

ACC	118 Analyzing Financial Statements	3
FIN	287 Cooperative Education Training	3
INS	154 Risk Management	3
INS	200 Property and Liability Insurance	3
INS	201 Personal Insurance	3
INS	202 Commercial Insurance	3
INS	204 Delivering Insurance Services	3
INV	215 Advanced Investments	3
INS	269 Personal Financial Planning	3
MAN	230 Corporate Responsibility	3
Total		**60–62 credit hours**

FINANCIAL SERVICES CERTIFICATE

This certificate program offers opportunities for individuals changing careers or starting a career and needing updates on skills in financial fields. The certificate will provide career and job opportunities and advancements at many financial organizations: banks, savings institutions, brokerages, insurance, mortgage companies, financing companies and the like.

Major Courses   (21 credit hours)

Required courses:

CIS	118 Intro to PC Applications	3
FIN	101 Intro to Finance	3
MAR	160 Customer Service	3
BUS	217 Business Communication and Report Writing	3

Select any 3 of the following courses:

ACC	121 Principles of Accounting I	4
BUS	226 Business Statistics	3
MAT	125 Survey of Calculus	4
ECO	201 Principles of Macroeconomics	3
ECO	202 Principles of Microeconomics	3
MAN	128 Human Relations	3
MAN	226 Principles of Management	3
MAR	111 Principles of Sales	3
MAR	216 Principles of Marketing	3
INV	115 Investments Stocks and Bonds	3

Please choose 9 credits from one of the following tracks:
Tracks: Students must choose an area of emphasis in Finance and Banking as follows.

FINANCE TRACK   (9 credit hours)

The Finance Track prepares students for entry-level positions in a broad range of financial occupations.

ACC	118 Analyzing Financial Statements	3
BTE	108 Ten Key by Touch	1
INS	154 Risk Management and Insurance	3
FIN	201 International Finance/Economics	3
FIN	226 Money and Banking	3
FIN	260 Retirement/Pension Planning and Investments	3
FIN	287 Cooperative Education Career Training	3
INV	115 Investments	3
INV	215 Advanced Investments	3
MAN	230 Corporate Responsibility	4
REE	115 Intro to Real Estate	3
INS	269 Personal Financial Planning	3

BANKING TRACK   (9 credit hours)

The Banking Track prepares students for entry-level positions at commercial banks. Many of the courses are offered at the Center for Financial Training.

FIN	105 Principles of Banking	1-3
FIN	226 Money and Banking	3
ACC	118 Analyzing Financial Statements	1-3
FIN	250 Financial Marketing for Bankers	2
FIN	240 Law and Banking Principles	2-3
FIN	245 Law and Banking Applications	2
FIN	205 Consumer Lending (Series)	1-3
FIN	255 Understanding and Selling Bank Products	2
FIN	131 Residential Mortgage Lending	2
FIN	287 Cooperative Education Career Training	3
INV	115 Investments	3
INV	215 Advanced Investments	3
MAN	230 Corporate Responsibility	3
FIN	211 Commercial Lending	3
FIN	125 Teller Training	1-3

MORTGAGE BANKING TRACK   (9 credit hours)

This track prepares the student for enrty-level positions at mortgage banking firms. Many of the courses are offered at Mortgage Training Institute.

REE	115 Intro to Real Estate	3
ACC	118 Analyzing Financial Statements	2-3
FIN	131 Residential Mortgage Lending	1
FIN	133 Resident Mortgage Loan Processing	1
FIN	132 Resident Mortgage Loan Origination	1
FIN	137 FHA for Loan Officers	.5
FIN	138 FHA for Loan Processors	.5
FIN	237 Advanced Loan Processing	.5
FIN	287 Cooperative Education Training	3
INV	115 Investments	3
INV	215 Advanced Investments	3
MAN	230 Corporate Responsibility	3

INSURANCE TRACK   (9 credit hours)

This track prepares students for entry level positions at Insurance companies. Many of the courses are offered through LOMA.

ACC	118 Analyzing Financial Statements	2-3
FIN	287 Cooperative Education Training	3
INS	154 Risk Management	3
INS	200 Property and Liability Insurance	3
INS	201 Personal Insurance	3
INS	202 Commercial Insurance	3
INS	204 Delivering Insurance Services	3
INV	115 Investments	3
INV	215 Advanced Investments	3
INS	269 Personal Financial Planning	3
MAN	230 Corporate Responsibility	3
Total		**30 credit hours**

Mortgage Banking

Cerificate

This certificate program offers opportunities for individuals changing careers or entering a career in the mortgage banking industry. This certificate will prepare the individual to be a loan originator or loan processor in the mortgage banking field or prepare the individual to start their own mortgage banking firm.

Major Courses		(30 credit hours)
MAN 216	Small Business Management	3
FIN 101	Introduction to Finance	3
ACC 121	Principles of Accounting	4
ACC 131	Income Tax 1	3
ACC 235	Computerized Accounting for Small Business	3
BUS 216	Business Law and the Legal Environment	3
ECO 202	Principles of Microeconomics	3
MAN 230	Corporate Responsibility	3
FIN 133	Residential Mortgage Loan Processing	1
FIN 132	Residential Mortgage Loan Origination	1
FIN 237	Advance Loan Processing	.5
FIN 137	FHA for Loan Officers or	
FIN 138	FHA for Loan Processors	.5
ANY CIS class	Computer Information Systems	2
Total		**30 credit hours**

Graphic Design and Illustration

See Multimedia/Graphic Design

For courses taken Summer 2004 under the GDI prefix, please refer to the 2003-2004 course catalog for course descriptions.

Health Information Technology (Medical Records)

Associate of Applied Science Degree

The Health Information Technology (HIT) program enables the student to develop the technical skills necessary for managing health information within the healthcare delivery system. The health information field has employment opportunities in hospitals, long term care, ambulatory care, mental health and other healthcare facilities as well as private industry. Upon successful completion of the program, the graduate is eligible to write the national certification examination and upon successful passing of this examination, receive the RHIT (Registered Health Information Technology) credentials. This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in cooperation with the Council on Accreditation of the American Health Information Management Association (AHIMA). AHIMA is located at 919 N. Michigan Avenue, Chicago, IL 60611. Their phone number is 312-787-2672.

The following are the basic requirements for admission to the Health Information Technology (HIT) program:

1. High School graduation or GED equivalence
2. Interview with Chairperson
3. CPT scores of 95 on sentence skills, 80 on reading comprehension, and 36 on arithmetic*

Students must contact Annette Bigalk, RHIA, HIT Program Chair for counseling and program planning prior to enrolling in any courses that are part of the HIT curriculum. Contact her at 303-797-5795 or annette.bigalk@arapahoe.edu.

Major Courses		(50 credit hours)
HIT 101	Health Information Management Science	6
HIT 105	Physician Practice Coding & Reimbursement	5
HIT 111	Health Data Management	3
HIT 112	Legal Aspects	2
HIT 188	Health Information Practicum	2
HIT 221	Clinical Classifications Coding 1	5
HIT 222	Quality Management	3
HIT 288	Health Information Practicum 11	2
HIT 225	Health Information Management	3
HIT 231	Clinical Classifications Coding 11	5
HIT 241	CPT Coding Basic Principles	2
HPR 178	Medical Terminology	3
MOT 125	Basic Medical Science 1**	3
MOT 133	Basic Medical Science 11**	3
MOT 135	Basic Medical Science 111**	3

General Education Courses		(15 credit hours)
ENG 121	English Composition 1	3
SPE 115	Public Speaking*** OR	3
SPE 125	Interpersonal Communications***	
CIS 118	Intro to PC Applications	3
PSY 101	General Psychology I	3
General Education Elective		3

Total	**65 credit hours**

All major, general education and other courses required for this degree must be completed with a "C" or better to meet graduation requirements.

All courses are offered online except for HIT 188, and HIT 288.

*Students who do not achieve the required Math score must complete MAT 030.

**Students planning to transfer credits to another institution should complete BIO 201 and BIO 202 (Anatomy & Physiology 1 & 11) and HPR 216 (Pathophysiology) instead of the Basic Medical Science courses.

***Students planning to transfer their speech credit to another institution should complete SPE 115.

Health Information Technology

ICD-9-CM/CPT Coding Certificate

Major Courses		(24 credit hours)
HIT 221	Clinical Classification Coding I	5
HIT 231	Clinical Classification II	5
HIT 241	CPT Coding Basic Principles	2
HPR 178	Medical Terminology	3
MOT 125	Basic Medical Science I*	3
MOT 133	Basic Medical Science II*	3
MOT 135	Basic Medical Science III*	3
Total		**24 credit hours**

Optional Course Recommended

HIT 105	Physician Coding and Reimbursement	5

*Anatomy and Physiology may be substituted for the Basic Medical Science courses if previously completed for credit. In this situation, a current HPR 216 course must be completed for this certificate.

All major courses required for this degree must be completed with a "C" or better to meet graduation requirements.

HUMAN PERFORMANCE PHYSICAL FITNESS SPECIALIST

Associate of Applied Science Degree or Certificate

See College Website (www.arapahoe.edu) for Degree Requirements.

This two year AAS degree titled "Human Performance" and the new 27 credit hour "Physical Fitness Specialist" certificate at Arapahoe Community College will provide the student an education that focuses on the growing field of exercise and physical fitness.

For additional information contact the Department Chair: Ms. Kendra Hawkins at 303-797-5774 or email at: kendra.hawkins@arapahoe.edu.

HUMAN PERFORMANCE (HWE) A.A.S.

Major courses:		(38 credit hours)
HWE 124	Fitness and Wellness	2
HWE 136	Advanced Weight Training	2
PER 232	Care and Prevention of Athletic Injuries	3
HWE 245	Physiology of Exercise	3
PER 275	Special Topics: Internship	1-3
HWE 237	Exercise, Nutrition and Body Composition	3
HWE 248	Guidelines For Exercise Testing and Prescriptions	3
PED 100 -275	Pick any 3 activity-based courses (one aquatic class)	3
HWE 100	Human Nutrition	3
HWE 122	Responding to Emergencies	2
BIO 201	Human Anatomy and Physiology I Plus Lab	4
BIO 202	Human Anatomy and Physiology II Plus Lab	4
PTA 275	Special Topics: Anatomical Kinesiology	4

General Education Courses		(18 credit hours)
SPE 115	Public Speaking	3
ENG 121	English Composition I	3
MAT 121	College Alegbra	4
BIO 105	Science of Biology	5
PSY 101	General Psychology I	3
Total		**62 credit hour**

PHYSICAL FITNESS SPECIALIST CERTIFICATE

Fall Semester:		(14 credit hours)
BIO 201	Human Anatomy and Physiology I Plus Lab	4
HWE 124	Fitness and Wellness	2
HWE 245	Physiology of Exercise	3
HWE 248	Guidelines For Exercise Testing and Prescriptions	3
HWE 122	Responding to Emergencies	2

Spring Semester:		(13 credit hours)
BIO 202	Human Anatomy and Physiology II Plus Lab	4
PER 232	Care and Prevention of Athletic Injuries	3
HWE 237	Exercise, Nutrition and Body Composition	3
PER 275	Special Topics: Internship	1-3
Total		**27 credit hour**

INTERIOR DESIGN

Associate of Applied Science Degree

This degree program emphasizes preparation for a career as an interior designer. The student will learn to develop not only creative abilities and how to express them, but also the methods and processes needed to practice design responsibly and profitably.

Students enrolled in this program can expect additional expenses of approximately $2500 for textbooks, course materials , equipment and project supplies.

Admission Requirements for the Degree Program:

1) Attend an Interior Design Program Orientation prior to first registration. Call the Division Office at 303-797-5855 for an appointment. Call 303-797-5974 for general information.
2) Complete CPT assessment with the following minimum scores:
   - 80 on Reading Comprehension
   - 95 on Sentence Skills
   - 57 on Arithmetic

   Current CPT scores must be entered in your ACC records before you can register for Interior Design courses. No exceptions.
3) Students wishing to transfer General Education credits to fulfill degree requirements must have official transcripts sent to the ACC Records Office along with a request for transcript evaluation.
4) Students wishing to transfer in Interior Design credits to fulfill degree requirements must go through a portfolio review. After attending an orientation, call Sally Mason at 303-797-5861 for an appointment.

Note: All courses required for this AAS degree must be completed with a grade of "C" or better to meet admission and graduation requirements.

Major Courses:		(60 credit hours)
IND 100	Interior Design Fundamentals	4
IND 107	History of Interior Design	3
IND 108	Profession Survey	1
IND 111	Drafting for Interiors	4
IND 112	Graphic Communication	4
IND 114	Space Planning	3
IND 117	Interior Textiles	2
IND 118	Interior Finishes	2
IND 151	Residential Design	4
IND 152	Commercial Design I	2
IND 178	Seminar: Local Market Tour	1
IND 178	Seminar: Design Resume	1
IND 200	Kitchen and Bath Design	4
IND 201	Commercial Design II	4
IND 205	Professional Practice for Interior Designers	2
IND 211	Interior Construction	4
IND 225	Lighting Design	2
IND 278	Workshop: Design Research	1
IND 278	Workshop: Design Portfolio	1
IND 280	Internship	4
IND 289	Capstone: Advanced Design	3
CAD 105	AutoCAD for Interiors	4

General Education Courses		(15 credit hours)
CIS 118	Introduction to PC Applications	3
ENG 131	Technical Writing I	3
General Electives		9
Total		**75 credit hours**

Please visit **www.arapahoe.edu** for the most current, updated catalog information.

INTERIOR ARCHITECTURE CERTIFICATE

This Certificate is intended for students who have completed an associate degree in Interior Design. It provides extra professional training to make the graduate more versatile and valuable in the field of Commercial Interior Design.

Major Courses	(30 credit hours)
ARC 102 Residential Architecture	5
ARC 116 Building Materials	3
ARC 205 Commercial Drawing Practice I	4
ARC 216 Estimating I	3
ARC 231 Building Service Systems	3
CAD 102 Computer Aided Drafting II	3
CAD 202 Computer Aided Drafting/3D	3
CAD 225 Architectural Desktop/AutoDesk	3
CTC 105 Overview of Telecommunications	3
Total	**30 credit hours**

SHOWROOM ASSISTANT CERTIFICATE

This Certificate emphasizes preparation for work assisting customers in a retail store or showroom that sells home furnishings or finishes. The student will learn basic elements and principles of design, as well as basic computer and sales skills.

Students enrolled in this program can expect additional expenses of approximately $1000 for textbooks, course materials and equipment, and project supplies.

The Certificate may be tailored to fit various job types. Specific employers may require additional courses.

Admission Requirements for

Showroom Assistant Program:

1) Attend an Interior Design Program Orientation prior to first registration. Call the Division Office at 303-797-5855 for an appointment. Call 303-797-5974 for general information.

2) Complete CPT assessment with the following minimum scores:

> 80 on Reading Comprehension
>
> 95 on Sentence Skills
>
> 57 on Arithmetic

Current CPT scores must be entered in your ACC records before you can register for Interior Design courses. No exceptions.

3) Students must consult with an Interior Design Faculty advisor before enrolling in any elective courses.

Note: All courses required for this certificate must be completed with a grade of "C" or better to meet admission and graduation requirements.

Major Courses:	(15 credit hours)
IND 100 Interior Design Fundamentals	4
IND 108 Profession Survey	1
IND 117 Interior Textiles	2
IND 118 Interior Finishes	2
MAR 111 Principles of Sales	3
CIS 118 Introduction to PC Applications	3

Elective Courses:	(10 credit hours)

Consult with an Interior Design Faculty Advisor before choosing from the list below.

BUS 115 Introduction to Business	3
BUS 125 Marketing Your Image	3
MAR 117 Principles of Retailing	3
MAR 126 Merchandising	3
MAR 160 Customer Service	3

IND 107 History of Interior Design	3
IND 160 Accessorizing	2
IND 175 Special Topics	2
IND 207 Window Treatments	2
ART 110 Art Appreciation	3
Total	**25 credit hours**

LEGAL ASSISTANT

(See Paralegal)

MECHANICAL DRAFTING

Certificate

A certificate in this program will provide the educational background and basic technical training necessary for the graduate to seek employment with one of the area manufacturing or engineering industries. Students will be prepared for a variety of job entry positions whose titles include draftsperson, junior designer, and computer aided design technician.

Major Courses	(31 credit hours)
CAD 101 Computer Aided Drafting I	3
CAD 102 Computer Aided Drafting II	3
CAD 201 Computer Aided Drafting/Custom	3
DRT 101 Technical Drafting I	3
DRT 102 Technical Drafting II	3
DRT 109 Descriptive Geometry	3
MAT 108 Technical Mathematics	4
MTE 120 Manufacturing Process	3
TEC 201 Engineering Technologies	3
TEC 205 Geometric Dimensioning and Tolerancing	3

Restricted Electives	(3 credit hours)
CAD 202, 249, or 254	3
Total	**34**

MEDICAL LABORATORY TECHNOLOGY

Associate of Applied Science Degree

The MLT Program is delivered in an online/hybrid format and is available in a 1 year fast track option and 2 year traditional route.

The MLT program is designed to prepare qualified laboratory professionals to perform various laboratory studies in hospital, clinic, or private medical laboratories. Upon successful completion of the program, graduates are eligible to take national examinations to become certified Medical Laboratory Technicians/Clinical Laboratory Technicians.

As a certified MLT/CLT, employment is available in hospitals and clinics as well as veterinary, industrial and environmental laboratories in Colorado or in other states. The program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) and the American Medical Association.

NAACLS can be reached at 8410 W. Bryn Mawr Ave., Suite 670, Chicago, IL 60631-3415, 312-714-8880.

Admission Requirements:

1) High school graduation or GED equivalence

2) Complete MLT program application packet

3) College application

4) Recommend algebra and one year of high school biology or chemistry (or 1 college semester of either)

5) CPT is required for **all** MLT students

6) Personal interview with the program director is required before assignment to MLT courses

7) Hepatitis vaccination and other immunization.

More than two years may be taken to complete the program. Students may begin academic classes other than "MLT" at any time, according to published semester schedules.

The cost for uniforms, updated vaccinations, Hepatitis B immunization shots, insurance and student lab supplies is approximately $350.00.

Transfer students: Courses from NAACLS-approved MLT-CLT programs and Military Laboratory Specialists programs will be evaluated on an individual basis. Anyone interested may take specific classes with instructor permission on a space-available basis without being enrolled in the MLT program.

Please refer to MLT Program Guide for CPT placement scores. You can call the Division Office 303-797-5888 or the MLT office, 303-797-5796 for program information.

All major, general education and other courses required for this degree must be completed with a "C" or better to meet graduation requirements.

All MLT didactic courses are offered in an online/hybrid format. Student lab sessions meet on select Fridays from 4:30PM to 8:30PM and on Saturdays 9:30AM to 4:30PM.

Major Courses		(42 credit hours)
MLT	131 Introduction to Hematology	2
MLT	132 Hematology II	4
MLT	141 Immunology/Immunohematology	4
MLT	142 Urinalysis	2
MLT	180 Internship I, Blood Bank	1
MLT	182 Internship II, Hematology	5
MLT	231 Clinical Microbiology	4
MLT	232 Parasitology/Mycology	2
MLT	241 Introduction to Clinical Chemistry	2
MLT	242 Clinical Chemistry II	4
MLT	243 Clinical Practices	1
MLT	253 Seminar/Comprehensive Exams	1
MLT	280 Internship III, Chemistry	5
MLT	282 Internship IV, Microbiology	5

General Education Courses		(22 credit hours)
BIO	201 Human Anatomy & Physiology I	4
BIO	202 Human Anatomy & Physiology II	4
CHE	101 Introduction to Chemistry OR	
CHE	111 General College Chemistry	5
CIS	118 Introduction to PC Applications	3
ENG	121 English Composition OR	
ENG	131 Technical Writing I	3
SPE	115 Public Speaking OR	3
SPE	125 Interpersonal Communication	

Physical Education		(1 credit hour)
PED	101 or PED activity course[1]	1
Total		**65 credit hours**

[1]The PED requirement will be waived for students who are 35 years of age or older at the time of most recent admission to the College. Appropriate credit must be taken to substitute for the hour waived.

CLINICAL ASSISTANT CERTIFICATE

The Clinical Assistant Certificate is for individuals currently employed in a clinical laboratory as phlebotomists or specimen processors. The certificate provides the basic knowlege needed to be a productive quality assistant in a clinical laboratory.

Learners interested in obtaining the Certificate must pass all courses with a "C" or better. Anyone may enroll in specific classes on a space-available basis without being enrolled in the Clinical Assistant Certificate.

MLT 131, MLT 142, & MLT 241 credits are directly transferable into the Associate of Applied Science Medical Laboratory Technology degree.

Students must first contact the Medical Laboratory Technology Program Director at 303-797-5796.

This certificate is not eligible for financial aid. Contact the Financial Aid Office if further clarification is required.

Major Courses		(8 credit hours)
MLT	120 Clinical Assistant Core	2
MLT	131 Introduction to Hematology	2
MLT	142 Urinalysis	2
MLT	241 Introduction to Clinical Chemistry	2
Total		**8 credit hours**

PHLEBOTOMY CERTIFICATE

Phlebotomy is the acquired professional skill of performing venipunctures (drawing blood). The Medical Laboratory Technology Program is in partnership with Quest Diagnostics-Porter Hospital to offer this 12 week Phlebotomy Certificate.

Currently, classes meet at Porter Hospital on Tuesday and Thursday afternoons. This eight credit certificate includes 6 credits of lecture/didactic information and 2 credits of clinical internship.

Students must first contact the Medical Laboratory Technology Program Director at 303-797-5796.

This certificate is not eligible for financial aid. Contact the Financial Aid Office if further clarification is required.

Major Courses		(8 credit hours)
HPR	112 Phlebotomy	8
Total		**8 credit hours**

MEDICAL OFFICE TECHNOLOGY

The Medical Office Technology programs are designed to place students in outpatient (ambulatory) care facilities. Students may choose between two certificate and two degree options. The programs are designed in a step manner allowing the students to enter the workforce as soon as possible while continuing their education in class.

The Administrative Assistant (AA) Certificate prepares students to perform administrative functions required in an outpatient healthcare setting. This includes front office work, medical billing and ICD-9/CPT coding. The Medical Assistant (MA) Certificate includes all required courses for the AA Certificate plus those courses required to prepare the student to perform clinical skills under the direction of a physician in an outpatient healthcare setting.

Students wishing to advance to a degree may choose either the Medical Assisting option or the Medical Practice Manager (MPM) option. The MA option allows students to become degreed professionals in Medical Assisting. The MPM option prepares students to become managers for outpatient healthcare facilities.

The Medical Transcription Certificate is a 9-month, online program offered solely by ACC@DTC and includes optional monthly discussion group meetings at the DTC Campus. The program provides transcription service either working in a clinic, service office or from home.

The Medical Assistant Certificate is on probationary accreditation through the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Committee on Accreditation for Medical Assistant Education located at 20 N. Wacker Drive, Suite 1575, Chicago, IL 60606 1-800-228-2262.

All students wishing to obtain either an MA certificate or degree must obtain CPR and First Aid certification. Additionally, students must obtain professional liability insurance coverage as provided by Arapahoe Community College, complete immunizations including the Hepatitis B vaccinations and purchase a stethoscope and lab coat. The approximate cost of certifications, immunizations and equipment is $200.00. Nominal expenses are incurred during each externship for travel within the metro area.

Admission Requirements for all Medical Office Technology programs

1) Complete Application Package
   (to order call 303-797-5888).

2) Interview with Academic Coordinator.

3) Complete CPT examination with minimum scores of: Reading 83, Mathematics 61, Sentence Structure 86 (or Academic Coordinator approval). Applicants who hold a degree are exempt from CPT exam.

4) Negative criminal background check

All major, general education and other courses required for this degree must be completed with a "C" or better to meet graduation requirements.

MEDICAL OFFICE TECHNOLOGY ADMINISTRATIVE ASSISTANT CERTIFICATE

Major Courses	(16 credit hours)
HPR 106 Law & Ethics for Healthcare Professions*	2
HPR 178 Medical Terminology*	3
MOT 110 Medical Office Administration*	4
MOT 130 Insurance Billing and Coding*	3
MOT 136 Introduction to Clinical Skills	2

Students must receive Academic Coordinator approval prior to enrolling in their Internship.

MOT 181 Administrative Internship	2
Total	**16 credit hours**

* Course delivery is via Internet

MEDICAL OFFICE TECHNOLOGY MEDICAL ADMINISTRATIVE ASSISTANT CERTIFICATE

Major Courses	(16 credit hours)
MOT 125 [1]Basic Medical Sciences I*	3
MOT 133 [1]Basic Medical Sciences II*	3
MOT 135 [1]Basic Medical Sciences III*	3
MOT 138 Laboratory Skills	4
MOT 140 Clinical Skills	4
MOT 182 Clinical Internship	3
HWE 100 Human Nutrition*	2
PSY 101 General Psychology I	3
PSY 235 Human Growth & Development	3

Students must complete MOT 181 AND MOT 182 OR MOT 183

MOT 181 Administrative Internship	2
MOT 182 Clinical Internship OR	3
MOT 183 Medical Assistant Internship	5
Total	**44 credit hours**

*Course delivery via Internet

[1] Students must complete MOT 125 Basic Medical Sciences I prior to enrolling in the other Basic Medical Sciences courses.

MEDICAL OFFICE TECHNOLOGY

Associate of Applied Science Degree

MEDICAL ASSISTANT OPTION

Medical Assistant Certificate	**(44 credit hours)**	
General Education Courses	**(16 credit hours)**	
ACC 121 Principles of Accounting		4
BUS 217 Business Communication & Report Writing		3
ENG 121 English Composition I		3
MAN 226 Principles of Management		3
SPE 115 Public Speaking		3
Physical Education[1]	**(1 credit hour)**	
PED 101[1] or PED activity course		1
Total	**60 credit hours**	

[1]The PED requirement will be waived for students who are 35 years of age or older at the time of most recent admission to the College. Other course credit must be taken to substitute for the hour waived.

MEDICAL PRACTICE MANAGER OPTION

Major Courses

HIT 101 Health Information Management Science*	6
HIT 105 Physician Practice: Billing and Coding*	5
HIT 225 Health Information Management*	3
HPR 106 Law & Ethics for Healthcare Professions*	2
HPR 178 Medical Terminology*	3
MOT 110 Medical Office Administration*	4
MOT 125 [1]Basic Medical Sciences I*	3
MOT 133 [1]Basic Medical Sciences II*	3
MOT 135 [1]Basic Medical Sciences III*	3
MOT 225 Medical Practice Management Issues*	4

General Education Courses

ACC 121 Principles of Accounting I	4
ACC 122 Principles of Accounting II	4
BUS 217 Business Comm. & Report Writing	3
MAN 226 Principles of Management	3
ENG 121 English Composition I	3
SPE 115 Public Speaking	3
HIT 112 Legal Aspects*	2

Physical Education[2]

PED 101 or PED activity course	1
Total	**61 credit hours**

* Course delivery is via Internet

[1] Students must complete MOT 125 Basic Medical Sciences I prior to enrolling in the other Basic Medical Sciences courses.

[2] The PED requirement will be waived for students who are 35 years of age or older at the time of most recent admission to the College. Other course credit must be taken to substitute for the hour waived.

MEDICAL TRANSCRIPTION CERTIFICATE   (13 credit hours)

MOT 132 Medical Transcription	4
MOT 142 Medical Transcription	4
MOT 180 Medical Transcription Internship	3
BTE 112 Keyboarding: Speedbuilding II	2
Total	**13 credit hours**

MORTUARY SCIENCE

Associate of Applied Science Degree

Mortuary Science is a field of human and community service which offers a variety of work, intellectual challenge, and satisfaction of helping the bereaved through life's most trying period. The program prepares individuals to become a mortuary science practitioner, funeral director and embalmer.

The program is accredited by the American Board of Funeral Service Education (ABFSB). The Board can be reached at 38 Florida Avenue, Portland, Maine 04103, (207) 878-6530. Upon successful completion of the program students must sit for the National Board Exam before receiving their degree as required by the ABFSE.

Admissions Requirements:

1) Complete a Mortuary Science application
2) Interview with the Mortuary Science Department Chairperson if requested.

Students should review course descriptions for prerequisites and corequisites before enrolling.

Aims and Purposes:

The ACC Mortuary Science Program recognizes mortuary science personnel as

1) members of a human services profession
2) members of the community in which they serve
3) participants in the relationship between bereaved families and those engaged in the funeral service profession
4) professionals knowledgeable of and compliant with federal, state, and local regulatory guidelines, as well as
5) professionals sensitive to the responsibility for public health, safety and welfare in caring.

In addition the program objectives are:

1) To enlarge the background and knowledge of students about the funeral service profession
2) To educate students in every phase of funeral service, and to help enable them to develop the proficiency and skills necessary of the profession
3) To educate students concerning the responsibilities of the funeral service profession to the community at large
4) To emphasize high standards of ethical conduct
5) To provide a curriculum at the postsecondary level of instruction
6) To encourage research in the field of funeral service

All major, general education and other courses required for this degree must be completed with a "C" or better to meet graduation requirements (major courses and may only be repeated once).

Major Courses (38 credit hours)

HPR 240	Role of Death and Bereavement in Society	3
MOR 100	Intro to Funeral Service	3
MOR 210	Embalming Theory I and Lab	4
MOR 215	Funeral Merchandising	3
MOR 220	Mortuary Law and Compliance	3
MOR 224	Thanatomicrobiology/Pathology	4
MOR 225	Embalming Theory II and Lab	4
MOR 230	Restorative Art and Lab	4
MOR 235	Funeral Directing and Counseling	3
MOR 243	Thanatochemistry*	3
MOR 290	Funeral Service Internship	4

General Education Courses (27 credit hours)

ACC 121	Accounting Principles I	4
BIO 201	Human Anatomy and Physiology I[1]	4
BIO 202	Human Anatomy and Physiology II[1]	4
BUS 216	Business Law and the Legal Environment	3
CIS 118	Intro to PC Applications*	3
ENG 121	English Composition I	3
PSY 101	General Psychology I	3
SPE 125	Interpersonal Communication* OR	
SPE 115	Public Speaking*	3

Physical Education[2] (1 credit hour)

PED 101	or PED activity course	1

Total 66 credit hours

[1]All science courses cannot have been completed more than five years prior to enrolling in MOR 210.

[2]The PED requirement will be waived for students who are 35 years of age or older at the time of most recent admission to the College. Appropriate credit must be taken to substitute for the hour waived.

*Similar courses taken at accredited institutions will be reviewed on a case-by-case basis.

MULTIMEDIA/GRAPHIC DESIGN & ILLUSTRATION

Associate of Applied Science Degree

This program prepares students for entry-level work in the field of print design with additional weight given to either illustration or web design. The curriculum consists of lecture and lab participation involving design theory, typography, production, advertising and portfolio development. Training in the latest design software is emphasized throughout the degree. Restricted electives allow the student to further explore illustration, design for print, or electronic media.

Students entering this program can expect an additional cost of approximately $1,600 for drawing and design materials, computer storage media, and color printing. Students should take the Major Courses in the sequence shown below, incorporating the English General Education component during the first term of study. Other General Education and Restricted Elective courses may be taken throughout the program and during the intervening summer term. All students taking courses in the program must take a placement exam that covers Macintosh operations and design software literacy. Students whose placement examinations indicate they do not have these skills must enroll in MGD 101 as a prerequisite prior to entering the program.

Major Courses (39 credit hours)

Semester 1

MGD 105	Typography & Layout	3
ART 121	Drawing I	3
MGD 133	Graphic Design I OR	
ART 131	Design I	3

Semester 2

MGD 103	Production Design	3
MGD 112	Adobe Illustrator I	3
MGD 113	QuarkXPress	3
MGD 117	Introduction to Visual Communications	3
MGD 256	Graphic Design Production	3

Semester 3

MGD 111	Adobe Photoshop I	3
MGD 114	Adobe InDesign	3
MGD 207	Illustration I OR	
ART 122	Drawing II OR	
MGD 141	Web Design I	3
MGD 260	Graphic Design Production II	3

Please visit **www.arapahoe.edu** for the most current, updated catalog information.

Semester 4

MGD 289 Capstone   3

General Education Courses   (15 credit hours)

ENG 121 English Composition I OR
ENG 131 Technical Writing I
            (to be taken during first semester)   3
SPE 115 Public Speaking OR
SPE 125 Interpersonal Communication OR
SPE 225 Organizational Communication   3
PSY 101   General Psychology OR
SOC 101   Intro to Sociology   3
ART 101 Art Appreciation OR
ART 111 Art History I OR
ART 112 Art History II   3
One more of the above of your choice (not already taken)

Restricted Electives   (6 credit hours)

Select 6 credits from the following:

MGD 102 Introduction to Multimedia   3
MGD 141 Web Design I (if not already
            taken as part of the core)   3
MGD 143 Web Motion Graphic Design I   3
MGD 155 LightWave I   3
MGD 208 Illustration II   3
MGD 209 Illustration III   3
MGD 210 Illustration IV   3
MGD 211 Photoshop II   3
MGD 212 Illustrator II   3
MGD 280 Internship   3
MGD 287 Cooperative Education (formerly GDI 290)   3
CWB 110 Complete Web Authoring   3
JOU 215 Publications Production and Design   3
MAR 220 Principles of Advertising   3
Total   60 credit hours

COMPUTER GRAPHICS
Certificate

This certificate prepares students for entry-level positions in desktop publishing, production for print or electronic design, typesetting, and for technical jobs in service bureaus and printing companies. Students who wish to pursue a career in design are urged to obtain the Associate of Applied Science degree in Multimedia, Graphic Design and Illustration. If students choose to continue their education, all of the classes in the certificate can be applied to the associate degree. All students taking courses in the program must take a placement exam that covers Macintosh operations and design software literacy to determine if an additional course, MGD 101, is needed before entering the program. Typing and basic math skills are highly recommended.

Please note that the Major Courses are listed in the order in which they should be taken.

Major Courses   (24 credit hours)

MGD 105 Typography & Layout   3
MGD 133 Graphic Design I   OR
ART 131 Design I   3
MGD 103 Production Design   3
MGD 112 Adobe Illustrator I   3
MGD 113 QuarkXPress   3
MGD 114 Adobe InDesign   3
MGD 111 Adobe Photoshop I   3
MGD 256 Graphic Design Production   3

Restricted Electives   (6 credit hours)

Select 6 credit hours from the following:

MGD 102 Introduction to Multimedia   3
MGD 117 Introduction to Visual Communications   3
MGD 141 Web Design I   3
MGD 143 Web Motion Graphic Design I   3
MGD 155 LightWave I   3
MGD 211 Photoshop II   3
MGD 212 Illustrator II   3
MGD 260 Graphic Design Production II   3
MGD 280 Internship   3
MGD 287 Cooperative Education   3
MGD 289 Capstone   3
Total   30 credit hours

NETWORK SPECIALIST

NURSE AIDE PROGRAM
Certificate

This program will prepare the student for employment as a nurse aide in hospital, skilled care and hospice facilities. The entry level skill as a nurse aide is an excellent introduction to the broad range of health professions.

The close personal care requires a sensitive and knowledgeable person who has a good understanding of how to meet the needs of patients as well as how to interact with other members of the healthcare team. Basic nursing and personal care skills, use of assistive devices, and recognition of the emotional, social, cultural, and individual rights of patients are all competencies that will be covered in the coursework. Students will then have an opportunity to practice these skills in the college lab with transition into healthcare agencies. The 72 hours of clinical experience will be done in hospital, skilled care and hospice agencies. Clinical experiences will be made by arrangement during the first week of classes.

The Nurse Aide program is approved by the State Board of Nursing, located at 1560 Broadway, Suite 880, Denver, Colorado 80202-5146.

A negative background check is required for admission to the program. CPR (Basic Life Support for Healthcare Provider), professional liability insurance coverage available through Arapahoe Community College, Hepatitis B vaccinations, documentation of immunizations, and current TB test are required for clinical practice. Additionally, students must undergo a background check as required by the State Board of Nursing. Upon successful completion of the program, students will be eligible to take the National Nurse Aide Assessment Program (NNAAP) certification exams.

Courses required for this certificate must be completed with a C or better to meet graduation requirements. This certificate is not eligible for financial aid. Contact the Financial Aid Office if further clarification is necessary.

Major Courses   (6 credit hours)

NUA 101 Certified Nurse Aide Health Care Skills   4
NUA 170 Nurse Aide Clinical   1
NUA 171 Advanced Nurse Aide Clinical   1
Total   6 credit hours

NURSING

Associate of Applied Science Degree

This program is designed to prepare the individual to take the RN licensure examination and to practice as a registered nurse. Students have the option to take the PN licensing exam following the successful completion of the first year of the nursing program. The program consists of nursing and non-nursing courses. Clinical nursing courses include supervised patient care experiences at a variety of health care agencies. Upon successful completion of total program requirements, the graduate is eligible to take the NCLEX/RN (National Council Licensing Examination/Registered Nursing). CPR (Healthcare Provider), professional liability insurance coverage of $1,000,000/$3,000,000, and immunization documentation is required for clinical practice throughout the program.

The Nursing program is approved by the State of Colorado Board of Nursing located at 1560 Broadway, Suite 880, Denver, CO 80202. The Board's phone number is 303-894-2430.

Call the Nursing program office at 303-797-5939 for program information and instructions for application.

Major courses	(54 credit hours)	
NUR 101	Pharmacology Calculations	1
NUR 106	Medical & Surgical Nursing Concepts	7
NUR 107	Nursing Concepts & Skills I	4
NUR 108	Nursing Concepts & Skills II	3
NUR 111	Socialization into Practical Nursing	1
NUR 112	Basic Concepts of Pharmacology	2
NUR 117	Nursing Care of the Childbearing Family	3
NUR 118	Nursing Care of Children	3
NUR 170	Clinical I	2
NUR 171	Clinical II	1
NUR 206	Advanced Concepts of Medical/Surgical Nursing I	5
NUR 210	Nursing Care of Complex Obstetrical and Pediatric Clients	5
NUR 211	Nursing Care of Psychiatric Clients	5
NUR 216	Advanced Concepts of M/S Nursing II	4
NUR 217	Leadership for Professional Nursing Practice	2
NUR 272	Expanded Clinical III	2
NUR 288	Practicum: Health and Physical Assessment for Nursing Practice	1
NUR 289	Capstone: Comprehensive Nursing Internship	3
General Education Courses	(20 credit hours)	
HWE 100	Human Nutrition	3
PSY 101	General Psychology I	3
ENG 121	English Composition I	3
*BIO 201	Human Anatomy and Physiology I	4
*BIO 202	Human Anatomy and Physiology II	4
PSY 235	Human Growth and Development	3
Other Required Courses	(3 credit hours)	
HPR 205	Microbiology of Infectious Diseases	3
Physical Education[1]	(1 credit hour)	
PED activity course		1
Total	78 credit hours	

* Must be completed within 7 years of application and entry into NUR courses.

[1] PED requirement will be waived for all students over 35 years of age or older at the time of most recent admission to the College. Any credit bearing course numbered above 100 must then be substituted.

Note: All major, general education and other courses required for this degree must be completed with a "C" or better to meet graduation requirements.

PRACTICAL NURSING

Certificate

This certificate is available only to those students who have been accepted into the registered nursing program. The certificate prepares the nursing student to take the practical nursing licensure examination and to practice as a licensed practical nurse. Upon successful completion of the courses listed below, students will receive a practical nursing certificate.

Major courses	(27 credit hours)	
NUR 101	Pharmacology Calculations	1
NUR 106	Medical & Surgical Nursing Concepts	7
NUR 107	Nursing Concepts & Skills I	4
NUR 108	Nursing Concepts & Skills II	3
NUR 111	Socialization into Practical Nursing	1
NUR 112	Basic Concepts of Pharmacology	2
NUR 117	Nursing Care of the Childbearing Family	3
NUR 118	Nursing Care of Children	3
NUR 170	Clinical I	2
NUR 171	Clinical II	1
General Education Courses	(20 credit hours)	
BIO 201	Human Anatomy and Physiology I	4
BIO 202	Human Anatomy and Physiology II	4
ENG 121	English Composition I	3
HWE 100	Human Nutrition	3
PSY 101	General Psychology I	3
PSY 235	Human Growth and Development	3
Other Required Courses	(3 credit hours)	
HPR 205	Microbiology of Infectious Diseases	3
Total	50 credit hours	

PN TO RN ADVANCED PLACEMENT OPTION

Associate of Applied Science Degree

This option is available to Practical Nurses only. In accordance with the Colorado Articulation Model, PN's who wish to become RN's will be able to complete necessary nursing coursework in one calendar year. This option is designed to complement the nursing coursework already completed in the PN program with minimal repetition. Students will need to complete an additional 28 credit hours of nursing coursework and 21 credit hours of non-nursing coursework.

The Nursing program at ACC prepares the graduate to take the RN licensure examination NCLEX/RN. The program consists of nursing and non-nursing courses and is a 78 credit associate degree program.

Call the Nursing program office at 303-797-5939 for program information and instructions for application.

Major courses	(28 credit hours)	
NUR 178	Seminar: Transition PN to RN	1
NUR 206	Advanced Concepts of M/S Nursing I	5
NUR 210	Nursing Care of Complex Obstetrical and Pediatric Clients	5
NUR 211	Nursing Care of Psychiatric Clients	5
NUR 216	Advanced Concepts of M/S Nursing II	4
NUR 217	Leadership for Professional Nursing Practice	2
NUR 272	Expanded Clinical III	2
NUR 288	Practicum: Health and Physical Assessment for Nursing Practice	1
NUR 289	Capstone: Comprehensive Nursing Internship	3

General Education Courses   **(17 credit hours)**

BIO 201 Human Anatomy and Physiology I*   4
BIO 202 Human Anatomy and Physiology II*   4
ENG 121 English Composition I   3
PSY 101 General Psychology I   3
PSY 235 Human Growth and Development   3

Other Required Courses   **(3 credit hours)**
HPR 205 Microbiology of Infectious Diseases   3

Physical Education[1]   **(1 credit hour)**
PED activity course   1

Total   **49 credit hours**

 * Must be completed within 10 years of application and entry into NUR courses.

[1] PED requirement will be waived for all students over 35 years of age or older at the time of most recent admission to the College. Any credit bearing course numbered above 100 must then be substituted.

In accordance with the Colorado Nursing Articulation Model, credits for prior learning in Practical Nurse education will be awarded through articulation. 26 Nursing credits and 3 nutrition credits will be placed on the transcript after successful completion of one semester of ACC nursing courses.

Note: All major, general education and other courses required for this degree must be completed with a "C" or better to meet graduation requirements.

PARALEGAL

Associate of Applied Science Degree

The goals for this American Bar Association-approved program are:

1) To train students to become paralegals, in order to permit them to assist attorneys in effectively delivering legal services and

2) To educate students in a way that will permit them to advance the paralegal profession and to maintain high ethical standards.

While paralegals may not practice law, they work under the supervision of attorneys in private law firms or businesses, as well as in many government agencies. Tasks performed by paralegals include interviewing, investigation, research, preparing legal forms, assisting attorneys in court, and other activities. If you have questions, contact the Program Coordinator at 303-797-5878.

To graduate, students must complete an exit interview and apply for graduation. The American Bar Association may be reached at 541 N. Fairbanks Ct., Chicago, IL 60611, 312-988-5677. Paralegal courses from other institutions may be transferred to the program ONLY if they were taken from an ABA-approved program.

Students should take PAR 115 and PAR 213 in their first semester of study. Students should have CPT sentence skills score of 95+ and CPT reading score of 80+ to successfully complete PAR 213.

All major, general education and other courses required for this degree must be completed with a grade of "C" or better to meet graduation requirements.

Major Courses   **(27 credit hours)**
PAR 115 Introduction to Law   3
PAR 116 Torts   3
PAR 118 Contracts   3
PAR 125 Property Law   3
PAR 201 Civil Litigation   3
PAR 206 Business Organizations   3
PAR 213 Legal Research & Writing I   3
PAR 214 Legal Research & Writing II   3
PAR 287 Cooperative Education*   3*

* This course may be waived and a paralegal elective substituted for students with prior legal experience.

General Education Courses   **(24 credit hours)**
ENG 121 English Composition I   3
ENG 122 English Composition II   3
SPE 115 Public Speaking or
SPE 125 Interpersonal Communication   3

Students must select twelve credits from the following:
ECO 201or 202; HIS, HUM, LIT,
PHI, POS, PSY, SOC, SPA   12

Students must select three credits from the following:
AST, BIO (100 or above), CHE, GEO,
PHY or MAT (106 or above)   3

Restricted Electives   **(9 credit hours)**
Any three of the following:
PAR 117 Family Law   3
PAR 202 Evidence   3
PAR 205 Criminal Law   3
PAR 208 Probate and Estates   3
PAR 215 Alternative Dispute Resolution   3
PAR 216 Employment Law   3
PAR 217 Environmental Law   3
PAR 218 Bankruptcy Law   3
PAR 228 Intellectual Property   3
PAR   Any PAR Elective   3

Total   **60 credit hours**

PARALEGAL CERTIFICATE

Admission Requirement:

A two year Associate of Arts or Associate of Science degree or a four year degree from an accredited college or university, OR 5 years of law-related work experience. An official transcript must be on file in Admissions & Records prior to the release of the paralegal certificate.

The goals for this American Bar Association-approved program are:

1) To train students to become paralegals, in order to permit them to assist attorneys in effectively delivering legal services and

2) To educate students in a way that will permit them to advance the paralegal profession and to maintain high ethical standards

While paralegals may not practice law, they work under the supervision of attoneys in private law firms or businesses, as well as in many government agencies. Tasks performed by paralegals include interviewing, investigation, research, preparing legal forms, assisting attorneys in court, and other activities. If you have questions, contact the Program Coordinator at 303-797-5878.

If seeking admission based on 5 years of law-related experience, supporting documentation must be submitted to the Department Chair, and the student must be formally admitted to the program by letter of acceptance. To graduate, students must complete an exit interview and apply for graduation.

The paralegal program is approved by the American Bar Association. The American Bar Association may be reached at 541 N. Fairbanks Ct., Chicago, IL 60611, 312-988-5677. Paralegal courses from other institutions may be transferred to the program ONLY if they were taken from an ABA-approved program.

Students should take PAR 115 and PAR 213 in their first semester of study.

All major, general education, and other courses required for this certificate must be completed with a grade of "C" or better to meet graduation requirements.

Major Courses	(27 credit hours)
PAR 115 Introduction to Law	3
PAR 116 Torts	3
PAR 118 Contracts	3
PAR 125 Property Law	3
PAR 201 Civil Litigation	3
PAR 206 Business Organizations	3
PAR 213 Legal Research and Writing I	3
PAR 214 Legal Research and Writing II	3
PAR 287 Cooperative Education	3*

* This course may be waived and a paralegal elective substituted for students with prior legal experience.

Restricted Electives	(9 credit hours)
Any three of the following:	
PAR 117 Family Law	3
PAR 202 Evidence	3
PAR 205 Criminal Law	3
PAR 208 Probate and Estates	3
PAR 215 Alternative Dispute Resolution	3
PAR 216 Employment Law	3
PAR 217 Environmental Law	3
PAR 218 Bankruptcy Law	3
PAR 228 Intellectual Property	
PAR Any PAR elective	3
Total	**36 credit hours**

PHARMACY TECHNICIAN

Certificate

The pharmacy technician program (PHT) will prepare students to assist a pharmacist with the technical tasks which take place in the pharmacy setting. Under the direct supervision of a pharmacist, a pharmacy technician can be employed in a variety of healthcare settings.

The program spans 1¹/₂ semesters and is divided into 15 weeks of didactic training and 8 weeks internship in both Retail (4 weeks) and Hospital (4 weeks) pharmacy settings. More than one year may be taken to complete the program. All classes require acceptance into the program or have written approval of the Academic Coordinator.

Individuals already employed as pharmacy technicians can upgrade their skills and meet continuing education re-certification requirements of the Pharmacy Technician Certification Board (PTCB) by enrolling in specific program courses.

This program is accredited by the American Society of Health-System Pharmacists (ASHP). ASHP can be reached at 7272 Wisconsin Ave., Bethesda, MD 20814, 301-657-3000, x1251.

Please download application on the web site, or contact the Academic Coordinator at 303-797-5944.

All major courses required for this certificate must be completed with a "C" or better to meet graduation requirements.

Major Courses	(28 credit hours)
PHT 111 Orientation to Pharmacy*	2
PHT 112 Pharmacy Law*	1.5
PHT 113 Pharmacy Calculations and Terminology*	1.5
PHT 115 Pharmacology of GI, Renal, Reproductive, Immune, Dermatologic and Hematologic Systems*	3
PHT 116 Institutional Pharmacy	3
PHT 117 Communication for Pharmacy Technicians	1
PHT 118 Pharmacology of the Nervous, Endocrine, and Musculoskeletal Systems*	3
PHT 119 Community Pharmacy	3
PHT 170 Pharmacy Practice II (Hospital Rotation)	4
PHT 171 Pharmacy Practice III (Community Rotation)	4
Total	**28 credit hours**

*Course is available via the Internet.

PHYSICAL THERAPIST ASSISTANT

A Physical Therapist Assistant (PTA) is a health care provider working under the direction of a Physical Therapist. The PTA is involved in the treatment of individuals with muscular, skeletal, cardiopulmonary and nervous system disorders. The PTA may also be involved in injury prevention or programs specifically targeted toward individual or group wellness. The PTA is able to provide physical therapy services as specified in a care plan developed by a Physical Therapist. Treatment program implementation may include: therapeutic exercise, ambulation training, activities of daily living, and administration of physical agents such as heat and cold.

All students must maintain current CPR and First Aid certification. Additionally, students must maintain professional liability insurance coverage and are required to complete a series of Hepatitis B vaccinations. The approximate cost of uniform and vaccination requirements is $175.00. Nominal expenses are incurred during each clinical affiliation for travel within the metro area.

The program is accredited by the Commission for Accreditation of Physical Therapy Education of the American Physical Therapy Association. The Commission can be reached at 1111 N. Fairfax St., Alexandria, Virginia 22314-1488, 1-800-999-2782.

The program is 5 semesters in length with a summer term following the first year. Upon successful completion, the graduate is awarded an Associate of Applied Science degree. Please note: Students are responsible for completing the appropriate Graduation Application in the Records Office by the deadline date.

Admissions Requirements:

1. Contact the Health, Math, Science & Engineering Division Office, Room A2000, 303-797-5888.

2. Applications are accepting beginning February 1st each year. Please refer to the PTA Program Information for application and CPT placement scores. You can contact the Division Office by phone at 303-797-5888 for a copy of the PTA Program Information.

3. Individuals with related degrees and training (Athletic Training, military trained PT Techs/Specialists) should contact Paula Provence, paula.provence@arapahoe.edu, for information regarding possible transfer credit and Credit for Prior Learning Options.

All major, general education and other courses required for this degree must be completed with a "C" or better to meet graduation requirements.

Major Core Courses: **(50 credit hours)**

PTA	110	Basic Patient Care in Physical Therapy	5
PTA	115	Principles and Practices in Physical Therapy	2
PTA	120	Modalities in Physical Therapy	5
PTA	131	Professional Communications I	1
PTA	135	Principles of Electrical Stimulation	2
PTA	140	Clinical Kinesiology	5
PTA	141	Professional Communications II	1
PTA	205	Psychosocial Issues in Health Care	2
PTA	230	Orthopedic Assessment and Management	5
PTA	240	Neurological Assessment and Management	5
PTA	251	Professional Communications III	1
PTA	278	PTA Seminar	2
PTA	280	PTA Internship I	4
PTA	281	PTA Internship II	5
PTA	282	PTA Internship III	5

General Education Courses **(17 credit hours)**

BIO	201	Human Anatomy and Physiology I	4
ENG	121	English Composition I	3
PSY	101	General Psychology I	3
SPE	115	Public Speaking [1] OR	
SPE	125	Interpersonal Communication	3
PSY	235	Human Growth and Development	3

Physical Education[2] **(1 credit hour)**

PED	101	or PED activity course	1

Special Topic Courses: **(8 credit hours)**

PTA	175	Special Topics: Clinical Pathophyisology I	2
PTA	177	Special Topics: Clinical Pathophysiology II	2
PTA	176	Special Topics: Anatomical Kinesiology	4

Total **75 credit hours**

[1] Students planning to transfer their speech credit to another institution should complete SPE 115.

[2] The PED requirement will be waived for students who are 35 years of age or older at the time of most recent admission to the College. Appropriate credit must be taken to substitute for the hour waived.

WEB AUTHORING

Certificate

Completing this certificate prepares students to make Internet information accessible, usable and relevant. Student will learn the use of technologies—HTML, coding, web applications and online help screens – to communicate information across global boundaries.

CNG	124	Networking I: Network +	3
CWB	106	Mastering the Web	3
CWB	110	Complete Web Authoring	3
CWB	164	XML I	3
CWB	205	Complete Web Scripting	3

Select among:

CSC	156	Visual Basic .NET Programming	4
CSC	157	Advanced Visual Basic .NET Programming	4
		OR	
CSC	236	C#(Sharp) Programming	4
CSC	237	Advanced C#(Sharp) Programming	4
		OR	
CSC	160	Computer Science I (Java)	4
CSC	161	Computer Science II (Java)	4
		Corequisite: CIS 235	

Total **23 credit hours**

Course Descriptions

ACADEMIC ACHIEVEMENT

AAA 090   ACADEMIC ACHIEVEMENT STRATEGIES   3 CREDITS
Students will develop personalized approaches to learning and succeed as they 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.
PREREQUISITE(S): CPT reading score 60-79

AAA 103   COLLEGE ORIENTATION   1 CREDIT
This course is an orientation course designed for students new to higher education. Topics will include personal learning and study skill inventories, goal setting, educational planning and introductions to college services and procedures.

AAA 109   ADVANCED ACADEMIC ACHIEVEMENT   3 CREDITS
Students will examine theories and practices associated with successful learning and adopt those that enhance their college success. Critical areas for 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. This course is recommended for new and returning students.
PREREQUISITE(S): CPT reading score 80-120

ACCOUNTING

ACC 101   FUNDAMENTALS OF ACCOUNTING   3 CREDITS
Presents the basic elements and concepts of accounting, with emphasis on the procedures used for maintaining journals, ledgers, and other related records, and for the completion of end-of period reports for small service and merchandising businesses.

ACC 115   PAYROLL ACCOUNTING   3 CREDITS
A study of federal and state laws and their effects on personnel and payroll records. The course is nontechnical and is intended to give students a practical working knowledge of the current tax laws and actual experience in applying regulations. Student will be exposed to computerized payroll procedures.
PREREQUISITE(S): ACC 101 or 121, or enrolled concurrently, or instructor's permission

ACC 118   ANALYZING AND INTERPRETING FINANCIAL STATEMENTS   3 CREDITS
An introduction to accounting and its significant role in making sound business decisions. This course is designed to teach students how to use financial statements to be wise users of accounting information. The course will give practical experience using ratio analysis to make credit and equity decisions. Instructional methods include lecture, case studies, group interaction and Internet research projects.

ACC 121   PRINCIPLES OF ACCOUNTING I   4 CREDITS
This course introduces the study of accounting principles to give the student an understanding of the theory and logic that underlie procedures and practices. Major topics include the accounting cycle for service and merchandising businesses, 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. This is the first course in the accounting sequence.

ACC 122   PRINCIPLES OF ACCOUNTING II   4 CREDITS
This course continues the study of accounting principles as they apply to corporations. Major topics include: stocks, bonds, investments, the cash flow statement, financial analysis, budgeting, and cost and managerial accounting.
PREREQUISITE(S): ACC 121 or equivalent; MAT 106, 111 or higher strongly recommended

ACC 125   COMPUTERIZED ACCOUNTING   3 CREDITS
This course introduces computerized accounting in a microcomputer environment. Topics include a review of basic accounting theory and training in both manual and computerized accounting procedures. By using a pre-designed accounting software package, students learn the principles and techniques required for computerized processing of accounting data and for generating accounting reports and financial statements. Students will have extensive hands-on experience with computerized systems.
PREREQUISITE(S): ACC 101 or ACC 131

ACC 131 INCOME TAX 1   3 CREDITS
This course is the study of basic concepts of federal income taxation, including gross income, deductions, accounting period and methods, and property transactions, with emphasis on individual taxation.

ACC 135   SPREADSHEET APPLICATION FOR ACCOUNTING   3 CREDITS
This course introduces spreadsheets as an accounting tool. Using an accounting perspective the student will apply fundamental spreadsheet concepts. The spreadsheet will be used as a problem-solving and decision making tool. This course involves a ten-key pad component.
PREREQUISITE(S): ACC 122, CIS 155 or spreadsheet experience (all required)

ACC 211   INTERMEDIATE ACCOUNTING I   4 CREDITS
Focuses on comprehensive analysis of generally accepted accounting principles (GAAP), accounting theory, concepts and financial reporting principles for public corporations. It is the first of a two-course sequence in financial accounting and is designed primarily for accounting and finance majors. Focuses on the preparation and analysis of business information relevant and useful to external users of financial reports. Explores the theories, principles and practices surveyed in Accounting Principles and critically examines "real-world" financial analysis and reporting issues.

ACC 212   INTERMEDIATE ACCOUNTING II 4 CREDITS
Focuses on the theoretical and practical aspects of accounting for long-term liabilities, stockholders' equity, investments, pensions and leases. Includes income tax allocation, financial statement analysis, cash flow statements and accounting methods changes.

ACC 215   ACCOUNTING, INFORMATION SYSTEMS   3 CREDITS
Explores the concepts, tools and techniques for the design and analysis of accounting information systems and automated data processing methods, standard transaction cycles, data base management, internal controls, computer controls, auditing computer systems and networks, expert systems, e-commerce, current and future research in information technology, and the role of the accountant in the management of accounting information systems.

ACC 226   COST ACCOUNTING   3 CREDITS
This course is a study of the cost accumulation methods and management reports. The concepts and procedures of job order, process, standard and direct cost systems are covered; and budgeting, planning and control of costs are included.
PREREQUISITE(S): ACC 122

ACC 229   MANAGERIAL ACCOUNTING   3 CREDITS
The analysis of financial statements and other accounting data used by management in the planning and control functions. Includes a study of cost behavior, volume-cost-profit relationships, return on investment, and the budgetary process.
PREREQUISITE(S): ACC 122

ACC 235   COMPUTERIZED ACCOUNTING FOR SMALL BUSINESSES   3 CREDITS
This course introduces a microcomputer package, such as Quickbooks, One-write Plus or similar accounting application, for use in a small business. The student will learn how to install and start the application and how to convert a manual accounting system to an electronic accounting system. The course will focus upon an easy-to-use bookkeeping system that incorporates all daily transactions (checks, invoices, bills, and deposits) and summarizes bookkeeping records in reports to give a complete financial picture.

ACC 245   COMPUTERIZED ACCOUNTING WITH A PROFESSIONAL PACKAGE   3 CREDITS

This course integrates accounting principles and practices with a professional computerized accounting package such as Peachtree, Dac Easy, or other professional packages. Emphasis will be on computerized functions of the general ledger and integrated accounts payable, accounts receivable, invoicing, and payroll systems.

PREREQUISITE(S): ACC 121 or 101

ACC 275   SPECIAL TOPICS   VARIABLE CREDITS (1–6)

Description: Provides students with a vehicle to pursue in depth exploration of special topics of interest.

ACC 285   INDEPENDENT STUDY   1–6 CREDIT

Course designed to meet the individual needs of students.

PREREQUISITE(S): Instructor's permission

ACC 287   COOP EDUCATION   3 CREDITS

Description: 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.

PREREQUISITE: Instructor's permission

ACC 289   CAPSTONE   3 CREDITS

Provides pending accounting graduates with the opportunity to evaluate analysis skills. Using the knowledge acquired from their academic studies, the student evaluates the financial standing of three different companies. Financial analysis using spreadsheet capabilities and written report skills are included. The student works independent of a traditional classroom setting.

PREQUISITE(S): ACC 122, 131, 135, 226

ACTIVITY PROFESSIONALS' TRAINING

APT 101   BASIC ACTIVITY PROFESSIONALS' TRAINING PART I   4 CREDITS

This course, along with APT 102 and APT 103, satisfies the requirements for state qualification as an accredited program for Activity Professionals. The topics covered include an overview of the activity profession, human development in the late adult years and methods of service delivery.

PREREQUISITE(S): High school diploma or GED.

APT 102   BASIC ACTIVITY PROFESSIONALS' TRAINING PART II   4 CREDITS

This course, together with APT 101 and APT 103, satisfies the requirements for state qualification as an accredited training program for activities professionals. The topics covered include: standards of practice, practitioner behavior, regulations, activity care planning of quality of life.

PREREQUISITE(S): APT 101

APT 188   BASIC EDUCATION PRACTICUM   2 CREDITS

This course is the practical experience portion of the APT 100 courses, which together comprise the Basic Education Course curriculum established by the National Certification Council for Activity Professionals and the National Association of Activity Professionals. The student will demonstrate an understanding of the activity program in a long-term care setting, and the ability to assist with the quality of life components with geriatric elderly through supervised learning experiences.

COREQUISITE(S): APT 101, 202

APT 201   ADVANCED DOCUMENTATION AND REGULATORY COMPLIANCE   2 CREDITS

This course is one of four courses which together comprise the Advanced Management Curriculum established by the National Certification Council for Activity Professionals (NCCAP) and the National Association of Activity Professionals (NAAP). This course will include an in-depth analysis of documentation and the corresponding regulations. In addition, State and Federal regulations and survey process will be reviewed. This course builds on the skills learned in the APT 100 course; fine tuning care planning and documentation as well as teaching professional writing skills ie: writing proposals and legislative correspondence.

PREREQUISITE(S): APT 100 or instructor's permission

APT 202   ADMINISTRATIVE PRACTICES IN THE ACTIVITY PROFESSION   2 CREDITS

This course is one of five courses which together comprise the advanced management curriculum established by the National Certification Council of Activity Professionals and the National Association of Activity Professionals. This course focuses on the practical issues in managing an activity department including: management and leadership techniques; personnel issues including recruiting, evaluation, and termination; management writing skills; and financial management are discussed.

PREREQUISITE(S): APT 100 or instructor's permission

APT 203   VOLUNTEER MANAGEMENT   2 CREDITS

This course is one of five courses which together comprise the advanced management curriculum established by the National Certification Council of Activity Professionals and the National Association of Activity Professionals. This course covers the techniques needed by the Activity Coordinator to develop and manage an effective volunteer program. The student will learn how to recruit, interview, schedule, train, supervise, evaluate and motivate volunteers.

PREREQUISITE(S): APT 100 or instructor's permission

APT 204   COMMUNITY RELATIONS AND COMMUNICATION IN THE ACTIVITY DEPARTMENT   2 CREDITS

This course is one of five courses which together comprise the advanced management curriculum established by the National Certification Council of Activity Professionals and the National Association of Activity Professionals. This course will focus on Public Relations and Community Relations. The student will learn how to sell their activity program to the community and raise the interest of the community. Students will learn effective communication techniques including public speaking, listening and professional writing skills.

PREREQUISITE(S): APT 100 or instructor's permission

APT 275   SPECIAL TOPICS   1–6 CREDIT

Special Topics courses may be offered to provide students with an opportunity to study special areas in the discipline. Course content will be determined by the instructor with a complete syllabus each time the course is offered.

APT 285   INDEPENDENT STUDY   1–6 CREDIT

Course designed to meet the individual needs of students.

PREREQUISITE(S): Instructor's permission

APT 288   ADVANCED MANAGEMENT PRACTICUM   2 CREDITS

This course is the practical experience portion of the APT 200 courses which comprise the advanced management curriculum established by the National Certification Council of Activity Professionals and the National Association of Activity Professionals. The student will demonstrate an understanding of the management skills needed to be an activity professional through supervised learning experience in a geriatric-based care enter.

PREREQUISITE(S): APT 100 and at least two of the following; APT 201, 202, 203, 204.
COREQUISITE(S): APT 201, 202, 203, 204

AIR FORCE ROTC

AIR 101 DEVELOPMENT OF AIR POWER 1 CREDIT
This course is a study of air power from balloons and dirigibles through the jet age: a historical review of air power employment in military and nonmilitary operations in support of national objectives; a look at the evolution of air power concepts and doctrine; and an introduction to the development of communicative skills.

AIR 102 DEVELOPMENT OF AIR POWER II 1 CREDIT
This course is a survey of the development of air power after World War II. Understand that the development of aviation is a multi-faceted tale of technological breakthroughs, politics, controversy and achievement. We will focus on the United States Air Force, its heritage and future.

AIR 201 THE AIR FORCE TODAY, I 1 CREDIT
This course is a survey course which focuses on the organizational structure of the Air Force, and the missions of Air Force commands; officership and professionalism; and oral and written communicative skills. A weekly Leadership Laboratory consisting of Air Force customs and courtesies, Air Force environment, drill and ceremonies, is mandatory for those students pursuing and Air Force commission.

AIR 202 THE AIR FORCE TODAY, II 1 CREDIT
This course focuses on the basic characteristics of air doctrine.; United States Air Force mission and organization; functions of United States strategic offensive and defensive forces; general purpose forces; aerospace support forces; professionalism and officership; and an assessment of communicative skills. A weekly 1 hour Leadership Lab consisting of Air Force customs and courtesies, Air Force environment, and drill and ceremonies is mandatory.

ALLIED HEALTH PROFESSIONS

SEE HEALTH PROFESSIONS

AMERICAN SIGN LANGUAGE

ASL 121 INTRODUCTION TO AMERICAN SIGN LANGUAGE 5 CREDITS
This course will expose the student to American Sign Language. Readiness activities will be conducted focusing on visual/receptive skills and basic communication.The direct experience method, using ASL, is used to enhance the learning process. This course is a prerequisite for ASL 122.

ASL 122 AMERICAN SIGN LANGUAGE II 5 CREDITS
In this course, the student will have an opportunity to develop syntactic knowledge of American Sign Language (ASL), basic vocabulary and basic conversational skills. Vital aspects of deaf culture and community will be incorporated. The direct experience method, using ASL, will be used to enhance the learning process. Students must successfully complete this course prior to being accepted into the Interpreting and Transliterating Preparations Program.
PREREQUISITE(S): ASL 121

ASL 275 SPECIAL TOPICS 1–6 CREDITS
Description: Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

ASL 285 INDEPENDENT STUDY 1–6 CREDITS
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

ANTHROPOLOGY

ANT 101 CULTURAL ANTHROPOLOGY 3 CREDITS
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.

ANT 107 INTRODUCTION TO ARCHAEOLOGY 3 CREDITS
This course focuses upon the science of recovering the human prehistoric and historic past through excavation, analysis and interpretation of material remains. It includes a survey of the archaeology of different areas of the old and new worlds. Also included are the works of selected archaeologists and discussions of major archaeological theories.

ANT 111 PHYSICAL ANTHROPOLOGY 3 CREDITS
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.

ANT 121 CULTURES OF THE SOUTHWEST 3 CREDITS
The American Southwest provides a natural laboratory for the study of human cultural development and adaptation, from the earliest lithic cultures (Clovis and Folsom Hunters) to the various Desert Cultures, settled villages, and modern cities. The scope of this study will include the major prehistoric cultures (Early Man, Desert Cultures, Anasazi, Hohokam, Mogollon, and Sinagua) and the historic cultures (Pueblos, Navajo, Apache, Pima, Papago, Spanish-Mexican, and Anglo-American). Recommended preliminary coursework: ANT 101 and ANT 107. Recommended subsequent coursework: ANT 215, Anthropology Field Studies, and Special Topics in Anthropology.

ANT 215 INDIANS OF NORTH AMERICA 3 CREDITS
This course studies 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 IN ANTHROPOLOGY 1–6 CREDIT
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 anthropological appropriate places. Study of special topic may include that derived from physical anthropology cultural anthropology, archaeology, or other anthropological discipline.

ANT 280 AB SOUTHWEST FIELD EXPLORATION 2 CREDITS
Introduces the social, religious, economic and cultural development of the Anasazi. Major ruins, excavation sites and laboratory facilities in the Four Corners region are explored.
PREREQUISITE(S): College level reading

ANT 285 INDEPENDENT STUDY 1–6 CREDIT
This course allows the student to independently study certain aspects of anthropology. It provides opportunity to investigate an area of interest that developed in an introductory course.

ARABIC

ARA 101 CONVERSATIONAL ARABIC I

3 CREDITS
This is the first course in a sequence for beginning students who wish to understand and communicate in Arabic. The material will include basic vocabulary, grammar, and expressions that are used in daily situations and in travel.

ARCHITECTURAL DRAFTING, CONTRACTS & MATERIALS

ARC 101   INTRODUCTION TO ARCHITECTURAL DRAWING   5 CREDITS
Introduces representations in architectural drafting: projections, sectioning, pictorial drawings, and architectural representations.

ARC 102   RESIDENTIAL ARCHITECTURE   5 CREDITS
Covers residential planning, wood frame construction, elements of working drawings, free hand sketching, building code requirements, detailing, and structural framing.
PREREQUISITE(S): ARC 101 and CAD 102

ARC 107   BLUEPRINT READING RESIDENTIAL/ COMMERCIAL   3 CREDITS
The interpretation and reading of blueprints and related documents as used in the building trades industry and architect's office.

ARC 108   BLUEPRINT READING II (CIVIL)   3 CREDITS
The interpretation and reading of civil blueprints. The branch of Engineering dealing with the design and construction of highways, bridges, tunnels and waterworks.

ARC 116   BUILDING MATERIALS   3 CREDITS
A general introduction to building materials and methods commonly in use today. Includes interior and exterior materials from foundations to roof systems.
PREREQUISITE(S): ARC 107 or 108

ARC 121   BUILDING STRUCTURE ANALYSIS   3 CREDITS
Analysis of structural components for buildings. Study of vertical and horizontal loadings, shear and movement diagrams, wood, laminated wood, and steel beams, wood and steel columns. Student will be able to solve simple structural engineering problems.
PREREQUISITE(S): MAT 116, 117

ARC 125   HISTORY OF ARCHITECTURE   3 CREDITS
A study of architectural styles, structures, architects, engineers and artists from early times to present times. Emphasis is placed upon the influences which determined the architectural characteristics.

ARC 205   COMMERCIAL DRAWING PRACTICE I   4 CREDITS
A study of small commercial and multiple family dwellings. Construction techniques are discussed. Working drawings are prepared through extensive use of references and manufacturers' catalog.
PREREQUISITE(S): ARC 102

ARC 215   ARCHITECTURAL GRAPHICS   3 CREDITS
This course is designed to assist the architectural student in developing techniques of graphic rendering using pencil, ink and color media. Both freehand and mechanical methods are stressed.

ARC 216   ESTIMATING I   3 CREDITS
The student will develop skills in estimating the amount and cost of various types of construction. The student will demonstrate these skills by making estimates of material and labor quantities and costs for representative types of construction. Computer applications will be necessary.
PREREQUISITE(S): ARC 107 or ARC 108 with a C or better

ARC 218   SURVEYING   3 CREDITS
Course includes the fundamentals of plane surveying and the use of surveying instruments. It emphasizes construction-related aspects of surveying and the development of skills in using surveying field information. Surveying problems are studied in coordinated class and laboratory assignments.
PREREQUISITE(S): MAT 116

ARC 226   CONSTRUCTION SCHEDULING   3 CREDITS
Students will discuss various methods of project scheduling. Emphasis will be placed on CPM techniques and strategies.
PREREQUISITE(S): ARC 107, or instructor's permission

ARC 228   CONTRACTS, BONDS & INSURANCE   3 CREDITS
A study of contracts, graphs, diagrams used in management of construction projects. Management control through the use of CPM will be covered, along with a brief introduction to construction management concepts.

ARC 231   BUILDING SERVICE SYSTEMS   3 CREDITS
An elementary study of the mechanical and electrical systems used in buildings to provide comfort and utility within the structure. Introduces the interrelationship of architecture and engineering considerations and functions.
PREREQUISITE(S): ARC 116

ARC 236   CODES/ZONING/ SPECIFICATIONS   3 CREDITS
A study is made of the restrictions, standards and requirements, which in the interest of public safety and welfare, have been established by law to govern the construction of buildings and their materials. Specifications are developed to describe building materials to be furnished and how they are to be installed.

ARC 255   ARCHITECTURAL SEMINAR   1 CREDIT
Selected topics introduced for discussion of advanced architectural students. Topics will include employee expectations, interview techniques, resume preparation, interaction of office personnel, portfolio preparation, and job hunting strategies. Emphasis will be placed upon student interaction, participation and investigation.
PREREQUISITE(S): ARC 205

ARC 275   SPECIAL TOPICS IN ARCHITECTURAL TECHNOLOGY   1–6 CREDIT
These courses provide students with opportunities to study topics of special interest that may lie outside of the standard ARC program. A syllabus will specify the content of each course at the time it is offered.

ARC 285   INDEPENDENT STUDY   1–6 CREDIT
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

ARMY ROTC

ARM 103   ADVENTURES IN LEADERSHIP I   2 CREDITS
Familiarizes the student with the organization and role of the Army, leadership doctrine, land navigation, first aid, communication skills and ethical problem solving. Provides the student with knowledge about what career opportunities are available as an Army Officer in either the active or reserve component. No Army obligation is incurred in taking this course.

ARM 104   ADVENTURES IN LEADERSHIP II   2 CREDITS
Builds on what was learned in ARM 103. Continues the focus on the Army's leadership doctrine, land navigation, first aid and communication skills. This course teaches the student how to function as a member of a team, and introduces small unit military operations. Provides the student with knowledge of what career opportunities are available as an Army Officer in either the active or reserve component. No Army obligation is incurred in taking this course.

ARM 203   ADVENTURES IN LEADERSHIP III   2 CREDITS
Provides a basic foundation in leadership fundamentals as well as the basic military training foundations necessary to enter the US Army Reserve Officer Training Corps (ROTC) Advanced Course. This course familiarizes the student with the organization and role of the Army. In addition it provides a concept of career and training opportunities that are available as an Army Officer in either the active or reserve component to assist the student in deciding to enter the Advanced Course program. No Army obligation is incurred in taking this course.

ARM 204   ADVENTURES IN LEADERSHIP IV   2 CREDITS
This course is a continuation of ARM 203. Provides a basic foundation in leadership fundamentals as well as the basic military training foundations necessary to enter the US Army Reserve Officer Training Corps (ROTC) Advanced Course. This course familiarizes the student with the organization and role of the Army. In addition it provides a concept of career and training opportunities that are available as an Army Officer in either the active or reserve component to assist the student in deciding to enter the Advanced Course program. No Army obligation is incurred in taking this course.

ART

ART 110   ART APPRECIATION
3 CREDITS
This course is an introduction to the visual arts including language, concepts, process and history. This course is one of the Statewide Guaranteed Transfer courses.

ART 111   ART HISTORY I   3 CREDITS
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.

ART 112   ART HISTORY II   3 CREDITS
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.

ART 121   DRAWING I   3 CREDITS
This course is an investigation of various approaches and media designed to develop drawing skills and visual awareness.

ART 122   DRAWING II   3 CREDITS
This course is a study of expression drawing techniques and development of individual expressive style.
PREREQUISITE(S): ART 121

ART 123   WATERCOLOR I   3 CREDITS
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.
PREREQUISITE(S): ART 121, 131, its equivalency, or permission of the instructor.
COREQUISITES(S): None

ART 124   WATERCOLOR II 3 CREDITS
Continues the study of watercolor techniques, emphasizing original compositions and experimentation with materials. Color theory is included.
PREREQUISITE(S): ART 123 or its equivalency
COREQUISITES(S): None

ART 131   DESIGN I   3 CREDITS
This course is a study of basic design elements, visual perception, form and composition.

ART 132   DESIGN II   3 CREDITS
This course covers the application of design elements and principles to both two and three dimensional problems.
PREREQUISITE(S): ART 131

ART 141   JEWELRY AND
METALWORK I   3 CREDITS
This course is an introduction to the construction of jewelry designs in metals and small casting techniques.

ART 142   JEWELRY AND
METALWORK II   3 CREDITS
This course emphasizes conceptual design development, using casting and specialized techniques.
PREREQUISITE(S): ART 141 or equivalent

ART 156   FIGURE DRAWING I
3 CREDITS
This course is an introduction to the basic techniques of drawing the human figure.

ART 161   CERAMICS I   3 CREDITS
This course is an introduction to traditional and contemporary ceramic forms and processes including handbuilding and throwing on the potter's wheel.

ART 162   CERAMICS II   3 CREDITS
This course is a continuation of Ceramics I with an emphasis on skills, techniques and form.
PREREQUISITE(S): ART 161 or equivalent

ART 205   MUSEUM PRACTICUM
3 CREDITS
Introductory course in basic museology involving lectures, field trips, and practical experience. This course examines various aspects of museum professions: art education, curatorial techniques, installation design, and conservation. This course will also train docents in teaching methods for both children and adults.

ART 210   LANDSCAPE PAINTING
3 CREDITS
Focuses on specific landscape concerns in the painting media of your choice.

ART 211   PAINTING I   3 CREDITS
This course covers color, composition, materials and techniques of studio painting.
PREREQUISITE(S): ART 121 or 131

ART 212   PAINTING II   3 CREDITS
This course emphasizes experimentation with materials, composition and color.
PREREQUISITE(S): ART 211

ART 213   PAINTING III   3 CREDITS
Advanced students develop a body of work for exhibition and focused inquiry within the painting medium.
PREREQUISITE(S): ART 211, 212 or instructor's permission

ART 215   MIXED MEDIA   3 CREDITS
Creative painting with watercolor, gouache, acrylic, inks and dry media, combined with resists and collage.

ART 220   LANDSCAPE PAINTING &
DRAWING IN FRANCE
3 CREDITS
Focuses on specific landscape concerns in the painting media of your choice while working on location in southern France.

ART 230   SCULPTING THE FIGURE
1 CREDIT
This is a course for beginning through advanced students in sculpting the human figure using modeling techniques in clay.

ART 241   JEWELRY &
METALWORK III 3 CREDITS
This course focuses upon advanced work and emphasizes experimentation with materials and techniques, individual designs, and superior craftsmanship.
PREREQUISITE(S): ART 142

ART 242   JEWELRY AND
METALWORK IV 3 CREDITS
Provides continued study of the properties of metal and stone in creating decorative work. Students employ advanced design and techniques to explore original, personal expression. A variety of materials and approaches are used in discovering new and independently creative finished pieces.

ART 252   DOCUMENTARY
PHOTOGRAPHY 3 CREDITS
In this course the class will work on a group project of comprehensively documenting a single place through photography.
PREREQUISITE(S): ART 151, 152

ART 256   ADVANCED FIGURE
DRAWING II   3 CREDITS
This course provides continuing study of the various methods of drawing the human figure, with emphasis on the description of form and individual type.
PREREQUISITE(S): ART 156

ART 261   CERAMICS III   3 CREDITS
This course encourages students to develop an individual style of wheel thrown and hand built ceramic forms with continuing involvement in surface treatment.
PREREQUISITE(S): ART 162

ART 277   STUDIO ART   3 CREDITS
Designed for advanced students interested in further exploring an art.

ART 286   INDEPENDENT STUDY
1–6 VARIABLE CREDIT
Provides an opportunity for student to undertake special projects or research in any of the disciplines involving the visual arts, including, but not limited to, gallery or museum administration, art history, graphic design, or other studio work. Instruction is provided by the instructor, and is totally based on the student's independent study agreement.

ASTRONOMY

AST 101   ASTRONOMY I   4 CREDITS
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.

AST 102   ASTRONOMY II   4 CREDITS
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.

**AST 275   TOPICS IN ASTRONOMY
                1–6 CREDITS**
These courses will provide a variety of topics and learning activities for the student. Specific topics are not listed but will be offered as appropriate. Investigation of contemporary research and current events will be encouraged.
PREREQUISITE(S): AST 101 and instructor's permission

**AST 285   INDEPENDENT STUDY
                1–6 CREDITS**
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

AUTOMOTIVE TECHNOLOGY

**ASE 102   INTRODUCTION TO THE
                AUTOMOTIVE SHOP
                2 CREDITS**
Prepares the incoming automotive student to work in the shop safely and gain familiarity with the shop and common equipment.

ASE 110   BRAKES I   3 CREDITS
Covers basic operation of automotive braking systems. Includes operation, diagnosis and basic repair of disc brakes, drum brakes and basic hydraulic systems.
PREREQUISITE(S): ASE 101

**ASE 120   BASIC AUTOMOTIVE
                ELECTRICITY   2–15 CREDIT**
Introduces automotive electricity and includes basic electrical theory, circuit designs, and wiring methods. Focuses on multi-meter usage and wiring diagrams.

**ASE 123   AUTOMOTIVE BATTERY,
                STARTING AND CHARGING
                SYSTEMS   2 CREDITS**
Covers the operation, testing and servicing of automotive battery, starting and charging systems. Includes voltage and amperage testing of starter and generator, load testing and maintenance of a battery, and starter and generator overhaul.
PREREQUISITE(S): ASE 120

**ASE 130   GENERAL ENGINE
                DIAGNOSIS   2 CREDITS**
Focuses on lecture and related laboratory experiences in the diagnosis and necessary corrective actions of automotive engine performance factors.

**ASE 132   IGNITION SYSTEM
                DIAGNOSIS AND REPAIR
                2 CREDITS**
Focuses on lecture and related laboratory experiences in the diagnosis, service, adjustments and repair of various automotive ignition systems.
PREREQUISITE(S): ASE 130

**ASE 134   AUTOMOTIVE EMISSIONS
                2 CREDITS**
Focuses on lecture and laboratory experiences in the diagnosis and repair of automotive emission control systems.
PREREQUISITE(S): ASE 132

**ASE 140   SUSPENSION AND
                STEERING I   3 CREDITS**
Focuses on lecture and laboratory experiences in the diagnosis and repair of automotive emission control systems.
PREREQUISITE(S): ASE 132

**ASE 150   AUTOMOTIVE U-JOINT &
                AXLE SHAFT SERVICE
                2 CREDITS**
Studies the operating principles and repair procedures relating to axle-shaft and universal joints.

**ASE 151   AUTOMOTIVE MANUAL
                TRANSMISSION/
                TRANSAXLES   2 CREDIT**
Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive manual transmissions, transaxles and clutches and related components.

**ASE 152   DIFFERENTIALS &
                4WD/AWD SERVICE
                2 CREDITS**
Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive differentials, four wheel and all wheel drive units.

**ASE 160   AUTOMOTIVE ENGINE
                REMOVAL & INSTALLATION
                1 CREDIT**
Focuses on lecture and laboratory experiences in the removal and installation procedures of the automotive engine from and into front wheel and rear wheel drive vehicles.

**ASE 161   ENGINE, DISASSEMBLY
                DIAGNOSIS & ASSEMBLY
                5 CREDITS**
Focuses on lecture and laboratory experiences in the disassembly, diagnosis and reassembly of the automotive engine. Topics include the diagnostic and repair procedures for the engine block and head assemblies.

**ASE 163   AUTOMOTIVE
                COMPONENT REMOVAL
                AND REPLACEMENT
                3 CREDITS**
Practical methods of removal and installation of engines, transmissions, transfer cases, clutch assemblies, bolt and thread repair.

ASE 210   BRAKES II   3 CREDITS
Covers the operation and theory of the modern automotive braking systems. Includes operation, diagnosis, service and repair of the anti-lock braking systems, power assist units and machine operations of today's automobile.
PREQUISITES(S): ASE 110

**ASE 220   SPECIALIZED ELECTRONICS
                TRAINING   2 CREDITS**
Provides a systematic approach to automotive electrical systems. Builds from the basic electrical principles and concepts through semiconductors and microprocessors. Features on-bench exercises. Students practice diagnostic procedures that have applications to present and future automotive electronics and electrical systems.
PREREQUISITE(S): ASE 120

**ASE 221   AUTOMOTIVE BODY
                ELECTRICAL   4 CREDITS**
Provides a comprehensive study of the theory, operation, diagnosis and repair of vehicle accessories.
PREREQUISITE(S): ASE 120

**ASE 231   AUTOMOTIVE COMPUTERS
                2 CREDITS**
Focuses on lecture and laboratory experiences in the inspection and testing of typical computerized engine control systems.
PREREQUISITE(S): ASE 120, ASE 134, ASE 220

**ASE 233   FUEL INJECTION AND
                EXHAUST SYSTEMS
                4 CREDITS**
Focuses on lecture and related laboratory experiences in the diagnosis and repair of electronic fuel injection systems and modern exhaust systems.
PREREQUISITE(S): ASE 120, ASE 134, ASE 231

**ASE 235   DRIVEABILITY DIAGNOSIS
                1 CREDIT**
Emphasizes lecture and related laboratory experience in diagnostic techniques and the use of diagnostic scan tools, oscilloscopes, lab scopes, multi-meters and gas analyzers. Students diagnose live vehicle driveability problems.
PREREQUISITE(S): ASE 233

**ASE 240   SUSPENSION AND
                STEERING II   3 CREDITS**
Emphasizes lecture and related experiences in the diagnosis and service of electronic suspensions and steering systems and their components.
PREREQUISITE(S): ASE 140

ASE 250 AUTOMATIC TRANSMISSION/TRANSAXLE SERVICE 1 CREDIT

Focuses on practical methods of maintaining, servicing and performing minor adjustments on an automatic transmission and transaxle.

PREREQUISITE(S): Automotive Shop Safety

ASE 251 AUTOMATIC TRANSMISSION/TRANSAXLE DIAGNOSIS AND ASSEMBLIES 5 CREDITS

Covers diagnosis, principles of hydraulics, principles of electronic components, power flow, theory of operation, removal of transmission/transaxle, tear down, replacement of components, measurement and subsequent adjustment of components and replacement of transmission/transaxle.

PREREQUISITE(S): ASE 250

COREQUISITE(S) ASE 250

ASE 265 AUTOMOTIVE HEATING AND AIR CONDITIONING 5 CREDITS

Emphasizes lecture and related laboratory experiences in the diagnosis and service of automotive heating and air conditioning systems and their components.

ASE 276 COOPERATIVE EDUCATION 1–9 CREDITS

Develops practical objectives assigned by an automotive employer providing an on-the-job learning experience at an approved automotive repair facility.

PREREQUISITE(S): 24 credit hours of automotive classes

ASE 277 INDEPENDENT STUDY 1–9 CREDITS

Provides laboratory experiences with a variety of work in the areas in which the student received training during previous automotive classes.

PREREQUISITE(S): None

COREQUISITE(S): Students must be enrolled in automotive courses totaling at least 6 credit hours.

ASE 280 CO-OP/INTERNSHIP: BASIC ELECTRICAL AND ENGINE PERFORMANCE 1 CREDIT

Focuses on practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (F.A.S.T.) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

PREREQUISITE(S): ASE 106 Electrical & Fuel System Shop Safety

ASE 281 CO-OP/INTERNSHIP: BASIC HEAVY DUTY AND POWER TRAIN 1 CREDIT

Focuses on practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (F.A.S.T.) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

PREREQUISITE(S): AUT-160 Chassis & Power Train Shop

ASE 282 CO-OP/INTERNSHIP: GENERAL (SUMMER) 1 CREDIT

Emphasizes practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (F.A.S.T.) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track.

ASE 283 CO-OP/INTERNSHIP: ADVANCED ELECTRICAL & ENGINE PERFORMANCE 1 CREDIT

Emphasizes practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (F.A.S.T.) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track. The student registers for and takes the (ASE) Automotive Service Excellence-based tests for engine performance and electrical systems.

ASE 284 CO-OP/INTERNSHIP: ADVANCED HEAVY DUTY & POWER TRAIN 1 CREDIT

Focuses on practical on-the-job, work-related experience that corresponds to the area of study. In this semester, the student takes all related sponsor requirements in (STS) Service Training Standards (General Motors) or (F.A.S.T.) Fundamental Automotive Systems Training (Chrysler) or others as required by the program track they are enrolled in. The student registesr for and takes the ASE-Automotive Service Excellence-based test for brake systems and suspension and steering.

ASE 285 INDEPENDENT STUDY 1–6 CREDITS

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

PREREQUISITE(S): Permission of the instructor

ASEP COURSES

ASP 190 GM SPECIALIZED ELECTRONICS 4 CREDITS

Course builds from the electrical principles and concepts through automotive semi-conductors to micro-processors. The use of electrical measurement devices and wire repairing, including copper/aluminum and weather pack service techniques is emphasized. On-bench and on-car practical exercises are features of the classroom activities. Students will practice diagnostic procedures having application to present and future automotive electronic systems.

PREREQUISITE(S): AUT 180

ASP 196 GM ELECTRONIC NEW PRODUCT 2 CREDITS

This course is an advanced study in body electrical components. Included are the studies of supplemental inflatable restraint systems and applied automotive electronics. This course is designed to upgrade hands-on diagnostic skills by the use of a DVOM and a lab oscilloscope.

ASP 269 GM ENGINE SERVICE 2 CREDITS

The study of service procedures for major and minor repairs includes actual removal and replacement of a GM engine from a late model GM vehicle.

ASP 271 GM AUTOMATIC TRANSMISSION OVERHAUL 6 CREDITS

An extensive study of the operation and repair of high production late model General Motors Automatic Transmissions.

ASP 285 INDEPENDENT STUDY 1–6 CREDIT

Course designed to meet the individual needs of students.

PREREQUISITE(S): Instructor's permission.

ATEC COURSES

**ATC 261 DRIVESHAFT AND UNIVERSAL JOINT SERVICE
1 CREDIT**
The advanced study of the operating principles and repair procedures relating to driveshafts and universal joints.

**ATC 263 STEERING SUSPENSION ALIGNMENT SERVICE
2 CREDITS**
Familiarizes the student with the operating, repair and alignment characteristics of the modern automobile.
PREREQUISITE(S): AUT 162

ATC 269 ENGINE SERVICE 2 CREDITS
The study of service procedures for major, minor and short block service. Includes removal and replacement of an engine from a late model vehicle.

**ATC 271 AUTOMATIC TRANSMISSION OVERHAUL
5 CREDITS**
An extensive study in automatic transmission overhaul and repair of both conventional and transaxle design.
PREREQUISITE(S): AUT 170 or instructor's permission

**ATC 285 INDEPENDENT STUDY
VARIABLE CREDIT**
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

**AUT 235 MANUAL TRANSAXLE
1 CREDIT**
A study in manual transaxle design and service as it differs from manual transmissions of conventional design.
PREREQUISITE(S): AUT 161, 172, or instructor's permission

**AUT 270 AUTOMATIC TRANSMISSION
PRINCIPLES AND SERVICE
1 CREDIT**
The study of the theory, operation and service procedures of automatic transmissions. Safety procedures and precision measurement will also be included.

AUT 272 STANDARD TRANSMISSIONS AND CLUTCHES 2 CREDITS
A study of the theory and operation of standard transmissions and clutches.

**AUT 274 VIBRATION DIAGNOSIS
1 CREDIT**
Systematic diagnosis, checks and adjustments of the vehicles' components that can contribute to vibration conditions.

**AUT 285 INDEPENDENT STUDY
VARIABLE CREDIT**
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

**AUT 290-293 COOP EDUCATION CAREER TRAINING
3 CREDITS**

**AUT 294-295 COOP EDUCATION CAREER TRAINING
6 CREDITS**

**AUT 296 COOP EDUCATION CAREER TRAINING
9 CREDITS**

**AUT 297 COOP EDUCATION CAREER TRAINING
12 CREDITS**

**AUT 298 COOP EDUCATION CAREER TRAINING
1 CREDIT**
See Cooperative Education Section or detailed description.

BIOLOGY

BIO 100 INTRO TO ANATOMY AND PHYSIOLOGY 1 CREDIT
This five or seven week module is designed for students who are required or wish to take Biology 201, Human Anatomy and Physiology I, and have never taken nor recently been exposed to courses dealing with anatomy and physiology, elementary chemistry (inorganic and organic), the metric system, and cells.

BIO 104 BIOLOGY: A HUMAN APPORACH 3 CREDITS
This course is an introduction to human anatomy and physiology for students who have little or no background in science. It does not substitute for a one year anatomy and physiology course with a lab. Topics covered are atoms, molecules, cells, energetics, genetics and a brief survey of systems.

**BIO 105 SCIENCE OF BIOLOGY
4 CREDITS**
Designed for non-science students. Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Biology as a science–process of gaining new knowledge is explored as is the impact of biological science on society. This course includes laboratory experiences.

This course is one of the Statewide Guaranteed Transfer courses.

**BIO 111 GENERAL COLLEGE BIOLOGY WITH LAB
5 CREDITS**
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.

**BIO 112 GENERAL COLLEGE BIOLOGY II WITH LAB
5 CREDITS**
A continuation of Biology I. Includes ecology, evolution, classification, structure and function in plants and animals. This course includes laboratory experience.
PREREQUISITE(S): BIO 111

This course is one of the Statewide Guaranteed Transfer courses.

**BIO 115 HUMAN GENETICS
3 CREDITS**
This course is a study of the inheritance of human traits. It is a non-mathematical study for the non-science major. Topics include Mendelian, non-Mendelian, sex-linked, blood type traits, inherited diseases and ethics.

**BIO 143 ECOLOGY OF COLORADO
3 CREDITS**
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 201 HUMAN ANATOMY AND PHYSIOLOGY I 4 CREDITS
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.
PREREQUISITE(S): BIO 111 or equivalent, or permission of Dept. chair.

BIO 202 HUMAN ANATOMY AND PHYSIOLOGY II 4 CREDITS
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.
PREREQUISI81TE(S): BIO 201 or equivalent, or permission of Dept. chair.

BIO 208 GENERAL COLLEGE MICROBIOLOGY 5 CREDITS
Designed for biology and health science majors. Surveys microorganisms with an emphasis on their structure, development, physiology, classification, and identification. Includes microbial diversity, functional anatomy, biochemistry, genetics, ecology and disease. Mandatory hands-on laboratory experience covers sterile technique, microscopy, culture procedures and biochemical and genetic analysis.

BIO 220　GENERAL ZOOLOGY
5 CREDITS
Focuses on the study of invertebrate and vertebrate animals and examines structure, evolutionary development, ecology, classification, physiology, reproduction and zoogeography. A survey of zoological diversity emphasizes the characteristics, zoological contributions, and classification of animal phyla and major classes. Requires hands-on laboratory and field experience. Designed for biology majors.
PREREQUISITE(S): BIO 111 or equivalent, or permission of department chair.

BIO 221　BOTANY　5 CREDITS
This course is designed for biology majors. It is a study of nonvascular and vascular plants. It emphasizes photosynthetic pathways, form and function, reproduction, physiology, genetics, diversity, evolution, and ecology. This course requires mandatory hands-on laboratory and field experience.
PREREQUISITE(S): BIO 111 or equivalent, or permission of department chair.

BIO 224　GENETICS　4 CREDITS
Studies the fundamental laws of heredity and their application to living organisms. Covers the basics of genetics. Focuses on the laws of Mendal, linkage, mutation concepts and molecular genetics.
PREREQUISITES(S): BIO 111 or equivalent or permission of Department chair.

BIO 275　TOPICS IN BIOLOGY
1–6 CREDITS
These short courses will provide a variety of topics and learning activities for the student. Although specific topics are not listed in the catalogue, some examples include human sexuality, edible plants, spring wild flowers, identification of birds, identification of trees, human body, biomedicine, sports physiology, nanotechnology, etc. Investigation of contemporary research and current events will be encouraged.

BIO 290-293　COOP EDUCATION
CAREER TRAINING
3 CREDITS

BIO 294-295　COOP EDUCATION
CAREER TRAINING
6 CREDITS
See Cooperative Education section for detailed description.
PREREQUISITE(S): Instructor's permission.

BIO 285　INDEPENDENT STUDY
1–6 CREDIT
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

BUSINESS

BUS 115　INTRO TO BUSINESS
3 CREDITS
Survey of the operation of the American Business System: fundamentals of the economy, careers and opportunities, marketing, management, production, governmental regulations, tools of business and social responsibilities. Guaranteed Business Transfer.

BUS 116　PERSONAL FINANCE
3 CREDITS
Course is designed to cover the major topics of earning and allocating money, saving and borrowing money, getting more for what you spend, safeguarding personal icome and property.

BUS 203　INTRO TO INTERNATIONAL
BUSINESS　3 CREDITS
Course will provide student with an understanding of the interdisciplinary nature of international business. Course will cover the development of international business; theories and methods of international trade; financing mechanism and terms used in export documentation and export finance; the effects of economics, political and cultural environment on international business and trade; impact of geography in business transactions; legal aspects of international business; and developing an effective international marketing strategy.

BUS 216　LEGAL ENVIRONMENT OF
BUSINESS　3 CREDITS
This course emphasizes public law, regulation of business, ethical considerations, and various relationships which exist within society, government and business. Specific attention will be devoted to economic regulation, social regulation, regulation and laws impacting labor-management issues, environmental concerns and an introduction to contracts. Students will develop an understanding of the role of law in social, political and economic change. Guaranteed Business Transfer.

BUS 217　BUSINESS
COMMUNICATION AND
REPORT WRITING
3 CREDITS
The course emphasizes effective business writing: letters, memoranda, reports, application letters and resumes. Also, the course will include the fundamentals of business communication and an introduction to international communication. Guaranteed Business Transfer.

BUS 226　BUSINESS STATISTICS
3 CREDITS
Course is intended for business major and covers statistical study, descriptive statistics, probability and binomial distribution, index numbers, time series, decision theory, confidence intervals, hypothesis testing, testing of two-sample means, chi-square and ANOVA, linear regression, and correlation. Guaranteed Business Transfer.

BUS 241　CULTURAL DIVERSITY IN
BUSINESS　3 CREDITS
The business person's guide to cultural, travel and information resources needs in the international arena. Specifics in negotiation, communications-verbal and non-verbal, networking and understanding what individual countries' needs are in a business culture.

BUS 275　SPECIAL TOPICS IN
BUSINESS
1–6 VARIABLE CREDITS
This course is designed to provide students with a vehicle to pursue special topics of interest in business. The content of this course is designed on an individual needs basis "by arrangement between the instructor and the student." The course may be designed to allow the student to acquire credit for projects in current events. Instructor's approval of material is required.

BUS 285　INDEPENDENT STUDY
1–6 VARIABLE CREDIT
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

BUS 287　COOP EDUCATION/
INTERNSHIP
1–6 VARIABLE CREDITS
See Cooperative Education section for detailed description.

BUSINESS TECHNOLOGIES

BTE 100   COMPUTER KEYBOARDING
1 CREDIT
Designed for students who have minimal or no keyboarding skills. Introduces the touch method of keyboarding, as well as the basic operation and functions of the equipment. Emphasizes learning the alphanumeric keyboard, proper technique, and speed control.

BTE 102   KEYBOARDING
APPLICATIONS I   2 CREDITS
Designed for students with minimal keyboarding skills. Introduces letters, tables, memos and manuscripts. Emphasizes speed and accuracy.
PREREQUISITE(S): Ability to Keyboard 20 wpm or permission of instructor

BTE 103   KEYBOARDING
APPLICATIONS II 3 CREDITS
Reinforces basic keyboarding formats and procedures. Productivity and decision-making skills are exercised. Emphasizes speed and accuracy.
PREREQUISITE(S): BTE 102

BTE 108   TEN KEY BY TOUCH
1 CREDIT
An introduction to touch control of a ten-key pad. The class emphasizes the development of speed and accuracy using proper technique.

BTE 111   KEYBOARDING
SPEEDBUILDING I
2 CREDITS
Designed to increse speed and improve accuracy in keyboarding on the PC through the use of correct techniques and concentrated effort.
PREREQUISITE(S): Ability to keyboard by touch or permission of instructor

BTE 112   KEYBOARDING SPEED
BUILDING II   2 CREDITS
Continues the skill building sets from BTE 111. This course is designed to further increase speed and improve accuracy in keyboarding on the PC through the use of correct techniques and concentrated effort.

BTE 120   ELECTRONIC OFFICE
PROCEDURES   2 CREDITS
Provides instruction in the latest electronic office procedures using business technologies which include: e-mail, FAX, Windows, DOS, presentation graphics, telephone techniques, Internet, electronic calendaring and appointment scheduling

BTE 125   RECORDS MANAGEMENT
3 CREDITS
Instructs on how records are created, stored and retrieved. Covers the basic filing rules—classifying, indexing, coding, storing and retrieving as applied to basic methods—alphabetic, chronological, subject, numeric and geographic. Emphasizes `hands-on` records management through the use of simulations, which includes manual and/or computer software.
PREREQUISITE(S): acceptable keyboarding proficiency

BTE 156   BUSINESS MATHEMATICS
WITH CALCULATORS
4 CREDITS
Covers basic business mathematics using the touch system on electronic calculators to solve business problems.

BTE 166   BUSINESS EDITING SKILLS
3 CREDITS
Provides proofreading techniques and reviews spelling, punctuation, grammar and word processing formats on various types of business documents and worksheets.

BTE 202   OFFICE SIMULATION II
3 CREDITS
Provides the student the opportunity to demonstrate and perfect the computer skills, organizational skills, and communication skills required to secure employment and/or advancement in the workplace.
PREREQUISITE(S): experience with adv word processing, spreadsheets, or permission of instructor

BTE 209   BASICS OF MACHINE
TRANSCRIPTION   1 CREDIT
Provides a working knowledge for transcribing from machine dictation using word processing and proficient levels of punctuation, spelling, and grammar.
PREREQUISITE(S): Keyboarding and word processing skills or instructor's permission

BTE 225   ADMINISTRATIVE OFFICE
MANAGEMENT   3 CREDITS
Presents new developments, technology, procedures, organization and contemporary terminology used in effective office management. Emphasizes decisionmaking and application of administrative skills.

BTE 238   LEGAL OFFICE
PROCEDURES   3 CREDITS
Designed for students who will be working in a legal office either in the private or the public sector. The course covers fundamental office procedures found in both general and specialized law offices.

BTE 275   SPECIAL TOPICS
1–6 CREDIT
Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

BTE 285   INDEPENDENT STUDY
1–6 VARIABLE CREDIT
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

BTE 287   COOP EDUCATION/
INTERNSHIP
1–6 VARIABLE CREDITS
Provides students with the opportunity to supplement course work with practical work experience related to their educational program and occupational objectives. Students are placed at approved work sites that are related to their program of study. They work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor/coordinator.
PREREQUISITE(S): Instructor's permission

CAREER DEVELOPMENT

PSY 110   CAREER DEVELOPMENT
3 CREDITS
This course assists students in recognizing their career potential, and provides tools for making realistic decisions concerning educational and occupational objectives. This course also helps students develop skills needed for job search, employer search and resume development.

ECG 102   EMPLOYMENT SEMINAR
1 CREDIT
This seminar is designed to assist students in developing skills that are needed in searching for and acquiring a job. Topics include job search, employer research, job application, cover letter, resume development and interviewing.

ECG 115   PERSONAL GROWTH AND
CULTURAL AWARENESS
2 CREDITS
Topics include social class structure in terms of its social, economic and cultural roles. Areas to be discussed include monetary system and handling of finances, dating and marriage, laws and violations, personal hygiene, medical services, course load, Immigration and Naturalization Services, insurance and apartment leases. Course also provides English and math testing.

ECG 285   INDEPENDENT STUDY
1–6 VARIABLE CREDIT
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

CARPENTRY

CAR 101   BASIC SAFETY   1 CREDIT
An overview of safety concerns and procedures in the construction field.

**CAR 102   HAND AND POWER TOOLS
                             1 CREDIT**
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.
COREQUISITE(S): CAR 101

**CAR 105   JOB SITE LAYOUT AND
                 BLUEPRINT READING
                             1 CREDIT**
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 CREDIT**
Covers materials and methods for concrete forms and foundations. Includes various reinforcement methods such as re-bar and welded-wire fabric.
COREQUISITE(S): Core framing labs

**CAR 121   FLOOR FRAMING
                             1 CREDIT**
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 CREDIT**
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 123   ROOF FRAMING
                             1 CREDIT**
Describes the various kinds of roofs and focuses on instructions for laying out rafters for gable roofs, hip roofs and valley intersections. Covers both stick-built and truss-built roofs.

**CAR 125   ROOFING MATERIALS
                 METHODS   1 CREDIT**
Covers application techniques and estimation of asphalt and wood roofing products and accessories including gutters and flashing.

**CAR 130   WINDOWS AND EXTERIOR
                 DOORS   1 CREDIT**
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 CREDIT
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 CREDIT
This course 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 145   INTERIOR FINISHES –
                 GENERAL   1 CREDIT**
Presents an overview of interior finishes. Covers installation and finishing of drywall, suspended ceilings, and general painting and other wallcovering.

**CAR 146   INTERIOR FINISHES –
                 DRYWALL CONSTRUCTION
                             1 CREDIT**
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 151   INTERIOR TRIM–
                 DOORS & TRIM   1 CREDIT**
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.
COREQUISITE(S): CAR172 Construction Lab II

**CAR 153   INTERIOR TRIM –
                 CABINET/COUNTERTOPS
                             1 CREDIT**
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 CREDIT**
Covers installation and finishing of hardwood floors, laminate/engineered floors, and tile. Includes discussion on advantages and disadvantages of various choices available.
PREREQUISITE(S): Permission of instructor

**CAR 215   FORM AND FOUNDATION
                 SYSTEMS II   1 CREDIT**
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 221   ADVANCED FLOOR
                 SYSTEMS   2 CREDITS**
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.
PREREQUISITE(S): CAR 121 or permission of instructor
COREQUISITE(S): CAR 170

**CAR 222   ADVANCED WALL SYSTEMS
                             2 CREDITS**
Expands upon those skills and knowledge learned in CAR 122. Covers complex wall framing issues and leadership/foreman responsibilities.
PREREQUISITE(S): CAR 122 or permission of instructor
COREQUISITE(S): CAR 270

**CAR 223   ADVANCED ROOFING
                 SYSTEM   2 CREDITS**
Builds on those skills learned in CAR 123. Offers an opportunity for students to hone skills and apply knowledge to more complex systems of roof framing.
PREREQUISITE(S): CAR 123 or permission of instructor
COREQUISITE(S) Framing Lab CAR 270

**CAR 250   ADVANCED INTERIOR
                 TRIM–GENERAL
                             2 CREDITS**
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.
PREREQUISITE(S):CAR 150

**CAR 251   ADVANCED INTERIOR
                 TRIM–DOORS   2 CREDITS**
Expands upon material covered in CAR 151. 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.
PREREQUISITE(S): CAR 151 or permission of instructor
COREQUISITE(S) CAR 272 Construction Lab II

**CAR 254   ADVANCED INTERIOR
                 TRIM–SPECIAL   2 CREDITS**
Explores the craftsmanship and fine woodworking involved in many fine homes. Includes mantel and various fireplace designs, custom shelves and closets, and custom moulding.
PREREQUISITE(S): CAR 154, or permission of instructor
COREQUISITE(S) CAR 272 construction lab

**CAR 275   SPECIAL TOPIC
                             1–6 CREDITS**
Provides students with a vehicle to pursue in depth exploration of special topics of interest.

CHEMISTRY

CHE 101   INTRO TO CHEMISTRY I
5 CREDITS

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.

PREREQUISITE(S): MAT 060

This course is one of the Statewide Guaranteed Transfer courses.

CHE 102   INTRO TO CHEMISTRY II
5 CREDITS

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.

CHE 111   GENERAL COLLEGE CHEMISTRY I   5 CREDITS

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.

PREREQUISITE(S): 1 year high school chemistry or equivalent

COREQUISITE(S) MAT 121 or instructor's permission

This course is one of the Statewide Guaranteed Transfer courses.

CHE 112   GENERAL COLLEGE CHEMISTRY II   5 CREDITS

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.

PREREQUISITE(S): CHE 111

This course is one of the Statewide Guaranteed Transfer courses.

CHE 211   ORGANIC CHEMISTRY I
5 CREDITS

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.

PREREQUISITE(S): CHE 112

CHE 212   ORGANIC CHEMISTRY II
5 CREDITS

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.

PREREQUISITE(S): CHE 211

CHE 275   SPECIAL TOPICS IN CHEMISTRY
1–6 VARIABLE CREDIT

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

CHE 285   INDEPENDENT STUDY
1–6 VARIABLE CREDIT

Provides the opportunity for the highly-motivated student to engage in intensive study and research on a specified topic under the direction of a faculty member.

PREREQUISITE(S): Instructor's permission

COMPUTER AIDED DESIGN/DRAFTING

CAD 101   COMPUTER AIDED DRAFTING I   3 CREDITS

Provides an introduction to the use of the microcomputer as a drafting tool. Computer literacy, CAD/D technology and the use of one CAD/D system will be emphasized. AutoCAD software is introduced.

PREREQUISITE(S): CIS 103

CAD 102   COMPUTER AIDED DRAFTING II   3 CREDITS

Provides an opportunity for in-depth training using a microcomputer CAD/D system as an automated drafting tool. AutoCAD software will be emphasized.

PREREQUISITE(S): CAD 101

CAD 105   AUTOCAD FOR INTERIORS
4 CREDITS

This course will provide an opportunity for the Interior Design student to obtain the basic skills necessary to operate Computer Aided Design (CAD) software. AutoCAD software will be emphasized.

PREREQUISITE(S): CIS 118; IND 111, 100, 114

CAD 201   COMPUTER AIDED DRAFTING/CUSTOM   3 CREDITS

This course allows the student an opportunity to develop an understanding and skill in the use of the AutoCAD program as used on a micro-based CAD/D system. Students will demonstrate their competency by plotting completed projects

PREREQUISITE(S): CAD 102 or instructor's permission

CAD 202   COMPUTER AIDED DRAFTING/3D   3 CREDITS

This course examines 3-D drawing techniques. Students will develop 3-D drawings and construct 3-D models. Student drawings will be plotted. Mechanical and architectural applications will be emphasized.

PREREQUISITE(S): CAD 102 or instructor's permission

CAD 217   3D STUDIO VIZ   3 CREDITS

Focuses on introductory level basic features of the software using the latest version of 3D Studio VIZ. Includes creation and modification of primitive and complex shapes, Boolean constructions, creation and modification of lights, applying materials to objects, creation and modification of backgrounds, creation and adjustment of cameras, rendering, and animation by keyframing.

PREREQUISITE(S): CAD 202 or 225

CAD 225   ARCHITECTURAL DESKTOP/AUTODESK   3 CREDITS

This course provides students with the software application training in Architectural desktop necessary to produce 3D Architectural drawings utilizing students' 2D drafting skills.

PREREQUISITE(S): CAD 102 or instructor's permission

NOTE: The student MUST have a solid working knowledge of AutoCAD 2000 or AutoCAD 2000i, especially the use of polylines, XREFs and plotting. The instructor will NOT provide remedial instruction on these subjects. A working knowledge of AutoCAD 3D principles and techniques is recommended, but is not required. Additionally, the student MUST have a solid working knowledge of one of the following Microsoft Windows operating systems: Windows 98, Windows NT4.0 or Windows 2000. Among the required skills, the student must know how to create, move, rename and delete files using the Windows Explorer. This is also an area where the instructor will NOT provide remedial instruction.

CAD 231   LAND DESKTOP/AUTODESK
3 CREDITS

Focuses on the basic command structure and applications of civil mapping concepts utilizing a civil software, to include data collection files, symbols libraries, setting attributes, COGO, layer control, surface modules, road calc, and site design. All course work is completed on a CAD system.

PREREQUISITE(S): CAD 102, or permission of instructor

COMPUTER INFORMATION SYSTEMS

CIS 115 INTRO TO COMPUTER INFORMATION SYSTEMS
3 CREDITS

This is an overview of the needs for and roles of computer information systems. Emphasis is on computer requirements in organizations, history, hardware functions, programming, systems development, and computer operations. Hands-on experience with applications and programming will be included.

CIS 118 INTRO TO PC APPLICATIONS **3 CREDITS**

This course introduces computer concepts and components as well as coverage of application suite software and the Internet. Included are descriptions of and hands-on experience with word processors, spreadsheets, databases, presentation graphics, operating environments and other common PC application packages.

PREREQUISITE(S): CIS 103, CIS 115 or familiarty with MS Windows

CIS 124 INTRO TO OPERATING SYSTEMS **3 CREDITS**

Introduces concepts, terminology and hands-on skills in the use of DOS and Windows. Emphasizes navigation, file manipulation, file creation and troubleshooting.

CIS 130 INTRO TO INTERNET
1 CREDIT

Enhances the student's knowledge of the Internet and its resources. Individuals learn terminology in dealing with the Internet. Includes privacy and copyright issues with information retrieved from the Internet. Students experience the use of e-commerce, multimedia and e-mail. Explores searching the Internet and credibility of information obtained with searches.

CIS 135 COMPLETE PC WORDPROCESSING
3 CREDITS

Explores a complete array of word processing skills. The skills needed to create, edit, format and print documents are covered. Other topics include character, paragraph and page formats; the use of spelling checkers and thesaurus, hyphenation, table, mail merge, document design, and graphics.

PREREQUISITE(S): CIS 128

CIS 136 MICROSOFT OFFICE SPECIALIST CERTIFICATION: WORD
1CREDIT

Prepares students for the Microsoft Office Specialist Certification examination for Word. students will use software to determine strenghts and weaknesses and elect to review and prepare for either the Core of expert level certification exam. the actual Microsoft office Specialist certification exam is not included in this course.

PREREQUISITE(S): CIS 135 or instructor permission based on prior experience

CIS 137 MICROSOFT ACCESS LEVEL 2 **5 CREDITS**

This course is designed to give existing Access users additional skills and knowledge on using the many features and functions of this software to make them more efficient and effective when processing data with Access. It gives students experience in producing data with Access. It gives students experience in producing database applications and the ability to create a variety of data views, queries and reports.

PREREQUISITE(S): CIS 134

This course is designed for those students taking classes through ACC's Colorado Center for Professional Development and additional charges may apply. For more information, please contact CCPD at 303-734-3701.

CIS 140 MICROSOFT OUTLOOK
1 CREDIT

This course introduces the functions used in Microsoft Outlook including e-mail messages, calendaring, contacts, tasks, journals and notes.

CIS 145 COMPLETE PC DATABASE
3 CREDITS

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 149 MICROSOFT OFFICE SPECIALIST CERTIFICATION PREP: ACCESS
1 CREDIT

Prepares students for the Microsoft Office Specialist certification examination for Access. Students use software to determine strengths and weaknesses and elect to review and prepare for the Core level Certification exam.

PREREQUISITE(S): CIS 145 or instructor permission based on prior experience

CIS 155 PC SPREADSHEET CONCEPTS: EXCEL
3 CREDITS

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 158 MICROSOFT EXCEL VBA PROGRAMMING **1 CREDIT**

This course is for those students who want to strengthen their Microsoft Excel skills through Visual Basic Applications (VBA). Students will utilize VBA language and delegates to write programs to quickly edit and update spreadsheets.

PREREQUISITE(S): CIS 157

This course is designed for those students taking classes through ACC's Colorado Center for Professional Development and additional charges may apply. For more information, please contact CCPD at 303-734-3701.

CIS 159 MICROSOFT OFFICE SPECIALIST CERTIFICATION
1 CREDIT

Prepares students for the Microsoft Office Specialist certification examination for Excel. Students use software to determine strengths and weaknesses and elect to review and prepare for either the Core or Expert level Certification exam. The MOUS test is not included in this course.

PREREQUISITE(S): CIS 155 or Instructor permission

CIS 161 PRESENTATION GRAPHICS
1 CREDIT

Introduces the development of presentation graphics materials including graphs, charts, illustrations and diagrams. Emphasizes effective communication.

PREREQUISITE(S): CIS 103 or familiarly with MS Windows.

CIS 167 DESKTOP PUBLISHING
3 CREDITS

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.

PREREQUISITE(S): Knowledge of Word Processing

CIS 169 MICROSOFT OFFICE SPECIALIST CERTIFICATION: POWERPOINT **1 CREDIT**

Prepares students for the Microsoft Office Specialist certification examination for PowerPoint. Students use software to determine strengths and weaknesses and elect to review and prepare for the Core level Certification exam.

PREREQUISITE(S): CIS 161 or instructor's permission based on prior experience

CIS 202 AUTOMATED PROJECT MANAGEMENT: MS PROJECT **3 CREDITS**

Provides an in-depth exploration of project management techniques that use software to automate the project management processes. The course emphasizes project management strategies, goal setting and communication with team members, management and vendors. Critical thinking, discussion and real world projects will be used to explore the creation of a task list, resource assignment and leveling.

CIS 218 ADVANCED PC APPLICATIONS **3 CREDITS**

This course covers the advanced capabilities of a microcomputer software applications suite. Emphasis is placed on solving business problems by integrating data from all of the software applications, and creating macros and Visual Basic procedures that facilitate the production of useful information. Printed documents, reports, screen forms, slides and web pages are produced to communicate information.

PREREQUISITE(S): CIS 118 or CIS 136, 145, 155 and CIS 131 or equivalent experience

**CIS 220   FUNDAMENTALS OF UNIX
(LINUX)   3 CREDITS**
Covers the structure and fundamentals of the UNIX operating system. Includes the files system and file processing, various utility programs, and shell, multi-user operation, text processing and communications.

**CIS 221   UNIX SYSTEM
ADMINISTRATION (LINUX)
3 CREDITS**
Introduces the UNIX/Linux operating system and covers the skills required to install, configure and operate a UNIX/Linux system.
PREREQUISITE(S): CIS 220, 232

**CIS 240   DATABASE DESIGN AND
AND DEVELOPMENT
3 CREDITS**
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 245   DATA MODELING &
RELATIONAL DATABASES
3 CREDITS**
Introduces a systematic approach to database development using entity-relationship models and relational database design. Students learn how to interpret and create ER models and first-cut database designs based on business information requirements.
PREREQUISITE(S): CIS 244 or instructor's permission

**CIS 250   AS400 OPERATION/AS400
COMMANDS   3 CREDITS**
This course is an introduction to operation and use of IBM iSeries AS/400 and the OS/400 operating system. This course covers OS/400 architecture, system security, the user interface, work (job) management, message handling, printing functions, device configuration, backup and restore (disaster recovery) strategies, installing and maintaining OS/400 software, applying PTFs (software "fixes"), PC client access administration, and basic problem determination techniques.

**CIS 252   QUERYING A
MICROSOFT SQL SERVER
2000 WITH TRANSACT-SQL
3 CREDITS**
Provides students with the technical skills required to write basic Transact-SQL queries for Microsoft SQL.
PREREQUISITE(S): CIS 251 or instructor's approval
  This course is designed for those students taking classes through ACC's Colorado Center for Professional Development and additional charges may apply. For more information, please contact CCPD at 303-734-3701 or ccpd@arapahoe.edu.

**CIS 253   PROGRAMMING A
MICROSOFT SQL SERVER
DATABASE   3 CREDITS**
Provides students with the technical skills required to program a database solution by using Microsoft SQL Server 2000.
PREREQUISITE(S): equivalent knowledge and experience

**CIS 255   ORACLE DEVELOPMENT
APPLICATION I   3 CREDITS**
Create database structures and store, retrieve and manipulate data in a relational database. A student will learn SQL, which is a set of statements that all users and programmers must use to access data in an Oracle database; use SQL + to manipulate SQL statements and perform additional tasks. Students will have knowledge of SQL that will allow them to create tables, enter and manipulate tables, query data in tables, and format the results of those queries.
PREREQUISITE(S): CIS 240 or instructor permission

**CIS 256   ORACLE APPLICATION
DEVELOPMENT II
4 CREDITS**
This is a continuation of CIS 243. Students will have a strong understanding of Oracle variables, control structures, cursors and exceptions among other programming concepts.
PREREQUISITE(S): CIS 255 or instructor's permission

**CIS 258   AS 400 ADVANCED
OPERATION/ AS400
COMMANDS   4 CREDITS**
This course is an introduction to the operations of the AS/400 midrange computer system. Topics covered are the user interface, displays, online help, object management concepts, CL commands, message handling, security & authorization, work management concepts and controlling jobs on job & output queues.

**CIS 266   TOPICS IN COMPUTING
3 CREDITS**
Explores social, ethical and legal issues related to computer use in business and within an international context. Incorporates some of the philosophical challenges posed by emerging technologies.

**CIS 267   MANAGEMENT OF
INFORMATION SYSTEMS
3 CREDITS**
Introduces the concepts and techniques of managing computer-based information resources. Includes hardware, software, personnel, control techniques, and the placement and integration of information systems resources within the organization.

**CIS 268   SYSTEMS ANALYSIS AND
DESIGN I   3 CREDITS**
Introduces the student to the materials, techniques, procedures and human interrelations involved in developing computer information systems. Topics covered include the systems approach, fact gathering techniques, forms design, input/output, file design, file organization, various charting techniques, system audits on controls, project management, implementation and evaluation.

**CIS 275   SPECIAL TOPICS:
MICROSOFT PUBLISHER
5 CREDITS**
This course teaches students the basic features of Microsoft Publisher. Students will learn to create multiple-page documents, add graphics, and formatting text
PREREQUISITE(S): None

**CIS 275   SPECIAL TOPICS:
PHOTOSHOP LEVEL 1
5 CREDITS**
This course teaches students to use several tools to select parts of images and move, duplicate, and resize images. Students will also learn to use layers and apply layer effects and filter to create special effects.
PREREQUISITE(S): None

**CIS 287   COOP EDUCATION
CAREER TRAINING
3 CREDITS**
This course is designed to provide students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructors will work with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer or work site supervisor. Attendance at seminars and/or interaction with the instructor is required.

COMPUTER NETWORKING

CNG 103 WIDE AREA NETWORKS
3 CREDITS
Provides the student with conceptual and working knowledge of how Local Area Networks communicate over a wide area. Introduces telephony—the technology of switched voice communications. Provides students with an understanding of how communication channels of the public switched telephone networks are used for data communications and how voice data communications have become integrated.
PREREQUISITE(S): CNG 102, or instructor's permission

CNG 104 INTRO TO TCP/IP
3 CREDITS
Outlines four important networking architectures in corporate environments today—TCP/IP, SNA, AppleTalk, and DNA. Focuses on the major components and functions of each of these architectures as well as methods used to connect different architectures. Provides students with concepts that are important to the field of systems integration, as well as a conceptual basis for understanding network architectures.
COREQUISITE(S): CNG 102

CNG 121 COMPUTER TECHNICIAN I
A+ 4 CREDITS
Introduces personal computer hardware to gain the skills and knowledge for a successful entry-level computer service technician. Provides extensive hands-on work with computer systems. Includes PC setup and configuration, floppy and hard drive installation and basic maintenance and troubleshooting. Successful completion prepares the student for the core hardware service technician portion of the CompTIA A+ Certification Exam.

CNG 122 COMPUTER TECHNICIAN II
A+ 3 CREDITS
Focuses on operating systems as well as installation of modems, tape backups, CD-ROM drives, and SCSI subsystems. Covers operating systems, Windows 9x, Windows NT and Windows 2000 installation, configuration and upgrading. Includes laser printers and backup power systems. This course prepares the student for the CompTIA A+ OS Technologies Exam.
PREREQUISITE(S): CNG 121 or Approval of Instructor

CNG 123 SERVER + 3 CREDITS
Provides students who are preparing for roles as network support technicians with skills training in the support of multi-processor computers and high capacity data storage systems typical of servers used in medium to large-scale networks. Prepares students to take the CompTIA Server+ certification exam.
PREREQUISITE(S): None
> This course is designed for those students taking classes through ACC's Colorado Center for Professional Development and additional charges may apply. For more information, please contact CCPD at 303-734-3701.

CNG 124 NETWORKING I:
NETWORK + 3 CREDITS
Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course. Students taking this course may be required to undergo a background check at the student's expense.

CNG 125 NETWORKING II:
NETWORK + 3 CREDITS
Continues to provide students with the knowledge necessary to implement and support a network. Focuses on the vendor-independent networking skills and concepts that affect all aspects of networking. The Networking I and II: Network + courses prepare students for the Network + certification.
PREREQUISITE(S): CNG 124
> Students taking this course may be required to undergo a background check at the student's expense.

CNG 131 NETWORK SECURITY
FUNDAMENTALS 3 CREDITS
This course is designed to meet the increasing needs of individuals and organizations to understand, prepare for, respond to and recover from threats to infrastructures. Students will be provided with a comprehensive awareness of existing and potential security threats, vulnerabilities and defensive methods so critical for today's business and technology professionals. Successful completion of this course will prepare the student for the CompTIA Security + exam.
> Students taking this course may be required to undergo a background check at the student's expense.

CNG 136 GUIDE TO DISASTER
RECOVERY 3 3 CREDITS
Presents methods to identify vulnerabilities and take appropriate countermeasures to prevent and mitigate failure risks for an organization. It will take an enterprise-wide approach to developing disaster recovery plans.

CNG 137 I-NET + 3 CREDITS
i-Net+ provides the student with the skills necessary to pursue a career as an Internet specialist. This course prepares the student to take the CompTIA i-Net+ certification exam.
PREREQUISITE(S): CNG 125
> This course is designed for those students taking classes through ACC@DTC and additional charges may apply. For more information, please contact 303-734-3701.

CNG 211 WINDOWS XP
CONFIGURATION
3 CREDITS
Provides students with the knowledge and skills necessary to address the implementation and desktop support needs of customers who are planning to deploy and support Microsoft Windows XP Professional in a variety of network operating system environments. Prepares student to take the Microsoft Certified Systems Engineer Exam 70-270.
PREREQUISITE(S): CNG 124, 125 or instructor's permission

CNG 212 MANAGE A MS WINDOWS
ENVIRONMENT 4 CREDITS
This course provides students with the knowledge and skills that are required to manage accounts and resources, maintain server resources, monitor server performance, and safeguard data in a Microsoft Windows Server environment. (Exam 70-290)
PREREQUISITE(S): CNG 124, 125

CNG 213 IMPLEMENTING AN MS
WINDOWS 2000 NETWORK
INFRASTRUCTURE
3 CREDITS
This course is for support professionals who are new to Microsoft Windows 2000 and will be responsible for installing, configuring, managing and supporting a network infrastructure that uses the Microsoft Windows 2000 Server products. It also provides students with the prerequisite knowledge and skills required for course CNG 214 Implementing and Administering Windows 2000 Directory Services.

CNG 214 PLAN A MS WINDOWS
SERVER NETWORK
INFRASTRUCTURE
4 CREDITS
Provides students with the knowledge and skills necessary to plan and maintain a Windows Server network infrastructure. Students will learn to plan optimize and troubleshoot a TCP/IP physical and logical network, routing, Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS) Windows Internet Naming Service (WINS) and IPSec network access.
PREREQUISITE(S): CNG 213 or instructor approval

CNG 215 MANAGING A MICROSOFT
WINDOWS NETWORK
ENVIRONMENT 3 CREDITS
Provides the knowledge required to implement, manage and troubleshoot existing network and server environments based on the Microsoft WindowsÆ platform. These skills are generally required in medium to large size organizations that maintain 200 to 26,000 user desktops and servers, spanning 2 to 100 physical locations via Large Area Networks (LANs) and the Internet or Intranets.
PREREQUISITE(S): CNG 216

CNG 216 PLAN A MS WINDOWS
SERVER ACTIVE DIRECTORY
INFRASTRUCTURE
4 CREDITS
This course provides students with the knowledge and skills to successfully plan, implement, and troubleshoot a Microsoft Windows Server Active Directory service infrastructure. The course focuses on a Windows Server directory service environment, including forest and domain structure; Domain Name System (DNS); site topology and replication; organizational unit structure and delegation of administration; Group Policy; and user, group, and computer account strategies. (Exam 70-294)

CNG 221 DESIGN MS WINDOWS ACTIVE DIRECTORY & NETWORK INFRASTRUCTURE 3 CREDITS

Provides students with the knowledge and skills to design an Active Directory service and network infrastructure for a Microsoft Windows Server environment. The course is intended for systems engineers who are responsible for designing directory service and/or network infrastructures.

PREREQUISITE(S): CNG 215 or instructor approval

CNG 222 DESIGNING A WINDOWS SECURE NETWORK 3 CREDITS

Provides students with the knowledge and skills necessary to design a security framework for small, medium and enterprise networks by using Microsoft Windows technologies. Students learn to secure access to Local Network Users, Remote Users and Remote Offices, Partners, and to secure access between private and public networks.

PREREQUISITE(S): CNG 216 or instructor approval

CNG 223 DESIGNING A WINDOWS NETWORK INFRASTRUCTURE 3 CREDITS

Provides students with information and skills needed to create a networking services infrastructure design that supports the required network applications. Each module provides a solution based on the needs of the organization. Covers Windows network solutions that require a single technology, such as DHCP, to provide Internet Protocol (IP) address configurations support. Examines several technology options such as Open Shortest Path First (OSPF), Routing Information Protocol (RIP), and Internet Group Management Protocol (IGMP) to design an IP routing scheme. Prepares student to take the Microsoft Certified Systems Engineer Exam 70-221.

PREREQUISITE(S): CNG 214 or instructor's permission

CNG 224 MICROSOFT WINDOWS WIRELESS NETWORK 3 CREDITS

Provides the student with the Microsoft official curriculum from the Microsoft Regional Academy. Offers detailed instruction on the foundation concepts and technologies of wireless data networking. Upon completion of this course, students are prepared to take the Certified Wireless Network Administrator (CWNP) Certification Exam.

PREREQUISITE(S): CNG 101 or instructor consent

CNG 225 WIRELESS NETWORK SECURITY 3 CREDITS

This course offers detailed instruction on the security issues related to wireless data networking. Topics include vulnerabilities and attacks, hardware and software solutions, prevention and countermeasures, and implementation and management. Upon completion of this course, students should be prepared to take the certified Wireless Security Expert (CWSE) Certification Exam.

PREREQUISITE(S): CNG 224, CWNA Certification, or equivalent documented knowledge and skill level.

Students taking this course may be required to undergo a background check at the students expense.

CNG 226 IMPLEMENTING AND MANAGING MS EXCHANGE 3 CREDITS

Provides the knowledge and skills necessary to install, configure and administer Microsoft Exchange. Students learn to use Exchange in medium to very large computing environments that typically have multiple physical locations, mixed client connection protocols, and Internet messaging connectivity.

PREREQUISITE(S): CNG 214

CNG 227 ADMINISTERING A MICROSOFT SQL SERVER DATABASE 3 CREDITS

Provides students with the knowledge and skills required to install, configure, administer and troubleshoot the client-server database management system of MicrosoftÆ SQL Server.

PREREQUISITE(S): CNG 214

CNG 230 FAST TRACK CCNA 1 & 2 3 CREDITS

Presents the first of two parts of a CCNA certification preparation course for students that already have a solid networking background. It will consist of internetworking, Internet protocols, IP subnetting, introduction to the Cisco IOS, IP routing, EGRIP and OSPF.

CNG 231 FAST TRACK CNNA 3 & 4 3 CREDITS

Presents the second of two parts of the CCNA certification preparation course for students who have completed the CCNA I course. It will consist of VLSM, Layer 2 switching, VLANs, ACLs, PPP, Frame Relay, DDR and ISDN.

CNG 239 DEPLOYING & MANAGING MICROSOFT INTERNET SECURITY AND ACCELERATION SERVER 2000 3 CREDITS

This course provides students with the knowledge and skills to deploy and manage Microsoft Internet Security and Acceleration (ISA) Server 2000 in an enterprise environment. Prepares students to take the Windows 2000 exam #70-227.

PREREQUISITE(S): CNG 215 and CNG 213 or instructor approval

CNG 241 CISCO SECURE PIX FIREWALL ADVANCED 3 CREDITS

This task-oriented course teaches the knowledge and skill needed to describe, configure, verify and manage the PIX Firewall product family and the Cisco IOS Firewall feature set. It prepares students to take the Cisco Information Systems Security (INFOSEC) Professional exam CSPFA 642-521.

PREREQUISITE(S): CURRENT CISOC CCNA CNG 263 and CNG 231 or instructor approval

CNG 242 CISCO SECURE VIRTUAL PRIVATE NETWORKS (CSVPN) 3 CREDITS

This task-oriented course teaches the knowledge and skills needed to describe, configure, verify, and manage the Cisco VPN 3000 Concentrator, Cisco VPN Software Client, and Cisco VPN 3002 Hardware Client feature set. It prepares the student to take the Cisco Inforamtion Systems Security (INFOSEC) Professional Exam CSVPN 642-511.

PREREQUISITE(S): CURRENT CISOC CCNA CNG 263 and CNG 231 or instructor approval

CNG 243 CISCO SECURE INTRUSION DETECTION SYSTEMS (CSIDS) 3 CREDITS

This task-oriented course teaches the knowledge and skills needed to design, install and configure a Cisco Intrusion Protection solution for small, medium and enterprise networks. The course covers CIDS detection platforms including the 4200 series Sensors, and the Catalyst 6000 series Intrusion Detection Module (IDSM). The Cisco IDS Host Sensor is introduced but is not discussed in detail. The Cisco Secure Intrusion Detection Host Sensor (CSIHS) course is recommended for those students seeking in-depth discussions and hands-on lab exercises. The IDS Device Manager and IDS Management center are used to configure and manage Cisco IDS Sensor platforms. The IDS Event Viewer and IDS Security Monitor Center are used to view and respond to IDS alarms. This course prepares the student to take the Cisco Information Systems Security (INFOSEC) Professional Exam CSIDS 9E0-100.

PREREQUISITE(S): CURRENT CISOC CCNA CNG 263 and CNG 231 or instructor approval

CNG 244 SECURING CISCO IOS NETWORK (SECUR) 3 CREDITS

This task-oriented course teaches the knowledge and skills needed to secure Cisco IOS router networks. It prepares the student to take the Cisco Information Systems Security (INFOSEC) Professional Exam SECUR 642-501.

PREREQUISITE(S): CURRENT CISOC CCNA CNG 263 and CNG 231 or instructor approval

CNG 253   FIREWALLS AND HOW THEY WORK   3 CREDITS

Introduces students to the design and implementation of firewalls. Covers such topics as firewalls using CISCO Routers, Microsoft server platform and UNIX platform. Focuses on how firewalls function in these environments and the basic steps to plan and implement firewalls.

PREREQUISITE(S): CNG 261 or instructor consent

Students taking this course may be required to undergo a background check at the student's expense.

CNG 254   DATA ENCRYPTION   3 CREDITS

Exposes the student to data encryption models. Examines the differences between data storage including Microsoft, Novell Netware and UNIX. Includes encryption and data transmission. Covers encryption over various networks including the Internet.

PREREQUISITE(S): CNG 261 or instructor consent

Students taking this course may be required to undergo a background check at the student's expense.

CNG 255   INDUSTRY CERTIFICATION A+   3 CREDITS

Provides the student with a comprehensive preparation for recognized industry certification exams in personal computer and network technology. Features alternative methods for delivery of instruction, including self-paced instruction assisted by technology.

CNG 257   NETWORK DEFENSE AND COUNTER MEASURES   3 CREDITS

Examines the tools, techniques and technologies used in the technical securing of information assets. This course provides in-depth information of the software and hardware components of Information Security and Assurance. Topics include firewall configurations, hardening UNIX and NT servers, Web and distributed systems security and specific implementation of security modes and architectures. The curriculum maps to the Security Certified Network Professional (SCP) Network Defense and Countermeasures exam.

CNG 258   COMPUTER FORENSICS   4 CREDITS

Exposes the student to the field of Computer Forensics and investigation. Provides the student with methods to properly conduct a computer forensics investigation beginning with a discussion of ethics. Topics covered include fundamental concepts, history of computer forensics, file structures, data recovery techniques, computer forensic tools and analysis. The curriculum and objectives map to the International Association of Computer Investigative Specialists (IACIS) certification.

CNG 260   CISCO NETWORK ASSOCIATE I   5 CREDITS

Introduces network fundamentals, the OSI model and industry standards, IP addressing (subnet masks) and basic network design.

PREREQUISITE(S): CNG 101 or instructor permission

CNG 261   CISCO NETWORK ASSOCIATE II   5 CREDITS

Focuses on router theory and technologies, including router configurations, protocols, network management and introductory LAN switching.

PREREQUISITE(S): CNG 260

CNG 262   CISCO NETWORK ASSOCIATE III   5 CREDITS

Focuses on advanced routing and switching configurations, LAN switching, network management and advanced network design.

PREREQUISITE(S): CNG 261

CNG 263   CISCO NETWORK ASSOCIATE IV   5 CREDITS

Focuses on project-based learning, including advanced network design projects and advanced management projects. This course and CNG 260, 261 and 262 prepare students for the CISCO Certified Network Associate (CCNA) certification exam.

PREREQUISITE(S): CNG 262

CNG 265   CISCO NETWORK PROFESSIONAL I 5 CREDITS

Focuses on using Cisco routers connected in LANs and WANs typically found at medium to large network sites. Emphasizes selection and implementation of the appropriate Cisco IOSTM services required to build a scalable, routed network. Includes theories and tasks that network managers and administrators need to use and perform when managing access and controlling overhead traffic in growing, routed networks once connectivity has been established. This course is the first in a series of four semesters pertaining to CCNP Certification.

PREREQUISITE(S): Current Cisco CCNA Certification or Department Approval

CNG 266   CISCO NETWORK PROFESSIONAL II 5 CREDITS

Focuses on using and configuring Cisco routers remotely connected in WANs found in medium to large network sites. Emphasizes how to select WAN topologies, devices, protocols, and implement the appropriate Cisco IOS services required for remotely accessing network resources. Includes selecting WAN components, configuring asynchronous modems, PPP, Frame Relay and ISDN protocols, NAT, X.25; TACACS+ Server, Dial Backup, and Managing Network Performance with Queuing and Compression together with requisite router configurations. This is the second course in a series of four semesters pertaining to CCNP Certification.

PREREQUISITE(S): CNG 265

CNG 267   CISCO NETWORK PROFESSIONAL III   5 CREDITS

Focuses on using and configuring Cisco routers and switches to connect LANs and WANs found at medium to large network sites. Covers the selection and implementation of the appropriate Cisco IOS services required to build scalable, routed, switched and multi-layered switched networks. Includes theories and tasks that network managers and administrators need to perform when managing access and controlling overhead traffic in growing, routed networks once connectivity has been established. This is the third course in a series of four semesters pertaining to CCNP Certification.

PREREQUISITE(S): CNG 226

CNG 268   CISCO NETWORK PROFESSIONAL IV   5 CREDITS

Focuses on methodologies that provide systematic and efficient approaches to troubleshooting and support of networks and network components. Emphasizes troubleshooting tools, software testing products, protocol overviews, TCP/IP features, LAN switching, VLAN broadcasts and security, routing and switching architectures, Frame Relay, ISDN, Novel IPX, AppleTalk, EIGRP, OSPF, and BGP. This is the fourth course in a series of four semesters pertaining to CCNP Certification.

PREREQUISITE(S): CNG 265, CNG 266 and CNG 267

COMPUTER SCIENCE

**CSC 116   LOGIC AND PROGRAM
              DESIGN   3 CREDITS**
Introduces computer program design using concepts of structured programming and logic. Includes pseudo code, flowcharts, and structure charts. Covers variables, data types, control structures, looping, program breaks, and arrays.

**CSC 150   VISUAL BASIC
              PROGRAMMING 3 CREDITS**
This course introduces programming and applications development for the Microsoft Windows Programming environment using Visual Basics for Windows.
PREREQUISITE(S): CSC 116 or equivalent experience or instructor's permission

**CSC 151   ADVANCED VISUAL BASIC
              PROGRAMMING 3 CREDITS**
This course is a continuation of CSC 150. You will develop more involved applications, work with more advanced controls, and deal with more advanced topics.
PREREQUISITE(S): CSC 150 or instructor's permission

**CSC 156   VISUAL BASIC.NET
              PROGRAMMING 4 CREDITS**
Students are introduced to the Visual Basic.NET programming language. All syntactical components of the language are covered, including arrays, structures, functions and classes. Content will focus on writing clear, properly structured, and well-documented programs using Visual Basic.NET and object oriented methodology.
PREREQUISITE(S): Familiarity with Visual Basic 6 or instructor's permission. CSC 116 recommended.

**CSC 157   ADVANCED VISUAL BASIC
              .NET PROGRAMMING
                           4 CREDITS**
This course continues the structured Algorithm Development and problem solving techniques begun in CSC 156. The more advanced features of the Visual Basic. NET programming languages are introduced. This course will explore the relationships between VISUAL BASIC.NET and the .NET framework and introduces some important.NET services. Collections, copying and comparing objects, and how the .NET framework interfaces to XML will be introduced. Content will focus on writing clear, properly structured, and well-documented programs using VISUAL BASIC. NET and object oriented methodology.
PREREQUISITE(S): CSC 156

**CSC 160   COMPUTER SCIENCE I
              (JAVA)   4 CREDITS**
This course will introduce students to the discipline of computer science. Topics covered will include algorithm development, data representation, arithmetic and logical expressions, sub-programs and input/output operations using a structured programming language.
PREREQUISITE(S): CSC 116 and MAT 132 or instructor's permission

**CSC 161   COMPUTER SCIENCE II
              (JAVA OR C++ OR C)
                           4 CREDITS**
This course continues the structured algorithm development and problem solving techniques begun in CSC 160. Data structures will be emphasized. Intensive computer laboratory experience required. 45 hours lecture, 30 hours lab.
PREREQUISITE(S): CSC 160

**CSC 170   LINUX /APACHE / MYSQL /
              PHP(LAMP)   4 CREDITS**
This course introduces the movement of deploying Open Source Software (OSS) into the personal, academic, and business servers and applications arenas. The course provides a structured learning environment with hands-on experience installing, securing and implementing one of the most popular and cost-effective web integration solutions.

**CSC 225   COMPUTER
              ORGANIZATION 4 CREDITS**
This course introduces the student to the organization of a computer at the logic level. Topics covered will include numbering systems, digital logic, digital systems, machine level representation of data, assembly language programming, machine organization and memory system organization. 45 hours lecture, 30 hours lab.

**CSC 230   C LANGUAGE
              PROGRAMMING 3 CREDITS**
Students are introduced to the C programming language, which is a "mid-level" language whose economy of expression and data manipulation features allow a programmer to deal with the computer at a "low level."
PREREQUISITE(S): MAT 160 and any programming language course

**CSC 233   OBJECT-ORIENTED
              PROGRAMMING IN C++
                           4 CREDITS**
Students are introduced to the C++ programming language. All syntactical components of the language are covered, including arrays, structures, pointers, functions and classes. Content will focus on writing clear, properly structured, and well-documented programs using C++ and object oriented methodology.
PREREQUISITE(S): CSC 116 and MAT 132 or instructor's permission

**CSC 234   C++ PROGRAMMING
                           4 CREDITS**
This is an advanced level computer programming course. Although it teaches C++ as a complete language, it presumes knowledge of at least one similar language such as C or Pascal. Prior knowledge of C at an advanced level as well as fundamental concepts of algorithms and data structures is highly recommended.
PREREQUISITE(S): CSC 233 or instructor's permission

**CSC 236   C# PROGRAMMING
                           4 CREDITS**
Students are introduced to the C# programming language. All syntactical components of the language are covered, including arrays, structures, functions and classes. Content will focus on writing clear, properly structured, and well-documented programs using C# and object oriented methodology.
PREREQUISITE(S): Familiarity with the C++ programming language or permission of the instructor.

**CSC 237   ADVANCED C#
              PROGRAMMING 4 CREDITS**
This course continues the structured algorithm development and problem solving techniques begun in CSC 236. Students are introduced to more advanced features of the C# programming language. This course will explore the relationships between C# and the .NET Framework and introduces some important .NET services. Students will learn collections, copying and comparing objects, and how the .NET framework interfaces to XML. Content will focus on writing clear, properly structured, and well documented programs using C# and object oriented methodology.
PREREQUISITE(S): familiarity with the C# Programming Language or instructor's permission

**CSC 238   INTRODUCTION TO
              C++.NET   4 CREDITS**
Students are introduced to the C++.NET programming language. All syntactical components of the language are covered, including arrays, structures, functions, classes, memory management, object manipulation, inheritance, Windows programming and MFC. Content will focus on writing clear, properly structured and well-documented programs using C++.NET and object oriented methodology.

**CSC 240   JAVA PROGRAMMING
                           3 CREDITS**
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.
PREREQUISITE(S): MAT 106 or equivalent experience, or permission of instructor

**CSC 241   ADVANCED
              JAVA PROGRAMMING
                           3 CREDITS**
Continues the study of the Java programming language. Covers advanced programming topics including multi-threading, network/Internet programming, database programming, and JavaBeans. Enables the student to write advanced, large, and complex programs.
PREREQUISITE(S): CSC 240. or permission of instructor

**CSC 249   JAVA FOR THE ENTERPRISE
4 CREDITS**
Presents advanced topics in the development of applications on the Java platform. Emphasizes the use of Java's J2EE distributed processing in the development of server-side programs and develops skills in streaming and multithreading.

**CSC 250   PROGRAMMING WITH
MS ADO.NET   3 CREDITS**
Teaches students to build data-centric applications and Web services with Microsoft ADO.NET, Microsoft SQL Server 2000, and the Microsoft.NET Framework. Includes designing and building data-centric, distributed applications.
PREREQUISITE(S): CSC152, CSC 236 or comparable experience.

**CSC 251   PROGRAMMING IN
VISUAL BASIC.NET
3 CREDITS**
Provides students with the knowledge and skills needed to develop Microsoft .NET-based applications by using Visual Basic .NET. Focuses on Visual Basic .NET (a significant upgrade to Visual Basic) and incorporates new features and framework goals of the .NET architecture. Enables the student to create enterprise applications for the .NET Platform and to create more traditional Visual Basic applications that take advantage of the enhancements to the language.
PREREQUISITE(S):   CSC152 or equivalent knowledge and experience

**CSC 252   MS VISUAL BASIC.NET
APPLICATION
DEVELOPMENT   3 CREDITS**
Provides Visual Basic programmers with the skills required to create Windows Forms applications by using the .NET Framework. Covers major topics for Windows client application programming on the .NET Framework. Includes Windows Forms, GDI+, simple data access, interoperating with unmanaged code, threading and asynchronous programming issues, simple remoting, Web access, XML Web services consumption, debugging, security, and deployment issues for desktop applications.
PREREQUISITE(S): CSC 251 or equivalent knowledge and experience.

**CSC 253   DEVELOPING
MICROSOFT ASP .NETWEB
APPLICATIONS USING
VISUAL STUDIO.NET
3 CREDITS**
Teaches programmers and beginning Web developers the fundamentals of Web application site implementation by using Microsoft ASP.NET platform to create an ASP.NET Web application that delivers dynamic content to a Web site. Prepares student to take the Microsoft Certified Professional Exam 70-305 and Exam 70-315.
PREREQUISITE(S): CSC 251, 261 or instructor's permission

**CSC 254   ASP.NET PROGRAMMING
3 CREDITS**
Teaches programmers the fundamentals of Web application and Web Server site implementation by using Microsoft ASP.NET and Microsoft Visual Basic.NET or C#.NET. Focuses on using the Microsoft Visual Studio.NET environment and the Microsoft.NET platform to create an ASP.NET Web application and Web services that delivers dynamic content to Web applications and Web services.
PREREQUISITE(S): CSC 157 or 237 or experience programming in Microsoft's.NET framework

**CSC 255   ADO.NET PROGRAMMING
4 CREDITS**
This course provides a hands-on approach to learning ADO.NET, the data access model provided by the .NET Framework. The class features an in-depth coverage of ADO.NET but also takes an in-depth look at the ADO.NET architecture. It covers concepts of accessing, modifying, and manipulating data in both Connected and Disconnected database environments.
PREREQUISITE(S): CSC 157 or 236

**CSC 257   BUILDING COM+
APPLICATIONS USING
MICROSOFT.NET
ENTERPRISE SERVICES
3 CREDITS**
This course provides students with the knowledge and skills to effectively build scalable, distributed applications that use Microsoft .NET Enterprise Services and the Microsoft.NET Framework. It prepares the students to take the Microsoft exams #70-310 and #70-320.
PREREQUISITE(S): Experience in MS Visual Basic.NET or MS Visual C# and handling database transactions, or instructor's approval
This course is designed for those students taking classes through ACC's Colorado Center for Professional Development and additional charges may apply. For more information, please contact CCPD at 303-734-3701.

**CSC 258   ANALYZING
REQUIREMENTS AND
DEFINING MICROSOFT.NET
SOLUTION ARCHITECTURE
3 CREDITS**
This course provides students with the knowledge and skills needed to design Microsoft.NET-connected solutions to business problems. It provides training for Microsoft exam #70-300.
PREREQUISITE(S): General understanding of software development life cycle, working knowledge of .NET development technologies, familiarity with Microsoft Solutions Framework (MSF) Process Model, familiarity with object modeling and data modeling methodologies, and experience working with Microsoft Visio ® Professional 2000; or instructor's approval
This course is designed for those students taking classes through ACC's Colorado Center for Professional Development and additional charges may apply. For more information, please contact CCPD at 303-734-3701.

**CSC 261   PROGRAMMING WITH C#
FOR THE .NET PLATFORM
3 CREDITS**
Provides students with the knowledge and skills they need to develop C# applications for the Microsoft.NET Platform. Focuses on C# program structure, language syntax and implementation details.
PREREQUISIT(S): CSC 153 or instructor's permission

**CSC 262   MS C#.NET APPLICATION
DEVELOPMENT   3 CREDITS**
Provides C# programmers with the skills required to create Windows Forms applications by using the .NET Framework. Covers the major topics for Windows client application programming on the .NET Framework. Includes Windows Forms, GDI+, simple data access, interoperating with unmanaged code, threading and asynchronous programming issues, simple remoting, Web access, Web Services consumption, debugging, security, and deployment issues for desktop applications.
PREREQUISITE(S): CSC 261
This course is designed for those students taking classes through ACC's Colorado Center for Professional Development and additional charges may apply. For more information, please contact CCPD at 303-734-3701.

**CSC 263   MS ASP.NET XML WEB
SERVICES DEVELOPMENT
3 CREDITS**
Provides students with the knowledge and skills that are required to develop XML Web services-based solutions to solve common problems in the distributed application domain. Focuses on using Microsoft Visual Studio .NET, Microsoft ASP.NET, and Universal Description, Discovery, and Integration (UDDI) to enable students to build, deploy, locate, and consume Extensible Markup Language (XML) Web services.
PREREQUISITE(S): CSC 262
This course is designed for those students taking classes through ACC's Colorado Center for Professional Development and additional charges may apply. For more information, please contact CCPD at 303-734-3701.

**CSC 269   PROGRAMMING IN PERL
2 CREDITS**
This course introduces the knowledge and skills necessary to be able to write programs in the perl programming language. will offer a brief introduction of writing CGI programs using Perl.
PREREQUISITE(S): previous programming experience

COMPUTER WEB BASED

CWB 106 MASTERING THE WEB
3 CREDITS

Focuses on creating and managing web sites, the tasks and tools involved in building and maintaining a web site, and the web administrator's responsibilities and challenges.

PREREQUISITE(S): XML I

CWB 110 COMPLETE WEB AUTHORING 3 CREDITS

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 164 XML 3 CREDITS

Provides students with an introduction to the XML language structure and syntax. Examines supporting tools such as XSL and CSS. This course is not designed to focus on a particular implementation of XML, but examine the possibilities of using XML with popular technologies such as Java SAX, SOAP, RDF and the DOM.

PREREQUISITE(S): CWB 110 or instructor's permission

CWB 166 ADVANCED XML
3 CREDITS

This course teaches students the advanced features of XML. Students will learn XML standards and applications, advanced XML schemas, XLink, XPointer, XPath Syntax, Parsing XML with DOM and Basic SOAP.

PREREQUISITE(S): CWB 164

This course is designed for those students taking classes through ACC's Colorado Center for Professional Development and additional charges may apply. For more information, please contact CCPD at 303-734-3701.

CWB 205 COMPLETE WEB SCRIPTING
3 CREDITS

Explores the complete set of web scripting skills needed to develop Web Applications. Includes variables, data types, arithmetic operations, logical operations, looping, creating and reading cookies, creating an array, displaying data based on a cookie value, setting flags, working with frames, creating objects in a hidden frame, using the History Object, writing HTML to another window, determining browser and detecting keystrokes.

CWB 209 MASTERING WEB APPLICATION DEVELOPMENT USING MICROSOFT VISUAL INTERDEV 6 3 CREDITS

This course teachers site developers who perform architectural planning, technology selection, or web site programming tasks how to create enterprise-level web sites that use Component Object Model (COM) components on both the client and the server. Prepares student to take the Microsoft Certified Professional Exam 70-152.

PREREQUISITE(S): Students should be familiar with the Internet, HTML and web authoring tools, database development tools, ActiveX controls and Java applets, client/server architecture models, email with mail client, or instructor's permission

CONVERGENT TECHNOLOGIES

CTC 107 INSTALLER 3 CREDITS

Teaches the proper procedures for performing aerial, underground and interior CA TV drop installations.

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 108 BROADBAND CABLE OVERVIEW 1 CREDITS

This course provides technical, sales/marketing, customer service, dispatch and management personnel with general understanding of CATV System equipment operation and terminology.

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 109 INSTALLER TECHNICIAN
4 CREDITS

This course teaches an experienced installer the CATV signal level fundamentals, test equipment, signal leakage detection procedures, and servicing single and multiple dwelling unit drops.

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 111 SERVICE TECHNICIAN
4 CREDITS

This course teaches a trained NCTI Installer Technician the basic characteristics and functions of the feeder line system active and passive devices, the fundamentals of cable powering, basic test equipment operation, signal leakage basics, coaxial cable and connectorization, and an overview of fiber optics. The study of AC electronic theory provides the foundation for understanding the lessons on coaxial cable, passive devices, amplifiers and cable powering.

PREREQUISITE(S): CTC 109

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 113 SYSTEM TECHNICIAN
4 CREDITS

This course teaches a trained NCTI Service Technician how to activate, test and troubleshoot the RF trunk system. It covers RF trunk and distribution amplifier theory of operation. It includes testing and measurement standards, and procedures.

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 116 FIBER OPTICS TECHNICIAN
3 CREDITS

Provides information on fiber optic system overview, applications, rackmount optical transmitters and receivers, forward and return optical node operations and activation, fiber optic design topologies, fiber design cost studies, fiber optic system design, fiber construction, fiber tests and documentation, and optical test equipment.

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 117 COMPUTERS AND BROADBAND MODEMS
3 CREDITS

Introduces Personal Computer hardware and software to use as an interface device. Focuses on the fundamentals of Personal Computers and requires no prior technical background or experience. Explains the operation of cable modems and how they work in a broadband cable network. Covers the client-server functions of CMTS and cable modems. Provides course material that is appropriate as a reference tool to understand more about Personal Computer concepts and terminology. Enables individuals to gain a comprehensive understanding of Personal Computer technology and how the PC works with broadband modems.

COREQUISITE(S): Employment in the Broadband Industry

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 118 BROADBAND DIGITAL INSTALLER 3 CREDITS

Introduces the basics of digital video and high-speed Internet access services by presenting the typical features and functions of digital set-top terminals and cable modems. Covers computer hardware and operating system setup basics. Enables students to learn how to certify the reliability of the drop prior to performing the extensive step-by-step installation procedures. Teaches how to effectively educate customers to use these new digital services reducing unnecessary repeat service calls and improving customer satisfaction. Covers installation procedures for twisted-pair inside wiring and constant bit rate telephony equipment. Incorporates information on communication service competitors to answer customer questions regarding competitive technologies offering similar digital services.

COREQUISITE(S): Employment in the Broadband Industry

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 119   DSL INSTALLATION
3 CREDITS

Introduces the basic operations of the telephone network, DSL technology, today's computer system hardware and software, and the Internet. Describes the procedures of installing twisted-pair inside wiring and connecting the premises to the phone network. Examines techniques on the proper use and maintenance of the tools necessary for installation and examines the step-by-step process of installing internal and external DSL modems. Provides practical techniques for applying customer service skills and instructing new customers how to get the most from their DSL service and the Internet.

COREQUISITE(S): Employment in the Broadband Industry

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 120   UNDERSTANDING VOICE AND DATA NETWORKS
3 CREDITS

Introduces telecommunications technology and terminology and develops a broad knowledge base for a career in the telecom industry. Requires no prior technical background or experience in the field. Enables a student to gain a comprehensive understanding of telecommunications technologies and their applications and implications for business. Combines computer, electrical engineering and business aspects of telecommunications, providing a thorough, up-to-date presentation of the latest technologies as well as practical industry applications.

COREQUISITE(S): Employment in the Broadband Industry

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 121   UNDERSTANDING BROADBAND TECHNOLOGY
3 CREDITS

Provides a thorough grounding in the fundamental concepts of broadband technology. Includes an overview of the underlying technologies of the entire broadband network from signal source to the customer premises. Focuses on a review of digital video, telephony, and high-speed data services. Addresses safety and regulatory issues.

COREQUISITE(S): Employment in the Broadband Industry

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 123   BASIC BROADBAND TROUBLESHOOTING
3 CREDITS

Teaches students to diagnose and resolve technical problems for customers over the phone. Provides a thorough understanding of the drop system, interconnection between devices, and other problems faced by broadband customers. Trains customer service representatives to distinguish problems that can be solved over the phone and not require a technician to be dispatched.

COREQUISITE(S): Employment in the Broadband Industry

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 124   TROUBLESHOOTING ADVANCED SERVICES
3 CREDITS

This course helps make the transition from analog to digital services troubleshooting. This course teaches how digital signals are transported, explains the use of test equipment used to test digital signals in the cable plant and teaches specific techniques for troubleshooting digital video, telephony and cable modem services.

COREQUISITE(S): Employment in the Broadband Industry

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 125   HIGH SPEED DATA CUSTOMER SERVICE
2 CREDITS

Focuses on high-speed data services, equipment, operations and troubleshooting. Covers cable modems, and personal computer hardware 92 and software used in high-speed data services. Provides an understanding of data networking, the Internet and how cable modems interface with it, TCP/IP and the open system interconnection model, cable modem termination systems, and the return paths effect on high speed data service.

COREQUISITE(S): Employment 93 in the Broadband Industry

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 126   ADVANCED HIGH SPEED DATA CUSTOMER SERVICE
3 CREDITS

Covers cable modems, computer systems, and troubleshooting of personal computers. Emphasizes the boot process, 93 software, the system board, memory management, floppy and hard drives, input/output devices, return path fundamentals, and data communications. Explores and compares the technology related to wide area networks and broadband access including packet switching, frame relay, SMDS, ISDN, SONET and ATM.

PREREQUISITE(S): CTC 125 High Speed Data Customer Service

COREQUISITE(S): Employment in the Broadband Industry

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 127   FIBER INSTALLATION AND ACTIVATION   2 CREDITS

Fiber Installation and Activation provides the student with current information on the development of fiber in optical broadband networks. The student will learn the basics of light transmission through optical fibers, how fibers are combined into optical cables and how fiber networks are designed and constructed. Newwork architecture, topology, and design will be covered. Training will also prepare the student to splice fibers using mechanical and fusion methods. The course teaches the topics required to provide the student with the ability to install and activate fiber optic networks. It assumes previous knowledge and experience in RF Broadband Technology.

COREQUISITE(S): Employment in the Broadband Industry

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

CTC 128   TESTING AND MAINTENCANCE FOR FIBER TECHNICIANS   2 CREDITS

Testing and Maintenance for Fiber Technicians provides the student with an understanding of the application of fiber optic theory on the job. The course concentrates on the test equipment and procedures necessary to perform test and turn-up for new Fiber Optic links, troubleshoot service outages, and restoring fiber optic links to their original standards. The course also describes the process of Fiber Optic restoration planning and implementing preventive maintenance regiments in an HFC network.

COREQUISITE(S): Employment in the Broadband industry

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

**CTC 150 DATA COMMUNICATIONS
3 CREDITS**

This course will provide the student with an overview of network systems. The architecture of each network, transmission modes, functions, uses, protocols and advantages of each will be discussed in detail. Synchronous as well as Asynchronous data systems will also be addressed.

**CTC 160 CABLE COMMUNICATIONS
3 CREDITS**

This course will provide the student with an overview of cable communication systems and their attributes. Areas of discussion will include: architecture, satellite applications, coaxial cable attributes, typical systems from tap to TV, and common construction practices. Applicable math skills will also be included.

PREREQUISITE(S): ELT 106, ELT 110 or instructor's permission

**CTC 161 VOICE COMMUNICATIONS
3 CREDITS**

Provides students with an overview of telephone communication systems. Addresses the components and processes used in a public switched network, residence, business and special telephone service, class 5 switching centers, outside telephone plants, video delivery and video conferencing. Covers operation and application of pagers will also be covered.

PREREQUISITE(S): ELT 106, ELT 110 or instructor's permission

**CTC 162 TELECOMMUNICATION
CONSTRUCTION & OSHA
SAFETY 3 CREDITS**

Emphasizes the constant awareness of safety issues. Enables the student to understand safety issues for situations in buildings, in the field, and vehicles.

PREREQUISITE(S): ELT 106, ELT 110 or instructor's permission

**CTC 163 VIDEO TECHNOLOGY
3 CREDITS**

This course will provide the students with an overview of video technology including the principles, colored as well as black and white signal construction, fundamentals of color and color mixing and color signal construction. Wave form analysis will be discussed as well as both interlaced and non-interlaced scanning schemes. Distortion, signal processing, measurements and video data compression will also be covered.

PREREQUISITE(S): ELT 106, ELT 110 or instructor's permission

**CTC 165 ADVANCED TECHNICIAN
3 CREDITS**

This course teaches a trained NCTI System Technician how to set up, operate, and maintain the headend. The study of communication electronics theory provides a foundation for understanding broadcast TV, microwave, satellite, and data communication systems. Essentials for headend equipment setup and maintenance, video baseband and RF FCC proof-of-performance tests, and NCTA Recommended Practices provide the necessary technical knowledge to operate and maintain sophisticated broadband cable system headends. The assumed cable system knowledge/skills for enrolling in the advanced Technician course are those in the NCTI system Technician course.

PREREQUISITE(S): Employment in the Broadband Industry

This course is only available for students who are in a degree and/or certificate program through the partnership between NCTI and ACC. Additional charges may apply to these courses. For additional information please contact Sarah Clark at NCTI at 303-209-1363, or at sarah@NCTI.com. You may also contact Gary Troutman (at ACC) at 303-797-5833 or gary.troutman@arapahoe.edu.

**CTC 166 EMERGING TECHNOLOGIES
2 CREDITS**

This course will provide the student with an opportunity to study concepts and applications of related technologies that are being reviewed and experimented with today. The course will be supplemented with presentations by industry experts. Student presentations or research on projects will address areas of interest in developing technologies. Applications and implications of new discoveries will be discussed.

**CTC 215 OPTICAL NETWORKS
3 CREDITS**

This course is an introduction to optical networks, which is the next great bandwidth provider. It addresses optical networking from a practical point-of-view, making it clear that although optical networks offer enormous bandwidth solutions, they are not the only answers to evolving transport challenges. This course describes and compares alternatives such as ISDN, xDSL, cable modems, and wireless local loop offerings such as LMDS, MMDS< and satellite and copper-based transport schemes, such as T1, T3 SONET and SDH.

PREREQUISITE(S): CTC 161

**CTC 220 REGULATIONS AND
STANDARDS 3 CREDITS**

This course will provide the students with an overview of the regulations and standards that pertain to technicians in the communication industries. Regulated as well as unregulated business operations will be discussed. The function and control of local regulatory agencies will be addressed.

PREREQUISITE(S): CTC 150, 161 215

**CTC 240 TELECOMMUNICATIONS
ENGINEERING OUTSIDE
PLANT 3 CREDITS**

This course covers the components of engineering the telephone outside plant. It covers the fundamentals of transmission, resistance design, and distribution cable design in serving a customer area.

PREREQUISITE(S): CAD 101, CTC 161, CTC 215

**CTC 255 FIELD STUDIES:
ENGINEERING PLANNING
3 CREDITS**

The student will have the basic knowledge to articulate the tactical planning functions performed within capacity provisioning. The student will be able to access and apply the various tactical planning tools and data elements to supporting documentation.

PREREQUISITE(S): CTC 240

**CTC 267 TELECOMMUNICATIONS
INSTALLATIONS, SPLICING
& REPAIR 3 CREDITS**

This course provides students with an understanding in the basic phone installation from pedestal to customer premise equipment (CPE). Troubleshooting and testing skills to maintain the integrity of the phone service are included. Students will also receive instruction in print reading, safety, cable locating, fault location and splicing.

PREREQUISITE(S): CTC 161, 215

CTC 275 SPECIAL TOPICS 3 CREDITS

Provides students with opportunities to study topics of special interest that are not addressed in the standard CTC program. Contact the CTC department chair for additional details.

**CTC 280 COOP EDUCATION CAREER
TRAINING
3 CREDITS**

This course is designed to provide students an opportunity to explore a career. The purpose of the course is to acquaint students with the tasks and working environment of specific occupations. The instructors will work with the student to select an appropriate work site, establish learning objectives, and to coordinate learning activities with the employer or work site supervisor. Attendance at seminars and/or interaction with the instructor is required.

CRIMINAL JUSTICE

**CRJ 101 BASIC POLICE ACADEMY I
8 CREDITS**
The curriculum is designed to conform to POST standards and state certification requirements as well as the basic skills and knowledge necessary to perform the entry-level duties of a Police Officer. Emphasis will be on simulating actual situations utilizing a lecture and laboratory mode of learning.
PREREQUISITE(S): permission of Academy Director

**CRJ 102 BASIC LAW ENFORCEMENT
ACADEMY II   6 CREDITS**
The curriculum is designed to conform to POST standards and state certification requirements as well as the basic skills and knowledge necessary to perform the entry-level duties of a Police Officer. Emphasis will be on simulating actual situations utilizing a lecture and laboratory mode of learning.
PREREQUISITE(S): permission of Academy Director

**CRJ 103 BASIC LAW ENFORCEMENT
ACADEMY III   2 CREDITS**
The curriculum is designed to enhance the standards established by the P.O.S.T. Board and state certification requirements as well as the basic skills and knowledge necessary to perform the entry level duties of a Police Officer. Emphasis will be on expanding the P.O.S.T. curriculum to create a unique learning experience.
PREREQUISITE(S): permission of Academy Director

**CRJ 104 BASIC LAW ENFORCEMENT
ACADEMY IV   1 CREDITS**
The curriculum is designed to enhance the standards established by the P.O.S.T. Board and state certification requirements as well as the basic skills and knowledge necessary to perform the entry-level duties of a Police Officer. Emphasis will be on expanding the P.O.S.T. curriculum to create a unique learning experience.
PREREQUISITE(S): permission of Academy Director

CRJ 105 BASIC LAW   6 CREDITS
The curriculum is designed to conform to P.O.S.T. standards and state certification requirements as well as the basic skills and knowledge necessary to perform the entry-level duties of a Police Officer. Emphasis will be on United States Constitution; arrest; search and seizure; interrogation and confessions; rules of evidence; Colorado Criminal Code; Colorado Children's code; victim's rights, Liquor code and controlled substances.
PREREQUISITE(S): permission of Academy Director

**CRJ 106 ARREST CONTROL
TECHNIQUES   6 CREDITS**
Provides the skills, knowledge and abilities required to deploy defensive tactics and maintain arrest control. Students will demonstrate those skills as outlined and required by the P.O.S.T. "Arrest Control Training Program."

**CRJ 107 LAW ENFORCEMENT
DRIVING   3 CREDITS**
Provides the skills, knowledge and abilities required for operation of a law enforcement vehicle. Defensive driving will be stressed. Students will demonstrate skills by driving a law enforcement vehicle under simulated law enforcement conditions while attending the Law Enforcement Training Academy or the P.O.S.T. required Mini Skills Academy.

CRJ 108 FIREARMS   3 CREDITS
The skills, knowledge and abilities necessary to safely use police firarms will be discussed. Students will demonstrate skills by firing weapons on a firing range. The student will demonstrate basic safety techniques and will explain the firearms role in the continuum of force.

**CRJ 110 INTRODUCTION TO
CRIMINAL JUSTICE
3 CREDITS**
A study of the agencies and processes involved in the criminal justice system-legislature, the police, the prosecutor, the public defender, the courts, and corrections. 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 CREDITS**
Legal definition of crime and defenses; purposes and functions of the substantive criminal law; historical foundations; the limits of the criminal law.

**CRJ 112 PROCEDURAL CRIMINAL
LAW   3 CREDITS**
This course covers constitutional and procedural considerations affecting arrest, search and seizure, and includes analysis of criminal cases from arrest through final appeal.

**CRJ 125 LAW ENFORCEMENT
OPERATIONS   3 CREDITS**
An in-depth examination of the complexity and multidimensional aspects of the police role and career; police discretion; police values and culture in modern America. The role and functions of the police in occupational, social, political and organizational context.

**CRJ 135 JUDICIAL FUNCTION
3 CREDITS**
Examines the criminal court system and criminal process with an analysis of the major judicial decision-makers, i.e., prosecutors, defense attorneys, judges, and the discretionary aspects of adjudication.

**CRJ 145 CORRECTIONAL PROCESS
3 CREDITS**
Post-conviction correction process; the development of a correctional philosophy, theory, and practice; a description of institutional operation, programming, and management; community-based corrections, probation and parole.

**CRJ 210 CONSTITUTIONAL LAW
3 CREDITS**
A study of the powers of government as they are allocated and defined by the United States Constitution; intensive analysis of United States Supreme Court Decisions.

**CRJ 220 HUMAN RELATIONS/
SOCIAL CONFLICTS
3 CREDITS**
Highlights the environmental, organizational and sociopsychological dimensions of social control. Includes the study of individual attitudes, beliefs and behavior involved in role conflicts, community relations and conflict management in a social structure.

CRJ 230 CRIMINOLOGY 3 CREDITS
Examination of the question of crime causation from legal, social, political, psychological, and theoretical perspectives; history and development of criminology.

**CRJ 275 SPECIAL TOPICS
1–6 VARIABLE CREDITS**
Special Topics courses may be offered to provide students with an opportunity to study special areas in the discipline. Course content will be determined by the instructor with a complete syllabus each time the course is offered.

**CRJ 285 INDEPENDENT STUDY
1–6 VARIABLE CREDITS**
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

DRAFTING

DRT 101 TECHNICAL DRAFTING I
3 CREDITS
Introduces the student to basic engineering graphics technology principles through development of basic entry-level drafting skills. Enables the student to develop skills in sketching, reading drafting scales, interpreting line types, lettering techniques, geometric construction, orthographic projection, and drawing reproduction.

DRT 102 TECHNICAL DRAFTING II
3 CREDITS
Introduces students to auxiliary views, pictorials, sections, threads, and fasteners, springs, and intersections and developments.
PREREQUISITE(S): DRT 101, CAD 102, or permission of instructor

DRT 105 BLUEPRINT READING
3 CREDITS
Focuses on interpretation of shop and working drawings. Examines drawing formats, view selection, hardware, dimensioning and tolerancing systems using the ANSI standards and symbols. Addresses interpretation, calculation and placement of tolerances.

DRT 109 DESCRIPTIVE GEOMETRY
3 CREDITS
Enables the student to develop the ability to visualize points, lines, and surfaces in space, to relate them to each other, and to apply these relationships in the solution of drafting assignments.
PREREQUISITE(S): DRT 102 or Instructor's Permission

EARLY CHILDHOOD EDUCATION

Arapahoe Community College does have articulation agreements dealing with early childhood and elementary education teacher preparation. Contact Sandy Minster at 303-797-5784 for information.

ECE 101 INTRO TO EARLY CHILDHOOD EDUCATION
3 CREDITS
This course provides an introduction to Early Childhood Education. Topics include the eight key areas of professional knowledge: Child Growth & Development; Health, Nutrition & Safety; Developmentally Appropriate Practices; Guidance; Family & Community Relationships; diversity; Professionalism; Administration & Supervision. Ages addressed: birth through age 8.

ECE 101 is a pre or corequisite for ECE 102

ECE 102 INTRODUCTION TO EARLY CHILDHOOD LAB TECHNIQUES
3 CREDITS
This course includes a classroom seminar and a 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. Ages addressed: birth through age 8. Background checks required by the Colorado Department of Human Services may be needed.
PREREQUISITE(S): ECE 101 or
COREQUISITE(S) ECE 101

ECE 103 GUIDANCE STRATEGIES FOR CHILDREN
3 CREDITS
Explores guidance theories, applications, goals, techniques and factors that influence expectations, classroom management issues, and prosocial skills. Addresses ages birth through age 8.

ECE 111 INFANT AND TODDLER THEORY AND PRACTICE
3 CREDITS
This course presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. State requirements for licensing, health, safety and nutrition issues are included. Ages addressed: prenatal through age 2.

ECE 112 INTRODUCTION TO INFANT/TODDLER LAB TECHNIQUES
3 CREDITS
This course includes a classroom seminar and a 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. Ages addressed: prenatal through age 2.
PREREQUISITE(S): ECeE111, Health screening, including TB and HiB tests

ECE 125 SCIENCE/MATH AND THE YOUNG CHILD
3 CREDITS
Examines theories of cognitive development as a framework for conceptualizing the way young children acquire scientific and mathematical skills, concepts, and abilities. Enables students to research and develop appropriate individual and group scientific/mathematical activities for young children.

ECE 126 ART AND THE YOUNG CHILD
2 CREDITS
This course prepares students to plan and implement a comprehensive and developmentally appropriate art program for young children. Students will also investigate the development of self-taught art techniques in young children.

ECE 127 MUSIC/MOVEMENT FOR THE YOUNG CHILD
1 CREDITS
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 175 SPECIAL TOPICS
1–6 CREDITS
Explores current topics, issues and activities related to one or more aspects of the early childhood profession.

ECE 178 WORKSHOP **1–6 CREDITS**
Provides students with an experiential learning opportunity.
COREQUISITE(S): Seminar ECE 179

ECE 179 SEMINAR
1–6 CREDITS
Provides students with an opportunity to examine aspects of early childhood education in detail.
COREQUISITE(S): Workshop ECE 178

ECE 185 INDEPENDENT STUDY
1–3 CREDITS
Focuses on structured, guided, and individualized research that is organized and tailored around the interests and needs of the individual student.
PREREQUISITE(S): When appropriate
COREQUISITE(S) When appropriate

ECE 187 COOP EDUCATION
1–12 CREDITS
A college-to-work based experience that draws on combined efforts of educators and employers to produce outcomes related to student career objectives.

ECE 205 NUTRITION, HEALTH AND SAFETY
3 CREDITS
This course focuses on nutrition health and safety as key factors for optimal growth and development of young children. Content includes nutrient knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities and communication with families. Ages addressed: prenatal through age 8.

ECE 220 CURRICULUM DEVELOPMENT: METHODS AND TECHNIQUES
3 CREDITS

This course provides an overview of early childhood curriculum development. The content includes processes for planning and implementing developmentally appropriate environments, materials and experiences, and quality in early childhood programs. Ages addressed: birth through age 8.

ECE 225 LANGUAGE AND COGNITION FOR THE YOUNG CHILD **3 CREDITS**

This course examines theories of cognitive and language development as a framework for conceptualizing the way children acquire thinking skills. The content includes observing, planning, facilitating creative representation and evaluating strategies within the context of play. Content areas are language, science and math, problem solving and logical thinking. Ages addressed: birth through age 8.

ECE 226 CREATIVITY AND THE YOUNG CHILD **3 CREDITS**

This course provides an emphasis on encouraging and supporting creative self expression and problem solving skills in children. The content explores creative learning theories and research. It focuses on developmentally appropriate curriculum strategies in all developmental domains. Ages addressed: birth through age 8.

ECE 228 LANGUAGE AND LITERACY
3 CREDITS

Presents strategies for optimum language development. Supports children's language and literacy (including English language learners) in home, classroom, and community settings. Provides appropriate teacher/child(ren) verbal interactions, classroom environments, and activities. Addresses ages birth through age 8.

ECE 240 ADMINISTRATION OF EARLY CHILDHOOD CARE AND EDUCATION PROGRAMS **3 CREDITS**

This course examines Colorado's minimal licensing requirements, as well as optimal standards pertaining to the operation of programs for young children. Course content focuses on new directors' administrative skills and role as a community advocate for young children.

ECE 241 ADMINISTRATION: HUMAN RELATIONS FOR THE EARLY CHILDHOOD PROFESSIONS **3 CREDITS**

This course focuses on the human relations component of an early childhood professional's responsibilities. Course content includes director-staff relationships, staff development, leadership strategies, parent-professional partnerships and community interaction.

ECE 260 EXCEPTIONAL CHILD
3 CREDITS

This class presents an overview of typical and atypical developmental progression. The content 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. Ages birth through age 8.
PREREQUISITE(S): ECE 226 or PSY 238

ECE 275 SPECIAL TOPICS I
1–6 VARIABLE CREDITS

Seminars on special topics that relate to the area of early childhood education. Topics may be general to be of interest to educators or specific to parents, family child care providers, infant-toddler caregivers, preschool/child care educators, kindergarten and/or primary level educators.

ECE 278 WORKSHOP
1–6 VARIABLE CREDITS

Provides students with an experiential learning opportunity.
COREQUISITE(S) Seminar ECE 279 when appropriate

ECE 279 SEMINAR
1–6 VARIABLE CREDITS

Provides students with an opportunity to examine aspects of early childhood education in detail.
COREQUISITE(S): When appropriate

ECE 285 INDEPENDENT STUDY
1–6 VARIABLE CREDITS

Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

ECE 287 COOP EDUCATION
1–12 CREDITS

A college-to-work based experience that draws on combined efforts of educators and employers to produce outcomes related to student career objectives.

ECONOMICS

ECO 105 INTRO TO ECONOMICS
3 CREDITS

This course is a survey of economics. It is designed as a beginning economics class. The course covers how modern economics evolved, supply and demand, national income accounting, money and banking, market structures and contemporary economic issues.

ECO 201 PRINCIPLES OF MACROECONOMICS
3 CREDITS

Studies the American economy, stressing the interrelationships among the 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.

ECO 202 PRINCIPLES OF MICROECONOMICS
3 CREDITS

Studies the firm indepth, 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.

ECO 205 CONTEMPORARY ECONOMIC ISSUES
3 CREDITS

A one-term course in economics that looks at the major national economics issues of the day. These issues and problems are examined within the context of basic economic analysis. Some current issues to be explored are in employment and inflation, income policy, health care, crime, energy, etc.
PREREQUISITE(S): an economics course or BUS 115 or MAR 216

This course is one of the Statewide Guaranteed Transfer courses.

ECO 245 ENVIRONMENTAL ECONOMICS
3 CREDITS

Introduces students to contemporary environmental issues and policies meant to reduce environmental policies for air, water and natural environments and their effectiveness.

ECO 275 SPECIAL TOPICS
1–6 VARIABLE CREDIT

Special Topics courses may be offered to provide students with an opportunity to study special areas in the discipline. Course content will be determined by the instructor with a complete syllabus each time the course is offered.

ECO 285 INDEPENDENT STUDY
1–6 VARIABLE CREDIT

Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

EDUCATION

Arapahoe Community College has articulation agreements dealing with early childhood and elementary education teacher preparation. Contact Sandy Minster at 303-797-5784 for information.

EDU 131 INTRODUCTION TO ADULT EDUCATION
3 CREDITS

Introduces the student to the basic concepts in the instruction of adults. Emphasis will be placed on the understanding the adult learner and how their individual backgrounds and experiences can affect the learning process. Additionally, the course will cover applicable federal and state legislation which affects learning programs and will offer information on addition resources and associations in the field of Adult Education.

EDU 132 PLANNING, ORGANIZING & DELIVERING ADULT EDUCATION INSTRUCTION
3 CREDITS

This course will cover the basics of planning an adult education program, organizing instruction within the various content areas and delivering the material in a variety of ways, both in groups and individualized instruction. A wide variety of learning principles and theories will be addressed in ways that show their applicability to the adult learner and his/her education.

EDU 133 ADULT BASIC EDUCATION (ABE)/ADULT SECONDARY EDUCATION (ESL)
3 CREDITS

This course will specifically address the different levels within an Adult Education program. Each level will be addressed in terms of appropriate assessment tools and instructional techniques. Emphasis will be placed on teaching ways that the adult education instructor can encourage the development of cognitive skills at each level, as a springboard to the next level.

EDU 134 TEACHING ENGLISH AS A SECOND LANGUAGE TO ADULT LEARNERS
3 CREDITS

In this course, the student will be introduced to the development and implementation of a program to teach English to adults whose first language is not English. Topics will range from assessment and placement to the theories behind language acquisition. Students will also cover a wide variety of methodologies, both group and individualized, that are aimed at teaching the Non-English speaker the written and verbal skills necessary to successfully function in the United States.

EDU 135 FAMILY LITERACY IN ADULT EDUCATION
3 CREDITS

Introduces the students to the philosophy and theory behind family literacy, as well as giving practical advice on the development and implementation of family literacy programs. The four-component model of adult education, early childhood education, parent and child together time (PACT), and parenting will be covered, both in theory and practical application.

EDU 175 SPECIAL TOPICS
1–6 CREDITS

Provides students with a vehicle to pursue indepth exploration of special topics of interest.

PREREQUISITE(S): Permission of instructor

EDU 185 INDEPENDENT STUDY
1–6 CREDITS

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

PREREQUISITE(S): Permission of instructor

EDU 187 COOPERATIVE EDUCATION
1–2 CREDITS

A college-to-work based experience that draws on combined efforts of educators and employers to produce outcomes related to student careerobjectives.

EDU 188 PRACTICUM I
1–6 CREDITS

Provides students with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the education facility and with the direct guidance of the instructor.

EDU 221 INTRO TO EDUCATION
3 CREDITS

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

PREREQUISITE(S): College level reading and writing as demonstrated on college level placement scores

COREQUISITE(S) Field-Experience component, if not embedded in the class

EDU 233 ENGLISH LANGUAGE LEARNING (K–6) 3 CREDITS

Prepares teachers who work with limited English proficient students to learn strategies to develop English language learners (ELLS) social and academic English and supports their transition to US culture and schools. This course is appropriate in a variety of program models: mainstream classrooms, self-contained ESL classrooms, and bilingual programs and may be adapted for use with preservice teachers.

PREREQUISITE(S): A Child Development Course or permission of the instructor

EDU 234 MULTICULTURAL EDUCATION 3 CREDITS

Focuses on the need to recognize and understand the similarities and differences among people and develop a respect for all individuals and groups. Assists teachers to recognize the special learning needs of children from different racial, ethnic, cultural and socioeconomic groups and to encourage teachers to integrate multicultural/diversity teaching into the school curriculum.

EDU 242 EXPRESSIVE ARTS IN THE ELEMENTARY CLASSROOM
3 CREDITS

Explores the integration of visual arts, music, and physical education/movement into the self-contained elementary classroom curriculum based upon the theory of multiple intelligences. Familiarizes the student with the Colorado Model Content Standards for each area, basic curriculum development, and the opportunities to practice their skills with students through field experiences.

EDU 260 ADULT LEARNING AND TEACHING 3 CREDITS

Introduces the basic instructional theory focusing on the adult learner. Includes developing a syllabus, learning goals and outcomes, and lesson plans. Emphasizes teaching to a diverse participant body, classroom management, learning theory, learning styles, teaching styles, and using technology in the classroom.

EDU 261 TEACHING, LEARNING AND TECHNOLOGY 3 CREDITS

Prepares students to integrate technology into their teaching curriculum. Enables the student to design educational and training materials incorporating instructional technology. Explores a variety of technologies, including the computer, Internet, multimedia, graphics, audio, and text with an emphasis on increasing learning through their use. Examines combining technology with a variety of instructional methodologies.

PREREQUISITE(S): EDU 221 or EDU 260

EDU 262 ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT
3 CREDIT

Focuses on assessment as fundamental to the improvement of student academic achievement in the 21st century learning college. Analyzes methods for assessing academic achievement at the classroom, course, program, and institutional level. Defines measurable outcomes, evaluates student academic achievement, and uses the results to improve teaching methods, curriculum design, and outcomes.

PREREQUISITE(S): EDU 221 or EDU 260

EDU 263 TEACHING AND LEARNING ONLINE 3 CREDITS

This online course will provide faculty with the knowledge and skills necessary to design, develop and deliver courses in a distance format. Assessment and evaluation methods and methods to incorporate interactive, collaborative and expanded learning activities will be included.

PREREQUISITE(S): EDU 221 or EDU 260 or permission of instructor

EDU 264 FACULTY MENTORING
3 CREDITS

This course will provide the student with an understanding of and skills in mentoring new teachers/faculty in an academic institution. Students will explore the six dimensions of effective mentoring, mentoring phases, how to establish and build the mentor/mentee relationship, and constructive feedback techniques. Student must designate a potential mentee for practical experience throughout this course.

PREREQUISITE(S): EDU 221 or EDU 260 or Instructor's permission

**EDU 265   INSTRUCTIONAL DESIGN
3 CREDITS**

This course introduces the student to a systematic approach to Instructional Design and to designing instruction with multimedia. Students will incorporate learning and instructional theory into course/training design to ensure the quality of instruction. A process of goal analysis and learning needs coupled with the development of a delivery system to meet those needs will be determined. This course includes the development of instructional materials and activities as well as the evaluation of all instruction and learner activities.

PREREQUISITE(S): EDU 221 or EDU 260 or Instructor's permission

**EDU 275   SPECIAL TOPICS
1–6 VARIABLE CREDITS**

Provides students with a vehicle to pursue indepth exploration of special topics of interest.

**EDU 285   INDEPENDENT STUDY
1–6 VARIABLE CREDITS**

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

PREREQUISITE(S): Instructor's permission

**EDU 287   COOPERATIVE EDUCATION
1–12 VARIABLE CREDITS**

A college-to-work based experience that draws on combined efforts of educators and employers to produce outcomes related to student career objectives

PREREQUISITE(S): Instructor's permission

**EDU 288   PRACTICUM II
1–6 VARIABLE CREDITS**

Provides students with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the education facility and with the direct guidance of the instructor.

PREREQUISITE(S): Instructor's permission

ELECTRONICS ENGINEERING TECHNOLOGY

This program is being discontinued. No new students are being admitted to this program.

**ELT 101   SURVEY OF ELECTRONICS
3 CREDITS**

An introduction to electronics for consumers, individuals working in related fields, and those exploring Electronics Engineering Technology as a career option. The course covers fundamental concepts, circuit diagrams, construction of circuits, test instruments, basic troubleshooting, and the operation of common electronic systems and circuits. 23 hours lecture, 46 hours lab.

PREREQUISITE(S): high school algebra

**ELT 106   FUNDAMENTALS OF DC/AC
3 CREDITS**

An introductory course that provides the basic skills needed for many careers in electronics and related fields. Covered are the operations and applications of basic DC and AC circuits, consisting of resistors, capacitors and inductors. The use of common test instruments in troubleshooting is emphasized. 23 hours lecture, 46 hours lab.

PREREQUISITE(S): Minimum CPT algebra score of 45

COREQUISITE(S) MAT 116

**ELT 109   QUALITY BUSINESS
PRACTICES   1 CREDIT**

This course covers current business practices designed to improve productivity and quality in the workplace. It addresses practices affecting materials and process control as well as personnel-related issues of performance and work teams. 15 hours lecture.

**ELT 112   ADVANCED DC /AC
3 CREDITS**

Continues to build on ELT 106 and covers advanced concepts of DC-AC circuits, including DC network theorems and analysis of AC series-parallel circuits. Includes an expanded treatment of power supplies, dual-supply rectifier circuits, and Zener diode voltage regulators. Emphasizes troubleshooting. 23 hours lecture, 46 hours lab

PREREQUISITE(S): ELG 106

**ELT 113   ADVANCED CIRCUIT
ANALYSIS   4 CREDITS**

Serves as an advanced course in the analysis of passive AC circuits. Emphasizes the use of complex algebra and network analyses. 30 hours lecture, 60 hours lab

PREREQUISITE(S): ELT 112, MAT 117

**ELT 136   INTRODUCTION TO
TRANSISTORS   2 CREDITS**

An introduction to the operation and applications of bipolar transistors, JFETs and MOSFETs. Included are switching circuits, single-stage small-signal amplifiers and troubleshooting. 15 hours lecture, 30 hours lab.

PREREQUISITE(S): ELT 106

**ELT 137   ADVANCED TRANSISTORS
3 CREDITS**

A continuation of ELT 136 with specifications and additional applications of bipolar transistors, JFETs and MOSFETs. Covered are voltage regulation, common-collector and power amplifiers. Also included are analysis of single and cascaded amplifier stages. Troubleshooting is emphasized. 23 hours lecture, 46 hours lab.

PREREQUISITE(S): ELT 136

**ELT 138   POWER CONTROL DEVICES
2 CREDITS**

Covers the specifications and operation of SCRs, triacs, diacs, unijunction transistors, PUTs and solid-state relays. Enables the student to construct and test circuits with power control devices. Troubleshooting is emphasized. 15 hours lecture, 30 hours lab

PREREQUISITE(S): ELT 136

**ELT 139   OPTOELECTRONIC
DEVICES   2 CREDITS**

Focuses on a study of the specifications and operation of the LED, IRED, photoconductive cell, photodiode, phototransistor, optocoupler and vacuum-fluorescent display. Addresses fiber optics and lasers. Enables students to construct and test circuits with optoelectronic devices. Troubleshooting is emphasized. 15 hours lecture, 30 hours lab

PREREQUISITE(S): ELT 136

ELT 147 DIGITAL DEVICES I
3 CREDITS
This course introduces the operation and application of gates, flip-flops, counters, shift registers, encoders-decoders and LED displays. Also covered are binary numbers, Boolean algebra and troubleshooting. 23 hours lecture, 46 hours lab.
PREREQUISITE(S): ELT 112

ELT 148 DIGITAL DEVICES II
3 CREDITS
A continuation of ELT 147. Covered are the operation and application of programmable logic devices, synchronous counters, mulitplexers, liquid crystal displays, ROM and RAM. Included are also specifications of ICs, display multiplexing and design and minimization of circuits. Troubleshooting is emphasized. 23 hours lecture, 46 hours lab.
PREREQUISITE(S): ELT 147

ELT 149 DIGITAL DEVICES: TROUBLESHOOTING
2 CREDITS
After detailed circuit analysis of a digital system that is not microprocessor based, the course focuses on troubleshooting to the component level.
PREREQUISITE(S): ELT 148

ELT 161 ELECTROMECHANICAL TROUBLESHOOTING
1 CREDITS
An introduction to troubleshooting electromechanical systems consisting of switches, relays and motors. Teamwork is emphasized. 8 hours lecture, 16 hours lab.
PREREQUISITE(S): ELT 101 or 106

ELT 163 SOLDERING 1 CREDIT
This course covers the theory and practice of high-reliability hand-soldering in the electronics field. Soldering practice includes wire and terminal soldering as well as PCB soldering of through-hole and surface-mount devices. 8 hours lecture, 16 hours lab.

ELT 215 OPERATIONAL AMPLIFIERS
3 CREDITS
A study of integrated operational amplifiers and their applications. Troubleshooting is emphasized. 23 hours lecture, 46 hours lab.
PREREQUISITE(S): ELT 136

ELT 216 ANALOG INTEGRATED CIRCUITS 2 CREDITS
Introduces the operation and applications of integrated voltage regulators, timers, phase-locked loops, analog-to-digital and digital-to-analog converters. Emphasizes troubleshooting. 15 hours lecture, 30 hours lab.
PREREQUISITE(S): ELT 147, 215

ELT 225 COMMUNICATION ELECTRONICS I 3 CREDITS
Focuses on a basic analog communication course emphasizing the elements of a communication system, radio frequency analysis and characteristics, radio frequency circuits, AM and FM modulation techniques, and AM and FM transmitters and receivers. 23 hours lecture, 46 hours lab
PREREQUISITE(S): ELT 137

ELT 227 FCC LICENSE PREPARATION 1 CREDIT
A review of electronics, to enable students to pass the General Radiotelephone Operator examination for the FCC Commercial Radiotelephone license. Emphasis will be on questions from Elements 1 and 3 provided by the FCC. A General Radiotelephone Operator license is required to adjust, maintain, or internally repair FCC licensed radiotelephone transmitters in the aviation, maritime and international fixed public radio services. 15 hours lecture.
PREREQUISITE(S): ELT 225

ELT 261 MICROPROCESSORS
3 CREDITS
Basic operation and applications of microprocessors. The student will be able to write machine and assembly language programs, interface microprocessors to various devices and troubleshoot microprocessor-based systems. 23 hours lecture, 46 hours lab.
PREREQUISITE(S): ELT 148

ELT 265 MICROCONTROLLERS
2 CREDITS
This course will provide the necessary software and hardware knowledge and skills for the development of microcontroller systems. The student will use programming tools and a development software. 15 hours lecture, 30 hours lab.
PREREQUISITE(S): ELT 261

ELT 267 INTRODUCTION TO ROBOTICS 1 CREDITS
Introduces basic robotics. Enables the student to program a robot in a higher-level language to perform various tasks. Covers building and interfacing of sensor circuits. 8 hours lecture, 16 hours lab
PREREQUISITE(S): ELT 101 or ELT 106

ELT 275 SPECIAL TOPICS
1–6 VARIABLE CREDITS
These courses provide students with opportunities to study topics of special interest that may lie outside the standard ELT program. A syllabus will specify the content of each course at the time it is offered.

ELT 285 INDEPENDENT STUDY
1–6 VARIABLE CREDITS
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

ELT 290-293 COOP EDUCATION CAREER TRAINING
3 CREDITS

ELT 294-295 COOP EDUCATION CAREER TRAINING
6 CREDITS

ELT 296 COOP EDUCATION CAREER TRAINING
9 CREDITS

ELT 297 COOP EDUCATION CAREER TRAINING
12 CREDITS
See Cooperative Education section for detailed description.
PREREQUISITE(S): Instructor's permission

EMERGENCY MEDICAL SCIENCES

CCN 230   BASIC ECG INTERPRETATION
2 CREDITS
Develops the ability of the healthcare provider to read and interpret the electrocardiogram. Requires critical thinking and analytic skills.

EMS 120   EMERGENCY RESPONDER
2 CREDITS
This course will enable the First Responder to take appropriate action and provide care for injuries or sudden illnesses until more advanced medical personnel arrive. First Responder skills include, assessing patients and intervening in cardiorespiratory emergencies, trauma and other illnesses.

EMS 125   EMT BASIC   9 CREDITS
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 by completion of 50% of the class.
COREQUISITE(S): EMS 170

EMS 126   EMT BASIC REFRESHER
3 CREDITS
Provides required didactic and skills review for renewing EMT students. Accomodates the needs of the re-entry EMT student.
PREREQUISITE(S): Current CPR card, Current or less than 36 months expired EMT Basic certification.

EMS 130   IV FOR THE EMT
2 CREDITS
This course provides basic understanding of intravenous therapy principles and administration. Topics include the roles and responsibilities of the EMT, legal issues, shock principles of fluid and blood replacement, 50% Dextrose, IV equipment, IV administration and venipuncture techniques.
PREREQUISITE(S): Current State EMT B Certification

EMS 134   ADVANCED EKG
2 CREDITS
This class will build upon basic EKG interpretation. 12 lead EKG interpretation including the diagnosis of myocardial infarction will be studied.
PREREQUISITE(S): EMS 132 or equivalent

EMS 136   EMT/PARAMEDIC SAFETY ISSUES IN THE FIELD
1 CREDIT
This class will provide the EMT and Paramedic with the skills needed to quickly assess the scene for potential hazards to themselves. Introducing topics on scene safety, evaluation of potential problem patients, verbal communication control techniques, physical control techniques for the problem patient, and specific techniques for scene control.
PREREQUISITE(S): State EMT B Certification or instructor's permission

EMS 150   PEDIATRIC EDUCATION FOR PREHOSPITAL PROFESSIONALS   1 CREDIT
Provides the student with core knowledge and skills necessary to provide emergency care to the pediatric patient.
PREREQUISITE(S): EMT-Basic or approval from Program Coordinator

EMS 170   EMT BASIC CLINICAL
1 CREDIT
Provides the EMT student with the clinical experience required of initial and some renewal students.
COREQUISITE(S): EMS 125 or EMS 126, depending on student status

EMS 203   EMT INTERMEDIATE I
6 CREDITS
Course provides preparatory information and is the first part of the EMT Intermediate program.
PREREQUISITE(S): Valid EMT-Basic, HEP B vac, Current CPR cads, high school grad or GED, CPT 80, Math

EMS 205   EMT INTERMEDIATE II
6 CREDITS
Serves as the second course for EMT Intermediate certification.
COREQUISITE(S): EMT Intermediate I or EMS 203

EMS 213   PREHOSPITAL TRAUMA LIFE SUPPORT   1 CREDITS
Provides basic and/or advanced trauma life support information and skill practice.
PREREQUISITE(S): EMT Basic or higher

EMS 214   BASIC TRAUMA LIFE SUPPORT   1 CREDIT
Provides students with information and skill practice to treat trauma patients in the prehospital environment.
PREREQUISITE(S): EMT Basic or higher

EMS 225   FUNDAMENTALS OF PARAMEDIC PRACTICE
3 CREDITS
Serves as the first course of the National Standard Paramedic Curriculum as approved by the Colorado State Department of Health and Environment.
PREREQUISITE(S): EMT Basic or EMT Intermediate-other requirements vary with site

EMS 226   FUNDAMENTALS OF PARAMEDIC PRACTICE – LAB   2 CREDITS
Serves as the lab experience to coincide with EMS 225 topics.
PREREQUISITE(S): Acceptance in paramedic program-site specific
COREQUISITE(S) EMS 225

EMS 227   PARAMEDIC SPECIAL CONSIDERATIONS
3 CREDITS
Focuses on a comprehensive study of Advanced Life Support Practice.
PREREQUISITE(S): Acceptance into paramedic program-site specific

EMS 228   PARAMEDIC SPECIAL CONSIDERATIONS LAB
2 CREDITS
Serves as the lab experience for those students enrolled in EMS 227.
PREREQUISITE(S): Acceptance to paramedic program-site specific
COREQUISITE(S) EMS 227

EMS 229   PARAMEDIC PHARMACOLOGY
3 CREDITS
Focuses on a comprehensive study of emergency pharmacology.
PREREQUISITE(S): Acceptance in paramedic program-site specific

EMS 230   PARAMEDIC PHARMACOLOGY LAB
2 CREDITS
Serves as the required lab course in the paramedic education program.
PREREQUISITE(S): Acceptance to paramedic program-site specific

EMS 231   PARAMEDIC CARDIOLOGY
5 CREDITS
Addresses cardiology topics as presented in the National Standard Curriculum for paramedics.
PREREQUISITE(S): Acceptance to paramedic program-site specific

EMS 232   PARAMEDIC CARDIOLOGY LAB   1 CREDIT
Incorporates a hands-on application of principles of cardiac care in the hospital environment.
PREREQUISITE(S): Acceptance to paramedic program-site specific

EMS 233   PARAMEDIC MEDICAL EMERGENCIES   4 CREDITS
Focuses on a comprehensive study of adult medical emergencies.
PREREQUISITE(S): Acceptance to paramedic program-site specific

EMS 234   PARAMEDIC MEDICAL EMERGENCIES LAB
1 CREDIT
Focuses on a clinical study of adult and pediatric medical emergencies.
PREREQUISITE(S): Acceptance to paramedic program-site specific

EMS 235   PARAMEDIC TRAUMA EMERGENCIES   4 CREDITS
Focuses on a comprehensive study of adult and pediatric trauma emergencies.
PREREQUISITE(S): Acceptance to paramedic program-site specific

EMS 236   PARAMEDIC TRAUMA EMERGENCIES LAB
1 CREDIT
Serves as a lab presenting various acute trauma scenarios.
PREREQUISITE(S): Acceptance to paramedic program-site specific

EMS 237　PARAMEDIC INTERNSHIP PREPARATORY　2 CREDITS
Reviews concepts and techniques used in the prehospital setting.
PREREQUISITE(S): Acceptance to paramedic program-site specific

EMS 270　CLINICAL: EMS INTERMEDIATE　3 CREDITS
Provides the EMT-I student with the required field experiences as required by the Colorado Department of Health.
PREREQUISITE(S): EMS 203–205
COREQUISITE(S) EMS 205 as needed.

EMS 275　SPECIAL TOPICS 0.5–10 CREDITS
Provides students with a vehicle to pursue in depth exploration of special topics of interest.

EMS 280　PARAMEDIC INTERNSHIP I 6 CREDITS
Serves as the preceptor/internship program for paramedic students.
PREREQUISITE(S): Acceptance to paramedic program-site specific

EMS 281　PARAMEDIC INTERNSHIP II 6 CREDITS
Serves as the continuation of EMS 240, preceptor program for paramedic students.
PREREQUISITE(S): Acceptance to paramedic program site specific

EMS 285　INDEPENDENT STUDY 1–6 VARIABLE CREDIT
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

EMPLOYMENT STRATEGIES

COM 101　EMPLOYMENT STRATEGIES 1 CREDIT
This course is designed to assist students with the development of skills that are needed to search for and acquire a job. Topics include surveying job markets, building resumes, applying for jobs and interviewing for positions.

ENGINEERING

EGG 100　INTRODUCTION TO ENGINEERING　1 CREDIT
This course is for students interested in a career in engineering. The course will introduce the math and science required in a variety of engineering disciplines. The particular engineering disciplines examined are: Civil Engineering, Mechanical Engineering, Electrical Engineering, Industrial Engineering, and Computer Science. For each discipline the course will examine certification requirements, program of study, types of work and tasks in each discipline and compensation ranges. Tours and speakers will be arranged.
PREREQUISITE(S): two years high school algebra

EGG 101　ENGINEERING GRAPHICS I 3 CREDITS
This course is 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.
PREREQUISITE(S): MAT 121, 122 or equivalent

EGG 105　LOGIC DESIGN　4 CREDITS
The design of combinatorial and sequential switching circuits. Topics include Boolean Algebra, Boolean Function Minimization Techniques, Combinatorial Circuit Analysis and Synthesis, Synchronous Sequential Circuit Analysis and Synthesis, Alogorithmic State Machine Design, Asynchronous Sequential Circuit Analysis and Synthesis. Use of computer aided design tools facilitating design, simulation and implementation of digital system using field programmable logic devices is an integral part of the entire course. Laboratory experiments included.
PREREQUISITE(S): MAT 121, 122 or equivalent

EGG 211　ENGINEERING MECHANICS I (STATICS) 3 CREDITS
This course is a vector and calculus treatment of forces and force systems. Concurrent and non-concurrent force systems will be covered. Also included are calculating moments, friction, trusses, centroids and moments of inertia.
PREREQUISITE(S): MAT 201, PHY 211.
COREQUISITE(S) MAT 202

EGG 212　ENGINEERING MECHANICS II (DYNAMICS)　3 CREDITS
This course is a vector and calculus treatment of the dynamics of particles and rigid bodies using Newton's Laws. Topics include work-energy, impulse-momentum, free and forced oscillations.
PREREQUISITE(S): EGG 211, MAT 202, PHY 211

EGG 221　CIRCUIT ANALYSIS I 4 CREDITS
The basic theorems of circuit analysis. Transient solution of circuits by classical techniques. Steady-state sinusodial solutions by means of phasors will be introduced. Basic electrical circuit measurements and experimentation using oscilloscopes, various meters and function generators will be performed in the lab.
PREREQUISITE(S): MAT 202, PHY 212

EGG 222　CIRCUIT ANALYSIS II 4 CREDITS
This course is designed to familiarize students with advanced methods of circuit analysis including computer simulations. Laplace transforms, frequency domain analysis, steady state solutions, two part network, Fourier series, pulses, impulses, and computer-aided analysis will be applied to circuits. Data acquisition, digital-to-analog and analog-to-digital converters will be covered. Laboratory experiments are included.
PREREQUISITE(S): EGG 221

EGG 275　SPECIAL TOPICS 1–6 VARIABLE CREDITS
Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

EGG 285　INDEPENDENT STUDY 1–6 VARIABLE CREDITS
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.
PREREQUISITE(S): Instructor's permission

ENGLISH

All of the degree programs at ACC require students to successfully complete English composition courses; different programs require different courses. Before students enroll in composition courses, the students must demonstrate their writing competencies by means of a placement test. The test will be validated by an impromptu writing sample during the first week of class. Test results normally dictate where students will start in their writing programs. The faculty believe that students succeed more consistently in all their courses when they develop college-level competencies in reading and writing.

English 121-122 is the traditional college-level freshman composition program. The courses are sequential and acceptable for college transfer. All AA and AS students must complete this sequence; however, those students who demonstrate deficiencies in their writing competencies will be required to begin their writing programs in the Developmental Studies sequence: ENG 060 and/or ENG 090.

English 131 and 132 are college-level courses designed especially for students interested in occupational or technical fields. Many occupational programs require English 131; however, some students may need English 090 before enrolling in English 131. English 132, a college-transfer course, was designed for students who need an advanced technical writing class.

LITERATURE courses (listed separately) provide continued opportunities for refinement of reading, writing, and critical-thinking skills. See also JOURNALISM, MASS COMMUNICATIONS, FILM AND VIDEO.

ENG 001   LANGUAGE TUTORIAL
1 CREDIT

The content of the course will be determined for each individual student following diagnostic testing. The student and the instructor will agree to a learning contract which will specify content, activities, systems of evaluation and credit assigned for the work to be completed. Students may be referred by instructors in all divisions of the College for specific remedial work in any of the language skill areas, i.e., reading, basic English, speech, listening or writing skills.

ENG 060   LANGUAGE
FUNDAMENTALS 3 CREDITS

This course will focus on paragraph structure and development and will introduce the formal essay. Students will 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.

PREREQUISITE(S): CPT sentence skills score 50–69.

COREQUISITE(S) concurrent enrollment in REA 060/090 strongly recommended

ENG 090   BASIC COMPOSITION
3 CREDITS

This course will emphasize critical thinking as students explore writing for specific purposes and audiences. Students will develop skills required for college-level writing while reviewing paragraph structure and focusing on essay development.

PREREQUISITE(S): ENG 060 or CPT sentence skills score 70-94

COREQUISITE(S) concurrent enrollment in REA 090 strongly recommended

ENG 121   ENGLISH COMPOSITION I
3 CREDITS

Emphasizes the planning, writing, and revising of compositions, including the development of critical and logical thinking skills. Includes a minimum of five compositions that stress analytical, evaluative, and persuasive/argumentative writing.

PREREQUISITE(S): ENG 090 with a grade of C or better or CPT sentence skills score of 95+ and reading score of 80+

This course is one of the Statewide Guaranteed Transfer courses.

ENG 122   ENGLISH COMPOSITION II
3 CREDITS

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.

PREREQUISITE(S): ENG 121 with a grade of C or better

This course is one of the Statewide Guaranteed Transfer courses.

ENG 131   TECHNICAL WRITING I
3 CREDITS

This course develops skills one can apply to a variety of technical documents. Students learn principles for organizing, writing and revising clear, readable documents for industry, business and government. Introduces research strategies.

PREREQUISITE(S): ENG 090 with a grade of C or better or CPT sentence skills score of 95+ and reading score of 80+

ENG 132   TECHNICAL WRITING II
3 CREDITS

This course expands and refines the objectives of ENG 131, emphasizing formal presentations, both written and oral.

PREREQUISITE(S): ENG 131 or instructor's permission or AP score of 3 or higher on the AP Language and Composition exam

ENG 221   CREATIVE WRITING I
3 CREDITS

This course teaches techniques for creative writing. Students explore imaginative uses of language through writing short stories, drama, poetry, and/or literary nonfiction.

PREREQUISITE(S): ENG 121 or instructor's permission

ENG 222   CREATIVE WRITING II
3 CREDITS

This course continues development of written expression in such forms as poetry, fiction, and/or nonfiction writing.

PREREQUISITE(S): ENG 221 or instructor's permission

ENG 226   FICTION WRITING
3 CREDITS

This course teaches techniques for creating fiction, including study and appreciation of the language and forms of the short story.

PREREQUISITE(S): ENG 221 or permission of instructor.

ENG 227   POETRY WRITING
3 CREDITS

Teaches techniques for creating poems, including study of figurative language, forms and sound patterns of poetry.

ENG 230   CREATIVE NONFICTION
3 CREDITS

Teaches students to incorporate literary techniques into factual writing. Enables the student to survey a wide range of readings and analyze form and content. Includes critical review, biographical profiles, travel writing, and memoirs. Provides the opportunity for students to write and review their own nonfiction in a supportive, constructive setting.

ENG 235   RHETORIC AND
PROPAGANDA   3 CREDITS

This course examines in some depth classical and modern theories of rhetoric, understood as effective, ethical means of persuasion, then seeks to examine the ways in which propaganda departs from these means. Students will apply theories of rhetoric and propaganda to examples of presidential rhetoric, Nazi and Soviet propaganda, and other examples of persuasive writing. The course will include the study of visual rhetoric; students will construct criteria for identifying visual propaganda, and will study the complex relationship, historically and in the present, between propaganda, democracy, advertising and mass media.

ENG 275   SPECIAL TOPICS: RHETORIC

1–6 VARIABLE CREDIT

Explores special topics in rhetoric, such as applied rhetoric, styles, ethics, advanced composition, advanced argument, and expository techniques.

ENG 285   INDEPENDENT STUDY
1–6 VARIABLE CREDITS

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

ENGLISH AS A SECOND LANGUAGE

ESL 022   INTERMEDIATE GRAMMAR
3 CREDITS
This course will review beginning grammar structures and introduce intermediate structures. It will provide practice of structures through a variety of oral and written exercises.

ESL 043   ADVANCED READING
3 CREDITS
This course is for the international student who is enrolled in full-time academic study or the immigrant who wishes to pursue a college degree. It emphasizes reading and note taking skills to prepare students for academic reading assignments. Oral, listening, writing and study skills are also practiced.
PREREQUISITE(S): Michigan placement test score of 74 or below

ESL 053   ADVANCED COMPOSITION
3–4 CREDITS
Reviews paragraph organization and develops the skill of writing essays using selected rhetorical modes. Emphasizes accurate use of advanced grammatical structures. Includes summarizing, paraphrasing, and research writing.
PREREQUISITE(S): ESL 043 or appropriate placement score.

ESL 275   SPECIAL TOPICS
1–6 VARIABLE CREDITS
Provides students with a vehicle to pursue in depth exploration of special topics of interest.

ESL 285   INDEPENDENT STUDY
1–6 VARIABLE CREDITS
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.
PREREQUISITE(S): Instructor's permission

FILM AND VIDEO TECHNOLOGY

FVT 250   SCRIPTWRITING FOR FILM AND VIDEO   **3 CREDITS**
Develops screen writing skills, focusing on the basic format of the craft, scene construction, genre conventions, three act structure, characterization and idea generation. Students complete a 30-minute script suitable for shooting.

FINANCE

FIN 101   INTRO TO FINANCE
3 CREDITS
This course provides an in-depth study of the monetary system of the United States, the role of banks as financial intermediaries, and the types of financing available in our monetary system. Other topics include: international financial markets and international financial instruments used in exporting and importing, analysis of stock and bond values, the role and process of the stock and bond market and the derivative marketplace. The student also learns how to produce a cash budget, analyze financial statements including all financial ratios used in credit analysis and how to determine capital requirements and financing arrangements.

FIN 105   PRINCIPLES OF BANKING
2–3 VARIABLE CREDITS
As a solid foundation for any career in the financial services industry, Principles of Banking explores nearly every aspect of banking. Just as the industry is constantly changing, this course is continually being revised to provide specific up-to-date information. This course may be taught as a 2 Credit Accelerated Course.

FIN 110   INTRO TO CREDIT UNIONS
2 CREDITS
This course is an introduction to the credit union movement. It includes an explanation of the nature of credit unions, their history and a review of affiliated organizations. The legal basis for the operation of a credit union as well as the powers and characteristics of credit unions will be discussed. Roles and functions of credit union management and volunteers will be examined. Bonding, insurance, and the developing credit union financial system will be discussed.

FIN 113   CREDIT UNION ACCOUNTING PROBLEMS
2 CREDITS
Explains terms and procedures basic to accounting and unique to credit unions. Topics covered in this course include concepts of credit union accounting, general records and the general ledger, reserves and undivided earnings, the statement of financial condition, the balancing of other subsidiaries, closing the books, various accounting situations, and the credit union cycle.

FIN 125   TELLER TRAINING
1 CREDIT
This course is designed to prepare students to be a teller at any financial institution. The student will learn: how to deposit accounting works, the handling of cash, balancing a cash drawer, recording debits and credits, handling of commercial accounts, reviewing bank policy on large deposits, and placing holds on large deposits. The student will also learn customer service, how to handle problem customers, developing relationships with customers, and cross-selling other bank services.

FIN 131   RESIDENTIAL MORTGAGE LENDING   **2 CREDITS**
Lending institution employees working in all areas of residential lending business should have a thorough knowledge of all aspects of making a residential mortgage loan. The text covers the adjustable rate mortgage, alternative mortgage instruments and government related loan programs. In addition, a brief overview of appraising and the secondary mortgage market are covered as well.

FIN 132   RESIDENTIAL MORTGAGE LOAN ORIGINATION   **1 CREDIT**
Introduces the basic procedures of Residential Mortgage Loan Origination for Conventional, Conforming/ Non-Conforming government loans. Enables the student to determine the acceptability of a loan for underwriting and evaluate the market conditions that affect the loan process.

FIN 133   RESIDENTIAL MORTGAGE PROCESSING   **1 CREDIT**
Introduces the basic guidelines and functions of Residential Mortgage Processing. Incorporates analysis of documentation required to assess and process Conventional and Government loans to be sold in the secondary market or held by a public or private financial institution in its own portfolio.

FIN 137   FHA FOR LAON OFFICERS
1 CREDIT
Presents the proper use of FHA loans, discusses FHA terminology and the descriptions of the Act that apply. The student learns how to calculate maximum loan limits and MIP funds, allowable closing costs, what type of loan is best for a buyer, Energy Efficient Mortgage program guidelines and acceptable credit sources. All forms of refinancing are discussed, plus all supporting documentation.

FIN 138   FHA FOR LOAN PROCESSORS   **1 CREDIT**
Presents the student with the proper use of FHA loans for loan officers and FHA terminology. Students learn qualifying guidelines, the credit alert system, acceptable credit documentation and alternative documentation sources. Student will be able to complete the Mortgage Credit Analysis Worksheet, calculate loan limits and MIP refunds and be able to work with FHA Connection online.

FIN 201   INTERNATIONAL FINANCE AND ECONOMICS
3 CREDITS
International Finance and Economics will examine the basics of the foreign exchange market and exchange rate determination. Topics covered include the balance of payments, past and present international monetary arrangements, the role of the International Monetary Fund and the World Bank, import and export financing, financial management of the multinational firm, the international money market and Macroeconomic policy in an Open Economy.

FIN 205   CONSUMER LENDING
2 CREDITS
Consumer Lending provides an introduction to the important field of consumer credit and consumer lending activities performed by savings association personnel. The course is specifically developed for students with little or no background in consumer credit.

FIN 211   COMMERCIAL LENDING
3 CREDITS
This basic course in commercial loan origination is designed to enable students to acquire the skills needed to evaluate business loan applications and to correctly document loans when they have been approved. The course focuses on both the financial and human relations skills essential to commercial lending.

FIN 212   CREDIT AND COLLECTIONS
2 CREDITS
This course covers the fundamentals of credit operations and the role of the credit unions in granting and collecting loans. Topics include types of available credit, laws and regulations, business and personal credit and the function of credit in foreign trade. Evaluation techniques for and regulations concerning collections are studied from the perspective of credit management.
PREREQUISITE(S): FIN 110 or instructor's permission

FIN 226   MONEY AND BANKING
3 CREDITS
Money and Banking presents a fundamental treatment of how money functions in the United States and world economies. Topics include the concept of money supply, the Federal Reserve System, the role banks play as money creator and participant in the nation's payment mechanism. This course also explains how the various types of financial institutions operate; the workings of monetary and fiscal policies, the role of Central Banks and International Banking.

FIN 235   ANALYZING FINANCIAL
STATEMENTS
2–3 VARIABLE CREDITS
This course provides you with a practical understanding of financial statement analysis of a business borrower, in order to assess repayment capacity. This course may be taught as a 2 Credit Accelerated Course.
PREREQUISITE(S): ACC 121, 122

FIN 240   LAW AND BANKING
PRINCIPLES   2 CREDITS
This course is a banker's guide to law and legal issues with special emphasis on the Uniform Commercial Code.

FIN 245   LAW AND BANKING
APPLICATIONS   3 CREDITS
This course is an introduction to laws pertaining to secured transactions, letters of credit and the bank collection process. The student will learn to explain the concept of negotiability, analyze the concept of holder-in-due course status, define and explain the nature of the letter of credit, describe the nature of primary and secondary contractual liability on an instrument, identify the issues related to secured transactions and discuss the legal issues related to bank collections and check losses.

FIN 250   FINANCIAL MARKETING
FOR BANKERS   3 CREDITS
This course looks at what motivates customers to purchase financial services and teaches bankers how to develop a successful marketing plan. The student will learn to recognize consumer motivation and buying behavior. Also, he/she will learn to integrate public relations, advertising, sales promotion, selling and service distribution functions in the bank's overall marketing plan. The course conducts situational analysis and formulates a master marketing strategy. Also, the student develops ways to monitor and evaluate marketing performance and objectives.

FIN 255   UNDERSTANDING AND
SELLING BANK PRODUCTS
3 CREDITS
From the customer's perspective, this course shows you how to pinpoint and practice six human relations skills that encourage smooth, clear and personal communication between the two of you. The student will learn the basic steps of selling, proceed to information about bank products, go on to the product benefits (rather than the features) that appeal to a customer and finally delve into how to spot clues that can tell you what a customer needs. The student will also learn the importance of cross-selling to recognize the typical prospects for various categories of bank products, how to suggest products and overcome their resistance so as to conclude the sale.

FIN 260   RETIREMENT/PENSION
PLANNING AND
INVESTMENT   3 CREDITS
This course discusses all types of Defined Contribution and Defined Benefit Pension Accounts, Individual Retirement Accounts including Keoghs and SEPPS. The course will cover the difference between qualified and non-qualified pension accounts and deferred benefit accounts. The student will understand the regulations involving retirement account participation and withdrawal. The course will also cover the types of investments that can be made through the different retirement vehicles. Also, the tax ramifications of the different types of accounts will be studied.

FIN 275   SPECIAL TOPICS
1–6 VARIABLE CREDIT
Special Topics courses may be offered to provide students with an opportunity to study special areas in the discipline. Course content will be determined by the instructor with a complete syllabus each time the course is offered.

FIN 285   INDEPENDENT STUDY
1–6 VARIABLE CREDIT
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

FIN 290–293 COOP EDUCATION
CAREER TRAINING
3 CREDITS
For declared Financial Services Majors only. See Cooperative Education section for a detailed description.
PREREQUISITE(S): Instructor's permission and completion of half of program coursework

FRENCH

Independent Studies are also available.

FRE 101   CONVERSATIONAL
FRENCH I   3 CREDITS
This is the first course in a sequence for beginning students who wish to understand and speak French. The material will include basic vocabulary, grammar and expressions that are used in daily situations and in travel.

FRE 102   CONVERSATIONAL
FRENCH II   3 CREDITS
This is the second course in a sequence for beginning students who wish to understand and speak French. The material will continue to cover basic conversational patterns, expressions, and grammar.
PREREQUISITE(S): FRE 101 or instructor's permission.

FRE 111   FRENCH I   5 CREDITS
Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading and writing the language. Note: The order of the topics and the methodology will vary according to the individual texts and instructors.

FRE 112   FRENCH II   5 CREDITS
Continues French I in the development of functional proficiency in listening, speaking, reading and writing the language. Note: The order of the topics and the methodology will vary according to the individual texts and instructor's.
PREREQUISITE(S): FRE 111 or instructors permission

FRE 201   CONVERSATIONAL
FRENCH III   3 CREDITS
This is the third course in a sequence for students who wish to continue their study of understanding and speaking French. The material will cover intermediate level vocabulary, grammar, and expressions.
PREREQUISITE(S): FRE 102 or instructors permission

FRE 202   CONVERSATIONAL
FRENCH IV   3 CREDITS
This is the fourth course in a sequence for students who wish to continue their study of understanding and speaking French. The material will continue to cover intermediate level vocabulary, grammar, and expressions.
PREREQUISITE(S): FRE 201 or instructors permission

FRE 211   FRENCH III   3 CREDITS
Continues French I and II in the development of increased functional proficiency in listening, speaking, reading and writing the language. Note: The order of the topics and the methodology will vary according to individual texts and instructors.
PREREQUISITE(S): FRE 112 or instructor's permission

FRE 212   FRENCH IV   3 CREDITS
Continues French I, II, and III in the development of increased functional proficiency in listening, speaking, reading, and writing the language and introduction to literature. Note: The order of the topics and the methodology will vary according to individual texts and instructor's.
PREREQUISITE(S): FRE 211 or instructor's permission

FRE 275   SPECIAL TOPICS:
                1–6 VARIABLE CREDITS
Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

FRE 285   INDEPENDENT STUDY
                1–6 VARIABLE CREDITS
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

GEOGRAPHIC INFORMATION SYSTEMS

GIS 101   INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS
                3 CREDITS
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 210   INTERMEDIATE GIS
                3 CREDITS
Build upon the spatial analysis principles and concepts of GIS 101. Students work with more advanced analytical tools and develop skills in spatial problem solving.

GEOGRAPHY

GEO 105   WORLD REGIONAL GEOGRAPHY
                3 CREDITS
This course is an introductory course designed to facilitate an understanding of spatial relationship between and among the geographic regions of the world. Included are demographics and cultural (political, economic, historic) forces related to the physical environments of selected regions. Methods of study include analysis of interrelationships between developed regions, and the interactions between human societies and natural environments.
This course is one of the Statewide Guaranteed Transfer courses.

GEO 106   HUMAN GEOGRAPHY
                3 CREDITS
An introduction to geographic perspectives and methods with applications to the study of human activities. Special emphasis is placed on the distribution of humans, adjustments to the natural environment, and land use practices.

GEO 107   PHYSICAL GEOGRAPHY
                3 CREDITS
Physical Geography is the study of the spatial relationship between humans and the natural environment. The course is divided into five main themes: the atmosphere (weather and climate); the hydrosphere (water bodies and rivers); the lithosphere (Earth's crust and landforms); the biosphere (soil, plant and animal relationships); and the impact of the human population on these environmental factors. This course is recommended for students interested in environmental studies, earth science and geography.

GEO 165   HUMAN ECOLOGY
                3 CREDITS
(Formerly GEO 101 Intro to Environmental Science)

Provides a current outlook for the global environment, describing the threats imposed on different natural ecological systems. Enables the student to develop a set of intellectual tools and ways of thinking about the environment to evaluate for themselves how serious a given environmental problem will be.

GEO 275   SPECIAL TOPICS
                1–6 VARIABLE CREDITS
Provides students with a vehicle to pursue in depth exploration of special topics of interest.

GEO 285   INDEPENDENT STUDY
                1–6 VARIABLE CREDITS
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

GEOLOGY

GEY 111   PHYSICAL GEOLOGY
                4 CREDITS
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.

GEY 121   HISTORICAL GEOLOGY
                4 CREDITS
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 crustal plates. Course includes laboratory experience.
PREREQUISITE(S): GEY 111 or instructor's permission
This course is one of the Statewide Guaranteed Transfer courses.

GEY 135   ENVIRONMENTAL GEOLOGY   3 CREDITS
 Introduces geology and its relationship to man's environment. Covers geologic hazards such as floods, landslides, avalanches, earthquakes and volcanoes. Focuses on surface and groundwater resources in terms of exploitation and man's responsibility to protect these resources from contamination. The geologic aspects of land use practices, as well as mineral and energy resource exploitation, are reviewed and related to legislation regarding environmental law.

GEY 205   GEOLOGY OF COLORADO
3 CREDITS
Covers the geologic history of Colorado, with emphasis on formation of mountain ranges, igneous, sedimentary and metamorphic rock types, ore deposits and landforms. Incorporates field experience and/or class room lectures.

PREREQUISITE(S): Instructor's permission

GEY 208   GEOLOGY FIELD TRIP
1–3 CREDITS
This course 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 will constitute the major activity of the course. The specific area of investigation will be indicated in the schedule of classes each time the course is offered.

PREREQUISITE(S): Instructor's permission

GEY 275   SPECIAL TOPICS
0.25–3 CREDITS
Presents an overview of the special topic including one aspect of the earth and its history as recorded in rocks and rock formations. May also include current changes and impact of historical events and exploration of current topics, issues and activities related to one or more aspects of the named discipline.

GEY 285   INDEPENDENT STUDY
1–6 VARIABLE CREDIT
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

PREREQUISITE(S): Instructor's permission

GRAPHIC DESIGN & ILLUSTRATION

SEE MULTIMEDIA/GRAPHIC DESIGN
For Graphic Design courses taken the summer semester, 2004, under the GDI prefix, please refer to the 2003-2004 course catalog.

HEALTH PROFESSIONS

HPR 106   LAW & ETHICS FOR HEALTH PROFESSIONS   2 CREDITS
Advances student knowledge in the study and application of medico-legal concepts in medical careers, establishes a foundation for ethical behavior and decision making.

PREREQUISITE(S): Determined by individual program guides.

COREQUISITE(S): Determined by individual program guides.

HPR 112   PHLEBOTOMY   8 CREDITS
Teaches the duties associated with the practice of venipuncture, capillary puncture, and special collection procedures. Students will have experience with quality control, infection control and safety procedures as well as laboratory computer systems. Students successfully completing this course may apply for a National Phlebotomy Registry Examination.

PREREQUISITE(S): None

COREQUISITE(S): None

HPR 178   MEDICAL TERMINOLOGY
3 CREDITS
This course 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 205   MICROBIOLOGY OF INFECTIOUS DISEASES
3 CREDIT
Acquaint the student with microbes and their roles in infectious disease. It includes descriptions of bacteria, viruses, fungi and protozoa; as well as techniques for growing, controlling and treating diseases caused by these organisms. Within the scope of this course are units which discuss how the diseases are diagnosed, and finally, epidemiology and communicability of individual diseases grouped by portals of entry. Prevention and infection control issues as well as current issues surrounding infectious disease may also be discussed.

PREREQUISITE(S): Bio 201 or BIO 105 (not concurrent) or instructor permission

HPR 206   MICROBIOLOGY OF INFECTIOUS DISEASES LAB   1 CREDIT
Provides a laboratory expereince to acquaint the prenursing students with culture technique, staining methods, identification systems and methods on control of infectious disease microorganisms. It will include specimen, use of the light microscope, the technique of isolation streaking, antimicrobial sensitivity testing. This lab should be taken concurrently with HPR 205 lecture but HPR 205 lecture may be taken without this lab.

PREREQUISITE(S): HPR 205

COREQUISITE(S) HPR 205

HPR 216   PATHOPHYSIOLOGY
4 CREDITS
Focuses on the functions of the human body systems with emphasis on their interrelationships and adaptation to stress and disease.

PREREQUISITE(S): BIO 201, 202 or instructor's permission

HPR 240   ROLE OF DEATH & BEREAVEMENT IN SOCIETY
3 CREDIT
Examines death from the perspectives of the dying individual, the bereaved and the caregivers. The course will focus on sociological, cultural, spiritual development and psychological aspects of dying and bereavement. It will also include study of various groups and their relationships to death and disposition, funerals and other rites.

PREREQUISITE(S): PSY 101

HPR 275   SPECIAL TOPICS
1–6 CREDITS
Special Topics courses may be offered to provide students with an opportunity to study special areas in the discipline. Course content will be determined by the instructor with a complete syllabus each time the course is offered.

HPR 285   INDEPENDENT STUDY
1–6 CREDIT
Course designed to meet the individual needs of students.

PREREQUISITE(S): Instructor's permission

HEALTH AND WELLNESS EDUCATION

HWE 100   HUMAN NUTRITION
3 CREDITS
Introduces basic principles of nutrition with emphasis on personal nutrition. Satisfies nutrition requirement of students entering health care professions.

PREREQUISITE(S): None

COREQUISITE(S): None

HWE 103   COMMUNITY FIRST AID AND CPR   1 CREDIT
Uses demonstration videos, instructor-led practice and workbook/textbook study to prepare for certification in Adult/Child/Infant CPR and Community First Aid.

HWE 124   FITNESS AND WELLNESS
2 CREDIT
Provides information on fitness and wellness and serves as a guide to design, implement and evaluate a complete personal fitness and wellness program. The course integrates the basic components of fitness and wellness in understanding human health in order to achieve well-being. This course offers current information in the health field and provides self-assessments for health risk and wellness behaviors. This includes lifestyle modification, nutrition, weight management, stress management, cardiovascular and cancer risk reduction, exercise and aging, exercise-related injury, exercise and the environment, prevention of sexually transmitted diseases, substance abuse

(including tobacco, alcohol and other psychoactive drugs), and analysis and interpretation of research publications and web sites in health and wellness.

HWE 237 EXERCISE, NUTRITION AND BODY COMPOSITION
3 CREDITS

Discusses the concepts of improved performance in all fitness areas. Emphasis is placed upon updated information associated with nutrition and human performance. Measurement of body composition is used as it correlates to training and diet/exercise programs.

HWE 245 PHYSIOLOGY OF EXERCISE
3 CREDITS

This course is designed to provide the student basic skills, practice and theory in physical fitness. Major components of muscle strength, muscle endurance, cardiovascular endurance, flexibility and body composition are discussed in detail. Exercise prescription skills, assessment skills, administration skills and leadership skills will also be addressed in this course.

HWE 248 GUIDELINES FOR EXERCISE TESTING AND PRESCRIPTION 2 CREDITS

This course is designed to provide the student with the opportunity to conduct laboratory fitness assessments, evaluate test results and develop exercise prescriptions. In addition, the student will be expected to become knowledgeable about the promotion and marketing of fitness programs.

PED 136 ADVANCED WEIGHT TRAINING 2 CREDITS

Offers guided instruction and independent practice in weight training for men and women. Students practice various weight training techniques in accordance with their abilities. Emphasizes physiological considerations, equipment orientation, correct lifting techniques, program design and nutrition. Offers guided instruction and independent practice in weight training for men and women. Students practice various weight training techniques in accordance with their abilities. Emphasizes physiological considerations, equipment orientation, correct lifting techniques, program design and nutrition.

PER 232 CARE & PREVENTION OF ATHLETIC INJURIES 2 CREDITS

Focuses on techniques in prevention, care and basic rehabilitation of athletic injury.

PER 275 SPECIAL TOPICS 1–6 VARIABLE CREDIT

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

HEALTH INFORMATION TECHNOLOGY (MEDICAL RECORDS)

HIT 101 HEALTH INFORMATION MANAGEMENT SCIENCE 6 CREDITS

An introduction to the health care field in general and the Health Information Management field in particular. This course addresses organizational structures, regulatory agencies, and health care reform. The health record is analyzed for content as it relates to quality, health care personnel responsibility, and documentation requirements. Retrieval systems are studied as well as retention regulations.

PREREQUISITE(S): acceptance into HIT Program

HIT 105 PHYSICIAN PRACTICE: CODING AND REIMBURSEMENT 5 CREDITS

This entry-level course is designed to provide the student with opportunities to apply basic ICD-9-CM, CPT, and HCPCS principles and guidelines to code outpatient visits. Topics will include physician documentation requirements and guidelines for different payer classes, and fraud and abuse issues.

PREREQUISITE(S): HPR 178

HIT 111 HEALTH DATA MANAGEMENT 3 CREDITS

A study of the computation of statistical data compiled by health care facilities. Special attention is paid to recognized terminology, accurate computation of formula, and computerized statistical methods and accompanying reports.

PREREQUISITE(S): CIS 118, HIT 101

HIT 112 LEGAL ASPECTS 2 CREDITS

The student is introduced to the legal system, identifies the roles of participants in that system, and learns appropriate courtroom behavior. The course considers the medical record as a legal document; it deals with privileged information, confidential information and communication, release of information, and consent and authorization. Specific federal/state laws as they relate to release of information will be explored. Special attention is paid to court decisions which affect health care facilities, their employees, and the medical staff.

PREREQUISITE(S): HIT 101

HIT 188 HEALTH INFORMATION PRACTICUM I 2 CREDITS

Provides a directed clinical experience in a health information department in a health care facility. This experience focuses on the practice of skills related to the application of legal principles, record analysis and abstraction, and record retention and retrieval.

PREREQUISITE(S): Completion of all first year HIT courses

HIT 221 CLINICAL CLASSIFICATION SYSTEMS I 5 CREDITS

A study of nomenclatures and classification systems with emphasis on the most recent revisions of ICD-9-CM. Students will study the ICD-9-CM coding conventions and principles. These skills are then applied to the coding of medical records. Further experience will include sequencing of diagnoses, DRG assignment and abstracting.

PREREQUISITE(S): completion of all first year HIT courses, HPR 178, MOT 125, 133

HIT 222 QUALITY MANAGEMENT 3 CREDITS

This course is designed to introduce the student to the concepts of quality assessment/quality improvement, utilization review and risk management. JCAHO, state and federal regulations for quality management will be studied.

PREREQUISITE(S): completion of all first year HIT courses

HIT 225 HEALTH INFORMATION MANAGEMENT 3 CREDITS

A comprehensive course designed to give the student a background in the principles of management as they relate to organization and administration of a health information management department.

PREREQUISITE(S): completion of all first year HIT courses

HIT 231 CLINICAL CLASSIFICATIONS SYSTEMS II 5 CREDITS

An intermediate study of ICD-9-CM coding conventions and principles. Reimbursement issues also studied.

PREREQUISITE(S): completion of all first year HIT courses and HIT 221

HIT 241 CPT CODING BASIC PRINCIPLES 2 CREDITS

This entry-level course is designed to provide the student with skill sets to apply the current procedural terminology (CPT) and HCPCS code set principles and guidelines for application in reporting/communication information and data about clinical services provided to patients by healthcare providers. Topics include understanding what the cpt nomenclature is, how and why it is used, and guidelines for each code category and how it is to be applied to represent services within each code category.

PREREQUISITE(S): HIT 221, HPR 178, MOT 125, 133 135 strongly recommended

HIT 275 SPECIAL TOPICS 1–6 VARIABLE CREDITS

Special Topics courses may be offered to provide students with an opportunity to study special areas in the discipline. Course content will be determined by the instructor with a complete syllabus each time the course is offered.

HIT 285 INDEPENDENT STUDY 1–6 VARIABLE CREDITS

Course designed to meet the individual needs of students.

PREREQUISITE(S): Instructor's permission

**HIT 288   HEALTH INFORMATION
                        PRACTICUM II   2 CREDITS**
Focuses on the ability of the student to apply classroom knowledge in a clinical setting, practice professionalism, gain insight into the functions of the department and understand the relationship of health records to the facility as a whole. Emphasis is on the ability to act independently, complete assigned projects and demonstrate a good understanding of health information management concepts.

PREREQUISITE(S): Completion of all first and second year HIT courses

HISTORY

**HIS 101   WESTERN CIVILIZATION I
                        3 CREDITS**
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.

**HIS 102   WESTERN CIVILIZATION II
                        3 CREDITS**
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.

**HIS 201   UNITED STATES (U.S.)
                        HISTORY I   3 CREDITS**
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.

**HIS 202   UNITED STATES (U.S.)
                        HISTORY II   3 CREDITS**
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.

**HIS 225   COLORADO HISTORY
                        3 CREDITS**
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 247   CONTEMPORARY WORLD
                        HISTORY   3 CREDITS**
Investigates the major political, social, and economic developments, international relationships, scientific breakthroughs, and cultural trends that have shaped the various global regions and nation-states from 1900 to the present. Emphasizes the interactions of global regions and nation-states.

**HIS 275   SPECIAL TOPICS:
                        1–5 VARIABLE CREDITS**
Focuses on the exploration of current topics, issues and activities related to one or more aspects of history.

**HIS 285   INDEPENDENT STUDY
                        1–5 VARIABLE CREDITS**
Incorporates structured and guided, individualized research that is organized and tailored around the interests and needs of the individual student.

PREREQUISITE(S): Instructor's permission

HONORS

**HON 275   SPECIAL TOPICS
                        1–6 VARIABLE CREDITS**
This course provides seminars on special topics. Topics may be of general interest, or may relate to the honors topic of Phi Theta Kappa. Each year the current honors topic will be offered. The 2004-2005 topic is "Popular Culture: Shaping and Reflecting Who We Are".

PREREQUISITE(S): Instructor's permission

**HON 285   INDEPENDENT STUDY
                        1–6 VARIABLE CREDITS**
Course designed to meet the individual needs of students.

PREREQUISITE(S): Instructor's permission

HUMANITIES

**HUM 103 INTRODUCTION TO
                        FILM ART   3 CREDITS**
This course 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 ocabulary stylistic systems (for instance, cinematography, editing and art direction) and narrative systems.

**HUM 115 WORLD MYTHOLOGY
                        3 CREDITS**
This course introduces students to the mythologies of various cultures with a special emphasis on Greek, Asian and North American examples. Common themes are illustrated and some artistic reactions are used as examples.

**HUM 116 WORLD RELIGIONS
                        3 CREDITS**
This course introduces the student to religion and to religious traditions. The influence of religion on the arts will be explored. Religions included will be African and Native American, Hinduism, Buddhism, Confucianism and Taoism, Middle Eastern and Persian, Greek and Roman, Judaism, Christianity and Islam.

**HUM 118 RELIGION IN AMERICAN
                        CULTURE   3 CREDITS**
Investigates the various ways in which religion and American culture interact. It begins with the religion of Native Americans, which existed in a pre-modern society where religion went unchallenged as the preeminent organizing principle, to our post-modern era, where religion competes with a multiplicity of other belief systems in a complex societal matrix. This course pays close attention to the sundry ways in which religion and American culture interface.

**HUM 121 SURVEY OF HUMANITIES I
                        3 CREDITS**
Introduces students to the history of ideas in Western cultures through a study of the visual arts, literature, drama, music and philosophy of early civilizations, Greek and Roman antiquity and Christian eras. Emphasizes connections among the arts, values and diverse cultures.

This course is one of the Statewide Guaranteed Transfer courses.

**HUM 122 SURVEY OF HUMANITIES II
                        3 CREDITS**
Examines the Medieval, Renaissance, and Baroque periods through a study of the visual arts, literature, music, and philosophy. Compares and contrasts diverse cultural ideas and feminine and masculine viewpoints.

This course is one of the Statewide Guaranteed Transfer courses.

**HUM 123 SURVEY OF HUMANITIES III
                        3 CREDITS**
Examines the cultures of the 17th through the 20th centuries by focusing on the inter relatedness 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.

**HUM 275 SPECIAL TOPICS
                        1–6 VARIABLE CREDITS**
This course is designed to provide students with opportunity to pursue in-depth special areas of interest in the Humanities. The content of the course will be determined by the instructor(s) who will provide a complete syllabus.

**HUM 285 INDEPENDENT STUDY
                        1–6 VARIABLE CREDITS**
Course designed to meet the individual needs of students.

PREREQUISITE(S): Instructor's permission

INTERIOR DESIGN

IND 100   INTERIOR DESIGN FUNDAMENTALS 4 CREDITS
An introduction to design elements, principles and theory. Application techniques, emphasizing design relationships and composition, will be explored. Basic skills and techniques of both visual and oral presentations will be introduced.

PREREQUISITE(S): Attend an Interior Design Orientation; Minimum CPT scores: 80 for Reading Comprehension; 95 for Sentence Skills and 57 for Arithmetic

IND 107   HISTORY OF INTERIOR DESIGN   3 CREDITS
Offers a study of interior furnishings from the medieval period to the Revival styles of the mid-eighteenth century to the contemporary classics used in modern interiors today. The characteristics of historical interiors, ornamental design, use of color, and architecture will be the primary emphases.

PREREQUISITE(S): IND 100; CIS 118

IND 108   PROFESSION SURVEY   1 CREDIT
Guest speakers share experiences and insights concerning job types and opportunities; business practices; current work; professional organizations; tools, methods and educational requirements necessary for various positions; and prevailing professional attitudes.

PREREQUISITE(S): Attend an Interior Design Orientation; Minimum CPT scores: 80 for Reading Comprehension; 95 for Sentence Skills and 57 for Arithmetic

IND 111   DRAFTING FOR INTERIORS   4 CREDITS
Introduction to basic drafting tools and techniques, graphic references and symbols, use of pencil and technical pen. Student learns to draft floor plans and interior elevations. Course also covers basic interior dimensioning and lettering as well as isometric drawing construction for interior components.

PREREQUISITE(S): Attend an Interior Design Orientation; Minimum CPT scores: 80 for Reading Comprehension; 95 for Sentence Skills and 57 for Arithmetic

IND 112   GRAPHIC COMMUNICATION   4 CREDITS
Students will learn methods of communicating interior design plans, elements and ideas in 3-D, through perspective drawing construction and quick sketch techniques, and practice rendering and illustration skills.

PREREQUISITE(S): IND 100, 101

IND 114   SPACE PLANNING   3 CREDITS
Students will learn the principles and factors of space planning, and practice the space planning process through residential and light commercial applications. Students are introduced to interior architecture. Use of bubble diagrams and freehand ink presentation techniques are also included.

PREREQUISITE(S): IND 100, 111

IND 117   INTERIOR TEXTILES   2 CREDITS
Emphasizes the study of fabrics, fibers, weaves, finishes, dying and printing methods for residential and commercial fabrics and carpets. Resources are discussed and developed.

PREREQUISITE(S): Attend an Interior Design Orientation; Minimum CPT scores: 80 for Reading Comprehension; 95 for Sentence Skills and 57 for Arithmetic

IND 118   INTERIOR FINISHES   2 CREDITS
Examines finish materials for residential and commercial interior design; preparation and installation techniques; introduction to specifications and estimating.

PREREQUISITE(S): Attend an Interior Design Orientation; Minimum CPT scores: 80 for Reading Comprehension; 95 for Sentence Skills and 57 for Arithmetic

IND 151   RESIDENTIAL DESIGN   4 CREDITS
Student learns and applies the preliminary project phases of the residential design process. Project documentation is introduced and practiced. At least one portfolio project is produced.

PREREQUISITE(S): IND 100, 107, 111, 112, 114, 117, 118 and 205 recommended

IND 152   COMMERCIAL DESIGN I   2 CREDITS
Introduction to commercial design space planning and procedures. Students will study and apply space planning, code requirements and design documentation techniques for a variety of commercial project types through a series of short exercises. Emphasis will be placed on programming and schematic design. Hand drafting, sketching and various office computer software applications will be utilized.

PREREQUISITE(S): CIS 118, IND 100, 111,112, 114, 117, 118, 151 and IND 205 recommended

COREQUISITE(S): IND 151 (strong drafting and space planning skils recommended if 151 taken with 152)

IND 160   ACCESSORIZING 2 CREDITS
Student learns how to assist clients in selection of art, antiques and accessories to aid in defining the character of a space. Styles and the eclectic mix of styles are covered, as well as placement and effective use of themes.

IND 175   SPECIAL TOPICS   1–4 VARIABLE CREDITS
Explores current topics, issues and activities related to one or more aspects of the named discipline.

IND 178   SEMINAR - DESIGN RESUME   1 CREDIT
This course provides students with an experiential learning opportunity.

PREREQUISITE(S): IND 100, 108, 114; CIS 118; ENG 131

IND 178   SEMINAR - MARKET TOUR   1–6 VARIABLE CREDITS
This course provides students with an experiential learning opportunity.

PREREQUISITE(S): IND 100, 111, 117, 118

IND 200   KITCHEN AND BATH DESIGN   4 CREDITS
The specialized design process and documentation requirements of kitchen and bath design are introduced and applied using NKBA guidelines. Student becomes familiar with trade resources supporting this design field. At least two portfolio projects are produced. Students will be encouraged to produce project documents using a variety of computer software applications.

PREREQUISITE(S): IND 151, 205, 211, 225; ENG 131

COREQUISITE(S): IND 211, 225

IND 201   COMMERCIAL DESIGN II   4 CREDITS
Emphasis is on commercial design. Student will study and apply ADA requirements, codes, building systems, office landscape systems and components; produce commercial project drawings and documentation; and prepare both graphic and oral presentations. Student is encouraged to use the Internet for research, and to produce project documents using a variety of computer software applications.

PREREQUISITE(S): IND 151, 152, 200, 205, 211, 225; CAD 105; ENG 131

COREQUISITE(S) IND 200, 225

IND 205   PROFESSIONAL PRACTICE FOR INTERIOR DESIGNER   2 CREDITS
Introduces many of the business procedures encountered in the commercial and residential practice of interior design. The student will generate a business plan and a marketing plan and learn how to establish accounts within the industry.

PREREQUISITE(S): IND 100, 108, 111, 114, 117, 118; CIS 118

IND 207   WINDOW TREATMENTS   2 CREDITS
Discusses and demonstrates the hard and soft window treatments used in todays market place. Measuring, installing, pricing, ordering, and resource development are investigated. Fabric weaves and weights, trims and linings are discussed, and creative treatments are designed and specified.

IND 211   INTERIOR CONSTRUCTION   4 CREDITS
This course introduces the student to interior building systems and assemblies, construction documents and details, and codes applicable to interior architecture. Student will apply this knowledge to various graphic projects, and is encouraged to produce course projects using the computer and CAD software.

PREREQUISITE(S): IND 100, 111, 112, 114, 118; CAD 105; CIS 118

IND 225 LIGHTING DESIGN
2 CREDITS

Student studies and applies basic knowledge of interior lighting technology and design. Content includes lamp classifications, color rendition, how lighting sources affect the perception of space, how to compute and control proper lighting levels, and how to communicate design information using a reflected ceiling plan and luminaire schedule. Students are encouraged to produce projects using a variety of computer software applications.
PREREQUISITE(S): IND 100, 111, 112, 114, 118; CIS 118

IND 275 SPECIAL TOPICS
1–6 VARIABLE CREDITS

These special topics courses are separately designed for specific educational purposes: to offer more in-depth training/instruction in a particular subject; to cover material not found in other IND courses; or to study timely issues. They are offered as time, student demand, facilities and faculty availability permit, often during summer semester.
PREREQUISITE(S): see advisor and/or semester course schedule

IND 278 WORKSHOP—
DESIGN PORTFOLIO
1 CREDIT

Provides students with an experiential learning opportunity.
PREREQUISITE(S): IND 178 (RESUME), 200, 201; ENG 131

IND 278 WORKSHOP—
DESIGN RESEARCH
1 CREDIT

Provides students with an experiential learning opportunity.
PREREQUISITE(S): IND 151,152, 200, 205, 211, 225; ENG 131
COREQUISITE(S): IND 200, 211, 225

IND 280 INTERNSHIP
4 VARIABLE CREDITS

Provides work experience in a business or industry; 45 fieldwork hours per credit hour.
PREREQUISITE(S): IND 178 Resume, 200, 201; ENG 131

IND 281 INTERNSHIP II
1–4 VARIABLE CREDIT

Provides work experience in a business or industry; 45 fieldwork hours per credit hour.
PREREQUISITE(S): IND 280

IND 289 CAPSTONE:
ADVANCED DESIGN
3 CREDITS

Student completes an advanced design project that aligns with a chosen career path. Scope and content vary. Focus is on synthesizing and demonstrating skills and knowledge gained in prior course work. A final portfolio-quality project is produced and orally presented.
PREREQUISITE(S): IND 200, 201, 278 (DESIGN RESEARCH); ENG 131

INSURANCE

INS 154 RISK MANAGEMENTS
3 CREDITS

Examines the nature, purpose and steps in risk including identification of an analysis of the loss exposure of individuals and organization; the examination and application of alternative risk management techniques; and the development and justification of risk management decisions.

INS 200 PROPERTY AND LIABILITY
INSURANCE PRINCIPLES
3 CREDITS

Presents a one-semester course designed for individuals wishing to obtain a general knowledge of property and liability insurance principles. The course is an overview of insurance fundamentals, insurance operations, and insurance contracts, loss exposures, and risk management.

INS 201 PERSONAL INSURANCE
3 CREDITS

Presents a one-semester course designed for individuals wishing to obtain a general knowledge of personal insurance. The course is an overview of the loss exposures faced by individuals and families and the type of insurance that is available to treat those loss exposures.

INS 202 COMMERCIAL INSURANCE
3 CREDITS

Presents a one-semester course designed for individuals wishing to obtain a general knowledge of commercial insurance. The course is an overview of the loss exposures faced by businesses and other organizations and the type of insurance that is available to remedy those loss exposures.

INS 204 DELIVERING INSURANCE
SERVICES
3 CREDITS

Presents a one-semester course designed for individuals wishing to obtain a general knowledge of how insurance companies can deliver quality customer service. The course is an overview of insurance fundamentals and how an insurance customer service representative applies that knowledge to effectively serve his/her customer base.

INS 269 PERSONAL FINANCIAL
PLANNING
3 CREDITS

Students will obtain a general knowledge of personal financial planning. The course is designed to provide the students with a detailed analysis of personal financial planning, including areas of investment planning, income tax planning, planning for retirement, and estate planning.

INVESTMENTS

INV 115 INVESTMENTS/STOCKS
& BONDS
3 CREDITS

This course is designed to make the student aware of a broad range of investment opportunities. The curriculum includes information about common stocks, corporate bonds, mutual funds, insurance, and real estate. The student will receive the basic general business concepts and information necessary to make a rational decision in the management of personal funds. Prepares for Series 6 Exam.

INV 215 ADVANCED INVESTMENTS
3 CREDITS

This class and the subjects covered are for students with a serious interest in investments. Subjects to be covered are: technical analysis, options, ratio analysis, leverages, etc. Prepares for Series 7 Exam.
PREREQUISITE(S): an accounting course or investment course; or instructor's permission

INV 285 INDEPENDENT STUDY
1–6 VARIABLE CREDITS

Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

JAPANESE

JPN 111 JAPANESE I 5 CREDITS

Japanese I begins a sequence dealing with the development of functional proficiency in listening, speaking, reading and writing Japanese.

JPN 112 JAPANESE II 5 CREDITS

Japanese II continues Japanese I in the development of functional proficiency in listening, speaking, reading and writing Japanese.
PREREQUISITE(S): JPN 111 or instructor's permission

JPN 211 JAPANESE III 3 CREDITS

Continues Japanese I and Japanese II in the development of increased functional proficiency in listening, speaking, reading and writing Japanese. Note: The order of the topics and the methodology will vary according to texts and instructors.
PREREQUISITE(S): JPN 112

JPN 212 JAPANESE IV 3 CREDITS

JPN 212 continues JPN 111, JPN 112 and JPN 211 in the development of increased proficiency in listening, speaking, reading & writing the language. This class includes an interdisciplinary overview of Japanese culture and society. Topics in literature, the arts, contemporary society, corporate culture are explored.
PREREQUISITE(S): JPN 211 or Instructor permission.

**JPN 275   SPECIAL TOPICS
               1–6 VARIABLE CREDITS**
Provides students with a vehicle to pursue in depth exploration of special topics of interest.

**JPN 285   INDEPENDENT STUDY
               1–6 VARIABLE CREDITS**
Course designed to meet the individual needs of students.

PREREQUISITE(S): Instructor's permission

JOURNALISM AND MASS COMMUNICATIONS

**JOU 105   INTRO TO MASS MEDIA
               3 CREDITS**
This survey course places the mass media in a historical and cultural perspective to study the relationship between mass media and society. This course also introduces students to some of the ethical, legal and economic issues that affect the mass media and their consumers.

**JOU 106   FUNDAMENTALS OF
               REPORTING   3 CREDITS**
This is an introductory course in news writing, reporting and interviewing, with an emphasis on clarity, accuracy, timeliness and fairness.
PREREQUISITE(S): ENG 121

**JOU 215   PUBLICATIONS
               PRODUCTION AND DESIGN
               3 CREDITS**
This intermediate course provides students with practical experience in the design, editing and layout of special non-newspaper publications. Students will work on the college literary magazine.

**JOU 275   SPECIAL TOPICS
               1–6 VARIABLE CREDITS**
Courses offered under the Special Topics heading address special issues in reporting and editing.

**JOU 285   INDEPENDENT STUDY
               1–6 VARIABLE CREDITS**
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

**JOU 190-192 COOP EDUCATION
               CAREER EXPLORATION
               3 CREDITS**

**JOU 290-293 COOP EDUCATION
               CAREER TRAINING
               3 CREDITS**

**JOU 294-295 COOP EDUCATION
               CAREER TRAINING
               6 CREDITS**

**JOU 296   COOP EDUCATION
               CAREER TRAINING
               9 CREDITS**

**JOU   297 COOP EDUCATION
               CAREER TRAINING
               12 CREDITS**
See Cooperative Education section for detail description.

**MME 101 INTRO TO TELEVISION
               PRODUCTION   3 CREDITS**
Introduces the use of television equipment. Emphasizes basic principles of professional production techniques, technology and terminology including special effects, editing, lighting, graphics, audio recording, storyboarding and scripting. Students will learn how to do productions using both studio and field equipment to develop these skills. Textbook required.

**MME 102 ADVANCED TELEVISION
               PRODUCTION   3 CREDITS**
Students will produce their own projects as well as work on in-house projects for in-depth experience in all facets of a complex television production, e.g. directing, producing, writing. Also covered: methods and techniques for budgeting and planning, scheduling for production in terms of time, equipment and cost evaluation of finished programs, competing in the video market, and working with clients.
PREREQUISITE(S): MME 101, instructor's permission

**MME 103 SCRIPTWRITING FOR FILM
               AND TELEVISION
               3 CREDITS**
Introduces the technical and creative aspects of writing a dramatic or commercial script for film or television. Covers proper script formatting, timing, developing a story and, for television, storyboarding.

MME 201 VIDEO PROJECT 3 CREDITS
Emphasizes application of all the skills gained in MME 101 and MME 102. Students will complete one or two video productions. If deemed of exceptional quality, the finished project(s) will be entered into a national student video competition.
PREREQUISITE(S): MME 101, 102 or instructor's permission

**MME 202 VIDEO COMMUNICATION
               MODES   3 CREDITS**
Explores various modes of video communication. Covers Satellite, Microwave, Infrared, Wireless, Fiberoptic, and various video compression methods.
PREREQUISITE(S): MME 101 or instructor's permission

**MME 275 SPECIAL TOPICS
               1–6 VARIABLE CREDITS**
Explores particular areas of interest in Mass Communications.
PREREQUISITE(S): Instructor's permission

**MME 285 INDEPENDENT STUDY
               1–6 VARIABLE CREDITS**
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

**MME 190-192 COOP EDUCATION
               CAREER EXPLORATION
               3 CREDITS**

**MME 290-293 COOP EDUCATION
               CAREER TRAINING
               3 CREDITS**

**MME 294-295 COOP EDUCATION
               CAREER TRAINING
               6 CREDITS**

**MME 296   COOP EDUCATION
               CAREER TRAINING
               9 CREDITS**

**MME 297   COOP EDUCATION
               CAREER TRAINING
               12 CREDITS**
See Cooperative Education section for detailed description.

LATIN

**LAT 101   CONVERSATIONAL LATIN I
               3 CREDITS**
This is the first course in a sequence for beginning students who wish to understand and communicate in Latin. The material will cover basic conversational patterns, expressions and grammar.

**LAT 102   CONVERSATIONAL LATIN II
               3 CREDITS**
This is the second course in a sequence for beginning students who wish to understand and communicate in Latin. The material will continue to cover basic conversational patterns, expressions and grammar.
PREREQUISITE(S): LAT 101

LAT 111   LATIN I   5 CREDITS
This course begins a sequence in the development of functional proficiency in listening, speaking, reading and writing the language.

LAT 112   LATIN II   5 CREDITS
This course continues a sequence in the development of functional proficenciency in listening, speaking reading, and writing the language.
PEREQUISiTE: LAT III

LAT 211   LATIN III   3 CREDITS
Continues Latin I and II in the development of increased functional proficiency in listening, speaking, reading and writing the langauge.
PEREQUISITE: LAT 112

LAW COURSES

SEE PARALEGAL

LITERATURE

Recommended: College-level reading ability

LIT 115   INTRODUCTION TO LITERATURE I   3 CREDITS
Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading.
This course is one of the Statewide Guaranteed Transfer courses.

LIT 201   MASTERPIECES OF LITERATURE I   3 CREDITS
Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful reading and understanding of the works and their cultural backgrounds.
This course is one of the Statewide Guaranteed Transfer courses.

LIT 202   MASTERPIECES OF LITERATURE II   3 CREDITS
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.

LIT 211   SURVEY OF AMERICAN LIT I   3 CREDITS
This course is an overview of American literature from its beginnings through the nineteenth century romantics. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers.

LIT 212   SURVEY OF AMERICAN LIT II   3 CREDITS
This course is an overview of American literature from the mid-nineteenth century to the present. It explores ideas, historical and social contexts, themes, and literary characteristics of works in various genres by major writers.

LIT 221   SURVEY OF BRITISH LIT I   3 CREDITS
This course is an overview of British literature from the Anglo-Saxon period into the eighteenth century. It explores ideas, historical and social contexts, themes, and literary characteristics of works in various genres by major writers.

LIT 220   JEWISH–AMERICAN LITERATURE   3 CREDITS
Surveys some of the major achievements in literature and film by American Jews in late-nineteenth through the twentieth century. We will proceed chronologically, focusing on the fiction of the immigrant experience, on the politicized literature of the 1930s and the 1940s, on the literature of the post-WWII era and its struggle to fashion an adequate response to the Holocaust, and on questions surrounding assimilation, acculturation and identity politics.

LIT 222   SURVEY OF BRITISH LIT II   3 CREDITS
This course is an overview of British literature from the eighteenth century to the present. It explores ideas, historical and social contexts, themes, and literary characteristics of works in various genres by major writers.

LIT 225   INTRO TO SHAKESPEARE   3 CREDITS
This course 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.

LIT 240   POETS AND THEIR POEMS   3 CREDITS
Teaches strategies for reading, interpreting, discussing and evaluating a variety of poems with particular attention to a study of selected major poets in depth.

LIT 245   LIT OF THE AMERICAN WEST   3 CREDITS
This course 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 CREDITS
This course examines the criteria for selecting appropriate literature for children. Discussion topics explore age levels, values taught through literature, and literary and artistic qualities.

LIT 257   LITERATURE AND FILM   3 CREDITS
This course examines the relationship between literature and motion pictures, emphasizing film techniques and the interpretive function of filmmakers.
PREREQUISITE(S): LIT 115 or instructor's permission

LIT 259   SURVEY OF AFRICAN AMERICAN LITERATURE   3 CREDITS
This course is an overview of African American literature from 1750 to the present. It explores ideas, historical and social contexts, themes, and literary characteristics of works in various genres by major writers.

LIT 260-269 POPULAR LITERATURE AND CULTURE: SPECIAL TOPICS   3 CREDITS
Explores special interests in literature, such as detective fiction and science fiction.

LIT 266   INTRODUCTION TO C.S. LEWIS   3 CREDITS
An introduction to the essays, fiction and literary criticism of C.S. Lewis. Emphasis is on the careful reading and understanding of the works, on class discussion, and on the writing of interpretive and critical essays.

LIT 267   THE BIBLE AS LITERATURE   3 CREDITS
An introduction to the Bible as the textual centerpiece of Western literature. Students will encounter the various literary genres represented in Biblical texts, the process of canonization, ways in which the Bible has been read by its various interpretive communities, and some impacts of the Bible in such areas as law, poetry, fiction, psychology, ethics and theology.

LIT 275   SPECIAL TOPICS   1–6 VARIABLE CREDITS
Explores particular authors, topics, themes in depth, such as Ibsen, Faulkner or Twain, great fiction of the nineteenth century, the Gothic Novel or literature of the Holocaust.

LIT 285   INDEPENDENT STUDY   1–6 VARIABLE CREDITS
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

MANAGEMENT

MAN 116 PRINCIPLES OF SUPERVISION   3 CREDITS
The course concentrates on the management skills needed by first line and new supervisors with practical applications taken from common supervisory situations. Emphasis placed on learning hiring, discipline and conflict resolution concepts.

MAN 128 HUMAN RELATIONS   3 CREDITS
This course introduces the student to those aspects of interpersonal relations most directly linked to attainment of organizational and individual goals in the workplace. Its focus is on identifying and analyzing those factors which help and hinder such relationships.

MAN 200 HUMAN RESOURCE MANAGEMENT   3 CREDITS
This course provides the student with a broad overview of the contemporary issues, theories and principles used to effectively manage human resources. Topics include hiring, compensation, development, employee relations and legal issues.

MAN 201 HUMAN RESOURCE MANAGEMENT II   3 CREDITS
This course offers further discussion of concepts of Human Resource Management. Topics covered include techniques and procedures in resources planning, appraising performance, selection and staffing, training and development, job enrichment, and wage and salary administration.

MAN 205 EVENT PLANNING   3 CREDITS
This course systematically presents the components of event planning; organization, personnel, finances, site selection, transportation, program design, promotion, arranging exhibits, and evaluation.

MAN 215 ORGANIZATIONAL BEHAVIOR   3 CREDITS
The course examines the behaviors of groups and individual members of organizations, and how that behavior can be influenced. Course emphasis is on the tools managers use to achieve organizational effectiveness, such as work style and corporate culture assessments.

MAN 216 SMALL BUSINESS MANAGEMENT 3 CREDITS
This course examines the elements necessary for the successful formulation of a new small business. Its 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 224 LEADERSHIP 3 CREDITS
Focuses on the leadership skills necessary to bring about change in an organization. Students learn to develop and communicate a shared vision, to empower employees, to manage conflict, to negotiate, and to develop organizations so that all are working toward common goals. Crosslisted with BUS 251.

MAN 226 PRINCIPLES OF MANAGEMENT 3 CREDITS
A survey of the principles of management. Emphasis will be on the primary functions of planning, organizing, staffing, directing and controlling with a balance between the behavioral and operational approach. Emphasis placed on learning decision making and changing management concepts.

MAN 230 CORPORATE RESPONSIBILITY 3 CREDITS
This course examines the concept of corporate responsibility and the extent to which an organization's resources should be used to identify and respond to social problems. Included in the course will be topics of corporate and social responsibility, and the concept of servant leadership.

MAN 240 STRATEGIC MANAGEMENT 3 CREDITS
Development of Business Policy and the integration of skills learned in prior business study, including strategy formulation, implementation and evaluation. Focus is on the coordination of marketing, production, finance, accounting and ethics and social responsibility to achieve competitive advantage.

MAN 241 PROJECT MANAGEMENT IN ORGANIZATIONS 3 CREDITS
This course is designed to introduce students to the planning, implementation, and control activities of Project Management, including project and performance evaluation, quality control and work flow analysis. Emphasis will be on the initiating, planning, executing, controlling and closing activities of Project Management.

MAN 243 PROJECT MANAGEMENT IN ACTION 3 CREDITS
This course is a workshop seminar designed to bring into focus the subject material covered in MAN 241 and CIS 202. Emphasis will be on extracting facts to form patterns, thereby enabling students to see the "big picture" of Project Management.
PREREQUISITE(S): MAN 241 and CIS 202, or instructor's permission

MAN 275 SPECIAL TOPICS 1–6 VARIABLE CREDITS
This course is designed to provide students with the opportunity to study topics in management in greater depth than provided by regular course offerings.

MANUFACTURING TECHNOLOGY

MTE 120 MANUFACTURING PROCESSES 3 CREDITS
Provides the student an overview of the different methods, tools and machines which are used to manufacture industrial and consumer products.

MTE 141 PRINTED CIRCUIT BOARD ECAD/CAM 3 CREDITS
Introduces the student to the basic computer concepts of creating a production file for the design and manufacture of a printed circuit board. Topics include the computer applications for design capture, PCB library management, databases, integration tools, packaging, design rules and production documents.
PREREQUISITE(S): Instructor's permission

MARKETING

MAR 106 MARKETING YOUR IMAGE 3 CREDITS
A course designed to teach students how to manage their careers by teaching them how to market themselves to prospective employers, clients, professional groups and audiences of all types. Emphasis will be placed on skills used to gain employment (resumes, interviewing skills, and professional appearance and bearing), and on skills used to achieve continued personal success, such as professional behavior and attitude.

MAR 111 PRINCIPLES OF SALES 3 CREDITS
This course 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 CREDITS
This course is a study of the basic principles and techniques of merchandising, operations, layout, store organization, site location, and customer service with an emphasis on retailing operations.

MAR 126 MERCHANDISING 3 CREDITS
This course emphasizes facility/store organization and merchandising techniques. The study of what makes a store appealing includes layout, product mix, and techniques of display.

MAR 160 CUSTOMER SERVICE 3 CREDITS
This course enables students to learn the relationship of self to customers, problem solve and understand the importance of communicating with customers. Specific emphasis is given to managing customer expectations by building customer rapport and creating positive outcomes. (This course was previously MAR 136).

MAR 216 PRINCIPLES OF MARKETING 3 CREDITS
The analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to business and the individual consumer.

MAR 217 E-COMMERCE MARKETING 3 CREDITS
Explores new marketing strategies that have emerged as areas of information technology and the Internet have evolved. This course examines traditional marketing concepts of buying behavior, promotion, production and others, then redefines them as they apply to marketing on the World Wide Web. Web fundamentals, e-marketing trends, strategies, models and research will be examined.
PREREQUISITE(S): MAR 216

MAR 220 PRINCIPLES OF ADVERTISING 3 CREDITS
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 235 CONSUMER BEHAVIOR 3 CREDITS
Enables the the student to understand the variables that affect consumer behavior in the marketplace and the implications of this knowledge for marketing decisions and strategies.

MAR 245 SALES MANAGEMENT 3 CREDITS
Explores management of the selling function. It includes forecasting, organization of sales force, recruiting, selection, training, compensation, retention and territory management.

MAR 249 STRATEGIC MARKETING 3 CREDITS
Illustrates the connections between a market-driven strategy, customer satisfaction, and profitable growth. Students will examine how marketing strategies are developed and executed within both small and large organizations. The course will emphasize strategy development, implementation and evaluation.

MAR 255 SPORTS INDUSTRY MARKETING 3 CREDITS
This course is designed for the professional who desires a career in the professional sport setting, commercial sports industry, including sales, promotions, marketing, public relations and sports arena facility and event operations.

MAR 275 SPECIAL TOPICS 1–6 VARIABLE CREDITS
Provides students with a vehicle to pursue special topics of interest in business. The content of this course is designed on an as-needed basis to provide current, up-to-date information.

MASS MEDIA

See Journalism and Mass Communication

MATHEMATICS

MAT 030 FUNDAMENTALS OF MATHEMATICS 2 CREDITS

Includes the vocabulary, operations and applications of whole numbers, decimals and basic fractions and mixed numbers.

PREREQUISITE(S): Math assessment, arithmetic score 24-56

MAT 060 PRE-ALGEBRA 3 CREDITS

Furthers 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.

PREREQUISITE(S): MAT 030 or Math Assessment, arithmetic score of 57-120; elementary algebra score of < 45

MAT 090 INTRODUCTORY ALGEBRA 4 CREDITS

Includes first-degree equations, inequalities, formulas, polynomials, algebraic fractions, factoring polynomials, solving quadratic equations by factoring, and applications. Coordinate geometry, graphing linear equations and inequalities, and systems of linear equations may be included.

PREREQUISITE(S): MAT 060 or Math Assessment, arithmetic score of 45-60

MAT 101 ENHANCED MATHEMATICS SUPPORT 1 CREDIT

Supplements math classroom instruction through the Mathematics Support Center, a student-centered learning environment. Students will be able to utilize the following resources: professional and peer tutoring, mathematics and tutorial software, online tutorial resources, videotapes, and training guides for these resources. Students will also be able to obtain help with calculators and mathematical software required in their math courses.

MAT 106 SURVEY OF ALGEBRA 4 CREDITS

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.

PREREQUISITE(S): MAT 090 or Math Assessment score of 61-84

COREQUISITE(S): MAT 111 required

MAT 108 TECHNICAL MATHEMATICS 4 CREDIT

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.

PREREQUISITE(S): MAT 060 or equivalent

MAT 111 TECHNOLOGY LAB FOR ALGEBRA 1 CREDIT

Explores and applies algebraic topics in a laboratory course using graphing calculators.

PREREQUISITE(S): MAT 090 or Math Assessment score of 61-84

COREQUISITE(S): MAT 106 required

MAT 120 MATHEMATICS FOR LIBERAL ARTS 4 CREDITS

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

PREREQUISITE(S): MAT 106 and 111 or Math Assessment score of 85-120

MAT 121 COLLEGE ALGEBRA 4 CREDITS

Includes a brief review of intermediate algebra, equations and inequalities, functions and their graphs, exponential and logarithmic functions, linear and nonlinear 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

PREREQUISITE(S): MAT 106 and 111 or Math Assessment score of 85-120

MAT 122 COLLEGE TRIGONOMETRY 3 CREDITS

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.

PREREQUISITE/COREQUISITE: MAT 121 or instructor's permission

MAT 123 FINITE MATHEMATICS 4 CREDITS

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.

PREREQUISITES: MAT 106 or math assessment

MAT 125 SURVEY OF CALCULUS 4 CREDITS

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-AH1

PREREQUISITE(S): MAT 121 or 123

MAT 135 INTRODUCTION TO STATISTICS 3 CREDITS

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

PREREQUISITE(S): MAT 106 or 136 or math assessment

COREQUISITE(S): MAT 179 required

MAT 155 INTEGRATED MATH I 3 CREDITS

Covers topics including natural numbers, integers, rational numbers, relations, functions and equations. This course is the first of a two-course sequence particularly pertinent to prospective arithmetic teachers, presenting arithmetic and algebra from a modern approach.

MAT 156 INTEGRATED MATH II 3 CREDITS

Continues MAT 155. It includes the study of the fundamentals of probability, statistics and informal Euclidean geometry suitable for K-8 curriculum, employing laboratory techniques where applicable.

MAT 179 COMPUTER APPLICATIONS FOR STATISTICAL PROCEDURES 1 CREDIT

Uses statistical software and the world wide web to engage students in an active, visual approach to the topics covered in MAT 135. Students will work with real world data on problems of a practical nature.

PREREQUISITE(S): MAT 106 or equivalent

COREQUISITE(S): MAT 135 required

MAT 201   CALCULUS I   5 CREDITS
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.
PREREQUISITE(S): MAT 121 and 122 or equivalent
This is one of the Statewide Guaranteed Transfer courses.

MAT 202   CALCULUS II   5 CREDITS
Continuation of single variable calculus and includes techniques of integration, polar coordinates, analytic geometry, improper integrals and infinite series.
PREREQUISITE(S): MAT 201, or instructor's permission
This is one of the Statewide Guaranteed Transfer courses.

MAT 203   CALCULUS III   4 CREDITS
Completes the traditional subject matter of Calculus. Topics include vectors, vector-valued functions, and multi-variable calculus including partial derivatives, multiple integrals, line integrals and application.
PREREQUISITE(S): MAT 202

**MAT 255   LINEAR ALGEBRA
                    3 CREDITS**
Includes vector spaces, matrices, linear transformations, matrix representations, eigenvalues and eigenvectors.
PREREQUISITE(S): MAT 202, or instructor's permission

**MAT 265   DIFFERENTIAL EQUATIONS
                    3 CREDITS**
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.
PREREQUISITE(S): MAT 203, or instructor's permission

**MAT 275   SPECIAL TOPICS
                    1–6 VARIABLE CREDITS**
Special Topics courses may be offered to provide students with an opportunity to study special areas in the discipline. Course content will be determined by the instructor with a complete syllabus each time the course is offered.

**MAT 285   INDEPENDENT STUDY
                    1–6 VARIABLE CREDITS**
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

MEDICAL LABORATORY TECHNOLOGY

HPR 112   PHLEBOTOMY   8 CREDITS
Teaches the duties associated with the practice of venipuncture, capillary puncture, and special collection procedures. Students will have experience with quality control, infection control and safety procedures as well as laboratory computer systems. Students successfully completing this course may apply for a National Phlebotomy Registry Examination.

**MLT 120   CLINICAL ASSISTANT CORE
                    MODULE   2 CREDITS**
MLT 120 is the Core Module for the Clinical Assistant Certificate. Topics covered include laboratory safety and regulations, quality control, basic specimen collection, reagent preparation and laboratory medical terminology.
This course is not eligible for financial aid.

**MLT 131   INTRODUCTION TO
                    HEMATOLOGY   2 CREDITS**
MLT 131 is designed as an introduction course to hematology for MLT students and a complete Hematology module for the Clinical Assistant. Basic manual hematology test and basic instrumentation theory are covered. OSHA safety and an introduction to phlebotomy are also included.
COREQUISITE(S): BIO 201

**MLT 132   HEMATOLOGY II
                    4 CREDITS**
MLT 132 is the continued section of Hematology for the MLT students. Advanced Hematology theory and disease correlation are covered. OHSA safety, phlebotomy and instrumentation are continued, cell differentials, other manual Hematology testing and coagulation are also included.
PREREQUISITE(S): MLT 131 or instructor's permission
COREQUISITE(S): BIO 201

**MLT 141   IMMUNOLOGY/
                    IMMUNOHEMATOLOGY
                    4 CREDITS**
Basic principles of immunology are discussed with serological techniques practiced and observed in the clinical laboratory also covered. In addition basic theories of Immunohematology (Blood Banking) such as ABO and Rh typing are taught and experienced in the student laboratory.
PREREQUISITE(S): BIO 201, MLT 131, 132 or instructor's permission
COREQUISITE(S): BIO 202

MLT 142   URINALYSIS   2 CREDITS
MLT 142 is designed for both MLT and Clinical Assistant (CA) students. Introduction to kidney functions and basic principles of urinalysis with complete urinalysis procedures are discussed and performed. Basic description and recognition of Body Fluids is also included.
COREQUISITE(S): BIO 201 or 202

**MLT 180   INTERNSHIP/BLOOD
                    BANK I   1 CREDIT**
Presents the clinical internship rotation in one or two blood banking facilities or lab. Student attends for 40 hours per week . Additional practice of blood bank principles and procedures, experience with automated instrumentation and exposure to clinical environment provided.
PREREQUISITE(S): MLT 141

**MLT 182   INTERNSHIP II/
                    HEMATOLOGY,
                    COAGULATION &
                    URINALYSIS   5 CREDITS**
Presents the clinical internship rotation in a hematology laboratory. Student attends for 40 hours per week for 5 weeks. Additional practice of hematology principles and procedures, experience with automated instrumentation and exposure to clinical environment provided.
PREREQUISITE(S): MLT 131, 132, 142

**MLT 231   CLINICAL MICROBIOLOGY
                    4 CREDITS**
A brief introduction to the field of microbiology followed by the more technical aspects of clinical microbiology. Infectious diseases will also be discussed. Specimen types from different anatomical sites will be covered for the culture of bacteria in the clinical laboratory. Use of media for isolation and differential tests for identification of bacteria will be performed in the student laboratory.
PREREQUISITE(S): BIO 201, 202 or instructor's permission

**MLT 232   PARASITOLOGY/
                    MYCOLOGY   2 CREDITS**
An introduction to protozoa, Helminths and blood tissue parasites with special emphasis on microscopic morphology in the detection and correct identification of parasites. This combined course also includes an introduction to fungi with emphasis on microscopic and culture methods.
PREREQUISITE(S): BIO 201, or instructor's permission

**MLT 241   INTRODUCTION TO
                    CLINICAL CHEMISTRY
                    2 CREDITS**
MLT 241 is designed as an introduction course to clinical chemistry for MLT students and a complete chemistry module for Clinical Assistant students. Basic laboratory math, instrumentation, safety and quality control are discussed along with basic theory and result evaluation of electrolytes, kidney function and liver function tests.
PREREQUISITE(S): CHE 101 or instructor's permission

**MLT 242   CLINICAL CHEMISTRY II
                    4 CREDITS**
MLT 242 is the continued section of clinical chemistry for the MLT student. Advanced clinical chemistry theory, organ functions and disease correlations are covered.
PREREQUISITE(S): CHE 101, MLT 241 or instructor's permission

**MLT 243 CLINICAL PRACTICES
1 CREDIT**
This course is designed for both MLT and CA students. Common healthcare practices such as point of care testing, vital signs, capillary blood collection and specimen processing are covered. Additionally, information on healthcare regulatory agencies, medical ethics and patient services are discussed.

MLT 253 MLT SEMINAR 1 CREDIT
Current laboratory technology topics and employability skills are presented in an online format. Grade determination also includes successful completion of three MLT program Comprehensive Exams and 15 hours of community service.
PREREQUISITE(S): ALL MLT courses

**MLT 275 SPECIAL TOPICS
1–6 VARIABLE CREDITS**
Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**MLT 280 INTERNSHIP III/CLINICAL
CHEMISTRY 5 CREDITS**
Provides a clinical internship rotation in a chemistry laboratory. Student attends for 40 hours per week for 5 weeks. Additional practice of clinical chemistry principles and procedures, experience with automated instrumentation and exposure to clinical environment provided.
PREREQUISITE(S): MLT 241, 242

**MLT 282 INTERNSHIP IV/
MICROBIOLOGY 5 CREDITS**
Provides a clinical internship rotation in a microbiology laboratory. Student attends for 40 hours per week for 5 weeks. Additional practice of clinical chemistry principles and procedures, experience with automated instrumentation and exposure to clinical environment provided.
PREREQUISITE(S): MLT 231, 232

**MLT 285 INDEPENDENT STUDY
1–6 VARIABLE CREDITS**
Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.
PREREQUISITE(S): Instructor's permission

MEDICAL OFFICE TECHNOLOGY

**MOT 110 MEDICAL OFFICE
ADMINISTRATION
4 CREDITS**
Introduces the administrative duties specifically used in medical offices.

**MOT 125 BASIC MEDICAL SCIENCES I
3 CREDITS**
This course introduces the allied health professional to basic anatomy and physiology and pathophysiology. Introductory concepts of chemistry and biology as they apply to healthcare will be discusssed as well as an overview of disease and an introduction to pharmacology. The student will learn anatomy and physiology, pathophysiology, and related pharmacology of the immune, musculoskeletal and digestive systems. Pediatric and geriatric considerations will be integrated throughout the course. This course is a prerequisite for MOT 133 and MOT 135.
PREQUISITE(S): HOT 178 for HIT students and MOT 102 for MOT students

**MOT 132 MEDICAL TRANSCRIPTION
4 CREDITS**
Provides basic knowledge, understanding and skills required to transcribe medical dictation with accuracy, clarity and timeliness, applying the principles of professional and ethical conduct.

**MOT 133 BASIC MEDICAL SCIENCES II
3 CREDITS**
Teaches the anatomy and physiology, pathophysiology and drug therapy of the cardiovascular, respiratory and dermatology systems. This course is a follow-on course from MOT 123. Students may take MOT 125, MOT 133, and MOT 135 in any order after successfully completing MOT 123.
PREREQUISITE(S): MOT 123

**MOT 135 BASIC MEDICAL
SCIENCES III 3 CREDITS**
Covers the anatomy and physiology, pathophysiology and drug therapy of the renal, reproductive, neurological, and endocrine systems. This course is a follow-on course from MOT 123. Students may take MOT 125, MOT 133, and MOT 135 in any order after successfully completing MOT 123.
PREREQUISITE(S): MOT 123

**MOT 136 INTRODUCTION TO
CLINICAL SKILLS 2 CREDITS**
Provides hands-on experience with the basic clinical skills required for assisting with patient care. Delivers the theory behind each skill presented as well as proper technique for performing each skill. Includes knowledge and/or performance of blood-borne pathogens/OSHA regulations, medical asepsis, procedural gloving, patient gowning, positioning, and vital sign measurement.

**MOT 138 LABORATORY SKILLS
4 CREDITS**
Introduces the student to basic routine laboratory skills and technique for collection, handling and examination of laboratory specimens often encountered in the ambulatory care setting. Emphasizes hands-on experience with lab procedures.

**MOT 140 MEDICAL ASSISTING
CLINICAL SKILLS
4 CREDITS**
Provides hands-on experience with the clinical skills required for assisting with patient care. Delivers the theory behind each skill presented as well as proper technique for performing each skill.
PREREQUISITE(S): Determined by individual program guides.
COREQUISITE(S): Determined by individual program guides.

**MOT 142 MEDICAL
TRANSCRIPTION II
4 CREDITS**
Uses a simulation approach to build student vocabulary and speed, while providing actual medical transcription of a variety of health care and medical reports at progressively increasing accuracy and productivity standards.

**MOT 180 MEDICAL TRANSCRIPTION
INTERNSHIP 3 CREDITS**
Provides supervised placement in a contracted facility for guided experience in the application of knowledge and skills acquired in the classroom.

**MOT 181 ADMINISTRATIVE
INTERNSHIP 2 CREDITS**
Provides supervised placement in a contracted facility for guided experience and application of knowledge and skill acquired in the classroom. The student assists with a variety of business and billing procedures. Positions are non-paid. Student must have permission by program coordinator to begin internship.
PREREQUISITE(S): Determined by individual program
COREQUISITE(S): Determined by individual program

**MOT 182 CLINICAL INTERNSHIP
3 CREDITS**
Provides supervised placement in contracted facility for guided experience in applications of knowledge and skills acquired in the classroom. Positions are non-paid due to CAAHEP requirement. Student must have permission by program coordinator to begin internship.

**MOT 183 MEDICAL ASSISTANT
INTERNSHIP 5 CREDITS**
Provides supervised placement in contracted facility for guided experience in applications of knowledge and skills aquired in the classroom. Positions are non-paid due to CAAHEP requirement. Student must have permission by program coordinator to begin internship.

**MOT 225 MEDICAL PRACTICE
MANAGEMENT ISSUES
4 CREDITS**
This course will be a culmination of the knowledge the student has learned in the program. Students will focus their attention on bringing acquired knowledge to issues faced specifically by medical practice managers. Content will include management priorities; principles of practice management; financial, clinical, personal and service; financial management control; information management systems; marketing; managed care contracting and negotiations; basic business policies of medical office compliance; coding and documentation.
PREREQUISITE(S): Students must have completed 45 of the 61 credits toward the Medical Practice Management degree option or Academic Coordinator permission

**MOT 285 INDEPENDENT STUDY
1–6 VARIABLE CREDITS**
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

MORTUARY SCIENCE

**MOR 100 INTRO TO FUNERAL
SERVICE 3 CREDITS**
This course is designed to provide students with an overview of funeral customs and practices which have lead to our current industry. The course will begin by examining ancient practices of the Egyptians and will conclude with the practices of post-World War II. The course will concentrate on the American history of "undertaking." This course will help students to determine more clearly their level of interest in and aptitude toward this profession.

**MOR 210 EMBALMING THEORY I
AND LAB 4 CREDITS**
Embalming Theory I is an intensive study of the basic fundamentals of the embalming process including the purpose of embalming, history of embalming, modes of death, signs of death, tests for death, postmortem physical and chemical changes, ethics of embalming, and laws of decomposition. Included are the physical and chemical changes in the dying process and moral and ethical considerations in preparation of human remains. The academic lab portion of this course includes active participation by the student in 5 embalmings.
PREREQUISITE(S): BIO 201, 202, MOR 224 and 243 for Track II students
COREQUISITE(S): MOR 224 for Track I students

**MOR 215 FUNERAL SERVICE
MERCHANDISING
3 CREDITS**
This course presents a study of marketing and merchandising techniques analogous to small business and the funeral profession in particular. The student will have the opportunity to study casket and burial vault construction, pricing methods, merchandising and sales techniques. The counselor presents goods and services to client families. The course will utilize theory and role playing to convey knowledge and self-confidence. The course will include: basic terminology; financing and pricing; organization and management; personnel management; and specific theories inherent to the funeral service profession.
PREREQUISITE(S): Program admission and BUS 216
COREQUISITE(S): MOR 220

**MOR 220 MORTUARY LAW AND
COMPLIANCE 3 CREDITS**
This course is designed to provide students with an overview of laws, regulations and ethics in the profession. Major emphasis of this course will deal with government compliance issues such as OSHA, FTC, ADA and EPA; the definition of legal next-of-kin; the dead human body as "quasi-property;" obtaining legal authorizations; and confidentiality.
PREREQUISITE(S): Program admission and BUS 216
COREQUISITE(S): MOR 215

**MOR 224 THANATO-MICROBIOLOGY/
PATHOLOGY 4 CREDITS**
Designed to present the basic principles of microbiology, nature and cause of disease, and the pathogenicity associated with specific diseases.
PREREQUISITE(S): Program admission and BIO 201

**MOR 225 EMBALMING THEORY II
AND LAB 4 CREDITS**
Embalming Theory II is an intensive study beyond the basic skills involved in the embalming process. Topics covered include case analysis, formulating chemical solutions, a complete analysis of the circulatory system, an explanation of the equipment used in the embalming process, and methods of injection and drainage. This course will introduce the student to theoretical practice in the art of embalming by means of case analysis. The academic lab portion of this course includes active participation by the student in 5 embalmings.
PREREQUISITE(S): MOR 210
COREQUISITE(S): MOR 230

**MOR 230 RESTORATIVE ART AND
LAB 4 CREDITS**
Restorative art is defined as "the care of the deceased to recreate natural form and color." This course is an in-depth study of anatomical modeling, forming of expression, and familiarization with instruments, materials and techniques of restoring human features. These principles and practices will be used in the every day embalming operations in our industry. 45 hours lecture, 30 hours lab.
COREQUISITE(S): MOR 225

**MOR 235 FUNERAL DIRECTING
AND COUNSELING
3 CREDITS**
The total funeral service education environment and counseling aspects will be examined. This will include duties, responsibilities, skills and ethical obligations. There will be an introduction to various religious, fraternal and military types of funeralization. An appreciation of care-giving roles in relation to grieving persons will be considered.
PREREQUISITE(S): program admission and PSY 101.

**MOR 243 THANATOCHEMISTRY
3 CREDITS**
To provide the student with the knowledge necessary to safely and effectively utilize potentially harmful chemicals necessary for the sanitation, disinfection, restoration and preservation of dead human remains currently in practice in the funeral service industry.
PREREQUISITE(S): Program admission

**MOR 275 SPECIAL TOPICS
1–6 VARIABLE CREDITS**
Special Topics courses may be offered to provide students with an opportunity to study special areas in the discipline. Course content will be determined by the instructor with a complete syllabus each time the course is offered.

**MOR 285 INDEPENDENT STUDY
1–6 VARIABLE CREDITS**

Course designed to meet the individual needs of students.

PREREQUISITE(S): Instructor's permission

**MOR 290 FUNERAL SERVICE
INTERNSHIP   4 CREDITS**

Practical experience in an off-campus funeral service firm as assigned by the Mortuary Science Department. The student will take part in: removals, cosmetizing, restorative art, dressing-casketing, arrangements, visitations, funeral directing, internment procedures, merchandising, office procedures, and general funeral home management.

PREREQUIRISTE(S): Must have completed all MOR courses.

MULTIMEDIA/ GRAPHIC DESIGN & ILLUSTRATION

**MGD 101 INTRODUCTION TO
COMPUTER GRAPHICS
(FORMERLY GDI 106)
3 CREDITS**

Introduces the student to the computer system developed for graphics. The student will learn the hardware and software components for multimedia production. Each student will explore basic computer operations, ergonomics, file management, scanning techniques, archiving capabilities, and utilization of the multimedia department server and Internet connection.

**MGD 102 INTRODUCTION TO
MULTIMEDIA
(FORMERLY GDI 120)
3 CREDITS**

Introduces the types of equipment and technical considerations used in multimedia productions and the multimedia professions. It focuses on current types of equipment such as scanners, printers, digital cameras and computers. Students gain hands-on experience in how the technology is utilized for input and output in production and design projects. Overview of software and basic design principles will be explored.

**MGD 103 PRODUCTION DESIGN
(FORMERLY GDI 150)
3 CREDITS**

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.

PREREQUISITE(S): MGD 101, MGD 133 or ART 131

COREQUISITE(S): MGD 112, MGD 113

**MGD 105 TYPOGRAPHY & LAYOUT
(FORMERLY GDI 105)
3 CREDITS**

Covers the creation and production of graphic projects, emphasizing the layout creative design process, problem solving, and research. Provides experience producing thumbnails, roughs and digital layouts emphasizing refined creative typography.

COREQUISITE(S): MGD 101

**MGD 111 ADOBE PHOTOSHOP I
(FORMERLY GDI 200)
3 CREDITS**

Concentrates on the high-end capabilities of a raster photo-editing software as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos, graphics and videos.

PREREQUISITE(S): MGD 101 or instructor's permission

**MGD 112 ADOBE ILLUSTRATOR I
(FORMERLY GDI 160)
3 CREDITS**

Acquaints students with the processes of a vector drawing program on the computer. Students learn how to use the tools to create digital artwork that can be used in web design, print media and digital screen design.

PREREQUISITE(S): MGD 101 or instructor's permission

**MGD 113 QUARKXPRESS
(FORMERLY GDI 155)
3 CREDITS**

Introduces students to QuarkXPress, a digital page layout tool. Students learn how to assemble, organize, manipulate and manage text and graphics to produce a high quality publication. Class discussions and independent projects supplement hands-on classroom work.

PREREQUISITE(S): MGD 101 or instructor's permission

**MGD 114 ADOBE INDESIGN
3 CREDITS**

Introduces students to InDesign, a page layout program which integrates seamlessly with other Adobe design programs. InDesign delivers creative freedom and productivity to DTP. Class discussions and independent projects supplement hands-on classroom work.

PREREQUISITE(S): MGD 101 or instructor's permission

**MGD 117 INTRODUCTION TO VISUAL
COMMUNICATIONS
(FORMERLY GDI 101)
3 CREDITS**

Surveys visual communications, its history and impact on society. A foundation course for graphic design and illustration majors and a survey for non-majors who are interested in the field. Assignments require minimal artistic talent.

**MGD 128 MULTIMEDIA HARDWARE
(FORMERLY GDI 240)
3 CREDITS**

Teaches the principles and techniques of maintaining, upgrading and customizing personal computer systems. Emphasis will also be placed on various emerging and established technologies related to graphic computing.

PREREQUISITE(S): MGD 102 or instructor's permission

**MGD 133 GRAPHIC DESIGN I
(FORMERLY GDI 103)
3 CREDITS**

Focuses upon the study of design layout and conceptual elements concerning graphic design projects such as posters, advertisements, logos and brochures.

**MGD 141 WEB DESIGN I
(FORMERLY GDI 260)
3 CREDITS**

Introduces the fundamentals of HTML syntax using a simple text editor to create a web page. Web-safe colors and the use of graphic editors will be explored. Students study web aesthetics and intuitive interface design. The course emphasizes file organization and layout including tables and frames.

PREREQUISITE(S): MGD 101 or instructor's permission

**MGD 143 WEB MOTION
GRAPHIC DESIGN I
(FORMERLY GDI 273)
3 CREDITS**

Stresses creation of animated GIF's and dynamic, interactive media for Web applications. Students will learn how to draw objects, create symbols, and assemble motion tweens.

PREREQUISITE(S): MGD 111, MGD 141

**MGD 155 LIGHTWAVE I
(FORMERLY GDI 246)
3 CREDITS**

Introduces students to LightWave's Modeler program with an emphasis on modeling techniques. It also touches on LightWave`s Layout program for setting up scenes with texture maps and lighting. There will also be instruction on how to import models from other programs.

PREREQUISITE(S): MGD 101 or instructor's permission

**MGD 161 DIRECTOR I
(FORMERLY GDI 270)
3 CREDITS**

Examines Macromedia Director, the leading authoring tool for interactive multimedia from the art director's perspective. Students will learn the basics of 2D animation for both computer presentations and the web. Interface design and scene development is emphasized. Hands-on projects include lingo scripts, behaviors, adding sound and digital video to student's movies.

PREREQUISITE(S): MGD 101 or instructor's permission

MGD 164 DIGITAL VIDEO EDITING I
(FORMERLY GDI 241)
3 CREDITS

Introduces to digital non-linear video editing. Students will capture, compress, edit and manipulate video images using a personal computer. Assembly techniques including media management, editing tools, titles and motion control; transitions and filters, and special effects are explored.

PREREQUISITE(S): MGD 102 or instructor's permission

MGD 207 ILLUSTRATION I
(FORMERLY GDI 170)
3 CREDITS

Addresses methods and techniques used in the profession of illustration for advertising, brochures, books and other forms of printed communications. Course concentrates on developing expertise in producing line and continuous-tone black-and-white art with emphasis on design and the creation of art for reproduction.

PREREQUISITE(S): ART 121

MGD 208 ILLUSTRATION II
(FORMERLY GDI 206)
3 CREDITS

Addresses methods and techniques used in the illustration profession beyond those covered in Illustration I. Course concentrates on developing expertise in producing color art for reproduction.

PREREQUISITE(S): MGD 207

MGD 209 ILLUSTRATION III
(FORMERLY GDI 207)
3 CREDITS

Continues Illustration II with added emphasis on conceptual development and proficiency in technique.

PREREQUISITE(S): MGD 208

MGD 210 ILLUSTRATION IV
(FORMERLY GDI 208)
3 CREDITS

Covers advanced illustration techniques including manual, computer and mixed media techniques.

PREREQUISITE(S): MGD 209

MGD 211 ADOBE PHOTOSHOP II
(FORMERLY GDI 259)
3 CREDITS

Develops and reinforces image composition techniques learned in Adobe Photoshop I, MGD 111. Fundamentals are continuously reinforced as new design techniques are introduced.

PREREQUISITE(S): MGD 111

MGD 212 ADOBE ILLUSTRATOR II
(FORMERLY GDI 251)
3 CREDITS

Enables the student to continue development of electronic drawing skills through practice and use of state-of-the-art illustration software.

PREREQUISITE(S): MGD 112

MGD 213 ELECTRONIC PREPRESS
(FORMERLY GDI 252)
3 CREDITS

Explores in detail the electronic prepress process. Students examine steps for preparing a digital file for trapping, output considerations and proofing techniques. Creating effective electronic designs and efficient use of today's software programs are also covered.

PREREQUISITE(S): MGD 113

MGD 214 MACINTOSH
TROUBLESHOOTING FOR
DESIGNERS
(FORMERLY GDI 230)
3 CREDITS

Addresses terminology, hardware, graphics software applications, peripherals and troubleshooting needs of designers who use the Macintosh computer as a production tool.

PREREQUISITE(S): MGD 101 or instructor's permission

MGD 250 EMERGING MULTIMEDIA
TECHNOLOGIES
(FORMERLY GDI 271)
3 CREDITS

Provides a broad-based overview of current trends and issues in multimedia development and related industries. The class format will include lectures, readings, demos, discussion, research, projects and a final student presentation. Course content changes each semester. May include topics such as voice/data/video integration; virtual environments; broadband; streaming media architectures; telco/CATV/satellite technologies; network-based applications; using technology for building community; wireless technology; current thinking in human factors and usability; XML and the semantic web; groupware and collaborative tools; pervasive computing; and others.

PREREQUISITE(S): MGD 128, MGD 161

MGD 256 GRAPHIC DESIGN
PRODUCTION
(FORMERLY GDI 180)
3 CREDITS

Provides an opportunity to combine several draw and paint applications into one design and layout class. Students will explore advanced techniques in creating and designing computer art.

PREREQUISITE(S): MGD 101, MGD 105, MGD 133 or ART 131

COREQUISITE(S): MGD 103, MGD 112, MGD 113

MGD 260 GRAPHIC DESIGN
PRODUCTION II
(FORMERLY GDI 220)
3 CREDITS

Continues design and production techniques with further instruction in computer file set-up and creation of camera-ready art. Use of black and white and spot color for a variety of design projects.

PREREQUISITE(S): MGD 256

COREQUISITE(S): MGD 111

MGD 262 GRAPHIC DESIGN
PRODUCTION III
(FORMERLY GDI 225)
3 CREDITS

Covers advanced study in design and production techniques and processes, including use of full color for publication design and book formats, advertising campaigns, business reply mail, promotional items, and editorial design.

PREREQUISITE(S): MGD 260

MGD 264 DIGITAL VIDEO EDITING II
(FORMERLY GDI 243)
3 CREDITS

Looks at the more complex and advanced techniques of digital video editing. Areas of editing such as masking, filtering, blue/green screening, track mattes, and image mattes will be examined. Students will produce a movie project in this class and discuss practical ways to distribute to various audiences.

PREREQUISITE(S): MGD 111, MGD 164

MGD 275 SPECIAL TOPICS
(FORMERLY GDI 275)
1-6 CREDITS

Provides students with a vehicle to pursue in depth exploration of special topics of interest.

PREREQUISITE(S): To be determined by the instructor

MGD 280 INTERNSHIP   3 CREDITS

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.

PREREQUISITE(S): MGD 112, MGD 113, and MGD 256 with grades of B or better for each class.

MGD 285 INDEPENDENT STUDY
(FORMERLY GDI 285)
1–6 CREDITS

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

PREREQUISITE(S): To be determined by the instructor

MGD 287 COOPERATIVE EDUCATION
(FORMERLY GDI 290)
3 CREDITS

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

PREREQUISITE(S): To be determined by the instructor. Student must also have a resume and a portfolio to present.

MGD 289 CAPSTONE   3 CREDITS

A demonstrated culmination of learning within a given program of study.

PREREQUISITE(S): MGD 103, 256; MGD 260 strongly suggested as a prerequisite, or may be taken as a corequisite. Must be taken the final semester before graduation.

MUSIC

MUS 100 FUNDAMENTALS OF MUSIC THEORY 3 CREDITS
This course is designed to help the beginning music student, or those students with a limited background in music theory. The course focuses upon the basic elements of music, including notation, rhythm, scales, key signatures, intervals, and chords.

MUS 120 MUSIC APPRECIATION 3 CREDITS
Course 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.

MUS 121 MUSIC HISTORY I 3 CREDITS
Studies the various periods of music history with regard to the composers, aesthetics, 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.

MUS 122 MUSIC HISTORY II 3 CREDITS
Continues Music History I with a study of music from the early Romantic period to the present.

This course is one of the Statewide Guaranteed Transfer courses.

MUS 125 HISTORY OF JAZZ 3 CREDITS
Provides an overview of the history of jazz in America, and to provide basic listening skills for the understanding and appreciation of jazz music.

MUS 131 MUSIC CLASS 2 CREDITS
Applies the fundamentals of music to the voice or specific musical instruments. This course also introduces basic techniques, repertoire, and sight-reading. First year, first term.

MUS 141 PRIVATE INSTRUCTION 1–2 CREDITS
Offers private instruction consisting of a thirty or sixty-minute lesson per week. Participation in a student performance is required at least once each term. First year, first term. An additional fee is required.

MUS 142 PRIVATE INSTRUCTION II 1–2 CREDITS
Offers private instruction consisting of a thirty or sixty-minute lesson per week. Participation in a student performance is required at least once each term. First year, second term.
PREREQUISITE: Permission of the instructor. An additional fee is required.

MUS 151 ENSEMBLE 1 CREDIT
First year, first term. Rehearses and performs various types of musical literature.
PREREQUISITE : Permission of the instructor.

MUS 152 ENSEMBLE II 1 CREDIT
Rehearses and performs various types of musical literature. First year, second term.
PREREQUISITE: Permission of the instructor

MUS 241 PRIVATE INSTRUCTION 2 CREDITS
Offers private instruction consisting of a thirty or sixty-minute lesson per week. Participation in a student performance is required at least once each term. Second year, first term.
PREREQUISITE: Permission of the instructor. An additional fee is required.

MUS 242 PRIVATE INSTRUCTION 2 CREDITS
Offers private instruction consisting of a thirty or sixty-minute lesson per week. Participation in a student performance is required at least once each term. Second year, third term.
PREREQUISITE: Permission of the instructor. An additional fee is required.

MUS 243 PRIVATE INSTRUCTION 1-2 CREDIT
1 Credit primary for non-music majors. 2 Credits for music majors planning to transfer to 4 year school. Offers private instruction consisting of a thirty or sixty minute lesson per week. Participation in a student performance is required at least once each term for 1 credit. Regular attendance at and participation in student performances is required for 2 credits. Second year, third term.
PREREQUISITE: Permission of the instructor. An additional fee is required.

MUS 244 PRIVATE INSTRUCTION 1-2 CREDIT
1 Credit primary for non-music majors. 2 Credits for music majors planning to transfer to 4 year school. Offers private instruction consisting of a thirty or sixty minute lesson per week. Participation in a student performance is required at least once each term for 1 credit. Regular attendance at and participation in student performances is required for 2 credits. Second year, third term.
PREREQUISITE: Permission of the instructor. An additional fee is required.

MUS 251 ENSEMBLE I 1 CREDIT
Description: Rehearses and performs various types of musical literature. Second year, second term.
PREREQUISITE: Permission of the instructor.

MUS 252 ENSEMBLE II 1 CREDIT
Description: Rehearses and performs various types of musical literature. Second year, second term.
PREREQUISITE: Permission of the instructor.

MUS 275 SPECIAL TOPICS 1–6 VARIABLE CREDITS
Courses on special topics that relate to music. Topics may be of interest to the general population and/or of interest to special populations such as music majors, educators, etc.

MUS 285 INDEPENDENT STUDY 1–6 VARIABLE CREDITS
Course designed to meet the individual needs of students.
PREREQUISITE(S): Instructor's permission

NURSE AIDE

NUA 101 CERTIFIED NURSE AIDE HEALTH CARE SKILLS 4 CREDITS
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.

This course is not eligible for financial aid.

NUA 170 NURSE AIDE CLINICAL 1 CREDIT
Applies knowledge gained from NUA 101 in a clinical setting.
PREREQUISITE(S): Successful completion of NUA 101.

NUA 171 ADVANCED NURSE AIDE CLINICAL 1 CREDIT
NUA 171 prepares the student to move toward more independent functioning in applying knowledge and skills gained in NUA 101 and NUA 170. The student will learn skills that address cultural competency care of the dying patient and organizational skills.
PREREQUISITE(S): Current CPR card. Negative TB test or chest X-ray and immunizations current.
COREQUISITE(S): NUA 101, 170
This course is not eligible for financial aid.

NURSING

NUR 101 PHARMACOLOGY CALCULATIONS 1 CREDIT
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.
PREREQUISITE(S):Basic Skills Assessment, admission to the program and BIO 201 or 202 with a grade of C or better (must be completed within 7 years of application and entry into NUR courses), or instructor's permission
NUR 101 may not be completed more than one year prior to starting the nursing program.

NUR 106   MEDICAL AND SURGICAL NURSING CONCEPTS   7 CREDITS

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.

PREREQUISITE(S): NUR 101, 107, 108, 112, 170, BIO 201, 202, HWE 100, HPR 205, PSY 101, 235, ENG 121 or instructor's permission

NUR 107   NURSING CONCEPTS AND SKILLS I   4 CREDITS

Introduces the nursing student to applications of critical thinking and the nursing process to provide care to clients in a variety of community and acute care settings. Emphasis is on holistic health care across the health-illness continuum. Introduces learners to the clinical skills essential for the nursing role of care provider including safe and effective clinical environment, skill preparation, implementation and evaluation. Emphasizes use of caring, critical thinking and communication while completing nursing skills.

PREREQUISITE(S): Basic Skills Assessment. Admission to the program and BIO 201 or 202 with a grade of C or better (must be completed within 7 years of entry into NUR courses) or instructor's permission

NUR 108   NURSING CONCEPTS & SKILLS II   3 CREDITS

Introduces more complex concepts and behaviors of nursing roles within the context of the nursing process, holistic care and health care. Emphasizes the theoretical and practical aspects of more complex nursing skills required to meet the needs of clients in a variety of settings.

PREREQUISITE(S): NUR 101, 107 or instructor's permission

NUR 111   SOCIALIZATION INTO PRACTICAL NURSING   1 CREDIT

Introduces roles and responsibilities of the graduate Practical Nurse as defined by established standards, including the Colorado Nurse Practice Act. Emphasis is placed on accountability, delegation and perspectives in health care. Career and job readiness skills are developed.

PREREQUISITE(S): BIO 201, 202, HPR 205, HWE 100, PSY 101, 235, ENG 121, NUR 101, 107, 108, 112, 170 or instructor's permission

NUR 112   BASIC CONCEPTS OF PHARMACOLOGY   2 CREDITS

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.

PREREQUISITE(S): NUR 101, 107 or instructor's permission

NUR 117   NURSING CARE OF THE CHILDBEARING FAMILY   3 CREDITS

Provides a foundational course in the nursing care of the childbearing family. The focus is on normal pregnancy, physiologic and psychological changes experienced, and care of the normal newborn. The nursing process is used in identifying and meeting the needs of the childbearing family to facilitate optimal functioning. The impact of psychosocial and cultural values and practices of the childbearing family are explored. Legal and ethical issues are addressed.

PREREQUISITE(S): HWE 100, HPR 205, ENG 121, PSY 101, 235, BIO 201, 202, NUR 107, 108, 101, 112, 170 or instructor's permission

NUR 118   NURSING CARE OF CHILDREN   3 CREDITS

Introduces the role of the nurse in meeting the individual needs of the child from infancy through adolescence in health and illness. Beginning assessment and use of the nursing process, basic growth and development, pathophysiology, nutrition and relevant emotional, cultural and family concepts are integrated throughout.

PREREQUISITE(S): BIO 201, 202, HPR 205, HWE 100, PSY 101, 235, ENG 121, NUR 101, 107, 108, 112, 170, or instructor's permission

NUR 170   CLINICAL   2 CREDITS

Offers the clinical practicum to apply the related nursing theory.

PREREQUISITE(S): NUR 101, 107, 108, 112 or instructor's permission

NUR 171   CLINICAL II   1 CREDIT

Offers the clinical practicum to apply the related nursing theory.

PREREQUISITE(S): NUR 101, 107, 108, 112, 170, BIO 201, 202, HWE 100, HPT 205, PSY 101, 235, ENG 121 or instructor's permission

COREQUISITE(S): NUR 106

NUR 175   SPECIAL TOPICS   1–6 CREDITS

This course provides students with a vehicle to pursure in depth exploration of special topics of interest.

NUR 178   SEMINAR: TRANSITION PN TO RN   1 CREDIT

Introduction to selected concepts related to the role of the AD more as a provider of care, teacher, manager, client advocate and member of the profession. Emphasis is placed on application of critical thinking in providing and managing comprehensive care in a variety of health care settings with clients across the lifespan. This course is designed to assist the Licensed Practical Nurse with the transition into the practice of professional nursing.

PREREQUISITE(S): Admissions to the PN-RN advanced placement option, BIO 201, 202, HPR 205, PSY 101, 235, ENG 121, or instructor's permission

NUR 185   INDEPENDENT STUDY   1–3 VARIABLE CREDITS

Structured and guided, individualized study that is organized and tailored around the interest and needs of the individual student.

PREREQUISITE(S): Instructor's permission

NUR 206   ADVANCED CONCEPTS OF MEDICAL-SURGICAL NURSING I   5 CREDITS

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.

PREREQUISITE(S): NUR 106, 111, 117, 118, 171 or instructor's permission

COREQUISITE(S): NUR 272

NUR 210   NURSING CARE OF COMPLEX OBSTETRICAL AND PEDIATRIC CLIENTS   5 CREDITS

Prepares the professional nurse to comprehend and apply advanced concepts in care of the high-risk child bearing family and for children with complex health problems from birth through adolescence. Emphasizes special needs and complications during the perinatal experience and altered functioning, special needs, and disease processes manifested in children. The nursing process is used as a framework to attain optimal levels of maternal-newborn and pediatric health and wellness. Legal and ethical accountability are integrated throughout the course. Critical thinking skills are utilized throughout

PREREQUISITE(S): NUR 206, 211, 272, 288, or instructor's permission

NUR 211 NURSING CARE OF PSYCHIATRIC CLIENTS
5 CREDITS

Develops concepts of psychosocial integrity and emphasizes the function and responsibility of nuring 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.

PREREQUISITE(S): NUR 106, 111, 117, 118, 171, or instructor's permission

NUR 216 ADVANCED CONCEPTS OF MEDICAL SURGICAL NURSING II
4 CREDITS

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.

PREREQUISITE(S): NUR 206, 211, 272, 288 or instructor's permission

NUR 217 LEADERSHIP FOR PROFESSIONAL NURSING PRACTICE
2 CREDITS

Socializes the student into the graduate registered nurse role. The focus is on the exploration and analysis of contemporary nursing practice, current trends and issues impacting nursing care delivery. Advanced leadership and management concepts are discussed as part of the nursing role.

PREREQUISITE(S): NUR 210, 216, or instructor's permission

COREQUISITE(S): NUR 289

NUR 272 EXPANDED CLINICAL III
2 CREDITS

Offers practical experience and continues to build upon the principles, that are expected to be understood by students in the nursing discipline.

PREREQUISITE(S): NUR 106, 111, 117, 118, 171 or instructor's permission

COREQUISITE(S): NUR 206

NUR 275 SPECIAL TOPICS
1–6 VARIABLE CREDITS

Courses on Special Topics that relate to Nursing. Topics may be of interest to nursing students or graduates. Useful in meeting license renewal (LPN/RN) requirements. 22 lecture and 15 lab hours.

Prerequisite(S): NUR 205

NUR 285 INDEPENDENT STUDY: ADVANCED NURSING CONCEPTS I
1–3 VARIABLE CREDITS

Structured and guided, individualized study that is organized and tailored around the interest and needs of the individual student.

PREREQUISITE(S): Instructor's permission

NUR 288 PRACTICUM: HEALTH AND PHYSICAL ASSESSMENT FOR NURSING PRACTICE
1 CREDIT

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.

PREREQUISITE(S): NUR 106, 111, 117, 118, 171 or instructor's permission

NUR 289 CAPSTONE: COMPREHENSIVE NURSING INTERNSHIP
2–3 VARIABLE CREDITS

Facilitates transition from student to graduate nurse through application of nursing principles and skills in an area of health care delivery. Critical thinking, life long learning, nursing process, caring, collaboration, and health teaching and promotion are emphasized.

PREREQUISITE(S): NUR 210, 216, or instructor's permission

COREQUISITE(S): NUR 217

PARALEGAL

PAR 115 INTRODUCTION TO LAW
3 CREDITS

Provides an understanding of the role of paralegals, issues facing paralegals, the working of the legal system, and ethical questions. Legal terminology and an overview of the substantive areas of law will be discussed.

PAR 116 TORTS 3 CREDITS

A basic course in tort law, including negligence, intentional torts and strict liability with an emphasis on personal injury litigation.

PAR 117 FAMILY LAW 3 CREDITS

This course covers domestic law, common property, dissolutions, adoptions, legal separation and other family law issues.

PAR 118 CONTRACTS 3 CREDITS

This course covers the basic principles of contract law.

PAR 125 PROPERTY LAW 3 CREDITS

This course covers real estate law, ownership, sale, leasing, financing and government regulation of land.

PAR 201 CIVIL LITIGATION
3 CREDITS

Focuses on an intensive study of th legal process including the Federal and Colorado Rules of Civil Procedure.

PAR 202 EVIDENCE 3 CREDITS

Course is designed to introduce students to State and Federal Rules of Evidence and application to the trial process.

PREREQUISITE(S): PAR 115, or instructor's permission

PAR 205 CRIMINAL LAW 3 CREDITS

Introduces basic concepts of criminal law and criminal procedure, including Colorado statutes and Rules of Procedure.

PREREQUISITE(S): PAR 115, or instructor's permission

PAR 206 BUSINESS ORGANIZATIONS
3 CREDITS

Study of the major types of business organizations.

PREREQUISITE(S): PAR 115, or instructor's permission

PAR 208 PROBATE AND ESTATES
3 CREDITS

The course provides an understanding of the creation and administration of an estate, including wills and trusts and the probate process.

PREREQUISITE(S): PAR 115, or instructor's permission

PAR 213 LEGAL RESEARCH AND WRITING I 3 CREDITS

Provides an introduction to legal research and writing.

PAR 214   LEGAL RESEARCH
**   AND WRITING II 3 CREDITS**
Serves as an advanced course in legal research and writing.

PAR 215   ALTERNATIVE DISPUTE
**   RESOLUTION   3 CREDITS**
This course will introduce the students to Negotiation, Mediation, Arbitration and other forms of dispute resolution.
PREREQUISITE(S): PAR 115 or instructor's permission

PAR 216   EMPLOYMENT LAW
**   3 CREDITS**
Provides an understanding of current legal issues in the area of employer/employee relationships.
PREREQUISITE(S): PAR 115, or instructor's permission

PAR 217   ENVIRONMENTAL LAW
**   3 CREDITS**
This course covers state and federal laws concerning the environment, including chemical safety laws, workplace safety, and hazardous waste.

PAR 218   BANKRUPTCY LAW
**   3 CREDITS**
This course covers the federal and state laws and procedures involving bankruptcy.
PREREQUISITE(S): PAR 115, or instructor's permission

PAR 228   INTELLECTUAL PROPERTY
**   3 CREDITS**
This course covers the federal and state laws regarding intellectual property.

PAR 275   SPECIAL TOPICS
**   1–6 VARIABLE CREDITS**
Special Topics courses may be offered to provide students with an opportunity to study special areas in the discipline. Course content will be determined by the instructor with a complete syllabus each time the course is offered.

PAR 285   INDEPENDENT STUDY
**   1–6 VARIABLE CREDITS**
This course meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.
PREREQUISITE(S): Instructor's permission

PAR 287   COOPERATIVE EDUCATION
**   1–6 VARIABLE CREDITS**
Provides students an opportunity to gain practical experience in applying their occupational skills and/or to develop specific skills in a practical work setting. The instructor will work with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer or work site supervisor.

PHARMACY TECHNICIAN

PHT 102   PHARMACY CALCULATIONS
**   AND TERMINOLOGY**
**   1 CREDIT**
This course will provide the student with a math review necessary for pharmaceutical calculations. This course will also expose the student to common pharmacy symbols and terminology as well as the metric system.

PHT 111   ORIENTATION TO
**   PHARMACY   2 CREDITS**
This module orients students to the work of pharmacy technicians and the context in which technician's work is performed. Students will learn the concept of pharmaceuatical care and technician's general role in its delivery. The development of new drug products is discussed as well as a variety of issues that touch on attitudes, values and beliefs of success for pharmacy technicians. Students gain an appreciation for the value of obtaining technician certification, and the benefits of technicians' active involvement in local, state and national pharmacy organizations.

PHT 112   PHARMACY LAW
**   1.5 CREDITS**
The students are introduced to the profound influence that drug laws, standards and regulations have on practice. Students learn to abide by the laws, regulations and standards which govern the preparation and dispensing of drugs.

PHT 113   PHARMACY CALCULATIONS
**   AND TERMINOLOGY**
**   1.5 CREDITS**
This course will provide the pharmacy technician student with a math preview necessary for pharmaceutical calculations and necessary pharmaceutical terminology.

PHT 115   PHARMACOLOGY OF THE
**   GI, RENAL, REPRODUCTIVE,**
**   IMMUNE, DERMATOLOGIC**
**   AND HEMATOLOGIC**
**   SYSTEMS   3 CREDITS**
This course will present the basic concepts of normal body function and the changes caused by disease. Focus will be on the gastrointestinal, pharmacology of the GI, renal, reproductive, immune, dermatologic and hematologic systems. The student will learn basic concepts of pharmacology, the diseases affecting the systems listed above, and the drugs used in treating diseases of these systems.

PHT 116   INSTITUTIONAL
**   PHARMACY   3 CREDITS**
This course will give pharmacy technician students exposure to the unique aspects of hospital/home care pharmacy practice. The student learns the proper method for receiving an order, screening it for completeness and adding any missing information. Students learn current methods for distributing medications. Students learn to compound sterile products according to the appropriate techniques. Students learn techniques to compound cytotoxic and other hazardous drug products. Students will also learn procedures for maintaining pharmacy equipment such as the laminar air-flow cabinet. Students will learn methods of handling hazardous waste and infection control. This course will prepare the student for the hospital/clinical internship.
PREREQUISITE(S): PHT 111 and PHT 113

PHT 117   COMMUNICATION FOR
**   PHARMACY TECHNICIANS**
**   1 CREDIT**
Students learn to communicate in a clear, logical manner at the appropriate level when performing the job responsibilities of a pharmacy technician. Communication skills in interviewing, preparing resumes and employer interviews, as related to pharmacy, will be covered.

PHT 118   PHARMACOLOGY OF THE
**   NERVOUS, ENDOCRINE,**
**   MUSCULOSKELETAL**
**   3 CREDITS**
This course will present the basic concepts of normal body function and the changes caused by disease. Focus will be on the nervous, endocrine, musculosketetal, cardiovascular and respiratory systems. The student will learn the basic concepts of pharmacology, the disease affecting the systems listed above, and the drugs used in treating diseases of these systems.

PHT 119   COMMUNITY PHARMACY
**   3 CREDITS**
Students will experience hands on approach to learning the technical aspects of community pharmacy practice. This course teaches the students to receive and screen written medication prescriptions. The skill of drug preparation are taught. Students learn to compound nonsterile products using the correct compounding techniques. Students also learn various methods of inventory control of pharmaceuticals, devices, and supplies including handling their receipt, storage, removal and documenting of these activities. This course will prepare the student for a community clinical internship.
PREREQUISITE(S): PHT 111 and PHT 113

**PHT 170   PHARMACY PRACTICE II
(HOSPITAL CLINICAL)
4 CREDITS**

This course is designed to provide students with hands-on experience in an inpatient hospital pharmacy setting within the state of Colorado. Students must complete all didactic course work prior to enrolling for this course. The course involves a minimum of 160 hours including 8 hours of seminar class time and 152 hours of on-the-job work experience. Each student is required to work under the supervision of a licensed pharmacist (i.e. preceptor) who may, in turn, delegate some supervisory and/or training responsibilities to another licensed pharmacist or certified pharmacy technician. During their work time at their hospital pharmacy site, students are expected to participate in the pharmacy practice activities delineated in the Clinical Site Manual provided to each student and each preceptor. Such activities include, but are not limited to, dispensing, compounding, inventory handling and control, drug distribution, and the preparation of intravenous (IV) admixture products, chemotherapy products and total parenteral nutrition (TPN) products. Students are also expected to complete daily and weekly reports of their work activities and are required to evaluate both their work site and their preceptor at the conclusion of their clinical rotation. Similarly, each preceptor is asked to complete an evaluation of, and provide a grade for, each student at the completion of the student's rotation. The course instructor is also required to evaluate each student after completing a visit to the student's work site and discussing the student's performance with both the student and his/her preceptor.

PREREQUISITE(S): Permission of academic coordinator required to do internship

**PHT 171   PHARMACY PRACTICE III
(COMMUNITY CLINICAL)
4 CREDITS**

This course is designed to provide students with hands-on experience in a community pharmacy setting within the state of Colorado. Students must complete all didactic course work prior to enrolling for this course. The course involves a minimum of 160 hours including 8 hours of seminar class time and 152 hours of on-the-job work experience. Each student is required to work under the supervision of a licensed pharmacist (i.e. preceptor) who may, in turn, delegate some supervisory and/or training responsibilities to another licensed pharmacist or certified pharmacy technician. During their work time at their community pharmacy site, students are expected to participate in the pharmacy practice activities delineated in the Clinical Site manual provided to each student and each preceptor. Such activities include, but are not limited to, dispensing, compounding, inventory handling and control, drug distribution, processing of third party claims, maintenance of patient profiles and interaction and communication with patients. Students are also expected to complete daily and weekly reports of their work activities and are required to evaluate both their work site and their preceptor at the conclusion of their clinical rotation. Similarly, each preceptor is asked to complete an evaluation of, and provide a grade for, each student at the completion of the student's rotation. The course instructor is also required to evaluate each student after completing a visit to the student's work site and discussing the student's performance with both the student and his/her preceptor.

PREREQUISITE(S): Permission of academic coordinator required to do internship

**PHT 275   SPECIAL TOPICS
VARIABLE CREDIT**

Special Topics courses may be offered to provide students with an opportunity to study special areas in the discipline. Course content will be determined by the instructor with a complete syllabus each time the course is offered.

**PHT 285   INDEPENDENT STUDY
VARIABLE CREDIT**

Course designed to meet the individual needs of students.

PREREQUISITE(S): Instructor's permission

PHILOSOPHY

**PHI 111   INTRO TO PHILOSOPHY
3 CREDITS**

Introduces significant human questions and emphasizes understanding the meaning and methods of philosophy. Includes the nature and theory of knowledge, freedom, ethics, the future and religion.

This course is one of the Statewide Guaranteed Transfer courses.

PHI 112   ETHICS   3 CREDITS

Examines human life, experience and thought in order to discover and develop the principles and values for pursuing a moral 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.

PHI 113   LOGIC   3 CREDITS

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 skills.

This course is one of the Statewide Guaranteed Transfer courses.

**PHI 214   PHILOSOPHY OF RELIGION
3 CREDITS**

Focuses on the critical examination of the fundamental concepts, ideas, and implications of religion. Specific topics will include: the nature of God; the varieties of religious experience; argument concerning God`s existence; the problem of evil; faith and reason; religion and human destiny; and the connection between religion and ethics.

**PHI 275   SPECIAL TOPICS
1–6 VARIABLE CREDIT**

Students explore in depth significant philosophical topics, movements, or persons in the history of Western philosophy. This study might include, e.g., Plato, Greek philosophy, Hume, periods in the history of philosophy, philosophy and literature, medical ethics, the problem of evil, logical positivism, philosophy of mind, etc. Readings will be selected by the instructor as appropriate to the topic. Course may be repeated for credit provided topics are not repeated.

PREREQUISITE(S): Prior philosophy class, sophomore standing, or instructor's permission

**PHI 285   INDEPENDENT STUDY
1–6 VARIABLE CREDITS**

Course designed to meet the individual needs of students.

PREREQUISITE(S): Instructor's permission

PHOTOGRAPHY

PHO 101   PHOTOGRAPHY I
3 CREDITS

This course is an introduction to black and white photography as a fine art medium, and develops skills necessary for basic camera and lab operations.

PHO 102   PHOTOGRAPHY II
3 CREDITS

This course is a further exploration in camera and lab operations with an emphasis on individual creativity. Includes the development of a comprehensive portfolio.

PHO 103   COLOR PHOTOGRAPHY I
3 CREDITS

This course covers fundamentals of color photography such as color theory and light, production, processing and printing of color negatives.
PREREQUISITE(S): PHO 101

PHO 202   PHOTOGRAPHY III
3 CREDITS

This course further explores photography technique with emphasis on history, theory, and assimilation of ideas into the student's creative work. Included is the development of a comprehensive portfolio.
PREREQUISITE(S): PHO 101 and PHO 102 or demonstrated competency
COREQUISITE(S): None

PHO 203   COLOR PHOTOGRAPHY II
3 CREDITS

Designed for students who are approaching a personal style and aesthetic in the medium of color photography. It is an extension of Color Photography I. Personal expression will be stressed through individual critiques.
PREREQUISITE(S): PHO 103

PHO 205   DIGITAL PHOTOGRAPHY I
3 CREDITS

This course provides each student with an introduction to the basic concepts of digital imaging as applied to photography. With hands-on experience using applicable technology, modern developments will be presented which have led to the present applications of digital imaging which combine traditional photographic ideas with electronic media. The student will have the opportunity to learn how to operate image manipulation software using a variety of scanning equipment, software tools and output devices by executing new assignments and applying these technologies to their photographic process.
PREREQUISITE(S): PHO 101

PHO 206   DIGITAL PHOTOGRAPHY II
3 CREDITS

This course is a continuation of the beginning digital photography class. This class will look at digital photography in terms of design and communication factors including color, visual design, lighting, graphics and aesthetics.
PREREQUISITE(S):   PHO   205   Digital Photography I

PHO 209   LANDSCAPE PHOTOGRAPHY WORKSHOP   2 CREDITS

This class is designed to present participants with both traditional and contemporary approaches to landscape photography. Technical and aesthetic aspects of landscape photography will be discussed through group discussions, a field study, lectures, and print and slide critiques.
PREREQUISITE(S): PHO 101

PHO 211   STUDIO PHOTOGRAPHY
3 CREDITS

This course will explore the creative uses of studio lighting from the perspective of Fine Art Photography with an emphasis on portraiture, three-dimensional object photography and two-dimensional collage photography.
PREREQUISITE(S): PHO 101

PHO 275   SPECIAL TOPICS: PHOTOGRAPHY
1–6 VARIABLE CREDITS

This course provides students with a vehicle to pursue in-depth exploration of special topics of interest.

PHO 285   INDEPENDENT STUDY
1–6 VARIABLE CREDITS

This course meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.
PREREQUISITE: Permission of the Instructor.

Please visit our web site at **www.arapahoe.edu** for updated program information.

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PHYSICAL EDUCATION—ACTIVITY CLASSES

PED 100   GOLF   1 CREDIT
A basic course in golf designed for those who have had little or no formal instruction or for those with some experience who are interested in improving some aspect of their game. Instruction will be by certified golf professionals. Driving range, putting green and on course play will be included.

PED 106   TENNIS   1 CREDIT
This course is designed to introduce and improve the skill level in tennis. The primary emphasis is teaching students the elements of tennis: rules of the game, groundstrokes, serving, the various shots, and singles and doubles play and strategies.

**PED 108   BEGINNING SWIMMING
                1 CREDIT**
This course is designed to teach the fundamentals of swimming, including the front crawl, elementary backstroke, back crawl and the fundamentals of treading water. Students may also be introduced to the breaststroke and sidestroke and the basics of turning at a wall. This course is for the non-swimmer or novice swimmer looking to improve aquatic skills.

**PED 109   ADVANCED SWIMMING
                1 CREDIT**
This course is designed to coordinate and refine the major swimming strokes. Students are introduced to the butterfly stroke, open turns and surface dives. Students develop endurance swimming using the primary swimming strokes.
PREREQUISITE(S): PED 108 or equivalent.

**PED 110   FITNESS CENTER
            ACTIVITY I   1 CREDIT**
This course is designed for individuals interested in improving total fitness via an aerobic circuit training program. The course will include an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. All of the basic components of fitness including: flexibility, muscular strength, muscular endurance, cardiovascular fitness, and body composition will be addressed. Weight machines, stationary bicycles and computerized cardiovascular equipment will be used to elicit improvements in fitness.

**PED 111   FITNESS CENTER
            ACTIVITY II   1 CREDIT**
This is an advanced course designed for individuals interested in reaching a higher level of total fitness via an aerobic circuit training program. The course will include an individual fitness evaluation, computerized analysis of results and a prescribed exercise program. All of the basic components of fitness including flexibility, muscular strength, muscular endurance, cardiovascular fitness and body composition will be addressed. Weight machines, stationary bicycles and computerized cardiovascular equipment will be used to elicit improvements in fitness.
PREREQUISITE(S): PED 110

**PED 113   FITNESS CONCEPTS
            (ONLINE)   1 CREDIT**
This on-line course is designed for individuals who are seeking information and guidelines for moving toward a more healthy lifestyle. The course will include classroom instruction, fitness evaluation, computerized analysis of results and a prescribed exercise program utilizing the equipment and exercise options available in the Fitness Center.

**PED 115   BODY SCULPTING
            AND TONING   1 CREDIT**
This course is designed to introduce exercise techniques to improve overall physical fitness. The primary emphasis is the interaction between cardiovascular conditioning, muscular strength and endurance, flexibility and program design that are integrated into an aerobic format. Emphasis is placed upon blending together different combinations and sequences of exercises while conditioning the entire body. Students exercise using various types of resistance equipment.

**PED 116   WEIGHT TRAINING
                1 CREDIT**
This course offers basic instruction and practice in weight training. Students utilize weight training equipment in accordance to their abilities and goals. Emphasis is placed upon weight training equipment orientation, correct lifting techniques and basic program design for men and women.

**PED 118   INDOOR STATIONARY
            GROUP CYCLING   1 CREDIT**
An indoor stationary group cycling course designed to improve cardiovascular fitness, burn calories and enhance muscular endurance. Designe127d specifically to enhance aerobic work capacity and improve pedalling skills. Each exercise session is choreographed to music and includes a complete workout with a warm-up, endurance and cool-down component.

**PED 126   WATER AEROBICS
                1 CREDIT**
This course offers water exercise to develop physical fitness. In addition, this course offers instruction in a variety of water exercises and vigorous activities to develop cardiovascular and muscular endurance, flexibility and the promotion of body composition management.

PED 129   SCUBA DIVING   1 CREDIT
This course provides basic instruction in scuba diving. This course provides the knowledge and skills related to swimming and snorkeling, diving equipment, communications, the environment, safety, dive tables and other pertinent information a student needs for safe scuba diving. This course prepares the student for open-water (PADI) certification.
PREREQUISITE(S): Basic swimming skills

PED 131   NORDIC SKIING   1 CREDIT
This course is designed to provide students with the fundamental skills of nordic skiing. The emphasis is on skiing technique, conditioning, safety and equipment. The course has classroom and activity sessions. Conditioning in the fitness center and trips to local ski areas are part of this course.

**PED 133   BEGINNING
            SNOWBOARDING 1 CREDIT**
A basic snowboarding course designed for those who have had little or no prior snowboarding experience. The course will consist of a combination of on-the-snow classes at an established ski area and classroom instruction at the college. For purposes of instruction, students will be assigned to small groups based on their present snowboarding ability. All on-snow instruction will be by certified ski instructors employed by the ski area.

**PED 134   ADVANCED
            SNOWBOARDING 1 CREDIT**
An advanced snowboarding course designed for those who have had prior snowboarding experience and can link skidded turn with good speed and control on green and blue terrain. The course will consist of a combination of on-the-snow classes at an established ski area and classroom instruction at the college. For purposes of instruction, students will be assigned to small groups based on their present snowboarding ability. All on-snow instruction will be by certified ski instructors employed by the ski area.
PREREQUISITE(S): PED 133

**PED 135   INTERMEDIATE TENNIS
                1 CREDIT**
An advanced course in tennis for students who already have playing experience and skill in the basic strokes. Emphasis will be placed on learning the lob, smash, half-volley, serve variations and tennis strategy for singles and doubles.
PREREQUISITE(S): PED 106

**PED 136   ADVANCED WEIGHT
            TRAINING   2 CREDITS**
Offers guided instruction and independent practice in weight training for men and women. Students practice various weight training techniques in accordance with their abilities. Emphasizes physiological considerations, equipment orientation, correct lifting techniques, program design,and nutrition. Offers guided instruction and independent practice in weight training for men and women. Students practice various weight training techniques in accordance with their abilities. Emphasizes physiological considerations, equipment orientation, correct lifting techniques, program design and nutrition.

**PED 137   VARSITY SPORTS I, II, III, IV
                1 CREDIT (EACH)**
Allows the student-athletes an opportunity to participate in a competitive varsity sports program.

**PED 141   BEGINNING ALPINE SKIING
                1 CREDIT**
Designed for students who have little or no prior experience in downhhill skiing. The course will consist of a combination of on-the-snow classes at one of the mountain ski areas and classroom sessions at ACC. For purposes of instruction, students will be assigned to small groups based on their present skiing ability. Students must furnish or rent all skiing equipment.

**PED 142   ADVANCED ALPINE SKIING
1 CREDIT**
An advanced skiing course designed for students who are ready for advanced instruction in parallel skiing. The course will consist of a combination of on-the-snow classes at an established ski area and classroom instruction at the College. Students will be divided into small groups and assigned to instructors based on the demonstrated skiing ability. All on-snow instruction will be by certified ski instructors employed by the ski area. Students must furnish or rent all skiing equipment.

PREREQUISITE(S): Alpine skiing (PED 141) or intermediate skiing ability

PED 143   TAI CHII I   1 CREDIT
This course is designed to introduce Tai Chi as an expression of understanding of self-control, exercise and self-defense. The primary emphasis is to gain an understanding of the history (origins and changes) of Tai Chi, the movements and their names, application of movements and terminology.

PED 144   TAI CHI II   1 CREDIT
This course will emphasize the instruction of Tai-Chi from a practical and scientific approach with illustrations of applications for each of the movements in daily life. Cardiovascular training, strength and flexibility training, balance and coordination will be integral parts of the Tai-Chi training. In addition psychosocial skills such as meditation, relaxation and self-efficacy will be addressed.

**PED 145   PILATES MATWORK
1 CREDIT**
Focuses on Pilates matwork to increase core strength, overall muscles tone an flexibility with focused and precise floor work techniques. A physical education class built upon the philosophies and exercises of Josef Pilates.

PED 146   MARTIAL ARTS   1 CREDIT
This course is designed to introduce basic martial arts techniques and forms designed to improve the physical and mental capacity of an individual. The primary emphasis is to gain an understanding of the basic philosophies and concepts around the martial arts; the approach to ethics and provides a clear-cut guide for developing a powerful sense of character and will.

PED 147   YOGA   1 CREDIT
This course offers a guided instruction in yoga. Students practice yoga according to their individual fitness levels and abilities. Emphasis is placed on enhancing general health and well-being through the performance of yoga strength, flexibility, balance, relaxation techniques and exercises.

PED 148   YOGA II   1 CREDIT
Concepts of basic yoga are carried into additional areas. Increases awareness of yoga an its physical and mental benefits.

PREREQUISITIE(S): Yoga I or permission of instructor

**PED 149   SELF DEFENSE–
ADVANCED KARATE
1 CREDIT**
Advanced Karate is an empty-hand form of self defense using all parts of the body in various blocking, kicking, punching and striking techniques against one or more assailants. The style of Karate taught will be Tae Kwon Do. Based on the results of an initial skills test, each student will be assigned two additional kicks, one additional jump kick and one pattern. Intermediate sparring and self-defense techniques will be taught. Each student will be assigned a goal that they will strive to achieve by the end of the course.

PREREQUISITE(S): PED 146

PED 200   ADVANCED GOLF 1 CREDIT
Advanced golf is designed for individuals with an advanced level of golfing skills who are interested in improving their game. Driving range, putting green and on-course instruction and play will be included. Use of woods, irons, wedges and putting will be stressed.

PREREQUISITE(S): PED 100

**PED 210   FITNESS CENTER
ACTIVITY III   1 CREDIT**
This is an advanced exercise course designed for individuals interested in attaining a high level of total fitness. The course will include an individual fitness evaluation, computerized analysis of results and a prescribed exercise program. All of the basic components of fitness including flexibility, muscular strength, muscular endurance, cardiovascular fitness, and body composition will be addressed. The primary mode of training will be Aerobic Circuit Training. The circuit training will be supplemented with additional work on the specialized weight machines, dumbbells, treadmills, rowers, stair climbers, cross trainers, nordic track, versa climbers and running track available in the Fitness Center.

PREREQUISITE(S): PED 110, 111

**PED 211   FITNESS CENTER
ACTIVITY IV   1 CREDIT**
This is an advanced course designed for individuals interested in attaining a high level of total fitness. The course will include an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. All of the basic components of fitness including flexibility, muscular strength, muscular endurance, cardiovascular fitness, and body composition will be addressed. The primary mode of training will be Aerobic Circuit Training. The circuit training will be supplemented with additional work on the specialized weight machines, dumbbells, treadmills, rowers, stair climbers, cross trainers, nordic track, versa climbers and running track available in the Fitness Center.

PREREQUISITE(S): PED 110, 111 and 210

PHYSICAL EDUCATION/OTHER CLASSES

Health, Physical Education and Recreation

**PHR 120   ACEP COACHING
CERTIFICATE   1 CREDIT**
This course will satisfy the CHSAA (Colorado High School Activities Association) coaching education requirement for those who coach at the high school level but are not certified teachers. The course will cover the following areas: 1)coaching philosophy 2) sport psychology 3) sport pedagogy 4) sport physiology and 5) sport management.

**PER 151   LIFE GUARD TRAINING
2 CREDITS**
This course is designed to provide the necessary minimum knowledge and skills training for a person to qualify as a non-surf lifeguard. The course content and activities prepare lifeguard candidates to recognize emergencies, respond quickly and effectively to emergencies and prevent drowning and other incidents. The course also teaches other skills in individual needs to be a professional lifeguard.

PREREQUISITE(S): Advanced swimming or equivalent.

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PHYSICAL THERAPIST ASSISTANT

PTA 110   BASIC CARE IN PHYSICAL THERAPY   5 CREDITS
This course examines the basic patient care skills for the healthcare practitioner. Students will gain an understanding and demonstrate these skills that include; positioning, body mechanics, transfers, range of motion, palpation, vital signs, aseptic techniques, bandaging, intermittent venous compression, medical terminology, activities of daily living, wheelchair management, architectural barriers and gait training.
PREREQUISITES: Admission to PTA program or instructor's permission

PTA 115   PRINCIPLES AND PRACTICES IN PHYSICAL THERAPY   2 CREDITS
This course explores the history of the profession of Physical Therapy including its definition, development and areas of practice. The role of the APTA, the physical therapist assistant and the relationship between the physical therapist, PTA and other health care professionals are investigated. Current issues and trends in Physical Therapy including professionalism, ethics, quality assurance, communications and reimbursement issues such as Medicare, Medicaid, Worker's Compensation and commercial insurance are discussed as they relate to the delivery of health care.
PREREQUISITES: None

PTA 120   MODALITIES IN PHYSICAL THERAPY   5 CREDITS
The theory and principles of physical therapy modalities will be examined. Course includes therapeutic heat and cold, traction, massage and hydrotherapy.
PREREQUISITES: PTA 110

PTA 131   PROFESSIONAL COMMUNICATION I   1 CREDIT
Introduces Physical Therapist Assistant (PTA) program students to professional communication in their field. The course develops skills in research, medical documentation and oral presentation of information to others.
PREREQUISITES: None

PTA 135   PRINCIPLES OF ELECTRICAL STIMULATION   2 CREDITS
This course will investigate the principles and application of electrical stimulation (ES) modalities currently used in physical therapy practice. This course will help the student understand the electrochemical and physiological effects of electrical stimulation and identify the various forms and applications of ES.
PREREQUISITES: Admission to the PTA program.

PTA 140   CLINICAL KINESIOLOGY   5 CREDITS
This course will focus upon the science of human motion, theories of biomechanics and muscle/joint structure and function. Also emphasized are basic principles of therapeutic exercise and their application to specific body regions. A laboratory experience that includes the application of kinesiology and exercise principles is integrated in the learning experience.
PREREQUISITES: PTA 130

PTA 141   PROFESSIONAL COMMUNICATION II   1 CREDIT
To introduce Physical Therapist Assistant (PTA) program students to professional communication in their field. The course develops skills in conveying instructions to patients and/or subordinates, participating effectively in meetings, abstracts, and conducting self-critiques and peer reviews of on-the-job performance. In addition, the course continues to emphasize research and documentation skills begun in Professional Communication I.
PREREQUISITES: PTA 131

PTA 176   SPECIAL TOPICS: ANATOMICAL KINESIOLOGY   4 CREDITS
This course focuses on an understanding of anatomical structures of the human body. Includes the composition and adaptability of tissues and the identification and function of the skeletal, muscular and nervous systems as they relate to physical therapy.
PREREQUISITES: Admission to the PTA program or Instructor's Permission

PTA 205   PSYCHOSOCIAL ISSUES IN HEALTH CARE   2 CREDITS
This course explores the psychosocial aspects of the patient/client and health care practitioner. Recognition of and adjustment for psychological, sociological, educational, cultural, economic and political concerns on the delivery of health care services are investigated. Communication skills and social and advocacy responsibilities of the health care practitioner will be discussed in order to assist the development of a health care practitioner committed to meeting the expectations and needs of the members of society receiving health care services.
PREREQUISITES: None

PTA 230   ORTHOPEDIC ASSESSMENT AND MANAGEMENT   5 CREDITS
The principles and practices of physical therapy will be examined and understood of the following procedures will be developed: goniometry, therapeutic exercise, manual muscle testing, gait analysis, orthotics and prosthetics.
PREREQUISITES: PTA 120

PTA 240   NEUROLOGICAL ASSESSMENT AND MANAGEMENT   5 CREDITS
The theory and principals of physical therapy will be expanded with an introduction to assessment and management techniques and advanced physical therapy procedures as they relate to neurologic, cardiac and pulmonary conditions.
PREREQUISITIES: PTA 230

PTA 251   PROFESSIONAL COMMUNICATIONS III   1 CREDIT
The course promotes the concepts from Professional Communications II and further develops written and oral communication skills in the professional arena through correct documentation of patient progress based on observations, dictating progress notes, development of resume, job interview skills, portfolios, and an awareness of the national PTA exam.
PREREQUISITES: PTA 141

PTA 275   SPECIAL TOPICS: CLINICAL PATHOPHYSIOLOGY I   2 CREDITS
This course investigates the pathophysiological changes resulting from disease processes. Course includes the etiology of disease such as trauma, genetic, immunological, inflammatory and degenerative processes. Pathology and pharmacology of musculoskeletal and neurological system diagnoses as they relate to physical therapy is emphasized.
PREREQUISITIES: None

PTA 275   SPECIAL TOPICS: CLINICAL PATHOPHYSIOLOGY II   2 CREDITS
This course investigates the pathophysiological changes resulting from disease processes. Course includes the etiology of disease such as trauma, genetic, immunological, inflammatory and degenerative processes. Pathology and pharmacology of cardiovascular, respiratory, endocrine and chronic pain diagnoses as they relate to physical therapy is emphasized.
PREREQUISITES: None

PTA 278   PTA SEMINAR   2 CREDITS
This course provides a summary of all coursework, internships and prepares the student for transition into the workforce as an entry level PTA. It includes a comprehensive review and mock exam in preparation for the national PTA exam, employment benefits, licensing, state practice act review, professional development, employment opportunities and community service.
PREREQUISITES: PTA 230, PTA 280

PTA 280 PTA INTERNSHIP I
4 CREDITS

Initial clinical exposure providing hands on of various types of patient practicum skills and techniques. Includes application of basic patient care skills including transfers, range of motion, modalities, bandaging, aseptic techniques and gait training. Students will demonstrate professional behavior and communication principles appropriate in the physical therapy setting. A designated clinical instructor in an acute care, geriatric, or outpatient setting will provide supervision.

PREREQUISITES: PTA 120

PTA 281 PTA INTERNSHIP II
5 CREDITS

The intermediate clinical experience providing hands on of various types of patient practicum skills and techniques learned. Includes continued application of physical therapy procedures of Internship I with the addition of therapeutic exercise, goniometry, manual muscle testing and motor learning techniques. Students will demonstrate professional behavior and communication principles appropriate in the physical therapy setting. A designated clinical instructor in an acute care, rehabilitation, outpatient, geriatric, or home health setting will provide supervision. During the internship, the student will present an inservice on a physical therapy related topic.

PREREQUISITES: Successful completion of all PTA curriculum or Instructor's Permission.

PTA 282 PTA INTERNSHIP III
5 CREDITS

Advanced clinical experience providing hands on of various types of patient practicum skills and techniques learned. Students will refine all physical therapy skills in preparation to enter the field as an entry-level physical therapist assistant. This final experience in any physical therapy setting will include independent practice with an assigned caseload under the on-site supervision of a clinical instructor. The student will research and present an in-depth physical therapy case study.

PREREQUISITES: Successful completion of all PTA curriculum or Instructor's Permission.

PTA 285 INDEPENDENT STUDY

This course meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

PHYSICS

PHY 101 BASIC PHYSICS
4 CREDITS

Focuses on the basic understanding of the laws of physics. Emphasizes critical thinking skills allowing the student to apply the laws to a wide variety of fields. Applications are illustrated by demonstrations and simple hands-on exercises involving careful observation, measurement, analysis and interpretation of phenomena, allowing the student to draw conclusions based on the laws of physics. In addition, the student learns problem-solving techniques in which the basic laws are applied in simple, logical or mathematical ways. A variety of media such as strobe photography, diagrams, graphs and films are used to reinforce understanding of the basic laws and their applications.

PHY 105 CONCEPTUAL PHYSICS
4 CREDITS

Focuses on mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Incorporates laboratory experience.

PHY 111 PHYSICS: ALGEBRA-BASED I
5 CREDITS

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.

PREREQUISITE(S): MAT 121

This course is one of the Statewide Guaranteed Transfer courses.

PHY 112 PHYSICS: ALGEBRA-BASED II
5 CREDITS

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.

PREREQUISITE(S): PHY 111

This course is one of the Statewide Guaranteed Transfer courses.

PHY 211 PHYSICS:
CALCULUS-BASED I
5 CREDITS

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 advanced sciences.

PREREQUISITE(S): MAT 121, 122

COREQUISITE(S): MAT 201

This course is one of the Statewide Guaranteed Transfer courses.

PHY 212 PHYSICS:
CALCULUS-BASED II
5 CREDITS

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.

PREREQUISITE(S): PHY 211

This course is one of the Statewide Guaranteed Transfer courses.

PHY 275 SPECIAL TOPICS
1–6 VARIABLE CREDITS

To be determined by individual instructor. A specific course description, list of competencies, and topical outline will be developed for each special topics course.

PHY 285 INDEPENDENT STUDY
1–6 VARIABLE CREDITS

This course meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

PREREQUISITE(S): Instructor's permission

Please visit our web site at **www.arapahoe.edu** for updated program information.

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POLITICAL SCIENCE

POS 105   INTRODUCTION TO POLITICAL SCIENCE
3 CREDITS

This course is 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.

POS 111   AMERICAN GOVERNMENT
3 CREDITS

Includes the background of the U. S. Constitution; the philosophy of American government; general principles of the Constitution; federalism; civil liberties; public opinion and citizen participation; political parties, interest groups, and the electoral process; and the structure and functions of the national government.

This course is one of the Statewide Guaranteed Transfer courses.

POS 125   AMERICAN STATE AND LOCAL GOVERNMENT
3 CREDITS

This course is a study of the structure and function of state, county and municipal governments, including their relations with each other and with national government. Colorado government and politics are emphasized.

POS 205   INTERNATIONAL RELATIONS   **3 CREDITS**

This course examines of the relationships among modern nation states. Topics include diplomacy, nationalism, ideologies, power and influence, conflict and cooperation, the role of non-state actors, the international economy, and theoretical attempts to understand international behavior.

POS 215   CURRENT POLITICAL ISSUES   VARIABLE CREDIT

This course is an in-depth analysis of critical issues in political science. Topics will be determined each term.

POS 225   COMPARATIVE GOVERNMENT   **3 CREDITS**

This course is a comparison of the basic features of selected developed and developing countries. Topics include ideologies, political parties, interest groups, and governmental institutions.

POS 275   SPECIAL TOPICS
1–6 VARIABLE CREDITS

This course provides students with a vehicle to pursue in depth exploration of special topics of interest.

POS 285   INDEPENDENT STUDY
1–6 VARIABLE CREDITS

Course designed to meet the individual needs of students.

PREREQUISITE(S): Instructor's permission

PSYCHOLOGY

PSY 101   GENERAL PSYCHOLOGY I
3 CREDITS

Scientific study of behavior including motivation, emotion, sexuality, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning, and memory.

This course is one of the Statewide Guaranteed Transfer courses.

PSY 102   GENERAL PSYCHOLOGY II
3 CREDITS

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.

PSY 110   CAREER DEVELOPMENT
3 CREDITS

This course assists students in recognizing their career potential and provides tools for making realistic decisions concerning educational and occupational objectives. This course also helps students develop skills needed for job search, employer search and resume development.

PSY 116   STRESS MANAGEMENT
3 CREDITS

This course identifies the physiological, emotional and behavioral aspects of stress. Techniques of stress reduction and management are explored and applied.

PSY 200   RESEARCH METHODOLOGY
3 CREDITS

A survey of research methods and designs including correlational studies, experimental designs and quasi-experimental designs. Additional topics include evaluations of scientific research, data analysis, report writing, and research ethics.

PREREQUISITE(S): PSY 101 or 102

PSY 205   PSYCOLOGY OF GENDER
3 CREDITS

Examines gender differences in work, courtship, family life, and sexual behavior throughout the life span.

PREREQUISITE(S): None; CPT scores of 84 in reading strongly recommended.

PSY 226   SOCIAL PSYCHOLOGY
3 CREDITS

This course covers behavior of humans in social settings including attitudes, aggression, conformity. cooperation and competition, prejudice, and interpersonal attraction.

PREREQUISITE(S): 3 hours of general PSY; 3 hours of introductory SOC, or instructor's permission

PSY 235   HUMAN GROWTH AND DEVELOPMENT   **3 CREDITS**

This course is a survey of human development from conception to death emphasizing physical, cognitive, emotional and psychosocial factors.

PREREQUISITE(S): 3 hours of general PSY or instructor's permission

PSY 238   CHILD DEVELOPMENT
3 CREDITS

This course covers growth and development of the child from conception through the elementary school years, emphasizing physical, cognitive, emotional and psychosocial factors.

PREREQUISITE(S): 3 hrs. general PSY or instructor's permission

PSY 247   CHILD ABUSE AND NEGLECT   **3 CREDITS**

This course examines the causes and effects of physical, sexual and psychological abuse and neglect. Intervention and prevention strategies are emphasized.

PSY 190-192   COOP EDUCATION CAREER EXPLORATION
3 CREDITS

PSY 290-293   COOP EDUCATION CAREER TRAINING
3 CREDITS

PSY 294-295   COOP EDUCATION CAREER TRAINING
6 CREDITS

PSY 296   COOP EDUCATION CAREER TRAINING
9 CREDITS

PSY 297   COOP EDUCATION CAREER TRAINING
12 CREDITS

See Cooperative Education section for detailed description.

PSY 275   SPECIAL TOPICS:
1–6 VARIABLE CREDITS

This course enables students who have a strong interest in a special psychological topic to pursue the topic through research, field trips, classroom, or laboratory setting.

PSY 285   INDEPENDENT STUDY
1–6 VARIABLE CREDITS

Course designed to meet the individual needs of students.

PREREQUISITE(S): Instructor's permission

READING

All courses at ACC require students to read materials at college level. The CPT placement test, given when a student enrolls, helps to determine the level at which the student is currently reading. The test results identify the reading class appropriate to the student's present reading level. (The CPT test may be reinforced by a specialized reading test given in the reading class). Students succeed more consistently in all their courses when they develop college level reading skills. Therefore, following the advice of the CPT recommendation is strongly suggested.

REA 060　FOUNDATIONS OF READING　3 CREDITS
The student will learn strategies for vocabulary development, improved reading comprehension and enrichment.
PREREQUISITE(S): CPT reading score 40-61
COREQUISITE(S): ENG 060/090 is recommended

REA 080-089　SPECIAL TOPICS: DEVELOPMENTAL READING　VARIABLE CREDIT
Courses offered under this prefix and title would be designed to introduce students to a specialized area of reading skills.

REA 090　COLLEGE PREPARATORY READING　3 CREDITS
The student will apply strategies for improving comprehension, developing vocabulary and increasing rate for reading college textbooks.
PREREQUISITE(S): CPT reading score 62-79
COREQUISITE(S): ENG 060/090 is recommended

REA 112　SPEED READING　2 CREDITS
Designed for the those whose reading test score is 80 or above and who are interested in increasing reading rate of comprehension through computer pacing, reading flexibility, skimming and scanning techniques and general reading theory. Concurrent enrollment in REA 090 or REA 060 is not recommended.
PREREQUISITE(S): CPT reading score 80-120

REAL ESTATE

REE 103　REAL ESTATE PRACTICE AND LAW, PRACTICAL APPLICATIONS, AND CURRENT LEGAL ISSUES　6 CREDITS
This course, in conjunction with REE 104, is designed to meet the educational requirements of the Colorado Real Estate Commission for Associate and Independent Broker licensing. The course introduces the student to the practice of real estate through the study of a common body of knowledge including key terms and concepts in real estate as well as the related federal laws practiced in the majority of states on a national level. The study of the application of laws, rules and standard practices. To develop or enhance students knowledge and awareness of current real estate and real estate related statutes, regulations, important legal issues, developments, and practices.

REE 104　REAL ESTATE CONTRACTS, REGULATIONS, CLOSINGS, RECORDKEEPING　5 CREDITS
This course, in conjunction with REE 103, is designed to meet the educational requirements of the Colorado Real Estate Commission for Associate and Independent Broker. The course is designed to have students prepare and understand Colorado Real Estate Commission approved contracts and understand Colorado real estate regulations. Basic skills necessary to properly close a real estate transaction, including responsibilities from the contract through and after the closing, plus accounting for all funds received and disbursed as well as a comprehensive review of the legal documents prepared by the broker. Proper recordkeeping procedures required by the Real Estate Commission to maintain and account for funds belonging to others. A certificate of completion is issued to students who successfully complete REE 103 and 104.
PREREQUISITE(S): REE 103 or equivalent experience
COREQUISITE(S): REE 103

REE 115　INTRO TO REAL ESTATE　3 CREDITS
The function of the real estate broker; sales techniques, real estate ethics. Course is for those who intend to enter the profession, for salespeople who need a review, and for those desiring a basic knowledge of the real estate business.

REE 118　REAL ESTATE APPRAISAL　4 CREDITS
This course confines its scope to the technique and theory of appraisal as it relates to single family residences with emphasis on market data correlation. REE 118 and REE 119 satisfy the 75 hour educational requirement of the Colorado Real Estate Commission for a State Registered License.

REE 119　UNIFORM STANDARDS/ APPRAISAL (USPAP)　1 CREDIT
The National uniform Standards of Professional Appraisal Practice (USPAP) course is designed to aid appraisers in all areas of appraisal practice seeking competency in ethics and standards. This course is intended to fulfill the 15 hour requirement as established by the Appraisal Qualifications Board (AQB) of the Appraisal Foundation. Students are awarded a Satisfactory/Unsatisfactory for this course. REE 118 and REE 119 satisfy the 75-hour educational requirement of the Colorado Real Estate Commission for a State Registered License.

SOCIOLOGY

SOC 101　INTRO TO SOCIOLOGY I
3 CREDITS

Examines the basic concepts, theories, and principles of sociology, as well as human cultures, social groups, and the social issues of age, gender, class and race.

This course is one of the Statewide Guaranteed Transfer courses.

SOC 102　INTRO TO SOCIOLOGY II
3 CREDITS

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.

SOC 205　SOCIOLOGY AND FAMILY DYNAMICS　　3 CREDITS

This course will help develop an understanding of marriage, family and kinship. It examines the family as an institution and how social, cultural, and personal factors influence family relations. The stability and diversity of the family will be explored, along with current trends and some alternative life styles.

SOC 215　CONTEMPORARY SOCIAL PROBLEMS　　3 CREDITS

This course 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.

SOC 218　SOCIOLOGY OF DIVERSITY　　3 CREDITS

This course explores the variety of inter group relations; race, nationality, ethnicity, income and other minority classifications. Patterns of prejudice, discrimination, and possible solutions to these issues will be examined.

SOC 275　SPECIAL TOPICS
1–3 CREDITS

This course enables students who have a strong interest in a specific sociological topic i.e, Suicide Prevention, sociology of Nursing, Death & Dying, Gerontology, Juvenile Delinquency, Sociology of Music, etc., to pursue the topic through research, field trips, classroom or laboratory setting.

SOC 190-192　COOP EDUCATION CAREER EXPLORATION
3 CREDITS

SOC 290-293　COOP EDUCATION CAREER TRAINING
3 CREDITS

SOC 294-295　COOP EDUCATION CAREER TRAINING
6 CREDITS

SOC　296　COOP EDUCATION CAREER TRAINING
9 CREDITS

SOC 297　COOP EDUCATION CAREER TRAINING
12 CREDITS

See Cooperative Education section for detailed description.

SOC 299　INDEPENDENT STUDY
VARIABLE CREDIT

Course designed to meet the individual needs of students.

PREREQUISITE(S): Instructor's permission

SPANISH

Independent Studies are also available.

SPA 101　CONVERSATIONAL SPANISH I　　3 CREDITS

This is the first course in a sequence for beginning students who wish to understand and speak Spanish. The material will include basic vocabulary, grammar and expressions that are used in daily situations and in travel.

SPA 102　CONVERSATIONAL SPANISH II　　3 CREDITS

This is the second course in a sequence for beginning students who wish to understand and speak Spanish. The material will continue to cover basic conversational patterns, expressions and grammar.

PREREQUISITE(S): SPA 101 or instructor's permission

SPA 111　SPANISH I　　5 CREDITS

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading and writing the language. Note: The order of the topics and the methodology will vary according to the individual texts and instructors.

SPA 112　SPANISH II　　5 CREDITS

Continues Spanish I in the development of functional proficiency in listening, speaking, reading and writing the language. Note: The order of the topics and the methodology will vary according to the individual texts and instructors.

PREREQUISITE(S): SPA 111 or instructor's permission

SPA 114　FAST-TRACK SPANISH I & II
5 CREDITS

This is an intensive high-beginner course designed to bridge beginning Spanish courses with an intermediate Spanish course. It is designed for students who have studied two years of Spanish in high-school and possess linguistic and cultural knowledge that true beginners do not, but are not ready yet to move to the intermediate level because they need an in-depth review of essential structures.

PREREQUISITE(S): Two years of Spanish in high-school or placement test

SPA 115　SPANISH FOR THE PROFESSIONAL I　3 CREDITS

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.

PREREQUISITE: College Level Reading

SPA 201　CONVERSATIONAL SPANISH III　　3 CREDITS

This is the third course in a sequence for students who wish to continue their study of understanding and speaking Spanish. The material will cover intermediate level vocabulary, grammar and expressions.

PREREQUISITE(S): SPA 102 or instructor's permission

SPA 202　CONVERSATIONAL SPANISH IV　　3 CREDITS

This is the fourth course in a sequence for students who wish to continue their study of understanding and speaking Spanish. The material will continue to cover intermediate level vocabulary, grammar and expressions.

PREREQUISITE(S): SPA 201 or instructor's permission

SPA 211　SPANISH III　　3 CREDITS

Continues Spanish I and II in the development of increased functional proficiency in listening, speaking, reading and writing the language. Note: The order of the topics and the methodology will vary according to individual texts and instructors.

PREREQUISITE(S): SPA 112 or instructor's permission

SPA 212　SPANISH IV　　3 CREDITS

Continues Spanish I, II, and III in the development of increased functional proficiency in listening, speaking, reading and writing the language and an introduction to literature. Note: The order of the topics and the methodology will vary according to individual texts and instructors.

PREREQUISITE(S): SPA 211 or instructor's permission

SPA 215　SPANISH FOR THE PROFESSIONAL II
3 CREDITS

Continues SPA 115 in the development of 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 275　SPECIAL TOPICS
1–6 CREDITS

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

SPA 285　INDEPENDENT STUDY
1–6 CREDITS

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.

PREREQUISITE: Permission of the instuctor

SPEECH

SPE 107   DYNAMICS OF LEADERSHIP
3 CREDITS

This course provides classroom training, discussions and challenging exercises to develop leadership communication skills. Communication theory and research will be explored through discussions, practical application and experiential learning. This course will provide knowledge and communication tools for people who intend to directly apply their leadership skills and improve their leadership effectiveness in the work place, classroom and community.

SPE 115   PUBLIC SPEAKING
3 CREDITS

This course combines basic theories of speech communication with public speech performance skills. Emphasizes speech delivery, preparation, organization, support and audience analysis.

SPE 125   INTERPERSONAL COMMUNICATION
3 CREDITS

This course is an examination of communication involved in interpersonal relationships occurring in family, social, and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication and conflict negotiation.

SPE 216   ADVANCED PUBLIC SPEAKING
3 CREDITS

This course is a continuation of SPE 115 with special emphasis on informative and persuasive public speaking skills and techniques using longer, in-depth speeches. Work in other speech formats may include extemporaneous, impromptu, manuscript, special occasion speeches and group decision making.

PREREQUISITE(S): SPE 115

SPE 225   ORGANIZATIONAL COMMUNICATION
3 CREDITS

This course is a study of human communication systems and patterns in business and organizational settings. Topics include exploration of leadership strategies; effective managerial communication skills with peers, superiors, and subordinates; and organizational communication environments, networks and goals.

PREREQUISITE(S): SPE 115

SPE 226   ORAL INTERPRETATION
3 CREDIT

This course 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.

SPE 275   SPECIAL TOPICS
1–6 CREDITS

This course provides students with a vehicle to pursue in depth exploration of special topics of interest.

SPE 285   INDEPENDENT STUDY
1–6 CREDITS

This course meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified instructor.
Prerequisite: Permission of the Instuctor

STUDY SKILLS

SEE ACADEMIC ACHIEVEMENT

STS has been changed to AAA, Academic Achievement

TECHNICAL ENGINEERING

TEC 201   ENGINEERING MATERIALS
3 CREDITS

Investigates the types, properties and behavior of state-of-the-art and advanced materials. Lectures include an introduction to the classifications, properties and behavior of ferrous and nonferrous metals, polymers (plastics), woods, ceramics and advanced materials.

TEC 205   GEOMETRIC DIMENSIONING AND TOLERANCING   **3 CREDITS**

This course enables students to interpret and apply geometric dimensioning and tolerancing (GD&T) in machining or drafting. The course covers math formulas, tolerancing systems, modifiers, symbols, datums, and tolerances of form, profile, orientation, runout and location. Students learn the generation of a working drawing is a team effort between design, drafting, manufacturing and quality control.

THEATRE

THE 105   INTRO TO THEATRE ARTS
3 CREDITS

This course includes discussions, workshops and lectures designed to discover, analyze and evaluate all aspects of the theatre experience: scripts, acting, directing, staging, criticism and theory.
This course is one of the Statewide Guaranteed Transfer courses.

THE 110   THEATRE IN DENVER
3 CREDITS

The purpose of this course is to acquaint students with the range of theatre companies and productions in the Denver area. The itinerary is designed to provide the greatest variety of theatrical experiences within the logistical circumstances of a given semester's offerings. Accordingly, students will confront a broad spectrum of dramatic literature performed by various companies in distinct milieux.

THE 111   ACTING I   **3 CREDITS**

This course 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 CREDITS**

This course continues to explore basic acting techniques and approaches, including scene study, improvisation and script analysis. It includes practical application through classroom performance.

PREREQUISITE(S): THE 111

THE 116   TECHNICAL THEATRE
3 CREDITS

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 143   BASIC ACTING TECHNIQUE (STANISLAVSKY SYSTEM)
3 CREDITS

This course offers scene work and acting exercises for people with little or no training or experience in the theatre. The Stanislavsky System of character analysis and development is stressed.

THE 181   AUDITION TECHNIQUES.
1 CREDIT

This course focuses on the selection and preparation of audition materials, including prepared monologues, cold reading and improvisation techniques. Basics of resume preparation are also discussed.

THE 182   PRACTICUM: THEATRE PRODUCTION I
VARIABLE 1–3 CREDITS

This course allows students to put into practice theories of theatre production. Participation in set construction, scenic artistry, costuming, lighting, sound, acting, stage-managing and administration is available.

THE 183   PRACTICUM: THEATRE PRODUCTION II
VARIABLE 1–3 CREDITS

This course allows students to continue to put into practice theories of theatre production. Participation in set construction, scenic artistry, costuming, lighting, sound, acting, stage managing and administration is available.

THE 211   DEVELOPMENT OF THEATRE I   **3 CREDITS**

This course surveys the history and evolution of drama from ancient Greece to the renaissance, emphasizing all aspects of the art form from period values to the analysis of dramatic literature and performance.
This course is one of the Statewide Guaranteed Transfer courses.

THE 212   DEVELOPMENT OF THEATRE II   **3 CREDITS**

This course surveys the history and evolution of drama from the Renaissance to the present, emphasizing all aspects of the art form from period values to the analysis of dramatic literature and performance.
This course is one of the Statewide Guaranteed Transfer courses.

THE 275   SPECIAL TOPICS 2 CREDITS

Description: Explores current topics, issues and activities related to one or more aspects of the named discipline.

THE 285   INDEPENDENT STUDY
1–3 CREDITS

Emphasizes structured and guided individualized study that is organized and tailored around the interests and needs of the individual student.

TRAVEL AND TOURISM

TRA 120 TRAVEL RESERVATIONS
3 CREDITS
Prepares the travel and tourism student to research and plan itineraries. By providing complete product information, codes, printed resources and sample CRS displays, reservation procedures and sales and service techniques, the student will have the necessary information to book air travel, car rentals, hotel accommodations, rail travel and cruises.

TRA 125 AIRLINE RESERVATIONS
2 CREDITS
Prepares the travel and tourism student to research and plan itineraries. By providing complete product information, codes, printed resources and sample CRS displays, reservation procedures and sales and service techniques, the student will have the necessary information to book air travel, car rentals, hotel accomodations, rail travel and cruises.

TRA 128 TRAVEL DESTINATIONS–
DOMESTIC   3 CREDITS
Acquaints student with domestic travel destinations. Requires student to plan a travel itinerary to a domestic destination.

TRA 141 LEISURE TRAVEL
3 CREDITS
Presents a comprehensive look at the introduction to tourism. Tours, modes of travel, tourism planning, and tourism development are some of the subjects covered. Also covered are economic and political impacts of tourism along with the environment and social/cultrural impacts.

TRA 230 HOME-BASED TRAVEL
AGENT   3 CREDITS
Provides a complete overview for becoming a home-based travel agent; the opportunities that exist to get involved in organizing and selling travel on a part-time or full-time basis; and the resources you need for professional organizations, magazines, books and other resources.

TRA 275 SPECIAL TOPICS
1–6 CREDITS
Provides students with a vehicle to pursue in depth exploration of special topics of interest.

College Administration

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STUDENT SERVICES

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KIM OSTROWSKI

Registrar, Director, Admissions Records and Assessment
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Director, Child Development Center
CONNIE GREEN

Coordinator of Disability Services
DANA GROTE

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SUZANNE LARSH

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Coordinator, Student Affairs
HEATHER LAWLER

Testing Specialist
YVONNE JACKSON

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Administrators

Amis, Doug– Operations Manager
    B.S., University of Florida

Artzec, Bret– M.A., B.A.

Barrentine, Laurett– Financial Reporting Accountant
    Certificate, Mansfield Business College

Becker-Lutz, Jill– Staff Accountant
    A.A., Arapahoe Community College
    B.S., University of Colorado

Bjorge, Matthew– Payroll and Accounts Payable
    Administrator
    A.A., Arapahoe Community College

Barnes, Kathryn– Educational Technology Specialist
    B.A.S., Regis University

Brantz, Malcolm– Director,
    Learning Resource Center
    B.A., University of Hawaii
    M.L.S., University of Hawaii
    M.B.A. University of Connecticut

Castro, David– Director, Human Resources
    B.A. Creighton University
    M.A., University of Nebraska at Omaha
    J.D., University of Denver Law School

Chelland, Carol– Facilities Coordinator,
    Physical Plant

Chrislip, Donna– Grant Writer
    BS, MS, Ed.D., Oklahoma State University

Comeaux, Linda– Associate Dean of Health, Math,
    Science & Engineering Division
    B.S., Louisiana State University Medical Center

Cunningham, Perri– Professional Staff & Program
    Coordinator
    B.S., Abilene Christian University
    M.Ed., Tarleton State University

DeHerrera, Teresa– Academic Advisor
    B.A., Adams State
    M.S., Colorado State University

Edmundson, Vicki– Director of ACC Foundation
    B.A., Metropolitan State College of Denver

Elsom, Lydia– Assistant to the President
    A.A., Spokane Community College
    B.A.,Whitworth College

Enright, Patrick– Director of Institutional Projects
    B.A., Columbia University
    M.A., University of Colorado, Denver

Franz, Jeri– Academic Advisor
    B.A., University Northern Colorado
    M.A. Lesley College

Finger, Scott–Chief Academic Officer
    B.S., M.S. University of Wisconsin
    Ed.D., Arizona State

Fukaye, Howard– Manager, High School Relations
    A.A., Community College of Denver
    B.A., Metropolitan State College

Glandon, Bert– President
    B.A., M A, Western Washington University
    Ph D, Brigham Young University

Goldberg, Debra– Coordinator, Tutorial Services
    B.A., Colorado State University
    M. Ed., Springfield College

Green, Connie– Director, Child Development Center
    B.S., Frostburg State College

Groff, Theresa– Workforce
    B.S., Colorado State University
    MA, Ph.D., University of Detroit Mercy

Grote, Dana– Coordinator of Disability Services
    B.S., Oklahoma State University
    M.P.A., University of Colorado, Denver

Hawkins, Kendra– Fitness Center Coordinator
    B.A., Metro State University

Herrera, Ernest– Custodial Services Manager
    Certificate, Garden City Community College

Hunt, Connie– Counselor, Advising Office
    A.A., Arapahoe Community College
    B.F.A., University of Colorado, Denver
    M.A., University of Northern Colorado

Jackson, Yvonne– Testing Specialist,
    Testing & Assessment Office
    A.A., Arapahoe Community College

Jamison, Matthew– Registrar, Director,
    Admissions, Records and Assessment
    B.S.S., Cornell College, Iowa
    M.A., Mankato State University

Johnson, Sharon– Community Education Program
    Manager

Karrer, Suzanne– College Development Coordinator
    B.S., Colorado State University

Keeley, Uli– Assistant Controller
    A.A.S.,- Arapahoe Community College
    B.S., Regis University

LaGrow, Stacie– Talent Search Specialist
    B.A., State University of New York
    M.Ed, North Carolina State University

Larson-Cooney, Kim– Director,
    Community Education
    B.A., North Adams State College
    M.A., North Adams State College
    M.Ed., Colorado State University

Larsh, Suzanne– Manager, Institutional Research
    B.A., Western State College
    Ph.D., Colorado State University

Lawler, Heather– Coordinator Student Diversity,
    Activities and Recreational Services
    B.A., Judson College
    M.Ed., Pennsylvania State University

Lechuga, Debra– Records Manager
    A.A., Arapahoe Community College

Libby, John Tate– Director of Corporate Training,
    Colorado Center for Professional Development
    B.A. Metropolitan State College

Lorenzo, Joseph– Controller
    B.S., University of Colorado
    M.B.A., Regis University

Ludwig, Janet– Academic Advisor for
    International Students
    M.S., Indiana University

Lujan, Angela– Budget Analyst
    B.S., Adams State College

Magyar, Susan– Facility Coordinator, ACC@DTC
    B.S., New York Institute of Technology
    M.Ed. Candidate, Grand Canyon University

Anne Matkowski– NCTI Program

McLees, Jan– Coordinator, Career Education
    B.A., Sterling College
    M.A., Azusa Pacific University

Meyers, Roger– Business Education Consultant,
    Colorado Center for Professional Development
    B.S.E.E., Oregon State University

Mohr, Kimberly– Dean of Business & Professional
    Services
    B.S., Metro State University
    M.S., University of Colorado

Murphy, Cindy– Media Relations Specialist,
    Marketing Dept.
    B.S., Bradley University

Mueller, Linda– Information/Career Specialist
    B.S., Regis University

Newman, Buz– Infrastructure Manager
    B.S., Georgia Tech
    M.P.A., University of Colorado

Northrup, Paul– Director, Information Technology
    B.S., M.S., University of Colorado, Boulder
    MCSE

Nowak, Cindy– Business Education Consultant

O'Brien Carol– Director, Arapahoe Douglas Career
    & Technical School (ACTS)
    B.S. Occupational Education,
    Colorado State University

Olinek, Dawn– Coordinator, Graduation
    B.G.S., Wichita State University

Olsen, Rhonda– Telecommunications Manager
    B.S., University of Nebraska
    Cisco Professional Achievement, ACC

O'Neil, David– Facilities Analyst
    B.A., SUNY, Oswego

Oreitanio, Ralph– Grounds Manager
    Certificate, New Jersey I.T.

Ostrowski, Kimberly– Director,
    Student Outreach and Advising
    B.A., Mesa State College
    M.A., University of Phoenix

Provancal, James– Bldg. Maintenance Supervisor

Puryear, Margaret– Information Manager
    Institutional Research
    A.S., Arapahoe Community College

Sanchez, Frankie– High School Recruitment Specialist
    B.A., Adams State College

Shallcross, Dorothy– Lead Cashier
    Assoc. Bus., University of So.Dakota
    B.S., Regis University

Shettleworth, James– Advisor, Advising/Counseling
    A.A., Illinois Central College
    B.S., Metro State College
    M.A., University of Colorado
    M.P.A., University of Colorado at Denver

Shores, Linda– Transcript Evaluator Specialist
    B.A., Metro State University
    M.A., Denver University

Shorman, Della– Webmaster,
    Educational Technology Specialist
    A.A. Red Rocks Community College
    B.S., Kansas State University

Sliter, Louie– Director, Purchasing/Graphics

Snow, Ted– Dean,
    Arts, Humanities and Social Sciences
    B.A., University Northern Colorado
    M.A., Colorado State University
    Doctoral Candidate, Colorado State University

Spaulding, Thad– Financial Aid/Veteran Affairs
    Coordinator
    B.A., University of Colorado

Stovall, Alethea– Talent Search Project Director
    B.S., Buena Vista University
    M.S., University of Nebraska

Stroup Linda– Director of Nursing
    B.S.N., College of St. Teresa
    M.S.N., University of Western Ontario

Thorland, Kristi– Campus Police/Criminal Justice
    Coordinator
    B.S., University of Nebraska

Treitz, Sue– Director, C.N.A./Professional
    Achievement Awards
    B.S.N., Marquette University
    M.A., University of Northern Colorado

Whitehouse, Linda– Director, UCC
    B.S. Kent State University
    M.A. George Washington University

Wilke, Deborah– Director of Campus Police &
    Criminal Justice Education
    B.S., Kearney State College
    M.P.A., University of Colorado, Denver

Young, Gwen– Facility Coordinator, UCC
    B.S., Morningside College
    M.S., M.B.A., Drake University

Please visit our web site at **www.arapahoe.edu** for updated program information.

Faculty

Allen, Larry– Faculty, Economics, Finance
   B.A., Carleton College
   M.B.A., University of Denver
   Graduate School of Banking, University of CO

Anderssen, Joan– Faculty, Economics/Finance
   B.A., Carleton College
   M.B.A., University of Denver
   Graduate School of Banking,
      University of Colorado

Bamford, Cheyne– Faculty, Psychology,
   B.A., Grinnell College, IA
   M.A., Ph.D., Arizona State University

Befort, Vicki– Faculty, Marketing
   B.S., University of Northern Colorado
   M.Ed., Colorado State University

Betteman, Rudy– Faculty, Mortuary Science
   B.S.,Regis University
   Dallas Institute of Mortuary Science

Berg, Jeffrey– Distinguished Faculty, Mathematics
   B.S., Arizona State University
   M.S., University of Colorado at Denver

Bertelsen, Tamara– Faculty, Economics
   B.A., University of Puget Sound
   M.A., Colorado University at Denver

Bigalk, Annette M.– Faculty, Health Information
   Technology
   B.A., University of Colorado, Boulder
   B.S. Regis College

Blaske, Karin L.– Faculty, Developmental Studies
   B.S., Illinois State University
   M.S., Northern Illinois University

Borow-Stephens, Barbara– Distinguished Faculty,
   Paralegal
   B.S., Ithaca College, N.Y.
   M.S., Columbia University Teachers College, N.Y.
   J.D., University of Denver

Broome, Jeff– Faculty, Philosophy
   B.S., University of Southern Colorado
   M.A., Baylor University
   M.A., Ph.D., University of Colorado

Brown, Mary Lou– Faculty, Health Occupations, ACTS
   B.S., Arizona State University

Budd, Melanie– Faculty, Interior Design
   B.F.A., Northern Illinois
   M.A., Texas A&M University

Burns, Randy– Faculty, Jewelry/Metalwork
   B.F.A., Colo. State University
   M.F.A., University of Oregon

Calkins, Peter– Faculty, Automotive Technology
   A.A.S., Arapahoe Community College

Cannata, Jim– Faculty, Photography
   B.A., Metropolitan State College of Denver
   M.F.A., Florida State University

Chapman, Eugene– Faculty, Biology
   B.S., Bowling Green State University
   M.A., Columbia University
   Ed.D., Pennsylvania State University

Christner,Lisa– Faculty, Interior Design
   B.S., Univ. of Texas

Comstock-Peavy, Tami– Faculty, Composition
   B.A., Western State College
   M.A., University of Northern Colorado

DeMoulin, Tom– Faculty, Multimedia/Graphic
   Design
   B.A., Macalester College

Diede, Leo– Faculty, Computer Information Systems
   B.S., Black Hill State University
   Graduate Certificate, University of California,
      Riverside

Dragoo, Alvin– Faculty, Automotive
   A.A., Southeast Community College

Evans, Andrew– Faculty, Chemistry/Geology
   B.S., Fairleigh Dickinson Univ
   M.S., University of Nebraska
   M.A., University of Colorado, Denver
   Ph.D., University of Nebraska

Ficca, Tami– Faculty, Developmental Studies
   B.A., M.A., University of Colorado

Fons, Sharon– Faculty, ACTS, Early Child
   Professional
   B.S., University of Wisconsin, Madison

Franklin, Sandra J.– Faculty, Nursing
   Diploma, Crouse-Irving Memorial Hospital
      School of Nursing
   B.S., Metropolitan State College
   M.S., University of Hawaii

Garcia, Michael J.– Faculty, History
   B.A., Metropolitan State College Denver
   M.P.A., M.A., University of Colorado

Gaudinski, Christine– Faculty, Chemistry
   B.A., LaSalle University
   MA, University of Northern Colorado

Gedde, IdaLynn– Faculty, Computer Information
   Systems
   B.A. North Park College
   M.Ed., Lesley College

Giveans, Fred– Faculty, Computer Information
   Systems
   B.S., Parks College

Goggin, Susan– Faculty, Art
   B.F.A., M.H., University of Colorado

Graca, Lucy L.– Faculty, English
   B.A., M.A., University of Massachusetts

Greenwald, Jonathan I.– Faculty, Emergency Medical
   Technology
   B.A., Hofstra University
   EMT-Paramedic, Swedish Medical Center

Hagood, Allison E.– Faculty, Psychology
   B.A., Harvard University
   M.A., Colorado University at Denver

Hall, Dianne– Faculty, Computer Information
   Systems
   M.B.A., Regis University

Hall, John– Faculty, Multimedia/Graphic Design
   B.F.A., Colorado State University

Harris, Sara– Distinguished Faculty, Accounting
   B.S., Colorado State University

Harrison, Terrence– Faculty, Biology
   B.S., Baylor University
   M.B.S. University of Colorado, Denver

Hecomvich, Karen– Faculty, Nursing
   M.S., University of Colorado
   B.S.N., Metropolitan State College

Heddens, David– Faculty, Mathematics
   B.S., M.S., Northern Illinois University
   M.A., University of Arizona

Hidalgo Risse, Ruth– Faculty, Language
   A.A., Palm Beach Community College
   B.A., Florida State University
   M.A. Florida State University
   Ph.D., Florida State University

Holt, Kathryn– Faculty, Art
   B.A., M.F.A., University of Denver

Johnson, Erica– Faculty, Mathematics
   B.A., University of Colorado-Denver
   M.S., University of Denver
   PhD, University of Denver

Johnson, Jody– Faculty, Biology
   Teacher Cert., Metro State College
   B.F.A., Florida State University
   M.A. (Secondary Science Education),
   M.A. (Biology), University of Colorado

Johnson, Mary– Faculty, ACTS, Culinary Arts
   B.S., Colorado State University
   M.A., University of Colorado
      at Colorado Springs

Johnston, Daniel– Faculty, ACTS, Culinary Arts

Kercheval, Eleanor Kea– Faculty, Business
   B.S., Western Kentucky University
   M.S., Colorado State University

Khorsand, Christine M.– Faculty, Language
   B.A., Universite de Provence, France
   B.F.A., Boise State University
   M.A., University of Colorado at Boulder

Kindsfather, Steve– Faculty, ACTS, Carpentry
   A.A., Red Rocks Community College

Lawrence, Tracy– Faculty, Mathematics
   A.A., Chipolata Jr. College
   B.A., University of West Florida
   M.A., University of West Florida

LeMay, Norman– Mathematics
   B.S., University of Colorado, Denver
   M.S., University of Colorado, Denver S.,
      Colorado University at Denver

Lewan, Lindsay– Faculty, English
   B.A., M.A., Colorado State University
   Ph.D., University of New Mexico

Loptien, Marilyn– Faculty, ACTS–Medical Prep
   B.S., Metropolitan State College

Mason, Sally T.– Faculty, Interior Design
   B.S., Iowa State University

Matsushita, Hidemi– Faculty, Music
   B.M.,University of Colorado of Boulder
   M.M., University of Utah
   Ph.D., Brigham Young University

McAslan, Mary Sue– Faculty, Pharmacy Technology
   B.S., Xavier University of Louisianna
   PharmD., University of Kentucky

McFerran, Cheryl– Faculty, Speech, Theater
   B.A., University of California at Berkeley
   MFA, National Theatre Conservatory
   PhD, University of Colorado

McGurran, Robbie– Faculty, Computer Information
   Systems
   B.S., University of North Dakota
   M.S., University of North Dakota

McNamara, Nancy– Nursing

Melton, Don– Faculty, Political Science
   B.A., Bowling Green State University
   M.A., Kent State University

Miller, William– Faculty, Architecture
   B.A., Northern Illinois University
   Master of Architecture, University of Colorado

Milleur, Evelyn– Faculty, Nursing
   B.S.N., University of St. Thomas
   M.S.N., CU, Denver

Mills, Josie– Faculty, English
    B.A., University of So. Florida
    M.A., University of So. Florida
    Ph.D., University of Denver

Moore, Robert– Faculty, Criminal Justice
    B.A., Denver University
    M.S.S., Denver University

Mugge, Douglas– Faculty, Architecture
    A.A.S., Arapahoe Community College

Nelsen, Connie– Faculty, Medical Office Technology
    A.G.S., Arapahoe Community College
    B.S. Metropolitan State College of Denver
    M.S., Regis University

Norman, Celia– Faculty, Biology
    B.S., California Polytechnic State University
    M.A., University of Colorado

Parker, Rebecca– Faculty, Paralegal
    B.A., Phillips University
    M.S., University of Denver
    J.D., University of Oklahoma

Parmley, Robert– Faculty, Automotive
    A.A.S., Front Range Community College
    B.S., University of Southern Colorado

Pasterkamp, Janet– Faculty, Accounting
    B.S., Syracuse University
    M.B.A., Babson College

Poltrone, Rosann– Faculty, Geography
    B.A., State University of New York at Buffalo
    M.A., University of Wyoming

Provence, Paula– Faculty, Physical Therapy
    B.S., University of New Mexico
    M.A., University of Phoenix

Ransick, Christopher– Faculty, English
    B.A., San Francisco State University
    M.A., University of Montana
    M.A., University of California

Ray, Charlene– Faculty, Interior Design
    B.S., Florence State College
    M.S. Samford University
    Certificate of Interior Design,
     St. Mary's University

Rubin, Lance– Faculty, English
    B.S., University of Illinois, Urbana
    M.A., Northwestern University
    Ph.D., University of Denver

Rush, Gerilyn– Faculty, Nursing
    B.S.N., University of Nebraska
    M.A., Webster University

Sauber, Victoria– Faculty, CIS/UNIX
    B.A., Ohio State University

Sloan, Mary– Faculty, Mathematics
    B.A., Pomona College
    M.A., University of Northern California

Smith, Kenneth– Biology
    B.S., Angelo State Univ
    M,S, Montana State Univ.

Stieneker, Deborah A.– Faculty, Speech
    B.A., M.A., Southern Illinois University

Stoner, Barbara– Faculty, Nursing
    A.D., Arapahoe Community College
    B.S., University of Colorado
    M.S. University of Northern Colorado

Talavera, David– Faculty, Automotive
    B.S., (Dist. Social Sciences)
    B.S., (Dist. Natural Sciences)
    M.A., University of Wyoming

Thayer, Martha– Faculty, Mortuary Science
    Diploma, Dallas Institute of Funeral Service
    A.S., Arapahoe Community College
    B.S., M.A., Colorado Christian College

Tigner, Lori– Faculty, Humanities, Anthropology
    B.S., (Dist. Social Sciences)
    B.S. (Dist. Natural Sciences)
    M.A., University of Wyoming

Trott, David– Faculty, Astronomy
    B.A., Physics, University of Colorado
    M.A., equivalent by portfolio

Walters, Karen– Faculty, Mathematics
    B.A., Dartmouth College
    M.S., University of Hartford
    M.Ed., Harvard University
    M.A., Ph.D., University of Kentucky

Weigel, Henry– Faculty, Physics
    B.S., M.S., Texas A & M University

Wolf, Sallie P.– Faculty, English
    B.A., University of Illinois
    M.A., University of Kansas

Wooley, Marsha– Faculty, Art
    B.A., Metropolitan State College of Denver
    M.F.A., University of Pennsylvania

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Please visit our web site at **www.arapahoe.edu** for updated program information.

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ARAPAHOE COMMUNITY COLLEGE

5900 S. Santa Fe Dr. · Littleton, CO 80160 · 303.797.4ACC · www.arapahoe.edu

Application for Admission

*Responses to items marked by an asterisk (•) are voluntary, will be kept confidential, will not be used in a discriminatory manner, and are intended to support actions designed to promote students' participation in the education programs offered by the College. The information will not be used as a factor in acceptance to the College.

INSTRUCTIONS - Please complete all sections of this application in **BLACK INK** and **PRINT LEGIBLY**.

PLEASE INDICATE THE YEAR AND TERM YOU WISH TO ENROLL 20 [ ][ ]   ☐ SUMMER   ☐ FALL   ☐ SPRING

Social Security Number   OR   Tax Identification Number

BIRTHDATE MONTH — DAY — YEAR

GENDER ☐ (M) Male ☐ (F) Female

LAST NAME   FIRST NAME   MIDDLE NAME

PREVIOUS NAME

*Current Employment Status
- ☐ (F) full time (30+ hrs/week)
- ☐ (P) part time (1-29 hrs/week)
- ☐ (U) unemployed

*Ethnic Origin:
- ☐ (I) American Indian or Alaskan Native
- ☐ (O) Asian or Pacific Islander
- ☐ (H) Hispanic
- ☐ (B) Black Non-Hispanic
- ☐ (W) White Non-Hispanic

*Veteran/Military Service
- ☐ None
- ☐ (1) Veteran or Dependent Eligible for VA Educational Benefits
- ☐ (2) Veteran Not Eligible for VA Educational Benefits
- ☐ (3) Active Duty Veteran
- ☐ (4) Active Duty Military

Citizenship:
☐ U.S. Citizen   ☐ Non U.S. Citizen**

Country of Citizenship: _____

Visa Type: _____

VISA Expiration Date: _____
**You must attach a photocopy of your I-551 (Resident Alien Card) (both sides) or I-94 (Arrival-Departure Record). If you are under the age of 23, you must attach a photocopy of both your and your parent's/legal guardian's I-551 or I-94.

Office Use Only

VISA	RESIDENCY	ORIGINAL COUNTY	ORIGINAL STATE

LOCAL ADDRESS   COUNTY OF LOCAL ADDRESS

CITY   STATE   ZIP CODE   COUNTRY   (AREA CODE) RESIDENCE PHONE NUMBER

PERMANENT ADDRESS (IF DIFFERENT FROM ABOVE)   COUNTY OF PERMANENT ADDRESS

CITY   STATE   ZIP CODE   COUNTRY   (AREA CODE) BUSINESS PHONE NUMBER

E-MAIL ADDRESS

While at this institution, do you intend to
- ☐ (1) Earn an academic degree (AA/AS/AGS)
- ☐ (2) Earn a vocational - technical degree (AAS)
- ☐ (3) Earn a vocational - technical certificate
- ☐ (4) None of the above

Are you enrolling at this college for job or career reasons?
☐ Yes ☐ No

Do you plan to transfer to another institution?
- ☐ (1) Yes, to a 4-year school after graduation
- ☐ (2) Yes, to a 4-year school before graduation
- ☐ (3) Yes, to a 2-year school after graduation
- ☐ (4) Yes, to a 2-year school before graduation
- ☐ (5) No, I do not plan to transfer

Please indicate planned length of study at this institution:
- ☐ (1) semester   ☐ (3) 2 years
- ☐ (2) 1 year   ☐ (4) More than 2 years

Program/Major area of study:

*Do you consider yourself economically disadvantaged?	☐ yes ☐ no
*Do you consider yourself academically disadvantaged?	☐ yes ☐ no
*Is English your second language?	☐ yes ☐ no
*Do you consider yourself a displaced homemaker?	☐ yes ☐ no
*Do you consider yourself a single parent?	☐ yes ☐ no

Have your parents earned a baccalaureate (4-year) degree?
- ☐ (M) Mother   ☐ (N) Neither
- ☐ (F) Father   ☐ (B) Both
- ☐ (U) Unknown

Which best describes your current status?
- ☐ (NE) New Student, I have never attended any college or university.
- ☐ I have attended another college. Please check one item below.
  - ___ (TR) I expect to transfer credit from my prior college.
  - ___ (TN) I do NOT expect to transfer credit.
- ☐ (RA) I am a former student of this college, applying for readmission.

Which best describes the level of education you have completed ? (choose one)
- ☐ (LH) Less than High School
- ☐ (HS) High School Graduate/GED
- ☐ (CE) Certificate
- ☐ (AA) Associate Degree (AA, AS)
- ☐ (AG) Associate Degree (AAS, AGS)
- ☐ (BD) Bachelor's Degree
- ☐ (MA) Master's Degree
- ☐ (DD) Doctorate (Ed D, Ph D)
- ☐ (PR) Professional Degree (MD, JD, MBA, Ed S)

Name of Last High School Attended _____ State [ ][ ]

City _____

Name of Last College Attended _____ State [ ][ ]

City _____

Type of Secondary Diploma
- ☐ High School Diploma,
  - (Y) Year Received 19/20 [ ][ ]
- ☐ (G) G.E.D. - Year Received 19/20 [ ][ ]
- ☐ (C) Currently enrolled in High School
  - Expected Graduation Date 20 [ ][ ]
- ☐ (N) Non-Graduate

SELECTIVE SERVICE STATEMENT

To comply with Colorado State Law, all males between the ages of 18 and 26 years must answer the following question.

Are you registered with the Selective Service? ☐ Yes ☐ No   You can register for selective service at http://www.sss.gov/FSregist.htm.

OFFICE USE ONLY

STUDENT ID	COLLEGE	DEGREE	MAJOR	MINOR	SPEC	HIGH SCHOOL CODE	COLLEGE CODE

REV (11/04)

COLLEGE OPPORTUNITY FUND

The College Opportunity Fund (COF) provides a stipend to eligible undergraduate students. The stipend pays a portion of your total in-state tuition. You must apply via the internet at www.CollegeinColorado.org in order to receive this stipend.

TUITION CLASSIFICATION: (Has no effect on admission to the college)

COMPLETE FOR COLORADO RESIDENCY CLASSIFICATION

Please answer the following questions carefully. If appropriate indicate "none" or "not applicable". You may write explanatory notes on this form and/or attach additional sheets as necessary. Use the word "present" for month/year if the date extends to the time you are completing this application. Failure to answer a question may result in your being misclassified. Please contact the Office of Admissions if you need assistance.

CURRENT AGE

If you are under 23:
☐ **YOUR PARENT or** **and** **YOU**
☐ **LEGAL GUARDIAN**

Dates of continuous physical presence in Colorado..
(mo day yr) to (mo day yr) | (mo day yr) to (mo day yr)

Dates of extended absences from Colorado during the last two years........
(mo yr) to (mo yr) | (mo yr) to (mo yr)

List the last two years Colorado income taxes have been filed............................
(yr) and (yr) | (yr) and (yr)

List the last two years of employment or source of income................................
Employer State (mo yr) to (mo yr) | Employer State (mo yr) to (mo yr)
Employer State (mo yr) to (mo yr) | Employer State (mo yr) to (mo yr)

Date current Colorado Driver's License or Colorado I.D. was issued and number.....
(mo yr) New ☐ # _____ Renewal ☐ | (mo yr) New ☐ # _____ Renewal ☐

List the last two years of Colorado Motor Vehicle Registration....................
(mo yr) and (mo yr) | (mo yr) and (mo yr)

Date of Colorado Voter Registration...
(mo yr) | (mo yr)

If you are NOT a U.S. Citizen, please attach a photocopy of your parent's/legal guardian's Visa, I-551 (Resident Alien Card) (both sides) or I-94 (Arrival-Departure Record).

Date of marriage (answer this question only if you will be under the age of 23 by the initial enrollment date).
(mo yr)
Response to this question is voluntary, will not affect the admission process, and is used only to determine residency status.

If you are active duty military or a dependent of an active duty military service member assigned to a Permanent Change of Station in Colorado, you may be eligible for in-state tuition rates. Contact your Military Base Education Office for documentation.

All items are subject to change without notice.

STUDENTS WHO CLAIM A CHANGE IN TUITION CLASSIFICATION OR EMANCIPATION MUST FILE A PETITION FOR RESIDENCY PRIOR TO REGISTRATION.

I hereby certify that, to the best of my knowledge, the information furnished in this application is true and complete without intent of evasion or misrepresentation. I understand the above information is submitted under penalty of perjury and false or misrepresented data is sufficient cause for tuition reclassification or dismissal.

_____ _____ _____
Student Signature AND Parent or Legal Guardian Signature if applicant is under 18 Date

Institutions using this application form do not discriminate on the basis of race, color, national origin, sex, age, or disability in admission or access to, or treatment or employment in its educational programs or activities. Inquiries concerning Title VI, Title IX, and Section 504 may be referred to the affirmative action officer of the institution to which you are applying.

THANK YOU FOR YOUR INTEREST IN OUR COLLEGE

COLORADO COMMUNITY COLLEGE SYSTEM

ZSADOO1 REV (11/04)

53695515-#1