



# 2007-2008 Catalog

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



## TOP 12 REASONS

# *To Visit the ACC Library*

12. Over 51,000 items to help you learn including books, CDs, DVDs, audiobooks, periodicals and headphones.
11. You already have a library card—your student ID! Using it will allow you to empower your mind.
10. Stanford, Harvard, Yale, Princeton and other large research institutions have published really cool resources that we have in our collection and you can access them...without paying their tuition!
9. Copy machines you can use for just 10 cents a page.
8. You can sign up for a free NetLibrary account giving you access to over 7,000 electronic books, searchable from any computer, anywhere.
7. You can watch an abundant supply of DVDs and videotapes.
6. Five study rooms (3 of which contain white boards) so you can work with your friends without being told to “shhhhh.”
5. Librarians with over thirty years of proven research strategies and thousands of knowledge tools combined in one place, giving you the potential to earn an “A” in every class.
4. You can check out body parts, slides, microscopes and even a box of bones!
3. Great mountain views to inspire your creative thought processes.
2. Twelve computers that allow you to access the Internet without requiring you to logon!

*And the #1 reason you should  
visit the ACC Library is...*

1. Admission is free but the knowledge you gain is priceless.

# TELEPHONE DIRECTORY

Main College Number . . . . .	303-797-4ACC (4222)
Admissions Center (Information Central) . . . . .	303-797-4ACC (4222)
Admissions and Records . . . . .	303-797-5621
	Fax 303-797-5970
Announcement Line . . . . .	303-797-5700 x9
Advising/Counseling Center . . . . .	303-797-5664
Art and Design Center . . . . .	303-797-5958
Arts, Humanities and Social Sciences Division . . . . .	303-797-5855
Assessment . . . . .	303-797-5993
Arapahoe/Douglas Career and Technical School . . . . .	303-797-5080
Bookstore . . . . .	303-797-5676
Business and Professional Services Division . . . . .	303-797-5717
Campus Police Dept. . . . .	303-797-5800
Career Center . . . . .	303-797-5805
Cashier's Office . . . . .	303-797-5638
Chief Academic Office . . . . .	303-797-5702
Chief Operating Officer . . . . .	303-797-5704
Child Development Center . . . . .	303-797-5678
Community Education . . . . .	303-797-5722
Disability Services . . . . .	v/tty 303-797-5937
Events Line . . . . .	303-797-5750
Fitness Center . . . . .	303-797-5850
Financial Aid . . . . .	303-797-5661
Foundation . . . . .	303-734-3711
GED/pre-GED . . . . .	303-797-5722
Health, Math, Science and Engineering Division . . . . .	303-797-5911
Hope/Lifetime Learning Tax Credit Hotline . . . . .	303-797-5637
Human Resources and Employment . . . . .	303-797-5720
Information Central . . . . .	303-797-4ACC (4222)
Instructional Testing Center . . . . .	303-797-5993
Library . . . . .	303-797-5090
Peer Mentoring Center . . . . .	303-797-5669
President . . . . .	303-797-5701
Student Affairs . . . . .	303-797-5668
Switchboard . . . . .	303-797-4ACC (4222)
TTY Users Relay Colorado . . . . .	1-800-659-2656
Tutorial Services . . . . .	303-797-5937 v/tty
University Center at Chaparral (Parker) . . . . .	303-734-4UCC (4822)
Vice President . . . . .	303-797-5703
Vice President for Instruction . . . . .	303-797-5702
Veterans' Programs . . . . .	303-797-5662

# CONTENTS

About Arapahoe Community College . . . . .	2
College Calendar . . . . .	4
Application/Registration Checklist . . . . .	5
Residency, Tuition and Fees . . . . .	6
Financial Aid and Veterans' Programs . . . . .	8
Student Services/Information . . . . .	11
Learning Options . . . . .	19
Learning-Centered Opportunities . . . . .	20
Academic Policies and Procedures . . . . .	22
Graduation Checklist . . . . .	28
Programs of Instruction . . . . .	30
Degree Requirements . . . . .	31
Course Descriptions . . . . .	82
Corporate Learning Division . . . . .	152
Community Education (Non-Credit Classes) . . . . .	152
College Administrators . . . . .	153
College Faculty . . . . .	154
Index . . . . .	158



**The statements set forth in this catalog outline the current rules, regulations and policies of Arapahoe Community College and the Colorado Community College System. While the provisions of this catalog will normally be applied as stated, the College reserves the right to make changes at any time. The Web site, therefore, will contain any changes and is the most current source of information and is the basis of the College's contract with its students. It is the responsibility of each student to stay abreast of changes to his/her area of study as presented on the Arapahoe Community College Web site (<http://www.arapahoe.edu>).**

## About Arapahoe Community College

Arapahoe Community College, metro-Denver's oldest community college, began in 1964 when a group of Littleton residents began exploring the need for a local junior college. They presented their research to the local school districts. After much effort and dedication by 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 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).

ACC's 51-acre main campus is located in Littleton, 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.

ACC currently has over 7200 students and 130 degree and certificate programs. The majority of classes are held in the Main building, completed in 1974. A large Annex added in 1977 houses additional classrooms, laboratories, the Colorado Gallery for the Arts, the automotive technology area and physical education facilities including a gymnasium, swimming pool and Fitness Center.

The West Alamo Center in downtown Littleton was acquired by the College in 1990 and renamed the Art and Design Center. Located within two 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.

ACC expanded into Douglas County in 2000 with the opening of University Center at Chaparral in Parker.

In 2001, ACC completed a \$13 million renovation of the main campus building with the Weber Center for Learning Resources (library) as the architectural centerpiece. Included in the renovation were classrooms with the fiber optic technological capability for connecting to global educational resources.

### ***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 may 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.

### **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.

*Photos by: Craig Ferguson, ACC Media Department*

## Institutional Accreditation

Arapahoe Community College is accredited by The Higher Learning Commission and a member of the North Central Association of Colleges and Schools. The Commission can be reached at: Telephone: 312-263-0456. Web address: [www.ncahigherlearningcommission.org](http://www.ncahigherlearningcommission.org).

## ACC Program Accreditations

The following programs hold accreditation and/or approval 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.



# A MESSAGE FROM THE PRESIDENT

At Arapahoe Community College learning is the focal point of everything we do. We provide engaging and innovative educational opportunities for learners with a myriad of academic, professional and personal goals. Additionally, we aim to improve the quality of life and the economic health of Douglas, South Jefferson and Arapahoe counties.

We are proud to be in our 41st year of serving this diverse community with our flexible and adaptable programs. Arapahoe Community College students pursue coursework and degrees for: transfer into university programs; career preparation and advancement; and for personal fulfillment. In addition to typical college programs, we offer many opportunities for lifelong learners. These opportunities include community education, continuing education for practicing professionals, customized training for industry needs, special programs for seniors, developmental programs to help students prepare for college coursework and a multitude of other exceptional academic programs.

To make these programs more accessible to all members of our service area, we furnish our offerings at two campuses – our Main Campus in downtown Littleton and our Douglas County based University Center at Chaparral located just three

miles east of I-25 and Lincoln. For those students whose schedules do not permit them to personally attend classes, we continually expand our online course offerings.

At Arapahoe Community College, we are dedicated to your success. We demonstrate this through the many kinds of support services you can count on such as: financial aid; advising; counseling; disability resources; veterans' services; an international center; career resources; an award-winning child care center; and re-entry services, among others. To enhance your college experience we support many student organizations, activities and events.

Remaining actively linked to our community is also a high priority. We stay connected via numerous community advisory groups and by engaging in partnerships to leverage the good being accomplished by other organizations in our service area.

I am pleased to welcome you to the Arapahoe Community College learning community.

Very Truly Yours,

**Dr. Bert Glandon**  
*President*



# COLLEGE CALENDAR 2007-2008

## SUMMER SEMESTER 2007 (5/29-8/6/07)

April 1	Graduation Application Deadline date for the <b>Summer Semester</b>
April 16-May 29	Summer registration for all students
May 21-25	Walk-in registration on MTWR 8 a.m.-7 p.m.; F 8 a.m.-5 p.m.
May 26-28	Memorial Day Holiday - College Closed: No Services Available
May 29 (Tue.)	<b>SUMMER TERM BEGINS (10-week classes begin)</b>
June 11 (Mon.)	<b>8-WEEK CLASSES BEGIN</b>
June 30	Late Graduation Application Deadline date for the Summer Semester
July 1	Graduation Application Deadline date for <b>Fall Semester</b>
July 4	Independence Day recognized - College Closed: No Services Available
August 6 (Mon.)	<b>8-week and 10-week</b> classes end, End of Summer term
August 10	Deadline for grades entered into Web for Faculty

<u>CLASS SESSIONS</u>	<u>SESSION DATES</u>
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10 week classes	May 29 - August 6
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8 week classes	June 11 - August 6
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Some classes begin and end at other times. Please contact your division assistant for course specific census and withdrawal dates. Classes that meet on Wednesday will have to meet on August 8th or schedule extra time during the term due to the July 4th holiday. **The last day to drop for a refund is 15% of the semester and is posted in the semester schedule.**

## FALL SEMESTER 2007 (8/18-12/10/07)

April 16-Aug. 20	Fall registration for all students
July 1	Graduation Application Deadline date for <b>Fall Semester</b>
Aug. 13-20	Walk-in registration on MTWR 8 a.m.-7 p.m.; F 8 a.m.-5 p.m.; S 8 a.m.- noon; (Faculty Days MTWRF)
Aug. 18 (Sat)	<b>FALL SEMESTER BEGINS</b>
Sept. 1-3	Labor Day Holiday - College Closed: No Services Available
Oct. 8	Columbus Day - College open - classes in session
Oct. 31	Late Graduation Application Deadline date for the <b>Fall Semester</b>
Nov. 1	Graduation Application Deadline date for <b>Spring Semester</b>
Nov. 12	Veterans Day - College open - classes in session
Nov. 19-20	In service days, <b>CLASSES NOT IN SESSION</b> (labs and practicums may be scheduled) Offices Open 8 a.m. -5 p.m. (Faculty Days)
Nov. 21	Fall Break, <b>CLASSES NOT IN SESSION</b> , Offices Open 8 a.m.-5 p.m.
Nov. 22	Thanksgiving - College closed: No Services Available
Nov. 23	Fall Break - College open - <b>CLASSES NOT IN SESSION</b> , Offices Open 8 a.m.-5 p.m.
Nov. 24-25	Weekend classes <b>DO NOT MEET</b> , College closed: No Services Available
Dec. 10 (Monday)	Last day of classes, end of Fall Semester
Dec. 14	Deadline - grades entered into Banner
Dec. 25 - Jan. 1	Holiday Season - College closed: No Services Available
Jan. 2 (Wed.)	College open

<u>CLASS SESSION</u>	<u>SESSION DATES</u>
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15 week classes	Aug. 18 (Sat) - December 10 (Mon) (Mon. classes begin Aug. 20, 2006)
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**The last day to drop for a refund is 15% of the semester and is posted in the semester schedule.**

## SPRING SEMESTER 2008 (1/14-5/5/07)

Nov. 1	Graduation Application Deadline date for <b>Spring Semester</b>
Nov. 12-Jan. 12	Spring registration begins for all students
Jan. 7-12	Walk-in registration on MTWR 8 a.m.-7 p.m.; Fri. 8 a.m.-5 p.m.; Sat. 9 a.m.-noon; (Faculty Days MTWRF)
Jan. 14 (Mon.)	<b>SPRING SEMESTER BEGINS</b>
Jan. 21	Martin Luther King, Jr. Birthday-College open, Faculty Day, classes not in session
Feb. 18	President's Day - College open, classes in session
Mar. 10-16	Spring Break - <b>CLASSES NOT IN SESSION</b> , Offices Open 8 a.m.-5 p.m.
Mar. 31	Late Graduation Application Deadline date for the <b>Spring Semester</b>
April 1	Graduation Application Deadline date for <b>Summer Semester</b>
May 5 (Mon.)	Last Day of Classes - End of Spring Semester
May 6	Faculty Day
May 8	Deadline - ALL grades due in Web for Faculty (noon)
May 10	COMMENCEMENT CEREMONY, Faculty Day

<u>CLASS SESSION</u>	<u>SESSION DATES</u>
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15 week session	January 14 - May 5
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Please contact your division assistant for course specific census and withdrawal dates. Some classes begin and end at other times.

**The last day to drop for a refund is 15% of the semester and is posted in the semester schedule.**

\*The facility will be open during holidays for facility rentals and Community Education activities only.

# APPLICATION/REGISTRATION CHECKLIST

## 1. Apply

Complete the ACC Application for Admission as follows:

Online: [www.arapahoe.edu](http://www.arapahoe.edu)

In person: Information Central (Room M2800)

Fax: 303-797-5970

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.

You will be notified (by e-mail or letter) of your acceptance and residency status when you have completed the application.

**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 from ACC's International Student Advisor at 303-797-5652.

**High School Students:** High school students must be at least 16 years of age with 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.

## 2. Financial Aid

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

In person: Information Central (Room M2800)

Online: [www.fafsa.ed.gov](http://www.fafsa.ed.gov)

Financial Aid office: Make an appointment at 303-797-5661 (Room M2115)

## 3. Assessment

**Take the Computerized Placement Test (CPT)** in the Testing Office (Room M2280). Call 303-797-5659 for hours. To take the CPT 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 Room M2710, 303-797-5937 v/tty. For more information, please refer to Student Services/Information-Assessment-Basic Skills section of this catalog.

## 4. Advising / New Student Orientation

**New Degree or Certificate-seeking Students: Attend a mandatory New Student Orientation Session** (dates, times and reservations through the Advising Office at Room M2010 or 303-797-5664). For academic planning, bring CPT, ACT, SAT scores and/or college transcripts with you.

**Transfer and continuing ACC students: Meet with an Advisor in the Advising Office** at Room M2010 who will assist you with the application process, transcripts, academic planning, course selection, registration, veterans' benefits, international student assistance and services for students with disabilities.

You may also meet with 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 meet with an advisor.

**5. Contact Disability Services** (Room M2710 or 303-797-5893 v/tty) to request academic accommodations and for specialized consultation if needed. Appropriate documentation is required for accommodations.

## 6. Register for classes

After you have completed your application you will be notified of your assigned Student Identification Number and PIN and notified when and how to register. More information and instructions are available on the ACC Web site.

## 7. Tuition

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 (Room M2300) by the deadline listed in the semester schedule. See the Schedule of Classes for information about deferred payments.

## 8. Parking and ID

Pick up your Parking Permit and Student ID from Parking Services (Room 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.

**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)

## Post-secondary Enrollment Options

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 completed satisfactorily (“C” or better). 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. To pursue this option:

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 Fukay at 303-797-5622.



*ACC's Littleton Campus is located one block from a light rail station.*

# RESIDENCY, TUITION AND FEES

## Residency

You will be classified as a resident or non-resident student according to the information provided on your Application for Admission. You may appeal your classification if you feel you meet the requirements for Colorado residency 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 Resident Status

To qualify for resident 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. There are several ways you can prove your intent, including 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.

## Resident Status for Active Duty Military

Non-resident active duty military personnel and their dependents qualify for resident 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 a resident. 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, California, 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 Information Central or they can be faxed or mailed. Please contact the Admissions and Records Office for further information at 303-797-5624, or e-mail [linda.sulsberger@arapahoe.edu](mailto:linda.sulsberger@arapahoe.edu).

Information on WUE can be obtained through their Web site, [www.wiche.edu](http://www.wiche.edu). General questions about WUE may be sent by e-mail to [info-sep@wiche.edu](mailto: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.

## HB-06S-1023

In July 2006, the Colorado State Legislature enacted HB-06S-1023, which became effective on August 1, 2006. The legislation requires all citizens who apply for state-funded benefits that entail any payment or financial assistance provide proof that they are lawfully present in the United States. Please visit <http://www.state.co.us/cche/> for more information regarding this legislation.

## 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 Schedule of Classes or view at [www.arapahoe.edu](http://www.arapahoe.edu).

## 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 the semester class Schedules.

## 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. You can withdraw on the Web site or by submitting a Schedule Adjustment Form to Information Central prior to the deadline date for withdrawals. A “W” grade will appear on your transcript for all official 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.

## Appeal for Tuition Credit

Students are given the opportunity to submit an Appeal for Tuition Credit if there is an unforeseeable or extraordinary circumstance that prevents the student from meeting the drop deadline. For more information please see Appeal Instructions or download and fill out the Appeal for Tuition Credit form. Additional forms that may be needed are the Financial Aid Acknowledgement Form and the Medical Documentation Form.

## 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 the Web. Official withdrawal, under any circumstances, does not relieve students of debts to ACC.

**See the Financial Aid section under Student Services.**

## COF Stipend

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 Colorado Opportunity Fund (COF). Under this new law, starting in the fall semester 2005, the State gave this money for the subsidy to students by sending it to the institution the student designates. This money, known as the College Opportunity Fund, is applied to a resident 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.



# FINANCIAL AID AND VETERANS PROGRAMS

ACC offers a variety of VA, financial aid grants, scholarships, student loans, work-study 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 Web site at [www.arapahoe.edu](http://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](http://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 and Asset Information (TANF, SSI, Business Income, etc.)
- Verification Worksheets
- Other information as requested

The financial aid priority 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 or GED or the student must take a placement test (ASSET or COMPASS) and receive scores designated by the Department of Education.
14. Students cannot 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 some of the federal and state grant, scholarship and work-study programs available. Please visit the Office of Financial Aid for more information or visit online at [www.arapahoe.edu](http://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. 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 Web site links:

<a href="http://www.arapahoe.edu">www.arapahoe.edu</a>	<a href="http://www.finaid.org">www.finaid.org</a>
<a href="http://www.fastweb.com">www.fastweb.com</a>	<a href="http://www.scholaraid.com">www.scholaraid.com</a>
<a href="http://www.wiredscholar.com">www.wiredscholar.com</a>	

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 half-time 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. 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 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 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

Contact the Financial Aid Office for specific criteria for all aid programs or visit [www.arapahoe.edu](http://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 and 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.



# STUDENT SERVICES

## 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 Room M2710 or call 303-797-5937 (v/tty). Students with disabilities are responsible for providing documentation of disability from a qualified professional.

## 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 by logging into ED, the student information system, at [www.arapahoe.edu](http://www.arapahoe.edu). click in the “My Community EDucation” box and enter your login information.

## Academic Advising

Academic advising is a crucial first step for new students beginning a college program. Academic advisors help students explore life and career goals and select courses based on basic skill assessment results and programs of study. New and continuing students are strongly encouraged to meet with an advisor every semester to help clarify goals and to stay updated on program changes. In addition to these services, the ACC Academic Advising office offers assistance in:

- The registration process
- Selecting courses based on placement test results
- Choosing a program of study or major
- Course sequencing and prerequisite selection
- Information on the add/drop and withdrawal process
- Selecting courses for transfer to a four-year college or university
- Career exploration and
- Referral information and contacts with outside agencies that may be better prepared to meet specific student needs

Academic advising is also available from faculty program advisors. Consult your division office for contacts.

## Annual Required College Disclosures

The following disclosures are annually published on the College’s Web site at [www.arapahoe.edu](http://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 two hours to complete.

You can take this individualized test at the Testing Center (Room 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 University Center at Chaparral (303-734-4822).

CPT test accommodations are provided to qualified students with disabilities. To request accommodations, contact Disability Services in Room 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 two years: Mathematics 19, Writing 18 and Reading 17; or
- Have achieved these minimum scores on the SAT college entrance exam within the past two years: Mathematics 460, Writing 440 and Reading 430; or
- Have achieved these minimum scores on the CPT (Accuplacer) placement test within the past two years: Elementary Algebra 85, Sentence Skills 95 and Reading Comprehension 80; or
- Met one of the following criteria for exemption from assessment. Exemptions are granted to 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 degree or higher or:
- d. Are a concurrently enrolled high school student until 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 becoming degree-seeking.

To receive an exemption, a student must present documentation to an advisor 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](http://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](http://www.arapahoe.edu) on the Testing Center page. Enrolled students can also take advantage of the Peer Mentoring and Tutoring Center to work on skills.

## Attendance

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

## Bookstore

The ACC 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](http://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, Art and Design Center and UCC 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 and 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 and Design Center. Decal permits are valid in lots A-I 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 you to be permanently affixed to the lower left hand corner, inside front windshield of the vehicle or affixed to a plastic hang-tag and placed over the rearview mirror. 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

This service is designed to assist the campus community experiencing vehicle problems on the main campus and the Art and Design Center. Services include jump-starting a battery or unlocking a car door. To obtain this service, call ext. 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 and Design Center also has in-house phones in open public areas for those in need to call the Police at the numbers above.

Code Blue emergency phones are located in each parking lot at ACC’s main campus and the Art and Design Center. These ADA-compliant phones require simply touching the red button to automatically contact the Campus Police Department. If that office is closed, the phone will ring through to the Littleton Police Department.

## 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 those facilities. 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 and Campus Crime Statistics Act

The Clery Act Report is accessible on the ACC Web site ([www.arapahoe.edu](http://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 ext. 5911 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 (Room A2000).

## 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 Closures of College next page.

## Career Center

### Career Exploration

Trying to choose a career? Career exploration can help you make one of the more important decisions in your life. The self assessments listed below are available for a nominal fee and can help you discover your work-related personal characteristics.

- Myers Briggs Type Indicator (MBTI)
- Strong Interest Inventory (SII)

## Career Services

Up-to-date information is provided on career decision making. You can develop a career plan to fit your needs and focus on the direction you want to go, based on realistic self-knowledge. Services provided include:

- Career planning seminars, offered for a fee, are recommended if you are undecided on a career goal, making a first time career decision, or making a career change. You identify interests and skills, learn about career resources and gain knowledge of job search techniques.
- Computer programs are offered that provide free career assessments, give updated information on current occupations, salary ranges, job outlook, schools offering programs, career videos and career interviews. Information on scholarships is also included.
- Career counseling is available to explore your career options.

## Employment Services

We offer the following:

- Full-time, part-time, temporary and seasonal employment postings
- Online career leads
- Resume critique and job search counseling
- On-campus employer recruiting
- Job fairs and special programs
- Job search, resume writing and interview technique seminars

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 (CDC). The Center, staffed by professionals and ACC Early Childhood Education students, 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 to 13 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. Names remain on the waiting list for one semester only. CDC registration is held in coordination with the College's semester registration. Charges include a registration fee and block/hourly rates. Tuition includes lunch, snacks and educational materials. For more information, please contact the Center at 303-797-5678.

## Closure of College

Call 303-797-5700, ext. 9, or check our Web site at [www.arapahoe.edu](http://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 Rights, Freedoms and Responsibilities section of this catalog.

## 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](http://www.arapahoe.edu) in the About ACC section. Comment cards are collected on a regular basis by the President's Office staff and reviewed by the executive team. 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 (CPL) includes learning acquired from work and life experiences; correspondence and extension courses; individual study and reading; civic, community and volunteer work; and participation in formal courses and in-service training sponsored by associations, business, government and industry. CPL 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. Students must be enrolled in at least one credit hour to seek CPL. Credits granted through prior learning are not eligible for financial aid or veterans' education assistance. CPL 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.

1. **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.

2. **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.
3. **Experience in the Armed Forces or Industrial and Corporate Training** programs may transfer in as credit after it has been evaluated through published guides.
4. Learning which has been acquired through work and life experiences must be substantiated through a formal **portfolio assessment** program. 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 Graduation Coordinator at 303-797-5630. Additional information is available on the Web site.

## 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. 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 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 Services (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.

## Food Services

### Cafeteria

The ACC cafeteria in the Main campus building offers self-serve and made-to-order foods for breakfast, lunch and dinner. It serves pizza by the slice, deli sandwiches, 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 welcome to purchase meals and enjoy them in the dining area. A microwave oven is available for students who wish to heat food brought from home. Catering for special meetings and events is available. There are several food locations near UCC.

### Vending Machines

Throughout ACC are vending machines containing candy, snacks and hot and cold beverages. If you have problems with these machines on the Main Campus, contact the Cashier's Office; problems with vending machines at the Art and Design Center should be taken to Room AD427E between 8 a.m. and 4 p.m. Difficulties with vending machines at the UCC facility will be handled by the staff at the front desk.

## Starbucks

The cafeteria operates a Starbucks, serving espresso beverages, chai tea, flavored hot teas, coffees, hot chocolate, sweet rolls, biscottis, muffins, iced beverages, sandwiches and other assorted foods, on the Main campus.

## Grade Reports

Grades are not mailed automatically. Students may access grades through the MyCommunityED Web site at [www.arapahoe.edu](http://www.arapahoe.edu).

## 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, Room M2820 or call 303-797-5668.

## Information Central

Information Central, located in the Main campus building, provides one-stop enrollment services to prospective, new and continuing students. You can call Information Central at 303-797-4ACC (4222). Check the ACC Web site for information and e-mail links at [www.arapahoe.edu](http://www.arapahoe.edu).

## Lost and Found

Please refer to Student Services/Information – Campus Police Department listing for the main campus. Students at the UCC facility 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.

## Mentoring

ACC offers a mentoring program designed to pair students with a staff or faculty mentor. (See Peer Mentoring and Tutoring for additional services.) For more information about this supportive partnership contact the Office of Student Affairs, 303-797-5668.

The peer mentoring program matches students new to ACC with those who have been here for at least one term. Through this relationship, peer mentors provide advice, support and serve as role models. Students can also use this service on a drop-in basis. If you are interested in this program, please call the Student Affairs office at 303-797-5668 or stop by Room M2820.

## Minority Student Support

Umoja (Unity) Student Alliance was created to enhance cultural diversity at ACC and provide a support system for minority students. Call 303-797-5668 for more information. ACC offers a mentoring program designed to pair students with a staff or faculty mentor. For more information about this supportive partnership, contact the Office of Student Affairs, 303-797-5668.

## Name Changes

If your name changes due to marriage, divorce or for other reasons, please contact Information Central immediately. You will need to provide appropriate documentation to process a name change.

## Open Computer Lab

The Open Computer Lab is located on the first floor of the Main building for ACC student use with a current ID. 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 the Schedule of Classes for payment option details.

## Peer Mentoring and Tutoring Center

The Center is operated for students by students to ensure student success and well-being at ACC. Located on the second floor of the Main building, the Center serves as a welcoming and gathering place for learning opportunities of all sorts. Please see separate listings under Mentoring and Tutoring for more information, or call the Student Affairs office at 303-797-5669.

## 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: 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 if requested online or \$5 if requested by any other means. Same day transcript processing is available for \$10 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 business 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 admitted to 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](http://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 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–Campus Police Department–Security Phones listing in this catalog.

## Sexual Harassment

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

The ACC 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.

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:

1. A quality general education experience that develops competencies in reading, writing, mathematics, technology and critical thinking through an integrated arts and science experience.
2. 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.
3. 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.
4. Students have a right to clear and concise information concerning which courses must be completed successfully to complete their degrees;
5. Students have a right to know which courses are transferable among the state public two-year and four-year institutions of higher education.
6. 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.

7. Students have a right to know if courses from one or more public higher education institutions satisfy the students' graduation requirements.
8. 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 Definition

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. Pick up your free copy at the Student Affairs Office, Room M2820, and at the front desk of the UCC facility.

## Student ID Cards

You can obtain your Student ID card from the Campus Police. 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 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 Room M2820 or call 303-797-5668.

## Student Government

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

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

## Clubs and Organizations

Over 20 clubs and organizations are available for students. Stop by the Student Affairs office, Room M2820, for a current listing, information on starting a club, or to pick up a club handbook.

## Student Rights, Responsibilities and Code of Conduct

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

## Student Publications

The student newspaper, *The Arapahoe Free Press*, is written and published by students and is funded with ACC student fees. Call 303-797-5666 for more information.

*Progenitor* is the nationally-recognized art and literacy magazine produced by ACC students. For more information e-mail [progenitor@arapahoe.edu](mailto:progenitor@arapahoe.edu).

## Telephones

The Main campus building, the Church Street Building and University Center at Chaparral have pay phones for student use. The North building has 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 Room M1950.

## Testing

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

## 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.

The Peer Tutoring Center is a free, drop-in service where students who have excelled in certain subject areas provide help for those courses. Also available is a Web-based instructional program focusing on basic reading, vocabulary, writing, math, and algebra skills. Students can take advantage of diagnostic pretests, interactive lessons, and mastery post-tests. For more information, come by Room M2410, call 303-797-5669, or e-mail [peer.mentor@arapahoe.edu](mailto:peer.mentor@arapahoe.edu).

## Wireless Internet Access

ACC provides Internet access for students with 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 OPTIONS

### 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.

### 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.

### 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 on ACC's Main campus to meet the online requirements of the hybrid class.

### Late Start

Late start classes begin after the second week of the semester.

### Online Courses

Online courses are regular college-credit courses that are taught online as opposed to in the classroom. Though online courses do require due dates and interaction with other students in the class, they offer flexibility to the busy, highly motivated, self-directed college student. Students wishing to take an online course must have an e-mail address and access to a personal computer with up-to-date hardware and software and Internet connectivity. Students may also use computers at the Open Computer Lab on ACC's Main campus.

# 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](http://www.actsinfo.org) or call 303-797-5080.

## Academic Achievement Classes

These courses are designed to develop student skills, define goals and build future success in college. Students do better in college when they take these classes: AAA 090 Academic Achievement Strategies; AAA 101 College 101: The Student Experience; AAA 109 Advanced Academic Achievement. Discuss these classes with your advisor.

## 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](http://www.alliance.franklin.edu).

## CCOnline

Colleges in the Colorado Community College System are sharing human and financial resources to deliver degree programs via the Internet. CCCOnline 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 chat rooms, threaded discussions, audio, video, webliographics and more. CCCOnline is located at 9075 E. Lowry Blvd., Denver, CO 80220, 1-800-801-5040. For more information visit the CCCOnline Web site at [www.cconline.org](http://www.cconline.org).

## 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

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 and 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 in Room A1300.

### 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 Student Services at 303-797-5668 for information about upcoming events or check for press releases posted at [www.arapahoe.edu](http://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 Student Services at 303-797-5668 for information about upcoming events or check for press releases posted at [www.arapahoe.edu](http://www.arapahoe.edu).

### Jantzen Gallery (100 Building of Art and Design Center)

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

## 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. Non-English speaking students are encouraged to register for English as a Second Language courses. First time students are encouraged to take AAA 101, a College Orientation course.

Research has shown that students who take recommended courses to build their skills perform better in college. Your academic advisor can help you to determine which courses you need based on your placement test scores.

Specific Developmental Studies courses include:

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
MAT 106	Survey of 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 Developmental Studies Department at 303-797-5825, or the Advising Center at 303-797-5651.

## Fitness Center and Swimming Pool

ACC offers fitness programs for people of all abilities. You will have access to exercise equipment, an indoor track and a six-lane, indoor swimming pool with a certified lifeguard on duty at all times. The environment for both areas is supportive. Certified, professional staff are always available for personal guidance in either area. You may begin a Fitness Center and/or pool membership at any time. Call 303-797-5850 for details.

## 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, the Great Books sections will be noted on their transcripts.

## Independent Study

Independent study is to meet your individual needs and to foster strong faculty and student connections. This course format allows you to learn and study at your own pace under the guidance of an ACC Instructor.

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 at 303-797-5621.

## Library

Please see the 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).

## 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:

- Enrolled in a degree program at ACC
- Accumulated twelve credit hours at ACC
- Earned a cumulative GPA of 3.5 or higher at ACC
- Demonstrated moral character, and
- 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 fundraisers 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 Erica Johnson at 303-797-5832.

## 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.

## Army Reserve Officer Training Corps (ROTC)

Under an agreement with the University of Colorado at Boulder, ACC students may enroll in the Army ROTC program. Enrollment in the basic course incurs no military obligation except for Army scholarship recipients. 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 Art and Associate of General Studies degrees.

Under the affiliate school 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. Students who wish to register for Army ROTC classes sign up for them through the normal course registration process. AROTC classes begin with the ARM prefix. For more information, contact an Army ROTC representative (303-492-3549 or 303-492-6495), or send an e-mail to [armyrotc@colorado.edu](mailto:armyrotc@colorado.edu). You can also go to <http://www.colorado.edu/AROTC>.

## 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](mailto:spring@spring-usa.com); or visit the Web site at [www.spring-usa.com](http://www.spring-usa.com).

## Telecourses

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

## Weber Center for Learning Resources (Library)

The Weber Center for Learning Resources, the College's library, part of the Learning Resource Center, is located in the Main campus building (Room M2500). Expansive views of the Front Range of the Colorado Rockies are available from the Library. The two-floor, 24,000 square foot Library offers ACC students and the public a full range of college library services and resources designed to effectively make use of the "information explosion."

The Library's collection consists of over 47,000 print books; 7,300 electronic books; 167 print periodicals; a dozen electronic databases with full-text periodical articles; over 11,000 microform holdings; over 1000 videos and DVDs; 500 music CD titles. Interlibrary loan service for books and periodicals is also available. Last year saw over 145,000 patron visits to the Library, with over 14,000 items borrowed. During the semester the Library is open seven days a week for a total of 72.5 hours.

The Library has ten public computer workstations for research; a computer lab with 16 computers for student research and word processing. The Library computer lab is the site of over 100 library research instruction sessions held yearly by librarians and Instructors. One-to-one teaching and assistance by the Library staff is common. The Library's highly-trained staff includes four professional librarians. The Library also has six group study/meeting rooms that are heavily used during the year.

Please return library books and other materials on time. A fine is charged for overdue items. Transcripts and registration forms will be withheld for library delinquencies.

## ACADEMIC POLICIES AND PROCEDURES

### 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 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 studying for every hour in class.

To earn an Associate degree in two years, you must take an average of 15-18 college-level 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.

### ENROLLMENT STATUS CLASSIFICATION

Status	Credit Hours
Full Time	12 or more
3/4 Time	9-11.5
1/2 Time	6-8.5
Less than half-time	Less than 6

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 18 credit hours in a semester, you will need to obtain permission from an academic advisor and/or the Vice President for Instruction.

## Academic Probation/Suspension

(Not Related to Financial Aid Suspension)

### Academic Alert

A student who has completed less than 13 credits with a **cumulative** Grade Point Average (GPA) below 2.0 for all classes completed in residence will be placed on **academic alert**.

### Academic Probation

A student who has completed at least 13 cumulative credit hours at ACC must maintain a minimum cumulative GPA of 2.0. Transfer credits from other institutions will not be calculated in the GPA. A **cumulative** GPA lower than 2.0 will place a student on **academic probation**.

The Registrar will provide notification to a student placed on academic probation. 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 be noted on the student's transcript. The status is specific to the home institution and does not transfer or impact a student's enrollment at other Colorado community colleges. Academic Probation/Suspension rules apply to Developmental Studies also.

Probation (initial): **Cumulative** GPA less than 2.0 for all classes completed in residence when 13 hours have been attempted.

Probation (continuing): **Cumulative** GPA less than 2.0 for all classes completed in residence and last **semester** GPA *greater than* 2.0.

### 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 semester while on probation will be placed on **academic suspension**.

A student on suspension will be notified in writing by the Registrar. Suspension denies the student enrollment in credit courses at ACC *for the next semester* following the first suspension, *for the next two semesters* following the second suspension and *for the next two years* following the third suspension. Academic suspension will be noted on the student's transcript. A student on suspension may register for subsequent semesters (as indicated above) after meeting with an academic advisor.

## Appeal of Academic Suspension

A student with unusual circumstances of a compelling nature may appeal suspension by submitting a Suspension Appeal Form to the Dean of Student Services 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 Dean. The Dean will deny or approve the student's appeal. If a student's appeal is approved, he/she may enroll under Probationary (continuing) status. This status is specific to the home institution and does not transfer or impact student's enrollment at other Colorado community colleges.

## Academic Renewal

Academic Renewal allows for a one-time exclusion of a maximum of 30 semester hours of credit from the calculation of the grade point average. Academic Renewal may be awarded to a student for prior deficient or failing grades earned in ACC coursework.

The following criteria apply for Academic Renewal:

1. Up to 30 hours can be excluded from GPA, but those grades will remain on student's transcript.
2. The student must be out of school for two years to be eligible for Academic Renewal.
3. Student must be enrolled and have completed at least six hours with a minimum 2.0 GPA since returning to ACC.
4. Students can only apply once for Academic Renewal which is not reversible.
5. 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)."

Academic Renewal request forms are available at Information Central.

## 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 full tuition and fees (COF not applicable). Your request to audit a course or change back to credit status can be made through the census (drop) deadline of the course. Instructor approval is required after the add/drop period is over. Audit students are expected to follow attendance and withdrawal policies. No credit is earned for courses taken by audit. Courses taken by audit are not eligible for the College Opportunity Fund, financial aid or veterans' 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 Systems

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 veterans' 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 or Superior
B	Good
C	Average
D	Deficient, but passing
F	Failure, course requirements not satisfied
I	Incomplete—further work must be completed (see requirements under “Guidelines for Grades and Symbols”)
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/Unsatisfactory option)
CR	Credit Awarded—No letter grade
S/A	Satisfactory (A-level) work in a developmental course
S/B	Satisfactory (B-level) work in a developmental course
S/C	Satisfactory (C-level) work in a developmental course
U/D	Unsatisfactory (D-level) work in a developmental course
U/F	Unsatisfactory (F-level) work in a developmental course

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
SP	Satisfactory Progress
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 – Superior

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 – Average

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

### Grade D – Deficient but 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 GPA is not affected even though the student earns credit for the course.
3. No “S” grade may apply to the A.A./A.S. degrees.

### 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 GPA 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. No “S” grade may apply to the A.A./A.S. degrees.
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% of the term with a “C” or better 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 is a contract that 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 convert 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 census (drop) 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 the College Opportunity Fund, financial aid or veterans’ educational benefits.

### **AW – Administrative Withdrawal**

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

### **SP – Satisfactory Progress**

This symbol is limited to FLEX courses and courses that run longer than a full semester, if the student is progressing satisfactorily at the time grades are due for the given semester. No academic credit is awarded until the course is completed. If the course is not completed by the date it should end, a grade of ‘F’ will be posted.

### **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 GPA. 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).

### **Z – Grade not submitted by Instructor.**

No grade has been submitted by Instructor. Should a grade not be submitted by the end of the next term, a grade of ‘F’ will be posted.

## **Grade Point Average or GPA**

### **1. Grade Point Average calculation**

Grade points indicate the achievement for the number of credits completed. To calculate a grade point average, multiply the credits by the points for the grade earned. Total the credits and divide by total credits. The result is your GPA.

<b>Grade</b>	<b>Points</b>
A	4
B	3
C	2
D	1
F	0

2. Only the credits and grade points you earn at ACC will be used to compute the semester and cumulative GPA appearing on your ACC transcript.
3. Grades awarded for developmental courses (courses numbered under 100) will not be included in a student’s grade point average. Grading for developmental courses will utilize the Developmental grade mode (S/A, S/B,

S/C, U/D, U/F). The credits will count toward earned and attempted credits. GPA’s for term recognition such as President’s List and Dean’s List will not include developmental courses in the calculation.

## **Term Academic Honors**

Students completing a minimum of 12 credits during the semester can achieve honors designations on their transcripts as follows:

**President’s List**—4.0 term GPA

**Dean’s List**—3.5-3.99 term GPA

## **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. All requests to review errors must be filed within one year.
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, but the original grade will remain on your transcript.

## 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 GPA 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 those grades are corrected 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 GPA 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 (Room 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 GPA 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 (Room 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:

1. If you complete the repeat of a course after June 1, 1987 and before August 27, 2006, you can request that the original course and grade have a notation under the course title which reads "Repeat (excluded from GPA)." If you do not make this request, all instances of the course will remain on the transcript and be calculated into the GPA. 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.
2. If you repeat a course beginning Fall semester, 2006, the highest grade will be used in the GPA calculation. There will be no limitations on course grades that are eligible to repeat.
3. All credit hours earned for initial and repeated courses will be deducted from students remaining College Opportunity Fund Stipend eligible hours.
4. Repeated courses may be applied only one time to a certificate or degree, except for variable credit courses and other designated courses, such as special topics.

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](http://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, Room M2820 or at [www.arapahoe.edu](http://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 Advising Office. Also, the Advising Office can do a preliminary graduation evaluation for students completing the A.A., A.S. or A.G.S. 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 have been out of attendance at ACC for 365 days or more, you must reapply for admission and may only select from catalogs in effect after your re-admittance

You cannot use a Catalog more than six academic years old at the time of your graduation. To obtain a degree from ACC, you must:

1. File an application for graduation at Information Central.  
Deadline Dates are: Summer Semester–April 1; Fall Semester–July 1; Spring Semester–November 1
2. Achieve a cumulative grade point average of 2.0 or better in coursework applicable to your degree. Some programs also have minimum “C” grade requirements.
3. Fulfill the published course and program requirements applicable to your degree or certificate.
4. If Physical Education is a requirement for 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 also be substituted, if:
  - You submit a medical exemption from your physician, chiropractor, or podiatrist to the Office of Admissions and Records
  - You are 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 the appropriate credit to substitute for physical education).
5. Fulfill published degree or certificate residency requirements in ANY of the following ways:
  - All of your program requirements at ACC **or**

- 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 **or**
- 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 **or**
- Complete at least 50% of courses applicable to your degree or certificate credit requirements at ACC.

### Special Graduation Considerations:

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.

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 six year catalog limit will not be subject to this review unless otherwise specified in the catalog by the department.

If any of the following apply to you, please refer to the appropriate sections of this catalog for specific requirements and limitations:

1. Credit for Prior Learning
2. ROTC Credit
3. Courses graded as Satisfactory/Unsatisfactory

### Graduation Honors

Students with a 3.5 or higher cumulative GPA will graduate with honors. This designation will be transcribed.



# 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.)

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](http://www.arapahoe.edu) (Student Services section) or by calling the Office of Admissions and Records at 303-797-5621.
- Expect a letter or e-mail 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 (in which you intend to walk at Commencement):

- Update address (mail and e-mail) with College if necessary (see above).
- Summer, Fall and Spring semester graduating classes should expect to receive detailed ceremony information via mail or e-mail by the second week of March. If you do not receive a letter by the third week of March, call 303-797-5630.
- Immediately return the Participation Form enclosed within the ceremony information packet to Information Central.  
The annual commencement 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.

## Your A.A. or A.S. Degree May Transfer to all Colorado Public 4-Year Colleges and Universities

The agreement among Colorado public colleges and universities guarantees that when you complete your A.A. or A.S. degree with at least 60 credit hours of coursework and a grade of "C" or better in every course, your work will transfer to Colorado public colleges and universities.

If you complete the appropriate courses for your major, you may be able to finish your bachelor's degree in an additional 60 credits. However, the transfer of credits from private, non-accredited, out-of-state institutions or the awarding of credit from non-credit bearing courses, or courses that are over 10 years old, may transfer to the four-year school, but are not guaranteed to transfer. Contact the four-year institution for more information. To finish within two years at Arapahoe Community College and in an additional two years at the four-year institution depends on the number of credits you take each semester, the course sequencing in your major and course availability.

This agreement does not apply to Nursing, Business, Teacher Education or Engineering as these majors have statewide articulations with 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 articulation programs, 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 school.

The A.A./A.S. transfer agreement applies to courses completed at ACC. Credit earned for prior learning, Advanced Placement, correspondence courses, CLEP and other tested-only credit may not apply. The institution you wish to transfer to will evaluate these credits according to its own policies.

### Student Appeal Policy

If disagreement regarding the transferability of credits earned occurs between a student and a receiving two-year or four-year institution, a student may be entitled to an appeal as follows.

If you:

- Graduated with an A.A. or A.S. degree
- Completed 35 credits of state-guaranteed general education courses as outlined above
- 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.*

For complete information on the Colorado Commission on Higher Education's Transfer Policy and the Student Appeals Policy, contact the Arapahoe Community College Advising Center, 303-797-5664.

## Colorado's Guaranteed Transfer Courses

In 2001, the Colorado General Assembly established that 35-37 general education credits will transfer among all Colorado public higher-education institutions. In Fall, 2006, the structure of the A.A. and A.S. degrees changed as reflected in the following categories:

### General Education Categories and Courses Semester Hour Credits

#### Communication: ..... 6

ENG 121 (GT-CO1)

ENG 122 (GT-CO2)

#### Mathematics: (GT-MA1) ..... 3-5

Select one course from the following:

MAT 120, 121, 122, 123, 125, 135, 155, 156, 201, 202

#### Arts and Humanities ..... 6-9

Select at least two courses with no more than one course from any one category:

Art and Expressions (GT-AH1): ART 110, 111, 112;

MUS 120, 121, 122; THE 105, 211, 212

Literature and Humanities (GT-AH2): HUM 121, 122, 123;

LIT 115, 201, 202, 205, 211, 212, 221, 222;

Ways of Thinking (GT-AH3): PHI 111, 112, 113

Foreign Language (GT-AH4): SPA 211, 212, JPN 211, 212, FRE 211, FRE 212

#### Social and Behavioral Sciences ..... 6-9

Select at least two courses, one of which must be history, with no more than two courses from any one category:

##### History:

HIS 101, 102, 201, 202, 247

##### Economic or Political Systems (GT-SS1):

ECO 201, 202; POS 105, 111

##### Geography (GT-SS2):

GEO 105, 106

##### Human Behavior, Culture or Social Frameworks (GT-SS3):

\*\*ANT 101, 111; PSY 101, 102, 235; SOC 101, 102

\*NOTE: To reach a minimum of 15 credits, select one additional course in Arts and Humanities, History or Social and Behavioral Sciences.

#### Physical and Life Sciences (GT-SC1, GT-SC2) ..... 8

Select two courses from the following:

AST 101, 102; BIO 105, 111, 112, 201, 202, 204;

CHE 101, 102, 111, 112; GEY 111, 121;

PHY 105, 111, 112, 211, 212

SCI 155, 156

# 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

\*Indicates programs that are also offered online

Program Name	Degree	Page #	Program Name	Degree	Page #
Associate of Arts Degree Core (General Transfer)	A.A.	31	UNIX Network Administration		55
Business Transfer Emphasis	A.A.	32	Computer and Networking Security		55
Elementary Education Transfer	A.A.	33	<i>Networking Certificates</i>		
Music Emphasis	A.A.	34	Microsoft Certified Systems Administrator (MCSA) Certificate		55
Associate of Science Degree Core (General Transfer)	A.S.	34	Microsoft Certified Systems Engineer 2003		55
Associate of General Studies	A.G.S.	35	Cisco Network Administrator (CCNA)		55
Broadband Technical Management*	A.G.S.	36	Cisco Certified Network Professional (CCNP)		55
Broadband Business Management*	A.G.S.	37	UNIX Network Administration		55
Broadband Business Management	Certificate	37	Computer and Networking Security		55
Broadband Customer Premises	Certificate	38	Microcomputer Specialist		55
Broadband Digital Management*	Certificate	38	Microsoft Certified Systems Engineer (MCSE)		57
Broadband HFC Network Technician	Certificate	38	<b>Web Authoring</b>		<b>Certificate</b>
Broadband Telephony Technology Management*	Certificate	38	<b>Construction Supervision</b>		<b>A.A.S.</b>
Broadband Networking Technician	Certificate	39	Construction Estimating		Certificate 58
Broadband Technical Management*	Certificate	39	<b>Convergent Technologies</b>		<b>A.A.S. or Certificate</b>
Broadband Customer Service Representative*	Certificate	39			
Broadband Customer Service Management*	Certificate	39	<i>Options for Degree and Certificate:</i>		
Broadband Technical Service Representative*	Certificate	39	Communication Technology Option		58
Broadband High-Speed Data Technical Service Rep.*	Certificate	40	Network Technician Option		58
Associate of General Studies Engineering Emphasis	A.G.S.	40	Telecommunications engineering Option		59
<b>Accounting</b>	<b>A.A.S.</b>	<b>42</b>	Central Office Technician Option		59
Basic Activity Professionals Training	Certificate	43	<b>Criminal Justice</b>		<b>A.A.S.</b>
Advanced Basic Activity Professionals Training	Certificate	43	Crime Analysis		Certificate 59
<b>Applied Technology</b>	<b>A.A.S.</b>	<b>43</b>	Law Enforcement Academy		Certificate 60
<b>Architectural Technology</b>	<b>A.A.S.</b>	<b>44</b>	<b>Digital Media Technologies</b>		<b>A.A.S.</b>
Architectural Drafting	Certificate	44	<i>Tracks for A.A.S. And Certificates:</i>		
Architectural Contracts And Materials	Certificate	44	Digital Media Development		Certificate 61
Residential Drafting	Certificate	45	Training And Support		Certificate 61
<b>Automotive Service Technology</b>	<b>A.A.S.</b>	<b>45</b>	Web Design And Authoring		Certificate 61
Automotive Service Technology	Certificate	45	Early Childhood Professions		Transfer 61
Automotive Service Management	Certificate	46	Group Leader		Certificate 61
Electrical/Electronics, Engine Performance and Brakes	Certificate	46	Director		Certificate 61
Steering/Suspension, Powertrain, Heating and AC	Certificate	46	<b>Electronics Engineering Technology</b>		<b>A.A.S.</b>
<b>Business Transfer</b>	<b>A.A.</b>	<b>32</b>	Emergency Medical Services Basic		Certificate 62
<b>Business Administration</b>	<b>A.A.S.</b>	<b>46</b>	Emergency Medical Services Basic Enhanced		Certificate 62
Advertising Media	Certificate	48	Emergency Medical Services Paramedic		Certificate 63
Consumer Behavior	Certificate	48	<b>Engineering Technologies</b>		<b>A.A.S.</b>
Contemporary Business*	Certificate	48	<i>Emphasis: Architecture, Electronics w/PCB Design and Mechanical</i>		
Contemporary Management*	Certificate	48	<b>Financial Services</b>		<b>A.A.S.</b>
Customer Service	Certificate	48	<i>Tracks: Finance, Banking And Mortgage, Banking Insurance</i>		
Direct Marketing	Certificate	48	Financial Services		Certificate 64
Human Resource Management*	Certificate	48	<i>Tracks: Finance, Banking And Mortgage, Banking Insurance</i>		
Human Resource Specialist*	Certificate	49	Mortgage Banking		Certificate 65
International Business	Certificate	49	<b>Health Information Technology (Medical Records)*</b>		<b>A.A.S.</b>
Leadership*	Certificate	49	ICD-9-CM/CPT Coding*		Certificate 67
Management for Professional And Technical Employees*	Certificate	49	<b>Human Performance</b>		<b>A.A.S.</b>
Organizational Behavior*	Certificate	49	Physical Fitness Specialist		Certificate 68
Project Management*	Certificate	49	<b>Interior Design</b>		<b>A.A.S.</b>
Real Estate Appraisal	Certificate	49	Interior Architecture		Certificate 69
Real Estate Broker	Certificate	50	Showroom Assistant		Certificate 69
Sales Management*	Certificate	50	Mechanical Drafting		Certificate 44
Sales Management II	Certificate	50	<b>Medical Laboratory Technology</b>		<b>A.A.S.</b>
Small Business Management*	Certificate	50	Clinical Assistant		Certificate 70
Small Business Sales and Marketing*	Certificate	50	Phlebotomy		Certificate 70
Supervision*	Certificate	50	Medical Office Technology		
Travel and Tourism*	Certificate	50	<b>Medical Assistant</b>		<b>A.A.S.</b>
Web Based Design/Marketing	Certificate	51	Medical Administrative Assistant*		Certificate 71
<i>Business Technologies</i>			Medical Assistant		Certificate 72
Administrative Support Specialist	Certificate	51	<b>Medical Practice Manager</b>		<b>A.A.S.</b>
Bookkeeping and Office	Certificate	51	<b>Mortuary Science*</b>		<b>A.A.S.</b>
Carpentry I	Certificate	51	<b>Multimedia/Graphic Design</b>		<b>A.A.S.</b>
Carpentry II	Certificate	52	Computer Graphics		Certificate 74
Computer Aided Drafting	Certificate	52	Network Specialist		Certificate 54
Computer Aided Drafting - 3D	Certificate	52	Nurse Aide		Certificate 74
Computer Aided Drafting - 2D	Certificate	52	<b>Nursing</b>		<b>A.A.S.</b>
Computer Aided Drafting - Custom	Certificate	52	Practical Nursing		Certificate 75
Computer Graphics	Certificate	73	<b>PN to RN Advanced</b>		<b>A.A.S.</b>
<b>Computer Information Systems</b>	<b>A.A.S.</b>	<b>52</b>	<b>Paralegal</b>		<b>A.A.S.</b>
Computer Support Professional	A.A.S.	56	Paralegal		Certificate 75
Computer Technician	Certificate	57	<b>Paramedicine</b>		<b>A.A.S.</b>
<b>Computer Network Technology</b>	<b>A.A.S.</b>	<b>54</b>	Pharmacy Technician		Certificate 76
<i>Computer Network Tracks</i>			<b>Physical Therapist Assistant</b>		<b>A.A.S.</b>
Microsoft Certified System Administrator (MCSA)		55			
Microsoft Certified System Engineer (MCSE)		55			
Cisco Certified Network Administrator (CCNA)		55			
Cisco Certified Network Professional (CCNP)		55			

Programs marked with an \* are also offered online.



# DEGREE REQUIREMENTS

## Customized Articulation Agreements

In addition to our transferable Associate of Arts and Associate of Science degrees, the College has established customized transfer articulation agreements for the following “normal” nontransferable 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 <http://www.state.co.us/cche/academic/transfer/agreements/index.html>

## Associate of Arts Degree Core

Students completing any guaranteed Transfer Course 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. Students who complete a 60 credit hour A.A. degree with appropriate course requirements and grades of “C” or better may be able to complete a Baccalaureate degree in 60 additional credits after transferring to a four-year public institution. Consult your ACC Advisor about Colorado’s 60 + 60 plans.

NOTE: This guarantee excludes majors in Education, Business, Engineering and 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 three courses with no more than two courses from any one category:

#### Art

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

#### Literature and Humanities

HUM 121	Early Civilizations	3
HUM 122	From Medieval to Modern	3
HUM 123	The Modern World	3
LIT 115	Intro to Literature	3
LIT 201	Masterpieces of Literature I	3
LIT 202	Masterpieces of Literature II	3
LIT 205	Ethnic Literature	3

LIT 211	Survey of American Lit I	3
LIT 212	Survey of American Lit II	3
LIT 221	Survey of British Lit I	3
LIT 222	Survey of British Lit II	3

### Ways of Thinking

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

### Foreign Language

FRE 211	French III	3
FRE 212	French IV	3
SPA 211	Spanish III	3
SPA 212	Spanish IV	3
JPN 211	Japanese III	3
JPN 212	Japanese IV	3

### III. Mathematics (3 credit hours)

MAT 120	Mathematics for Liberal Arts	4
MAT 121	College Algebra	4
MAT 122	College Trigonometry	3
MAT 123	Finite Mathematics	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 three courses, one of which must be history, with no more than two courses from any one category.

#### Economic and Political Systems

ECO 201	Principles of Macroeconomics	3
ECO 202	Principles of Microeconomics	3
POS 111	American Government	3
POS 105	Introduction to Political Science	3
POS 111	American Government	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
PSY 235	Human Growth and Development	3
SOC 101	Intro to Sociology I	3
SOC 102	Intro to Sociology II	3

#### Geography

GEO 105	World Regional Geography	3
GEO 106	Human 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
HIS 247	Contemporary World History	3

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

Select two courses. (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

BIO	201	Human Anatomy and Physiology I . . . . .4
BIO	202	Human Anatomy and Physiology II . . . . .4
BIO	204	Microbiology . . . . .4
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
MET	150	General Meteorology . . . . .4
PHY	105	Conceptual Physics . . . . .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. Electives (22 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, ASL (121, 122 only) AST, ART, BIO (100 or above), BUS (115, 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 (131 or above), GEO, GEY, HIS, HON, HUM, HWE (108, 124 only), JOU, LIT, MME, MAT (MAT 120 or higher), MUS, PED, PHI, PHR, PHY (PHY 105 or above), POS, PSY, SCI (155, 156), SOC, SPA 114, SPE, THE and any foreign language numbered 111-112, 211-212.

**Total . . . . .60**

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

**Associate of Arts Degree - Business Transfer Emphasis**

**See also A.A.S., Business Administration**

The Associate of Arts degree with a Business Transfer Emphasis is designed for the student who wishes to transfer to a Colorado four-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 four-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 A.A. 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 A.A. degree includes all courses specified below.

Students who have earned two-year degrees other than the A.A. 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 four-year business degree, but the transferable courses are limited to the course equivalents of the courses specified in the curricula of the four-year Business Administration degree

programs. The four-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 four-year college or university of their interest when making plans to transfer.

This agreement is between the Colorado community colleges and the following Colorado public four-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	English Composition I . . . . .3
ENG	122	English 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 one 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
HIS	247	Contemporary World History . . . . .3

**Arts and Humanities (6 credit hours)**

Select two Arts and Humanities Electives from the following list:

ART	110	Appreciation . . . . .3
ART	111	Art History I . . . . .3
ART	112	Art History II . . . . .3
HUM	121	Early Civilizations . . . . .3
HUM	122	From Medieval to Modern . . . . .3
HUM	123	The Modern World . . . . .3
FRE	211	French III . . . . .3
FRE	212	French IV . . . . .3
SPA	211	Spanish III . . . . .3
SPA	212	Spanish IV . . . . .3
JPN	211	Japanese III . . . . .3
JPN	212	Japanese IV . . . . .3
LIT	115	Introduction to Literature . . . . .3
LIT	201	Masterpieces of Literature I . . . . .3
LIT	202	Masterpieces of Literature II . . . . .3
LIT	205	Ethnic Literature . . . . .3
LIT	211	Survey of American Lit I . . . . .3
LIT	212	Survey of American Lit II . . . . .3
LIT	221	Survey of British Lit I . . . . .3
LIT	222	Survey of British Lit 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 Theatre Arts . . . . .	3
THE	211	Development of Theatre I . . . . .	3
THE	212	Development of Theatre II . . . . .	3

**Science (8 credit hours)**

Select two lab-based science courses from the following list: (Credits over 8 may be applied to the electives category at the four-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 II with Lab . . . . .	5
BIO	201	Human Anatomy and Physiology I . . . . .	4
BIO	202	Human Anatomy and Physiology II . . . . .	4
BIO	204	Microbiology . . . . .	4
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	105	Conceptual Physics . . . . .	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**

**NOTE:** This degree will be conferred as an **Associate of Arts, Business Transfer Emphasis** will not be listed on student's transcript or diploma, but will be recognized by transfer institutions for program admission.

**Associate of Arts - Statewide Elementary Education Transfer**

The Associate of Arts degree with an Elementary Education Transfer Emphasis is designed for the community college student who wishes to transfer to a Colorado 4-year public college or university to receive a Bachelor's degree with an Elementary Education teacher licensure. Students who complete the program at the community college, receiving a "C" or better (B- or better in ENG 121) will be considered for admission at Colorado public institutions of higher education.

Student must develop a graduation plan with a Teacher

Education advisor that identifies the first 41 hours that are guaranteed to transfer to all teacher education programs at the following Colorado public 4-year institutions of higher education: Adams State College (Interdisciplinary Studies); Colorado State University at Pueblo (Liberal Studies), Fort Lewis College (Interdisciplinary Studies), Mesa State College (Liberal Arts), Metropolitan State College of Denver (Behavioral Science and Human Development), University of Colorado at Boulder (History), University of Colorado at Colorado Springs (English, History/Social Studies, Modern Foreign Languages, Science, Mathematics), University of Colorado at Denver and Health Sciences Center Downtown Denver (Individually Structured Major), University of Northern Colorado (Interdisciplinary Studies), Western State College (Interdisciplinary Studies).

To complete the A.A. graduation requirements, students who have completed or are currently enrolled in courses that will total the first 41 credits will apply to a specific teacher education program and be advised on the final 19 credits guaranteed to transfer.

**General Education Requirements (36 credit hours)**

**English (6 credit hours)**

ENG	121	College Composition . . . . .	3
		("B-" or better)	
ENG	122	Composition II . . . . .	3

**Speech (3 credit hours)**

SPE	115	. . . . .	3
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**Math (6 credit hours)**

MAT	155	Integrated Math I . . . . .	3
MAT	156	Integrated Math II . . . . .	3

**Humanities (3 credit hours)**

Choose one from the following:

LIT	115	Introduction to Literature . . . . .	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

**Science (8 credit hours)**

SCI	155	Integrated Science I . . . . .	4
SCI	156	Integrated Science II . . . . .	4

**Social Sciences (9 credit hours)**

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

**Education Requirements (6 credit hours)**

EDU	221	Introduction to Education . . . . .	3
PSY	238	Child Development . . . . .	3

Electives based on transfer institution . . . (19 credit hours)  
Consult an advisor and the transfer institution to determine appropriate electives.

**Total General Education/Education Credits . . . . . 41**

**Total Electives determined by transfer institution. . . 19**

**Associate of Arts, Elementary Education Transfer**

**Total Credits . . . . . 60**

**DEGREE REQUIREMENTS**

NOTE: This degree will be conferred as an Associate of Arts. Elementary Education Emphasis will not be listed on student's transcript or diploma, but will be recognized by transfer institutions for program admission.

## Associate of Arts Degree - Music Emphasis

### Core Curriculum Required (38 credit hours)

May include:

MUS 120	Music Appreciation	3
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Required:

MUS 121	Music History I	3
MUS 122	Music History II	3

### MUS Core Classes:

*MUS 110	Music Theory I	3
*MUS 112	Ear Training - Singing Lab I	1
MUS 111	Music Theory I	3
MUS 113	Ear Training - Singing Lab II	1
MUS 131	Music Class	2

**Total . . . . .10 credits**

\*Students with no background in theory should take Music Fundamentals (MUS 100) or pass an equivalency exam before taking MUS 110 and MUS 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:

A) Piano/Voice/Instrument majors:

#### Private lessons (4 Semesters)

MUS 141	Private Instruction	2
MUS 142	Private Instruction II	2
MUS 241	Private Instruction	2
MUS 242	Private Instruction	2
MUS 243	Private Instruction	2
MUS 244	Private Instruction	2

**Total for Option A . . . . .12**

OR

B) Theory/Composition majors:

#### Private lessons (2 Semesters)

MUS 141	Private Instruction	2
MUS 142	Private Instruction II	2
MUS 241	Private Instruction	2
MUS 242	Private Instruction	2

AND

#### Private lessons (2 Semesters)

MUS 241	Private Instruction	2
MUS 242	Private Instruction	2
MUS 243	Private Instruction	2
MUS 244	Private Instruction	2

AND

### Ensemble

MUS 151	Ensemble I	1
MUS 152	Ensemble II	1
MUS 251	Ensemble I	1
MUS 252	Ensemble II	1

**Total for Option B . . . . .12**  
OR

C) Music Industry/Business/Technology majors

MUS 167	Music Business I	3
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### Private lessons (4 Credits)

Choose from:

MUS 141	Private Instruction	2
MUS 142	Private Instruction II	2
MUS 241	Private Instruction	2
MUS 242	Private Instruction	2
MUS 243	Private Instruction	2
MUS 244	Private Instruction	2

### Ensemble (4 credits)

MUS 151	Ensemble I	1
MUS 152	Ensemble II	1
MUS 251	Ensemble I	1
MUS 252	Ensemble II	1
Other class or independent study related to subject, such as		
MUS 261	History of Jazz	3

**Total for Option C . . . . .12 credit hours**

**Total . . . . .60 credit hours**

NOTE: This degree will be conferred as an Associate of Arts. Music Emphasis will not be listed on student's transcript or diploma, but will be recognized by transfer institutions for program admission.

## Associate of Science Core

Students successfully completing any Guaranteed Transfer Courses are guaranteed acceptance of the course at any public four-year college or university in Colorado.

The State Guaranteed Transfer Courses and the Colorado Community College General Education requirements have been incorporated into the degree. Students who complete a 60 credit-hour A.S. degree with appropriate course requirements and grades of "C" or better may be able to complete a Baccalaureate degree in 60 additional credits after transferring to a four-year public institution. Consult your ACC Advisor about Colorado's 60 + 60 agreement.

NOTE: This guarantee excludes majors in Education, Business, Engineering and 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 three courses with no more than two courses from any one category:

#### Art

ART 110	Art Appreciation	3
ART 111	Art History I	3
ART 112	Art History II	3
MUS 120	Music Appreciation	3
MUS 121	Introduction to Music History I	3

MUS	122	Introduction to Music History II . . . . .	3
THE	105	Introduction to Theatre Arts . . . . .	3
THE	211	Development of Theatre I . . . . .	3
THE	212	Development of Theatre II . . . . .	3

**Literature and Humanities**

HUM	121	Early Civilizations . . . . .	3
HUM	122	From Medieval to Modern . . . . .	3
HUM	123	The Modern World . . . . .	3
LIT	115	Introduction to Literature . . . . .	3
LIT	201	Masterpieces of Literature I . . . . .	3
LIT	202	Masterpieces of Literature II . . . . .	3
LIT	205	Ethnic Literature . . . . .	3
LIT	211	Survey of American Lit I . . . . .	3
LIT	212	Survey of American Lit II . . . . .	3
LIT	221	Survey of British Lit I . . . . .	3
LIT	222	Survey of British Lit II . . . . .	3

**Ways of Thinking**

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

**Foreign Language**

FRE	211	French III . . . . .	3
FRE	212	French IV . . . . .	3
SPA	211	Spanish III . . . . .	3
SPA	212	Spanish IV . . . . .	3
JPN	211	Japanese III . . . . .	3
JPN	212	Japanese IV . . . . .	3

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

MAT	121	College Algebra . . . . .	4
MAT	122	College Trigonometry . . . . .	3
MAT	201	Calculus I . . . . .	5
MAT	202	Calculus II . . . . .	5

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

Select three courses, one of which must be history, with no more than two courses from any one category.

**Economic and Political Systems**

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

**Geography**

GEO	105	World Regional Geography . . . . .	3
GEO	106	Human 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
HIS	247	Contemporary World History . . . . .	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
PSY	235	Human Growth and Development . . . . .	3
SOC	101	Intro to Sociology I . . . . .	3
SOC	102	Intro to Sociology II . . . . .	3

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

Select two courses. (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
BIO	201	Human Anatomy and Physiology I . . . . .	4
BIO	202	Human Anatomy and Physiology II . . . . .	4
BIO	204	Microbiology . . . . .	4
CHE	111	General College Chemistry I with Lab . . . . .	5
CHE	112	General College Chemistry II with Lab . . . . .	5
GEY	111	Physical Geology . . . . .	4
GEY	121	Historical Geology . . . . .	4
MET	150	General Meteorology . . . . .	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. Restricted Math/Science Electives (22 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**

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

**Associate of General Studies Degree**

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

Select two courses:

*ENG	121	English Composition I . . . . .	3
*ENG	122	English Composition II . . . . .	3
ENG	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	121	Drawing . . . . .	3
ART	138	Photography I . . . . .	3
ART	141	Jewelry and Metalwork I . . . . .	3
ART	161	Ceramics I . . . . .	3
ART	211	Painting I . . . . .	3
ART	231	Watercolor I . . . . .	3

Foreign Language I-II: ARA, CHI, FRE, JPN, LAT, SPA, 111-112 . . . . . 5

Foreign Language III: FRE, JPN, LAT, SPA 211 . . . . . 3

Foreign Language IV: FRE, JPN, LAT, SPA 212 . . . . . 3

ASL 121-122 American Sign Language . . . . . 5

*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
*HIS	247	Contemporary World History . . . . .	3
*HUM	121	Early Civilizations . . . . .	3
*HUM	122	From Medieval to Modern . . . . .	3
*HUM	123	The Modern World . . . . .	3
*LIT	115	Intro to Literature I . . . . .	3
*LIT	201	Masterpieces of Literature I . . . . .	3
*LIT	202	Masterpieces of Literature II . . . . .	3
*LIT	205	Ethnic Literature . . . . .	3
*LIT	211	Survey of American Literature I . . . . .	3
*LIT	212	Survey of American Literature II . . . . .	3
*LIT	221	Survey of British Literature I . . . . .	3
*LIT	222	Survey of British Literature II . . . . .	3
LIT	255	Children's Literature . . . . .	3
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
*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
*GEO	106	Human Geography . . . . .	3
GEO	107	Physical Geography . . . . .	3
GEO	165	Human Ecology . . . . .	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
*HIS	247	Contemporary World History . . . . .	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
SOC	215	Contemporary Social Problems . . . . .	3

### IV. Sciences (3 credit hours)

*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
BIO	204	Microbiology . . . . .	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	Conceptual 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
SCI	155	Integrated Science I . . . . .	4
SCI	156	Integrated Science II . . . . .	4

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

*MAT	120	Mathematics for Liberal Arts . . . . .	4
*MAT	121	College Algebra . . . . .	4
*MAT	122	College Trigonometry . . . . .	3
*MAT	123	Finite Mathematics . . . . .	4
*MAT	125	Survey of Calculus . . . . .	4
*MAT	135	Intro to Statistics . . . . .	3
*MAT	155	Integrated Math I . . . . .	3
*MAT	156	Integrated Math II . . . . .	3
MAT	179	Computer Applications for Statistics . . . . .	1
*MAT	201	Calculus I . . . . .	5
*MAT	202	Calculus II . . . . .	5

### VI. Electives (27 credit hours)

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

<sup>1</sup>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, ASL 121-122, SPA 114.

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

**Total . . . . . 60 credit hours**

## Associate of General Studies - Broadband Technical Management Emphasis

The following A.G.S. degree in Broadband Technical Management was designed by ACC and Jones/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.

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, Arapahoe Community College, the Indiana Institute of Technology and Jones/NCTI.

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

\* NOTE: Broadband degrees and certificates are available ONLY to Jones/NCTI participants

**Major Courses (23 credit hours)**

CTC 107	Installer . . . . .	3
	(or choose from restricted electives)	
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)**

CTC 118	Broadband Digital Installer . . . . .	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)**

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 121	College Algebra OR higher . . . . .	4
PSY 101	General Psychology I OR	
PSY 116	Stress Management . . . . .	3
SPE 115	Public Speaking OR	
SPE 125	Interpersonal Communication . . . . .	3

**Total . . . . . 63 credit hours**

NOTE: This degree will be conferred as an **Associate of General Studies**. *Broadband Technical Management Emphasis* will not be listed on student's transcript or diploma.

**Associate of General Studies - Broadband Business Management Emphasis**

This Associate of General Studies degree allows students the unique option of building job-specific degrees to suit their career choices. The A.G.S. combines courses from a Jones/NCTI certificate, based on industry-specific competencies, with electives and general requirements.

To begin, the student completes the courses in a Jones/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 for success.

\* NOTE: Broadband degrees and certificates are available ONLY to Jones/NCTI participants

**Major Courses (27-29 credit hours)**

**General Education (33-35 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
Foreign Languages: ARA, CHI, FRE, JPN,		
LAT or SPA 111-112 . . . . .		
Foreign Languages: FRE, JPN, LAT or SPA 211-212 . . . . .		
SPA 114	Spanish . . . . .	5
ASL 121-122	American Sign Language . . . . .	5
HIS 201	U.S. History I . . . . .	3
LIT 115	Introduction to Literature I . . . . .	3
SPE 125	Interpersonal Communication . . . . .	3
(if not taken to meet the Communication requirement)		

**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
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**V. Math (3 credit hours)**

MAT 121	or higher . . . . .	3
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**Total . . . . . 60-64 credit hours**

NOTE: This degree will be conferred as an **Associate of General Studies**. *Broadband Business Management Emphasis* will not be listed on student's transcript or diploma.

**Broadband Business Management**

**Certificate**

Students completing this certificate will be among the elite in the broadband industry, well-suited to manage those who build and maintain cable plants, install, repair and service cable modems, telephony, and digital video in broadband networks. Holders of this certificate can expect to work as managers of field service technicians, bandwidth access technicians, head-end technicians, NOC technicians or customer service or sales representatives.

\* NOTE: Broadband degrees and certificates are available ONLY to Jones/NCTI participants

BUS 115	Introduction to Business . . . . .	3
BUS 216	Legal Environment of Business . . . . .	3
MAN 116	Principles of Supervision . . . . .	3
MAN 226	Principles of Management . . . . .	3
MAR 216	Principles of Marketing . . . . .	3

**TOTAL . . . . . 15 credit hours**

## Broadband Customer Premises Technician

### Certificate

There are more customer premise technicians in the cable industry than any other classification and the job complexity of these individuals has increased exponentially as new technologies have migrated into customer premise equipment. This certificate combines curricula needed to address the expanded role and required professionalism of this individual. Students will be qualified to install, maintain and troubleshoot analog and digital services in the drop network from the distribution tap to the terminating device at the customer's premises.

\* NOTE: Broadband degrees and certificates are available ONLY to Jones/NCTI participants

CTC	107	Installer . . . . .	3
		(or choose one from restricted electives) . .	
CTC	109	Installer Technician. . . . .	4
CTC	117	Computers and Broadband Modems. . . . .	3
CTC	118	Broadband Digital Installer. . . . .	3
CTC	124	Troubleshooting Advanced Services. . . . .	3
SPE	125	Interpersonal Communications	
		OR	
SPE	115	Public Speaking . . . . .	3

### Restricted Electives

CTC	111	Service Technician . . . . .	4
CTC	113	Systems Technician. . . . .	4
CTC	120	Understanding Voice and Data Networks .3	
CTC	165	Advanced Technician . . . . .	3

**Total . . . . . 18-19 credit hours**

## Broadband HFC Networks Technician

### Certificate

Technological advances have evolved and transformed the traditional cable network from one of coaxial cables and amplifiers to one that includes significant amounts of fiber optics. The need for efficiency and reliability in the network has made it necessary for the typical cable network technician to have skills in RF and optical technologies. This certificate ensures that the student is expert in HFC network maintenance practices and procedures and is qualified to serve and maintain two-way analog and digital services in the coaxial feeder and trunk system, fiber-optic system and head-end.

\* NOTE: Broadband degrees and certificates are available ONLY to Jones/NCTI participants

CTC	111	Service Technician . . . . .	4
CTC	113	Systems Technician. . . . .	4
CTC	165	Advanced Technician . . . . .	3
CTC	127	Fiber Installation and Activation. . . . .	2
CTC	128	Testing and Maintenance for Fiber Technicians . . . . .	2
SPE	125	Interpersonal Communications	
		OR	
SPE	115	Public Speaking . . . . .	3

**Total . . . . . 18 credit hours**

## 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, head-end technicians, NOC technicians, etc., with broadband companies that are deploying advanced services.

\* NOTE: Broadband degrees and certificates are available ONLY to Jones/NCTI participants

BUS	115	Introduction to Business . . . . .	3
CTC	107	Installer . . . . .	3
		(or choose one from restricted electives) . .	
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 . . . . . 26-27 credit hours**

## Broadband Telephony Technology

### Certificate

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, VoIP 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.

\* NOTE: Broadband degrees and certificates are available ONLY to Jones/NCTI participants

### Major Courses

CTC	107	Installer . . . . .	3
		(or choose one from restricted electives) . .	
CTC	109	Installer Technician. . . . .	4
CTC	117	Computers and Broadband Modems. . . . .	3
CTC	118	Broadband Digital Installer. . . . .	3
CTC	120	Understanding Voice and Data Networks .3	
BUS	115	Introduction to Business . . . . .	3
MAN	116	Principles of Supervision . . . . .	3
CTC	111	Service Technician . . . . .	4
		OR	
CTC	127	Fiber installation and Activation. . . . .	2
		AND	
CTC	128	Testing and Maintenance for Fiber Technicians . . . . .	2



### Restricted Electives

CTC	111	Service Technician	4
CTC	113	Systems Technician	4

**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.

\* NOTE: Broadband degrees and certificates are available ONLY to Jones/NCTI participants

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	Broadband Digital Installer	3
CTC	120	Understanding Voice and Data Networks	3
CTC	124	Troubleshooting Advanced Services	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.

\* NOTE: Broadband degrees and certificates are available ONLY to Jones/NCTI participants

BTE	100	Computer Keyboarding	1
CIS	118	Intro to PC Applications	3
CTC	108	Broadband Cable Overview	1
CTC	121	Understanding Broadband Technology	3
MAR	160	Customer Service	3
PSY	101	General Psychology I	
		OR.....	
PSY	116	Stress Management	3

**Total** ..... **15 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.

\* NOTE: Broadband degrees and certificates are available ONLY to Jones/NCTI participants

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	160	Customer Service	3
PSY	101	General Psychology I	
		OR.....	
PSY	116	Stress Management	3

**Total** ..... **24 credit hours**

## Broadband Networking Technician

### Certificate

Increasingly, digitized voice and video are joining data for transport over networks of all sizes. Technicians must have a comprehensive understanding of protocols such as TCP/IP, network architectures, network design and planning, and other such skills. Demonstrated knowledge of these concepts is necessary for technicians who work in broadband telecommunications and IT fields. This certificate prepares the technician to understand digital voice and video and various forms of data transport over networks.

\* NOTE: Broadband degrees and certificates are available ONLY to Jones/NCTI participants

CNG	101	Intro to Networking	3
CNG	102	Local Area Networks	3
CNG	103	Wide Area Networks	3
CNG	104	Introduction to TCP/IP	3

**Total** ..... **12 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.

\* NOTE: Broadband degrees and certificates are available ONLY to Jones/NCTI participants

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
MAR	160	Customer Service	3

PSY	101	General Psychology I OR	
PSY	116	Stress Management . . . . .	3
<b>Total . . . . .</b>			<b>19 credit hours</b>

## 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.

\* NOTE: Broadband degrees and certificates are available ONLY to Jones/NCTI participants

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	160	Customer Service . . . . .	3
PSY	101	General Psychology I OR	
PSY	116	Stress Management . . . . .	3
<b>Total . . . . .</b>			<b>24 credit hours</b>

## Associate of General Studies - Engineering Emphasis

This program is designed for the student who wishes to receive a traditional four-year engineering bachelor's degree by beginning at ACC and then transferring to an engineering school. This program is based on a transfer agreement between ACC and the University of Colorado at Denver (UCD). Credits listed below received at ACC are transferable to UCD within the limits of the agreement. Students completing the curriculum below with satisfactory performance will be able to transfer into the UCD College of Engineering and Applied Science with a junior standing.

Students must choose one of four program options. Please contact the Health, Math, Science and Engineering Division at 303.797.5888 for more information.

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 (50-53 credit hours)

#### Mathematics (14 credit hours)

MAT	201	Calculus I . . . . .	5
MAT	202	Calculus II . . . . .	5
MAT	203	Calculus III . . . . .	4

#### Sciences (15 credit hours)

CHE	111	General College Chemistry I . . . . .	5
PHY	211	Physics: Calculus Based I . . . . .	5
PHY	212	Physics: Calculus Based II . . . . .	5

#### Communications (9 credit hours)

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

#### Humanities and Social Sciences (12-15 credit hours)

Depending upon program option selection below, either 12 or 15 Humanities and Social Sciences credit hours are required:

##### 6 credit hours from the same area:

ECO	201	Principles of Macroeconomics . . . . .	3
ECO	202	Principles of Microeconomics . . . . .	3
POS	105	Introduction to Political Science . . . . .	3
POS	111	American Government . . . . .	3
SOC	101	Intro to Sociology I . . . . .	3
SOC	102	Intro to Sociology II . . . . .	3

##### 3 credit hours from:

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

##### 6 credit hours from the same area:

HIS	101	Western Civilization I . . . . .	3
HIS	102	Western Civilization II . . . . .	3
LIT	201	Masterpieces of Literature I . . . . .	3
LIT	202	Masterpieces of Literature II . . . . .	3
PHI	111	Intro to Philosophy . . . . .	3
PHI	112	Ethics . . . . .	3

### PROGRAM OPTIONS –

see program options below (12-15 credit hours)

**Total . . . . . 65**

#### CHOOSE ONE PROGRAM OPTION:

##### Civil Engineering Option (12 credit hours)

15 credit hours of Humanities and Social Sciences electives required.

EGG	101	Engineering Graphics . . . . .	3
EGG	211	Engineering Mechanics: Statics . . . . .	3
EGG	212	Engineering Mechanics: Dynamics . . . . .	3
Restricted MAT or EGG elective – select from:			
CSC	160 (C++)	, MAT 175, 255, 260 . . . . .	3

##### Computer Science in Engineering Option (15 credit hours)

12 credit hours of Humanities and Social Sciences electives required.

EGG	105	Logic Design . . . . .	4
CSC	160	Computer Science I (C++) . . . . .	4
CSC	161	Computer Science II (C++) . . . . .	4
Restricted CSC or MAT elective – select from:			
CSC	225	, MAT 255, 260, 280 . . . . .	3

### Electrical Engineering Option (15 credit hours)

12 credit hours of Humanities and Social Sciences electives required.

EGG 105	Logic Design	4
EGG 221	Circuit Analysis I	4
EGG 222	Circuit Analysis II	4
Restricted CSC or MAT elective – select from:		
CSC 160 (C++), 233, 255, MAT 255, 260		3

### Mechanical Engineering Option (12 credit hours)

15 credit hours of Humanities and Social Sciences electives required.

EGG 101	Engineering Graphics	3
EGG 211	Engineering Mechanics: Statics	3
EGG 212	Engineering Mechanics: Dynamics	3
Restricted CSC or MAT elective – select from:		
CSC 160 (C++), MAT 255, 260		3

**NOTE:** This degree will be conferred as an **Associate of General Studies**. *Broadband Business Management Emphasis* will not be listed on student’s transcript or diploma.

## General Education Requirements for Associate of Applied Science 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 A.G.S. and A.A.S. 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.

*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 121	Drawing	3
ART 138	Photography I	3
ART 141	Jewelry and Metalwork I	3
ART 161	Ceramics 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
*BIO 204	Microbiology	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: ARA, CHI, FRE, JPN, SPA and LAT	3
ASL 121	American Sign Language I	3
ASL 122	American Sign Language II	5
*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
*HIS 247	Contemporary World History	3
*HUM 121	Early Civilizations	3
*HUM 122	From Medieval to Modern	3
*HUM 123	The Modern World	3
HWE 100	Human Nutrition	3
HWE 103	Standard First Aid-Adult CPR	1
HWE 108	Weight Loss and Nutrition	1
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 205	Ethnic Literature	3
*LIT 211	Survey of American Literature I	3
*LIT 212	Survey of American Lit II	3
*LIT 221	Survey of British Literature I	3
*LIT 225	Introduction to Shakespeare	3
*LIT 222	Survey of British Lit II	3
LIT 255	Children’s Literature	3
MAN 116	Principles of Supervision	3
MAN 226	Principles of Management	3
MAR 106	Marketing Your Image	3

MAR	216	Principles of Marketing . . . . .	3
MAT	090	Introductory Algebra. . . . .	4
		(applicable only to specified vocational degrees)	
MAT	106	Survey of Algebra. . . . .	4
MAT	111	Graphing Calculator Techniques. . . . .	1
MAT	108	Technical Mathematics. . . . .	4
*MAT	120	Mathematics for Liberal Arts . . . . .	4
*MAT	121	College Algebra . . . . .	4
*MAT	122	College Trigonometry. . . . .	3
*MAT	123	Finite Mathematics . . . . .	4
*MAT	125	Survey of Calculus . . . . .	4
*MAT	135	Intro to Statistics. . . . .	3
MAT	179	Computer Applications for Statistics . . . . .	1
*MAT	201	Calculus I . . . . .	5
*MAT	202	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
PHY	100	Elementary Physics. . . . .	3
*PHY	105	Conceptual Physics. . . . .	4
		(does not apply to the A.S. 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).

## Associate of Applied Science Degrees

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 4-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 A.A.S. 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 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 and Report Writing . . . . .	3
FIN	101	Introduction to Finance. . . . .	3

#### General Education Courses (15-17 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

#### 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 from any Course with the following prefixes: BTE, BUS, ECO, FIN, INV, MAN, MAR

#### Area Two: ACC/CIS Electives

Select at least six hours from any course with the following prefix, not already required: ACC, CIS, CNG, CSC

#### Physical Education? (1 credit hour)

PED	activity course . . . . .	1
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**Total . . . . . 61-63 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 most recent admission to the College. Appropriate credit must be taken to substitute for the hour waived.

## Activity Professionals Training

### Certificate

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 fields of activity and aging. After successful completion of the activity professional training program the graduate 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.

Activity Professional Training 110 (MEPAP I), and APT 188 are corequisites that meet for eight-hour sessions three times a month for four months. Practicum experience includes 90 hours of working in an activity department under the direction of a certified activity professional. Activity Professional Training 210 (MEPAP II) comprises preparation in volunteer management, advanced documentation and regulatory compliance, community relations and advanced administrative practices. APT 288 is the advanced practicum. The curriculum for this certificate is aligned with the requirements established by the National Certification Council of Activity Professionals and the National Association of Activity Professionals. APT 110, 188, 210 and 288 are required.

This certificate is eligible for financial aid.

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

#### Activity Professionals’ Training Certificate (20 credit hours)

APT 110	Activity Training Prof I . . . . .	8
APT 188	Basic Practicum . . . . .	2
APT 210	Activity Training Prof II . . . . .	8
APT 288	Advanced Management Practicum . . . . .	2

**Total . . . . . 20 credit hours**

## Applied Technology

### Associate of Applied Science Degree

Students desiring to complete the Associate of Applied Science (A.A.S.) 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 A.A.S. 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 A.A.S. 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 (A.A.S.) Applied Technology degree include:

- 60 semester credits of coursework.
- Arapahoe Community College will accept up to 42 credit hours of course work from an approved certificate at an AVTS.
- Cumulative GPA of 2.0 or higher.
- General education course credits of 15-18 semester credits.

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. . . . .	4
Natural Science: Selected from the General Education list	3
Social Science: Selected from General Education list . . .	3

#### 15-credit minimum

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), 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 (A.A.S.)

The Architectural Technology program provides students with the development of skills necessary to become a competent draftsman. 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 his/her 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 (52 credit hours)

ARC 101	Intro to Architectural Drawing	5
ARC 102	Residential Architecture	5
ARC 107	Blueprint Reading (Residential/Commercial)	3
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 278	Seminar	1
ARC 280	Internship	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 OR higher	4
SPE 115, 125, or 225	Speech	3

#### Elective:

From the General Education Course List - Section I, Communications; IV, Sciences or V, Mathematics. 3

#### Physical Education (1 credit hour)

PED	Activity Course*	1
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**Total Degree Credits . . . . . 69 credit hours**

\*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.

## Architectural Drafting

### Certificate

The Architectural Drafting certificate provides the educational background and basic technical training necessary for the student to seek employment within one of the area's architectural firms. Students will be prepared for a variety of job-entry positions that include Draftsman 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 or higher	4

## Architectural Contracts and Materials

### Certificate

The Architectural Contracts and Materials certificate provides the educational background and basic technical training necessary for the student to seek employment within one of the area's architectural firms. Students will be prepared and trained for a variety of job-entry positions that include Engineering Technician, Materials Technician, Estimator, Specification Writer or Construction Supervisor.

#### 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 and Insurance	3
ARC 231	Building Service Systems	3
ARC 236	Codes/Zoning/Specifications	3
ENG 131	Technical Writing	3

**Total . . . . . 27 credit hours**

## Mechanical Drafting Certificate

The Mechanical Drafting certificate program will provide the educational background and basic technical training necessary for the graduate to seek employment with one of the area's manufacturing or engineering industries. Students will be prepared for a variety of job-entry positions whose titles include Draftsman, 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 or higher	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
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**Total 34 credit hours**

## Residential Drafting Certificate

**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 Industry

### Associate of Applied Science Degree or Certificate

The Associate of Applied Science Degree in automotive service technology and related certificate programs are NATEF certified and taught by ASE certified instructors.

The two-year Automotive A.A.S. (Associate of Applied Science) and certificate degree programs are designed to train and prepare students for employment in the automotive service industry as professional technicians and to prepare students for the ASE (Automotive Service Excellence) certification examinations.

The automotive training program at ACC is organized into four outstanding "Tracks:"

1. General Motors-specific program called GM Automotive Service Educational Program (ASEP)
2. DaimlerChrysler-specific program called DaimlerChrysler College Automotive Program (CAP)
3. Nissan- Nissan-specific program (Nissan Denver Technician Apprenticeship Program)
4. The general college program called Automotive Service Technology (ATEC)

The corporate sponsored dealership apprenticeship programs (CAP, ASEP, and Nissan) are manufacturer-specific and are degree programs only. In-coming freshmen will begin only in the Fall semester. These tracks require the student to obtain and maintain an apprenticeship position at a GM, Nissan, or DaimlerChrysler dealership for the duration of the program. Program faculty will assist the student in finding suitable placement. Additionally, these students will take Web-based manufacturer technician training courses; their sponsoring dealership will receive training credit for that student upon his or her graduation with the A.A.S. degree.

The general ATEC program does not require the student to obtain an industry apprenticeship however an apprenticeship strengthens the connection between material learned in school and its application in the real world.

All tracks have limited seats available and are filled on a first-come first-served basis, dependent upon satisfactory criminal background checks and drug screening.

Students wishing to pursue the two-year degree must be signed into the respective courses by the department chair at the beginning of each semester to ensure that the student is on track to graduate in the prescribed two-year period. Classes for the corporate tracks will be filled with dealer-sponsored students first; general program students may be allowed to fill any available remaining seats.

All students, regardless of their chosen track, should be aware of automotive repair industry expectations, specifically:

1. Technicians must drive their customers' vehicles as part of the repair process; thus the technician and the student must have a clean motor vehicle record and valid driver's license.
2. The hiring process at reputable repair shops and dealerships will include a drug screen and a thorough background investigation.

As a result of these industry policies, to be eligible for acceptance into the program, students must take a department administered mechanical assessment test and pass an industry standard MVR, background, and urinalysis check. Please access the American Data Bank Web site at <http://accautotechscreening.com>.

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	210	Brakes II	3
ASE	120	Basic Automotive Electricity	2
ASE	123	Battery, Starting and Charging Systems	2
ASE	220	Specialized Electronics Training	2
ASE	221	Body Electrical	4
ASE	130	General Engine Diagnosis	2
ASE	132	Ignition System Diagnosis and Repair	2
ASE	134	Automotive Emissions	2
ASE	231	Automotive Computers	2
ASE	233	Fuel Injection and Exhaust Systems	4
ASE	235	Driveability Diagnosis	1
ASE	140	Suspension and Steering I	3
ASE	240	Suspension and Steering II	3
ASE	250	Automatic Transmission/Transaxle Service	1
ASE	251	Automatic Trans/Transaxle Diagnosis	5
ASE	160	Automotive Engine Removal and Install	1
ASE	161	Engine Disassembly, Diagnosis and Assembly	5
ASE	265	Heating and Air Conditioning	5
ASE	150	U-Joint and Axle Shaft Service	2

ASE	151	Manual Transmission/Trans and Clutches	2
ASE	152	Differentials and 4WD/AWD Service.	2

**Total Automotive Credit Hours**.....60

**General Education Courses (17 credit hours)**

ENG	121	English Composition I OR	
ENG	131	Technical Writing	3
CIS	118	Introduction to PC Applications	3
MAT	108	Technical Mathematics (or higher algebra-based math).	4
PHY	101	Elementary Physics (or higher algebra-based physics).	4
SPE	125	Interpersonal Communication.	3

**Total General Education Credit Hours**.....17

**Total**.....77 credit hours

## Automotive Service Management

### Certificate

This program is designed as a work co-op program for people interested in a job as an automotive service writer/consultant. The academic courses may be taken prior to, in conjunction with, or after 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	130	General Engine Diagnosis	2
ASE	110	Brakes I.	3
ASE	140	Suspension and Steering I.	3
ASE	265	Heating and Air Conditioning.	5
ASE	120	Basic Automotive Electricity	2
ASE	123	Battery, Starting and Charging Systems	2
ASE	132	Ignition System Diagnosis and Repair	2
ASE	233	Fuel Injection and Exhaust Systems	4
ASE	250	Automatic Transmission/Transaxle Serv.	1
ASE	134	Automotive Emissions	2
ASE	210	Brakes II	3
ASE	150	U-Joint and Axle Shaft Service.	2

**Total Automotive Credit Hours**.....33

**General Education Courses (13 credit hours)**

ENG	121	English Composition I OR	
ENG	131	Technical Writing	3
SPE	125	Interpersonal Communication.	3
CIS	118	Intro to PC Applications	3
BUS	115	Intro to Business	3
BTE	100	Computer Keyboarding.	1

**Total General Education Credit Hours**.....13

**Total**.....46 credit hours

### Electrical/Electronics, Engine Performance and Brakes – 1 Year Certificate

ASE	110	Brakes I.	3
ASE	210	Brakes II	3
ASE	120	Basic Automotive Electricity	2
ASE	123	Battery, Starting and Charging Systems	2

ASE	220	Specialized Electronics Training	2
ASE	221	Body Electrical	4
ASE	130	General Engine Diagnosis	2
ASE	132	Ignition System Diagnosis and Repair	2
ASE	134	Automotive Emissions	2
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 and Air Conditioning – 1 Year Certificate

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

**Total**.....29 credit hours

## Business Administration

### 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	Introduction to Finance.	3
MAN	128	Human Relations OR	
MAN	215	Organizational Behavior.	3
MAN	224	Leadership.	3
MAN	226	Principles of Management	3
MAR	106	Marketing Your Image	3
MAR	160	Customer Service	3
MAR	216	Principles of Marketing	3



**General Education Courses (16 credit hours)**

BUS 226	Business Statistics . . . . .	3
CIS	Must be CIS 118 or higher. . . . .	3
CIS 161	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

**Coop Education/Internship (1 credit hour)**

BUS 287	Cooperative Education/Internship . . . . .	1
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**Discipline Emphasis (9 - 12 credit hours)**

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	Cooperative 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:

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
BUS 287	Cooperative Education/Internship . . . . .	3
CIS 202	Automated Project Management: MS Project . . . . .	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:

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
BUS 287	Cooperative Education/Internship . . . . .	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
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**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	Cooperative 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
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**Restricted Electives: (6 credit hours)**

Student must take 6 credit hours from the following:

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

**Real Estate Broker Licensing Option (12 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: (12 credit hours)**

REE 201	Real Estate Broker I . . . . .	6
REE 202	Real Estate Broker II . . . . .	6

**Real Estate Appraiser Option (9 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 (9 credit hours)**

REE 115	Introduction to Real Estate	3
REE 118	Real Estate Appraisal	4
REE 119	Uniform Standards of Professional Appraisal Practice (USPAP)	1
BUS 287	Cooperative Education/Internship	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:

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
BUS 287	Cooperative Education/Internship	3

**Total 60 - 63 credit hours**

## Business Administration 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.

### 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 A.A.S. 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 A.A.S. 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 A.A.S. 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 A.A.S. in Business Administration.

**Required Courses (12 credit hours)**

MAR 160	Customer Service	3
MAR 111	Principles of Sales	3
MAR 235	Consumer Behavior	3
BUS 217	Business Communication/ RPT Writing	3

**Total 12 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 A.A.S. 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 pursuing 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 A.A.S. 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 A.A.S. 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 A.A.S. 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 Professional 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:

- 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
- 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**

**Organizational 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 A.A.S. 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 A.A.S. 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 A.A.S. in Business Administration.

**DEGREE REQUIREMENTS**

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

### 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 A.A.S. in Business Administration.

<b>Required Courses</b>	<b>(12 credit hours)</b>
REE 201	Real Estate Broker I . . . . .6
REE 202	Real Estate Broker II. . . . .6
<b>Total</b>	<b>12 credit hours</b>

### 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 A.A.S. in Business Administration.

<b>Required Courses</b>	<b>(9 credit hours)</b>
MAR 111	Principles of Sales. . . . .3
MAR 160	Customer Service . . . . .3
MAR 216	Principles of Marketing . . . . .3
<b>Total</b>	<b>9 credit hours</b>

### 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 A.A.S. in Business Administration.

<b>Required Courses</b>	<b>(18 credit hours)</b>
MAN 226	Principles of Management . . . . .3
MAR 111	Principles of Sales. . . . .3
MAR 216	Principles of Marketing . . . . .3
MAR 160	Customer Service . . . . .3
MAR 245	Sales Management . . . . .3
MAR 235	Consumer Behavior . . . . .3
<b>Total</b>	<b>18 credit hours</b>

### 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 A.A.S. degree in Business Administration.

<b>Required Courses</b>	<b>(27 credit hours)</b>
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

<b>Restricted Electives</b>	<b>(3 credit hours)</b>
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 Marketing and Sales

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

<b>Required Courses</b>	<b>(12 credit hours)</b>
MAR 111	Principles of Sales. . . . .3
MAR 160	Customer Service . . . . .3
MAR 216	Principles of Marketing . . . . .3
MAR 220	Principles of Advertising . . . . .3

<b>Restricted Electives</b>	<b>(3 credit hours)</b>
Student must select one course from the following:	
MAR 117	Principles of Retailing . . . . .3
MAR 217	E-Commerce Marketing . . . . .3
MAR 249	Strategic Marketing. . . . .3

**Total** . . . . . **15 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 A.A.S. in Business Administration.

<b>Required Courses</b>	<b>(9 credit hours)</b>
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 A.A.S. 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

**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 Web site.

**Required Courses (10 credit hours)**

MAR 117	Principles of Retailing	3
MAR 217	E-Commerce Marketing	3
CIS 130	Introduction to the Internet	1
MGD 141	Web Design I	3

**Total 10 credit hours**

## Business Technologies Certificates

**Administrative Support Specialist**

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	Complete PC Word Processing	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 and 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	3
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 and Report Writing	3
CIS 118	Intro to PC Applications	3
CIS 135	Complete PC Word Processing	1
CIS 140	Microsoft Outlook	1
CIS 155	PC Spreadsheet Concepts: Excel	3

**Total 32-33 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 residential plumbing, electrical and HVAC. Classroom 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 (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 135	Thermal and Moisture Methods and Materials. . . . .	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 credit hours**

\*CAR 101 and CAR 102 are prerequisites to all CAR classes. Offered FALL ONLY.

**Carpentry II (15-19 credit hours)**

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 credit hours**

**Computer Aided Drafting**

**Computer Aided Drafting Certificate**

The Computer Aided Drafting Certificate program is for individuals who seek in-depth training on a CAD 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 Applications . . . . .	3
MAT 108	Technical Mathematics or higher . . . . .	4
Portfolio of related work experience		

OR

Drafting/Design elective:

Select one of the following groups: 6-10 credits

**Group A:**

ARC 101	Introduction to Drawing . . . . .	5
ARC 102	Residential Architecture . . . . .	5

**Group B:**

MGD 117	Introduction to Visual Communication. . .	3
MGD 207	Illustration I. . . . .	3

**Group C:**

DRT 101	Technical Drafting I . . . . .	3
DRT 102	Technical Drafting II. . . . .	3

**Group D:**

IND 111	Drafting for Interiors. . . . .	4
IND 211	Interior Construction. . . . .	4

**Total Certificate Credits . . . . . 28-32**

*\*Or CAD 105 with CAD Department Chair*

**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**

*\*Or CAD 105 with CAD Department Chair*

**Computer Aided Drafting - 3D**

**Certificate**

**Major Courses (6 credit hours)**

CAD 202	Computer Aided Drafting/3D . . . . .	3
CAD 217	3D Viz. . . . .	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 credit hours**

**Computer Information Systems**

**Associate of Applied Science Degree**

The Computer Information System (CIS) degree is a two-year, 60 semester hour vocational degree program in business computer usage, management 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 computer operator, systems analyst trainee, computer salesperson,

DEGREE REQUIREMENTS

user support, documentation specialist or data librarian.

**General Education Courses (22 credit hours)**

ENG 121	English Composition I	
	OR	
ENG 131	Technical Writing . . . . .	3
MAN 230	Corporate Responsibility . . . . .	3
MAT 121	College Algebra	
	OR	
MAT 123	Finite Mathematics . . . . .	4
SPE 115	Public Speaking	
	OR	
SPE 125	Interpersonal Communications . . . . .	3
HIS 201	U.S. History I	
	OR	
PHI 111	Introduction to Philosophy . . . . .	3
PSY 101	General Psychology I	
	OR	
SOC 101	Introduction to Sociology . . . . .	3
POS 105	Introduction to Political Science	
	OR	
POS 111	American Government . . . . .	3

**Total . . . . . 22 credit hours**

Students must choose one of the following areas of emphasis in addition to completing the General Education Courses listed above.

**Business Emphasis**

ACC 121	Principles of Accounting I . . . . .	4
ACC 122	Principles of Accounting II . . . . .	4
CIS 118	Intro to PC Applications . . . . .	3
CIS 240	Database Design and Development . . . . .	3
CIS 268	Systems Analysis and Design I . . . . .	3
MAN 226	Principles of Management . . . . .	3
MAR 216	Principles of Marketing . . . . .	3
MAT 125	Survey of Calculus I . . . . .	4
ECO 201	Principles of Macroeconomics . . . . .	3
ECO 202	Principles of Microeconomics . . . . .	3
OTHER	Advisor Approved CIS Elective . . . . .	5

**Total . . . . . 8 credit hours**

**Total A.A.S. degree with Business Emphasis . . . . . 60 credit hours**

**Computer Information Systems Emphasis**

ACC 121	Principles of Accounting I . . . . .	4
CIS 118	Intro to PC Applications . . . . .	3
CIS 202	Automated Project Management . . . . .	3
CIS 240	Database Design and Development . . . . .	3
CIS 268	Systems Analysis and Design I . . . . .	3
CNG 124	Networking I: Net+ . . . . .	3
CNG 131	Network Security Fundamentals . . . . .	3
CNG 211	Windows XP Configuration . . . . .	3
CSC 116	Logic and Program Design I	
	OR	
CSC 119	Intro to Programming . . . . .	3
CSC 154	Intro to MS Visual Basic .NET . . . . .	3
OTHER	Advisor Approved CIS Elective . . . . .	8

**Total . . . . . 38 credit hours**

**Total A.A.S. degree with Computer Information Systems Emphasis . . . . . 61**

**Database Analyst Emphasis**

CSC 116	Logic and Program Design I	
	OR	
CSC 119	Intro to Programming . . . . .	3
CSC 154	Intro to MS Visual Basic .NET . . . . .	3
CSC 160	Computer Science I (JAVA) . . . . .	4
CSC 233	Object Oriented Programming in C++ . . . . .	3
CSC 253	MS ASP.NET Web Application Development . . . . .	3
	Fundamentals of UNIX (Linux) . . . . .	3
CIS 220	UNIX Shell Programming . . . . .	3
CIS 232	UNIX Shell Programming . . . . .	3
CIS 240	Database Design and Development . . . . .	3
CIS 246	Oracle Database Administration I . . . . .	4
CIS 253	Programming a Microsoft SQL Server 2000 Database . . . . .	3
CIS 268	Systems Analysis and Design . . . . .	3
OTHER	Advisor Approved CIS Electives . . . . .	4

**Total . . . . . 38 credit hours**

**Total A.A.S. degree with Database Analyst Emphasis 60**

**Business Applications Specialist Emphasis**

BUS 115	Intro to Business . . . . .	3
CIS 128	Windows Complete	
	OR	
CNG 211	Windows XP Configuration . . . . .	3
CIS 130	Introduction to Internet . . . . .	1
CIS 135	Complete PC Word Processing . . . . .	3
CIS 140	Microsoft Outlook . . . . .	1
CIS 145	Complete PC Database . . . . .	3
CIS 155	PC Spreadsheet Concepts . . . . .	3
CIS 161	Presentation Graphics I . . . . .	1
CIS 167	Desktop Publishing (Publisher) . . . . .	3
CIS 202	Automated Project management (MS Project) . . . . .	3
OTHER	Advisor Approved CIS Electives . . . . .	14

**Total . . . . . 38 credit hours**

**Total A.A.S. degree with Business Applications Specialist Emphasis . . . . . 60**

**Web Developer in Information Systems Emphasis**

CIS 130	Introduction to Internet . . . . .	1
CIS 240	Database Design and Development . . . . .	3
CSC 116	Logic and Program Design I	
	OR	
CSC 119	Intro to Programming . . . . .	3
CSC 154	Intro to MS Visual Basic .NET . . . . .	3
CSC 160	Computer Science I (JAVA) . . . . .	4
CSC 253	MS ASP.NET Web Application Development . . . . .	3
MGD 101	Intro to Computer Graphics . . . . .	3
CWB 110	Complete Web Authoring	
	OR	
MGD 141	Web Design I (Macromedia Flash) . . . . .	3
CWB 130	Web Editing Tools (FrontPage) . . . . .	3
CWB 164	XML I . . . . .	3
MGD 111	Adobe Photoshop I . . . . .	3
MGD 143	Motion Graphic Design: Flash . . . . .	3
OTHER	Advisor Approved CIS Electives . . . . .	6

DEGREE REQUIREMENTS

**Total . . . . . 38 credit hours**

**Total A.A.S. degree with Web Developer in Information Systems Specialist Emphasis . . . . . 60**

### Computer Information Systems

**Business Certificate 19 credit hours**

The CIS Business Certificate program has been constructed to provide the prospective student with skills in broad variety of topics. With knowledge of accounting, management, marketing, office software, databases and economics the Business Certificate recipient is prepared for a wide variety of entry level positions within many different industries.

ACC	121	Principles of Accounting I . . . . .	4
CIS	118	Introduction to PC Applications . . . . .	3
CIS	240	Database Design and Development . . . . .	3
CIS	268	System Analysis and Design . . . . .	3
MAN	226	Principles of Management OR	
MAR	216	Principles of Marketing . . . . .	3
ECO	201	Principles of Macroeconomics OR	
ECO	202	Principles of Microeconomics . . . . .	3

### Computer Information Systems

**Business Certificate 18 credit hours**

The CIS Certificate Program is designed to cover a broad spectrum of topics including operating systems, office software packages, databases, networking and network security. This certificate prepares students for entry level office careers.

CIS	118	Introduction to PC Applications . . . . .	3
CIS	202	Automated Project Management . . . . .	3
CIS	240	Database Design and Development . . . . .	3
CNG	124	Networking I: Net+. . . . .	3
CNG	131	Network Security Fundamentals. . . . .	3
CNG	211	Windows XP Configuration . . . . .	3

### Computer Information Systems

**Database Analyst Certificate 18 credit hours**

The Database Analyst Certificate focuses on the design, development, administration and maintenance of database systems. This certificate prepares students for entry level office careers dealing with databases.

CIS	145	Complete PC Database (Access 2003) . . . . .	3
CIS	220	Fundamentals of UNIX (Linux) . . . . .	3
CIS	232	UNIX Shell Programming (Linux). . . . .	3
CIS	240	Database Design and Development . . . . .	3
CIS	246	Oracle Database Administration I. . . . .	3
CIS	268	Systems Analysis and Design . . . . .	3

### Computer Information Systems

**Applications Specialist 18 credit hours**

The Applications Specialist Certificate is designed to provide students with up to date information and education in the latest software packages utilized in current business environments. Both operating systems, the internet and office software are covered.

CIS	128	Windows Complete OR	
CNG	211	Windows XP Configuration . . . . .	3
CIS	130	Introduction to the Internet . . . . .	1

CIS	135	Word Processing Complete. . . . .	3
CIS	140	Microsoft Outlook. . . . .	1
CIS	145	Complete PC Database . . . . .	3
CIS	155	PC Spreadsheet Concepts . . . . .	3
CIS	161	Presentation Graphics . . . . .	1
CIS	167	Desktop Publishing (Publisher) . . . . .	3

## 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+, Security +, Microsoft MCSA/MCSE, CWNA, CWSP and Cisco CCNA; 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	Cooperative Education . . . . .	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 or higher. . . . .	4
SPE	125	Interpersonal Communication OR . . . . .	
SPE	115	Public Speaking . . . . .	3
ENG	121	English Composition I OR . . . . .	
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	Managing a MS Windows Server Environment . . . . .	4
CNG	213	Implement a MS Windows Network Infrastructure. . . . .	4
CNG	226	Implementing and Managing MS Exchange . . . . .	3

**MCSE Windows Server 2003 (24 credit hours)**

CNG	211	Windows XP Configuration . . . . .	3
CNG	212	Managing a MS Windows 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 Microsoft Exchange Server 2003 . . . . .	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

**UNIX Network Administration (15 credit hours)**

CIS	220	Fundamentals of UNIX (Linux) . . . . .	3
CIS	232	UNIX Shell Programming (Linux) . . . . .	3
CIS	222	UNIX System Administration . . . . .	3
CSC	269	Programming in Perl . . . . .	2
CSC	160	Computer Science I (Language) . . . . .	4

**Computer and Network Security (22 credit hours)**

CIS	220	Fundamentals of UNIX (Linux) . . . . .	3
CIS	232	UNIX Shell Programming (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 . . . . .	4

**Total . . . . . 62–69 credit hours**

**Networking Certificates**

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.

**Microsoft Certified System Administrator Certificate (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

**MCSE Windows Server 2003 (MCSE) Microsoft Certified System Engineer 2003 Core Classes (11 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 (14 credit hours)**

CNG	215	Managing a Microsoft Windows Network Environment . . . . .	3
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CNG	216	Plan a MS Windows Server Active Directory Infrastructure. . . . .	4
CNG	222	Designing a Windows Secure Network . . .	3
CNG	226	Implementing and Managing Microsoft Exchange Server 2003 . . . . .	4

**Cisco Network Administrator Certificate (CCNA) (20 credit hours)**

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.

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 Certificate (15 credit hours)**

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.

CSC	160	Computer Science I (Language) . . . . .	4
CIS	220	Fundamentals of UNIX . . . . .	3
CIS	232	UNIX Shell Programming (Linux) . . . . .	3
CIS	222	UNIX System Administration . . . . .	3
CSC	269	Programming in Perl . . . . .	2

**Computer and Networking Security Certificate (22 credit hours)**

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.

CIS	220	Fundamentals of UNIX . . . . .	3
CIS	232	UNIX Shell Programming (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 . . . . .	4

**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

DEGREE REQUIREMENTS

- 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 36-37 hours to obtain the certificate. The major courses consist of 23 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 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 Concepts: Excel. . . . .	3
CIS 287	Cooperative Education . . . . .	3
CNG 121	Computer Technology I: A+ . . . . .	4
CNG 124	Networking I: Network + . . . . .	3

#### Applications Development and Support Track (13 credit hours)

CIS 161	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 . . . . .	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.

## Computer Science

### Associate of Applied Science

The Computer Science degree is a two-year, 60 credit hour vocational program which includes programming, data and file structures, database, networking, architecture and software engineering. Emphasis is on learning to use the computer as a tool in a business and scientific environment. The CSC graduate will have a solid foundation in computer programming skills. Job opportunities exist in traditional entry-level computer programming and database programming environments.

#### General Education Courses

ENG 121	English Composition I . . . . .	3
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ENG 122	English Composition II. . . . .	3
MAT 201	Calculus I . . . . .	5
MAT 202	Calculus II. . . . .	5
SPE 115	Public Speaking . . . . .	3
HIS 201	U.S. History I . . . . .	3
	OR	
PHI 111	Introduction to Philosophy . . . . .	3
PSY 101	General Psychology I . . . . .	3
	OR	
SOC 101	Introduction to Sociology . . . . .	3
POS 105	Introduction to Political Science. . . . .	3
	OR	
POS 111	American Government . . . . .	3
<b>Total . . . . .</b>	<b>28 credit hours</b>	

#### Major Courses

CSC 116	Logic and Program Design . . . . .	3
CSC 160	Computer Science I (C++ or Java) . . . . .	4
CSC 161	Computer Science II (C++ or Java) . . . . .	4
CSC 234	C++ Programming (Data Structures) . . . . .	4
CSC 225	Computer Architecture/ Assembly Language Programming. . . . .	4
CIS 240	Database Design and Development . . . . .	3
PHY 211	Physics: Calculus-based I with Lab . . . . .	5
	OR	
CHE 111	General College Chemistry I . . . . .	5
Electives	CSC, MAT or SCI areas . . . . .	5

**Total . . . . . 32 credit hours**

**Total . . . . . 60 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 are primarily vendor neutral. Upon successful completion of the program, the student is prepared to take the exams for A+, Network+, and Security+, as well as Microsoft MCP.

#### Major Courses (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 OR. . . . .	
CSC 119	Introduction to Programming . . . . .	3
CNG 121	Computer Technician I: A+ . . . . .	4
CNG 122	Computer Technician II: A+ . . . . .	4
CNG 124	Network+ I . . . . .	3
CNG 125	Network+ II. . . . .	3
CNG 131	Networking Security Fundamentals . . . . .	3
CNG 211	Window XP Configuration . . . . .	3
CNG 224	Microsoft Windows Wireless Networks. . . . .	3
CNG 255	Industry Certification . . . . .	3

#### General Education Courses (15-17 credit hours)

ENG 121	English Composition I OR	
ENG 131	Technical Writing . . . . .	3

MAT	121	College Algebra OR higher. . . . .	3-5
MAN	224	Leadership. . . . .	3
MAN	230	Corporate Responsibility . . . . .	3
SPE	115	Public Speaking OR	
SPE	125	Interpersonal Communication. . . . .	3

**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.

**Elective Courses: (9-12 credit hours)**

Choose 3 courses from the list below  
 (Must include at least one programming language)

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++ 3	
CSC	234	C++ Programming . . . . .	4
CSC	236	C# Programming. . . . .	4
CSC	237	Advanced C# Programming . . . . .	4
CIS	202	Automated Project management. . . . .	3
MAR	216	Principles of Marketing . . . . .	3
SPE	225	Organizational Communications . . . . .	3

**Total . . . . . 64–69 credit hours**

## Computer Technician

### Certificate

The Computer Technician 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 (26 credit hours)**

CIS	118	Intro to PC Applications . . . . .	3
CIS	124	Intro to Operating Systems . . . . .	3
CIS	128	Complete Windows. . . . .	3
CNG	121	Computer Technology I: A+ . . . . .	4
CNG	122	Computer Technology II: A+ . . . . .	4
CNG	124	Networking I: Network+ . . . . .	3
CNG	125	Networking II: Network+ . . . . .	3
CNG	255	Industry Certification . . . . .	3

**Total . . . . . 26 credit hours**

<sup>1</sup> Students may substitute all of the following courses for CIS 118: CIS 135, CIS 161, CIS 145 and CIS 155.

## Microsoft Certified System Engineer (MCSE)

### Certificate

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 earn the MCP and MCSE 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 A.A.S. 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 transfer agreement the student must contact the department chair at Arapahoe Community College. The student who is intending on transferring to CSU may complete Option B for A.A.S. in Construction Supervision.

**Major Courses (40 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
ARC	280	Internship . . . . .	1

**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
General Education Elective. . . . .			3

Choose one of the following:

ART 110, 111; FRE, JPN or LAT 111,112, 211; SPA 101, 115; MUS 100,120; PHI 111,112; THE 105, 212.

**Physical Education (1 credit hour)**

PED	activity course* . . . . .		1
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\*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	Leadership. . . . .	3
MAT	125	Survey of Calculus . . . . .	4

**Option A Program Total . . . . . 69 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 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

**Option B Program Total . . . . . 71 credit hours**

**Construction Estimating**

*Financial Aid is only available for the coursework in this certificate as part of the ultimate educational goal of obtaining an A.A.S. degree as indicated on your College application. Please visit the Office of Financial Aid for more details.*

**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	Principles of Macroeconomics . . . . .	3
ENG	121	English Composition I OR	
ENG	131	Technical Writing I. . . . .	3
MAT	121	College Algebra . . . . .	4
SPE	115	Public Speaking OR	
SPE	125	Interpersonal Communication . . . . .	3
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
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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 and OSHA Safety . . . . .	3

DEGREE REQUIREMENTS

CTC	166	Emerging Technologies. . . . .	2
CTC	267	Telecommunications Installation, Splicing and Repair. . . . .	3
Electives (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 and Outside Plant. . . . .	3
CTC	255	Field Studies: Engineering Planning. . . . .	3
ECO	202	Principles of Microeconomics . . . . .	3
Electives (choose from the electives list below)			

**Central Office Technician Option (13 credit hours)**

CNG	129	Network Cabling. . . . .	2
CTC	160	Cable Communications. . . . .	3
Electives (choose from the electives below). . . . .			10

**Electives (6 -10 credit hours)**

CIS	155	PC Spreadsheet Concepts: Excel . . . . .	3
CNG	224	Microsoft Windows Wireless Network. . . . .	3
CNG	131	Network Security Fundamentals. . . . .	3
CTC	280	Internship: Telecom Engineering and Planning* . . . . .	3

A Convergent Technologies course not previously taken or a course from another technical discipline. (Department Chair approval required.)

**Physical Education<sup>1</sup> (1 credit hour)**

PED	activity course . . . . .		1
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**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.

<sup>1</sup> 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 A.A.S. Degree is designed for students seeking a career in Criminal Justice. Semester hours obtained by students who attended the Law Enforcement Academy can be applied toward the Restricted Courses requirement for this program. Students must present a copy of their P.O.S.T. certification to Admissions and Records to receive credit.

Students should have the ability to produce work above the developmental level to be successful in this program. This means students must have CPT reading scores of 80+ and writing scores of 95+ or ACT/SAT scores that are equivalent.

Students transferring to a four-year college or university should select their elective courses only after consulting with the program advisor. Please contact Criminal Justice Education in Room N1170 or at 303-797-5793.

**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 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	Public Speaking OR	
SPE	125	Interpersonal Communication OR	
SPE	225	Organizational Communication . . . . .	3

**General Education Elective . . . . . 3**

Choose from: CIS 118, ENG 131, SOC 101, SOC 102, SPA 111, SPA 112, or any other foreign language course numbered 111, 112, 211

**Restricted Courses\* . . . . . (18 credit hours)**

All students must select electives from courses with the prefixes of: ACC, CIS, CRJ, CSC, EMS, PAR, SPA

**Physical Education\*\* (1 credit hour)**

PED	activity course. . . . .		1
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**Total . . . . . 63 credit hours**

\*NOTE: This elective and the PED requirement can be met by those students who complete the Law Enforcement Academy. All other

\*\*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.

**Crime Analysis**

**Certificate**

Crime analysis is an up-and-coming field within law enforcement. It combines criminal behavior theory, research and data from police departments and high-level computers to map and analyze where crime occurs (or might occur in the future) and to identify, locate and ultimately apprehend criminals.

Students should have the ability to produce work above the developmental level to be successful in this program. This means students must have CPT reading scores of 80+ and writing scores of 95+ or ACT/SAT scores that are equivalent.

DEGREE REQUIREMENTS

The Crime Analysis certificate enables professionals to obtain the sometimes overlooked yet necessary skills to work successfully in this field. These courses are offered online only, and in an accelerated format. For more information, please contact Criminal Justice Education in Room N1170 or at 303-797-5793.

CRJ	110	Introduction to the Criminal Justice System. . . . .	3
CRJ	125	Law Enforcement Operations. . . . .	3
CRJ	140	Crime Analysis I: Fundamentals of Crime Analysis. . . . .	3
CRJ	200	Crime Analysis II: Tactical Crime Analysis. . . . .	3
CRJ	228	Crime Analysis III: Mapping. . . . .	3
CRJ	254	Crime Analysis IV: Computer Applications. . . . .	3
CRJ	265	Crime Analysis V: Problem Solving. . . . .	3
CRJ	266	Cooperative Education: Crime Analysis VI. . . . .	6
<b>Total . . . . .</b>			<b>27 credit hours</b>

## 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 40 semester credit hours.

CRJ	101	Basic Law Enforcement Academy I. . . . .	6
CRJ	102	Basic Law Enforcement Academy II. . . . .	12
CRJ	103	Basic Law Enforcement Academy III. . . . .	2
CRJ	104	Basic Law Enforcement Academy IV. . . . .	1
CRJ	105	Basic Law. . . . .	8
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
<b>Total . . . . .</b>			<b>40 credit hours</b>

\*The PED courses may be substituted with the Academy Director's approval.

**PREREQUISITE:** In addition to your application for admission to the College, the Law Enforcement Academy requires a separate application, including a background check and a personal interview with a member of the Academy staff prior to acceptance to enrollment. For more information, please contact the Criminal Justice Department in Room N1170 or at 303-797-5793.

## 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 and 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.

All students taking courses in the program must also take a placement exam that covers Macintosh operations and design software literacy. Students whose placement examination scores indicate they do not have the skills must enroll in MGD 101 as a prerequisite, prior to entering the program.

### Major Core (21 credit hours)

MAN	241	Project Management in Organizations. . . . .	3
MGD	102	Introduction to Multimedia. . . . .	3
MGD	111	Adobe Photoshop I. . . . .	3
MGD	112	Adobe Illustrator I. . . . .	3
MGD	141	Web Design. . . . .	3
MGD	287	Cooperative Education. . . . .	3
MGD	289	Capstone. . . . .	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	Intro to Statistics OR	
CSC	116	Logic and 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

### Training and Support Track (25 credit hours)

CIS	118	Introduction to PC Applications. . . . .	3
CIS	161	Presentation Graphics. . . . .	1
CIS	218	Advanced PC Applications. . . . .	3
CWB	110	Complete Web Authoring. . . . .	3
EDU	260	Adult Learning and Teaching. . . . .	3
EDU	261	Teaching, Learning and Technology. . . . .	3
EDU	262	Assessment of Student Academic Achievements. . . . .	3
EDU	263	Teaching and Learning Online. . . . .	3
EDU	265	Instructional Design. . . . .	3

### Total . . . . . 61-62 credit hours

### Web Design and Authoring Track (24 credit hours)

CWB	106	Mastering the Web. . . . .	3
CWB	110	Complete Web Authoring. . . . .	3
CWB	164	XML. . . . .	3
CWB	205	Complete Web Scripting. . . . .	3
MGD	133	Graphic Design I OR	
ART	131	Design I. . . . .	3

MGD 143	Motion Graphic Design I: Flash . . . . .	3
MGD 155	LightWave I . . . . .	3
MGD 164	Digital Video Editing I . . . . .	3

**Total . . . . . 60–61 credit hours**

**Digital Media Development Track (24 credit hours)**

MGD 128	Multimedia Hardware . . . . .	3
MGD 133	Graphic Design I OR	
ART 131	Design I . . . . .	3
MGD 143	Motion Graphic Design I: Flash . . . . .	3
MGD 155	LightWave I . . . . .	3
MGD 164	Digital Video Editing I . . . . .	3
MGD 211	Photoshop II . . . . .	3
MGD 250	Emerging Multimedia Technologies . . . . .	3
MGD 264	Digital Video Editing II . . . . .	3

**Total . . . . . 60–61 credit hours**

**Digital Media Development Certificate**

MGD 133	Graphic Design I OR	
ART 131	Design I . . . . .	3
MAN 241	Project Management in Organizations . . . . .	3
MGD 102	Introduction to Multimedia . . . . .	3
MGD 111	Adobe Photoshop I . . . . .	3
MGD 112	Adobe Illustrator I . . . . .	3
MGD 141	Web Design I . . . . .	3
MGD 143	Motion Graphic Design I: Flash . . . . .	3
MGD 155	LightWave I . . . . .	3
MGD 164	Digital Video Editing I . . . . .	3
MGD 264	Digital Video Editing II . . . . .	3

**Total . . . . . 30 credit hours**

**Training and Support Certificate**

MAN 241	Project Management in Organizations . . . . .	3
MGD 102	Introduction to Multimedia . . . . .	3
CIS 118	Introduction to PC Applications . . . . .	3
CIS 161	Presentation Graphics . . . . .	1
CIS 218	Advanced PC Applications . . . . .	3
CWB 110	Complete Web Authoring . . . . .	3
EDU 260	Adult Learning and Teaching . . . . .	3
EDU 261	Teaching, Learning and Technology . . . . .	3
EDU 262	Assessment of Student Academic Achievement . . . . .	3
EDU 263	Teaching and Learning Online . . . . .	3
EDU 265	Instructional Design . . . . .	3

**Total . . . . . 31 credit hours**

**Web Design and Authoring Certificate**

MGD 133	Graphic Design I OR	
ART 131	Design I . . . . .	3
CWB 106	Mastering the Web . . . . .	3
CWB 110	Complete Web Authoring . . . . .	3
CWB 164	XML . . . . .	3
MAN 241	Project Management in Organizations . . . . .	3
MGD 102	Introduction to Multimedia . . . . .	3
MGD 111	Adobe Photoshop I . . . . .	3
MGD 112	Adobe Illustrator I . . . . .	3
MGD 141	Web Design I . . . . .	3

MGD 143	Motion Graphic Design I: Flash . . . . .	3
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**Total . . . . . 30 credit hours**

**Early Childhood Education**

Arapahoe Community College has articulation agreements dealing with early childhood and elementary education teacher preparation. Contact Linda Forrest, 303-797-5784 for information.

Students must take the CPT Placement Test before enrolling in ECE/EDU courses. CPT scores of 80 in reading and 95 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. The Colorado Department of Human Services requires experience with young children in early childhood programs. Contact Linda Forrest for specific information, 303-797-5784.

**Group Leader Certificate**

**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**

**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

**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

**Select six credit hours from the following: (6 credit hours)**

ECE 111, 112, 125, 126, 127, 175, 178, 179, 185, 187, 225, 226, 228, 260, 275; EDU 221, 233, 234, 242, 261; LIT 255; PSY 101, 102, 247; SOC 101, 102, 205; ASL 121, 122

**Total . . . . . 30 credit hours**

## Electronics Technology

Students completing the course-work in this program will understand electronics and computer technology and how they work together. They will be able to build, test, repair and troubleshoot electronic systems as well as computers and computer-based systems and networks.

### Associated of Applied Science Degree

The study of Electronics Technology leads to employment in research and 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, telecommunications, robotics, instrumentation and avionics.

#### Major Courses (42 credit hours)

ELT	106	Fundamentals of DC/AC	3
ELT	112	Advanced DC/AC	3
ELT	147	Digital Devices I	3
ELT	163	Soldering	1
ELT	215	Operational Amplifiers	3
ELT	261	Microprocessors	3
CIS	124	Intro to Operating Systems	3
CSC	116	Programming and Logic Design OR	
CSC	119	Intro to Programming	3
CNG	121	Computer Tech I: A+	4
CNG	122	Computer Tech II: A+	4
CNG	255	Industry Certification A+	3
CNG	124	Networking I: Network +	3
CNG	224	MS Windows Wireless Network	3
ELT	289	Capstone Project	3

#### General Education Courses (15 credit hours)

MAT	108	Technical Mathematics	4
ENG	121	English Composition I OR	
ENG	131	Technical Writing I	3
Electives		General Education Approved	8

#### Restricted Electives (3 credit hours)

Select 3 credits hours (minimum) of CIS, CSC, or CNG. .3

#### Physical Education<sup>1</sup> (1 credit hour)

PED Activity Course

**Total . . . . . 61 credits hours**

<sup>1</sup> 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.

## Emergency Medical Services

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–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 National Registry Examination. Successful completion of this exam is required for certification in the State of Colorado.

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 (Prerequisites):

- Minimum of 18 years of age to be eligible to take the National Registry Examination and to apply to the state to become a State Certified EMT.
- Current CPR certificate (American Heart Association Health Care provider, or American Red Cross Professional Rescuer).
- Hepatitis B vaccination, tetanus within 10 years.
- MMR vaccinations.
- Colorado Bureau of Investigation (CBI) clean criminal background check.

If not exempt, student must take the CPT placement test and score at least 80 in reading and 95 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 (4 credit hours)

Students must take at least 4 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 Pre-hospital Professions . . . . .	1
EMS	213	Pre-hospital Trauma Life Support . . . . .	1
HPR	178	Medical Terminology . . . . .	3

**Total . . . . . 27 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) and once as a part-time program (starting in May).

The student must have the following prerequisites to be considered for entrance into this program:

- One year of documented EMT Basic or Intermediate field experience
- Basic ECG Interpretation class
- IV Certification
- Current CPR Card
- HEP B vaccination
- MMR vaccination
- Tetanus vaccination
- CBI criminal background check
- One year of college-level Anatomy and Physiology (8 credit hours). BIO 201 and 202 will meet this requirement.
- 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 and 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**



## Paramedicine

### Associate of Applied Science Degree

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) and once as a part-time program (starting in May).

The student must have the following prerequisites to be considered for entrance into this program:

- One year of documented EMT Basic or Intermediate field experience
- Basic ECG Interpretation class
- IV Certification
- Current CPR Card
- HEP B vaccination
- MMR vaccination
- Tetanus vaccination
- CBI criminal background check
- One year of college-level Anatomy and Physiology (8 credit hours). BIO 201 and 202 will meet this requirement.
- 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 and 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.

The program is designed to train workers in the field of Emergency Medical Services. It begins with an entry-level EMT-Basic certificate program and includes an Associate of Applied Science degree in Paramedicine. Students should consult with an Emergency Medical Service faculty advisor early in their college career to explore all of their educational options. Students must earn a "C" or better in all EMS courses to graduate. All students must complete a criminal background check prior to enrolling in this program. Student must use American DataBank's online background check procedures at [www.healthcarex.com](http://www.healthcarex.com).

This program assists students in advancing their careers in the EMS systems.

**Major Courses (59 credit hours)**

EMS 125	Emergency Medical Technician- Basic...	.9
EMS 170	Emergency Medical Technician- Basic Clinical	.....1
EMS 130	EMT Intravenous Therapy	.....2
CCN 230	Basic EKG Interpretation	.....2
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

**General Education Courses (21 credit hours)**

ENG 131	Technical Writing	.....3
SPE 125	Interpersonal Communication or	
COM 126	Communication in Healthcare	.....3
MAT 108	Technical Mathematics or higher	.....4
BIO 201	Human Anatomy and Physiology I	....4
BIO 202	Human Anatomy and Physiology II	....4
PSY 101	Introduction to Psychology	.....3

**Total ..... 80 credit hours**

**Engineering Technologies**

**Associate of Applied Science Degree (A.A.S.)**

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 or higher	.....4
SPE 115	Public Speaking	.....3

**Electives (3 credit hours)**

From the General Education Course List - Section I Communications; IV Sciences; or V Mathematics.

**Physical Education<sup>1</sup> (1 credit hour)**

PED activity course	.....1
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<sup>1</sup>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 (19 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 Viz	.....3
CAD 249	Auto LISP Programming	.....3
CIS 130	Introduction to the Internet	.....1

Choose one of the following sections:

**Architecture**

ARC 101	Introduction to Architectural Drawing	...5
ARC 102	Residential Architecture	.....5
ARC 107	Blueprint Reading Residential/Commercial	.....3
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 ..... 64 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	Engineering Materials	.....3
TEC 205	Geometric Dimensioning and Tolerancing	.....3
CAD 254	Mechanical Desktop/Autodesk	.....3

**Total ..... 60 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
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ACC	122	Principles of Accounting II . . . . .	4
BUS	216	Business Law and the Legal Env . . . . .	3
BUS	217	Business Com and 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
cience: One lab-based course that is state guaranteed . . . 4			
Arts and Humanities:			
One state guaranteed Arts and Humanities course.3			

**Total . . . . . 27 credit hours**

**Physical Education<sup>1</sup> (1 credit hour)**

PED	activity course. . . . .	1
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<sup>1</sup>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.

Students: Please choose an area of emphasis from one of the following tracks:

**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
FIN	210	International Finance/Economics . . . . .	3
FIN	226	Money and Banking . . . . .	3
FIN	260	Retirement Pension Planning . . . . .	3
INS	230	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 credit 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 . . . . .	3
FIN	105	Principles of Banking . . . . .	3
FIN	131	Intro to Mortgage Banking . . . . .	1
FIN	205	Consumer Lending Series. . . . .	2
FIN	211	Commercial Lending . . . . .	3
FIN	226	Money and Banking . . . . .	3
FIN	240	Law and Banking Principles. . . . .	2
FIN	245	Law and Banking Applications. . . . .	2
FIN	250	Financial Marketing for Bankers . . . . .	2
FIN	287	Cooperative Education Training . . . . .	3
MAN	230	Corporate Responsibility . . . . .	3
INV	215	Advanced Investment . . . . .	3

**Mortgage Banking Track (9 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	Intro to Mortgage Banking . . . . .	1
FIN	132	Residential Mortgage Loan Origination . . . . .	1
FIN	133	Residential Mortgage Loan Processing. . . . .	1
FIN	137	FHA for Loan Officers . . . . .	1
FIN	138	FHA for Loan Processors . . . . .	1
FIN	226	Money and Banking . . . . .	3
FIN	237	Advance Loan Processing. . . . .	1
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 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	230	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 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
ECO	201	Principles of Macroeconomics . . . . .	3
ECO	202	Principles of Microeconomics . . . . .	3
MAN	128	Human Relations. . . . .	3
MAN	226	Principles of Management . . . . .	3

DEGREE REQUIREMENTS

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	230	Risk Management and Insurance . . . . .	3
FIN	210	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 . . . . .	3
FIN	226	Money and Banking . . . . .	3
ACC	118	Analyzing Financial Statements . . . . .	3
FIN	250	Financial Marketing for Bankers . . . . .	2
FIN	240	Law and Banking Principles . . . . .	2
FIN	245	Law and Banking Applications . . . . .	2
FIN	205	Consumer Lending (Series) . . . . .	2
FIN	255	Understanding and Selling Bank Products . . . . .	2
FIN	131	Intro to Mortgage Banking . . . . .	1
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

**Mortgage Banking Track (9 credit hours)**

This track prepares the student for entry-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 . . . . .	3
FIN	131	Intro to Mortgage Banking . . . . .	1
FIN	132	Resident Mortgage Loan Origination . . . . .	1
FIN	133	Resident Mortgage Loan Processing . . . . .	1
FIN	137	FHA for Loan Officers . . . . .	1
FIN	138	FHA for Loan Processors . . . . .	1
FIN	237	Advanced Loan Processing . . . . .	1
FIN	287	Cooperative Education Training . . . . .	3
FIN	226	Money and Banking . . . . .	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 . . . . .	3
FIN	287	Cooperative Education Training . . . . .	3
INS	230	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**

**Certificate**

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 (31 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	132	Residential Mortgage Loan Origination . . . . .	1
FIN	133	Residential Mortgage Loan Processing . . . . .	1
FIN	237	Advance Loan Processing . . . . .	1
FIN	137	FHA for Loan Officers OR	
FIN	138	FHA for Loan Processors . . . . .	1
FIN	287	Cooperative Education Career Training . . . . .	2

**Total . . . . . 31 credit hours**

**Health Information Technology**

**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 for Health

Informatics and Information Management (CAHIIM) in cooperation with the Council on Accreditation of the American Health Information Management Association (AHIMA). AHIMA Web site: [www.ahima.org](http://www.ahima.org).

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. Criminal background check
4. CPT scores of 95 on sentence skills, 80 on reading comprehension and 36 on arithmetic\*

\*Students who do not achieve the required Math score must complete MAT 030.

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](mailto:annette.bigalk@arapahoe.edu).

**Major Courses (50 credit hours)**

HIT 101	Health Information Management Science 6	
HIT 105	Physician Practice Coding and Reimbursement . . . . .	3
HIT 111	Health Data Management . . . . .	3
HIT 112	Legal Aspects . . . . .	2
HIT 188	Health Information Practicum . . . . .	2
HIT 221	ICD-9-CM Coding I . . . . .	5
HIT 222	Quality Management. . . . .	3
HIT 225	Health Information Management . . . . .	3
HIT 231	ICD-9-CM Coding II . . . . .	5
HIT 241	CPT Coding Basic Principles . . . . .	2
HIT 251	Healthcare Vocabularies and Terminologies. . . . .	2
HIT 288	Health Information Practicum II. . . . .	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

**General Education Courses (15 credit hours)**

ENG 121	English Composition I . . . . .	3
SPE 115	Public Speaking*** . . . . .	
	OR	
SPE 125	Interpersonal Communications***. . . . .	3
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 planning to transfer credits to another institution should complete BIO 201 and BIO 202 (Anatomy and Physiology I and II) and BIO 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 Coding

### ICD-9-CM/CPT Coding Certificate

**Major Courses (24 credit hours)**

HIT 221	ICD-9-CM Coding I . . . . .	5
HIT 231	ICD-9-CM Coding 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
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\*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

The degree program is designed to provide a comprehensive understanding of movement, exercise, nutrition and health. The student will learn how to conduct fitness and health assessments, develop exercise prescriptions and evaluate nutritional needs. Practical hands-on experience in our on-site fitness center provides students with the skills and confidence they need in working with a diverse population. Students are eligible to take National Certifications at the completion of the program.

For additional information contact the Department Chair: Ms. Sophie Mabry at 303-797-5856 or e-mail at: [sophie.mabry@arapahoe.edu](mailto:sophie.mabry@arapahoe.edu).

These classes transfer to Metropolitan State College of Denver toward a Bachelor of Science degree in Human Performance and Sport. Specific course sequences and prerequisites apply. Students must pass their classes with a “C” or better.

### Human Performance (HUP) A.A.S.

**Major courses: (39 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* . . . . .	3
HWE 237	Exercise, Nutrition and Body Composition . . . . .	3

DEGREE REQUIREMENTS

HWE	248	Guidelines for Exercise Testing and Prescription . . . . .	2
PED (100-275)		Pick any 4 activity based courses ** . . . . .	4
HWE	100	Human Nutrition . . . . .	3
HWE	122	Responding to Emergencies . . . . .	2
BIO	201	Human Anatomy and Physiology I (includes lab)*. . . . .	4
BIO	202	Human Anatomy and Physiology II (includes lab)*. . . . .	4
PTA	176	(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 Algebra** . . . . .	4
BIO	111	General College Biology I with Lab. . . . .	5
PSY	101	General Psychology I . . . . .	3

**Restricted/General Elective Courses (6 credit hours)**

PER	113	Intro. Physical Education and Sports . . . . .	2
PER	151	Lifeguard Training . . . . .	2
___	___	Student Choice . . . . .	2-3

For other general education classes, see advisor or department chair for approval.

\* PREREQUISITE required.

\*\* Includes one aquatic class.

\*\*\*Students must score an 80 on the reading CPT, 95 on the sentence skills CPT, 85 on the mathematical CPT.

**Total . . . . . 63 credit hours**

**Physical Fitness Specialist**

**Certificate**

This certificate program is designed for students preparing for a National Certification test or those in need of continuing education credits.

**Physical Fitness Specialist Certificate (26-28 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 . . . . .	2
HWE	122	Responding to Emergencies . . . . .	2
HWE	136	Advanced Weight Training* . . . . .	2
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

\* PREREQUISITE required

**Total . . . . . 26-28 credit hours**

**Interior Design**

**Associate of Applied Science Degree**

This 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.

**Program Admission Requirements:**

Attend an Interior Design Program Orientation prior to first registration. Call the Interior Design Program Office at 303-797-5855 for an appointment. Complete CPT assessment with the following minimum scores:

- 80 on Reading Comprehension
- 95 on Sentence Skills
- 57 on Arithmetic

Exceptions to the require CPT assessment will be made for students who:

- achieved equivalent ACT or SAT scores (within the last two years) or
- have earned a college degree (Associate or higher); or
- have completed a college-level mathematics and college-level writing course with a grade of "C" or higher; or
- have completed any necessary remedial course(s), if required, with a grade of "C" or higher before taking Interior Design courses.

Call the ACC Testing Center at 303-797-5993 to determine procedures, location and/or hours of operation.

Students wishing to transfer in General Education credits to fulfill degree requirements must have official transcripts sent to ACC Admissions and Records Office and fill out a request for transcript evaluation form. Call the Admissions and Records at 303-797-5621 for further information about this process.

Students wishing to transfer in Interior Design credits to fulfill degree requirements must go through a portfolio review prior to beginning the program. After attending an orientation, call 303-797-5922 for an appointment to review an interior design portfolio only. This will not include a transcript evaluation for General Education.

NOTE: All courses required for this A.A.S. 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 <sup>1</sup>	4

**General Education Courses (15 credit hours)**

CIS	118	Introduction to PC Applications <sup>2</sup>	3
ENG	131	Technical Writing I <sup>3</sup>	3
		General Electives <sup>4</sup>	9

**Total 75 credit hours**

1. Or CAD 101 AND CAD 102 with IND Department Chair approval.
2. To waive or challenge CIS 118, contact IdaLynn Gedde (CIS Dept.) at 303-797-5886.
3. ENG 131 can be waived under certain circumstances. Call 303-797-5861 for information.
4. A list of approved Elective courses can be found in this ACC Catalog under "General Education Requirements for A.A.S. Degrees."

## 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:

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.

Complete CPT assessment with the following minimum scores:

- 80 on Reading Comprehension
- 95 on Sentence Skills
- 57 on Arithmetic

Exceptions to the require CPT assessment will be made for students who:

- achieved equivalent ACT or SAT scores (within the last two years) or
- have earned a college degree (Associate or higher); or
- have completed a college-level mathematics and college-level writing course with a grade of "C" or higher; or
- have completed any necessary remedial course(s), if required, with a grade of "C" or higher before taking Interior Design courses.

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
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**

# 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:

- High school graduation or GED equivalence
- Complete MLT program application packet
- College application
- Recommend algebra and one year of high school biology or chemistry (or one college semester of either)
- CPT is required for all MLT students
- Personal interview with the program director is required before assignment to MLT courses
- Hepatitis vaccination and other immunizations.

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 lab coats, 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 4:30 p.m. to 8:30 p.m. and on Saturdays 9:30 a.m. to 4:30 p.m.

### 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 and Physiology I. . . . .	4
BIO 202	Human Anatomy and 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<sup>1</sup> (1 credit hour)

PED activity course. . . . .	1
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### Total . . . . . 65 credit hours

<sup>1</sup>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.

## Phlebotomy Certificate

Phlebotomy is the acquired professional skill of performing venipunctures (drawing blood). The Phlebotomy Certificate is a twelve-week class that meets on Tuesday and Thursday evenings during the Spring and Fall semesters. 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 . . . . .	4
HPR 113	Advanced Phlebotomy . . . . .	4

### Total . . . . . 8 credit hours

DEGREE REQUIREMENTS



## Medical Office Technology

The Medical Office Technology programs are designed to place students in outpatient (ambulatory) care facilities. Students may choose between three 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 A.A. certificate plus those courses required to prepare the student to perform clinical skills under the direction of a physician in an outpatient healthcare setting. The Insurance Coding and Billing Certificate prepares students to perform the process of coding, billing and reconcile the payment process as related to an ambulatory care facility.

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 Assistant certificate is accredited through the Commission on Accreditation of Allied Health Education Programs (CAAHEP), upon recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (CRB-AAMAE) located at 20 N. Wacker Drive, Suite 1575, Chicago, IL 60606 1-800-228-2262.

All health program students must obtain a criminal background check through ACC. Students who enroll in the MA program must obtain CPR for Health Care Providers certification. Additionally, students must obtain professional liability insurance coverage as provided by Arapahoe Community College. Documentation of current immunizations including the Hepatitis B vaccinations is required. Needed supplies include a stethoscope and lab coat.

### Admission Requirements for all Medical Office Technology Programs

- All courses require acceptance into the Program or written approval of the Academic Coordinator except HIT students.
- Complete Program Application Packet. Download application on the Web site or call 303-797-5898.
- Interview with Academic Coordinator.
- 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.
- Clear criminal background check.

All major, general education and other courses required for these certificates/degrees must be completed with a "C" or better to meet graduation requirements.

All MOT courses are offered in an online/hybrid format.

Medical Office Technology  
Administrative Assistant Certificate\*

#### Major Courses (16 credit hours)

MOT 110	Medical Office Administration . . . . .	4
MOT 130	Insurance Billing and Coding* . . . . .	3
HPR 106	Law & Ethics for Healthcare Professions.2	
HPR 178	Medical Terminology . . . . .	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**

\* *COREQUISITE*: MOT 110 or Instructor permission

### Medical Office Technology Medical Assistant Certificate\*

#### AA Major Courses (14 credit hours)

MOT 110	Medical Office Administration . . . . .	4
MOT 130	Insurance Billing and Coding* . . . . .	3
HPR 106	Law & Ethics for Healthcare Professions.2	
HPR 178	Medical Terminology . . . . .	3
MOT 136	Introduction to Clinical Skills. . . . .	2

\* *COREQUISITE*: MOT 110 or Instructor permission

#### MA Major Courses (31 credit hours)

MOT 125	Basic Medical Sciences I**, *** . . . . .	3
MOT 133	Basic Medical Sciences II*** . . . . .	3
MOT 135	Basic Medical Sciences III*** . . . . .	3
MOT 138	Laboratory Skills. . . . .	4
MOT 140	Clinical Skills . . . . .	4
HWE 100	Human Nutrition. . . . .	3
PSY 101	General Psychology I . . . . .	3
PSY 235	Human Growth and Development . . . . .	3
MOT 181 AND MOT 182 OR		
MOT 183	Medical Assistant Internship. . . . .	5

**Total . . . . . 45 credit hours**

\*\* *PREREQUISITE* to MOT 125 is HPR 178

\*\*\* Students must complete MOT 125 Basic Medical Sciences I prior to enrolling in other Basic Medical Science courses.

### Associate of Applied Science Degree Medical Assistant Option

#### Medical Assistant Certificate (45 credit hours)

MOT 110	Medical Office Administration . . . . .	4
MOT 130	Insurance Billing and Coding* . . . . .	3
HPR 106	Law & Ethics for Healthcare Professions.2	
HPR 178	Medical Terminology . . . . .	3
MOT 136	Introduction to Clinical Skills. . . . .	2

\* *COREQUISITE*: MOT 110 or Instructor permission

MOT 125	Basic Medical Sciences I**, *** . . . . .	3
MOT 133	Basic Medical Sciences II*** . . . . .	3
MOT 135	Basic Medical Sciences III*** . . . . .	3
MOT 138	Laboratory Skills. . . . .	4
MOT 140	Clinical Skills . . . . .	4
HWE 100	Human Nutrition. . . . .	3

DEGREE REQUIREMENTS

PSY	101	General Psychology I . . . . .	3
PSY	235	Human Growth and Development . . . . .	3
MOT	181 AND MOT 182 OR		
MOT	183	Medical Assistant Internship. . . . .	5

**General Education Courses (16 credit hours)**

ACC	121	Principles of Accounting. . . . .	4
BUS	217	Business Communication and Report Writing . . . . .	3
ENG	121	English Composition I . . . . .	3
MAN	226	Principles of Management . . . . .	3
SPE	125	Interpersonal Communication. . . . .	3

**Total . . . . . 61 credit hours**

**Medical Practice Manager Option**

**Major Courses (36 credit hours)**

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	1Basic Medical Sciences I** . . . . .	3
MOT	133	1Basic Medical Sciences II** . . . . .	3
MOT	135	1Basic Medical Sciences III** . . . . .	3
MOT	225	Medical Practice Management Issues. . . . .	4

**General Education Courses (25 credit hours)**

ACC	121	Principles of Accounting I . . . . .	4
ACC	122	Principles of Accounting II. . . . .	4
BUS	217	Business Comm. and Report Writing . . . . .	3
MAN	200	Human Resource Management. . . . .	3
MAN	226	Principles of Management . . . . .	3
ENG	121	English Composition I . . . . .	3
SPE	125	Interpersonal Communication. . . . .	3
HIT	112	Legal Aspects . . . . .	2

**Total . . . . . 61 credit hours**

\*\* PREREQUISITE to MOT 125 is HPR 178

\*\*\* Students must complete MOT 125 Basic Medical Sciences I prior to enrolling in other Basic Medical Science courses.

**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 (ABFSE). The Board can be reached at 3432 Ashland Ave., Suite U, St. Joseph, Missouri 64506, 816-233-3747. 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:**

- Complete a Mortuary Science application
- 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:

- Members of a human services profession.
- Members of the community in which they serve.
- Participants in the relationship between bereaved families and those engaged in the funeral service profession.
- Professionals knowledgeable of and compliant with federal, state and local regulatory guidelines.
- Professionals sensitive to the responsibility for public health, safety and welfare in caring.

In addition, the program objectives are:

- To enlarge the background and knowledge of students about the funeral service profession.
- To educate students in every phase of funeral service and to help enable them to develop the proficiency and skills necessary of the profession.
- To educate students concerning the responsibilities of the funeral service profession to the community at large.
- To emphasize high standards of ethical conduct.
- To provide a curriculum at the postsecondary level of instruction.
- 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 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	Thanatobiology/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	280	Funeral Service Internship . . . . .	4

**General Education Courses (27 credit hours)**

ACC	121	Accounting Principles I . . . . .	4
BIO	201	Human Anatomy and Physiology I <sup>1</sup> . . . . .	4
BIO	202	Human Anatomy and Physiology II <sup>1</sup> . . . . .	4
BUS	216	Business Law and the Legal Environment . . . . .	3

DEGREE REQUIREMENTS

CIS	118	Intro to PC Applications <sup>1</sup> . . . . .	3
ENG	121	English Composition I . . . . .	3
PSY	101	General Psychology I . . . . .	3
SPE	125	Interpersonal Communication* OR . . . . .	3
SPE	115	Public Speaking* . . . . .	3

**Physical Education<sup>2</sup> (1 credit hour)**

PED	activity course . . . . .	1
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**Total 66 credit hours**

<sup>1</sup>All science courses cannot have been completed more than seven years prior to enrolling in MOR 210.

<sup>2</sup>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 and 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. This course can be used to fulfill three credit hours of restricted electives. Typing and basic math skills are highly recommended.

**Major Courses (39 credit hours)**

**Semester 1**

MGD	105	Typography and Layout . . . . .	3
ART	121	Drawing I . . . . .	3
MGD	133	Graphic Design I OR	
ART	131	Design I . . . . .	3

**Semester 2**

MGD	103	Intro to 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

**Semester 4**

MGD	289	Capstone . . . . .	3
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**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 additional class from the list above (not already taken) . . . . .			3

**Restricted Electives (6 credit hours)**

Select 6 credits from the following:

MGD	101	Introduction to Computer Graphics . . . . .	3
MGD	102	Introduction to Multimedia . . . . .	3
MGD	141	Web Design I (if not already taken as part of the core) . . . . .	3
MGD	143	Motion Graphic Design I: Flash . . . . .	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 . . . . .	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

DEGREE REQUIREMENTS

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. This course can be used to fulfill three credit hours of restricted electives. 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.

<b>Major Courses</b>		<b>(24 credit hours)</b>
MGD 105	Typography and 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 101	Introduction to Computer Graphics	.3
MGD 102	Introduction to Multimedia	.3
MGD 117	Introduction to Visual Communications	.3
MGD 141	Web Design I	.3
MGD 143	Motion Graphic Design I: Flash	.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**

## Nurse Aide

### 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 1370, Denver, Colorado 80202-5146, telephone 303-894-2430.

A clear background check through ACC is required for clinical courses. CPR (Basic Life Support for Healthcare Provider or Professional Rescuer), professional liability insurance coverage available through Arapahoe Community College, Hepatitis B vaccinations, documentation of immunizations and current TB test are required for clinical practice. Upon successful completion of the program, students will be eligible to take the Colorado National Nurse Aide Assessment Program (NNAAP).

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 in Nursing (ADN)

This program is designed to prepare ACC graduates for employment as registered nurses. The beginning professional nurse will have developed entry-level skills for work in hospitals and other settings. The application process begins at the <http://www.CCCS.edu> Web site. There the students choose the nursing program for which they are applying.

Clinical nursing courses include supervised patient care experiences at a variety of health care agencies. Upon successful completion of program requirements, the graduate is eligible to take the NCLEX-RN (National Council of Licensure Examination-Registered Nursing). The Web site for information on the exam is <http://www.ncsbn.org>.

CPR for health care providers, professional liability insurance, current immunization documentation, lifetime criminal background checks, and periodic drug screens are required for clinical practice throughout the program.

The Nursing Program is approved by the Colorado Board of Nursing located at 1560 Broadway, Suite 880, Denver, CO 80202. The Board of Nursing's phone number is 303-894-2430. The nursing program is also approved by the State Board of Colorado Community College Occupational and Education Programs. Arapahoe Community College is accredited by The Higher Learning Commission and a member of the North Central Association of Colleges and Schools.

The ACC Nursing Program is housed in the Health, Math, Science and Engineering Division and that office's phone number is 303-797-5991. The Nursing Program Assistant's phone number is 303-797-5939.

**General Education Courses (non-nursing): (29 credit hours)**

BIO 201	Human Anatomy and Physiology I	.4
BIO 202	Human Anatomy and Physiology II	.4
BIO 204	Microbiology (with lab)	.4
BIO 216	Pathophysiology	.4

ENG	121	English Composition I	3
HPR	108	Nutrition	1
MAT	103	Math for Clinical Calculations	3
PSY	235	Human Growth and Development	3
Elective		Humanities or Social Behavioral Science	3

### Sequence of Major courses

#### First Semester (14 credit hours)

HPR	108	Nutrition	1
NUR	109	Fundamentals of Nursing	8
NUR	112	Basics of Pharmacology	2
MAT	103	Clinical Calculations	3

#### Second Semester (20 credit hours)

BIO	216	Pathophysiology	4
NUR	106	Medical Surgical Nursing Concepts	9
NUR	150	Nursing Care of the Obstetric/Pediatric Clients	7

#### Third Semester (14 credit hours-CCCS)

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

### Major Courses

#### Fourth Semester (11 credit hours-CCCS)

NUR	216	Advanced Medical Surgical Nursing II	6
NUR	230	Leadership, Management, Trends	5
Elective		Humanities/Social Sciences	3

**Total Nursing Program Credits . . . . . 80 credit hours**

**Total Nursing Credits . . . . . 51 credit hours-CCCS**

### Other Courses:

NUR	169	Transition into Practical Nursing (PN)	5
		(for those who take this option)	
		. . . . . (39 total credits for PN certificate)	

NUR	199	Transition from LPN to ADN (if admitted)	4
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## Practical Nursing

### Certificate

This Practical Nurse (PN) certificate is available only to those students who have been accepted into the registered nursing program and have completed all prerequisites, the first two semester courses, and NUR 169. 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 prerequisites, the first and second semester courses listed above, and NUR 169, students will receive a practical nursing certificate. Then they may apply to take the NCLEX-PN (National Council of Licensure Examination-Practical Nursing) exam through the Colorado Board of Nursing.

## 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.
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.

The Paralegal Program is approved by the American Bar Association. The American Bar Association may be reached at 321 N. Clark St., Chicago, IL 60610, 312-988-5000. 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. To graduate, students must complete an exit interview and apply for graduation. Paralegal (PAR) courses must be taken within six years of a student's graduation.

### 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

**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 201 or 202; HIS, HUM, LIT, PHI, POS, PSY, SOC, SPA	. . . . .12
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Students must select three credits from the following:

AST, BIO (100 or above), CHE, GEO, PHY or MAT (106 or above)	. . . . .3
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**Restricted Electives (9 credit hours)**

Any three of the following:

PAR 114	Computers and the Law	. . . . .3
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**

\* This course may be waived and a paralegal elective substituted for students with specific prior legal experience.

\*\*Course has prerequisite.

**Paralegal Certificate**

Admission Requirement:

A two-year Associate of Arts, Associate of Science or Associate of General Studies degree or a four-year degree from an accredited college or university, OR five years of law-related work experience. An official transcript must be on file in Admissions and Records prior to the release of the paralegal certificate for students who have a 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.
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.

If seeking admission based on five 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. Paralegal courses must be taken within six years of a student's graduation.

The paralegal program is approved by the American Bar Association. The American Bar Association may be reached at 321 N. Clark St., Chicago, IL 60610, 312-988-5000. Paralegal (PAR) 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 degree must be completed with a grade of "C" or better to meet graduation requirements. To graduate, students must complete an exit interview and apply for graduation. Paralegal courses must be taken within six years of a student's graduation.

**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

**Restricted Electives (9 credit hours)**

Any three of the following:

PAR 114	Computers and the Law	. . . . .3
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 . . . . . 36 credit hours**

\* This course may be waived and a paralegal elective substituted for students with specific prior legal experience.

\*\*Course has prerequisite.

**Pharmacy Technician****Certificate**

The Pharmacy Technician Program (PHT) will prepare students to assist a pharmacist with the technical tasks in a pharmacy. Under the direct supervision of a pharmacist, a pharmacy technician can be employed in a variety of healthcare settings.

The program spans a semester-and-a-half and is divided into 15 weeks of classroom and laboratory training followed by 8 weeks internship in both Community (4 weeks) and Institutional (4 weeks) pharmacies. More than one year may be taken to complete the program. All classes require acceptance into the program or have the written approval of the Academic Coordinator.

A clear background check and documentation of immunizations against communicable diseases are required for the Pharmacy Practice courses. Individuals already employed as pharmacy technicians can upgrade their skills and meet continuing education re-certification requirements of the Pharmacy Technician Certification Board (PTCB) or receive USP 797 training by enrolling in specific courses.

This program is accredited by the American Society of Health-System Pharmacists (ASHP). Further information about ASHP can be obtained at 7272 Wisconsin Ave., Bethesda, MD 20814, by phone at 301-657-3000, x1251, or online at [www.ashp.org](http://www.ashp.org).

Download an application on the Web site, or contact the Academic Coordinator at 303-797-5944, or e-mail us at [pharmacy@arapahoe.edu](mailto:pharmacy@arapahoe.edu).

#### Admission Requirements:

- High school diploma or GED
- Completed PHT program application
- CPT test
- Typing-speed test
- Criminal Background Check
- Medical history of vaccinations
- Interview with Academic Coordinator

All courses required for this certificate must be completed with a “C” or better to meet the Pharmacy Practice and graduation requirements.

All courses for this certificate are offered in an online/hybrid format.

<b>Major Courses</b>		<b>(26 Credits Hours)</b>
PHT	111	Orientation to Pharmacy . . . . .2
PHT	112	Pharmacy Law . . . . .2
PHT	113	Pharmacy Calculations and Terminology . . . . .1
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 (Institutional Internship) . . . . .4
PHT	171	Pharmacy Practice III (Community Internship) . . . . .4
<b>Total Credit Hours</b> . . . . .		<b>26</b>

## Physical Therapist Assistant

### Associate of Applied Science Degree

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 Commission on Accreditation of physical Therapy Education (CAPTE) of the American Physical Therapy Association has granted full accreditation to the PTA program at Arapahoe Community College. CAPTE can be contacted at 1111 N. Fairfax Street, Alexandria, VA 22314-1488, 1-800-999-2782 or via e-mail at [accreditation@apta.org](mailto:accreditation@apta.org).

The program is five semesters in length with a summer term following the first year. Upon successful completion, the graduate is awarded an Associate of Applied Science degree.

#### Admissions Requirements:

1. Contact the Health, Math, Science and Engineering Division Office (Room A2000, 303-797-5888).
2. Applications are accepted beginning February 1 each year. Please refer to the PTA Program Information for application and CPT placement scores. You can contact the Division Office by phone 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](mailto:paula.provence@arapahoe.edu), for information regarding possible transfer credit and Credit for Prior Learning Options.
4. All major, general education and other courses required for this degree must be completed with a “C” or better to meet graduation requirements.

<b>Major Core Courses</b>		<b>(59 credit hours)</b>
PTA	110	Basic Patient Care in Physical Therapy . . .
PTA	115	Principles and Practices in Physical Therapy . . . . .2
HPR	117	Anatomical Kinesiology . . . . .3
PTA	176	Anatomical Kinesiology Lab . . . . .2
PTA	120	Modalities in Physical Therapy . . . . .5
PTA	124	Rehab Principles of Medical Mgmt I . . . . .2
PTA	131	Professional Communications I . . . . .1

PTA	134	Rehab Principles of Medical Management II . . . . .	2
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 (16 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

**Total . . . . . 75 credit hours**

Students planning to transfer their speech credit to another institution should complete SPE 115.

**Professional Achievement Awards**

Your professional world is filled with daily challenges and changing opportunities. Our Professional Achievement programs respond to working adults' needs for convenient, short-term educational programs—teaching concepts that 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. Course substitutions and waivers must be approved in writing by the relevant department chair. Successful students will receive a “Professional Achievement Award.”

Please Note: Professional Achievement programs are eligible for financial aid only as the courses apply to degree or vocational certificate programs. A Professional Achievement Award Application Form (available at Information Central or online) will need to be completed for each award and submitted to the Cashier's Office. The Professional Achievement Award Application non-refundable processing charge is \$10.00 per award. If a student does not meet the requirements for the award specified, the application and charged amount will be carried over for no more than two additional semesters. After one academic year, the application will be retired and the student will have to submit a new application and incur another processing charge. Please contact the Credentials Evaluator at 303-797-5628 for additional information.

**Accounting**

For individuals who wish to gain skills in the area of accounting. These courses prepare students for entry-level job opportunities in bookkeeping, payroll and computerized accounting. ACC 121 should be completed before taking the other accounting courses. For additional information, please call Sara Harris at 303-797-5880.

**Accounting Technician I**

ACC	121	Principles of Accounting I . . . . .	4 credits
ACC	135	Spreadsheet Application for Accounting . . . . .	3 credits
ACC	235	Computerized Accounting for Small Businesses OR	
ACC	245	Computerized Accounting with a Professional Package (Peachtree for Windows) . . . . .	3 credits

**Accounting Technician II**

ACC	122	Principles of Accounting II. . . . .	4 credits
ACC	115	Payroll Accounting . . . . .	3 credits
ACC	226	Cost Accounting . . . . .	3 credits

**Computer Technology**

For additional information regarding Professional Achievement Awards in the Computer Technology area, please call the Program Coordinator at 303-797-7597 or 303-797-5886.

**Computer Programming Series**

For individuals who wish to get a good foundation in current programming languages. Participants may choose from the following languages to complete a total of 12 credit hours. At least two courses must be selected from the same language.

CSC	150	Visual Basic Programming . . . . .	3 credits
CSC	154	Introduction to MS Visual Basic .NET (OOP) . . .	3 credits
CSC	157	Advanced Visual Basic .NET Programming . . . . .	4 credits
CSC	160	Computer Science I (Java) . . . . .	4 credits
CSC	161	Computer Science II (Java). . . . .	4 credits
CSC	160	Computer Science I (C Programming) . . . . .	4 credits
CSC	160	Computer Science II (C++) . . . . .	4 credits
CSC	230	C Language Programming . . . . .	3 credits
CSC	233	Object Oriented Programming in C++ . . . . .	3 credits
CSC	234	C++ Programming (Data Structures). . . . .	4 credits
CSC	236	C # Programming . . . . .	4 credits
CSC	237	Advanced C # Programming. . . . .	4 credits
CSC	250	Programming with MS ADO.NET	3 credits
CSC	253	MS ASP.NET Web Application Development. . . . .	3 credits

**Microsoft Office**

For individuals who wish to acquire productivity skills in this integrated software environment. These courses teach word processing, electronic spreadsheet, database application and professional quality graphics. Students who plan to complete all courses in this series within one semester are encouraged to enroll in all six courses at the



beginning of the semester to ensure enrollment.

CIS	128	Windows Complete. . . . .	3 credits
CIS	135	Complete PC Word Processing. . .	3 credits
CIS	140	Microsoft Outlook. . . . .	1 credit
CIS	145	Complete PC Database. . . . .	3 credits
CIS	155	PC Spreadsheet Concepts: Excel .	3 credits
CIS	161	Presentation Graphics: PowerPoint	1 credit

### Computer Network Administration

For individuals who wish to have both theory and hands-on experience with computer network operations. Participants need knowledge of network concepts, DOS and Windows before beginning any of these series.

### UNIX

For individuals who desire theory and hands-on training in UNIX. Participants need a basic knowledge of computers and operating systems.

CIS	220	Fundamentals of UNIX. . . . .	3 credits
CIS	232	UNIX Shell Programming . . . . .	3 credits
CIS	222	UNIX for System Administrators .	3 credits
		OR	
CSC	269	Programming in Perl. . . . .	2 credits

### A+ Technician

For individuals interested in A+.

CNG	121	Computer Tech I: A+ . . . . .	4 credits
CNG	122	Computer Tech II: A+ . . . . .	4 credits
CNG	255	Industry Certification . . . . .	3 credits

### Network Technician

For computer-literate individuals who wish to gain knowledge and skills needed to work as a computer network technician (A+ certification). Participants need to have knowledge of network concepts and a basic knowledge of computer hardware.

CNG	121	Computer Tech I: A+ . . . . .	4 credits
CNG	122	Computer Tech II: A+ . . . . .	4 credits
CIS	124	Intro to Operating Systems. . . . .	3 credits
CIS	128	Windows Complete. . . . .	3 credits
CNG	255	Industry Certification . . . . .	3 credits

### Web Development

For individuals who are interested in developing Web related skills. These courses prepare the student for job opportunities as a Web programmer, Web developer and webmaster.

CIS	130	Intro to the Internet . . . . .	1 credit
CWB	110	Complete Web Authoring . . . . .	3 credits
CWB	164	XML I . . . . .	3 credits

### English Department: Writing Credentials

Arapahoe Community College offers a 15-credit Professional Achievement Award for students pursuing careers in writing fields. For information contact Dr. Lindsay Lewan at 303-797-5825 or [lindsay.lewan@arapahoe.edu](mailto:lindsay.lewan@arapahoe.edu).

Required for all Professional Achievement Awards:

- ENG 121 English Composition I
- ENG 122 English Composition II

### Fiction Credential

Required Courses:

ENG	121	English Composition I . . . . .	3 credits
ENG	122	English Composition II. . . . .	3 credits
ENG	221	Creative Writing I . . . . .	3 credits
ENG	222	Creative Writing II . . . . .	3 credits
ENG	226	Fiction Writing . . . . .	3 credits

Optional Courses:

ENG	231	Literary Magazine. . . . .	3 credits
LIT	115	Intro to Literature . . . . .	3 credits
JOU	105	Intro to Mass Media . . . . .	3 credits
ENG	227	Poetry Writing. . . . .	3 credits
ENG	275	Special Topics (Publish your Writing) . . . . .	3 credits

### Nonfiction Credential

Required Courses:

ENG	121	English Composition I . . . . .	3 credits
ENG	122	English Composition II. . . . .	3 credits
ENG	221	Creative Writing I . . . . .	3 credits
ENG	222	Creative Writing II . . . . .	3 credits
ENG	230	Creative Non-Fiction . . . . .	3 credits

Optional Courses:

ENG	231	Literary Magazine. . . . .	3 credits
JOU	106	Fundamentals of Reporting. . . . .	3 credits
ENG	131	Technical Writing . . . . .	3 credits
ENG	235	Rhetoric and Propaganda . . . . .	3 credits
JOU	105	Introduction to Mass Media . . . . .	3 credits
ENG	275	Special Topics (Publish your Writing) . . . . .	3 credits

### Screenwriting Credential

Required Courses:

ENG	121	English Composition I . . . . .	3 credits
ENG	122	English Composition II. . . . .	3 credits
ENG	221	Creative Writing I . . . . .	3 credits
ENG	222	Creative Writing II . . . . .	3 credits
FVT	250	Scriptwriting for Film and Video . . . . .	3 credits

Optional Courses:

LIT	257	Literature and Film . . . . .	3 credits
HUM	103	Introduction to Film Arts . . . . .	3 credits
THE	105	Introduction to Theatre Arts . . . . .	3 credits

### Poetry Credential

Required Courses:

ENG	121	English Composition I . . . . .	3 credits
ENG	122	English Composition II. . . . .	3 credits
ENG	221	Creative Writing I . . . . .	3 credits
ENG	222	Creative Writing II . . . . .	3 credits
FVT	250	Scriptwriting Film and Video . . . . .	3 credits

Optional Courses:

ENG	231	Literary Magazine. . . . .	3 credits
LIT	240	Poets and Their Poems . . . . .	3 credits
LIT	115	Intro to Literature . . . . .	3 credits
LIT	225	Intro to Shakespeare . . . . .	3 credits
ENG	275	Special Topics (Publish your Writing) . . . . .	3 credits

### Writers Studio: Fiction Credential

#### Required Courses:

ENG	121	English Composition I . . . . .	3 credits
ENG	122	English Composition II. . . . .	3 credits
ENG	221	Creative Writing I . . . . .	3 credits
ENG	222	Creative Writing II . . . . .	3 credits
ENG	226	Fiction Writing . . . . .	3 credits

#### Optional Courses:

ENG	231	Progenitor . . . . .	3 credits
LIT	115	Intro to Literature . . . . .	3 credits
JOU	105	Introduction to Mass Media . . . . .	3 credits
ENG	227	Poetry Writing . . . . .	3 credits
ENG	275	Special Topics (Publish your Writing) . . . . .	3 credits

### Writers Studio: Nonfiction Credential

#### Required Courses:

ENG	121	English Composition I . . . . .	3 credits
ENG	122	English Composition II. . . . .	3 credits
ENG	221	Creative Writing I . . . . .	3 credits
ENG	222	Creative Writing II . . . . .	3 credits
ENG	230	Creative Non-Fiction . . . . .	3 credits

#### Optional Courses:

ENG	231	Progenitor . . . . .	3 credits
JOU	106	Fundamentals of Reporting . . . . .	3 credits
ENG	131	Technical Writing . . . . .	3 credits
ENG	235	Rhetoric and Propaganda . . . . .	3 credits
JOU	105	Introduction to Mass Media . . . . .	3 credits
ENG	275	Special Topics (Publish your Writing) . . . . .	3 credits
ENG	227	Poetry Writing . . . . .	3 credits

### Writers Studio: Screenwriting Credential

#### Required Courses:

ENG	121	English Composition I . . . . .	3 credits
ENG	122	English Composition II. . . . .	3 credits
ENG	221	Creative Writing I . . . . .	3 credits
ENG	222	Creative Writing II . . . . .	3 credits
FVT	250	Scriptwriting . . . . .	3 credits

#### Optional Courses:

LIT	257	Literature and Film . . . . .	3 credits
HUM	103	Intro to Film Arts . . . . .	3 credits
THE	105	Intro to Theater Arts . . . . .	3 credits

### Writers Studio: Poetry Credential

#### Required Courses:

ENG	121	English Composition I . . . . .	3 credits
ENG	122	English Composition II. . . . .	3 credits
ENG	221	Creative Writing I . . . . .	3 credits
ENG	222	Creative Writing II . . . . .	3 credits
ENG	227	Poetry Writing . . . . .	3 credits

#### Optional Courses:

ENG	231	Literary Magazine . . . . .	3 credits
LIT	240	Poets and their Poems . . . . .	3 credits
LIT	115	Intro to Literature . . . . .	3 credits
LIT	225	Intro to Shakespeare . . . . .	3 credits
ENG	275	Special Topics (Publish your Writing) . . . . .	3 credits

### Finance

For individuals who wish to gain skills in a specific area of finance. These courses prepare students for entry-level jobs as a customer service representative for mutual fund companies, commercial banks, savings and loans, international companies, financing companies and brokerage companies. For additional information please contact Joan Anderssen at 303-797-5956 or joan.anderssen@arapahoe.edu.

#### Financial Analyst

FIN	101	Introduction to Finance . . . . .	3 credits
ACC	118	Analyzing and Interpreting Financial Statements . . . . .	3 credits
INV	115	Investments OR	
FIN	226	Money and Banking . . . . .	3 credits

#### Financial Services Analyst

FIN	101	Introduction to Finance . . . . .	3 credits
FIN	226	Money and Banking . . . . .	3 credits
FIN	105	Principles of Banking . . . . .	3 credits

#### International Analyst

FIN	101	Introduction to Finance . . . . .	3 credits
FIN	201	International Finance/Economics . . . . .	3 credits
BUS	203	Intro to International Business . . . . .	3 credits

#### Investment Analyst—Series 7

FIN	101	Intro to Finance . . . . .	3 credits
INV	115	Investments . . . . .	3 credits
INV	215	Advanced Investments . . . . .	3 credits

#### Retirement Planning Analyst—Series 6

FIN	101	Introduction to Finance . . . . .	3 credits
FIN	226	Money and Banking OR	
INV	115	Investments/Stocks and Bonds . . . . .	3 credits
FIN	260	Retirement/Pension Planning . . . . .	3 credits

#### Mortgage Banker

FIN	101	Intro to Finance . . . . .	3 credits
FIN	131	Residential Mortgage Lending OR	
REE	115	Intro to Real Estate . . . . .	3 credits
FIN	132	Residential Mortgage Loan Origination 1 credit	
FIN	133	Residential Mortgage Loan Processing . . . . .	1 credit
FIN	137	FHA for Loan Officers OR	
FIN	138	FHA for Loan Processors . . . . .	1 credit

### Office

#### Administrative Support Staff

For individuals who are working or wish to work in a modern office environment. All courses also apply to degrees or certificates in the Business Technology program. For additional information, please call 303-797-5681.

BTE	120	Electronic Office Procedures . . . . .	2 credits
BTE	125	Records Management . . . . .	3 credits
CIS	135	Word Processing . . . . .	3 credits

#### Legal Support Staff

For individuals who are working or wish to work in the legal field as legal support staff. All courses also apply to degrees or certificates in the Paralegal or Legal Secretary programs. For additional information, call 303-797-5681 or 303-797-5884.

PAR	115	Introduction to Law . . . . .	3 credits
PAR		Elective . . . . .	3 credits
BTE	238	Legal Office Procedures . . . . .	3 credits
CIS	135	Word Processing . . . . .	3 credits

**Professional Business Writing**

For managers, administrative assistants, supervisors, directors and others who prepare important documents.

BTE	166	Business Editing Skills . . . . .	3 credits
BUS	217	Business Communication and Report Writing . . . . .	3 credits

**Visual Communication**

**Computer Graphics**

For graphic designers, illustrators, desktop publishers, animators, etc., who wish to become proficient in the field's most widely-used software. Any three of the following courses constitute a Computer Graphics Professional Series. Participants may earn two Computer Graphics Professional Achievement awards by completing 6 of the courses listed below. Participants need to have completed MGD 101 or have previous Macintosh experience before taking other computer courses. For additional information, please call 303-797-5865.

MGD	101	Intro to Computer Graphics . . . . .	3 credits
MGD	113	QuarkXPress . . . . .	3 credits
MGD	112	Adobe Illustrator I . . . . .	3 credits
MGD	111	Adobe Photoshop I . . . . .	3 credits
MGD	214	Mac Troubleshooting for Designers . . . . .	3 credits
MGD	155	LightWave I . . . . .	3 credits
MGD	213	Electronic Prepress . . . . .	3 credits
MGD	141	Web Design I . . . . .	3 credits
MGD	161	Director I . . . . .	3 credits

**Technical Communication**

For individuals who wish to acquire skills needed to improve presentations and to communicate ideas more effectively. For additional information, please call 303-797-5815.

ENG	131	Technical Writing I . . . . .	3 credits
SPE	115	Public Speaking . . . . .	3 credits
BTE	230	Desktop Publishing OR	
MGD	101	Intro to Computer Graphics . . . . .	3 credits

**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.

**General Education**

All students receiving degrees from Arapahoe Community College should achieve a general education component to their education. The administration and faculty have determined that the following list reflects the expected outcomes of this general education component:

1. Students will demonstrate a college-level ability to read and to communicate effectively through speaking, writing, listening, and artistic expression.
2. Students will develop the skills necessary to understand and apply mathematical concepts and reasoning and to analyze and interpret various types of data.
3. Students will demonstrate the ability to analyze, synthesize, evaluate, make decisions, think critically and creatively, solve problems effectively, and apply and extend knowledge to new environments and situations.
4. Students will use appropriate and current technologies to collect, retrieve, organize, and process information from various sources and produce original work in various ways.
5. Students will demonstrate knowledge, appreciation, and understanding of individual and social responsibility, good citizenship, and diverse cultural customs, beliefs, traditions, and lifestyles.
6. Students will develop effective leadership, teamwork, relationship management, and conflict resolution skills.

Through its College-wide assessment activities, Arapahoe Community College is constantly working to ensure that its graduates have all of these skills in addition to the content specific skills required by the degree program.



# COURSE DESCRIPTIONS

## Academic Achievement

### AAA 090 ACADEMIC ACHIEVEMENT STRATEGIES 3 CREDITS

Develops personalized approaches to learn and succeed for easier transition into college. Topics include goal-setting, time management, textbook reading strategies, note-taking, test-taking, listening techniques, concentration and memory devices, and critical thinking for student success. PREREQUISITE: CPT reading score 60-79

### AAA 101 COLLEGE 101: THE STUDENT EXPERIENCE 1 CREDIT

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

### AAA 109 ADVANCED ACADEMIC ACHIEVEMENT 3 CREDITS

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

Studies federal and state employment laws and their effects on personnel and payroll records. The course is non-technical and is intended to give students a practical working knowledge of the current payroll laws and actual experience in applying regulations. Students are exposed to computerized payroll procedures. PREREQUISITES: ACC 101 or 121, or enrolled concurrently or Instructor's permission.

### ACC 118 ANALYZING AND INTERPRETING FINANCIAL STATEMENTS 3 CREDITS

Introduces accounting and its significant role in making sound business decisions. Designed to teach students how to use financial statements to be wise users of accounting information. Gives 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 ACCOUNTING PRINCIPLES I 4 CREDITS

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

### ACC 122 ACCOUNTING PRINCIPLES II 4 CREDITS

Continues the study of accounting principles as they apply to partnerships and corporations. Major topics include stocks and bonds, investments, cash flow statements, financial analysis, budgeting and cost and managerial accounting. PREREQUISITES: ACC 121 or equivalent; MAT 106, 111 or higher strongly recommended.

### ACC 125 COMPUTERIZED ACCOUNTING 3 CREDITS

Introduces the capabilities of computer applications in accounting. Includes solving accounting problems of a financial nature and hardware and software controls. PREREQUISITE: ACC 101 or ACC 131

### ACC 131 INCOME TAX I 3 CREDITS

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

### ACC 135 SPREADSHEET APPLICATION FOR ACCOUNTING 3 CREDITS

This course introduces spreadsheets as an accounting tool. Using an accounting perspective, the student applies fundamental spreadsheet concepts. The spreadsheet is used as a problem solving and decision making tool. PREREQUISITES: ACC 122, CIS 155 or spreadsheet experience (all required).

### ACC 211 INTERMED. 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 ACCT. 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 AND E-BUSINESS 3 CREDITS

Studies the principles, concepts and tools used in the analysis, design, implementation and integration of

accounting systems, internal controls systems and accounting procedures. Key elements of system analysis, business systems design, accounting software selection, and the acquisition and implementation of systems are studied. Techniques and systems for electronic control systems, electronic data interchange, electronic funds transfer and Web commerce are explored.

**ACC 226 COST ACCOUNTING 3 CREDITS**  
Studies cost accumulation methods and reports. Focuses on the concepts and procedures of job order, process, standard and direct cost systems, budgeting, planning and control of costs.

**ACC 229 MANAGERIAL ACCOUNTING 3 CREDITS**  
Focuses on 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: ACC 122

**ACC 235 COMPUTERIZED ACCOUNTING FOR SMALL BUSINESSES 3 CREDITS**  
Introduces a microcomputer package, such as QuickBooks, One-write Plus or similar accounting application, for use in a small business. Focuses on installation, starting the application and converting a manual accounting system to an electronic system. Includes an easy-to-use bookkeeping system that incorporates all daily transactions and summarizes records in reports for a complete financial picture.

**ACC 245 COMPUTERIZED ACCOUNTING WITH A PROFESSIONAL PACKAGE 3 CREDITS**  
Integrates accounting principles and practices with a computerized accounting package such as Peachtree, DacEasy, or other professional package. Emphasizes computerized functions of the general ledger and integrated accounts payable, accounts receivable, invoicing and payroll systems. PREREQUISITE: ACC 121 or 101

**ACC 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**  
Provides students with a vehicle to pursue in-depth exploration of special topics of interest. PREREQUISITE: ACC 101 or ACC 131

**ACC 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: Instructor's permission

**ACC 287 COOPERATIVE EDUCATION 3 CREDITS**  
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. PREREQUISITES: ACC 122, 131, 135, 226

## Activity Professional Training

**APT 110 ACTIVITY PROFESSIONAL TRAINING I 8 CREDITS**  
Introduces students to the profession and its framework. This course will discuss behavioral sciences and its relationship to the late adult years, methods of service delivery and assessment and care planning practices. Successful completion of this course, APT 188, APT 210 and APT 288 satisfies the requirement of completion of a state approved activity program by Federal Regulation F249 for Medicare, Medicaid certified long care facilities and the requirement for the completion of the Modular Education Program for Activity Professionals (MEPAP) approved by the National Certification Council of Activity Professional (NCCAP). PREREQUISITE: High School diploma or GED. COREQUISITE: APT 188

**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. Focuses on the activity program in a long-term care setting, and the ability to assist with the quality of life components with the geriatric elderly through supervised learning experiences. COREQUISITE: APT 110

**APT 210 ACTIVITY PROFESSIONAL TRAINING II 8 CREDITS**  
Introduces students to leadership and management skills. This course will also discuss client advocacy, community relations and volunteer management. Successful completion of this course, APT 110, 188 and 288 satisfies the requirement of completion of a state approved activity course by Federal Regulation F249 for Medicare, Medicaid certified long-care facilities and the requirement for the completion of the Modular Education Program for Activity Professionals (MEPAP) approved by the National Certification Council of Activity Professional (NCCAP). PREREQUISITES: APT 110 and APT 188. COREQUISITE: APT 288

**APT 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**  
Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**APT 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: 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: APT 110. COREQUISITE: APT 210

**Air Force ROTC**

For additional information concerning ROTC, please call 303-492-6495.

**AIR 101 THE AIR FORCE TODAY I 1 CREDIT**

Introduces students to the U.S. Air Force and the U.S.A.F. officer profession. Uses Instructor lectures, films videos and group activities to examine Air Force issues, officer qualities, military customs and courtesies. Examines the communication skills necessary for an Air Force officer. 38 Contact Hours. PREREQUISITE: Instructor's permission

**AIR 102 THE AIR FORCE TODAY II 1 CREDIT**

Continues the topics of AIR 101. 38 Contact Hours. PREREQUISITE: AIR 101 or Instructor's permission

**AIR 201 DEVELOPMENT OF AIR POWER I 1 CREDIT**

Studies air power from balloons through the jet age and historically reviews air power employment in military and nonmilitary operations in support of national objectives. Looks at the evolution of air power concepts and doctrine and introduces the development of communicative skills. 38 Contact Hours. PREREQUISITE: AIR 102 or Instructor's permission

**AIR 202 DEVELOPMENT OF AIR POWER II 1 CREDIT**

Focuses on the basic characteristics of air doctrine, United States Air; continues AIR 201. One hour lecture and two hours lab each week. PREREQUISITE: AIR 201 or Instructor's permission

**American Sign Language**

**ASL 121 INTRTDUCTION TO AMERICAN SIGN LANGUAGE 5 CREDITS**

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

**ASL 122 AMERICAN SIGN LANGUAGE II 5 CREDITS**

Develops a basic syntactic knowledge of American Sign Language (ASL), basic vocabulary and basic conversational skills. Incorporates vital aspects of deaf culture and

community. The direct experience method is used to enhance the learning process. Students must complete this course with a "B" or higher or pass the ASL 121 proficiency test at 80% or better prior to acceptance into the Interpreting and Transliterating Preparation program. (NOT OFFERED AT ACC) . PREREQUISITE: ASL 121

**ASL 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**ASL 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: 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 (GT-SS3) .

**ANT 107 INTRODUCTION TO ARCHAEOLOGY 3 CREDITS**

Introduces the science of recovering the human prehistoric and historic past through excavation, analysis, and interpretation of material remains. Includes a survey of the archaeology of different areas of the Old and New Worlds. Also includes the works of selected archaeologists and discussions of major archaeological theories. This course is one of the Statewide Guaranteed Transfer courses (GT-SS3)

**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 (GT-SS3) .

**ANT 121 CULTURES OF THE SOUTHWEST 3 CREDITS**

Includes the major prehistoric cultures (Paleoindian, Desert Culture, Anasazi, Hohokam, Mogollon) and ethnographic views of the historic cultures (Pueblos, Navajo, Apache, Pima, Papago, Spanish-American, and Anglo-American). The purpose of the study is to trace the stages through which these cultures have passed in order to evaluate environmental influences on human activities and to perceive human influences on the environment. Recommended Preliminary Coursework: ANT 101 or ANT 107. Recommended Subsequent Coursework: ANT 215, Anthropology Field Studies and Special Topics in Anthropology

**ANT 215 INDIANS OF NORTH AMERICA 3 CREDITS**

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 CREDITS**

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

**ANT 280 SOUTHWEST FIELD EXPLORATION 2 CREDITS**

Introduces the social, religious, economic, and cultural development of selected American Indian societies and Hispanic settlements of the American Southwest. Major ruins, archaeological sites, museums, reservations, and/or pre-statehood communities are explored by field trip. PREREQUISITE: Instructor's permission

**ANT 285 INDEPENDENT STUDY 1-6 VARIABLE CREDITS**

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 111 ARABIC LANGUAGE I 5 CREDITS**

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading and writing the Arabic language. NOTE: The order of the topics and the methodology will vary according to the individual texts and Instructors.

**ARA 112 ARABIC LANGUAGE II 5 CREDITS**

Continues Arabic I in the development of functional proficiency in listening, speaking, reading and writing the Arabic language. NOTE: the order of topics and the methodology will vary according to the individual texts and Instructors. PREREQUISITE: ARA 111 or Instructor permission

**ARA 211 ARABIC LANGUAGE III 3 CREDITS**

Arabic III continues Arabic I and II in the development and increased functional proficiency in listening, speaking, reading and writing Arabic. Note: The order of the topics and the methodology will vary according to individual texts and Instructors. PREREQUISITES: ARA 111, 112 or Instructor permission

**ARA 212 ARABIC LANGUAGE IV 3 CREDITS**

Arabic IV continues Arabic I, II and III in the development and increased functional proficiency in listening, speaking, reading and writing Arabic. PREREQUISITES: ARA 111, 112, 211 or Instructor permission

**ARA 275 SPECIAL TOPICS 3 CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interests.

## Architectural Drafting, Contracts And 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, freehand sketching, building code requirements, detailing and structural framing. PREREQUISITES: ARC 101 and CAD 102

**ARC 107 BLUEPRINT READING RESIDENTIAL/COMMERCIAL 3 CREDITS**

Covers 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**

Covers the interpretation and reading of civil blueprints. The branch of Engineering dealing with the design and construction of highways, bridges, tunnels and waterworks. PREREQUISITE: MAT 108

**ARC 116 BUILDING MATERIALS 3 CREDITS**

Introduces building materials and methods commonly in use today. Includes interior and exterior materials from foundations to roof systems.

**ARC 121 BUILDING STRUCTURE ANALYSIS 3 CREDITS**

Provides an 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: MAT 108

**ARC 125 HISTORY OF ARCHITECTURE 3 CREDITS**

Covers major periods of architectural development. Social and cultural values influencing architecture will be highlighted as well as the interaction of art, engineering and architecture as forms of expression.

**ARC 205 COMMERCIAL DRAWING PRACTICE I 4 CREDITS**

Studies small commercial and multiple family dwellings. Construction techniques are discussed. Working drawings are prepared through extensive use of references and manufacturers' catalogs. PREREQUISITE: ARC 102

**ARC 215 ARCHITECTURAL GRAPHICS 3 CREDITS**

Assists the architectural student in developing techniques of graphic design and rendering using pencil, ink, and color media. Both freehand and Mechanical Methods are stressed. Student will be able to produce architectural presentations.

**ARC 216 ESTIMATING I 3 CREDITS**

Covers basic construction estimating. The student will develop skills in estimating the amount and cost of various constructions. He/She will demonstrate these skills by making estimates of material and labor quantities and cost for representative types of construction. PREREQUISITES: 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 projects are generally covered in coordinated and fieldwork segments each 4-hour class period. PREREQUISITE: MAT 108

**ARC 226 CONSTRUCTION SCHEDULING 3 CREDITS**

Discusses various methods of project scheduling. Emphasis will be placed on critical path method techniques and strategies. PREREQUISITE: ARC 107 or Instructor's permission.

**ARC 228 CONTRACTS, BONDS AND INSURANCE 3 CREDITS**

Discusses 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**

Introduces 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: ARC 116

**ARC 236 CODES/ZONING/SPECIFICATIONS 3 CREDITS**

Reviews 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 275 SPECIAL TOPICS IN ARCHITECTURAL TECHNOLOGY 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**ARC 278 SEMINAR 1 CREDIT**

Provides the students with experiential learning opportunities. PREREQUISITE: ARC 205

**ARC 280 INTERNSHIP 1 CREDIT**

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: ARC 205

**ARC 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: Instructor's permission

**Army ROTC****ARM 111 ADVENTURES IN LEADERSHIP I 2 CREDITS**

Introduces the student to fundamentals of leadership and the United States Army. Includes Army leadership doctrine, team-building concepts, time and stress management, an introduction to cartography and land navigation, marksmanship, briefing techniques and basic military tactics. Includes lecture and laboratory.

**ARM 112 ADVENTURES IN LEADERSHIP II 2 CREDITS**

Investigates leadership in small organizations. Covers basic troop leading procedures, military first aid and casualty evacuation concepts, creating ethical work climates, an introduction to Army organizations and installations and basic military tactics. Introduces students to effective military writing styles. Includes lecture and laboratory. PREREQUISITE: ARM 111 or Instructor's permission

**ARM 211 METHODS OF LEADERSHIP AND MANAGEMENT I 3 CREDITS**

Reviews leadership and management concepts including motivation, attitudes, communication skills, problem solving, human needs and behavior and leadership self-development. Students refine written and oral communications skills and explore the basic branches of the Army and officer and NCO duties. Students conduct practical exercises in small unit light infantry tactics and perform as mid-level leaders in the organization. Includes lecture and laboratory. PREREQUISITE: ARM 112 or Instructor's permission

**ARM 212 METHODS OF LEADERSHIP AND MANAGEMENT II 3 CREDITS**

Focuses on leadership and management functions in military and corporate environments. Studies various components of Army leadership doctrine to include the four elements of leadership, leadership principles, risk management and planning theory, the be-know-do framework and the Army leadership evaluation program. Continue to refine communication skills. Includes lecture and laboratory. PREREQUISITE: ARM 211 or Instructor's permission



## Art

### **ART 110 ART APPRECIATION 3 CREDITS**

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

### **ART 111 ART HISTORY I 3 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 (GT-AH1).

### **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 (GT-AH1).

### **ART 113 HISTORY OF PHOTOGRAPHY 3 CREDITS**

Surveys the history of photography from its beginnings to the present. Emphasizes individual photographers who have made significant contributions to the field. Includes technical, artistic, commercial and social development of photography as a form of visual communication.

### **ART 121 DRAWING I 3 CREDITS**

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

### **ART 122 DRAWING II 3 CREDITS**

Explores expressive drawing techniques with an emphasis on formal composition, color media and content or thematic development. PREREQUISITE: 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. PREREQUISITES: ART 121, 131, its equivalency, or permission of the Instructor.

### **ART 124 WATERCOLOR II 3 CREDITS**

Continues the study of watercolor techniques, emphasizing original compositions and experimentation with materials. Color theory is included. PREREQUISITE: ART 123 or its equivalency

### **ART 131 2-D DESIGN 3 CREDITS**

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

### **ART 132 3-D DESIGN 3 CREDITS**

Focuses on learning to apply the elements and principles of design to three dimensional problems. PREREQUISITE: ART 131

### **ART 138 PHOTOGRAPHY I 3 CREDITS**

Introduces black-and-white photography as a fine art medium and develops skills necessary for basic camera and lab operations.

### **ART 139 PHOTOGRAPHY II 3 CREDITS**

This course is a further exploration in camera and lab operations with an emphasis on individual creativity. It includes the development of a comprehensive portfolio. PREREQUISITE: ART 138

### **ART 140 COLOR PHOTOGRAPHY I 3 CREDITS**

This course covers the fundamentals of color photography such as color theory and light, production, processing and printing of color negatives. PREREQUISITE: ART 138

### **ART 141 JEWELRY AND METALWORK I 3 CREDITS**

Introduces the construction of jewelry designs in metals and small casting techniques.

### **ART 142 JEWELRY AND METALWORK II 3 CREDITS**

Emphasizes conceptual design development, using casting and specialized techniques. PREREQUISITE: ART 141 or equivalent

### **ART 143 DIGITAL PHOTOGRAPHY I 3 CREDITS**

Introduces the basic concepts of digital imaging as applied to photography. Using applicable technology and hands-on experience, modern developments are presented leading to the present applications of digital imaging, which combine traditional photographic ideas with electronic media. Enables the student to learn how to operate image manipulation software using a variety of scanning equipment, software tools and output devices by executing new assignments and applying these technologies to their photographic process. PREREQUISITE: ART 138 or Instructor's permission

### **ART 144 NON-SILVER PROCESS 1 CREDIT**

Explores several non-silver photographic processes including the Platinotype, Cyanotype and Van Dyke Brown printing techniques. Production of enlarged negatives from 35mm negatives and transparencies as required for contact printing these processes. PREREQUISITE: ART 138 or Instructor's permission

### **ART 156 FIGURE DRAWING I 3 CREDITS**

Introduces the basic techniques of drawing the human figure.

### **ART 161 CERAMICS I 3 CREDITS**

Introduces 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: ART 161 or equivalent

**ART 205 MUSEUM STUDIES 3 CREDITS**

Provides an overview of the museum field. Covers the museum as a business, its history and role in society and planning and implementation of a museum exhibition. PREREQUISITES: ART 110, 111, 112 or 207

**ART 207 ART HISTORY-1900 TO PRESENT 3 CREDITS**

Provides students with the knowledge base to understand the visual arts as related to Modern and Contemporary visual art. Surveys world art of the twentieth century, including Modernism to Post-modernism.

**ART 210 LANDSCAPE PAINTING 3 CREDITS**

Focuses on specific landscape concerns in the painting media of your choice.

**ART 211 PAINTING I 3 CREDITS**

Explores basic techniques, materials, and concepts used in opaque painting processes in oil or acrylic painting to depict form and space on a two-dimensional surface. PREREQUISITE: ART 121 or 131

**ART 212 PAINTING II 3 CREDITS**

This course further explores techniques, materials, and concepts used in opaque painting processes in oil or acrylic painting, with emphasis on composition and content development. PREREQUISITE: ART 211

**ART 213 PAINTING III 3 CREDITS**

Provides continued exploration of techniques, materials, and concepts used in opaque painting processes in oil or acrylic painting, with emphasis on composition and content development. PREREQUISITES: ART 211, 212 or Instructor's permission

**ART 214 PAINTING IV 3 CREDITS**

Explores advanced techniques, materials and concepts used in opaque painting processes, with emphasis on the development of themes and a cohesive body of work.

**ART 220 LANDSCAPE PAINTING AND 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 238 PHOTOGRAPHY III 3 CREDITS**

Further explores photography technique with emphasis on history, theory and assimilation of ideas into the students' creative work. Included is the development of a comprehensive portfolio. PREREQUISITES: ART 138, 139 or demonstrated competency

**ART 239 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: ART 140

**ART 240 LARGE FORMAT PHOTOGRAPHY 3 CREDITS**

Introduces the visual aesthetics and techniques of view camera photography. Students receive hands-on photographic experience with the 4x5 view camera, process film and produce prints. PREREQUISITE: ART 138

**ART 241 JEWELRY AND METALWORK III 3 CREDITS**

Focuses upon advanced work and emphasizes experimentation with materials and techniques, individual designs and superior craftsmanship. PREREQUISITE: ART 142

**ART 242 JEWELRY & 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 243 DIGITAL PHOTOGRAPHY II 3 CREDITS**

Expands upon the beginning digital photography class. Focuses on digital photography in terms of design and communication factors including color, visual design, lighting, graphics and aesthetics. PREREQUISITE: ART 143

**ART 244 DIGITAL PHOTOGRAPHY STUDIO 3 CREDITS**

Introduces digital photography as a fine art medium and develops skills necessary for basic operation of a digital camera and production of digital imagery. PREREQUISITE: ART 138 or Instructor's permission

**ART 248 DIGITAL DARKROOM 3 CREDITS**

Teaches computer aided photography and darkroom techniques. The emphasis of this course is image-editing software, which can be used to color correct, retouch and composite photographic images. Other topics include image acquisition, storage file management, special effects, hard copy and Web-based image output. PREREQUISITE: ART 138 or Instructor's permission

**ART 251 PORTRAIT PHOTOGRAPHY 3 CREDITS**

Teaches the technical and aesthetic aspects of studio and location portrait photography. This course explores the personal style of portraiture as a visual language and creative expression. This topic also includes lighting composition, posing and equipment selection. PREREQUISITE: ART 138

**ART 252 LANDSCAPE PHOTOGRAPHY 2 CREDITS**

Focuses on traditional and contemporary approaches to landscape photography. Examines technical and aesthetic aspects of landscape photography through group discussions, a field study, lectures and print and slide critiques. PREREQUISITE: ART 138

**ART 253 STUDIO PHOTOGRAPHY 3 CREDITS**

Explores 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: ART 138

**ART 254 SCULPTING THE FIGURE 1 CREDIT**  
Focuses on sculpting the human figure using modeling techniques in clay.

**ART 256 ADVANCED FIGURE DRAWING II 3 CREDITS**  
Provides continuing study of the various methods of drawing the human figure, with emphasis on the description of form and individual type. PREREQUISITE: ART 156

**ART 261 CERAMICS III 3 CREDITS**  
Encourages students to develop an individual style of wheel thrown and hand-built ceramic forms with continuing involvement in surface treatment. PREREQUISITE: ART 162

**ART 264 MARKETING FOR THE VISUAL ARTIST 3 CREDITS**  
Provides students with the framework, tools and professional materials necessary for the practicing visual artist. Guidelines for writing proposals, artist's statements and resumes are discussed and practiced. Theoretical and practical considerations related to portfolio presentation and exhibiting artwork are explored through hands-on activities, readings and discussions.

**ART 275-277 SPECIAL TOPICS 0.5-6 VARIABLE CREDITS**  
Provides the student with a vehicle to pursue in-depth exploration of special topics of interest. Includes PHO.

**ART 285-286 INDEPENDENT STUDY 1-6 VARIABLE CREDITS**  
Provides structured and guided, individualized research that is organized and tailored around the interest needs of the individual student.

**ART 286 INDEPENDENT STUDY 1-6 VARIABLE CREDITS**  
Provides an opportunity for students 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 based entirely on the student's independent study agreement. PREREQUISITE: Instructor's permission.

## 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 (GT-SC1) .

**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 (GT-SC1) .

**AST 275 TOPICS IN ASTRONOMY 1-6 VARIABLE CREDITS**  
Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**AST 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: 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.

**ASE 120 BASIC AUTOMOTIVE ELECTRICITY 2 CREDITS**  
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: 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 AND REPAIR 2 CREDITS**

Focuses on lecture and related laboratory experiences in the diagnosis, service, adjustments and repair of various automotive ignition systems. PREREQUISITE: 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: ASE 132

**ASE 140 SUSPENSION AND STEERING I 3 CREDITS**

Focuses on lecture and related experiences in the diagnosis and repair of automotive emission control systems. PREREQUISITE: ASE 132

**ASE 150 AUTOMOTIVE U-JOINT AND 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 CREDITS**

Focuses on lecture and related laboratory experiences in the diagnosis and repair of automotive manual transmissions, transaxles and clutches and related components.

**ASE 152 DIFFERENTIALS AND 4WD/AWD SERVICE 2 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 AND 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 AND 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. PREREQUISITE: ASE 110

**ASE 220 SPECIALIZED ELECTRONICS 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: ASE 120

**ASE 221 AUTOMOTIVE BODY ELECTRICAL 4 CREDITS**

Provides a comprehensive study of the theory, operation, diagnosis and repair of vehicle accessories. PREREQUISITE: 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. PREREQUISITES: 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. PREREQUISITES: 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: ASE 233

**ASE 240 SUSPENSION & STEERING II 3 CREDITS**

Emphasizes lecture and related experiences in the diagnosis and service of electronic suspensions and steering systems and their components.

**ASE 250 AUTOMATIC TRANSMISSION TRANSAXLE SERVICE 1 CREDIT**

Focuses on practical methods of maintaining, servicing and performing minor adjustments on an automatic transmission and transaxle.

**ASE 251 AUTOMATIC TRANSMISSION TRANSAXLE DIAGNOSIS AND ASSEMBLIES 5 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: ASE 250; COREQUISITE: 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 SPECIAL TOPICS 1-9 CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**ASE 277 INDEPENDENT STUDY 1-9 CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**ASE 280 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 (DaimlerChrysler) or others as required by the program track.

**ASE 281 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 (DaimlerChrysler) or others as required by the program track.

**ASE 282 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 (DaimlerChrysler) or others as required by the program track.

**ASE 283 INTERNSHIP: ADVANCED ELECTRICAL AND 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 (DaimlerChrysler) 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 INTERNSHIP: ADVANCED 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 (DaimlerChrysler) or others as required by the program track they are enrolled in. The student registers for and takes the ASE-Automotive Service Excellence-based test for brake systems and suspension and steering.

**ASE 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: Instructor's permission

## Biology

**BIO 104 BIOLOGY: A HUMAN APPROACH 4 CREDITS**

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

**BIO 105 SCIENCE OF BIOLOGY 4 CREDITS**

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. GT-SC1

**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. GT-SC1

**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: BIO 111. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1

**BIO 115 HUMAN GENETICS 3 CREDITS**

Focuses on 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. PREREQUISITES: BIO 111 and BIO 104 or equivalent, or permission of Dept. chair. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1

**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. PREREQUISITE: BIO 201 or equivalent, or permission of Dept. chair. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1

**BIO 204 MICROBIOLOGY 4 CREDITS**

Designed for health science majors. Examines microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying and controlling microorganisms with an emphasis on their role in infectious disease. PREREQUISITE: BIO 201 or equivalent, or permission of Dept. chair. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1

**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 216 PATHOPHYSIOLOGY 4 CREDITS**

Focuses on the functions of the human body systems with emphasis on their interrelationships and adaptation to stress and disease.

**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: 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: 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 Mendel, linkage, mutation concept, molecular genetics, and the Hardy-Weinberg law. Includes a laboratory experience. PREREQUISITE: BIO 111 or equivalent or permission of Department chair.

**BIO 275 TOPICS IN BIOLOGY 1-6 VARIABLE CREDITS**

Covers a specific topic within Biology, as determined by the Instructor. Reflects the special expertise of the faculty and/or the special needs of the students.

**BIO 285 INDEPENDENT STUDY 1-6 VARIABLE CREDITS**

Allows students to pursue a specific project within Biology. The student and Instructor determine the topic, outline of work, and method of evaluation. PREREQUISITE: Instructor's permission

**BIO 287 COOPERATIVE EDUCATION 1-6 VARIABLE CREDITS**

Provides an opportunity to gain practical experience in applying occupational skills and/or to develop specific skills in a 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. Attendance at seminars and/or interaction with Instructor is required.

**Business****BUS 110 WORKING FOR YOURSELF 2 CREDITS**

Introduces small business start-up and offers practical training designed to provide students with a fundamental

understanding of the special concerns of self-employment. The course also provides an overview of the subjects needed to become an entrepreneur, including financing, law, insurance, government regulations, record keeping, and taxes. Guest speakers with expertise in the various topics add to the weekly discussion.

**BUS 115 INTRO TO BUSINESS 3 CREDITS**

Focuses on the operation of the American business system. Covers fundamentals of the economy, careers and opportunities, marketing, management, production, governmental regulations, tools of business and social responsibilities.

**BUS 116 PERSONAL FINANCE 3 CREDITS**

Surveys the basic personal financial needs of most individuals. Emphasizes the basics of budgeting and buying, saving and borrowing money, the intricacies of home ownership, income tax and investments and the wise use of insurance, wills and trusts.

**BUS 203 INTRO TO INTERNATIONAL BUSINESS 3 CREDITS**

Provides 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 mechanisms 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**

Emphasizes public law, regulation of business, ethical considerations, and various relationships existing within society, government, and business. Specific attention is devoted to economic regulation, social regulation, regulation and laws impacting labor-management issues, and environmental concerns. Students develop an understanding of the role of law in social, political, and economic change.

**BUS 217 BUSINESS COMMUNICATION AND REPORT WRITING 3 CREDITS**

Emphasizes effective business writing and covers letters, memoranda, reports, application letters, and resumes. Includes the fundamentals of business communication and an introduction to international communication.

**BUS 226 BUSINESS STATISTICS 3 CREDITS**

Focuses on statistical study, descriptive statistics, probability, and the binominal distribution, index numbers, time series, decision theory, confidence intervals, linear regression, and correlation. Intended for the business major.

**BUS 241 CULTURAL DIVERSITY IN BUSINESS 3 CREDITS**

Covers the business person's guide to cultural, travel and information resource needs in the international arena. Specifics in negotiation, communications (verbal and non-verbal), networking, and understanding what individual countries' needs are as far as business culture.

**BUS 275 SPECIAL TOPICS IN BUSINESS 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.

**BUS 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.

**BUS 287 COOPERATIVE 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 stations related to their program of study. They work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the Instructor/ coordinator.

## 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: Ability to keyboard 20 wpm or Instructor's permission

**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: BTE 102

**BTE 108 TEN-KEY BY TOUCH 1 CREDIT**

Introduces touch control of the ten-key pad. Emphasizes the development of speed and accuracy using proper technique.

**BTE 111 KEYBOARDING SPEEDBUILDING I 2 CREDITS**

Designed to increase speed and improve accuracy in keyboarding on the PC through the use of correct techniques and concentrated effort. PREREQUISITE: Ability to keyboard by touch or Instructor's permission

**BTE 112 KEYBOARDING SPEEDBUILDING 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, 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.

**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 experience in using in-basket exercises typical of those occurring in an office operation. It focuses on procedures and computer skills needed for successful performance in the workplace. PREREQUISITES: experience with advanced word processing, spreadsheets, or Instructor's permission

**BTE 209 BASICS OF MACHINE TRANSCRIPTION 1 CREDIT**

Provides a basic working knowledge for transcribing from machine dictation using word processing and proficient levels of punctuation, spelling, and grammar. PREREQUISITES: Keyboarding and word processing skills or Instructor's permission

**BTE 225 ADMINISTRATIVE OFFICE MANAGEMENT 3 CREDITS**

Emphasis is placed on functions of the office. Includes office organization, work in the office, office layout, equipment and supplies, procurement and control, work flow, forms design, record storage and retrieval systems, personnel administration and problems, and government control.

**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. Covers fundamental office procedures found in both general and specialized law offices.

**BTE 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**BTE 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: Instructor's permission

**BTE 287 COOPERATIVE EDUCATION INTERNSHIP 1-6 VARIABLE CREDITS**

Provides students with the opportunity to supplement coursework 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: 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: 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 AND 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.

**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 contains instructions for laying out rafters for gable roofs, hip roofs and valley intersections. Coverage includes 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**

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 AND 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.

**CAR 153 INTERIOR TRIM—CABINET/COUNTERTOPS 1 CREDIT**

Covers the selection/installation/terminology of factory built cabinets and countertops. Includes various types and designs 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: Instructor's permission

**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: CAR 121 or Instructor's permission

**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: CAR 122 or Instructor's permission

**CAR 223 ADVANCED ROOFING SYSTEMS 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: CAR 123 or Instructor's permission

**CAR 250 ADVANCED INTERIOR TRIM—GENERAL 2 CREDITS**

Expands upon the material covered in CAR 150 and includes more advanced techniques and in-depth discussion of various material choices. Covers estimating and efficiency studies.

**CAR 251 ADVANCED INTERIOR TRIM—DOORS 2 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: CAR 151 or Instructor's permission

**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: CAR 154 or Instructor's permission.

**CAR 275 SPECIAL TOPIC 1–6 VARIABLE 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: MAT 060 This course is one of the Statewide Guaranteed Transfer courses. GT-SC1

**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. GT-SC1

**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. COREQUISITE: MAT 121 or Instructor's permission This course is one of the Statewide Guaranteed Transfer courses. GT-SC1

**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: CHE 111. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1

**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: 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: CHE 211  
This course is one of the Statewide Guaranteed Transfer courses. GT-SC1

**CHE 275 SPECIAL TOPICS IN CHEMISTRY 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**CHE 285 INDEPENDENT STUDY 1-6 VARIABLE CREDITS**

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. Allows a student to complete a course in a semester when the course has not been offered or has been canceled. The option to make independent study available is at the discretion of qualified faculty and the department chair. The student is limited to the number of independent study courses taken per semester. PREREQUISITE: Instructor's permission

**Chinese**

**CHI 111 CHINESE LANGUAGE I 5 CREDITS**

Focuses on the development of functional proficiency in listening, speaking, reading and writing the Chinese language. Note: The order of the topics and methodology varies according to individual texts and Instructors.

**CHI 112 CHINESE LANGUAGE II 5 CREDITS**

Continues Chinese Language I in the development of functional proficiency in listening, speaking, reading and writing the Chinese language. Note: The order of the topics and the methodology will vary according to individual texts and Instructors. PREREQUISITE: CHI 111

**Computer Aided Design/drafting**

**CAD 101 COMPUTER AIDED DRAFTING I 3 CREDITS**

Focuses on basic computer aided drafting skills using the latest release of CAD software. Includes file management, Cartesian coordinate system, drawing set-ups, drawing aids, layer usage, drawing geometric shapes, editing objects, array, text applications, basic dimensioning, and Help access. PREREQUISITE: Students must have Windows File Management skills to create file folders, rename files, delete files, copy and move files.

**CAD 102 COMPUTER AIDED DRAFTING II 3 CREDITS**

Focuses on advanced computer aided drafting skills using the latest release of CAD software. Includes blocks and wblocks, polylines, multilines, polyline editing, advanced editing, editing with grips, hatching, isometric drawings, dimensions and dimension variables, paper space and viewports, templates, external references, and printing/plotting. PREREQUISITE: Students must have Windows File Management skills to create file folders, rename files, delete files, copy and move files.

**CAD 105 AUTOCAD FOR INTERIORS 4 CREDITS**

Provides an opportunity for the Interior Design student to obtain the basic skills necessary to operate Computer Aided Design (CAD) software. AutoCAD software is emphasized. PREREQUISITES: CIS 118; IND 100, 111, 112 and 114

**CAD 201 COMPUTER AIDED DRAFTING/CUSTOM 3 CREDITS**

Focuses on program customization using the latest release of CAD software. Includes customizing menus, customizing toolbars, attribute extraction, basic CAD programming, advanced dimensioning, path options, script files, and slide shows. PREREQUISITE: CAD 102 or Instructor's permission

**CAD 202 COMPUTER AIDED DRAFTING/3D 3 CREDITS**

Focuses on construction of three-dimensional objects using the latest release of CAD software. Includes wireframe construction, surface modeling, solid modeling, extrusions, Boolean operations, 3D editing, 3D views, rendering, and 3D to 2D construction. PREREQUISITE: CAD 102 or Instructor's permission

**CAD 203 PRO/E BASIC PT AND ASSEMBLY DESIGN 6 CREDITS**

Introduces the basic part and assembly design principles of Solid modeling, Parametric Design, and Associativity along with basic detailing using PRO-ENGINEER as a design tool. Upon completion of this course the student will understand the basic functions needed to generate parts, assemblies and drawings along with the proper basic

technique. PREREQUISITES: CAD 103, CAD 128 or Instructor's permission.

**CAD 204 PRO/E DRAWING/DETAILING FUNDAMENTALS 6 CREDITS**

Introduces the fundamentals of production drawings and how to fully manipulate the associability of PRO/E between parts or assemblies while in drawing, along with general drawing configuration administration related to drawings  
PREREQUISITE: CAD 203

**CAD 206 PRO/E ADVANCED APPLICATIONS 6 CREDITS**

Introduces various advanced applications of the design principles used in parametric design software, ranging from sheet metal design, advanced Surfacing, Animation, Basic Mechanisms and Basic Manufacturing. PREREQUISITE: CAD 204.

**CAD 217 3D VIZ 3 CREDITS**

Focuses on introductory level basic features of the software using the latest version of 3D VIZ. Includes creation and modification of primitive and complex shapes, Boolean constructions, creation and modification of lights, applying materials to objects, creation and modification of backgrounds, creation and adjustment of cameras, rendering and animation by keyframing.

**CAD 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. PREREQUISITES: CAD 102 and ARC 102 or Instructor's permission.

**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: CAD 102 or Instructor's permission.

**CAD 249 AUTOLISP PROGRAMMING 3 CREDITS**

Introduces the student to the development of AutoLISP programming language. Covers techniques and concepts needed to design the AutoCAD environment to suit the drafter's specific needs. PREREQUISITE: CAD 102

**CAD 254 MECHANICAL DESKTOP/AUTODESK 3 CREDITS**

Examines 3D Parametric Solid modeling techniques. Students construct solid models and generate 2D mechanical drawings utilizing these models. PREREQUISITE: CAD 102 or Instructor's permission.

**CAD 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**CAD 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: Instructor's permission.

## Computer Information Systems

**CIS 103 LEARNING WINDOWS 1 CREDIT**

Provides foundational skills in Windows operating system for personal use. This course is designed for the more mature learner and/or those students who wish to advance at a slower pace.

**CIS 111 INTRODUCTION TO MICROSOFT ONENOTE 1 CREDIT**

Provides introduction to using Microsoft OneNote software to take as well as organize notes. The student will use OneNote to integrate notes with other applications and collaborate with others.

**CIS 115 INTRO TO COMPUTER INFORMATION SYSTEMS 3 CREDITS**

Focuses on an overview of the needs for and roles of computer information systems. Emphasizes computer requirements in organizations, history, hardware functions, programming, systems development, and computer operations. Introduces computer applications.

**CIS 118 INTRO TO PC APPLICATIONS 3 CREDITS**

Introduces computer concepts and components, as well as application-suite software and the Internet. Includes descriptions of and hands-on experiences with word processing, spreadsheets, databases, operating environments and other common PC application packages. PREREQUISITES: CIS 103, CIS 115 or familiarity 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 128 WINDOWS COMPLETE 3 CREDITS**

Introduces the functions and capabilities of Microsoft Windows. Includes configuring and modifying the operating system environment.

**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 WORD PROCESSING (MS WORD 2003) 3 CREDITS**

Explores a complete array of word processing skills. The skills needed to create, edit, format, and printing documents are covered. Other topics include character, paragraph, and page formats, the use of spelling checkers and thesaurus, hyphenation, tables, mail merge, document design, and graphics.

**CIS 136 MICROSOFT OFFICE SPECIALIST  
CERTIFICATION: WORD 1 CREDIT**

Prepares students for the Microsoft Office Specialist certification examination for Word. Students use software to determine strengths and weaknesses and elect to review and prepare for either the Core or Expert level exam.  
PREREQUISITE: CIS 135 or Instructor permission based on prior experience

**CIS 140 MICROSOFT OUTLOOK 1 CREDIT**

Introduces the functions used in Microsoft Outlook including e-mail messages, calendar, 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.

**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 159 MICROSOFT OFFICE SPECIALIST  
CERTIFICATION: EXCEL 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: 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: 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.

**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.

**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. Students will learn to use GANTT charts, milestones, Critical Path Methodology, PERT, project tracking and reporting.

**CIS 218 ADVANCED PC APPLICATIONS 3 CREDITS**

Covers the advanced capabilities of a PC software applications suite. Emphasizes solving business problems by integrating data from all of the software applications that facilitate the production of useful information. Printed documents, reports, slides, and forms are produced to communicate information.

**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 222 UNIX SYSTEM  
ADMINISTRATION 3 CREDITS**

Introduces the UNIX/Linux operating system and covers the skills required to install, configure and operate a UNIX/Linux sys. PREREQUISITES: CIS 220, 232

**CIS 232 UNIX SHELL  
PROGRAMMING (LINUX) 3 CREDITS**

Covers simple scripts to automate frequently executed commands followed by an explanation of adding conditional logic, user interaction, loops, menus, traps, and functions to enhance the productivity and effectiveness of the user. In addition, students explore in detail Bourne and Korn shell scripting languages. PREREQUISITE: CIS 220 or Instructor's permission.

**CIS 240 DATABASE DESIGN  
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 AND  
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: Instructor's permission

**CIS 246 ORACLE DATABASE  
ADMINISTRATION I 4 CREDITS**

Provides a foundation in basic Oracle architecture, storage structure and database administrative tasks. Emphasizes the knowledge and skills to create databases and data dictionary

views, and to manage Oracle instances, tables, tablespaces, data files, control files, redo log files and rollback segments. PREREQUISITE: CIS 240 or Instructor's permission

**CIS 252 QUERYING A MICROSOFT SQL SERVER 2000 WITH TRANSACT-SQL 3 CREDITS**

Teaches students to use the products and tools necessary to implement and maintain a MS SQL Server 2005. Students learn to plan, create and optimize databases, implement views, store procedures and functions. Students will work with managed code and XML schemas. Students will also learn to implement data integrity, manage security, perform administrative tasks, backup, restore, transfer data and maintain high availability

**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. Includes the systems approach, fact gathering techniques, forms design, input/output, file design, file organization, various charting techniques, system audits on controls, project management, implementation, and evaluation.

**CIS 287 COOPERATIVE EDUCATION 3 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 works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer or work site supervisor.

## Computer Networking

**CNG 101 INTRO TO NETWORKING 3 CREDITS**

Focuses on underlying concepts of data communications, telecommunications and networking. Emphasizes the terminology and technologies in current networking environments and provides a general overview of the field of networking as a basis for continued study in the field.

**CNG 102 LOCAL AREA NETWORKING 3 CREDITS**

Introduces Local Area Networking. Focuses on discussions and demonstrations of planning, installing, and supporting networks. PREREQUISITE: CNG 101 or Instructor's permission

**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: 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. PREREQUISITE: CNG 102

**CNG 108 NETWORK ANALYSIS AND DESIGN 3 CREDITS**

Provides advanced instruction for networking professionals and students who grasp the basic concepts of networking but would like to understand methods used to analyze, design and manage LAN's point-to-point networks. Exercises are geared toward learning techniques used to design and analyze networks.

**CNG 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+ 4 CREDITS**

Teaches students to upgrade, install, configure, maintain and troubleshoot current and legacy MS Windows operating systems. In addition, students learn to install, configure and troubleshoot device drivers. Students will also learn to identify the network capabilities of the operating system and configure the operating system to connect to the network. This course will prepare you for the CompTIA A+ OS Technologies Exam. PREREQUISITE: CNG 121 or Instructor's permission

**CNG 123 NETWORK SERVER BASICS 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.

**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 TCP/IP.

This course also prepares students for the Networking II: Network + course.

**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.

**CNG 129 NETWORK CABLING 2 CREDITS**

Prepares the student to install and troubleshoot cable, connectors, connecting blocks, patch panels and related hardware as needed to support a local area network.

**CNG 131 NETWORK SECURITY FUNDAMENTALS 3 CREDITS**

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

**CNG 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 a disaster recovery plan.

**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. PREREQUISITE: CNG 124 or Instructor's permission

**CNG 212 MANAGE A MS WINDOWS SERVER ENVIRONMENT 4 CREDITS**

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. PREREQUISITE: CNG 124 or Instructor's permission

**CNG 213 IMPLEMENTING AN MS WINDOWS NETWORK INFRASTRUCTURE 4 CREDITS**

Provides students with the knowledge and skills to implement and manage a Microsoft Windows Server network infrastructure. Students will learn to implement routing, implement and manage Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); secure Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; configure a network access infrastructure, manage and monitor network access. PREREQUISITE: CNG 212 or Instructor's permission

**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: CNG 213 or Instructor's permission

**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 Windows® 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: CNG 212 or Instructor's permission

**CNG 216 PLAN A MS WINDOWS SERVER ACTIVE DIRECTORY INFRASTRUCTURE 4 CREDITS**

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. PREREQUISITE: CNG 212 or Instructor's permission

**CNG 221 DESIGN MS WINDOWS ACTIVE DIRECTORY AND 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: CNG 215 or Instructor's permission

**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: CNG 212 or Instructor's permission

**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 configuration 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. PREREQUISITE: 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 (CWNA) Certification Exam. PREREQUISITE: CNG 124 or Instructor's permission

**CNG 225 WIRELESS NETWORK SECURITY 3 CREDITS**

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. PREREQUISITES: CNG 224, CWNA Certification, or equivalent documented knowledge and skill level.

**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: CNG 212 or Instructor's permission

**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 Microsoft® SQL Server. PREREQUISITE: CNG 214

**CNG 230 FAST TRACK CCNA 1 AND 2 5 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 CCNA 3 AND 4 5 CREDITS**

Presents the second of two parts of the CCNA certification preparation course for students who have completed the CCNA I (CNG 230) course. It will consist of VLSM, Layer 2 switching, VLANs, ACLs, PPP, Frame Relay, DDR and ISDN.

**CNG 251 ANTI VIRUS CONCEPTS 3 CREDITS**

Prepares the student for virus eradication. Focuses on how viruses work, how they are designed and how viruses are

written. Emphasizes virus eradication and cleaning. PREREQUISITE: CNG 131 or Instructor's permission

**CNG 252 SECURITY MODELING 3 CREDITS**

Designs various security models using rights and permissions. Covers Microsoft, CISCO, Novell Netware and UNIX, and Standard based security calls. Focuses on security theory with some practical security applications.

**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: CNG 131 or Instructor's permission

**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: CNG 131 or Instructor's permission

**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: CNG 124 or Instructor's 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: 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: 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: CNG 262

## Computer Science

**CSC 116 LOGIC AND  
PROGRAM DESIGN 3 CREDITS**

Introduces computer program design using concepts of structured programming and logic. Includes pseudocode, flowcharts, and structure charts. Covers variables, data types, control structures, looping, program breaks, and arrays.

**CSC 119 INTRO TO PROGRAMMING 3 CREDITS**

Focuses on a general introduction to computer programming. Emphasizes the design and implementation of structured and logically correct programs with good documentation. Focuses on basic programming concepts, including numbering systems, control structures, modularization, and data processing. A structured programming language is used to implement the students program designs.

**CSC 150 VISUAL BASIC  
PROGRAMMING 3 CREDITS**

Introduces programming and applications development for the Microsoft Windows Programming environment using Visual Basic for Windows. PREREQUISITE CSC 116 or equivalent experience or Instructor's permission

**CSC 151 ADVANCED VISUAL BASIC  
PROGRAMMING 3 CREDITS**

Builds on the skills learned in CSC 150. Focuses on more involved applications, work with advanced controls, and deal with additional advanced topics. PREREQUISITE: CSC 150 or Instructor's permission

**CSC 154 INTRODUCTION TO MS VISUAL  
BASIC.NET (OOP) 3 CREDITS**

Provides students with the knowledge and skills needed to develop applications in Microsoft Visual Basic.NET for the Microsoft.NET platform. Focuses on user interfaces, program structure, language syntax, and implementation details. This is the first course in the Visual Basic.NET curriculum and serves as the entry point for other .NET courses. PREREQUISITE: CSC 116 or Instructor's permission

**CSC 157 ADVANCED VISUAL BASIC  
.NET PROGRAMMING 4 CREDITS**

Continues the structured algorithm development and problem solving techniques begun in CSC 154. Students are introduced to more advanced features of the Visual Basic.NET programming language. This course will explore the relationships between Visual Basic.NET and the .NET Framework and introduces some important .NET services. We will introduce the student to 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 Visual Basic.NET and object oriented methodology. PREREQUISITE: CSC 156

**CSC 160 COMPUTER SCIENCE I  
(JAVA OR C++ OR C) 4 CREDITS**

Introduces students to the discipline of computer science. Covers algorithm development, data representation, logical expressions, sub-programs and input/output operations using a structured programming language. Requires intensive lab work outside of class time. PREREQUISITES: CSC 116 and MAT 106 or Instructor's permission

**CSC 161 COMPUTER SCIENCE II  
(JAVA OR C++ OR C) 4 CREDITS**

Continues the structured algorithm development and problem solving techniques begun in Computer Science I. Enables students to gain experience in the use of data structures and design of larger software projects. Requires intensive computer laboratory experience. PREREQUISITE: CSC 106

**CSC 225 COMPUTER ARCHITECTURE ASSEMBLY  
LANGUAGE PROGRAMMING 4 CREDITS**

Introduces concepts of computer architecture, functional logic, design and computer arithmetic. Focuses on the mechanics of information transfer and control within a computer system. Includes symbolic programming techniques, implementing high level control structures, addressing modes and their relation to arrays, subprograms, parameters, linkage to high level languages and the assembly process.

**CSC 230 C PROGRAMMING: WINDOWS 3 CREDITS**

Introduces C programming language - a 'mid level' language whose economy of expression and data manipulation features allow a programmer to deal with the computer at a 'low level.' PREREQUISITES: MAT 121 and any programming language course

**CSC 233 OBJECT-ORIENTED  
PROGRAMMING IN C++ 3 CREDITS**

Covers all syntactical components of the C++ language including arrays, structures, pointers, functions and classes. Emphasizes inheritance, overloading, and polymorphism. Focuses on writing clear, properly structured, and well documented programs using the C++ Language and Object-Oriented methodology. It is the advanced course in C++ Programming. PREREQUISITES: CSC 116 and MAT 106 or Instructor's permission



**CSC 234 C++ PROGRAMMING 4 CREDITS**

Continues CSC 233 Object-Oriented Programming in C++. This is an advanced level computer programming course. Although it teaches C++ as a computer language, it presumes knowledge of at least similar language of C or Pascal. It covers advanced object-oriented features such as standard string class, operator overloading, friends, references, namespaces, pointers and dynamic arrays, streams and file I/O, recursion, inheritance, polymorphism and linked data structures. PREREQUISITE: CSC 233 or Instructor's permission

**CSC 236 C# PROGRAMMING 4 CREDITS**

Introduces the C# programming language. Covers all syntactical components of the language 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: Familiarity with the C++ programming language or permission of the Instructor.

**CSC 237 ADV. C# PROGRAMMING 4 CREDITS**

Continues the structured algorithm development and problem solving techniques begun in CSC 236. Introduces more advanced features of the C# programming language. Explores the relationships between C# and the .NET Framework and introduces important .NET services. Emphasizes collections, copying and comparing objects, and how the .NET framework interfaces to XML. Focuses on writing clear, properly structured, and well-documented programs using C# and object oriented methodology. PREREQUISITE: Familiarity with the C# Programming Language or Instructor's permission

**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: MAT 106 or equivalent experience, or Instructor's permission

**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: CSC 240 or Instructor's permission

**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. PREREQUISITES: CSC 154, 236 or equivalent knowledge and 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: CSC 154 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: CSC 251 or equivalent knowledge and experience.

**CSC 253 MS ASP.NET WEB APPLICATION DEVELOPMENT 4 CREDITS**

Teaches programmers and beginning Web developers the fundamentals of Web application site implementation by using Microsoft ASP.NET and Microsoft Visual Basic .NET. Focuses on using the Microsoft Visual Studio .NET environment and the Microsoft .NET platform to create an ASP.NET Web application that delivers dynamic content to a Web site. PREREQUISITE: Experience in programming in Microsoft's .NET framework.

**CSC 261 PROGRAMMING WITH C# 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. PREREQUISITE: 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: CSC 261

**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: CSC 262

**CSC 269 PROGRAMMING IN PERL 2 CREDITS**

Introduces the knowledge and skills necessary to be able

to write programs in the Perl programming language. This course will offer a brief introduction of writing CGI programs using Perl. **PREREQUISITE:** 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:** XML

### **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 130 WEB EDITING TOOLS (FRONTPAGE) 3 CREDITS**

Provides tools used for designing and building Web pages that are easy to use and have a pleasing look. The student will develop Web pages using the Microsoft FrontPage program. Use of images, forms, frames, tables, templates and layers will be covered.

### **CWB 164 XML 3 CREDITS**

Provides students with an introduction to the XML language's structure and syntax. Examines supporting tools such as XSL and CSS. This course is not designed to focus on a particular implementation of XML, but to examine the possibilities of using XML with popular technologies such as Java SAX, SOAP, RDF, and the DOM. **PREREQUISITE:** CWB 110 or Instructor's permission

### **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.

## Convergent Technologies

### **CTC 107 INSTALLER 3 CREDITS**

Teaches the proper procedures for performing aerial, underground and interior CATV drop installations. This course is only available for students who are in a degree and/or certificate program through the partnership between Jones/NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

### **CTC 108 BROADBAND CABLE OVERVIEW 1 CREDIT**

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 Jones/NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

### **CTC 109 INSTALLER TECHNICIAN 4 CREDITS**

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 Jones/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 Jones/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:** CTC 109 This course is only available for students who are in a degree and/or certificate program through the partnership between Jones/NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

### **CTC 113 SYSTEM TECHNICIAN 4 CREDITS**

Teaches a trained Jones/NCTI Service Technician how to activate, test and troubleshoot the RF trunk system. Covers RF trunk and distribution amplifier theory of operation and 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 Jones/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 Jones/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:** 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 Jones/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:** 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 Jones/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:** 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 Jones/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:** 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 Jones/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:** 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 Jones/NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

**CTC 123 BASIC TROUBLESHOOTING OF BROADBAND TECHNOLOGY 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:** 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 Jones/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**

Focuses on making the transition from analog to digital services troubleshooting. The 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:** 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 Jones/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 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:** 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 Jones/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, 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: CTC 125 High Speed Data Customer Service. COREQUISITE: 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 Jones/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. Network 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: 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 Jones/NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

**CTC 128 TESTING AND MAINTENANCE  
FOR FIBER TECHNICIANS 2 CREDITS**

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 regimens in an HFC network. COREQUISITE: 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 Jones/NCTI and ACC. Additional charges may apply to these courses. For additional information please call 303-797-5989.

**CTC 150 DATA COMMUNICATIONS 3 CREDITS**

Provides the student with an overview of network systems. Focuses on the architecture of each network, transmission modes, functions, uses, protocols and advantages of each. Addresses synchronous as well as asynchronous data systems.

**CTC 160 CABLE COMMUNICATIONS 3 CREDITS**

Provides the student with an overview of cable communication systems and their attributes. Includes architecture, satellite applications, coaxial cable attributes, typical systems from tap to TV, and common construction practices. Includes applicable math skills. PREREQUISITES: 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 the operation and application of pagers. PREREQUISITES: ELT 106, ELT 110 or Instructor's permission

**CTC 162 TELECOMMUNICATION  
CONSTRUCTION AND  
OSHA SAFETY 3 CREDIT**

Emphasizes the constant awareness of safety issues. Enables the student to understand safety issues for situations in buildings, in the field, and vehicles. PREREQUISITES: ELT 106, ELT 110 or Instructor's permission

**CTC 163 VIDEO TECHNOLOGY 3 CREDITS**

Provides an overview of video technology including the principles, color as well as black and white signal construction, fundamentals of color and color mixing, and color signal construction. Covers waveform analysis and interlaced and non-interlaced scanning schemes. Includes distortion, signal processing, measurements and video data compression. PREREQUISITES: ELT 106, ELT 110 or Instructor's permission

**CTC 165 ADVANCED TECHNICIAN 3 CREDITS**

Trains a technician how to set up, operate and maintain the CATV headend. Focuses on communication electronics theory and provides a foundation for understanding broadcast television, microwave, satellite and data communication systems. PREREQUISITE: 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 Jones/NCTI and ACC. Additional charges may apply to these courses.

**CTC 166 EMERGING TECHNOLOGIES 2 CREDITS**

Provides the student with an opportunity to research concepts and applications of related technologies that are being reviewed and experimented with today. Focuses on presentations and discussions with industry experts. Enables students to develop presentations on areas of interest in emerging technologies. Covers applications and implications of new discoveries.

**CTC 215 OPTICAL NETWORKS 3 CREDITS**

Introduces optical networks - the next great bandwidth provider. Addresses optical networking from a practical point-of-view and examines other evolving transport challenges. Focuses on alternatives such as ISDN, xDSL, cable modems, wireless local loop offerings such as LMDS, MMDS, and satellite and copper-based transport schemes including T1, T3, SONET, and SDH. PREREQUISITE: CTC 161

**CTC 220 REGULATIONS AND STANDARDS 3 CREDITS**

Provides the students with an overview of the regulations and standards that pertain to technicians in the communication industries. Covers regulated as well as unregulated business operations. Addresses the function and control of local regulatory agencies. PREREQUISITES: CTC 150, 161 215

**CTC 240 TELECOMMUNICATIONS ENGINEERING OUTSIDE PLANT 3 CREDITS**

Covers the components of engineering the telephone outside plant. Includes the fundamentals of transmission, resistance design, and distribution cable design in serving a customer area. PREREQUISITES: CAD 101, CTC 161, CTC 215

**CTC 255 FIELD STUDIES: TELECOM ENGINEERING PLANNING 3 CREDITS**

Gives 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: CTC 240

**CTC 267 TELECOMMUNICATIONS INSTALLATIONS, SPLICING AND REPAIR 3 CREDITS**

Provides students with an understanding in the basic phone installation from pedestal to customer premise equipment (CPE). Includes troubleshooting and testing skills to maintain the integrity of the phone service. Covers instruction in print reading, safety, cable locating, fault location and splicing. PREREQUISITES: 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. A syllabus specifies the content of each course at the time it is offered. Contact the CTC department chair for additional details.

**CTC 280 INTERNSHIP: TELECOM ENGINEERING PLANNING 3 CREDITS**

Provides students with 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, establishing learning objectives and to coordinate learning activities with employer or work site supervisor. Attendance at seminars/update status orientations and periodic interaction with the Instructor is required.

**Criminal Justice**

The following PREQUISITES apply to all CRJ courses in addition to additional PREQUISITES listed with individual courses: ENG 090 – REA 090 or equivalent CPT scores.

**CRJ 101 BASIC LAW ENFORCEMENT ACADEMY I 6 CREDITS**

Conforms 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 peace officer. Emphasis will be on simulating actual situations utilizing a lecture and laboratory mode of learning. PREREQUISITE: Permission of Academy Director

**CRJ 102 BASIC LAW ENFORCEMENT ACADEMY II 12 CREDITS**

Conforms to P.O.S.T. standards and state certification requirements as well as the basic skills and knowledge to perform the entry-level duties of a peace officer. Emphasis will be on simulating actual situations utilizing a lecture and laboratory mode of learning. PREREQUISITE: Permission of Academy Director

**CRJ 103 BASIC LAW ENFORCEMENT ACADEMY III 2 CREDITS**

Enhances 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: Permission of Academy Director

**CRJ 104 BASIC LAW ENFORCEMENT ACADEMY IV 1 CREDIT**

Enhances 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: Permission of Academy Director

**CRJ 105 BASIC LAW 8 CREDITS**

Conforms 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 peace officer. Emphasis will be on United States Constitution, arrest, search and seizure, interrogation and confessions, rules of evidence, Colorado Criminal Code, Colorado Traffic Code, Colorado Children's Code, Liquor Code and controlled substances. PREREQUISITE: Permission of Academy Director

**CRJ 106 ARREST CONTROL TECHNIQUES 6 CREDITS**

Covers the skills, knowledge and abilities necessary to effectively maintain control of a suspect when making an arrest. Emphasizes the continuum of force and de-escalation of force

**CRJ 107 LAW ENFORCEMENT DRIVING 3 CREDITS**

Covers the skills, knowledge and abilities required for operation of a law enforcement vehicle. Emphasizes defensive driving. Enables students to demonstrate skills by driving a vehicle under simulated conditions.

**CRJ 108 FIREARMS 3 CREDITS**

Discusses the skills, knowledge and abilities necessary to safely use police firearms. Students will demonstrate skills by firing weapons on a firing range. The student will demonstrate basic safety techniques and will explain the firearms role within the continuum of force.

**CRJ 110 INTRODUCTION TO CRIMINAL JUSTICE 3 CREDITS**

Introduces a study of the agencies and processes involved in the criminal justice system: the legislature, the police, the prosecutor, the public defender, the courts, and corrections. Includes an analysis of the roles and problems of the criminal justice system in a democratic society, with an emphasis upon inter-component relations and checks and balances. PREREQUISITES: ENG 090, REA 090 or equivalent CPT test scores

**CRJ 111 SUBSTANTIVE CRIMINAL LAW 3 CREDITS**

Teaches legal definitions of crime, purposes and functions of the law, historical foundations, and the limits of the criminal law. PREREQUISITES: ENG 090, REA 090 or equivalent CPT test scores

**CRJ 112 PROCEDURAL CRIMINAL LAW 3 CREDITS**

Covers constitutional and procedural considerations affecting arrest, search and seizure, post-conviction treatment, origin, development, philosophy, and constitutional basis of evidence. Focuses on degrees of evidence and rules governing admissibility, judicial decisions interpreting individual rights, and an analysis of case studies from arrest through final appeal. PREREQUISITES: ENG 090, REA 090 or equivalent CPT test scores

**CRJ 125 LAW ENFORCEMENT OPERATIONS 3 CREDITS**

Examines the complexity and multi-dimensional aspects of the law enforcement role and career; law enforcement discretion; law enforcement values and culture in modern America. Covers the role and functions of law enforcement in occupational, social, political and organizational context. PREREQUISITES: ENG 090, REA 090 or equivalent CPT test scores

**CRJ 135 JUDICIAL FUNCTION 3 CREDITS**

Examines the criminal process with an analysis of the major judicial decision-makers, i.e., prosecutors, defense attorneys, judges, and the discretionary aspects of adjudication. PREREQUISITES: ENG 090, REA 090 or equivalent CPT test scores

**CRJ 140 CRIME ANALYSIS I 3 CREDITS**

Offers an in-depth introduction to the underlying concepts of crime analysis, understanding criminal behavior, including modus operandi and crime pattern theory. The course will emphasize the foundations of critical thinking and reading comprehension. PREREQUISITES: ENG 090, REA 090 or equivalent CPT test scores

**CRJ 145 CORRECTIONAL PROCESS 3 CREDITS**

Focuses on the post-conviction corrections process, the development of a correctional philosophy, theory, and practice, a description of institutional operation, programming and management, and community-based corrections, probation, and parole. PREREQUISITES: ENG 090, REA 090 or equivalent CPT test scores

**CRJ 200 CRIME ANALYSIS II 3 CREDITS**

Offers application of research methods where students will learn to interpret the data and the statistics involved in crime analysis, including descriptive, inferential and multivariate statistics. PREREQUISITE: CRJ 140

**CRJ 210 CONSTITUTIONAL LAW 3 CREDITS**

Focuses on the powers of government as they are allocated and defined by the United States Constitution. Includes intensive analysis of United States Supreme Court decisions. PREREQUISITES: ENG 090, REA 090 or equivalent CPT test scores

**CRJ 220 HUMAN RELATIONS/SOCIAL CONFLICTS 3 CREDITS**

Highlights the environmental, organizational and socio-psychological dimensions of social control. Includes the study of individual attitudes, beliefs and behavior involved in role conflicts, community relations and conflict management in the social structure. PREREQUISITES: ENG 090, REA 090 or equivalent CPT test scores

**CRJ 228 CRIME ANALYSIS III 3 CREDITS**

Focuses on using temporal and spatial analysis by utilizing crime mapping software (GIS) to identify patterns, demographic and trend analysis, and redistricting. PREREQUISITES: CRJ 140, GIS 101 or Instructor's permission. PREREQUISITES: ENG 090, REA 090 or equivalent CPT test scores

**CRJ 230 CRIMINOLOGY 3 CREDITS**

Examines the question of crime causation from legal, social, political, psychological and theoretical perspectives. Covers the history and development of criminology. PREREQUISITES: ENG 090, REA 090 or equivalent CPT test scores

**CRJ 254 CRIME ANALYSIS IV 3 CREDITS**

Focuses on using readily available computer software (especially Microsoft Office) to assist in different facets of crime analysis. PREREQUISITES: CRJ 140, CIS 118 or Instructor's permission

**CRJ 265 CRIME ANALYSIS V 3 CREDITS**

Offers practical application and implementation of problem-oriented policing, including but not limited to COMPSTAT and the behind-the-scenes analysis work that is needed to make problem-oriented policing happen. PREREQUISITES: CRJ 140, GIS 101 or Instructor's permission

**CRJ 266 CRIME ANALYSIS VI 6 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: Instructor's permission

**CRJ 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**CRJ 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: Instructor's permission

**CRJ 287 CO-OPERATIVE EDUCATION 6 CREDITS**

Provides work experience for students to gain practical work experience related to their educational program. PREREQUISITES: CRJ 266 and 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, fasteners, springs, intersections and developments. PREREQUISITES: DRT 101, CAD 102, or Instructor's permission

**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: DRT 102 or Instructor's permission

**Early Childhood Education****ECE 101 INTRO TO EARLY CHILDHOOD EDUCATION 3 CREDITS**

Provides an introduction to Early Childhood Education. Includes the eight key areas of professional knowledge: Child Growth and Development; Health, Nutrition and Safety; Developmentally Appropriate Practices; Guidance; Family and Community Relationships; Diversity; Professionalism; Administration and Supervision. Focuses on ages birth through age eight.

**ECE 102 INTRODUCTION TO EARLY CHILDHOOD LAB 3 CREDITS**

Focuses on a classroom seminar and placement in a child care setting. The supervised placement provides the student with the opportunity to observe children, to practice appropriate interactions, and to develop effective guidance and management techniques. Addresses ages birth through age eight. PREREQUISITE: ECE 101 or COREQUISITE 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 eight.

**ECE 111 INFANT AND TODDLER THEORY AND PRACTICE 3 CREDITS**

Presents an overview of theories, applications (including observations) and issues pertinent to infant and toddler development in group and/or family settings. Includes state requirements for licensing, health, safety and nutrition issues.

**ECE 112 INTRODUCTION TO INFANT/TODDLER LAB TECHNIQUES 3 CREDITS**

Includes a classroom seminar and placement in an infant and/or toddler setting. The supervised placement provides the student with the opportunity to observe, to practice appropriate interactions and to develop effective guidance and nurturing techniques with infants and/or toddlers. Addresses ages prenatal through age two. PREREQUISITES: ECE 111, 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**

Prepares students to plan and implement a comprehensive and developmentally appropriate art program for young children. Investigates the development of self-taught art techniques in young children.

**ECE 127 MUSIC/MOVEMENT FOR THE YOUNG CHILD 1 CREDIT**

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 155 FAMILY & PARENTING ISSUES 1 CREDIT**

Explores the types of family organizations, functional roles of family members, different parenting styles and other issues impacting children's development that families and parents are experiencing in today's society.

**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: ECE 179

**ECE 179 SEMINAR 1-6 CREDITS**

Provides students with an opportunity to examine aspects of early childhood education in detail. COREQUISITE: 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.

**ECE 187 COOPERATIVE EDUCATION 1-12 CREDITS**

Focuses on 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**

Focuses on nutrition, health and safety as a key factor for optimal growth and development of young children. Includes nutrient knowledge, menu planning, food program participation, health practices, management and safety, appropriate activities and communication with families. Addresses ages from prenatal through age eight.

**ECE 220 CURRICULUM DEVELOPMENT: METHODS AND TECHNIQUES 3 CREDITS**

Provides an overview of early childhood curriculum development. Includes processes for planning and implementing developmentally appropriate environments, materials and experiences, and quality in early childhood programs.

**ECE 225 LANGUAGE AND COGNITION FOR THE YOUNG CHILD 3 CREDITS**

Examines theories of cognitive and language development as a framework for conceptualizing the way children

acquire thinking skills. Includes observing, planning, facilitating, creative representation, and evaluating strategies within the context of play. Focuses on language, science, math, problem solving and logical thinking. Addresses ages birth through age eight.

**ECE 226 CREATIVITY AND THE YOUNG CHILD 3 CREDITS**

Provides an emphasis on encouraging and supporting creative self expression and problem solving skills in children. Explores creative learning theories and research. Focuses on developmentally appropriate curriculum strategies in all developmental domains. Addresses ages birth through age eight.

**ECE 228 LANGUAGE AND LITERACY 3 CREDITS**

Presents strategies for optimum language development, literacy, social and emotional development. Supports children's language and literacy in home, classroom, and community settings. Provides appropriate teacher/child verbal interactions, classroom environments, and activities. Addresses ages birth through age eight.

**ECE 240 ADMINISTRATION OF EARLY CHILDHOOD CARE AND EDUCATION PROGRAMS 3 CREDITS**

Examines Colorado's minimal licensing requirements, as well as optimal standards pertaining to the operation of programs for young children. Focuses on the director's administrative skills and role as a community advocate for young children. Addresses ages birth through age twelve.

**ECE 241 ADMINISTRATION: HUMAN RELATIONS FOR THE EARLY CHILDHOOD PROFESSIONS 3 CREDITS**

Focuses on the human relations component of an early childhood professional's responsibilities. Includes director-staff relationships, staff development, leadership strategies, parent-professional partnerships, and community interaction.

**ECE 260 EXCEPTIONAL CHILD 3 CREDITS**

Presents an overview of typical and atypical developmental progression. Includes planning techniques, learning strategies, legal requirements and accommodations and adaptations that are necessary in order to create an intergrated classroom environment for a child with a wide range of exceptionalities. Focuses on ages birth through age eight. PREREQUISITE: ECE 226 or PSY 238

**ECE 275 SPECIAL TOPICS I 1-6 VAR CREDITS**

Explores current topics, issues and activities related to one or more aspects of the early childhood care and education profession.

**ECE 278 WORKSHOP 1-6 VARIABLE CREDITS**

Provides students with an experiential learning opportunity. COREQUISITE: ECE 279

**ECE 279 SEMINAR 1-6 VARIABLE CREDITS**

Provides students with an opportunity to examine aspects of early childhood education in detail.



**ECE 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: Instructor's permission

**ECE 287 COOPERATIVE EDUCATION 1–12 CREDITS**

Focuses on 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 101 ECONOMICS OF SOCIAL ISSUES 3 CREDITS**

Examines the major socio-economic issues of the past century. Covers poverty and growth, education, health care, pollution and discrimination.

**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 economics theories, supply and demand, national income accounting, money and banking, market structures and contemporary economic issues.

**ECO 201 PRINCIPLES OF MACROECONOMICS 3 CREDITS**

Focuses on the study of the American economy, stressing the interrelationships among household, business, and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade. This course is one of the Statewide Guaranteed Transfer courses. GT-SS1

**ECO 202 PRINCIPLES OF MICROECONOMICS 3 CREDITS**

Studies the firm, the nature of cost, and how these relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence. This course is one of the Statewide Guaranteed Transfer courses. GT-SS1

**ECO 245 ENVIRONMENTAL ECON. 3 CREDITS**

Introduces students to contemporary environmental issues and policies meant to reduce environmental degradation. Includes market failures, analytical tools, government pollution reduction policies for air, water, and natural environments and their effectiveness. This course is one of the Statewide Guaranteed Transfer courses. GT-SS1

**ECO 275 SPECIAL TOPICS 1–6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**ECO 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: Instructor's permission

## Education

**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 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 adult learning programs and will offer information on additional resources and associations in the field of Adult Education.

**EDU 132 PLANNING, ORGANIZING AND DELIVERING ADULT EDUCATION INSTRUCTION 3 CREDITS**

Covers 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**

Specifically Addresses 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 higher level.

**EDU 134 TEACHING ENGLISH AS A SECOND LANGUAGE TO ADULT LEARNERS 3 CREDITS**

Introduces the development and implementation of a program to teach English to adults whose first language is not English. Topics will range widely 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 give practical advice on the development and implementation of a family literacy program. 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 in-depth exploration of special topics of interest.

PREREQUISITE: Instructor's permission

**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: Instructor's permission

**EDU 187 COOPERATIVE EDUCATION 1-2 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 works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer or work site supervisor.

**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. Special interest will be paid to the topic of diversity in the K-12 school system.

**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 U.S. 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: 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: EDU 221 or EDU 260

**EDU 262 ASSESSMENT OF STUDENT ACADEMIC ACHIEVEMENT 3 CREDITS**

Focuses on assessment as fundamental to the improvement of student academic achievement in the 21st century learning college. Analyzes methods for assessing academic achievement in 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: EDU 221 or EDU 260

**EDU 263 TEACHING AND LEARNING ONLINE 3 CREDITS**

Provides faculty with the knowledge and skills necessary to design, develop, and deliver courses in a distance format. Focuses on assessment and evaluation methods and methods to incorporate interactive, collaborative and expanded learning activities. PREREQUISITE: EDU 221 or EDU 260 or Instructor's permission

**EDU 264 FACULTY MENTORING 3 CREDITS**

Provides the student with an understanding of and skills in mentoring new teachers/faculty in an academic institution. Explores the six dimensions of effective mentoring, mentoring phases, how to establish and build the mentor/mentee relationship, and constructive feedback techniques. Students designate a potential mentee for practical experience throughout this course. PREREQUISITE: EDU 221 or EDU 260 or Instructor's permission

**EDU 265 INSTRUCTIONAL DESIGN 3 CREDITS**

Introduces the student to a systematic approach to Instructional Design and the design of instruction with multimedia. Incorporates learning and instructional theory into course/training design to ensure the quality of instruction. Covers the process of goal analysis and learning needs coupled with the development of a delivery system to meet those needs. Includes the development of instructional materials and activities and the evaluation of all instruction and learner activities. PREREQUISITE: EDU 221 or EDU 260 or Instructor's permission

**EDU 275 SPECIAL TOPICS 1–6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth 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: Instructor's permission

**EDU 287 COOPERATIVE EDUCATION 1–12 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 works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer or work site supervisor.

PREREQUISITE: 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: Instructor's permission

**Electronics Engineering Technology****ELT 101 SURVEY OF ELECTRONICS 3 CREDITS**

Introduces electronics for consumers, individuals working in related fields, and those exploring Electronics Engineering Technology as a career option. Covers fundamental concepts, circuit diagrams, construction of circuits, test instruments, basic troubleshooting, and the operation of common electronic systems and circuits.

**ELT 106 FUNDAMENTALS OF DC/AC 3 CREDITS**

Introduces the basic skills needed for many careers in electronics and related fields. Covers the operations and applications of basic DC and AC circuits consisting of resistors, capacitors, inductors, transformers and diodes. Emphasizes the use of common test instruments in troubleshooting. PREREQUISITE: Minimum CPT Algebra score of 45. COREQUISITE: MAT 116

**ELT 109 QUALITY BUSINESS PRACTICES 1 CREDIT**

Covers current business practices designed to improve productivity and quality in the workplace. Addresses practices affecting materials and process control, as well as personnel-related issues of performance and work teams.

**ELT 112 ADVANCED DC/AC 3 CREDITS**

Continues to build on ELT 106 and covers advanced concepts of DC-AC circuits. Includes an expanded treatment of power supplies, dual-supply rectifier circuits, and Zener diode voltage regulators. Emphasizes troubleshooting. PREREQUISITE: ELT 106

**ELT 113 ADV. 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.

PREREQUISITES: ELT 112, MAT 117

**ELT 136 INTRODUCTION TO TRANSISTORS 2 CREDITS**

Introduces the operation and applications of bipolar transistors, JFETs and MOSFETs. Includes switching circuits, single-stage small-signal amplifiers and troubleshooting. PREREQUISITE: ELT 106

**ELT 137 ADVANCED TRANSISTORS 3 CREDITS**

A continuation of ELT 136 with specifications and additional applications of bipolar transistors, JFETs and MOSFETs. Covers voltage regulation, common-collector, and power amplifiers. Includes analyses of single and cascaded amplifier stages. Emphasizes troubleshooting. PREREQUISITE: 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.

PREREQUISITE: 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. PREREQUISITE: 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. PREREQUISITE: 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, multiplexers, 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: ELT 147

**ELT 149 DIGITAL DEVICES: TROUBLESHOOTING 2 CREDITS**

Focuses on troubleshooting to the component level after a detailed circuit analysis of a digital system that is not microprocessor based is performed. PREREQUISITE: ELT 148

**ELT 161 ELECTROMECHANICAL TROUBLESHOOTING 1 CREDITS**

Focuses on troubleshooting electromechanical systems consisting of switches, relays and motors. Emphasizes teamwork. PREREQUISITE: ELT 101 or 106

**ELT 163 SOLDERING 1 CREDIT**

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.

**ELT 215 OPERATIONAL AMPLIFIERS 3 CREDITS**  
Focuses on a study of integrated operational amplifiers and their applications. Troubleshooting is emphasized.  
PREREQUISITE: 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. PREREQUISITES: 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. PREREQUISITE: ELT 137

**ELT 227 FCC LICENSE PREPARATION 1 CREDIT**  
Reviews electronics to enable students to pass the General Radiotelephone Operator examination for the FCC Commercial Radiotelephone license. Emphasizes 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. PREREQUISITE: ELT 225

**ELT 261 MICROPROCESSORS 3 CREDITS**  
Focuses on basic operation and applications of microprocessors. Enables the student to write machine and assembly language programs, interface microprocessors to various devices, and troubleshoot microprocessor-based systems. PREREQUISITE: ELT 148

**ELT 265 MICROCONTROLLERS 2 CREDITS**  
Provides the necessary software and hardware knowledge and skills to develop a microcontroller system. Incorporates programming tools and development software. PREREQUISITE: ELT 261

**ELT 267 INTRODUCTION TO ROBOTICS 1 CREDIT**  
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. PREREQUISITE: ELT 101 or ELT 106

**ELT 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**  
Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**ELT 285 INDEPENDENT STUDY 1-6 VARIABLE CREDITS**  
Course designed to meet the individual needs of students. PREREQUISITE: Instructor's permission

## Emergency Medical Services

**CCN 230 BASIC EKG INTERPRETATION 2 CREDITS**  
Develops the ability of the registered nurse to read and interpret the electrocardiogram of the critically ill client and apply treatment modalities. Requires critical thinking and analytic skills.

**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. COREQUISITE: EMS 170

**EMS 126 EMT BASIC REFRESHER 3 CREDITS**  
Provides required didactic and skills review for renewing EMT students. Accommodates the needs of the re-entry EMT student. PREREQUISITES: Current CPR card, current or less than 36 months expired EMT Basic certification.

**EMS 130 EMT INTRAVENOUS THERAPY 2 CREDITS**  
Focuses on cognitive and skill practice as required by Colorado Pre-hospital Care program for EMT Basic level IV approval. Examines criteria, procedures and techniques for ICV therapy, discusses fluid and electrolyte balance and principles and treatment for shock. PREREQUISITES: Current State EMT B Certification, all Hepatitis B vaccinations and current CPR card.

**EMS 134 THE GERIATRIC PATIENT 2 CREDITS**  
Focuses on working with the elderly population and is designed for healthcare providers (EMTs, paramedics, nurses). Utilizes various readings, assignments, papers, experiences and meetings with elderly people and patients to discover new ways of viewing the elderly and communicating and working with the geriatric patient. Covers the process of assessment of the elderly patient.

**EMS 136 EMT/PARAMEDIC SAFETY ISSUES IN THE FIELD 1 CREDIT**  
Provides EMTs and paramedics with the skills needed to quickly assess the scene for potential hazards to themselves. Introduces topics on scene safety, evaluation of potential problem patients, verbal communication control techniques, physical control techniques for the problem patient, and scene control techniques.

**EMS 150 PEDIATRIC EDUCATION FOR PRE-HOSPITAL PROFESSIONALS 1 CREDIT**  
Provides the student with core knowledge and skills necessary to provide emergency care to the pediatric patient. PREREQUISITE: 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 processes. COREQUISITE: EMS 125 or EMS 126

**EMS 213 PRE-HOSPITAL TRAUMA  
LIFE SUPPORT 1 CREDIT**

Provides basic and/or advanced trauma life support information and skill practice. PREREQUISITE: 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 pre-hospital environment.

**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: EMT Basic

**EMS 226 FUNDAMENTALS OF  
PARAMEDIC PRACTICE-LAB 2 CREDITS**

Serves as the lab experience to coincide with EMS 225 topics. PREREQUISITE: Acceptance in paramedic program-site specific. COREQUISITE: EMS 225

**EMS 227 PARAMEDIC  
SPECIAL CONSIDERATIONS 3 CREDITS**

Focuses on a comprehensive study of Advanced Life Support Practice. PREREQUISITE: 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: Acceptance to paramedic program-site specific. COREQUISITE: EMS 227

**EMS 229 PARAMEDIC PHARMACOLOGY 3 CREDITS**

Focuses on a comprehensive study of emergency pharmacology. PREREQUISITE: 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: 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: 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: Acceptance to paramedic program-site specific

**EMS 233 PARAMEDIC  
MEDICAL EMERGENCIES 4 CREDITS**

Focuses on a comprehensive study of adult medical emergencies. PREREQUISITE: 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: 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: Acceptance to paramedic program-site specific

**EMS 236 PARAMEDIC TRAUMA LAB 1 CREDIT**

Serves as a lab presenting various acute trauma scenarios. PREREQUISITE: Acceptance to paramedic program-site specific

**EMS 237 PARAMEDIC  
INTERNSHIP PREPARATORY 2 CREDITS**

Reviews concepts and techniques used in the pre-hospital setting. PREREQUISITE: Acceptance to paramedic program-site specific

**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: Acceptance to paramedic program-site specific

**EMS 281 PARAMEDIC INTERNSHIP II 6 CREDITS**

Serves as the continuation of EMS 280, preceptor program for paramedic students. PREREQUISITE: Acceptance to paramedic program site specific

**EMS 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. PREREQUISITES: Instructor's permission employment strategies

## Employment Strategies

**COM 101 EMPLOYMENT STRATEGIES 1 CREDIT**

Offers students the development of skills that are needed to search for a job.

## Engineering

**EGG 100 INTRODUCTION TO  
ENGINEERING 1 CREDIT**

Introduces 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, programs of study, types of work and tasks in each discipline and compensation ranges. Tours and speakers will be arranged. PREREQUISITE: Two years of high school algebra

**EGG 101 ENGINEERING GRAPHICS I 3 CREDITS**

Provides an application of engineering graphics as a communication form and a tool to solve three-dimensional design problems. Topics include: Orthographic, axonometric, and isometric projections, sections and auxiliary views, the geometry of lines, planes, and curved surfaces. This course is an introduction to PC-based, menu driven, 3D Computer Aided Design Systems, Spreadsheets, and Freehand Drawing. PREREQUISITES: MAT 121, 122 or equivalent

**EGG 105 LOGIC DESIGN 4 CREDITS**

Covers 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, Algorithmic 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. PREREQUISITES: MAT 121, 122 or equivalent

**EGG 211 ENGINEERING MECHANICS I (STATICS) 3 CREDITS**

Focuses on the vector and calculus treatment of forces and force systems. Covers concurrent and noncurrent force systems. Includes calculating moments of friction, trusses, centroids and moments of inertia. PREREQUISITES: MAT 201, PHY 211. COREQUISITE: MAT 202

**EGG 212 ENGINEERING MECHANICS II (DYNAMICS) 3 CREDITS**

Focuses on vector and calculus treatment of the dynamics of particles and rigid bodies using Newton's Laws. Includes work-energy impulse momentum, and free and forced oscillations. PREREQUISITES: EGG 211, MAT 202, PHY 211

**EGG 221 CIRCUIT ANALYSIS I 4 CREDITS**

Covers the basic theorems of circuit analysis. Transient solution of circuits by classical techniques. Steady-state sinusoidal 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. PREREQUISITES: MAT 202, PHY 212

**EGG 222 CIRCUIT ANALYSIS II 4 CREDITS**

Familiarizes 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: 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: 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 A.A. and A.S. 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, REA 060 and/or REA 090.

English 131 is a college-level course 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.

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 060 LANGUAGE FUNDAMENTALS 3 CREDITS**

Focuses on paragraph structure and development and introduces the formal essay. Enables the student to review and improve grammar, usage, and punctuation skills while employing critical thinking strategies and the writing process to respond to a wide variety of writing situations. PREREQUISITE: CPT sentence skills score 50-69. COREQUISITE: concurrent enrollment in REA 060/090 strongly recommended

**ENG 090 BASIC COMPOSITION 3 CREDITS**

Emphasizes critical thinking as students explore writing for specific purposes and audiences. Enables the student to develop skills required for college-level writing while reviewing paragraph structure and focusing on essay development. PREREQUISITES: ENG 060 or CPT sentence skills score 70-94. COREQUISITE: 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. This course includes a minimum of five compositions that stress analytical, evaluative, and persuasive/argumentative writing. This course is one of the Statewide Guaranteed Transfer courses. GT-CO1.

**ENG 122 ENGLISH COMPOSITION II 3 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. This course is one of the Statewide Guaranteed Transfer courses. GT-CO2.

**ENG 131 TECHNICAL WRITING I 3 CREDITS**

Develops skills one can apply to a variety of technical documents. Focuses on principles for organizing, writing, and revising clear, readable documents for industry, business, and government. PREREQUISITES: ENG 090 with a grade of "C" or better or CPT sentence skills score of 95+ and reading score of 80+

**ENG 221 CREATIVE WRITING I 3 CREDITS**

Teaches techniques for creative writing. Explores imaginative uses of language through creative genres (fiction, poetry, literary nonfiction) with emphasis on the student's own unique style, subject matter and needs. PREREQUISITE: ENG 121 with a "C" or better or Instructor's permission

**ENG 222 CREATIVE WRITING II 3 CREDITS**

Provides continued development of written expression in such forms as poetry, fiction, and/or nonfiction writing. PREREQUISITE: ENG 221 or Instructor's permission

**ENG 226 FICTION WRITING 3 CREDITS**

Teaches techniques for creating fiction, including the study and appreciation of the language and forms of the short story. PREREQUISITE: ENG 221 or Instructor's permission

**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 231 LITERARY MAGAZINE 3 CREDITS**

Teaches the student the editorial process involved in preparing a literary magazine for publication. Covers the process of selection of material (fiction, nonfiction, poetry, and visual art) to be published, as well as design, layout, and production to prepare a manuscript for publication. Enables the student to produce a literary magazine.

**ENG 235 RHETORIC AND PROPAGANDA 3 CREDITS**

Examines classical and modern theories of rhetoric, understood as effective, ethical means of persuasion, and the ways in which propaganda departs from these means. Enables the student to apply theories of rhetoric and propaganda to examples of presidential rhetoric, Nazi and Soviet propaganda, and other examples of persuasive writing. Includes the study of visual rhetoric with students constructing criteria for identifying visual propaganda, and studying the complex relationship, historically and in the present, between propaganda, democracy, advertising, and mass media.

**ENG 275 SPECIAL TOPICS:**

**RHETORIC 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**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**

Reviews basic grammar and introduces intermediate structures. Provides integrated practice through a variety of oral and written exercises.

**ESL 043 ADVANCED READING 3 CREDITS**

Prepares the student for academic reading assignments. Assists the student to read more accurately and critically through the development of vocabulary knowledge and reading skills. Introduces research skills. PREREQUISITE: 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.

**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: 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**

Provides an in-depth study of the U.S. monetary system, the role of banks as financial intermediaries, and the types of financing. Includes international financial markets and international financial instruments used in importing and exporting, analysis of stock and bond values, the role and process of the stock and bond markets and the derivative marketplace. Enables the student to produce a cash budget, analyze financial statements including all financial ratios used in credit analysis, and determine capital requirements and financing arrangements.

**FIN 105 PRINCIPLES OF BANKING 2-3 VARIABLE CREDITS**

Explores nearly every aspect of banking as a solid foundation for any career in the financial services industry. Just as the industry is constantly changing, this course is continually being revised to provide specific up-to-date information.

**FIN 110 INTRO TO CREDIT UNIONS 2 CREDITS**

Introduces the credit union movement and includes an explanation of the nature of credit unions, history, and a review of affiliated organizations. Focuses on the legal basis for the operation of a credit union and the powers and characteristics of credit unions. Examines the roles and functions of credit union management and volunteers. Addresses bonding, insurance, and the developing credit union financial system.

**FIN 113 CREDIT UNION ACCOUNTING PROBLEMS 2 CREDITS**

Focuses on terms and procedures basic to accounting and unique to credit unions. Covers 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 131 INTRO MORTGAGE BANKING 2 CREDITS**

Focuses on the entire mortgage loan process. Enables the student to apply the components of the mortgage loan process to a simulated workplace situation beginning with origination and the sale of the loan through the secondary market or to a private investor.

**FIN 132 RESIDENTIAL MORTGAGE LOAN ORIGATION 1 CREDIT**

Introduces the basic procedures of Residential Mortgage Loan Origination for Conventional, Conforming/Non-Conforming and government loans. Enables the student to determine the acceptability of a loan for underwriting and evaluate the market conditions that effect the loan process.

**FIN 133 RESIDENTIAL MORTGAGE PROCESSING 1 CREDIT**

Introduces the basic guidelines and functions of Residential Mortgage Processing. Incorporates analysis of the 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 LOAN 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 205 CONSUMER LENDING 2 CREDITS**

Provides an introduction to the field of consumer credit and consumer lending activities performed by savings association personnel. Designed for students with little or no background in consumer credit.

**FIN 210 INTERNATIONAL FINANCE 3 CREDITS**

Examines the basics of the foreign exchange market and exchange rate determination. The course will discuss creating and adjusting currency positions covering hedging, currency options, forecasting of exchange rates and the principals of parity. 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 211 COMMERCIAL LENDING 3 CREDITS**

A basic course in commercial loan origination, 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 226 MONEY AND BANKING 3 CREDITS**

Presents a fundamental treatment of how money functions in the U.S. and world economies. Includes the concept of money supply, the Federal Reserve System, the role banks play as a money creator and participant in the nation's payment mechanism. Examines how the various types of financial institutions operate, the working of monetary and fiscal policies, and the role of a Central Bank and International Banking.

**FIN 235 ANALYZING FINANCIAL STATEMENTS 1 CREDIT**

Provides a practical understanding of financial statement analysis for a business borrower in order to assess repayment capacity. This course may be taught as an accelerated course. PREREQUISITES: ACC 121, 122

**FIN 237 ADVANCED LOAN PROCESSING 1 CREDIT**

Develops advance levels and functions of Residential Mortgage Processing. Incorporates analysis of the 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. This class teaches students how to reduce underwriting conditions and speed up closings.

**FIN 240 LAW AND BANKING PRINCIPLES 2 CREDITS**

Serves as a banker's guide to law and legal issues with special emphasis on the Uniform Commercial Code. Examines sources and applications of banking law, contracts, bankruptcy, torts and crimes, real and personal property, and the legal implications of consumer lending.



**FIN 245 LAW AND BANKING APPLICATIONS 2 CREDITS**

Introduces the laws pertaining to secured transactions, letters of credit, and the bank collection process. Enables the student 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 MARKETING FOR BANKERS 2 CREDITS**

Focuses on the motivation of customers to purchase financial services and how to develop a successful marketing plan. Enables the student to recognize consumer motivation and buying behavior. Examines how to integrate public relations, advertising, sales promotion, selling and service distribution functions in the bank's overall marketing plan. Incorporates situational analysis to develop a master market strategy and monitor and evaluate marketing performance versus objectives.

**FIN 255 UNDERSTANDING AND SELLING BANK PRODUCTS 2 CREDITS**

Focuses on the six human relations skills that encourage smooth, clear and personal communication with the customer. Emphasizes the basic steps of selling, information about bank products, and product benefits (rather than the features) and how to spot clues about customer needs. Covers the importance of cross-selling, how to recognize the typical prospects for various categories of bank products, and how to suggest products and overcome resistance to conclude the sale.

**FIN 260 RETIREMENT/PENSION PLANNING AND INVESTMENT 3 CREDITS**

Focuses on Defined Contribution and Defined Benefit Pension Accounts and Individual Retirement Accounts such as SEPPS and Keoghs. Covers the difference between qualified and non-qualified pension accounts and deferred benefit accounts. Addresses the regulations involving participation and withdrawal. Includes the types of investments that can be made through the different retirement vehicles and the tax ramifications of various types of accounts.

**FIN 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**FIN 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: Instructor's permission

**FIN 287 COOPERATIVE EDUCATION 3 CREDITS**

Provides students an opportunity to gain practical experience in applying their skills and/or develop specific skills in a practical work setting. The Instructor works with the student to select an appropriate work site, establish learning objectives and to coordinate learning activities with the employer or work site supervisor. PREREQUISITES: Instructor's permission and completion of half of program coursework

## French

**FRE 101 CONVERSATIONAL FRENCH I 3 CREDITS**

Introduces beginning students to conversational French and focuses on understanding and speaking French. Covers basic vocabulary, grammar, and expressions that are used in daily situations and in travel.

**FRE 102 CONVERSATIONAL FRENCH II 3 CREDITS**

Continues the sequence for beginning students who wish to understand and speak French. Covers basic conversational patterns, expressions, and grammar. PREREQUISITE: FRE 101 or Instructors permission.

**FRE 111 FRENCH LANGUAGE I 5 CREDITS**

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading and writing the French language.

**FRE 112 FRENCH LANGUAGE II 5 CREDITS**

Continues French I in the development of functional proficiency in listening, speaking, reading and writing the French language. PREREQUISITES: FRE 111 or Instructor's permission

**FRE 201 CONVERSATIONAL FRENCH III 3 CREDITS**

Continues the sequence for students who wish to continue their study of understanding and speaking French. Covers intermediate level vocabulary, grammar, and expressions. PREREQUISITE: FRE 102 or Instructors permission

**FRE 202 CONVERSATIONAL FRENCH IV 3 CREDITS**

Continues the sequence for students to advance their study of understanding and speaking French. Covers intermediate level conversational patterns, expressions, and grammar. PREREQUISITE: FRE 201 or Instructor's 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 French language. Note: The order of the topics and the methodology will vary according to individual texts and Instructors. PREREQUISITE: FRE 112 or Instructor's permission. This course is one of the Statewide Guaranteed Transfer courses (GT-AH4).

**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 French language. Note: The order of the topics and the methodology will vary according to individual texts and Instructors. PREREQUISITE: FRE 211 or Instructor's permission. This course is one of the Statewide Guaranteed Transfer courses (GT-AH4).

**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**

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified Instructor. PREREQUISITE: 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

Builds upon the spatial analysis principles and concepts of GIS 120. Students work with more advanced analytical tools and develop skills in spatial problem solving.

## Geography

### GEO 105 WORLD REGIONAL GEOGRAPHY 3 CREDITS

Facilitates an understanding of spatial relationships between and among the geographic regions of the world. Includes demographic and cultural (political, economic, and historic) forces related to the physical environments of selected regions. Focuses on analysis of interrelationships between developed and developing regions, and the interactions between human societies and natural environments. This course is one of the Statewide Guaranteed Transfer courses. GT-SS2.

### GEO 106 HUMAN GEOGRAPHY 3 CREDITS

Introduces geographic perspectives and methods with applications to the study of human activities. Emphasizes the distribution of humans, adjustments to the natural environment, and land use practices. This course is one of the Statewide Guaranteed Transfer courses. GT-SS2.

### GEO 107 PHYSICAL GEOGRAPHY 3 CREDITS

Focuses on the study of the spatial relationship between humans and the natural environment. Covers five main themes: the atmosphere (weather and climate); the hydrosphere (water bodies and rivers); the lithosphere (Earth's crust and landforms); the biosphere (soil, plant, and animal relationships); and the impact of the human population on these environmental factors. Recommended for students interested in environmental studies, earth science, and geography.

### GEO 165 HUMAN ECOLOGY 3 CREDITS

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

Meets the individual needs of students. Students engage in

intensive study or research under the direction of a qualified Instructor. PREREQUISITE: 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. GT-SC1.

### 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 lifeforms, and physical events, all within the framework of shifting crustal plates. Course includes laboratory experience. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1.

### 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 THE 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: Instructor's permission

### GEY 275 SPECIAL TOPICS 1-6 VARIABLE 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 CREDITS

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified Instructor. PREREQUISITE: Instructor's permission

## Health Professions

### HPR 106 LAW AND ETHICS FOR HEALTH PROFESSIONS 2 CREDITS

Introduces student to the study and application medico-legal concepts in medical careers. This course seeks to establish a foundation for ethical behavior and decision making in health professions. PREREQUISITES: Determined by

individual program guides. COREQUISITES: Determined by individual program guides.

**HPR 112 PHLEBOTOMY 4 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. COREQUISITE: HPR 113

**HPR 113 ADVANCED PHLEBOTOMY 4 CREDITS**

Instructs students in advanced phlebotomy techniques to include patients in trauma, neonatal, geriatric, and long term acute care areas. In addition, laboratory procedures taught include specimen processing and advanced point-of-care instrumentation. This course includes a lecture/lab combination that teaches theory and direct application of theoretic content and clinical opportunities for student to master learned skills. COREQUISITE: HPR 112

**HPR 117 ANATOMICAL KINESIOLOGY 3 CREDITS**

Studies the Anatomical Bases of Human Movement. PREREQUISITE: BIO 201

**HPR 178 MEDICAL TERMINOLOGY 3 CREDITS**

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

**HPR 240 ROLE OF DEATH AND BEREAVEMENT IN SOCIETY 3 CREDITS**

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: PSY 101

**HPR 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**HPR 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: 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.

**HWE 108 WEIGHT LOSS 1 CREDIT**

Focuses on combining a healthy diet and exercise to shed unwanted pounds and inches. The course will include

classroom sessions that will focus on personal habits including diet that lead to weight gain and exercise session in the Fitness Center.

**HWE 122 RESPONDING TO EMERGENCIES 2 CREDITS**

Provides standard first aid and CPR, with a more in-depth look at sudden illness, specific disease, and emergencies.

**HWE 124 FITNESS AND WELLNESS 2 CREDITS**

Provides information on fitness and wellness and to serve 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 125 INTRODUCTION TO HUMAN PERFORMANCE AND SPORTS 3 CREDITS**

This class is a survey of the discipline of kinesiology, including knowledge derived from performing physical activity, studying about physical activity, and professional practice centered in physical activity. It includes an analysis of the importance of physical activity in daily life, the relationship between physical activity and the discipline of kinesiology, the general effects of physical activity experiences. The course surveys the general knowledge base of the discipline as reflected in the major sub-disciplines and reviews selected concepts in each, showing how they contribute to our understanding of the nature and importance of physical activity. In addition, the course introduces students to the general characteristics of the professions to specific types of physical activity professions typically pursued by those graduating from a program of kinesiology, and assists them in making some early career decisions.

**HWE 136 SKILLS AND METHODS OF TEACHING WEIGHT TRAINING 3 CREDITS**

This course is intended for HUP majors. It is designed to acquaint the student with the basic skills, methods and techniques necessary to be a competent exercise leader in the area of resistance training. Emphasis will be placed on understanding selection of appropriate teaching progressions that relate to the weight room and fitness facility as well as the science of human motion and muscle/joint structure and function as it relates to fitness.

**HWE 230 EXERCISE AND SPORTS PSYCHOLOGY 3 CREDITS**

Teaches students how to apply behavioral principles and techniques that may help people increase their motivation to exercise and change health-impairing behaviors. The course is based on research, theory, and practical application in the field of physical activity. Examination of theories and current research related to sport and exercise behavior will be covered. The student will be introduced to the field of

kinesiology by providing a broad overview of the major topics in the area. THIS COURSE WILL NOT FULFILL AN A.A. TRANSFER CREDIT FOR PSYCHOLOGY.

**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**

Introduces the student to the physiological responses and adaptations of individuals to exercise as well as the application to sports medicine, rehabilitation and general fitness. The laboratory provides experiences that demonstrate the underlying theoretical constructs that govern physiological responses and adaptations to exercise. PREREQUISITE: BIO 201, "C" or better

**HWE 248 GUIDELINES FOR EXERCISE TESTING AND PRESCRIPTION 3 CREDITS**

Provides 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.

**HWE 280 INTERNAL PRACTICUM/INTERNSHIP 3 CREDITS**

This course is designed for all majors in the Human Performance Program and provides the student "on-the-job training." The student will have the opportunity to further integrate academic knowledge and apply those skills gained through the Human Performance degree curriculum. Working in various capacities within the ACC Fitness/Aquatic Center, Physical Education Department and the Employee Wellness Program will be required. Students should receive entry-level proficiency at the completion of this course. Graded as Satisfactory/unsatisfactory.

## Health Information Technology

**HIT 101 HEALTH INFORMATION MANAGEMENT SCIENCE 6 CREDITS**

Introduces the student to the health record, from inception to completion. Emphasis is on form, content and regulations impacting the health record in the various health care settings. Other areas to be discussed include the computerized aspects of the health record as well as the functions and responsibilities of the health information department. This course also examines various health care delivery systems and health care practitioners. The dilemmas of health care with attention directed to current events and how these events impact our profession are discussed. PREREQUISITE: acceptance into HIT Program

**HIT 105 PHYSICIAN PRACTICE: CODING AND REIMBURSEMENT 3 CREDITS**

Provides 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, reimbursement

guidelines for different payer classes, and fraud abuse issues. PREREQUISITE: HPR 178 . COREQUISITES: MOT 125, 133, 135

**HIT 111 HEALTH DATA MANAGEMENT 3 CREDITS**

Focuses on the effective collection, presentation and verification of health care data necessary for the preparation of administrative and clinical reports. The role of data in clinical research, vital statistics and epidemiology will be discussed. Laboratory activities will focus on manual and automated data presentation techniques and on the interpretation and analysis of health care data. The role of the health information professional in transforming data into meaningful information for use in clinical and financial decision making will be stressed. Data reliability and validity will be emphasized. PREREQUISITES: CIS 118, HIT 101

**HIT 112 LEGAL ASPECTS 2 CREDITS**

Introduces the student to the legal system and identifies the role of the HIM professional in this system. Specific Federal and State laws are identified and discussed as they relate to release of medical information. Proposed Federal and State legislation that affects the health care industry is examined and discussed. PREREQUISITE: 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. PREREQUISITES: HIT 101, 105, 111, 112, HPR 178, MOT 125, 133, 135

**HIT 221 CLINICAL CLASSIFICATION SYSTEMS I 5 CREDITS**

Studies nomenclatures and classification systems with emphasis on the most recent revision of ICD-9-CM. Students study the coding conventions and principles for this system. These skills are then applied to the coding of actual medical records from area facilities. PREREQUISITES: completion of all first year HIT courses, HPR 178, MOT 125, 133, 135

**HIT 222 QUALITY MANAGEMENT 3 CREDITS**

Introduces the student to the basic concepts of quality management in the health care environment. Requirements by regulatory agencies regarding quality, utilization and risk management are discussed. Data collection, verification, analysis and presentation techniques will be studied. The course emphasizes the ongoing use of objective data and feedback to improve processes, systems and patient outcomes. PREREQUISITES: HIT 101, 105, 111, 112, 188, 221

**HIT 225 HEALTH INFORMATION MANAGEMENT 3 CREDITS**

Concentrates on the principles of management as they relate to the administration of the health information management department as part of a health care organization. PREREQUISITES: HIT 101, 105, 111, 112, 188, 221, 231, MOT 125, 133, 135

**HIT 231 CLINICAL CLASSIFICATIONS SYSTEMS II 5 CREDITS**

Provides an intermediate study of ICD-9-CM coding conventions and principles. DRG and case mix logic along with regulations regarding their use in conjunction with optimization and compliance issues will be discussed. CPT/HCPCS in both the hospital-based outpatient and physician office settings will be studied. Students apply these skills in assigning codes for actual medical records from area facilities. PREREQUISITES: completion of all first year HIT courses and HIT 221

**HIT 241 CPT CODING BASIC PRINCIPLES 2 CREDITS**

Provides the student with skill sets to apply the current procedural terminology (CPT) and HCPCS code set principles and guidelines for application in reporting/communicating information and data about clinical services provided to patients by healthcare providers. Includes understanding what the CPT nomenclature is, how and why it is used, and guidelines for each code category and how it is applied to represent services within each code category. PREREQUISITES: HIT 221, 231, HPR 178, MOT 125, 133 135

**HIT 251 INTRODUCTION TO HEALTHCARE VOCABULARIES AND TERMINOLOGIES, CODE SETS AND CLASSIFICATIONS 2 CREDITS**

This course is designed to provide the student with a concrete understanding and foundation of healthcare terminologies, code sets and classification schemes and associated standards. The student will gain an understanding of inoperability and the role it plays in the application of each system as it pertains to the adoption of the HER. The student will learn the principles of each system; the role of each in reporting clinical information and services in the healthcare delivery enterprise. Topics include understanding vocabularies, terminology and classification systems, data set standards, data interchange standards, and the Unified Medical Language System (UMLS) database. PREREQUISITES: HPR 178, MOT 125, 133, 135, HIT 101, 111, 112, 221. COREQUISITE: HIT 231

**HIT 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**HIT 285 INDEPENDENT STUDY 1-6 VARIABLE 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: Instructor's permission

## History

**HIS 101 WESTERN CIVILIZATION I 3 CREDITS**

Explores a number of events, peoples, groups, ideas,

institutions, and trends that shaped Western Civilization from the prehistoric era to 1650. Reflects the multiple perspectives of gender, class, religion, and ethnic groups. Focuses on developing, practicing, and strengthening the skills historians use while constructing knowledge in this discipline. This course is one of the Statewide Guaranteed Transfer courses. GT-HI1

**HIS 102 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. GT-HI1

**HIS 201 UNITED STATES 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. GT-HI1.

**HIS 202 UNITED STATES 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. GT-HI1.

**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. This course is one of the Statewide Guaranteed Transfer courses. GT-HI1.

**HIS 260 HISTORY OF UNITED STATES FOREIGN RELATIONS 3 CREDITS**

This course provides an overview of the history of the United States foreign relations from the colonial era to the present and will include the pertinent political, military, economic, diplomatic, social, religious, ideological and cultural topics. At various points, issues such as race, class, gender, immigration, expansion and the environment will be covered. This course also focuses on developing, practicing

and strengthening the skills historians use while conducting knowledge in the discipline.

**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:** Instructor's permission

## Humanities

**HUM 103 INTRODUCTION TO FILM ART 3 CREDITS**

Studies the relationships among film's stylistic systems, narrative systems and audience reception. Students view, discuss and critically analyze a variety of films which represent key historical and aesthetic periods as well as a variety of genres and themes. The course incorporates the vocabulary stylistic systems (for instance, cinematography, editing and art direction) and narrative systems (for instance, story structure and character motivation) as both relate to the kinds of meanings a film conveys.

**HUM 115 WORLD MYTHOLOGY 3 CREDITS**

Introduces students to the mythologies of various cultures with a special emphasis on Greece, Asia and North America. Common themes are illustrated and some artistic reactions are used as examples.

**HUM 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 EARLY CIVILIZATIONS 3 CREDITS**

Introduces students to the history of ideas that have defined cultures through a study of the visual arts, literature, drama, music, and philosophy. It emphasizes connections among the arts, values, and diverse cultures, including European and non-European, from the Ancient world to 1000 C.E. This course is one of the Statewide Guaranteed Transfer courses. GT-AH2.

**HUM 122 FROM MEDIEVAL TO MODERN 3 CREDITS**

Examines written texts, visual arts and musical compositions to analyze and reflect the evolution and confluence of cultures in Europe, Asia and the Americas from 800 C.E. to 1750 C.E. Any two of the three Survey of Humanities courses equal a sequence.

This course is one of the Statewide Guaranteed Transfer courses. GT-AH2.

**HUM 123 THE MODERN WORLD 3 CREDITS**

Examines the cultures of the 17th through the 20th

centuries by focusing on the interrelationships of the arts, ideas, and history. Considers the influences of industrialism, scientific development and non-European peoples. This course is one of the Statewide Guaranteed Transfer courses. GT-AH2.

**HUM 164 AMERICAN CINEMA 3 CREDITS**

Introduces film studies and surveys the American film industry as an art form, as an industry, and as a system of representation and communication. This course explores how Hollywood films work technically, aesthetically, and culturally to re-enforce and challenge America's national self image.

**HUM 201 TWENTIETH CENTURY AMERICAN ART 3 CREDITS**

Focuses on elements common to the arts of film, painting, architecture, literature and music of 20th century United States. Students study the effects of the economy, business and industry and traditional North American values and dreams on the arts.

**HUM 220 THE CULTURAL HISTORY OF ROCK AND ROLL 3 CREDITS**

Teaches students to read about, write about, and discuss the social history of that very broad term, "rock and roll." We explore important themes in American (and British) social and cultural history through the study of popular music, as well as to examine how popular and critical tastes are reflections of artistic, cultural, sexual, economic and ideological sensibilities at the time of its production. In order to fully understand what the culture of "rock" is all about, we critically analyze the influence of technology, ideology, class, gender, and race on various genres of music – jazz, country, rhythm and blues, techno, heavy metal, and hip hop. We also examine how rock and roll influenced (and is influenced by) other arts, particularly literature and film. Emphasis is placed on understanding the social and cultural contexts of the various music forms rather than on a rigorous understanding of the musical forms themselves.

**HUM 275 SPECIAL TOPICS 1–6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**HUM 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:** Instructor's permission

## Interior Design

**IND 100 INTERIOR DESIGN FUNDAMENTALS 4 CREDITS**

Introduces 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. **PREREQUISITES:** Attend an Interior Design Orientation; Minimum CPT scores: 80 for Reading Comprehension; 95 for Sentence Skills and 57 for Arithmetic or equivalent (see interior design degree program)

**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. PREREQUISITES: IND 100; CIS 118

**IND 108 PROFESSION SURVEY 1 CREDIT**

Provides guest speakers who share experiences and insights concerning job types, opportunities, and the educational requirements for them, business practices, current work, professional organizations; tools, methods and educational requirements necessary for various positions; and prevailing professional attitudes. PREREQUISITES: Attend an Interior Design Orientation; Minimum CPT scores: 80 for Reading Comprehension; 95 for Sentence Skills and 57 for Arithmetic or equivalent (see interior design degree program)

**IND 111 DRAFTING FOR INTERIORS 4 CREDITS**

Introduces the 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. PREREQUISITES: Attend an Interior Design Orientation; Minimum CPT scores: 80 for Reading Comprehension; 95 for Sentence Skills and 57 for Arithmetic or equivalent (see interior design degree program)

**IND 112 GRAPHIC COMMUNICATION 4 CREDITS**

Teaches 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. PREREQUISITES: IND 100, 111

**IND 114 SPACE PLANNING 3 CREDITS**

Teaches 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. PREREQUISITES: IND 100, 111

**IND 117 INTERIOR TEXTILES 2 CREDITS**

Emphasizes the study of fabrics, fibers, weaves, finishes, dyeing, and printing methods for residential and commercial fabrics and carpets. Resources are discussed and developed. PREREQUISITES: Attend an Interior Design Orientation; Minimum CPT scores: 80 for Reading Comprehension; 95 for Sentence Skills and 57 for Arithmetic or equivalent (see interior design degree program)

**IND 118 INTERIOR FINISHES 2 CREDITS**

Examines finish materials for residential and commercial interior design; preparation and installation techniques; introduction to specifications and estimating. PREREQUISITES: Attend an Interior Design Orientation; Minimum CPT scores: 80 for Reading Comprehension; 95 for Sentence Skills and 57 for Arithmetic or equivalent (see interior design degree program)

**IND 151 RESIDENTIAL DESIGN 4 CREDITS**

Teaches and applies the preliminary project phases of the residential design process. Project documentation is introduced and practiced. At least one portfolio project is produced. PREREQUISITES: IND 100, 111, 112, 114, 117, 118; 107 and 205 recommended

**IND 152 COMMERCIAL DESIGN I 2 CREDITS**

Introduces 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. PREREQUISITES: CIS 118, IND 100, 111, 112, 114, 117, 118; IND 205 recommended; COREQUISITES: IND 151 (strong drafting and space planning skills recommended if 151 taken with 152)

**IND 160 ACCESSORIZING 2 CREDITS**

Teaches how to assist clients in selection of art, antiques and accessories to aid in defining the character of the space. Styles and the eclectic mix of styles are covered, as well as placement and effective use of items.

**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. PREREQUISITES: IND 100, 108, 114; CIS 118; ENG 131

**IND 178 SEMINAR-MARKET TOUR 1-6 VAR CREDITS**

This course provides students with an experiential learning opportunity. PREREQUISITES: IND 100, 111, 117, 118

**IND 200 KITCHEN AND BATH DESIGN 4 CREDITS**

Provides the specialized design process and documentation requirements of kitchen and bath design and applies NKBA guidelines. Students become familiar with trade resources supporting the design field. At least two portfolio projects are produced. Students will be encouraged to produce project documents using a variety of computer software applications. PREREQUISITES: IND 151, 205, 211, 225; ENG 131; COREQUISITES: IND 211, 225

**IND 201 COMMERCIAL DESIGN II 4 CREDITS**

Emphasizes commercial design. Students 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. Students are encouraged to use the Internet for research, and to produce project documents using a variety of computer software applications. PREREQUISITES: IND 151, 152, 200, 205, 211, 225; CAD 105; ENG 131; COREQUISITES: IND 200, 225

**IND 205 PROFESSIONAL PRACTICE FOR INTERIOR DESIGNERS 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. PREREQUISITES: 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 today's market place. Measuring, installing, pricing, ordering, and resource development are investigated. Fabric weaves and weights, trims and linings are discussed, and creative treatments are designed and specified.

**IND 211 INTERIOR CONSTRUCTION 4 CREDITS**  
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 projects using the computer and CAD software. PREREQUISITES: IND 100, 111, 112, 114, 118; CAD 105; CIS 118

**IND 225 LIGHTING DESIGN 2 CREDITS**  
Teaches and applies basic knowledge of interior lighting technology and design. Content includes lamp classifications, color rendition, how lighting sources effect our perception of space, how to compute and control proper lighting levels, and how to communicate design information by means of a reflected ceiling plan and luminaire schedule. Students will be encouraged to produce projects using a variety of computer software applications. PREREQUISITES: IND 100, 111, 112, 114, 118; CIS 118

**IND 278 WORKSHOP-DESIGN PORTFOLIO 1 CREDIT**  
Provides students with an experiential learning opportunity. PREREQUISITES: IND 178 (RESUME), 200, 201; ENG 131

**IND 278 WORKSHOP-DESIGN RESEARCH 1 CREDIT**  
Provides students with an experiential learning opportunity. PREREQUISITES: IND 151, 152, 200, 205, 211, 225; ENG 131; COREQUISITES: IND 200, 211, 225

**IND 280 INTERNSHIP 4 VARIABLE CREDITS**  
Provides work experience in a business or industry; 45 fieldwork hours per credit hour. PREREQUISITES: IND 178 Resume, 200, 201; ENG 131

**IND 289 CAPSTONE: ADVANCED DESIGN 3 CREDITS**  
Provides a demonstrated culmination of learning within a given program of study. PREREQUISITES: IND 200, 201, 278 (DESIGN RESEARCH); ENG 131

## Insurance

**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 an 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**  
Students will gain knowledge of the Continuous Improvement Movement by studying the nature of the insurance business, customer identification, what customers want, methods for determining customer needs, key processes and benchmarking, the process improvement model, process improvement tools, leadership, teamwork and organizational structures and ways to check on progress.

**INS 230 ESSENTIALS OF RISK MANAGEMENT 3 CREDITS**  
Provides an understanding of the nature, purpose and steps of risk management; identifies and analyzes the loss exposures of individuals and organizations; examines alternative risk management techniques; and develops rules for choosing risk management techniques.

**INS 269 PERSONAL FINANCIAL PLANNING 3 CREDITS**  
Presents a one-semester course designed for individuals wishing to 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 AND BONDS 3 CREDITS**  
Provides the student with 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. This course covers the investment process using brokers, discount brokers, on-line trading or investment bankers. Also, students will learn how to price stocks and bonds and understand the concept of time value of money and transaction costs. The student will also understand derivative securities and mutual funds and long versus short term transactions. The student will understand how to build an investment portfolio.

**INV 215 ADVANCED INVESTMENTS 3 CREDITS**  
Provides the skills necessary to enter the investment industry. It prepares the student for the Series 7 Exam. Thus, it covers in detail the money market, capital market



and derivative market. This course covers the investment process using brokers, discount brokers, on-line trading or investment bankers. Also, students will learn how to price stocks and bonds and understand the concept of time value of money and transaction costs. The student will also understand derivative securities and mutual funds and long versus short term transactions. The student will understand how to build an investment portfolio. The student will also understand how to value all investments for holding period return. **PREREQUISITE:** an accounting course or investment course; or Instructor's permission

**INV 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:** Instructor's permission

## Japanese

**JPN 111 JAPANESE I 5 CREDITS**

Introduces a sequence dealing with the development of functional proficiency in listening, speaking, reading and writing the Japanese language. Note: The order of the topics and methodology will vary according to individual texts and Instructors.

**JPN 112 JAPANESE II 5 CREDITS**

Continues Japanese Language I in the development of functional proficiency in listening, speaking, reading and writing the Japanese language. Note: The order of the topics and the methodology will vary according to individual texts and Instructors. **PREREQUISITE:** JPN 111 or Instructor's permission

**JPN 211 JAPANESE III 3 CREDITS**

Continues Japanese Language I and II in the development of increased functional proficiency in listening, speaking, reading and writing the Japanese language. Note: The order of the topics and the methodology will vary according to individual texts and Instructors. **PREREQUISITE:** JPN 112 This course is one of the Statewide Guaranteed Transfer courses. GT-AH4.

**JPN 212 JAPANESE IV 3 CREDITS**

Continues Japanese Language I, II and III in the development of increased functional proficiency in listening, speaking, reading and writing the Japanese language. Note: The order of the topics and the methodology will vary according to individual texts and Instructors. **PREREQUISITE:** JPN 211 or Instructor's permission. This course is one of the Statewide Guaranteed Transfer courses. GT-AH4.

**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**

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified Instructor. **PREREQUISITE:** Instructor's permission

## Journalism And Mass Communication

**JOU 105 INTRO TO MASS MEDIA 3 CREDITS**

Places the mass media in an historical and cultural perspective, considering the validity, integrity and influence of the media in a democracy.

**JOU 106 FUNDAMENTALS OF REPORTING 3 CREDITS**

Introduces newswriting, reporting and interviewing with an emphasis on clarity, accuracy, completeness, timeliness and fairness. **PREREQUISITE:** ENG 121

**JOU 275 SPECIAL TOPICS 1-6 VAR. CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**JOU 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:** Instructor's permission

## Latin

**LAT 111 LATIN I 5 CREDITS**

Deals with the development of functional proficiency in listening, speaking, reading and writing Latin. Note: The order of the topics and methodology will vary according to individual texts and Instructors.

**LAT 112 LATIN II 5 CREDITS**

Continues Latin I in the development of functional proficiency in listening, speaking, reading and writing Latin. Note: The order of the topics and the methodology will vary according to individual texts and Instructors. **PREREQUISITE:** LAT 111

**LAT 211 LATIN III 3 CREDITS**

Continues Latin I and II in the development of increased functional proficiency in reading, translating and writing Latin, as well as listening and speaking Latin. This course provides the students with an opportunity to examine, compare and contrast language systems and understand the culture and values of the classical world. **PREREQUISITE:** LAT 112

**LAT 212 LATIN IV 3 CREDITS**

Continues Latin I, II and III in the development of increased functional proficiency in reading, translating and writing Latin, as well as listening and speaking Latin. This course provides the students with an additional opportunity to examine, compare and contrast language systems and understand the culture and values of the classical world. **PREREQUISITE:** LAT 211

**LAT 275 SPECIAL TOPICS 1-6 CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

## Literature

Recommended: College-level reading ability

### **LIT 115 INTRODUCTION TO LITERATURE 3 CREDITS**

Introduces students to fiction, poetry, and drama. Emphasizes active and responsive reading. This course is one of the Statewide Guaranteed Transfer courses. GT-AH2.

### **LIT 201 MASTERPIECES OF LITERATURE I 3 CREDITS**

Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful readings and understanding of the works and their cultural backgrounds. This course is one of the Statewide Guaranteed Transfer courses. GT-AH2.

### **LIT 202 MASTERPIECES OF LITERATURE II 3 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. GT-AH2.

### **LIT 205 ETHNIC LITERATURE 3 CREDITS**

Focuses on significant texts by ethnic Americans including African-American, Native American, Latino/a, and Asian Americans. Emphasizes careful reading and understanding of the cultural and literary elements of the works. This course is one of the Statewide Guaranteed Transfer courses. GT-AH2.

### **LIT 211 SURVEY OF AMERICAN LIT I 3 CREDITS**

Provides an overview of American literature from the Native American through the nineteenth century Romantics. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the Statewide Guaranteed Transfer courses. GT-AH2.

### **LIT 212 SURVEY OF AMERICAN LIT II 3 CREDITS**

Provides an overview of American literature from the mid-nineteenth century to the present. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers. This course is one of the Statewide Guaranteed Transfer courses. GT-AH2.

### **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 221 SURVEY OF BRITISH LIT I 3 CREDITS**

Provides an overview of British literature from the Anglo-Saxon period through the seventeenth century. It explores ideas, historical and social contexts, themes and literary characteristics of works in various genres by major writers.

This course is one of the Statewide Guaranteed Transfer courses. GT-AH2.

### **LIT 222 SURVEY OF BRITISH LIT II 3 CREDITS**

Provides 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. This course is one of the Statewide Guaranteed Transfer courses. GT-AH2.

### **LIT 225 INTRO TO SHAKESPEARE 3 CREDITS**

Explores a selection of works by William Shakespeare. It focuses on careful reading and interpretation of the plays and poems, includes pertinent information about Elizabethan England, and examines formal as well as thematic elements of the selected works. This course is one of the Statewide Guaranteed Transfer courses. GT-AH2.

### **LIT 232 GOTHIC LITERATURE 3 CREDITS**

Provides an overview of Gothic literature from the 1750's to the present. The course emphasizes careful reading, analysis, interpretation, and understanding of the works and their cultural and historical backgrounds. Critical thinking, discussion, and writing about significant works of Gothic literature will be used as tools to develop discriminating reading skills for lifetime enjoyment of the genre.

### **LIT 235 SCIENCE FICTION 3 CREDITS**

Examines the techniques and issues of science fiction through a close reading a variety of writers in the genre.

### **LIT 240 POETS AND THEIR POEMS 3 CREDITS**

Teaches strategies for reading, interpreting, discussion, 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**

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**

Evaluates the criteria for selecting appropriate literature for children through exploration of genres, age levels, values taught through literature, and the literary and artistic quality of various texts.

### **LIT 257 LITERATURE AND FILM 3 CREDITS**

Examines the relationship between literature and motion pictures, emphasizing the technique and interpretive function of filmmakers.

### **LIT 259 SURVEY OF AFRICAN-AMERICAN LITERATURE 3 CREDITS**

Examines African American literature from 1750 to the present, exploring ideas, historical and social contexts, themes, and literary characteristics of works in various genres by major writers.

### **LIT 266 INTRODUCTION TO C.S. LEWIS 3 CREDITS**

Introduces 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**

Introduces 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 269 POPULAR LITERATURE AND CULTURE 3 CREDITS**

Explores special interests in literature, such as Detective Fiction and Science Fiction.

**LIT 275 THE NOVEL APPROACH TO LANGUAGE ARTS 3 CREDITS**

Offers methods and techniques of developing a language arts unit based on an age/grade appropriate novel. Novels provide a means for exploration that involves critical and creative thinking and enrich the reading experiences of children. This instructional method revolves around student discussion groups that enable children to learn to listen and to share points of view, ideas, and feelings. Student activities are developed utilizing Bloom's Taxonomy of Cognition and are interchangeable with additional titles (novels) or basal reading series.

**LIT 285 INDEPENDENT STUDY 1-6 VARIABLE CREDITS**

Explores particular authors, topics, themes in-depth, such as Ibsen, Faulkner or Twain, or great fiction of the nineteenth century. **PREREQUISITE:** Instructor's permission

## Management

**MAN 116 PRINCIPLES OF SUPERVISION 3 CREDITS**

Studies the principles and techniques of supervising and motivating personnel. This course is designed for students who are interested in supervising others or for those currently in supervision. Course content focuses on the human interaction in supervision.

**MAN 128 HUMAN RELATIONS IN ORGANIZATIONS 3 CREDITS**

Explores the importance of effective communication in our personal lives as well as in the world of business. Practical business applications such as employee motivation, handling customer complaints, and effectively resolving conflict in the workplace will be a major part of the curriculum.

**MAN 200 HUMAN RESOURCE MANAGEMENT I 3 CREDITS**

Provides the student with a broad overview of the contemporary issues, theories and principles used to effectively manage human resources. Topics include recruiting, hiring, compensation and benefits, training and development, employee relations and legal issues.

**MAN 201 HUMAN RESOURCE MANAGEMENT II 3 CREDITS**

Offers further discussion of concepts of Human Resources. 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**

Presents the components of meeting planning; organization, personnel, finances, site selection, transportation, program design, promotion, arranging exhibits, and evaluation.

**MAN 212 NEGOTIATION AND CONFLICT RESOLUTION 3 CREDITS**

Presents proper techniques in negotiation and conflict resolution. Key practices that determine successful negotiation are explored. This course covers principles of conflict resolution including business policies, accepted business practices contracts, labor union contracts, pay raises and starting salaries.

**MAN 215 ORGANIZATIONAL BEHAVIOR 3 CREDITS**

Examines the behaviors of groups and individual members of organizations and how that behavior can be influenced. Course emphasis is on the tools managers use to achieve organizational effectiveness.

**MAN 216 SMALL BUSINESS MANAGEMENT 3 CREDITS**

Examines the elements necessary for the successful formation of a new small business. It is also designed to enhance the skills of those already involved in the operation of a small business. The course includes the development of a complete small business plan.

**MAN 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.

**MAN 226 PRINCIPLES OF MANAGEMENT 3 CREDITS**

Presents a survey of the principles of management. Emphasis is on the primary functions of planning, organizing, leading and controlling with a balance between the behavioral and operational approach.

**MAN 230 CORPORATE RESPONSIBILITY 3 CREDITS**

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, and how this applies to business and management principles.

**MAN 240 STRATEGIC MANAGEMENT 3 CREDITS**

Presents the 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**

Introduces 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**

Brings into focus the subject material covered in MAN 241 and CIS 202. Emphasis will be placed on melding general concepts of project management with practical applications of software to complete a project management assignment. PREREQUISITES: MAN 241 and CIS 202 or Instructor's permission

**MAN 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.

## 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: Instructor's permission

## Marketing

**MAR 106 MARKETING YOUR IMAGE 3 CREDITS**

Teaches students how to market themselves to prospective employers, clients, professional groups, and audiences of all types. Major emphasis will be placed on skills used to gain employment (resumes, interviewing, and professional appearance) and on skills used to achieve continued personal success (professional behavior and attitude). The course will include at least one simulated interview.

**MAR 110 INTRODUCTION TO SALES 1 CREDIT**

Enables the student to understand and develop a solid foundation of the Fundamentals of Selling. In addition, the course addresses three additional key areas of selling and sales techniques : Selling Against the Competition, Selling Broadband Services and Business Solutions Selling. COREQUISITE: Employment in the Broadband Industry

**MAR 111 PRINCIPLES OF SALES 3 CREDITS**

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**

Emphasizes the study of the basic principles and techniques of merchandising, operations, layout, store organization, site

location, and customer service with an emphasis on retailing operations.

**MAR 126 MERCHANDISING 3 CREDITS**

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**

Enables students to learn the relationship of self to customers, problem solve and understand the importance of communicating with customers. Specific emphasis is given to managing customer expectations by building customer rapport and creating positive outcomes.

**MAR 216 PRINCIPLES OF MARKETING 3 CREDITS**

Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to businesses and the individual consumer.

**MAR 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.

**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 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 the 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 258 MARKETING RESEARCH 3 CREDITS**

Introduces the principles and practices of marketing research, including creating research design, data collection and interpretation, and communicating the results.

**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.

## Mathematics

### **MAT 030 FUNDAMENTALS OF MATHEMATICS** 2 CREDITS

Includes the vocabulary, operations and applications of whole numbers, decimals and basic fractions and mixed numbers. For students with an Accuplacer score of 24-56

### **MAT 060 PRE-ALGEBRA** 3 CREDITS

Furtheres the study of fractions and mixed numbers. Also included are vocabulary, operations and applications of ratio, proportion, percent, area, perimeter, U.S. and metric measures, integers, and an introduction to algebraic expressions and the solution of basic first-degree equations. PREREQUISITES: 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: 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: MAT 090 or Math Assessment score of 61-84; COREQUISITE: MAT 111 required

### **MAT 108 TECHNICAL MATHEMATICS** 4 CREDITS

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: 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: MAT 090 or Math Assessment score of 61-84; COREQUISITES: 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.

### **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 non-linear systems, selection of topics from among graphing of the conic sections, introduction to sequences and series permutations and combinations, the binomial theorem and theory of equations. This course is one of the Statewide Guaranteed Transfer courses. GT-MA1

### **MAT 122 COLLEGE TRIGONOMETRY** 3 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. This course is one of the Statewide Guaranteed Transfer courses. GT-MA1

### **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. PREREQUISITE: MAT 106 or math assessment. This course is one of the Statewide Guaranteed Transfer courses. GT-MA1

### **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. PREREQUISITE: MAT 121 or 123 This course is one of the Statewide Guaranteed Transfer courses. GT-MA1

### **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

### **MAT 155 INTEGRATED MATH I** 3 CREDITS

Engages students in the concepts of school mathematics, the course will include the recognition of numerical and geometric patterns and their application to a variety of mathematical situations; mathematical problem-solving, reasoning, critical thinking, and communication; algebraic thinking, representation, analysis, manipulation, generalizations and extensions. PREREQUISITES: Accuplacer score of 85, ACT score of 19, or successful completion of MAT 106 with a

grade of "C" or better. This course is one of the Statewide Guaranteed Transfer courses. GT-MA1

**MAT 156 INTEGRATED MATH II 3 CREDITS**

Furtheres MAT 155 concepts, the course will include fundamentals of probability, statistics, and Euclidean geometry. Mathematical problem-solving, reasoning, critical thinking and communication will continue to be an integral part of this sequence. This course is one of the Statewide Guaranteed Transfer courses. GT-MA1

**MAT 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: MAT 106 or equivalent; COREQUISITE: 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. PREREQUISITES: MAT 121 and 122 or equivalent. This course is one of the Statewide Guaranteed Transfer courses. GT-MA1

**MAT 202 CALCULUS II 5 CREDITS**

Continuation of single variable calculus which will include techniques of integration, polar coordinates, analytic geometry, improper integrals, and infinite series. PREREQUISITE: MAT 201 or Instructor's permission This course is one of the Statewide Guaranteed Transfer courses. GT-MA1

**MAT 203 CALCULUS III 4 CREDITS**

Completes the traditional subject matter of the Calculus. Topics include vectors, vector-valued functions, and multivariable calculus including partial derivatives, multiple integrals, line integrals and application. PREREQUISITE: MAT 202 . This course is one of the Statewide Guaranteed Transfer courses. GT-MA1

**MAT 255 LINEAR ALGEBRA 3 CREDITS**

Includes vector spaces, matrices, linear transformations, matrix representation, eigenvalues, and eigenvectors. PREREQUISITE: 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: MAT 203 or Instructor's permission

**MAT 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**MAT 285 INDEPENDENT STUDY 1-6 VARIABLE CREDITS**

Provides an opportunity for the highly-motivated student to engage in intensive study and research on a specified topic under direction of a faculty member. PREREQUISITE: Instructor's permission

## Medical Laboratory Technology

**MLT 100 INTRODUCTION TO MEDICAL LABORATORY TECHNOLOGY 2 CREDITS**

Introduces the student to general and basic information on Clinical Laboratory Science. The course provides an overview of careers within the field, education requirements, and professional organizations. Fundamental information about clinical labs including laboratory divisions, safety, and quality control is presented. The course examines the pathophysiology of disease, and students are introduced through hands-on experiences to those tests that aid in the diagnosis of disease states.

**MLT 120 CLINICAL ASSISTANT CORE MODULE 2 CREDITS**

Covers laboratory safety and regulations, quality control, basic specimen collection, reagent preparation and laboratory medical terminology. MLT 120 is the Core Module for the Clinical Assistant Program.

**MLT 131 INTRODUCTION TO HEMATOLOGY 2 CREDITS**

Covers basic manual hematology test and basic instrumentation theory. OSHA safety and an introduction to phlebotomy is also included. MLT 131 is designed as an introduction course to hematology for MLT students and a complete hematology module for clinical assistant (CA) students. COREQUISITE: BIO 201

**MLT 132 HEMATOLOGY II 4 CREDITS**

Covers advanced hematology theory and disease correlations. OSHA safety, phlebotomy and instrumentation are continued; differentials, other manual hematology testing and coagulation are also included. MLT 132 is the continued section of Hematology for the Medical Laboratory Technology students. PREREQUISITE: MLT 131 or Instructor's permission; COREQUISITE: BIO 201

**MLT 141 IMMUNOLOGY/ IMMUNOHEMATOLOGY 4 CREDITS**

Covers the basic principles of antigens, antibodies and the immune system. Serological techniques practiced and observed in the clinical laboratory such as: Flocculation, agglutination, precipitation and elisa, complement fixation and hemagglutination are discussed. Also included are basic theories of genetics, blood group systems and antibodies, compatibility testing, antibody screening and identification, transfusion reactions, hemolytic disease of the newborn, component therapy and donor selection. Proficient performance of related laboratory testing is mandatory. PREREQUISITES: BIO 201, MLT 131, 132 or Instructor's permission; COREQUISITES: BIO 202

**MLT 142 URINALYSIS 2 CREDITS**

Introduces kidney function and basic principles of urinalysis, complete urinalysis procedures including physical, chemical and microscopic examination of both normal and abnormal specimens are performed. Basic description and recognition of body fluids (i.e., CSF, Pleural, peritoneal and synovial fluids) are covered. MLT 142 is designed for both Medical Laboratory Technology (MLT) and Clinical Assistant (CA) students. COREQUISITE: BIO 201 or 202

**MLT 180 INTERNSHIP I/BLOOD BANK 1 CREDIT**

Presents the clinical internship rotation in one or two blood banking facilities or labs. Student attends for 40 hours per week for 2 weeks. Additional practice of blood bank principles and procedures, experience with automated instrumentation and exposure to clinical environment provided. PREREQUISITE: MLT 141

**MLT 182 INTERNSHIP II/HEMATOLOGY, COAGULATION AND 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. PREREQUISITES: MLT 131, 132, 142

**MLT 231 CLINICAL MICROBIOLOGY 4 CREDITS**

Provides a brief introduction to the field of microbiology to include the morphology, physiology and genetics of microorganisms. This will be followed by the more technical aspects of clinical microbiology. Then, infectious diseases will be discussed to include normal flora, portals of entry and pathogenicity of diverse groups of bacteria. Viruses 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 staining and tests for identification of bacteria will be performed in the student laboratory. PREREQUISITES: BIO 201, 202 or Instructor's permission

**MLT 232 PARASITOLOGY/MYCOLOGY 2 CREDITS**

Provides an introduction to protozoa, helminthes, and blood tissue parasites: epidemiology of parasites and diseases in man: special emphasis on microscopic morphology in the detection and correct identification of parasites. An introduction to fungi yeasts and molds to include cutaneous systemic infections and common contaminants and opportunistic fungi. Subcutaneous infections will also be discussed. Laboratory will emphasize microscopic and culture methods to include specimens, staining, media and identification tests. PREREQUISITE: BIO 201 or Instructor's permission

**MLT 241 INTRODUCTION TO CLINICAL CHEMISTRY 2 CREDITS**

Covers basic laboratory math, basic instrumentation, safety and quality control are discussed along with basic theory and result evaluation of electrolytes, kidney function and liver function test. MLT 241 is designed as an introduction course to clinical chemistry for MLT students and a complete chemistry module for Clinical Assistant (CA) students. PREREQUISITE: CHE 101 or Instructor's permission

**MLT 242 CLINICAL CHEMISTRY II 4 CREDITS**

Covers advanced Clinical Chemistry theory, organ functions and disease correlations are covered. Student lab manual chemistry testing is performed on the Gilford spectrophotometer. MLT 242 is the continued section of Clinical Chemistry for the Medical Laboratory Technology students. PREREQUISITES: CHE 101, MLT 241 or Instructor's permission

**MLT 243 CLINICAL PRACTICES 1 CREDIT**

Provides additional information on theory and common healthcare practices such as point of care testing, vital signs, capillary blood collection, bleeding times minor wound care electrocardiograms, body mechanics/turn care, healthcare regulatory agencies and other patient services. MLT 243 is designed as a course for both MLT students and for interested Clinical Assistants (CA).

**MLT 253 MLT SEMINAR 1 CREDIT**

Includes talks by guest speakers on current laboratory technology topics and employable skills such as resume writing or interviewing skills. The course grade also includes successful completion of 20 hours of community service and the three MLT Comprehensive Exams.

**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. PREREQUISITES: 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. PREREQUISITES: 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: 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**

Teaches the anatomy and physiology, pathophysiology and drug therapy of the immune, musculoskeletal, and digestive systems. A discussion of pediatric implications as they relate to clinical physiology will also be covered.

**MOT 130 ADVANCED INSURANCE BILLING AND CODING 3 CREDITS**

Prepares the student to code correctly, and optimize reimbursements for a full range of medical services by expanding coverage of diagnostic and therapeutic procedures, official coding guidelines, APG's, APC's, DRG's Medicare fraud and abuse.

**MOT 133 BASIC MEDICAL SCIENCES II 3 CREDITS**

Teaches the anatomy and physiology, pathophysiology and drug therapy of the cardiovascular, respiratory, and dermatology systems. PREREQUISITE: MOT 125

**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. PREREQUISITE: MOT 125

**MOT 136 INTRODUCTION TO CLINICAL SKILLS 2 CREDITS**

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

**MOT 138 LABORATORY SKILLS 4 CREDITS**

Introduces the student to basic routine laboratory skills and techniques for collection, handling, and examination of laboratory specimens often encountered in the ambulatory care setting. Emphasizes hands-on experience.

**MOT 140 MEDICAL ASSISTING CLINICAL SKILLS 4 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.

**MOT 181 ADMINISTRATIVE INTERNSHIP 2 CREDITS**

Provides supervised placement in contracted facility for guided experience in application of knowledge and skill acquired in the classroom. Positions are non-paid due to CAAHEP requirement. Student must have permission by program coordinator to begin internship. PREREQUISITES: All required coursework for the MOT Medical Assistant Certificate

**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. PREREQUISITES: All required coursework for the MOT Medical Assistant Certificate

**MOT 183 MEDICAL ASSISTANT INTERNSHIP 5 CREDITS**

Provides supervised placement in contracted facility for guided experience in application of knowledge and skill acquired in the classroom. The student assists with a variety of business and clinical procedures. Positions are non-paid due to CAAHEP requirement. Student must have permission by program coordinator to begin internship. PREREQUISITES: All required coursework for the MOT Medical Assistant Certificate

**MOT 184 BILLING SPECIALIST INTERNSHIP 1 CREDIT**

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.

**MOT 225 MEDICAL PRACTICE MANAGEMENT ISSUES 4 CREDITS**

Focuses on bringing acquired knowledge to issues faced specifically by medical practice managers and is the culmination of knowledge the student has learned in the program. Includes management priorities, principles of practice management – financial, clinical, personnel, 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: Academic Coordinator permission

**Meteorology****MET 150 GENERAL METEOROLOGY 4 CREDITS**

Provides an introduction to general meteorology and atmospheric sciences. It includes the composition and structure of the atmosphere and characteristics that affect the atmosphere, such as temperature, pressure and moisture. Additionally, the development of weather systems, such as storm systems, hurricanes, weather fronts and cloud development will also be examined. Finally, concepts of climatology will be stressed.

**Mortuary Science****MOR 100 INTRO TO FUNERAL SERVICE 3 CREDITS**

Provides students with an overview of funeral customs and practices which have led 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 AND LAB 4 CREDITS**

Provides 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, post mortem physical and chemical changes in the dying process and moral and ethical considerations in preparation of human remains. The academic lab portion of this lab includes active participation by the student in five embalmings. PREREQUISITES: Program Admission, All General Education courses completed

**MOR 215 FUNERAL SERVICE MERCHANDISING 3 CREDITS**

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, and the counselor’s presentation of 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.

**MOR 220 MORTUARY LAW AND COMPLIANCE 3 CREDITS**

Introduces the student to sources of law; the legal status of the dead human body; the duty of burial, right to control funeral arrangements and final disposition and liability for expenses; torts involving the dead human body and the funeral director; wills, estates and probate proceedings; cemeteries and issues related thereto; state and federal laws and regulations pertaining to funeral service such as ADA, OSHA, FTC, and EPA; and the legal aspects of being a licensed funeral director/embalmer. This course will also include ethics as related to principles in funeral service. PREREQUISITES: Program admission and BUS 216; COREQUISITE: MOR 215

**MOR 224 THANATO-MICROBIOLOGY/ PATHOLOGY 4 CREDITS**

Presents the basic principles of microbiology nature and cause of disease, and the pathogenicity associated with specific diseases. It will present a historical overview of microbiology as related to advances in medicine. The specific kinds of microorganisms: virus, rickettsiae, bacteria, fungus and protozoa are described. Metabolism, reproduction growth and control microorganisms, infectious diseases, etiology and transmission are covered. The pathology portion of this course will focus upon the functions of the human body systems and their relationship to diseases. PREREQUISITES: Program admission and BIO 201, or Instructor's permission for Track II students

**MOR 225 EMBALMING THEORY II AND LAB 4 CREDITS**

Provides 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. PREREQUISITE: MOR 210; COREQUISITE: MOR 230

**MOR 230 RESTORATIVE ART AND LAB 4 CREDITS**

Provides 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. COREQUISITE: MOR 225

**MOR 235 FUNERAL DIRECTING AND COUNSELING 3 CREDITS**

Includes general information on: notification of death, transfer of remains, conduct of the arrangement conference, prefunded/preplanned funerals, a cross-section of religious funeral practices, fraternal and military funerals, shipping of remains, and the Funeral Service Consumer Arbitration Program (FSCAP). This course also includes the sociology of Funeral Service and studies those social phenomena that affect all elements of funeral service. This includes

family structures, social structures, and the factors of change that relate to funeralization. PREREQUISITE: Program admission. COREQUISITE: MOR 225, MOR 230

**MOR 243 THANATO-CHEMISTRY 3 CREDITS**

Provides 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: Program admission

**MOR 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**MOR 280 INTERNSHIP 4 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. PREREQUISITES: Must have completed all MOR courses.

**MOR 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: Instructor's permission

## Multimedia/Graphic Design And Illustration

**MGD 101 INTRODUCTION TO COMPUTER GRAPHICS 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 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 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. PREREQUISITES: MGD 101, MGD 133 or ART 131; COREQUISITES: MGD 112, MGD 113

**MGD 105 TYPOGRAPHY AND LAYOUT 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: MGD 101

**MGD 111 ADOBE PHOTOSHOP I 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: MGD 101 or Instructor's permission

**MGD 112 ADOBE ILLUSTRATOR I 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: MGD 101 or Instructor's permission

**MGD 113 QUARKXPRESS 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: 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: MGD 101 or Instructor's permission

**MGD 117 INTRODUCTION TO VISUAL COMMUNICATIONS 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 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.

**MGD 133 GRAPHIC DESIGN I 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 3 CREDITS**

Introduces Web site planning, design and creation using industry-standards-based Web site development tools. Screen-based color theory, Web aesthetics, use of graphics editors and intuitive interface design are explored. PREREQUISITE: MGD 101 or Instructor's permission

**MGD 143 MOTION GRAPHIC****DESIGN I: FLASH****3 CREDITS**

Stresses creation of animation and dynamic interactive media for Web and multimedia applications. Students will learn how to animate objects, create symbols, and assemble motion tweens. PREREQUISITES: MGD 111, MGD 141

**MGD 155 LIGHTWAVE I****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: MGD 101 or Instructor's permission

**MGD 161 DIRECTOR I****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.

**MGD 164 DIGITAL VIDEO EDITING I 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: MGD 102 or Instructor's permission

**MGD 207 ILLUSTRATION I****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: ART 121

**MGD 208 ILLUSTRATION II****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: MGD 207

**MGD 209 ILLUSTRATION III****3 CREDITS**

Continues Illustration II with added emphasis on conceptual development and proficiency in technique. PREREQUISITE: MGD 208

**MGD 210 ILLUSTRATION IV****3 CREDITS**

Covers advanced illustration techniques including manual, computer, and mixed media techniques. PREREQUISITE: MGD 209

**MGD 211 ADOBE PHOTOSHOP II****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: MGD 111

**MGD 212 ADOBE ILLUSTRATOR II****3 CREDITS**

Enables the student to continue development of electronic drawing skills through practice and use of state of the art

illustration software. PREREQUISITE: MGD 112

**MGD 213 ELECTRONIC PREPRESS 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: MGD 113

**MGD 214 MACINTOSH TROUBLESHOOTING FOR DESIGNERS 3 CREDITS**

Addresses terminology, hardware, graphics software applications, peripherals, and troubleshooting needs of designers who use the Macintosh computer as a production tool. PREREQUISITE: MGD 101 or Instructor's permission

**MGD 250 EMERGING MULTIMEDIA TECHNOLOGIES 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 oth. PREREQUISITES: MGD 128, MGD 161

**MGD 256 GRAPHIC DESIGN PRODUCTION 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. PREREQUISITES: MGD 101, MGD 105, MGD 133 or ART 131; COREQUISITES: MGD 103, MGD 112, MGD 113

**MGD 260 GRAPHIC DESIGN PRODUCTION II 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: MGD 256; COREQUISITE: MGD 111

**MGD 262 GRAPHIC DESIGN PRODUCTION III 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: MGD 260

**MGD 264 DIGITAL VIDEO EDITING II 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. PREREQUISITES: MGD 111, MGD 164

**MGD 275 SPECIAL TOPICS 1-6 CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest. PREREQUISITES: 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. PREREQUISITES: MGD 112, MGD 113 and MGD 256 with grades of B or better for each class.

**MGD 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. PREREQUISITES: To be determined by the Instructor

**MGD 287 COOPERATIVE EDUCATION 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. PREREQUISITES: To be determined by the Instructor. Student must also have a resume and portfolio to present.

**MGD 289 CAPSTONE 3 CREDITS**

A demonstrated culmination of learning within a given program of study. PREREQUISITES: 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**

Designed to help the beginning music student, or those students with a limited background in music theory, study the basic elements of music, including notation, rhythm, scales, key signatures, intervals and chords.

**MUS 110 MUSIC THEORY I 3 CREDITS**

Presents music fundamentals, diatonic four-part harmony, analysis, ear training, and keyboard harmony. For music majors transferring to a 4-year program. PREREQUISITE: MUS 100 or Instructor's permission; COREQUISITE: MUS 112

**MUS 111 MUSIC THEORY II 3 CREDITS**

Presents chromatic four-part harmony, analysis, ear training, and keyboard harmony. PREREQUISITES: MUS 110 and MUS 112; COREQUISITE: MUS 113

**MUS 112 EAR TRAINING-SINGING LAB I 1 CREDIT**

Presents exercises in sight-singing with melodic and rhythmic dictation. COREQUISITE: MUS 110

**MUS 113 EAR TRAINING-SINGING LAB II 1 CREDIT**

Presents exercises in sight-singing with melodic and rhythmic dictation. COREQUISITE: MUS 111

**MUS 120 MUSIC APPRECIATION 3 CREDITS**

Covers the basic materials of music, musical forms, media, genres and musical periods. Emphasizes the development of tools for intelligent listening and appreciation. This course is one of the Statewide Guaranteed Transfer courses. GT-AH1.

**MUS 121 MUSIC HISTORY I 3 CREDITS**

Studies the various periods of music history with regard to the composers, esthetics, forms, and genres of each period. Considers music from the Middle Ages through the Classical period. This course is one of the Statewide Guaranteed Transfer courses. GT-AH1.

**MUS 122 MUSIC HISTORY II 3 CREDITS**

Studies the various periods of music history with regard to the composers, esthetics, forms, and genres of each period. Considers music from the early Romantic period to the present. This course is one of the Statewide Guaranteed Transfer courses. GT-AH1.

**MUS 123 SURVEY OF WORLD MUSIC 3 CREDITS**

Provides an overview of non-Western music from around the world; provides basic listening skills and the historical/cultural context for a variety of world music styles to enable an understanding and appreciation of non-Western musical expression.

**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 132 MUSIC CLASS II 2 CREDITS**

Applies the fundamentals of music to the voice or specific musical instruments. The course also introduces basic techniques, repertoire and sight-reading. First year, second term.

**MUS 133 MUSIC CLASS III 2 CREDITS**

Applies the fundamentals of music to the voice or specific musical instruments. The course also introduces basic techniques, repertoire, and sight-reading. First year, third term.

**MUS 141 PRIVATE INSTRUCTION 1-2 CREDITS**

One credit primarily for non-music majors. Two 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. First year, first term.

**MUS 142 PRIVATE INSTRUCTION II 1-2 CREDITS**

One credit primarily for non-music majors. Two 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. First year, second term. PREREQUISITE: Instructor's permission. An additional fee is required.

**MUS 151 ENSEMBLE 1 CREDIT**

First year, first term. Rehearses and performs various types of musical literature. PREREQUISITE: Instructor's permission

**MUS 152 ENSEMBLE II 1 CREDIT**

Rehearses and performs various types of musical literature. First year, second term. PREREQUISITE: Instructor's permission

**MUS 161 MUSIC TECHNOLOGY 3 CREDITS**

Considers in-depth music engraving applications through course projects designed to demonstrate engraving skills in a variety of score styles, arranging, part extraction, arranging, and scanning techniques. Project-oriented course covers current music notation/engraving software.

**MUS 167 MUSIC BUSINESS I 3 CREDITS**

Designed to give music students, or those students with a strong interest in business and music, a complete overview and in-depth examination of the current, historic and projected business practices in the music industry.

**MUS 175 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**MUS 241 PRIVATE INSTRUCTION 2 CREDITS**

One credit primarily for non-music majors. Two 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, first term. PREREQUISITE: Instructor's permission. An additional fee is required.

**MUS 242 PRIVATE INSTRUCTION 2 CREDITS**

One credit primarily for non-music majors. Two 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, first term. PREREQUISITE: Instructor's permission. An additional fee is required.

**MUS 243 PRIVATE INSTRUCTION 2 CREDITS**

One credit primarily for non-music majors. Two 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, first term. PREREQUISITE: Instructor's permission. An additional fee is required.

**MUS 244 PRIVATE INSTRUCTION 2 CREDITS**

One credit primarily for non-music majors. Two 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, first term. PREREQUISITE: Instructor's permission. An additional fee is required.

**MUS 251 ENSEMBLE I** **1 CREDIT**  
Rehearses and performs various types of musical literature. Second year, first term. PREREQUISITE: Instructor's permission

**MUS 252 ENSEMBLE II** **1 CREDIT**  
Rehearses and performs various types of musical literature. Second year, second term. PREREQUISITE: Instructor's permission

**MUS 275 SPECIAL TOPICS 1–6 VARIABLE CREDITS**  
Covers specific topics in music. This course is offered as needed for credit appropriate to the topic and each offering includes a description of the topic(s).

**MUS 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: 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, communication skills, restorative services, personal care skills, safety and emergency care issues are covered. Includes knowledge and/or principles of asepsis, OSHA and HIPAA regulations. Ethical behaviors, cultural sensitivity and principles of mental health will be addressed, as well as patient/resident rights.

**NUA 170 NURSE AIDE CLINICAL** **1 CREDIT**  
Applies knowledge and skill gained in NUA 101 to patient care. PREREQUISITES: Current CPR card. Negative TB test or chest X-ray and immunizations current, clear background check. COREQUISITE: NUA 101

**NUA 171 ADVANCED NURSE AIDE CLINICAL** **1 CREDIT**  
Prepare the student to move toward more independent functioning within the nurse aide scope of practice, in applying knowledge and skills gained in NUA 101 and NUA 170. The student will learn skills that enhance communication, cultural competency, end of life care, critical thinking and organizational skills.

## Nursing

**NUR 106 MEDICAL AND SURGICAL NURSING CONCEPTS** **9 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. T: 3.5 cr./52.5 contact hrs; L: .5 cr./15 contact hrs; C: 5 cr./150 contact hrs. PREREQUISITES: BIO 201, 202, 204, ENG 121, PSY 235, HPR 108, MAT 103, NUR 109, 112. COREQUISITES: NUR 150, BIO 216

**NUR 109 FUNDAMENTALS OF NURSING** **8 CREDITS**

Introduces theories and skills basic to the role of the nurse as provider of care, manager of care and member of the nursing profession. Emphasis is placed on introduction to critical thinking and the nursing process. Students will demonstrate a beginning level of competence in providing therapeutic nursing care for clients with common health alterations across the health continuum. T: 2 cr./30 contact hrs, L: 3 cr./90 contact hrs; C: 3 cr./90 contact hours. PREREQUISITES: BIO 201, 202, 204, ENG 121, PSY 235, and admission into the program. COREQUISITES: NUR 112, HPR 108, MAT 103

**NUR 112 BASIC CONCEPTS OF PHARMACOLOGY** **2 CREDITS**

Utilizes nursing process to introduce the basic concepts of pharmacology related to the actions, therapeutic and adverse effects, interactions of drugs, drug classification, and the basic pharmacology of commonly used medications. Emphasis is placed on therapeutic interventions and client education. Learners will apply knowledge gained in selected clinical settings situations in caring for a diversity of clients across the lifespan health illness continuum. T: 2 cr./30 contact hours. PREREQUISITES: BIO 201, 202, 204, ENG 121, PSY 235, and admission into the program. COREQUISITES: NUR 109, HPR 108, MAT 103

**NUR 150 OBSTETRIC AND PEDIATRIC NURSING** **7 CREDITS**

Provides a family centered approach to professional nursing practice of the childbearing family and children across the health continuum. Emphasis is placed on the care of the perinatal client and children from birth through adolescence. The impact of psychosocial and cultural values and practices are explored. Legal and ethical accountability are integrated throughout the course. T: 3 cr/45 contact hrs; L: 1 cr/30 contact hrs; C 3 cr/90 contact hrs. PREREQUISITES: BIO 201, 202, 204, ENG 121, PSY 235, HPR 108, MAT 103, NUR 109, 112. COREQUISITES: NUR 106, BIO 216

**NUR 169 TRANSITION INTO PRACTICAL NURSING** **5 CREDITS**

Provides the student with a transition into the practical nurse role. Emphasis is placed on professionalism in nursing, communication, entry into practice, provider and manager of care and nursing management and leadership. The student assumes the role of the practical nurse as they manage patient care. T: 2 cr/30 contact hrs; C: 3 cr/90 contact hrs. PREREQUISITES: BIO 201, 202, 204, ENG 121, PSY 235, HPR 108, MAT 103. COREQUISITES: NUR 106, 150, BIO 216

**NUR 199 TRANSITION FROM LPN TO ADN** **4 CREDITS**

Focuses on assisting the LPN to transition into a new role as an Associate Degree Nursing Student. Emphasis will be

placed on roles and responsibilities of the ADN, nursing process, critical thinking, legal and ethical issues and nursing practice issues related to specialized skills and the care of special populations. T: 2 cr/30 contact hrs; L: 2 cr/60 contact hrs. PREREQUISITES: BIO 201, 202, 204, ENG 121, PSY 235; admission into the PN to RN program

**NUR 206 ADVANCED CONCEPTS OF MEDICAL-SURGICAL NURSING I 8 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. T: 3 cr/45 contact hrs; L: .5 cr/15 contact hrs; C: 4.5 cr/135 contact hrs. PREREQUISITES: BIO 201, 202, 204, 216, ENG 121, PSY 235, HPR 108, MAT 103, NUR 106, 109, 112, 150. COREQUISITES: NUR 211, NUR 212

**NUR 211 NURSING PSYCHIATRIC CLIENTS 5 CREDITS**

Develops concepts of psychosocial integrity and emphasizes the function and responsibility of nursing in promoting and maintaining mental health of individuals and families. This course emphasizes communication and caring through the application of the therapeutic relationship and nursing process in the care and treatment of common clinical conditions/disorders. T: 1 cr/15 contact hrs; L: 1 cr/30 contact hrs; C: 2 cr/60 contact hrs. PREREQUISITES: NUR 106, 111, 117, 118, 171 or Instructor's permission. PREREQUISITES: BIO 201, 202, 204, 216, ENG 121, PSY 235, HPR 108, MAT 103, NUR 106, 109, 112, 150. COREQUISITES: NUR 206, 212

**NUR 212 PHARMACOLOGY II 2 CREDITS**

Builds upon the concepts introduced in NUR 112 Pharmacology I regarding the safe administration of medications to clients across the health continuum. Utilizing the nursing process the student demonstrates understanding of the role of the nurse as provider of care, manager of care, and member of the profession. Emphasis is placed upon the therapeutic use of medications in the nursing care of individuals with complex health needs. The student is introduced to the calculation of complex intravenous drip rates. PREREQUISITES: BIO 201, 202, 204, 216, ENG 121, PSY 235, HPR 108, MAT 103, NUR 106, 109, 112, 150. COREQUISITES: NUR 206, 211

**NUR 216 ADVANCED CONCEPTS OF MEDICAL SURGICAL NURSING II 6 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. T: 2 cr/30 contact hrs; C: 4 cr/120 contact hrs. PREREQUISITES: BIO 201, 202, 204, 216, ENG 121, PSY 235, HPR 108, MAT 103, NUR 106, 109, 112, 150, 206, 211, 212. COREQUISITES: NUR 230, GTE 3-credit hour humanities or social behavioral science

**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. PREREQUISITES: NUR 210, 216 or Instructor's permission; COREQUISITE: NUR 289

**NUR 230 LEADERSHIP MGMT TRENDS 5 CREDITS**

Introduces students to current trends in leadership and management concepts affecting the healthcare continuum and the practice of nursing. The student assumes the role of provider, manager of care and member of the discipline at the entry level into professional nursing. There is a practicum for application which may occur across the healthcare continuum, as the student manages groups of clients and health care personnel. The course will facilitate transition from student to the role of the graduate nurse. T: 1.5 cr/22.5 contact hrs; C: 3.5 cr/105 contact hrs. PREREQUISITES: BIO 201, 202, 204, 216, ENG 121, PSY 235, HPR 108, MAT 103, NUR 106, 109, 112, 150, 206, 211, 212. NUR 216, GTE 3-credit hour humanities or social behavioral science

**Paralegal**

**PAR 114 COMPUTERS AND THE LAW 3 CREDITS**

Provides students with an opportunity to develop computer skills needed in the legal environment, including software applications, spreadsheets, databases, and Internet research.

**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**

Focuses on tort law, including negligence, intentional torts, and strict liability, with an emphasis on personal injury litigation.

**PAR 117 FAMILY LAW 3 CREDITS**

Emphasizes domestic law, common property, dissolutions, adoptions, legal separation, and other family law issues.

**PAR 118 CONTRACTS 3 CREDITS**

Examines the basic principles of contract law.

**PAR 125 PROPERTY LAW 3 CREDITS**

Focuses on real estate law, ownership, sale, leasing, financing and government regulation of land.

**PAR 201 CIVIL LITIGATION 3 CREDITS**

Focuses on an intensive study of the legal process including the Federal and Colorado Rules of Civil Procedure. PREREQUISITES: PAR 115 and PAR 116 or Instructor's permission

**PAR 202 EVIDENCE 3 CREDITS**

Introduces the student to State and Federal Rules of Evidence and application to the trial process. PREREQUISITE: 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: PAR 115

**PAR 206 BUSINESS ORGANIZATIONS 3 CREDITS**

Focuses on the study of the major types of business organizations. PREREQUISITES: PAR 115 and PAR 118 or Instructor's permission

**PAR 208 PROBATE AND ESTATES 3 CREDITS**

Provides an understanding of the creation and administration of an estate, including wills and trusts and the probate process. PREREQUISITE: 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. PREREQUISITES: PAR 115, PAR 116, PAR 118 and PAR 213 or Instructor's permission

**PAR 215 ALTERNATIVE DISPUTE RESOLUTION 3 CREDITS**

Introduces the student to negotiation, mediation, arbitration and other forms of dispute resolution. PREREQUISITE: 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: PAR 115 or Instructor's permission

**PAR 217 ENVIRONMENTAL LAW 3 CREDITS**

Covers state and federal laws concerning the environment, including chemical safety laws, workplace safety, and hazardous waste. PREREQUISITE: PAR 115 or Instructor's permission

**PAR 218 BANKRUPTCY LAW 3 CREDITS**

Focuses on the federal and state laws and procedures involving bankruptcy. PREREQUISITE: PAR 115 or Instructor's permission

**PAR 228 INTELLECTUAL PROPERTY 3 CREDITS**

Covers the federal and state laws regarding intellectual property. PREREQUISITES: PAR 115 and PAR 118 or Instructor's permission

**PAR 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**PAR 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: 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. PREREQUISITE: PAR 115 or Instructor's permission

## Pharmacy Technician

**PHT 111 ORIENTATION TO PHARMACY 2 CREDITS**

Orients students to the work of pharmacy technicians and the context in which a technician's work is performed. Students learn the concept of pharmaceutical care and the 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, value 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 2 CREDITS**

Introduces the pharmacy technician student to the profound influence that drug laws, standards, and regulations have on practice. Students learn to abide by the laws, regulations and standards that govern the preparation and dispensing of drugs.

**PHT 113 PHARMACY CALCULATIONS AND TERMINOLOGY 1 CREDIT**

Provides the pharmacy technician student with a math preview necessary for pharmaceutical calculations and reviews necessary pharmaceutical terminology.

**PHT 115 PHARMACOLOGY OF THE GI, RENAL, REPRODUCTIVE, IMMUNE, DERMATOLOGIC AND HEMATOLOGIC SYSTEMS 3 CREDITS**

Provides the basic concepts of normal body function as well as the diseases which impact the various body systems and the drugs used to treat such diseases. Emphasizes disease state management and drug therapy.

**PHT 116 INSTITUTIONAL PHARMACY 3 CREDITS**

Provides a basic understanding of general and specific tasks as well as the responsibilities involved in the practice of pharmacy in an institutional pharmacy setting. Emphasizes in-patient hospital pharmacy practice and other related practice settings (such as Homecare and Nursing Home or Long-Term Care). A laboratory experiential component provides a "hands-on" experience in the preparation of intravenous admixtures, aseptic technique, unit-dose distribution, dispensing for greater than 24 hours. PREREQUISITES: PHT 111 and PHT 113

**PHT 117 COMMUNICATION FOR PHARMACY TECHNICIANS 1 CREDIT**

Provides the pharmacy technician student with an analysis of "interpersonal communications" (including principles, practices, and procedures) as well as an in-depth discussion of the practical application of communication to pharmacy practice. The "analysis of interpersonal communications" component includes such topics as communication perceptions and barriers, listening, responding, assertiveness and non-verbal communication. The "practical application"

component includes such techniques as role-playing, group discussion and interviewing.

**PHT 118 PHARMACOLOGY OF THE NERVOUS, ENDOCRINE, MUSCULOSKELETAL 3 CREDITS**

Serves as the second part of the two-part presentation of the basic concepts of normal body function. Reviews the disease states which impact the various body systems and the drugs used to treat such diseases. Emphasizes disease state management and drug therapy.

**PHT 119 COMMUNITY PHARMACY 3 CREDITS**

Provides a basic understanding of both general and specific tasks and responsibilities involved in the practice of pharmacy in a community setting. Emphasizes chain and independent community pharmacy practices and other related practice settings (such as consultant pharmacy, mail order pharmacy and nuclear pharmacy). Enables the student to obtain hands on experience in the important technical duties of dispensing and compounding. Utilizes a lecture-informal discussion format combined with a series of practice skills laboratory sessions. PREREQUISITES: PHT 111 and PHT 113

**PHT 170 PHARMACY PRACTICE II (HOSPITAL CLINICAL) 4 CREDITS**

Provides 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 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: Satisfactory completion of all course work

**PHT 171 PHARMACY PRACTICE III (COMMUNITY CLINICAL) 4 CREDITS**

Provides students with hands on experience in a community pharmacy setting within the State of Colorado. Students must complete all didactic course work prior to enrolling for this course. The course involves a minimum of 160 hours including 8 hours of seminar class time and 152

hours of on-the-job work experience. Each student is required to work under the supervision of a licensed pharmacist (i.e. preceptor) who may, in turn, delegate some supervisory and/or training responsibilities to another licensed pharmacist or certified pharmacy technician. During their work time at their community pharmacy site, students are expected to participate in the pharmacy practice activities delineated in the Clinical Site manual provided each student and each preceptor. Such activities include, but are not limited to, dispensing, compounding, inventory handling and control, drug distribution, processing of third party claims, maintenance of patient profiles and interaction and communication with patients. Students are also expected to complete daily and weekly reports of their work activities and are required to evaluate both their work site and their preceptor at the conclusion of their clinical rotation. Similarly, each preceptor is asked to complete an evaluation of, and provide a grade for, each student at the completion of the student's rotation. The course Instructor is also required to evaluate each student after completing a visit to the student's work site and discussing the student's performance with both the student and his/her preceptor. PREREQUISITE: Satisfactory completion of all course work

**PHT 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**PHT 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: 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 human condition, knowledge, freedom, history, ethics, the future, and religion. This course is one of the Statewide Guaranteed Transfer courses. GT-AH3.

**PHI 112 ETHICS 3 CREDITS**

Examines human life, experience, and thought in order to discover and develop the principles and values for pursuing a more fulfilled existence. Theories designed to justify ethical judgments are applied to a selection of contemporary personal and social issues. This course is one of the Statewide Guaranteed Transfer courses. GT-AH3.

**PHI 113 LOGIC 3 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. This course is one of the Statewide Guaranteed Transfer courses. GT-AH3.

**PHI 114 COMPARATIVE RELIGIONS 3 CREDITS**

Introduces students to the similarities and differences among concepts predominant in the major world religions, comparing sociological, philosophical, and phenomenological similarities between major world faiths. It is designed to transfer to any four-year college



philosophy, religious studies or humanities department. This course is one of the Statewide Guaranteed Transfer courses. GT-AH3.

**PHI 124 INTRODUCTION TO ISLAM 3 CREDITS**

Introduces the Islamic religious tradition and considers its significance in the modern world. The course investigates the history of Islam, Islamic beliefs and practices, Islamic sects, Sufism, and contemporary issues of Islamic extremism, women in Islam, and Islam in the West.

**PHI 214 PHILOSOPHY OF RELIGION 3 CREDITS**

Focuses on the critical examination of the fundamental concepts, ideas, and implications of religion. Includes the nature of God, the varieties of religious experience, argument concerning God's existence, the Problem of Evil, faith and reason, religion and human destiny, and the connection between religion and ethics. This course is one of the Statewide Guaranteed Transfer courses. GT-AH3.

**PHI 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest. PREREQUISITES: Prior philosophy class, sophomore standing or Instructor's permission

**PHI 285 INDEPENDENT STUDY 1-6 VARIABLE CREDITS**

Focuses on directed readings and independent study on specific philosophical topics. PREREQUISITE: Instructor's permission

## Physical Education - Activity Classes

**PED 100 GOLF 1 CREDIT**

Introduces 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. Includes driving range, putting green, and on-course play.

**PED 106 TENNIS 1 CREDIT**

Introduces tennis and focuses on improving the skill level of the student. Emphasizes the elements of tennis including the rules of the game, groundstrokes, serving, the various shots, and singles and doubles play and strategies.

**PED 108 BEGINNING SWIMMING 1 CREDIT**

Teaches 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**

Builds on PED 108 and enables the student to coordinate and refine the major swimming strokes. Examines the butterfly stroke, open turns and surface dives. Students develop endurance swimming using the primary swimming strokes.

**PED 110 FITNESS CENTER ACTIVITY I 1 CREDIT**

Focuses on improving total fitness via an aerobic circuit

training program. Includes an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. Covers the basic components of fitness including flexibility, muscular strength, muscular endurance, cardiovascular fitness, and body composition. Weight machines, stationary bicycles, and computerized cardiovascular equipment are incorporated to elicit improvements in fitness.

**PED 111 FITNESS CENTER ACTIVITY II 1 CREDIT**

Serves as an advanced course for individuals interested in reaching a higher level of total fitness via an aerobic circuit training program. Includes an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. Focuses on the basic components of fitness including flexibility, muscular strength, muscular endurance, cardiovascular fitness, and body composition. Weight machines, stationary bicycles, and computerized cardiovascular equipment are used to elicit improvements in fitness. PREREQUISITE: PED 110

**PED 113 FITNESS CONCEPTS (ONLINE) 1 CREDIT**

Focuses on providing information and guidelines for moving toward a more healthy lifestyle. Includes classroom instruction, an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program utilizing the equipment and exercise options available in the Fitness Center.

**PED 115 BODY SCULPTING AND TONING 1 CREDIT**

Introduces exercise techniques to improve overall physical fitness. Emphasizes the interaction between cardiovascular conditioning, muscular strength and endurance, flexibility and program design integrated into an aerobic format. Focuses on 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**

Offers basic instruction and practice in weight training. Students utilize weight training equipment in accordance to their abilities and goals. Emphasizes weight training equipment orientation, correct lifting techniques, and basic program design for men and women.

**PED 118 INDOOR STATIONARY GROUP CYCLING 1 CREDIT**

Focuses on improving cardiovascular fitness, burning calories and enhancing muscular endurance. Designed 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 120 SWIM FITNESS 1 CREDIT**

Enables the student to perfect stroke mechanics to swim with more ease, efficiency, power, and smoothness over greater distances. This course may utilize the competitive strokes, starts, and turns, and provide the 'whys' as well as the 'hows' of swim fitness so students can plan training programs to meet their changing needs.

**PED 126 WATER AEROBICS 1 CREDIT**

Offers water exercise to develop physical fitness.

Includes 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**

Provides basic instruction in scuba diving. Focuses on 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:** Basic Swimming Skills

**PED 133 BEGINNING SNOWBOARDING 1 CREDIT**

Serves as a basic snowboarding course designed for those who have had little or no prior snowboarding experience. Incorporates a combination of on the snow classes at an established ski area and classroom instruction at the college. For purposes of instruction, students are assigned to small groups based on their snowboarding ability. Snow instruction is taught by certified ski Instructors.

**PED 134 ADVANCED SNOWBOARDING 1 CREDIT**

Introduces advanced snowboarding designed for those with prior snowboarding experience and can link skidded turns with good speed and control on green and blue terrain. Covers a combination of on the snow classes at an established ski area and classroom instruction at the college. Students are assigned to small groups based on their present snowboarding ability. Snow instruction is taught by certified ski Instructors. **PREREQUISITE:** PED 133

**PED 135 INTERMEDIATE TENNIS 1 CREDIT**

Introduces advanced instruction and practice for students who already have playing experience and skill in the basic strokes. Emphasizes learning the lob, smash, half-volley, serve variations and tennis strategy for singles and doubles. **PREREQUISITE:** 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. **PREREQUISITE:** PED 116

**PED 141 BEGINNING ALPINE SKIING 1 CREDIT**

Presents a basic Alpine skiing course designed for those who have had little or no prior downhill skiing 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 skiing ability. All on snow instruction will be by certified ski Instructors employed by the ski area.

**PED 142 ADVANCED ALPINE SKIING 1 CREDIT**

Presents 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 demonstrated skiing ability. All on snow instruction will be by certified ski Instructors employed by the ski area.

**PED 143 TAI CHI I 1 CREDIT**

Introduces 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**

Emphasizes 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 are integral parts of the Tai-Chi training. In addition psychosocial skills such as meditation, relaxation and self-efficacy are covered.

**PED 145 PILATES MATWORK 1 CREDIT**

Focuses on Pilates matwork to increase core strength, overall muscles tone and 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**

Introduces basic martial arts techniques and forms designed to improve the physical and mental capacity of an individual. Enables the student to gain an understanding of the basic philosophies and concepts around the martial arts and the approach to ethics. Provides a clear-cut guide for developing a powerful sense of character and will.

**PED 147 YOGA 1 CREDIT**

Offers a guided instruction in yoga. Students practice yoga according to their individual fitness levels and abilities. Emphasizes enhancing general health and well-being through the performance of yoga strength, flexibility, balance and relaxation techniques and exercises.

**PED 148 YOGA II 1 CREDIT**

Continues to build on the concepts of basic yoga. Increases awareness of yoga including physical and mental benefits. **PREREQUISITE:** Yoga I Instructor's permission

**PED 149 SELF DEFENSE-  
ADVANCED KARATE 1 CREDIT**

Presents 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:** PED 146

**PED 200 ADVANCED GOLF 1 CREDIT**

Covers skills 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. All instruction will be by certified golf Instructors. **PREREQUISITE:** PED 100

**PED 210 FITNESS CENTER ACTIVITY III 1 CREDIT**

Serves as an advanced exercise course designed for individuals interested in attaining a high level of total fitness. Includes an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. Focuses on the basic components of fitness including flexibility, muscular strength and endurance, cardiovascular fitness, and body composition. The primary mode of training is Aerobic Circuit Training. The circuit training is supplemented with additional work on specialized weight machines, dumbbells, treadmills, rowers, stair climbers, cross trainers, nordic track, versa climbers, and running track available in the Fitness Center. PREREQUISITES: PED 110, 111

**PED 211 FITNESS CENTER ACTIVITY IV 1 CREDIT**

Focuses on advanced instruction designed for individuals interested in attaining a high level of total fitness. Includes an individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. Focuses on the basic components of fitness including flexibility, muscular strength, muscular endurance, cardiovascular fitness, and body composition. The primary mode of training is Aerobic Circuit Training. The circuit training is supplemented with additional work on the specialized weight machines, dumbbells, treadmills, rowers, stair climbers, cross trainers, nordic track, versa climbers, and running track found in the Fitness Center. PREREQUISITES: PED 110, 111 and 210

**Physical Education And Recreation****PER 113 INTRODUCTION TO PHYSICAL EDUCATION AND SPORTS 2 CREDITS**

Focuses on the field of physical education and sports. Includes trends, precedents and their effects in the health and total wellness of those involved.

**PER 151 LIFEGUARD TRAINING 2 CREDITS**

Provides the necessary minimum knowledge and skills training for a person to qualify as a non-surf lifeguard. Prepares 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: PED 109 Advanced Swimming

**PER 232 CARE AND PREVENTION OF ATHLETIC INJURIES 3 CREDITS**

Focuses on techniques in prevention, care and basic rehabilitation of athletic injury.

**PER 275 SPECIAL TOPICS: INTERNSHIP 3 CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest. PREREQUISITES: HWE 245 and Department Chair permission

**Physical Therapist Assistant****PTA 110 BASIC CARE IN PHYSICAL THERAPY 5 CREDITS**

Examines the basic patient care skills for the healthcare practitioner. Enables the student to gain an understanding and demonstrate 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**

Explores the history of the profession including 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. Includes current issues and trends including professionalism, ethics, quality assurance, communications and reimbursement issues such as Medicare, Medicaid, Worker's Compensation and commercial insurance.

**PTA 120 MODALITIES IN PHYSICAL THERAPY 5 CREDITS**

Examines the theory and principles of physical therapy modalities. Course includes therapeutic heat and cold, traction, massage and hydrotherapy. PREREQUISITE: PTA 110

**PTA 124 REHAB PRINCIPLES OF MEDICAL MANAGEMENT I 2 CREDITS**

Investigates the impairments, functional limitations, and disabilities resulting from a variety of neuromusculoskeletal conditions. The medical management including pharmacology, and its impact on physical therapy rehab principles are discussed. Evidence based practice for musculoskeletal and neurological system diagnosis will be reviewed as they relate to physical therapy rehab.

**PTA 131 PROFESSIONAL COMMUNICATION I 1 CREDIT**

Introduces students to oral and written professional communication in their field. Develops skills in verbal and non-verbal communication, conducting self-critiques and peer reviews, research of professional literature, medical documentation, and professional presentations.

**PTA 134 REHAB PRINCIPLES OF MEDICAL MANAGEMENT II 2 CREDITS**

Investigates the impairments, functional limitations, disabilities and medical management, including pharmacology, of a variety of traumatic, immunological, inflammatory and degenerative processes and their impact on physical therapy rehab principles. Evidence based practice for cardiovascular, respiratory, endocrine and chronic pain diagnosis, will be reviewed as they relate to physical therapy rehab.

**PTA 135 PRINCIPLES OF ELECTRICAL STIMULATION 2 CREDITS**

Investigates the principles and application of electrical stimulation (ES) modalities currently used in physical therapy practice. Enables the student to understand the electrochemical and physiological effects of electrical stimulation and identify the various forms and applications of ES. PREREQUISITE: Admission to the PTA program.

**PTA 140 CLINICAL KINESIOLOGY 5 CREDITS**

Focuses on the science of human motion, theories of biomechanics and muscle/joint structure and function. Emphasizes 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.

**PTA 141 PROFESSIONAL COMMUNICATION II 1 CREDIT**

Builds on Professional Communications I and develops skills in writing professional documents to patients and other health care professionals, participating effectively in meetings, and medical documentation skills. PREREQUISITE: PTA 131

**PTA 176 ANATOMICAL KINESIOLOGY LABORATORY 4 CREDITS**

This course provides hands on opportunities for practical application of the theoretical principles of Anatomical Kinesiology. COREQUISITE: HPR 117

**PTA 205 PSYCHOSOCIAL ISSUES IN HEALTH CARE 2 CREDITS**

Explores the psychosocial aspects of the patient/client and health care practitioner. Investigates recognition of and adjustment for psychological, sociological, educational, cultural, economic and political concerns on the delivery of health care services. Communication skills and social and advocacy responsibilities of the health care practitioner are discussed. Enables the student to develop the skills to meet expectations and needs of members of society receiving health care services.

**PTA 230 ORTHOPEDIC ASSESSMENT AND MANAGEMENT 5 CREDITS**

Examines the theory and principles and practices of orthopedic conditions. Includes an understanding of assessment and management techniques pertaining to orthopedic conditions, goniometry, manual muscle testing, gait analysis, and posture analysis. PREREQUISITE: PTA 120

**PTA 240 NEUROLOGICAL ASSESSMENT AND MANAGEMENT 5 CREDITS**

Examines the theory and principles of physical therapy with an introduction to assessment, management techniques and advanced physical therapy procedures as they relate to neurologic, cardiac and pulmonary conditions. PREREQUISITE: PTA 230

**PTA 251 PROFESSIONAL COMMUNICATIONS III 1 CREDIT**

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. PREREQUISITE: PTA 141

**PTA 278 PTA SEMINAR 2 CREDITS**

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**

Focuses on an initial clinical exposure providing hands on 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 demonstrate professional behavior and communication principles appropriate in the physical therapy setting. A designated clinical Instructor in an acute care, geriatric, or outpatient setting provides supervision. PREREQUISITE: PTA 120

**PTA 281 PTA INTERNSHIP II 5 CREDITS**

Focuses on an intermediate clinical experience providing hands on patient practicum skills and techniques. 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 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 provides supervision. During the internship, the student presents an inservice on a physical therapy related topic. PREREQUISITES: Successful completion of all PTA curriculum or Instructor's permission

**PTA 282 PTA INTERNSHIP III VARIABLE CREDIT**

Incorporates advanced clinical experience providing hands on patient practicum skills and techniques. Students refine all physical therapy skills in preparation to enter the field as an entry-level physical therapist assistant. This final experience includes independent practice with an assigned caseload under the on-site supervision of a clinical Instructor. The student presents an inservice on a physical therapy related topic. PREREQUISITES: Successful completion of all PTA curriculum or Instructor's permission.

**PTA 285 INDEPENDENT STUDY VARIABLE CREDIT**

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. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1.

**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. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1.

**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. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1.

**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 advance sciences. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1.

**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. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1.

**PHY 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**PHY 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: Instructor's permission

## Political Science

**POS 105 INTRODUCTION TO POLITICAL SCIENCE 3 CREDITS**

Focuses on a survey of the discipline of political science, including political philosophy and ideology, democratic and non-democratic governments, and processes, and

international relations. This course is one of the Statewide Guaranteed Transfer courses. GT-SS1.

**POS 111 AMERICAN GOVERNMENT 3 CREDITS**

Includes the background of the U.S. Constitution, the philosophy of American government, general principles of the Constitution, federalism, and civil liberties. Examines public opinion and citizen participation, political parties, interest groups, and the electoral process, and the structure and functions of the national government. This course is one of the Statewide Guaranteed Transfer courses. GT-SS1.

**POS 125 AMERICAN STATE AND LOCAL GOVERNMENT 3 CREDITS**

Emphasizes the structure and function of state, county, and municipal governments including their relations with each other and with national government. Includes a study of Colorado government and politics.

**POS 205 INTERNATIONAL RELATIONS 3 CREDITS**

Examines relationships among modern nation states. Topics include diplomacy, nationalism, ideologies, power and influence, conflict and cooperation, the role of nonstate actors, the international economy and theoretical attempts to understand international behavior. This course is one of the Statewide Guaranteed Transfer courses. GT-SS1.

**POS 215 CURRENT POLITICAL ISSUES VARIABLE CREDIT**

Incorporates an in-depth analysis of critical issues in political science. Examines current topics and issues.

**POS 225 COMPARATIVE GOVERNMENT 3 CREDITS**

Focuses on a comparison of the basic features of selected developed and developing countries. Topics include ideologies, political parties, interest groups, and governmental institutions. This course is one of the Statewide Guaranteed Transfer courses. GT-SS1.

**POS 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**POS 285 INDEPENDENT STUDY VARIABLE CREDITS**

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified Instructor. PREREQUISITE: Instructor's permission

## Psychology

**PSY 101 GENERAL PSYCHOLOGY I 3 CREDITS**

Focuses on the scientific study of behavior including motivation, emotion, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning, and memory. This course is one of the Statewide Guaranteed Transfer courses. GT-SS3.

**PSY 102 GENERAL PSYCHOLOGY II 3 CREDITS**

Focuses on the scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, life span development, and social psychology. This course is one of the Statewide Guaranteed Transfer courses. GT-SS3.

**PSY 110 CAREER DEVELOPMENT 3 CREDITS**

Assists students in recognizing their career potential, and provides tools for making realistic decisions concerning educational and occupational objectives.

**PSY 116 STRESS MANAGEMENT 3 CREDITS**

Identifies the physiological, emotional and behavioral aspects of stress. Techniques of stress reduction and management are explored and applied, including nutrition, exercise, assertiveness, time management, and financial management. This course is not designed for transfer.

**PSY 200 RESEARCH METHODOLOGY 3 CREDITS**

Introduces research methods and designs, including correlational studies, experimental designs, and quasi-experimental designs. Additional topics include evaluation of scientific research, data analysis, report writing, and research ethics. PREREQUISITE: PSY 101 or 102

**PSY 205 PSYCHOLOGY OF GENDER 3 CREDITS**

Examines gender comparisons in work, courtship, family life, and sexual behavior throughout the life span. PREREQUISITES: ENG 090, REA 090 or equivalent CPT test scores. This course is one of the Statewide Guaranteed Transfer courses. GT-SS3.

**PSY 226 SOCIAL PSYCHOLOGY 3 CREDITS**

Focuses on the behavior of humans in social settings, including attitudes, aggression, conformity, cooperation and competition, prejudice, and interpersonal attraction. PREREQUISITES: 3 hours of general PSY; 3 hours of introductory SOC or Instructor's permission

**PSY 235 HUMAN GROWTH AND DEVELOPMENT 3 CREDITS**

Examines human development from conception through death, emphasizing physical, cognitive, emotional, and psychosocial factors. This course is one of the Statewide Guaranteed Transfer courses. GT-SS3.

**PSY 238 CHILD DEVELOPMENT 3 CREDITS**

Focuses on the growth and development of the individual, from conception through childhood, emphasizing physical, cognitive, emotional, and psychosocial factors. PREREQUISITES: 3 hrs. general PSY or Instructor's permission. This course is one of the Statewide Guaranteed Transfer courses. GT-SS3.

**PSY 247 CHILD ABUSE AND NEGLECT 3 CREDITS**

Examines the causes and effects of physical, sexual, and psychological abuse and neglect. Intervention and prevention strategies are emphasized.

**PSY 275 SPECIAL TOPICS 1-6 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**PSY 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: 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**

Focuses on strategies for vocabulary development, improved reading comprehension, and enrichment. PREREQUISITE: CPT reading score 40-61; COREQUISITES: ENG 060/090 are recommended

**REA 090 COLLEGE PREPARATORY READING 3 CREDITS**

Enables the student to apply strategies for improving comprehension, developing vocabulary, and increasing rate for reading college textbooks. PREREQUISITE: CPT reading score 62-79; COREQUISITES: ENG 060/090 are recommended

**REA 112 SPEED READING 2 CREDITS**

Improves reading comprehension and speed of reading for students who want to enhance skills for success in college or career environments. PREREQUISITE: CPT reading score 80-120

**REA 275 SPECIAL TOPICS VARIABLE CREDIT**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**REA 285 INDEPENDENT STUDY 3 CREDITS**

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified Instructor.

**Real Estate****REE 115 INTRO TO REAL ESTATE 3 CREDITS**

Focuses on the function of the real estate broker, sales techniques, real estate ethics. Course is intended for students that want 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**

Focuses on the technique and theory of appraisal as it relates to single family residences with emphasis on market data correlation. Includes standard and ethics section. Course qualifies for application to State Registered License.

**REE 119 15-HOUR NATIONAL USPAP COURSE 1 CREDIT**

Satisfies the 16-hour continuing education requirement (standard) for licensed real estate appraisers including one hour of state appraisal rules and regulations.

**REE 201 REAL ESTATE BROKER I 6 CREDITS**

Enables the student, in conjunction with REE 202 - Real

Estate Brokers II, to meet the educational requirements of the Colorado Real Estate Commission for a Colorado Real Estate Brokers` license. This course includes Real Estate Law and Practice, practical applications, and Current Legal Issues.

**REE 202 REAL ESTATE BROKER II 6 CREDITS**

Enables the student, in conjunction with REE 201 - Real Estate Brokers I, to meet the educational requirements of the Colorado Real Estate Commission for a Colorado Real Estate Brokers` license. This course includes Colorado Contracts and Regulations, Closings, and Recordkeeping and Trust Accounts.

## Science

**SCI 155 INTEGRATED SCIENCE I 4 CREDITS**

Examines the nature of energy and matter, their interactions and changes, and the application of fundamental concepts to the study of our natural world. These concepts will be explored in hands-on laboratory experiments. This course integrates the fundamental concepts and ideas about the nature of physics and chemistry with the natural world. This course is one of the Statewide Guaranteed Transfer courses. GT-SS1.

**SCI 156 INTEGRATED SCIENCE II 4 CREDITS**

Examines earth and biological systems, living and non-living environments, through the application of fundamental energy and matter concepts. These systems and concepts will be explored in hands-on laboratory experiments. This course is one of the Statewide Guaranteed Transfer courses. GT-SS1.

## Sociology

**SOC 101 INTRO TO SOCIOLOGY I 3 CREDITS**

Examines the basic concepts, theories, and principles of sociology as well as human culture, social groups, and the social issues of age, gender, class, and race. This course is one of the Statewide Guaranteed Transfer courses. GT-SS3.

**SOC 102 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. GT-SS3.

**SOC 205 SOCIOLOGY AND FAMILY DYNAMICS 3 CREDITS**

Develops an understanding of marriage, family and kinship. It examines the family as an institution and how social, cultural and personal factors influence family relations. The stability and diversity of the family will be explored, along with current trends and some alternative life styles.

**SOC 215 CONTEMPORARY SOCIAL PROBLEMS 3 CREDITS**

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**

Explores the variety of inter-group relations regarding race, nationality, ethnicity, gender, sexual orientation, and other diversity issues. Patterns of prejudice, discrimination and possible solutions to these issues will be addressed.

**SOC 275 SPECIAL TOPICS 1-3 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**SOC 285 INDEPENDENT STUDY VARIABLE CREDIT**

Meets the individual needs of students. Students engage in intensive study or research under the direction of a qualified Instructor.

## Spanish

**SPA 101 CONVERSATIONAL SPANISH I 3 CREDITS**

Offers beginning students the skills necessary to understand and speak Spanish. The material includes basic vocabulary, grammar, and expressions that are used in daily situations and in travel.

**SPA 102 CONVERSATIONAL SPANISH II 3 CREDITS**

Offers students the skills necessary to understand and speak Spanish. The material continues to cover basic conversations patterns, expressions, and grammar. PREREQUISITE: SPA 101 or Instructor's permission

**SPA 111 SPANISH I 5 CREDITS**

Deals with the development of functional proficiency in listening, speaking, reading and writing the Spanish language. Note: The order of the topics and methodology will vary according to individual texts and Instructors.

**SPA 112 SPANISH II 5 CREDITS**

Continues Spanish Language I in the development of functional proficiency in listening, speaking, reading and writing the Spanish language. Note: The order of the topics and the methodology will vary according to individual texts and Instructors. PREREQUISITE: SPA 111 or Instructor's permission

**SPA 114 FAST-TRACK SPANISH I AND II 5 CREDITS**

Designed to bridge beginning SPA courses with intermediate SPA courses. It is designed for students who have studied two years of the target language 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: 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**

Provides students with the skills necessary continue to their study of understanding and speaking Spanish. The material

includes intermediate level vocabulary, grammar, and expressions. PREREQUISITE: SPA 102 or Instructor's permission

**SPA 202 CONVERSATIONAL SPANISH IV 3 CREDITS**

Provides students the skills necessary to continue their study of understanding and speaking Spanish. The material will continue to cover intermediate level conversational patterns, expressions, and grammar. PREREQUISITE: SPA 201 or Instructor's permission

**SPA 211 SPANISH III 3 CREDITS**

Continues Spanish Language I and II in the development of increased functional proficiency in listening, speaking, reading and writing the Spanish language. Note: The order of the topics and the methodology will vary according to individual texts and Instructors. PREREQUISITE: SPA 112 or Instructor's permission. This course is one of the Statewide Guaranteed Transfer courses. GT-AH4.

**SPA 212 SPANISH IV 3 CREDITS**

Continues Spanish Language I, II and III in the development of increased functional proficiency in listening, speaking, reading and writing the Spanish language. Note: The order of the topics and the methodology will vary according to individual texts and Instructors. PREREQUISITE: SPA 211 or Instructor's permission. This course is one of the Statewide Guaranteed Transfer courses. GT-AH4.

**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 261 GRAMMAR FOR THE HERITAGE SPEAKER 3 CREDITS**

Provides formal grammatical instruction to Foreign Language students whether native or bilingual who want to develop their existing proficiency in the target language. PREREQUISITES: SPA 212 or Instructor's permission. Oral proficiency at the 4th semester level.

**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: Instructor's permission

## Speech

**SPE 115 PUBLIC SPEAKING 3 CREDITS**

Combines the basic theory of speech communication with public speech performance skills. Emphasis is on speech delivery, preparation, organization, support, and audience analysis.

**SPE 125 INTERPERSONAL COMMUNICATION 3 CREDITS**

Examines the communication involved in interpersonal

relationships occurring in family, social and career situations. Relevant concepts include self-concept, perception, listening, nonverbal communication, and conflict.

**SPE 216 PRINCIPLES OF SPEECH COMMUNICATION II 3 CREDITS**

Emphasizes the intensification of ideas and styles with a focus on persuasive speaking. The course includes additional studies in rhetorical analysis and oral delivery methods. PREREQUISITE: SPE 115

**SPE 225 ORGANIZATIONAL COMMUNICATION 3 CREDITS**

Studies human communication systems and patterns in business and organizational settings. Topics include exploration of leadership strategies; effective managerial communication skills with peers, superiors and subordinates; and organizational communication environments, networks, and goal. PREREQUISITE: SPE 115

**SPE 226 ORAL INTERPRETATION 3 CREDITS**

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 VARIABLE CREDITS**

Provides students with a vehicle to pursue in-depth exploration of special topics of interest.

**SPE 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: Instructor's permission

## 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**

Enables students to interpret geometric dimensioning and tolerancing (GDT) in machining or drafting. The course covers math formulas, tolerancing systems, modifiers, symbols, datums, and tolerances of form, profile, orientation, runout and location. Students learn 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**

Includes discussions, workshops, and lectures designed to discover, analyze and evaluate all aspects of the theatre experience: scripts, acting, directing, staging, history, criticism and theory. This course is one of the Statewide Guaranteed Transfer courses. GT-AH1.



**THE 110 THEATRE IN DENVER 3 CREDITS**

Acquaints 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 milieu.

**THE 111 ACTING I 3 CREDITS**

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**

Continues to explore basic acting techniques and approaches including scene study, improvisation, and intermediate script analysis. It includes practical application through classroom performance. PREREQUISITE: 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 141 IMPROVISATION I 1 CREDIT**

Helps students learn improvisation skills for performance and character development. Emphasis is placed on "Second City" style of improvisation.

**THE 143 BASIC ACTING TECHNIQUE` 3 CREDITS**

Offers scene work and acting exercises for people with little or no training or experience in the theatre. The Stanislavski System of character analysis and development is stressed.

**THE 181 INTERNSHIP 1 CREDIT**

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.

**THE 182 INTERNSHIP 1-3 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 business location and with the direct guidance of the Instructor.

**THE 183 INTERNSHIP 1-3 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 business location and with the direct guidance of the Instructor.

**THE 211 DEVELOPMENT OF THEATRE I 3 CREDITS**

Surveys the history and evolution of drama from Ancient Greece to the Renaissance, emphasizing all aspects of the art from period values to analysis of dramatic literature and performance. This course is one of the Statewide Guaranteed Transfer courses. GT-AH1.

**THE 212 DEVELOPMENT OF THEATRE II 3 CREDITS**

Surveys the history and evolution of drama from the Renaissance to the present, emphasizing all aspects of the art from period values to the analysis of dramatic literature and performance. This course is one of the Statewide Guaranteed Transfer courses. GT-AH1.

**THE 275 SPECIAL TOPICS 1-3 VARIABLE CREDITS**

Explores current topics, issues and activities related to one or more aspects of the named discipline.

**THE 285 INDEPENDENT STUDY 1-3 VARIABLE 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 accommodations, 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/cultural 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.

# CORPORATE LEARNING DIVISION

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*Your premier training source for business growth and employee development*

The **Corporate Learning Division** is the workforce training and development division of Arapahoe Community College (ACC). This division specializes in customized non-credit corporate training, computer applications training, interpersonal skills development, and technical training needed to upgrade skills, improve performance and increase organizational efficiency. We serve individuals and companies throughout the Denver Metro area and Colorado.

Our **expert facilitators** have corporate backgrounds and experience delivering training for many industries. Our **flexibility** enables us to deliver training according to *your schedule at your location or ours*. We focus on **customizing** training, which sets us apart from other training organizations. Our **cost-effective** training programs help maximize training dollars. We also help companies obtain federal and state **grant funded training dollars**.

We deliver **top-quality** training programs that are current with business issues and trends. **Delivery options** include facilitator-led, online and hybrid training.

**Our workplace assessment** services help employers target specific aptitudes, skills and mental abilities of applicants and current employees. After assessing the students, we will create training programs to strengthen skills.

**Coaching** is critical for training success and ensures the transfer of learning. Coaching, implemented at an organizational level, can deliver dramatic results and drive significant impact to the bottom line. Value-based organizations employ coaching to build alignment and develop current and future leaders – earning success and transfer of skills in the workplace.

**Curriculum Development** We can design, develop and deliver training programs for staff located anywhere in the country. Our most popular curriculum development solution is interactive DVD training to help duplicate your training throughout your organization. For more information, call 303-734-3701 or visit [www.coloradotraining.com](http://www.coloradotraining.com)

## NON-CREDIT COURSES COMMUNITY EDUCATION

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

Visit our Web site at [www.arapahoe.edu](http://www.arapahoe.edu). Click on Non-Credit Courses. You can register for classes online with a credit card or call 303.797.5722. The Non-Credit program is located in Room 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

**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

**Language and Culture**—Courses for travelers, business interests or for pleasure, including English as a second language

**Home and Garden**—Workshops for inside and outside the home for the do-it-yourselfer

**Health and Fitness**—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 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.

**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, Hudson Gardens and Events Center, Euclid Middle School, Highlands Ranch High School 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 degrees 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. 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. You must be 17 years of age to take the GED test. For information about the GED test, contact the Testing Center at 303.797.5993. For more information about GED classes, call the Non-Credit Program office at 303.797.5722.

# COLLEGE ADMINISTRATORS

Becker-Lutz, Jill	<i>Budget Analyst</i>	Masco, Heather	<i>Manager, Records</i>
Brantz, Malcolm	<i>Director of Weber Center for Learning Resources</i>	McFarren, Cheryl	<i>Dean of Arts, Humanities and Social Sciences</i>
Briggs-Jackson, Darcy	<i>Registrar, Director of Admissions, Records and Information Central</i>	McLees, Jan	<i>Coordinator of Career Education Center</i>
Castro, David	<i>Chief Operating Officer</i>	Mueller, Linda	<i>Coordinator, Learning Support Services</i>
Chelland, Carol	<i>Manager, Facilities Rental</i>	Myrant, Glee	<i>Disability Services Operations Specialist</i>
Chrislip, Donna	<i>Grant Writer</i>	Newman, Buz	<i>Network Manager</i>
Christopher, Lee	<i>e-Learning Manager</i>	Ngo, Tram	<i>Staff Accountant/Operations</i>
Clark, Terry	<i>Manager, Human Resources</i>	Nowak, Cindy	<i>Director of Corporate Learning Division</i>
Comeaux, Linda	<i>Dean of Health, Math, Science and Engineering</i>	Oakes, Janna	<i>Interim Dean of Business</i>
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Duffus, Maryann	<i>Financial Aid Counselor/ Loan Processor</i>	Peoples, Mary	<i>Paralegal Program Coordinator/Instructor</i>
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Goldberg, Debra	<i>Coordinator of Tutorial Services</i>	Rexroth, Susan	<i>Disability Services Specialist</i>
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Hultgren, Brian	<i>Financial Aid Counselor</i>	Snead, Bob	<i>Director of Institutional Research</i>
Jones, Yvonne	<i>Instructional/CPT Testing Specialist</i>	Spaulding, Thad	<i>Associate Director of Financial Aid</i>
Johnson, Sharon	<i>Community Education Program Manager</i>	Thorland, Kristi	<i>Coordinator of Academic Advising</i>
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Lorenzo, Joseph	<i>Controller</i>		
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# COLLEGE FACULTY

---

## \*Distinguished Faculty

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J.D., California Western School of Law
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M.A., University of Wyoming
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B.A., Physics, University of Colorado  
M.A., Equivalent by portfolio
- Troutman, Gary—*Faculty, Computer Information Systems*  
A.S.E.E., Colorado Technical Institute  
B.S.E.E., University of Nebraska  
M.A., Regis University  
M.B.A., University of Denver
- Viola, Dawn—*Faculty, Interior Design,*  
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M.A., University of Colorado  
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# INDEX

A.A. and A.S. Two Year Guarantee .....	29	CCCOOnline.....	20
A.A. Elementary Education .....	33	Calendar, College.....	4
A.A. Music Emphasis .....	34	Campus Police .....	12
A.G.S. Degree Requirements.....	35	Cancellation of Classes .....	13
Academic Achievement .....	82	Career Center .....	13
Academic Load .....	22	Carpentry.....	51, 94
Academic Probation/Suspension .....	23	Chemistry.....	95
Academic Policies and Procedures .....	22	Child Development .....	13
Academic Renewal.....	23	Closure of College .....	13
Academic Standards.....	22	Clubs and Organizations .....	18
Accelerated Courses.....	19	Code of Conduct .....	19
Accounting .....	42, 78	College Directory.....	1
Accreditation.....	2	College Programs of Instruction .....	30
Active Duty, Military .....	6	College Administrators .....	153
Activities, Student.....	18	Colorado Gallery of the Arts.....	20
Activity Professionals' Training .....	43, 83	Colorado Guaranteed Transfer Program .....	29
Add/Drop .....	23	Community Education .....	152
Administration, College.....	153	Computer and Networking Security .....	53, 99
Administrative Withdrawal.....	25	Computer Aided Drafting .....	52, 96
Advising .....	5	Computer Graphics .....	73, 135
Air Force ROTC .....	84	Computer Information Systems .....	52, 97
American Sign Language.....	84	Computer Lab .....	16
Anthropology .....	84	Computer Network Technology.....	54, 99
Application/Registration Checklist.....	5	Computer Science .....	102
Applied Technology .....	43	Computer Support Professional .....	56
Applying for Admission.....	5	Computer Technician .....	57
Arabic .....	85	Computer Web Based.....	104
Arapahoe/Douglas Career and Technical School.....	20	Computerized Placement Test (CPT).....	12
Architectural Drafting.....	85	Conduct, Student.....	14
Architecture.....	44, 86	Construction Estimating.....	58
Army ROTC.....	22, 86	Construction Supervision.....	58
Arrangement Courses.....	19	Convergent Technologies.....	58
Art .....	87	Corporate Learning Division .....	152
Articulation Agreements .....	31	Course Descriptions .....	82
Assessment.....	11	Courses	
Associate degrees.....	31	Adding and Dropping .....	23
Astronomy.....	89	Audit of.....	24
Attendance .....	23	Cancellation of.....	13
Audit of courses .....	24	Challenge of.....	15
Automotive Technology.....	45, 89	Repetition of .....	26
Bachelor's Degree.....	20	Substitution of.....	24
Biology .....	91	Withdrawing from.....	7
Bookkeeping and Office .....	51	Credit for Prior Learning .....	14
Bookstore .....	12	Crime Analysis.....	59
Broadband Degree and Certificates .....	38	Criminal Justice .....	59
Business Administration .....	46	Cultural Opportunities .....	20
Business Courses .....	92	Degree Requirements.....	31
Business Technologies .....	51, 93	Developmental Studies .....	20



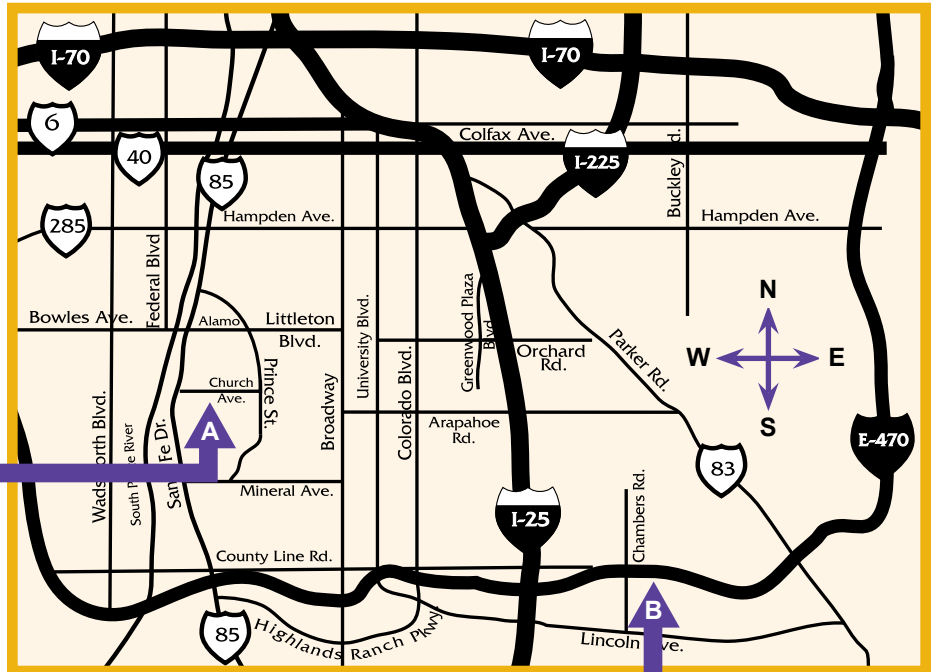
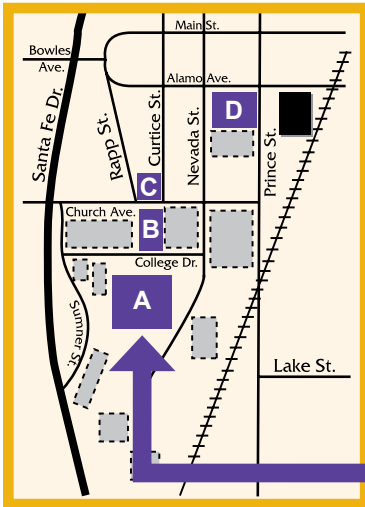
Digital Media Technologies .....	60	Housing .....	15
Directory .....	1	Humanities .....	124
Disability Services .....	11	Human Performance .....	67
Disclosures .....	11	Hybrid Courses .....	19
Diversity .....	20	Incomplete Grade.....	24
Drafting .....	109	Independent Study .....	21
Drug and Alcohol Abuse Prevention.....	14	Information Central.....	15
Early Childhood Education.....	61, 109	Insurance .....	126
Economics.....	111	Interior Design .....	68, 124
Education .....	111	International Events .....	20
Electronics Engineering Technology .....	113	Investments .....	126
Emergency Medical Services.....	62, 114	Japanese .....	127
Emergency Messages.....	14	Job Placement Services.....	13
Employment Services .....	13	Journalism.....	127
Employment Strategies .....	115	Late Start Classes.....	19
Engineering .....	115	Latin .....	127
English Courses .....	116	Law Enforcement Academy.....	60
English as a Second Language.....	116	Learning Options .....	19
Equal Opportunity.....	15	Legal Assistant (see Paralegal) .....	75
Extended Campus .....	1	Library .....	22
Faculty .....	154	Literature.....	128
Film and Video Technology.....	117	Loans, Student.....	9
Finance .....	117	Lost and Found .....	15
Financial Aid Program .....	8	Management.....	129
Financial Services .....	65, 117	Manufacturing Technology.....	130
Fitness Center.....	21	Marketing.....	130
FLEX Courses.....	19	Mathematics.....	131
Food Services.....	15	Mechanical Design and Drafting Technology .....	70
French .....	119	Medical Laboratory Technology .....	70, 132
GED .....	152	Medical Office Technology.....	71, 133
General Education Requirements .....	41	Mentoring.....	15
Geographic Information Systems .....	120	Microsoft 2003 Network Administration.....	55
Geography.....	120	Microsoft Certified System Engineer.....	57
Geology 120		Military Credit .....	21
Grade Corrections .....	25	Minority Student Support .....	16
Grade Point Average .....	25	Mortgage Banking .....	66
Grade Reports .....	15	Mortuary Science.....	72, 134
Grading System.....	24	Multimedia/Graphic Design.....	73, 135
Graduation.....	28	Music .....	137
Graduation Checklist .....	28	Network Specialist.....	54
Grants and Scholarships.....	9	Networking Security Certificate .....	55
Graphic Design and Illustration (See Multimedia/Graphic Design) .....	73, 135	Nurse Aide Program.....	74, 139
Great Books Achievement Awards .....	21	Nursing .....	74, 139
Health Information Technology .....	66, 122	PN to RN Fast Track.....	74
Health Professions .....	120	Practical Nursing.....	74
Health and Wellness Education.....	121	Office Technologies .....	51, 94
High School Student Admissions.....	6	Online Courses.....	19
History .....	123	Paralegal .....	75, 140
Honors .....	25	Paramedicine.....	63
		Payment Options.....	16

Peer Mentoring.....	15	Spanish .....	149
Pharmacy Technician.....	76, 141	Speech .....	150
Phi Theta Kappa.....	21	Spring International Language Center.....	22
Philosophy.....	142	Student Bill of Rights.....	18
Photography .....	87	Student Class Definitions.....	18
Physical Education.....	145	Student Conduct and Discipline.....	26
Physical Fitness Specialist.....	67	Student Government .....	18
Physical Therapist Assistant.....	145	Student Handbook.....	18
Physics .....	146	Student ID Cards.....	18
Placement Testing .....	11	Student Publications.....	18
Political Science.....	147	Student Rights.....	18
Privacy Act (FERPA).....	16	Student Records .....	16
Probation/Suspension.....	23	Student Services.....	11
Professional Achievement Awards.....	78	Substitution of Courses.....	24
Programs of Instruction.....	30	Technical Engineering.....	150
Psychology .....	147	Testing Services .....	11
Reading .....	148	Theatre .....	150
Real Estate .....	148	Transcripts.....	16
Records, Student .....	16	Transfer and Articulation .....	29
Refund Policy.....	7	Transfer Programs.....	29
Registration.....	5	Travel and Tourism Management .....	151
Repeat Courses.....	26	Tuition and Fees.....	6
Residency.....	6	Veterans' Affairs.....	8
ROTC .....	22, 84	Weber Center for Learning Resources (Library) .....	22
Scholarships and Grants.....	9	Web Authoring .....	73
Science .....	149	Wireless Internet Access .....	19
Sexual Harassment.....	17	Withdrawals	
Sign Language .....	84	from Classes.....	7, 24
Smoking .....	18	from College .....	7
Sociology .....	149	Work-Study .....	10

# CAMPUS LOCATIONS

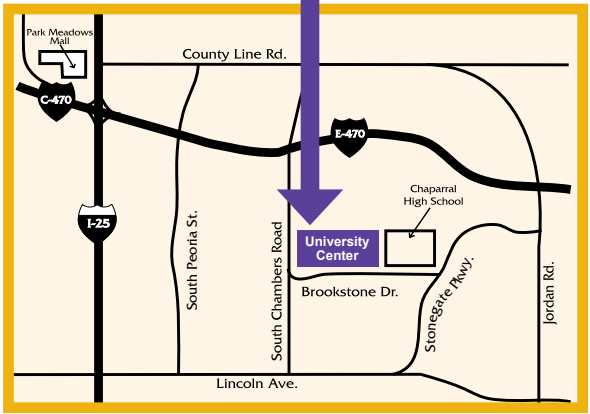
**A** Main Campus, Annex, North Bldg,  
Church Street Building and Art & Design Center

**B** University Center at Chaparral (Parker)

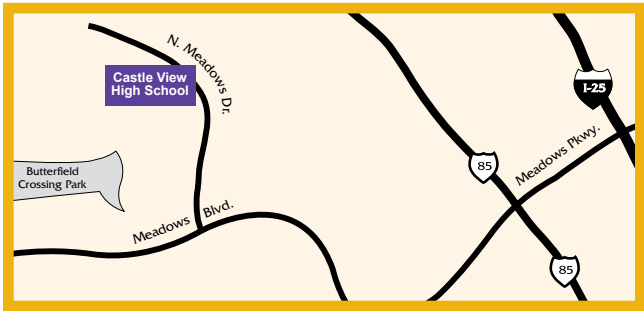


- A** ACC Main Campus & Annex
- B** North Building
- C** Church Street Building
- D** Art & Design Center
- ACC Parking Lots
- Light Rail Station

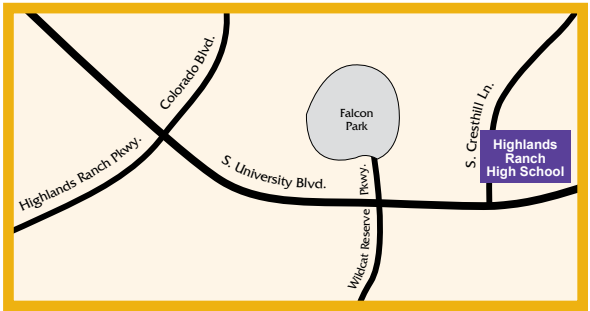
**University Center at Chaparral**  
15653 Brookstone Dr.  
Parker, CO.  
3 miles east of I-25  
303.734.4822.

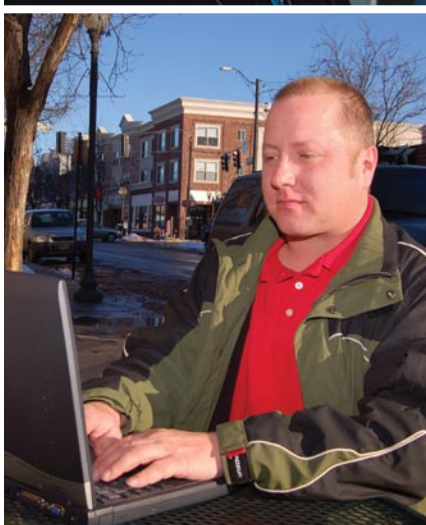
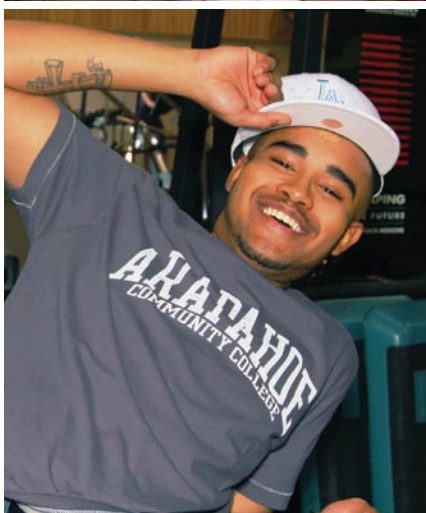


**Castle View High School**  
5254 Meadows Dr.  
Castle Rock, CO 80109-8402



**Highlands Ranch High School**  
9375 Cresthill Lane  
Highlands Ranch, CO 80130-4408





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