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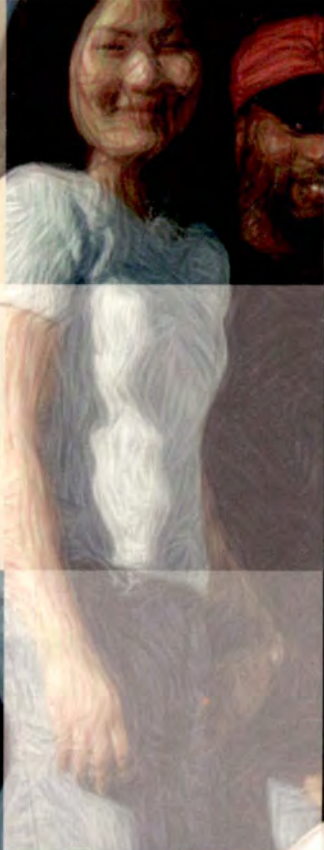
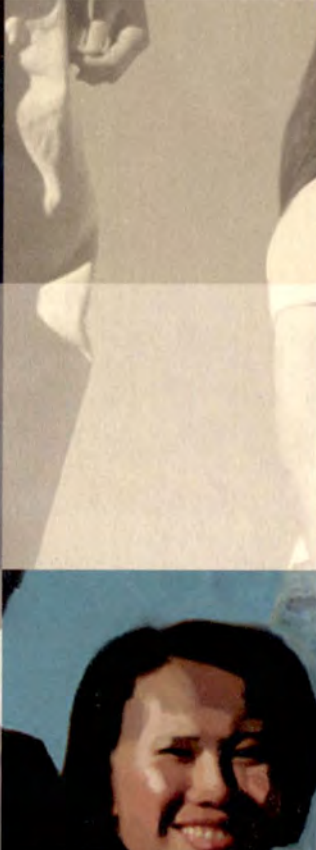
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COMMUNITY COLLEGE OF DENVER

Downtown Auraria Campus

South Classroom Building, Room 134
1111 West Colfax Avenue
P.O. Box 173363
Denver, CO 80217-3363
(303) 556-2600

Technical Education Centers

TEC East

3532 Franklin Street
Denver, CO 80205

TEC North

6221 Downing Street
Denver, CO 80216

TEC West

Diamond Hill Complex
2420 West 26th Avenue #100D
Denver, CO 80211





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<http://www.ccd.cccoes.edu/>

July 1997

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FAX (303) 556-8555



TECHNICAL EDUCATION CENTERS

TEC North

6221 Downing Street
Phone (303) 289-2243 / Fax (303) 289-1044

TEC East

3532 Franklin Street
Phone (303) 293-8737 / Fax (303) 292-4315

TEC West

2420 West 26th Avenue Suite 100D
Phone (303) 477-5864 / Fax (303) 477-5894



CCD DENTAL HYGIENE CENTER

Lowry Higher Education Center

960 Xanthia Street, Building #753
Phone (303) 556-2472/ Fax (303) 556-4583

DIVISION OF CONTINUING EDUCATION

Parkway Center

1391 North Speer Boulevard Suite 200
Denver, CO 80204-2552
Phone (303) 620-4433 / Fax (303) 620-4942

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TELEPHONE DIRECTORY

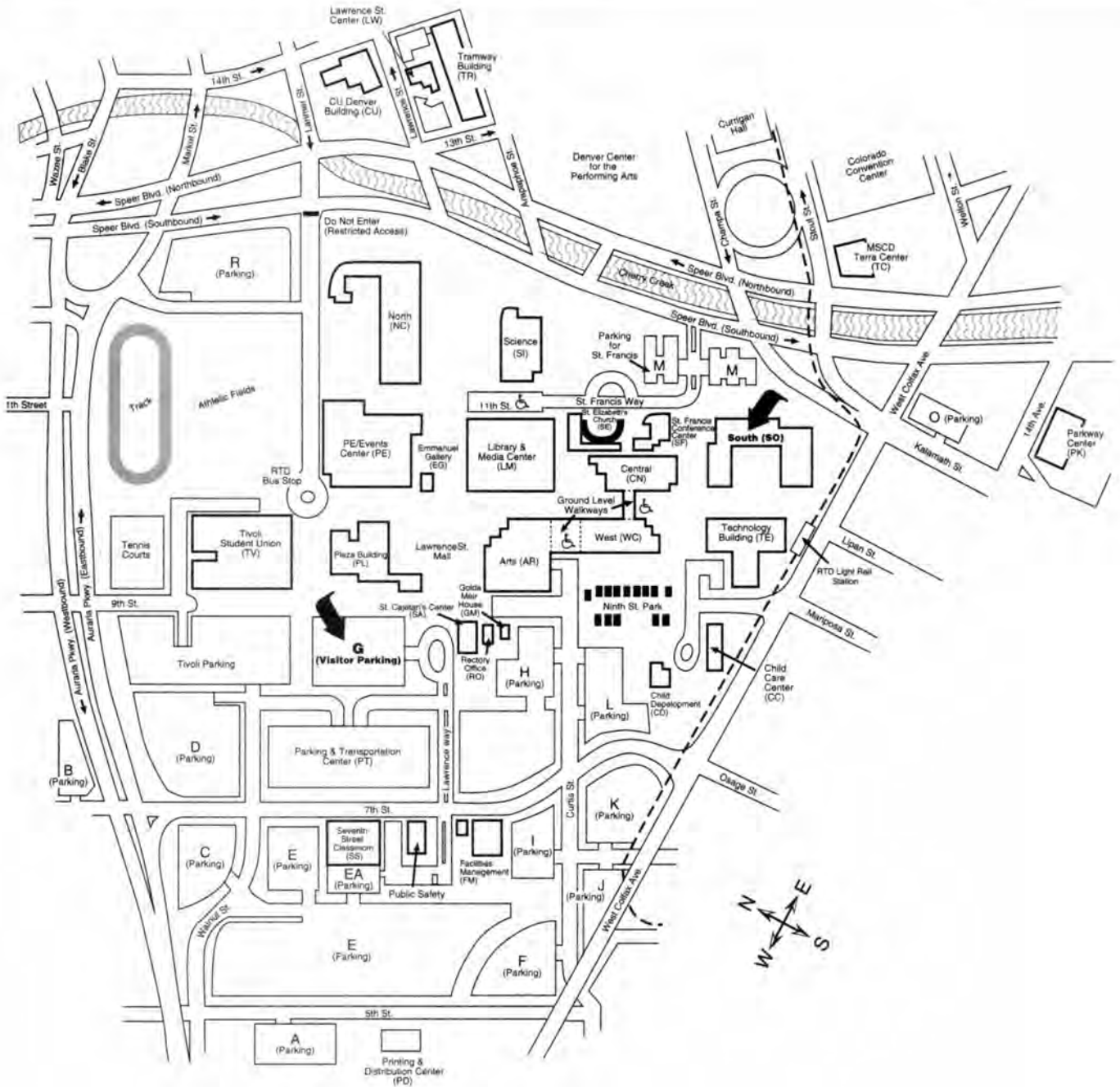
telephone directory



Admissions, Registration and Records	556-2430	Health and Human Services	556-2472
Arts and Humanities	556-2473	Anthropology; Dental Hygiene; Gerontology; Health and	
Arabic; Art; American Sign Language; Communication;		Wellness Management; Human Services; Magnetic	
Chinese; English; French; Graphic Arts; Graphic Design;		Resonance Imaging; Mammography; Nuclear Medicine	
History; Humanities; Journalism; Japanese; Literature;		Technology; Nursing; Nutrition; Perioperative Nursing;	
Multimedia; Music; Paralegal; Philosophy; Photography;		Psychiatric Technician; Psychology; Radiologic	
Spanish; Speech; Theatre		Technology; Recreational Assistant; Sociology; Surgical	
Auraria Interfaith Center	556-8591	Technology	
Book Center, Auraria	556-3230	Information	556-2600
Business and Governmental Studies	556-2487	International Student Services	556-2600
Accounting; Business Administration;		Learning Development Center	556-2497
Business Technology; Office Management & Secretarial		Library, Auraria	556-2741
Studies; Computer Information Systems; Construction		Office of Institutional Advancement	556-3380
Trades; Economics; Political Science		Parking and Transportation, Auraria	556-2000
Business and Industry Services	620-4427	President of CCD	556-2411
Cashier	556-2075	Public Safety	556-3271
Campus Closure	556-2401	Emergency	911
Campus Operator	556-2400	Recruitment and Outreach	556-2600
Campus Recreation	556-3210	Refugee Student Services	556-2600
Career Development Services Center	556-3609	Science and Technology	556-2460
Center for Persons with Disabilities	556-3300	Biology; Chemistry Computer-Aided Drafting;	
Child Development Center	556-2439	Computer Science; Drafting for Industry; Electronics;	
Computer Labs	556-3628	Geography; Geology; Mathematics; Physics;	
Computer Training for		Environmental and Refrigeration Technology	
People with Disabilities	556-3300	Student Activities	556-2597
Continuing Education	620-4433	Student Assistance Center	
Extended-Campus Credit Classes; Guided Independent		and Women's Services	556-2343
Study; Home Study, Television Courses, On-line Courses;		Teaching/Learning Center	556-3598
Weekend College		Technical Education Centers	
Cooperative Education	556-3607	East	293-8737
Dental Hygiene, Lowry Campus	364-4821	North	289-2243
Education and Academic Services	556-8455	West	477-5864
Academic Support Center; Early Childhood Education;		Testing Center	556-3810
Education; English as a Second Language;		Veteran's Office	556-2452
General Education Development; Pre-collegiate English;		Vice President for Instruction	556-2414
Pre-collegiate Mathematics; Reading;		Vice President for Student Services	556-2413
Special Learning Support Program;		Vice President for Technical Education Centers ...	289-2243
Test Center; Supplemental Services;			
Student Support Services			
Educational Opportunity Center	629-9226		
Educational Planning and Advising	556-2481		
Financial Aid	556-2420		

AURARIA CAMPUS

ccd on the auraria campus



RTD Light Rail Station on Auraria Campus

West Colfax Avenue, between Lipan and Mariposa Streets

RTD Routes to the Auraria Campus

Via Auraria Parkway: #0, #15 • Via Colfax: #1, #9, #16, #29L, #30, #31, #36L • Via 7th Street: #10

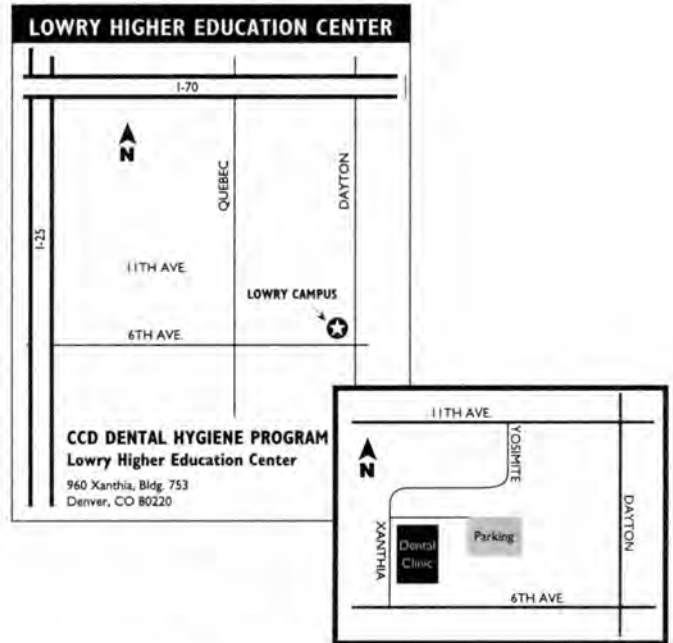
4 Hours of Free Parking

in Lot G for prospective students who are being assessed and/or registering. Bring your ticket to South Classroom Building room 134 for validation.

Your student fee-paid Regional Transportation District (RTD) bus pass entitles you to ride buses and Light Rail free in the Denver area. For an additional fee, your bus pass also gives you regional service.

OFF-CAMPUS SITES

technical education centers & dental hygiene program



TEC East

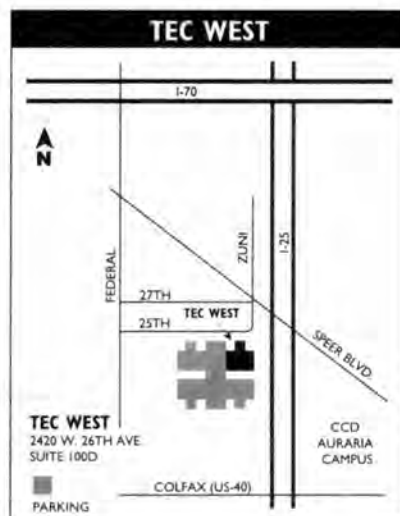
3532 Franklin, Denver, CO 80205
293-8737

TEC North

6221 Downing, Denver, CO 80216
289-2243

TEC West

Diamond Hill Complex
2420 W. 26th Ave., #100D, Denver, CO 80211
477-5864



CCD Dental Hygiene Program

Lowry Higher Education Center
960 Xanthia, Bldg 753
Denver, CO 80220
364-4821

CALENDAR

1997/98 academic calendar

Fall 1997

Registration	July 1-Aug. 29
Classes begin	Aug. 25
Labor Day Holiday	Sept. 1
	Campus Closed
CCD Project Success Day	Oct. 8
CCD Advising Day	Nov. 18
Thanksgiving Day Holiday	Nov. 27
	Campus Closed
Friday after Thanksgiving	Nov. 28
	Campus Open, No Classes
Classes End	Dec. 13
MSCD/UCD Final Exams Start	Dec. 15
MSCD/UCD Final Exams End	Dec. 20

Spring 1998

Registration	Nov. 18, -Jan. 26
Martin Luther King Jr. Holiday	Jan. 19
	Campus Open, No Classes
Classes Begin	Jan. 20
CCD Project Success Day	March 4
Spring Break	March 16-21
CCD Advising Day	April 21
Classes End	May 13
MSCD/UCD Final Exams Start	May 11
MSCD/UCD Final Exams End	May 16

Summer 1998

Registration	April 21-June 6
Memorial Day Holiday	May 25
	Campus Closed
Classes Begin	June 1
Independence Day Holiday	July 4
	Campus Closed
Classes End	Aug. 8



DEGREE & CERTIFICATES

guide to degree and certificates

Degree Programs AURARIA CAMPUS

Associate of Arts (AA)

University Parallel, Transfer Program

- Art
- Behavioral Sciences
 - Gerontology
 - Psychology
 - Sociology
- Communications
- Economics
- English/Literature
- History
- Humanities/Philosophy
- Music
- Photography
- Political Science
- Speech
- Theatre

Associate of Science (AS)

University Parallel, Transfer Program

- Biology
- Chemistry
- Computer Science
- Earth Science
- Engineering Cluster
 - Pre-Engineering General
 - Pre-Applied Mathematics Major
 - Pre-Computer Science Major
 - Pre-Electrical Engineering Major
 - Pre-Civil Engineering Major
 - Pre-Mechanical Engineering Major
- Mathematics
- Medical Cluster
 - Pre-Dental
 - Pre-Medical
 - Pre-Medical Technology
 - Pre-Pharmacy
 - Pre-Physical Therapy
 - Pre-Physician Assistant
 - Pre-Veterinary Science
 - Physics

Associate of General Studies (AGS)

University Parallel, Transfer Program Option

- Generalist
- Business
- Graphic Design
- Human Services
- Paralegal

Photography

Teacher Education: Early Childhood Education

Teacher Education: Early Childhood Education/
Violence Counseling

Teacher Education: Elementary Education

Associate of Applied Science (AAS)

- Accounting
 - General Accounting
 - Commercial Credit Management
- *Airframe/Power Plant
- Business Administration
 - Commercial Credit
 - Customer Service
 - Finance
 - International Business
 - Management
 - Marketing
 - Business of Travel and Tourism
 - Customer Information Services
- *Insurance
- Postal Service Management
- *Real Estate
- Business Technology: Office Management and Secretarial Studies
 - Administrative Assistant
 - Legal Secretarial
 - Medical Secretarial
 - Secretarial
 - Word Processing
- Computer Information Systems
 - Computer Specialist
 - Applications Programmer
 - PC Specialist/LAN Administrator
- Dental Hygiene
- Drafting for Industry
 - Civil/Topographic
 - Electrical
 - Mechanical
 - Process Piping
 - Structural
- Early Childhood Education
- Electronics Technology
- Environmental and Refrigeration Technology
 - Commercial/Industrial Refrigeration,
 - Heating and Air Conditioning
- Graphic Arts (Printing)
- Graphic Design
- Health and Wellness Management
- Human Services

* In conjunction with Emily Griffith Opportunity School and/or the Joint Apprenticeship Training Committees

- Multimedia Design
 - Computer Graphics
 - Graphic Arts
 - Graphic Design
 - Music
 - Photography
 - Video Production/Communications
- Nursing
 - Nursing
 - Nursing: Advanced Placement
- Paralegal
- Photography
- Radiography
- Recreational Assistant
- Trades
 - *Construction

- Electronics Technology
 - Principles of Electronics
 - Advanced Solid State, Digital & IC Principles
 - Broadcast Technologist
- Environmental & Refrigeration Technology
 - Apartment Manager
 - Major Appliance Repair
 - Refrigeration and Air Conditioning
- Gerontology
- Graphic Arts
 - Printing
 - Prepress
- Graphic Design
 - Computer Graphics
 - Graphic Design
 - Service Bureau
- Human Services
 - Case Management/Residential Service Aide
- Paralegal
 - General
- Nursing
 - Practical Nursing
- Perioperative Nursing
- Photography
- Psychiatric Technician
 - Psychiatric Technician
 - Psychiatric Technician: Advanced Placement
- Radiologic Health Sciences
 - Magnetic Resonance Imaging Technology
 - Mammography
 - Nuclear Medicine Technology
- Recreational Assistant
- Surgical Technology

Certificate Programs AURARIA CAMPUS

- Accounting
 - Accounting
 - Accounting with Computer Applications
- Business Administration
 - Commercial Credit Management I
 - Commercial Credit Management II
 - Customer Information Services Agent
 - Entrepreneurship I
 - Entrepreneurship II
 - International Business
 - Marketing
 - Professional Selling
 - Small Business
 - Supermarket Management
 - Travel and Tourism
- Business Technology: Office Management and Secretarial Studies
 - General Clerical I
 - General Clerical II
 - Medical Secretarial
 - Stenographic
 - Word Processing I
 - Word Processing II
- Computer Information Systems
 - Applications Programmer
 - PC Specialist/LAN Administrator
 - Computer Specialist
 - Computers and Multimedia
 - Windows NT Network Administration
 - Novell 4x Network Administration
 - Novell 3x Network Administration
- Drafting
 - Computer-Aided Drafting-CAD
 - Drafting for Industry
- Early Childhood Education
 - Early Childhood Education Director
 - Early Childhood Education Group Leader

Associate of Applied Science (AAS) Degree Programs TECHNICAL EDUCATION CENTERS

TEC North

- Accounting
 - Computerized Accounting Specialist
- Business Technology: Office Management and Secretarial Studies
 - Office Specialist
- Computer Information Systems
 - PC Applications Specialist
 - PC Network Specialist
- Trades
 - CNC Machine Tool Operator
 - Fabrication Welder

* In conjunction with Emily Griffith Opportunity School and/or the Joint Apprenticeship Training Committees

TEC East

- Accounting
 - Computerized Accounting Specialist
- Business Administration
 - Travel Service Agent
- Business Technology: Office Management and Secretarial Studies
 - Office Specialist
 - Medical Records Clerk
 - Medical Secretary
 - Medical Transcriptionist
 - Medical Unit Coordinator
 - Comprehensive Medical Assistant
 - Clinical Medical Assistant
 - Radiology/Orthopedic Assistant
- Computer Information Systems
 - PC Applications Specialist

TEC West

- Accounting
 - Computerized Accounting Specialist
- Business Technology: Office Management and Secretarial Studies
 - Office Specialist
- Computer Information Systems
 - PC Applications Specialist

Certificate Programs

TECHNICAL EDUCATION CENTERS

TEC North

- Accounting
 - Computerized Accounting Specialist
 - Bookkeeper
 - Payroll Clerk
- Business Administration
 - Customer Service Specialist
 - Customer Service Representative
- Business Technology: Office Management and Secretarial Studies
 - Office Specialist
 - Word Processor
 - Receptionist/Office Clerk
 - Microsoft Office Pro
 - Data Entry Clerk
- Computer Information Systems
 - PC Applications Specialist
 - PC Network Specialist
- Human Services
 - Special Education Paraprofessional
 - Special Education Aide
- Trades
 - CNC Machine Tool Operator
 - Machine Tool Operator
 - Lathe Operator

- Mill Operator
- Fabrication Welder
- Arc Welder
- Welder

TEC East

- Accounting
 - Computerized Accounting Specialist
 - Bookkeeper
 - Payroll Clerk
- Business Administration
 - Travel Service Agent
 - Customer Service Specialist
 - Customer Service Representative
- Business Technology: Office Management and Secretarial Skills
 - Office Specialist
 - Word Processor
 - Receptionist/Office Clerk
 - Microsoft Office Pro
 - Data Entry Clerk
 - Allied Health-Related:
 - Medical Records Clerk
 - Medical Secretary
 - Medical Transcriptionist
 - Medical Unit Coordinator
 - Medical Clerk
 - Comprehensive Medical Assistant
 - Clinical Medical Assistant
 - Radiology/Orthopedic Assistant
 - Nurse Assistant
 - Nurse Aide
- Computer Information Systems
 - PC Applications Specialist

TEC West

- Accounting
 - Computerized Accounting Specialist
 - Bookkeeper
 - Payroll Clerk
- Business Administration
 - Customer Service Specialist
 - Customer Service Representative
- Business Technology: Office Management and Secretarial Skills
 - Office Specialist
 - Word Processor
 - Receptionist/Office Clerk
 - Microsoft Office Pro
 - Data Entry Clerk
- Computer Information Systems
 - PC Applications Specialist
- Early Childhood Education
 - Early Childhood Educator/Group Leader

Guarantee for Transfer

To graduates of the Associate of Arts (AA) and Associate of Science (AS) degrees, Community College of Denver (CCD) guarantees that AA and AS credits, as identified in the CCD catalog, will transfer to all Colorado public colleges and universities.

To graduates of articulated Associate of General Studies (AGS) degrees, CCD guarantees that the articulated AGS degrees or credits, as identified in the CCD catalog, will transfer into the Colorado college and university professional schools as identified in the CCD catalog.

To students who complete the CCD general education core curriculum, CCD guarantees that the general education core curriculum will fulfill the lower division general education requirements for liberal arts and sciences majors at all Colorado public colleges and universities.

To students who have completed the AA, AS, articulated AGS or general education core curriculum, CCD will refund the tuition paid for any course identified in the CCD catalog as an accepted part of these curriculums that does not transfer under this guarantee.

Guarantee for Job Competency

To graduates of Certificate programs and Associate of Applied Science (AAS) degrees, CCD guarantees job skills. Within one year of graduation, if an employer finds a Certificate or AAS graduate lacking in the technical job skills identified as exit competencies for his/her program, CCD will provide up to nine tuition-free credits of retraining related to the identified skills deficiencies.

The graduate must have passed the CCD Certificate or AAS capstone course. The employer must identify the job skill deficiencies in writing. The graduate, employer and program faculty must develop a written retraining plan for the student to complete within one year.

CCD Accountability

Excellence Through Accountability

- Between 1987 and 1996, CCD increased total graduates by 95 percent.
- Between 1987 and 1996, people of color as a percent of total graduates increased from 20 percent to 46.5 percent.
- Between 1987 and 1996, CCD increased graduates of color by 422 percent (from 83 to 350 graduates).
- 90.7 percent of all CCD graduates between 1991 and 1995 who applied for transfer were accepted into Colorado four-year public colleges and universities.
- The average cumulative GPA of CCD transfer graduates in 1994-95 at four year schools was 2.9 on a four point scale.
- 94 percent of 1994-95 graduates are satisfied with their CCD educational program.
- 96 percent of 1996 currently enrolled students and 1994-95 graduates are satisfied with the teaching they have received.
- 100 percent of employers surveyed in 1996 are satisfied with the skills of CCD graduates.

Of vocational graduates who completed their educational goals at CCD in 1994-95:

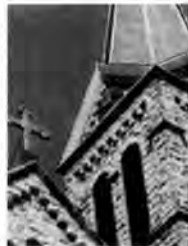
- 95 percent either continue their education or are employed within one year of program completion.
- 72 percent of those who enter the job market, enter directly into degree related employment.
- 11 percent are unemployed, seeking employment.

Of CCD students who transferred to public colleges or universities in 1996:

- 51.9 percent transferred to Metropolitan State College.
- 32.9 percent transferred to the University of Colorado-Denver.
- 15.2 percent transferred to another Colorado public or private college or university.


Of CCD AA/AS/AGS Degree graduates who transferred to Colorado public four-year colleges during academic years 1990-1993:

- 71.6 percent had either attained a bachelor's degree or were still enrolled at their transfer institutions as of fall 1995.




INFORMATION


general information



WELCOME TO COMMUNITY COLLEGE OF DENVER (CCD) on the downtown Auraria Campus. You have taken a step in the right direction to prepare for the future — your future.



Our doors are open and our faculty, administration and staff will steer you onto the right educational track. They also will help you stay on track, whether you are taking a few refresher courses or you are working toward a certificate or associate degree. CCD provides many student support services, including tutoring, advising and career planning, and you'll get individualized attention from award-winning faculty. CCD guarantees transferability of credits from our school to four-year Colorado public colleges and universities. (See CCD Guarantees section of this catalog.) We even guarantee job competencies. We are here to help you succeed, because your success is our success.



Education at CCD is affordable: we have the lowest tuition rate on the Auraria Campus. We offer convenient payment options and financial aid is available to qualified students. You can choose from day, evening or weekend classes, classes on the Auraria Campus or at three Technical Education Centers (TEC), classes on TV or over the Internet. The choice is yours. The future is yours!

CCD is in the heart of the city and within walking distance of myriad downtown activities. At CCD you are close to Larimer Square and the 16th Street Mall; Mile High Stadium, home of the NFL Broncos; Coors Stadium, home of the Colorado Rockies baseball team; McNichols Sports Arena, home of the NHL Avalanche and NBA Nuggets; and the Colorado Convention Center and the Denver Center for the Performing Arts complex.

We know you'll get a lot out of your CCD experience, and we're glad you are here!

CCD's History

The Colorado legislature created CCD in 1967. Three years later, its doors opened to students in a renovated auto showroom close to Denver's Civic Center. Enrollment increased so rapidly, the college immediately expanded into rental store fronts near the main building. In 1975, CCD moved to the 171-acre Auraria Higher Education Center campus in downtown Denver on the west bank of Cherry Creek, originally the site of the 1858 frontier town of Auraria. We even have the oldest-standing structure in Denver on our campus, Emmanuel Gallery, used today as exhibition space for student and faculty art work.

CCD is one of 12 institutions in the Colorado Community College and Occupational Education System and the third largest with 6,000-plus students enrolled in its Auraria Campus programs. CCD is the only community col-

lege in the city and county of Denver and the only truly urban community college in Colorado. It also is the only community college in the nation to share a campus with a four-year college and a university, Metropolitan State College of Denver and the University of Colorado at Denver. The three institutions share classroom buildings, a regional library, recreational facilities, student union, and other amenities. At Auraria, CCD provides all two-year programs, awards all two-year degrees and occupational certificates and implements remedial instruction, adult basic education and GED preparation.

In 1985, CCD took over the system's fast-track skills center, the Technical Education Center (TEC) at 6221 Downing in Adams County, six miles northeast of Auraria. TEC, now known as TEC North, is an open-entry/open-exit fast-track training center that meets industry employment needs. TEC East at 3532 Franklin St. in the Cole neighborhood, opened in 1993. TEC West, at 2420 W. 26th Ave. in the Diamond Hill Complex, also opened in 1993, the same year all TEC sites began offering traditional general education college courses.

With a minority student body of more than 50 percent, CCD has the most diverse student population of all higher education institutions in Colorado. It no longer has an ethnic majority and its diversity truly reflects the inner-city population. At CCD, our students can choose from more than 90 programs that will prepare them for a new career, allow them to earn a certificate or associate degree, or enable them to transfer to four-year schools.

Our Philosophy

CCD is a comprehensive, student-oriented urban college, providing open access to a diverse population.

CCD pledges open admissions and appropriate support to every individual who seeks the opportunities available at the college for life-long education and personal development.

Educated citizens make a significant and positive impact on the economy, their local communities and the nation. CCD strives for excellence in transfer educational and occupational programs, seeks to meet the needs of employers, and finds new and effective ways of extending educational opportunities throughout its service area.

*You have
taken a step
in the right
direction to
prepare for
the future —
your future.*

CCD's Mission Statement

Community College of Denver pledges responsibility for the following:

- Transfer programs for the baccalaureate degree,
- Occupational programs for job-entry skills or upgrading,
- General education courses,
- Remedial instruction and GED preparation,
- Continuing education and community services,
- Cooperative inter-institutional programs.

Cultural Pluralism at Community College of Denver

CCD believes all students are entitled to a quality education. This education must provide the student with an understanding and appreciation of our interdependence as individuals and nations.

Education must be meaningful to multi-ethnic students. In addition, it must provide the student body, faculty and staff with an understanding of cultural pluralism. To that end, CCD provides an educational environment that fosters cultural diversity, international understanding and global awareness.

CCD recognizes that the environment can exist only with an administration, faculty and staff that reflect the cultural diversity of its students. Therefore, the administration unconditionally endorses affirmative action.

Statement of Values for Teaching Excellence

CCD faculty are committed to a teaching/learning process that:

1. Enables students to become independent learners.
2. Demonstrates a commitment to student outcomes (job readiness, skill levels, mastery of subject matter).
3. Provides an opportunity for critical thinking and problem solving.
4. Provides linkages between instruction and real-world applications.
5. Demonstrates an excitement about teaching and learning.
6. Maintains high but realistic expectations.
7. Demonstrates appreciation of a diverse student population.
8. Encourages growth in students' self-esteem.

Campus Choices

We offer traditional semester courses, English as a second language, GED preparation and a number of "enroll-any-time" courses on the downtown Auraria campus. CCD's administrative offices also are located at Auraria. CCD provides fast-track job training, English as a second language, GED preparation, adult basic education and general education courses at its three TEC sites. In addition, the college offers adult basic education, GED prep., and English as a

second language at more than 10 community sites around the city. The college's Division of Continuing Education offers homestudy, television courses, on-line courses, evening and weekend courses and employee training programs at the work site or other convenient locations. All major CCD facilities are accessible to individuals with disabilities.

Campus Security

The Auraria Higher Education Center Public Safety Office has prepared a report to comply with the Student-Right-to-Know and Campus Security Act of 1990. The report describes security practices and procedures at the Auraria Higher Education Center and lists crime statistics for the most recent calendar year and the two preceding calendar years. A copy of the report can be obtained from the Vice President for Student Services in South Classroom Building, room 305.

Campus Crime Information

During the past three years, the following crimes were committed on campus at the Auraria Higher Education Center, serving the University of Colorado at Denver, Metropolitan State College at Denver and Community College of Denver.

Occurrences of criminal offenses on campus:

Offense	1996	1995	1994
Murder	0	0	0
Rape	0	0	0
Robbery	1	4	1
Aggravated Assault	7	6	10
Burglary	23	24	17
Vehicle Theft	11	10	11
Sexual Assault*	5	4	13
Hate Crimes	0	2**	1

* Includes sexual assaults other than first- and second-degree sexual assaults (rape), such as indecent exposure and third-degree sexual assaults.

** One incident, two offenses, simple assault and intimidation.

Number of Arrests for the following crimes on campus:

Arrests	1996	1995	1994
Liquor Law Violation*	10	2	0
Drug Abuse Violation	40	6	2
Weapons Possession	4	1	1

* Excludes DUI arrests

Statistics provided by the Auraria Campus Police and Security Division in compliance with the Crimes Awareness and Campus Security Act of 1990.

Notice of Nondiscrimination

CCD does not discriminate on the basis of race, color, creed, national origin, sex, age or handicap in admission or access to, or treatment or employment in its educational programs or activities. Inquiries concerning Title VI, TITLE IX and Section 504 may be referred to the Vice President for Student Services, Campus Box 203, Community College of Denver, P.O. Box, 173363, Denver, CO 80217-3363 (556-2413) or to the Office for Civil Rights, U.S. Department of Education, 1961 Stout Street, Denver, CO 80294.

Americans with Disabilities Act

Discrimination based on disability in admission to, access to and the operation of programs, services, or activities of CCD is prohibited by the Americans with Disabilities Act.

Questions, complaints, and requests for additional information may be directed to the ADA Coordinator, John Hutchins, Campus Box 900, P.O. Box 173363, Denver, CO 80217-3363, (303) 556-6319.
E-mail: CD_JOHNH@CCCS.CCOES.EDU

Approval

The operation of CCD is approved by the state of Colorado. All programs are approved by the Colorado State Board for Community Colleges and Occupational Education. In addition, the Colorado Commission on Higher Education reviews and approves all programs leading to the associate degree.

Accreditation

Community College of Denver is accredited by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools.

Comprehensive Medical Assistant/TEC East

American Association of Medical Assisting

Dental Hygiene

American Dental Association

Nursing

Colorado State Board of Nursing

Radiography Technology

Committee on Allied Health Education and Accreditation
Joint Review Committee on Education for Radiologic
Technology

Real Kids Center, Auraria Campus

National Association for Education of Young Children
(NAEYC). Center accredited.

Surgical Technology

American Medical Association
Committee on Allied Health Education and Accreditation

Community College of Denver is a member of the American Association of Community Colleges.

Alumni Association

Organized in October 1991, the Alumni Association encourages graduates and students who have completed at least three credit hours to become members.

The alumni sponsor special events, a yearly reunion picnic, and an annual meeting and reception. Scholarships, mentoring and other programs help current students succeed and promote recognition of their achievements.

Joining the Alumni Association is an opportunity to meet and network with fellow alumni while serving CCD. Sign up by calling the Alumni Office at 556-2891.

African-American Council

CCD's African-American Staff Council brings college faculty, staff, students and administrators of the same heritage together. The council provides a forum to discuss ethnicity issues and other problems and helps the college develop programs to address diversity, collaborative sensitivity, retention of students and staff and create an accessible environment for African-Americans. For more information, contact Ken Swiney, 556-2424.

Hispanic Council

Comprised of Hispanic administrators, faculty and staff, the Hispanic Council promotes retention and recruitment of Hispanic students. For additional information, contact Michelle Muniz, treasurer, 556-4963.

getting started

Campus Visits

For individual and group tours of the campus or to visit classes, contact the Educational Planning and Advising Center at 556-2481.

Advising Philosophy

Advising is critical to your success, so our advising program includes the exploration of life and career goals, an examination of academic and career skills, and the selection of instructional programs and courses. You and your advisor share responsibility for the advising process.

After taking 12 credits of courses numbered 100 or above, you should have a major field of study, a faculty advisor and a signed educational planning guide.

We recommend the Educational Planning and Advising Center be your first point of contact at CCD. Our advisors can help you enroll, plan your college programs and remove barriers that may interfere with your success in school and life. You can stop by at any time.

The Educational Planning and Advising Center staff also conducts orientation sessions, provides information on and interpretation of assessment programs, and advises students who have not been accepted into a major area of programs and courses. Advisors also can refer you to community and campus resources. Special advisors assist refugee and international students.

The Educational Planning and Advising Center is in the South Classroom Building, room 134, 556-2481.

Admission Policy

As an open-door institution, CCD admits students who are 16 years of age or older. Admission to the college does not guarantee enrollment in specific programs that may have prerequisites. The college may deny admission to individuals whose backgrounds indicate their presence would endanger the health, safety, welfare or property of others, or would interfere with the function of the college. CCD has the right to deny admission or continued enrollment to persons who have misrepresented their credentials or backgrounds.

Follow These Steps

1. If you are a new student, submit an Application for Admission (form at end of the catalog) to the Office of Admissions, Registration and Records. A permit to test will be given to you to allow you to take the Basic Skills Assessment Test. You also will receive official notification by mail of your acceptance to CCD.
2. Next, make an appointment to take the Basic Skills Assessment Test. A permit from the Office of Admissions, Registration and Records is required for admission to the

testing session. Under certain conditions, as listed in this catalog (see College Policies and Academic Standards section), the assessment may be waived. For assessment dates and times, check the current Schedule of Classes, stop by room 230 in South Classroom Building, or call 556-3810. After you take the test, sign up in the Testing Center to attend an orientation.

3. If you are enrolling for the first time at CCD and plan to be a full-time student, you also must complete the Academic Profile, which assesses your general education knowledge and skills. It takes only 45 minutes to complete. Students should call the Testing Center at 556-3810 to make a test appointment. Results do not affect entry to the college or placement in classes. Profile results help evaluate student learning between entering CCD and graduation.
4. After you attend an orientation, stop by the Educational Planning and Advising Center (South Classroom Building, room 134, 556-2481) and make an appointment with an advisor to help you plan your educational goals and schedule classes.
5. Your next step is to register for your classes, either by telephone or at the Office of Admissions, Registration and Records during scheduled registration dates each semester. Call Admissions, Registration and Records at 556-2430, or stop by the South Classroom Building, room 133, for more information.

Veterans using VA benefits also must submit transcripts of all previous postsecondary education and training no later than the end of the first semester of attendance.

International Students on F, M, J, B, or H visas must make an appointment with the International Student Advisor before submitting any documents. International students must submit the following documents in addition to an official International Application for Admission:

1. an official, certified English translation of a high school, college, or equivalent transcript.
2. a statement of sufficient financial resources to provide for staying in the United States.
3. proof of a minimum score of 475 on the Test of English as a Foreign Language (TOEFL), or a score of 75 on the Michigan Test of English Language Proficiency. Students still must take the levels of English Proficiency (LOEP) Computerized Placement Test.

All students on F, M, J, B, or H visas do not qualify for financial aid or scholarships. These students will pay Colorado non-resident tuition.



CCD
guarantees
transferability
of credits from
our school
to four-year
Colorado
public colleges
& universities.

For more information, contact the International Student Advisor in the South Classroom Building, room 134, (303) 556-3605.

Directory Information

Community College of Denver designates the following items as Directory Information:

- student name,
- permanent address,
- dates of attendance,
- degrees and
- awards received.

The college may disclose any of these items without prior written consent, unless notified in writing to the contrary by the 5th day of classes each semester.

CCD complies fully with the Family Educational Rights and Privacy Act (FERPA), which is designed to protect the privacy of students' educational records. Refer questions to the Office of Admissions, Registration and Records, South Classroom Building, room 133, or call (303) 556-2430.

Release Of Information

Other than directory information which may be released to the general public, the college will not permit release of educational records without the student's written consent. This consent must be signed and dated by the student and must indicate which records are to be released.

Parents of a dependent student can obtain release of that student's records only with written consent of the student, since the rights given to parents transfer to the student when he or she attends a postsecondary educational institution.

Transcripts Requests

Student may request copies of their academic records accumulated while at CCD. Transcripts are available from the Office of Admissions, Registration and Records. Cost of transcripts is \$1 per copy, payable in advance. All transcripts must be requested by the student and all requests must be made in writing.

Transcript requests cannot be honored from those students whose financial and academic records at the college are not cleared.

Transferring Credit to CCD

1. Transfer of academic credit is done for current applicants and/or currently enrolled students by the academic credential evaluator in the Office of Admissions, Registration and Records upon receipt of an official transcript. Official transcripts are sent by the previous institution and received by CCD through the U.S. Postal Service. Hand-carried transcripts or transcripts issued to the student are not considered official, although they may be used for informal advising purposes. Issuing institutions should address transcripts to CCD

Admissions, Registration and Records, Campus Box 201, P.O. Box 173363, Denver, CO 80217-3363. Documents become the property of the college and will not be released to the student or transferred to other institutions.

2. CCD reserves the right to evaluate all credits according to the policies of the Admissions, Registration and Records Office. Evaluation is done for general acceptance of all transferrable credit and is not confined to any specific degree or certificate program. Students will need to meet with their program advisors to determine how accepted transfer credits will apply to their intended program. Note: Credits evaluated for general acceptance may or may not be applicable to specific degree or certificate programs.
3. CCD will accept transfer credit from postsecondary institutions that are accredited by one of the six regional accrediting associations. Transfer credit also may be accepted from CCCOES-approved institutions with which CCD has current articulation agreements. (See the catalog section on associate degree programs.)
4. Credits earned by a student enrolled in another state system community college that are applicable to the AA, AS or AAS degrees or a certificate program shall be accepted as meeting degree or certificate requirements in comparable or equivalent programs at CCD.
5. Lower division credits earned by students enrolled in baccalaureate-granting institutions which are applicable to BA or BS degrees shall be accepted as meeting requirements for comparable or equivalent programs leading to an AA or AS degree at CCD
6. Students who have attended international institutions and wish evaluation of transfer credit will need to provide official transcripts and/or other educational documents in the native language along with certified English translations. Accepted documents become the property of the college. Contact the academic credentials evaluator in the Office of Admissions, Registration and Records for additional information.

Credit for Prior Learning

You may earn credit for college-equivalent education acquired through earlier schooling, work, or other life experiences. Such prior learning must be comparable to CCD courses or curricula and must relate to your educational objectives.

Prior learning may be documented through standardized tests (AP, CLEP, challenge examinations, published guides [ACE-Military and ACE-Non-Collegiate]), or portfolio assessment.

1. Standardized Tests

- a. *Advanced Placement Program (AP)* — high school students can receive credit through the AP examinations.
- b. *College Level Examination Program (CLEP)* — CCD recognizes selected CLEP general examinations and subject examinations. A list of CLEP exams, their cut-off scores

and their CCD course equivalents are available from the Credit for Prior Learning Office, South Classroom Building, room 134, 556-3603. The CLEP examination may be taken in the CCD Testing Center.

2. Challenge Examinations

Currently enrolled students may challenge a course by taking a comprehensive examination. Only one exam for a particular course will be arranged for during any one semester. (\$10/credit)

3. Published Guides

ACE-Military — CCD uses the credit recommendation of the American Council on Education (ACE), as published in *The Guide to the Evaluation of Educational Experiences in the Armed Services*, to evaluate military training and learning experiences.

ACE-Non-Collegiate — CCD uses the credit recommendations from the ACE program on Non-Collegiate Sponsored Instruction (PONS), as published in *The National Guide to Educational Credit for Training Programs*, to evaluate industrial and corporate training programs.

4. Portfolio of Learning Outcomes —

Currently enrolled students may petition for credit by developing a portfolio that describes and documents pertinent learning comparable to that available in CCD courses. A faculty member in the appropriate program area evaluates the portfolio and determines commensurate credit. Only one portfolio evaluation for a particular course will be arranged for during any one semester. (\$15/credit)

You may receive a maximum of 50 percent of the requirements for a degree or certificate through CLEP, AP, Challenge Exams, or Published Guides, and a maximum of 25 percent by Portfolio Assessment. For more details on Credit for Prior Learning options, attend one of the Credit for Prior Learning Orientations in the Educational Planning and Advising Center, South Classroom Building, room 134, 556-3605.

Add/Drop/Withdrawal

The final date to add or drop a course is predetermined and printed in the current semester's Schedule of Classes. After the first week of classes, you may not add courses without the written approval of the faculty member whose class is being added. Weekend College, Extended Campus and Telecourses require the written approval of an advisor in the Educational Planning and Advising or the director of the Non-Traditional Learning Programs. This requirement does not apply to open-entry or modular classes. On or before the census date, you may drop courses and receive a full refund. Courses you drop before the census date will not appear on your official transcript.

After the census date, you may withdraw from courses, but you will not be eligible for refunds. Courses you drop after the census date will appear on the transcript with a grade of W. You may not withdraw from courses after the

date published in the Schedule of Classes (usually four to five weeks before the end of term in the fall and spring semesters).

To drop or withdraw from courses, fill out appropriate forms in the Office of Admissions, Registration and Records, South Classroom Building, room 133. To add courses after the first week of classes, obtain the appropriate form from Educational Planning and Advising, South Classroom Building, room 134.

Definitions

Census date — The census date for a standard or module course is that point when 15 percent of the days for the term of the class are over. The census date for standard courses is listed in the Schedule of Classes. The census date for open-entry courses is that point when 15 percent of the balance of the term from the date of registration has passed.

Add — An add occurs when you enroll in a class after initial registration.

Drop — A drop occurs when you officially exit a class before census date.

Withdrawal — A withdrawal occurs when you exit a class after census date.

Transferring to Four-year Institutions

CCD's AA and AS degrees are guaranteed to transfer to Colorado public four-year colleges and universities. Students with AA and AS degrees enter four-year institutions as juniors. CCD also has a number of programs leading to the AGS Degree that transfers to Metropolitan State College of Denver or to the University of Colorado at Denver. Consult the Associate Degree Program section in this catalog for more information about these transfer degrees.

On some occasions the Associate of Applied Science degree may transfer.

If you intend to transfer, familiarize yourself with the requirements of the school you wish to attend. You also should consult the advisor in the Transfer Center in South Classroom Building, room 134.

The Transfer Center stocks catalogs from Colorado and many U.S. four-year colleges and universities. Admissions counselors from four-year colleges and universities make regular visits to CCD. Inquire about specific times in the Transfer Center or call 556-2481. A transfer bulletin board by South Classroom 125 has postings of visits from four-year college representatives and other pertinent information.

Orientations for CCD students who intend to transfer are on the first Monday of the month at 10 a.m. and 6 p.m. in South Classroom Building, room 136A.

Veterans' Academic Standards of Progress

The following policy applies to all students who are veterans and other eligible persons receiving VA benefits:

1. Grade Point Requirements

Veterans must maintain a cumulative grade point average of 2.0 for all course work attempted. Veterans whose cumulative GPA is below 2.0 will be placed on academic probation for the following term. If the GPA is not raised to 2.0 during the probationary term, you will be suspended for one academic term. Reinstatement will occur only after approved counseling.

Suspension of the veteran under the Veterans' Academic Standards of Progress Policy will result in CCD's not certifying enrollment to the Veterans Administration.

Veterans in this status may still attend CCD; however, they will be subject to the provisions of the Academic Standards of Progress Policy requirements for continuation of enrollment.

2. Other Special Grades

AU Grade — indicates the student "audited" the course. No credit is allowed for audited courses, nor is the grade certifiable to the VA.

I Grade — indicates "incomplete." An incomplete or "I" grade must be made up no later than the next consecutive 15-week semester. For veterans, if an "I" grade is not completed in this required period, the "I" will revert to a NC (no credit) and the veteran's certification will be adjusted back to the beginning date of the term in which the "I" grade was received.

SP Grade — indicates "satisfactory progress," which will be treated the same as an "I," incomplete grade.

3. Attendance

Veterans who stop attending class, but do not officially withdraw, may be dropped administratively. VA certification will be adjusted accordingly.

4. Mitigating Circumstances

(As defined by PL 94-502) Mitigating circumstances that directly hinder an eligible veteran's or other person's pursuit of a course are judged to be out of the student's control. Following are some general categories of mitigating circumstances (not all-conclusive):

- a. Serious illness of the eligible veteran or person.
- b. Serious illness or death in the eligible veteran's or other person's immediate family.
- c. Immediate family or financial obligations that require a change in terms or place of employment, precluding pursuit of course work.
- d. Discontinuance of a course by the college.
- e. Active military duty, including active duty for training.

- f. Withdrawal from a course or receipt of a non-punitive grade upon completion of a course due to unsatisfactory work may be considered mitigating circumstances if the student can demonstrate good faith pursuit of the course up to the point of withdrawal or completion. You must submit evidence that you applied for tutorial aid, consulted a Veterans Administration counselor, or consulted a CCD academic counselor or advisor in an attempt to remedy the unsatisfactory work before withdrawal or completion.

When mitigating circumstances prevail, CCD will attempt to intervene on behalf of the veteran with the Veterans Administration.

Extra Services Available

We encourage you to take advantage of CCD's many student services, listed under the Need More Help? section of this catalog. For all your academic, personal and career needs, you can save time by regularly talking to your counselor.

Good luck!

MONEY MATTERS

money matters

Tuition

Tuition is determined by the State Board for Community Colleges and Occupational Education and is subject to change annually. Fees also can change.

Tuition for 1997-98 is set at \$54.30 per credit hour for resident students and \$252.25 for non-resident students. In addition, fees are set at \$8.50 per credit hour. Community College of Denver (CCD) also charges a \$9 non-refundable registration fee per semester per student, and \$16.70 per semester fee is charged for the Regional Transportation District Bus Pass. The college will continue to assess a "bad check" fee of \$17 for checks returned by the banking system. Rates are subject to change without advance notice.

Residency Classification

For residency classification, you must have lived in Colorado for 365 days prior to the first day of the term in which you wish to enroll. Active duty military personnel and their dependents qualify as residents. Classification of students under age 23 is determined by the residency of their parents or legal guardian. Call the Office of Admissions, Registration and Records for details at 556-2430.

If you are classified as non-resident and believe you qualify for resident status, you may file a petition for In-state Residency at the Office of Admissions, Registration and Records by the first day of the term. Late petitions are not accepted.

Senior Citizens

In-state residents over the age of 60 may take courses for credit and pay 50 percent of the tuition charges and 100 percent of student fees. In-state senior citizens who are not interested in receiving credit may attend classes on a space-available basis at no charge as long as they are residents. Visit the Office of Admissions, Registration and Records, South Classroom Building, room 133, for a Senior Citizen/Non-Credit form, or call 556-2430. Senior citizens may not take courses listed as "non-credit" free of charge.

State Employee Benefit

State employees can take CCD classes and pay 50 percent of in-state tuition and 100 percent of fees. Employees must present a signed eligibility form from their employer at registration.

Veterans Benefits

VA educational benefits may apply for an advanced payment. Veterans who have not applied for advanced payment must make full payment of tuition before applications can be forwarded to the VA. The last date to apply for VA advanced payment is 45 days prior to the first day of classes. Visit the Office of Admissions, Registration and Records, South Classroom Building, room 133, or call 556-2430.

Tuition Refund Policy

Students may receive a 100 percent refund of tuition and fees through the census date for any class(es) dropped and/or for any class canceled by the college. The census date for standard classes is listed in the Schedule of Classes. Call the Office of Admissions, Registration and Records for the census date of open-entry courses.

No refunds or financial credits are given after the census date of the class or for courses concentrated into one week or less. Students may obtain drop forms from the Office of Admissions, Registration and Records.

Students may receive a 100 percent refund of tuition and fees (except for the non-refundable registration fee) through the census date. Call the Cashier (556-2075) for the census date of continuous enrollment courses.

No refunds or financial credits will be given after the census date of the class. Students may obtain drop forms from the Office of Admissions, Registration and Records.

CCD normally mails tuition refund checks each Friday to all students eligible for refunds as of the close of business Tuesday. Students owed a refund as of Tuesday will be required to pay for all classes added after refunds are issued. Please check your class schedule for any amount owed to the college. Please direct questions regarding your account balance to the Cashier's Office.

Fees

All students on the Auraria Campus pay student fees. This money is for student activities and benefits, including student publications, operation of student government, cultural activities, recreational activities, and clubs and organizational activities. Student fees also help pay off construction debts for the Auraria Student Union, Child Care Center and the Physical Education and Recreation Building. Student Government approves expenditure of student fee monies.

Students enrolled in certain courses may be required to purchase individual supplies and materials, and to rent uniforms. A \$17 fee is charged for bad checks.



*Education
at CCD is
affordable.
We have the
lowest tuition
rate on the
Auraria
Campus.*

Financial Aid

Early Application

The Office of Financial Aid administers federal and state programs to assist eligible students in meeting the cost of their CCD education. Financial aid funds are limited, and we encourage students to start the application process several months before enrolling. Information brochures and applications are available at the Office of Financial Aid, South Classroom Building, room 135, 556-2420, and at all Technical Education Centers (see listing/addresses on page vi).

Application Procedures

Applications are available from the Office of Financial Aid. To apply for grants, scholarships, work-study employment, William D. Ford Federal Direct Loans and PLUS, complete the Free Application for Federal Student Aid (FAFSA). Loans and scholarships require an additional application.

Financial aid applicants also may have to supply supporting documents, such as Federal Income Tax forms or statements of welfare, social security, vocational rehabilitation benefits, employment, etc.

Priority in awarding financial aid goes to students who apply early. To be on time, you must have mailed your application by March 1, and completed your file and submitted all documents by May 1. Applications received after the above dates will be considered based on the availability of funds.

Four to six weeks after applying, you will receive a Student Aid Report (SAR). Review it for correctness. CCD will receive the results of your financial aid status electronically if you included our school code (009542) on your application.

Check with the Office of Financial Aid for the school year priority dates.

Student Budget

The cost of a CCD education includes tuition, fees, books and supplies. In addition, you may have expenses for room and board, transportation and personal items. We base our standard student budget on current estimated living costs. Budgets are adjusted for living arrangements (such as living with parents) and the length of enrollment. Standard living allowances:

Living with parents	\$510
Living away from parents	\$960

A child care allowance may be added if you use day care. Allowances are subject to change without advance notice.

Ability to Benefit

If you are entering CCD without a high school diploma or GED and are applying for financial aid, you are classified as an Ability to Benefit Student. Ability to Benefit Students:

1. are admitted as regular students, seeking a degree or certificate.
2. must complete the regular assessment process and plan a schedule with an advisor.
3. must meet minimum qualifications on a test approved by the U.S. Department of Education for determining eligibility to receive financial aid.
4. are eligible to apply for financial aid for up to 30 credits of remedial courses (numbered 099 or below). Students who have not successfully completed the required remedial courses by the end of 30 attempted remedial credit hours may no longer apply for financial aid.

If you pass the GED test before attempting 30 credit hours, you no longer are classified as an Ability to Benefit Student.

Eligibility

Financial need determines most types of financial aid awards. Financial need is the difference between the cost of attending college and your available resources. Resources include parents' contributions, your earnings, spouse's earnings, and veteran's, social security, vocational rehabilitation, welfare and unemployment benefits.

If you have a baccalaureate, master's or other advanced degrees, you may be eligible to apply for student loans and Colorado Scholars, after you complete 12 credits at CCD. Contact the Office of Financial Aid.

You must complete applications for financial aid once each year to determine eligibility.

Financial aid applicants must maintain satisfactory academic and measurable progress both prior to applying for financial aid and during the semester(s) aid is received. The minimum requirements are a 2.0 cumulative grade point average and 75 percent cumulative completion rate for all attempted course work. Students may receive aid for up to 150 percent of the credits required to complete their program. All credit hours taken at CCD, as well as transfer hours, are counted to determine satisfactory/measurable progress even if no financial aid was received. Students denied aid based on this policy may file an appeal. Appeal forms and copies of the complete policy are available from the Office of Financial Aid, South Classroom Building, room 135.

Students enrolled in programs that require fewer than 16 credits are not eligible for financial aid. Approval is pending for financial aid eligibility for programs of 16 to 23 credits and is expected from the U.S. Department of education prior to the fall 1997 semester.

Refund and Repayment Policies

If you do not begin attending a class, you will not receive financial aid for the class, but will be charged tuition and fees if you fail to officially withdraw by the published date.

If you receive financial aid from CCD and then withdraw from classes or stop attending, you may be subject to repayment of a portion of the financial aid you received.

You may be eligible for a tuition refund if you withdraw from classes. (See Tuition Refund Policy.) If any portion of the your tuition and fees was paid from any financial aid fund, the refund will be returned to the account(s) from which you were paid in the order listed under Distribution of Refunds. An administrative fee, not to exceed the lesser of 5 percent of the institutional charges or \$100, will be charged.

If you only receive Colorado state financial aid, you are subject to CCD's Institutional Refund Policy outlined in this catalog and the Financial Aid Repayment Policy.

Refund/Repayment Policies do not apply to students who do not begin attendance in classes. These students are considered ineligible, and any financial aid disbursed must be repaid. Students who fail to withdraw from classes prior to the published census date will be held responsible for any tuition/fee charges and repayment of disbursed financial aid.

Pro-Rata Refund

If you are enrolling at CCD for the first time and are a Title IV financial aid recipient, then withdraw or cease to attend prior to completing 60 percent of your first semester, you will have a pro-rated portion of your tuition/fees calculated. The amount refunded will be the greater of the institutional, pro-rata or federal refund.

Federal Refund

Title IV recipients who are not eligible for pro-rata refund and who withdraw from CCD during the first 50 percent of the semester may be eligible for a refund of charges to the financial aid programs in accordance with the following schedule:

Percentage of Time Prior to Withdrawal	Percentage to be Refunded
0-15%	100%
16-25%	50%
26-50%	25%
51%	0%

Distribution of Refunds

Refunded amounts are distributed in the following order:

1. Unsubsidized Federal Direct Stafford Loan
2. Subsidized Federal Direct Stafford Loan
3. Federal Direct Plus Loan
4. Federal Pell Grant
5. Federal Supplemental Educational Opportunity Grant
6. Other Title IV Programs
7. Other Federal Sources of Aid
8. Colorado Student Incentive Grant
9. Colorado State Financial Aid
10. Private Funds
11. CCD Funds
12. The Student

Repayment

If you receive cash disbursements from federal and/or state financial aid programs and withdraw prior to mid-term (approximately the seventh or eighth week), you must repay a portion of the financial aid received if the disbursement exceeds educational expenses. Total financial aid disbursed (less student loans and work-study earnings) minus eligible expenses will equal the amount of your financial aid repayment.

Repayments are applied to a financial aid account(s) in the following order:

1. Federal Pell Grant
2. Federal SEOG
3. Other Title IV Federal Programs
4. Other Federal Sources of Aid
5. Colorado Student Incentive Grant
6. Colorado State Financial Aid
7. Private Funds
8. CCD Funds

If you withdraw and owe a repayment of financial aid funds, you will not be eligible for further financial aid from CCD or any other postsecondary educational institution until payment is made.

Contact the Financial Aid Office, 556-2420, for more detailed policy information and application examples.

Financial Aid Programs

Grants and Work-Study

- *Federal Pell Grant* — Federally funded Pell Grants assist with educational expenses. Award amounts range up to \$2,700 depending on student eligibility.
- *Colorado Student Grant (CSG)* — Available to Colorado residents based on financial need. Awards range up to \$5,000 per academic year.
- *Colorado Student Incentive Grant (CSIG)* — Available on a need basis. The maximum award is \$5,000 per year. Colorado and the federal government contribute to the award.

- *Federal Supplemental Educational Opportunity Grant (SEOG)* — Federally funded grants range from \$200 to \$5,000, depending on financial need. Pell Grant recipients with the lowest family contributions receive priority.
- *Diversity Grant* — Colorado provides grants of \$200 to \$5000 to members of underrepresented populations. Awards are based on financial need.
- *Colorado Work-Study* — The Colorado work-study program provides part-time employment opportunities for Colorado residents who demonstrate financial need as defined by CCD.
- *Federal Work-Study* — The federal work-study program provides part-time employment for students who demonstrate financial need.
- *Colorado Work-Study (No-Need)* — Colorado also provides limited funds to employ students part-time who do not demonstrate financial need and who are Colorado residents for tuition purposes.

Scholarships

Colorado Scholars Program — Scholarships are available to Colorado residents who have completed a minimum of 12 credit hours at CCD with at least a 3.0 grade point average in all courses attempted. Apply using the Free Application for Federal Student Aid (FAFSA). Scholarship awards depend on the availability of funds. Award amounts range up to resident tuition and fees.

High school graduates with a 3.0 grade point average or counselor's recommendation can apply, using a separate application.

Institutional and community scholarships are posted on the Office of Financial Aid scholarship board. Other scholarship listings and information resources include: The Educational Opportunity Center, 629-9226; Career Services Center, 556-6202; and Student Assistance Center and Women's Services, 556-3300.

William D. Ford Federal Direct Loan Programs

Loan applicants first must complete the FAFSA form. In addition, you must attend an entrance and an exit loan counseling interview to ensure you understand your loan repayment responsibilities.

CCD recommends first-year students' loan borrowing from all loan programs be limited to \$2,625 per academic year, or \$1,313 per semester. We also recommend total student loan borrowing be limited to a maximum of \$10,000, including any loans borrowed at other schools. Call the Office of Financial Aid, 556-2420, to learn more about student loan eligibility.

- **Federal Direct Subsidized Loan** — This program provides loans at a variable rate. Federal program limits allow students to borrow up to \$2,625 per year as freshmen. Sophomores who have finished 30 credit hours of college-level work may borrow up to \$3,500 per year. Loans

have a six-month grace period prior to the first payment. The Federal Direct Subsidized Loan is a need-based program. The interest rate is variable and paid by the Federal Government until the grace period ends.

- **Federal Direct Unsubsidized Stafford Loan** — The Direct Unsubsidized Loan program provides loans for students' remaining Stafford eligibility. The federal limits are \$4,000 for freshmen and sophomores. You may borrow the cost of education minus any other aid. No family contribution is subtracted from the loan. You will pay the interest rate from the date of disbursement.
- **Federal Direct Loans to Parents** — Parents may borrow for their students from the Federal Direct PLUS loan program. Repayment must begin within 60 days after disbursement. The interest rate is variable and the parent has up to 10 years to repay the loan. The Federal Servicer will provide for credit checks.



need more help?

NEED MORE HELP?

Student Services

Community College of Denver (CCD) offers an array of student services that have one goal — to increase your access to quality education and help you achieve your educational objectives. They are listed in alphabetical order for your convenience.

Career Development Center

The Career Development Center in South Classroom Building, room 136, offers:

- full-time career placement;
- part-time employment;
- career counseling and testing;
- cooperative (Coop) education;
- job search skills: resume writing and interviewing;
- career Resource Library;
- colorado Career Information System;
- career planning; and
- career laboratory.

For an appointment, call 556-3609.

Center for Persons with Disabilities

Students with disabilities should contact the Center for Persons with Disabilities (CPD) about free services to assist them at CCD. Services include academic advising and registration assistance; tutoring, classroom assistance, and curriculum and test modification; consultation with instructors; text recording, note-taking and use of adaptive equipment; accessible parking and campus orientation; sign language and oral interpreting; liaison with rehabilitation agencies and other Colorado postsecondary institutions; and housing and transportation information. CPD is in the South Classroom Building, room 134, 556-3300.

In addition to CPD, other resources useful to students with disabilities are Computer Training for People with Disabilities, Academic Support Center, Special Learning Support program and the Computer Access Center.

CCD complies with and fully supports Section 504 of the Rehabilitation Act of 1973, with amendments of 1974, regarding nondiscrimination on the basis of handicap. Inquiries concerning Title VI, TITLE IX and Section 504 may be referred to the Lil Hunsaker, CCD Campus Box 203, P.O. Box 173363, Denver, CO 80217-3363, South Classroom Building, Room 134, 556-2413, or to the Office for Civil Rights, U.S. Department of Education, 1961 Stout Street, Denver, CO 80294.

Child Care Services

CCD provides quality child care at three sites: the Auraria Campus, TEC North and TEC West. Each center provides a full-day program in early childhood care and education. Children have numerous opportunities to practice being competent, creative, caring and self-sufficient. Materials, equipment and activities are nonsexist and multicultural to prepare children for a diverse society.

The Auraria Campus Real Kids Center is licensed by the Colorado Department of Human Resources and accredited by the National Academy for the Education of Young Children. Center hours are Monday through Friday, 7:30 a.m. to 5:30 p.m. The center accepts children between the ages of 2 1/2 and 6 years old. The Real Kids Center is popular, so enroll early. Call for current information: 556-2439.

TEC North and TEC West Centers are licensed by the Colorado Department of Human Resources. Hours are Monday through Friday, 7 a.m. to 6 p.m. TEC sites accept children between the ages of 6 weeks and 6 years. For information, call TEC North 289-2243; TEC West 477-0901.

Educational Opportunity Center

The Educational Opportunity Center (EOC) is a community service program that provides educational planning, information and assistance, including:

- career counseling;
- college/university admission assistance;
- vocational-technical school enrollment assistance;
- academic assessment coordination;
- federal and state student financial aid application assistance; and
- educational planning workshops.

Services are free. EOC is located at the Parkway Center, 1391 Speer Blvd., 3rd floor, Suite 430. Call 629-9226 for an appointment.

Evening Services

Students who attend college during the evening hours can obtain help and information in the Educational Planning and Advising Center in the South Classroom Building, room 134. Academic planning and career advising are available by appointment Monday through Thursday, 5 p.m. to 6 p.m., when classes are in session. The offices of Admissions, Registration and Records, Financial Aid, Educational Planning and Advising, Career Services and Business Services also are open until 6 p.m. on Tuesday and Wednesday evenings when classes are in session. Call 556-2600 for more information.



CCD is in
the heart of
the city &
within walk-
ing distance
of myriad
downtown
activities.

GED Institute

The GED Institute has off-campus sites in the City and County of Denver. Students who are interested in obtaining a Colorado High School Equivalency Diploma or learning English as a second language (ESL) are invited to participate. GED and pre-GED classes are self-paced labs, while ESL classes are directed by the instructor. For further information including location, days times and admission requirements, please call 556-3805.

Health Services

CCD students may use the outpatient Metropolitan State College of Denver Student Health Clinic at a low cost. The clinic provides direct, confidential health care services that emphasize wellness and preventive medicine. The Tivoli Student Health Clinic is in the Student Union, room 140, 556-2525.

Insurance

Students may purchase an accident and sickness insurance plan after registering. Brochures are available at the Student Health Clinic, the Student Life and Activities Office (Tivoli Student Union) and the Office of the Vice President for Student Services, South Classroom Building, room 305, 556-2413.

International Student Services

The International Student Office assists international students from more than 50 countries, providing support services and helping bridge campus cultural gaps. Services include counseling on immigration transactions; information about American and international cultural events, on- and off-campus employment, and housing accommodations; pre- and post-admissions advising; and liaison with various consulates, embassies and other international organizations. For more information, contact the International Student Advisor in South Classroom Building, room 134, (303) 556-2600.

PLACE — Program for Licensing Assessments for Colorado Educators

All candidates (whether prepared in Colorado or other states) for initial educator licenses (provisional licenses) in Colorado are required to take and pass the PLACE assessments including basic skills, liberal arts and sciences, professional knowledge, and content areas, such as elementary education. Please contact the Education and Academic Services Division for further information at 556-8455.

ROTC Information

CCD students may participate in two Army ROTC programs that lead to a commission in the active Army, the Army Reserve, or the Colorado National Guard. CCD students may participate through Inter-institutional registration in the ROTC program. Contact the Department of Military Science, Metropolitan State College of Denver, Campus Box 93, P.O. Box 173362, Denver, CO 80217-3363, or call 556-3491.

Student Assistance Center and Women's Services

Services are available to all students. The center offers academic and crisis counseling, transition counseling for students who are making a change from home to the work force and assistance to AFDC clients.

The center hosts a variety of workshops, covering topics such as women's health issues, self-esteem and time management. Support groups offer help with divorce adjustment, welfare client support, personal growth and single parenting.

The center houses a lending library and books on women's issues. It also provides referrals to legal, day care, health, housing, and employment resources, and also helps students with abuse and economic issues.

The Student Assistance Center and Women's Services is in the South Classroom Building, room 134, 556-2343.

Student Life and Activities

The Student Life and Activities Office develops and implements programs and activities to meet the academic, social and recreational interests of CCD students and the community.

Programs offered through or supported by the Student Life and Activities Office include: Student Government and student organizations, intramural and recreational activities, social and cultural activities, health services, student leadership training programs, and student publications and student newspaper. These activities provide constructive experiences to stimulate personal growth and social development and add to students' enjoyment of life. Student Life and Activities is located on the third floor of the Tivoli Student Union, room 309, 556-2597.

Student Legal Services

Student Legal Services is a tri-institutional student fee-funded program. It provides students with legal advice and assistance. Services are offered at no cost. They include legal counseling, document preparation, legal self-help workshops and related activities. Services do not include representation in court or action against the college, or any state or local government entity. Legal Services is located in the Tivoli Student Union, room 308, 556-6061.

Testing Center

The Testing Center offers a variety of testing services to CCD students and staff. Please contact the center for information regarding dates, times, applications and registration fees, South Classroom Building, room 230, 556-3810.

Academic Profile

The Academic Profile is a test of general education knowledge and skills. It is required of all first-time freshmen and graduating students. Test data help measure institutional effectiveness and improve the quality of instruction and learning.

Basic Skills Assessment

Basic Skills Assessment is required of all first-time entering freshmen students by State Board policy. It assesses the areas of English (writing), mathematics, reading and study skills that are minimally required for student success in college-level course work. ESL (English as a Second Language) skills also are assessed. Counselors and instructors advise students based on the results of the assessments.

Class Testing

Self-paced and Continuing Education course exams are administered in the center. Make-up exams can be taken with faculty permission. Students may also take exams from other colleges or universities from their Continuing Education Departments.

CLEP—College-level Examination Program

A national program of credit by examination that offers the opportunity to obtain recognition for college-level achievement. (See pages 5-6, Credit for Prior Learning.)

Nursing Mobility Profile

Required of students designated by the Nursing Department. Includes three subjects: Foundations of Nursing; Nursing Care During Childbearing; and Nursing Care of the Child.

Psychological

Available by referral to the Special Learning Support program.

Workman's Compensation

Physicians Accreditation Test required by the State of Colorado for certain specialties. Assesses knowledge of Workman's Compensation Laws as it relates to Physicians rights and responsibilities.

Veterans Affairs Office

The Veterans Affairs Office provides information about veterans' federal, state and community benefits; assistance with VA inquiries; and gives referrals for emergency food, clothing, housing, legal aid and employment. The Veterans Affairs Office is located in the South Classroom Building, Room 133, 556-2452.

Work and Family Resource Center

Because child care issues can have an impact on student success directly and dramatically, CCD's Work and Family Resource Center provides child care information and referral services to help students find child care. One of the Work and Family Resource Center's national award-winning services is the 4 Parents Helpline (620-4444), a free, non-medical telephone "warmline" that provides information and support for parents to further the healthy development of their children and deal with the complexities of modern family life. The 4 Parents Helpline is available Monday-Friday from 9 a.m. to 5 p.m. Messages may be left at any time.

ASC

academic support center

Located in South Classroom Building, room 142, the Academic Support Center (ASC) provides free tutorial assistance in basic skills to all CCD students. Other tutoring in various subjects is available.

You may request tutoring in any course at the college. For some classes, you may be referred to the divisions for tutoring. Numerous tutoring services are available on a drop-in or appointment basis. In addition to finding help with individual courses, you are invited to use services provided in the following specialized labs:

Lab Tutoring*

English as a Second Language (ESL)

ESL tutors help you with pronunciation, conversation, grammar, reading and other subject areas such as math, biology, chemistry and computer science. Computers, language learning software and other equipment also are available for you to use. (Room M)

Colorado High School Equivalency Diploma (CHSED formerly GED)

You can prepare to pass the CHSED test battery and earn a CHSED diploma. (Room J)

Reading and Study Skills

Tutors and computerized assistance help you to strengthen your abilities in reading, note taking, organizational skills, test taking and other techniques designed to enhance your success in college. (Open area and room 139)

Mathematics

Tutors and instructors help you gain greater experience and knowledge of mathematical principles. Practice your skills on IBM computer tutorials, watch course videos and participate in specialized workshops and study groups. (Rooms Q, R & S)

Special Learning Support

Tutors help you to learn compensatory techniques for your special learning needs. At the same time, you also can strengthen your skills in math, reading, study skills and many other academic content areas. (Rooms L, U & V)

Writing Center

Tutors work with you on all types of writing at every level. You can use Macintosh computers in the center to plan, compose and revise your papers. (Rooms N, P & T)

* Lab schedules are posted at the entrance of South Classroom 142 and outside each lab.

Special ASC Programs**

For more information on ASC services, or to make an appointment for counseling or tutoring, call 556-2497.

Special Learning Support Program (SLSP)

Learning disabled adults can take specialized classes and receive individualized tutoring through this program. You receive diagnostic evaluations and counseling related to your unique needs. This provides the foundation for counseling and specialized educational planning. (Office: Room 142L; Lab: Room 142U & V)




Student Support Services (SSS)

Counselors create an individualized success plan with you that includes services such as tutoring, peer mentoring and peer advocacy. Counselors also advise you on college survival and financial aid. Eligibility is based on income, disability and/or first-generation status. (Room 142E)

Supplemental Services (SS)

You may request tutorial assistance for your vocational classes through this program. Specialized services include small group or one-on-one tutoring, English as a Second Language for vocational classes and referrals to other programs. (Room 142F)

** Students apply for these services.



We are here
to help you
succeed,
because your
success is our
success.

SPECIAL PROGRAMS

special programs

Computer Training for People with Disabilities

The Computer Training for People with Disabilities (CTPD) program is a nationally recognized and award-winning computer training program. You can apply for both certificate and associate degree programs in either application programmer or PC specialist/LAN administrator. If you have a disability, we encourage you to apply to the CTPD program. Our program offers special services, support and placement for participants.

CTPD admission requirements include:

1. successful completion of a computer aptitude test battery.
2. personal interview with members of the CTPD Business Advisory Council.

You can obtain application information from the Center for Persons with Disabilities, South Classroom Building, room 134, (303) 556-3300, or from the Division of Business and Governmental Studies, Plaza Building, room 262, (303) 556-2487.

Cooperative Education Program

CCD's Cooperative Education program provides opportunities to supplement course work with practical work experience related to your educational and occupational objectives. You can earn credit for working part-time in an area directly related to your educational program. We encourage you to apply at least one semester prior to the semester during which you wish to work. For more information, call or drop by the Cooperative Education Office, South Classroom Building, room 136, 556-3607.

Developmental Studies Program

To be successful at CCD, you must be able to use your reading, math, writing and study skills. We offer a comprehensive academic program in these skill areas. They include:

1. assessment of basic academic skills;
2. test results interpretation by skilled faculty and counselors;
3. a variety of skill development courses in reading, mathematics, writing and study skills;
4. support with computer-assisted instruction;
5. preparation for GED; and
6. english as a Second Language instruction and support.

For more information, contact the Division of Education and Academic Services, South Classroom Building, room 313, 556-8455.

Honors Program

The Honors program allows qualified students to receive honors credit by contracting with instructors to do individual honors work within existing courses or by taking designated honors courses. Honors work can help you develop sophisticated, creative, critical thinking and research skills while enhancing your academic resume. For more information, visit the Honors program office in South Classroom, room 244A, or contact Stephen Thomas, Honors Program Coordinator, at 556-3861.

Denver Education Network

Started in 1992, the Denver Education Network is one of 17 urban projects across the United States funded by the Ford Foundation. The purpose of the Ford Foundation's decade-long initiative is to increase the participation and advancement rates of urban, minority students in two-year and four-year colleges primarily through systematic change within the public school systems — elementary, secondary and higher education. The Denver Education Network's goal is to provide a seamless web of services to Denver students, especially for those students most at-risk of academic failure.

International Study Programs

CCD is a member of the Colorado Consortium for International Programming (CCIP). Through this organization you may find opportunities to live and study abroad while earning CCD credit. For more information about study possibilities in foreign countries, contact Professor Richard Hart at (303) 556-3829.

La Familia Scholars Program

The La Familia Scholars program provides a model environment for first-generation students in higher education that attends to the academic, social, technological and human needs of students based on the culture of "La Familia." La Familia Scholars selected for the program must enroll in a six-hour community class that combines technology, educational and career planning and the critical skills. Learning community classes are taught in a state-of-the-art computerized classroom. Students also have access to a computerized lab for tutoring and computer support.

Case managers and peer mentors provide comprehensive advising and centralized information to students. La Familia staff also work closely with CCD faculty and staff to assist students in adapting to college life so they persist in



*CCD is a
comprehensive,
student-oriented
urban college,
providing
open access
to a diverse
population.*

college to receive a two-year college degree and transfer to a four-year college or university. Because this program is supported by Hispanic-Serving Institution(HSI) funding, Hispanic/Latino first-generation college students are given priority when they apply to the program; however, other first-generation students are welcome to apply until the program reaches its enrollment limit.

Summer Bridge Program

The Summer Bridge program is a well-established, intensive program that offers participants a firm foundation on which to begin and build a successful college education. For more than eight years, CCD has worked diligently to blend the right ingredients for a thorough summer program, including financial assistance, First Year Experience courses, academic development courses, student support services, career exploration, college program sampling and a variety of enrichment activities. The Summer Bridge program aims to motivate students to pursue a college education and equip them with the skills and confidence needed to complete that education. Applications are accepted from January through April; the eight-week program begins in June. Applicants must be recent high school or Colorado High School Equivalency graduates between the ages of 18 and 22. For more information and for specific entrance requirements, contact Yvonne Frye, Education and Academic Services, South Classroom Building, room 313, 556-8455.



FACILITIES

auraria campus facilities

Auraria Library

The Auraria Library has more than 560,000 volumes of books, microforms and bound periodicals, and more than 1,700 current periodical and newspaper subscriptions. As a member of the Colorado Alliance of Research Libraries (CARL), the Auraria Library has access to an additional six million volumes through inter-library loans.

You can take a 50-minute, self-guided, audiotape tour of the library to become familiar with its services and resources, including: computerized bibliographic searches, library orientation and instruction for groups and individuals, a depository of U.S. and Colorado government publications, and media listening and viewing facilities. Rooms for individual study, group conferences and typing also are available. For information about library services and hours, call 556-2741.

Campus Recreation

Campus Recreation offers unique opportunities to develop athletic skills, leadership abilities and team spirit. Major campus attractions include noon-hour aerobics, swimming pool, weight room and handball/racquetball courts. The outdoor adventure program offers a variety of one-day and multi-day trips for wind surfing, skiing, snow-shoeing, bicycling, cross-country skiing and ice sailing. The intramural program includes touch football, basketball, racquetball, tennis, 3-on-3 basketball, floor hockey, volleyball and inner tube water polo.

Club sports provide a high level of competition in rugby, lacrosse, Tae Kwon Do, weight lifting, soccer, football, karate, skiing and volleyball.

Stop by room 108 of the Events Center for semester schedules and to check out team sports equipment. For more information, call 556-3210. Make handball/racquetball reservations and check in for these activities at room 111, 556-3211.

Auraria Child Care Center

The center provides child care for children of students, faculty and staff on the Auraria Campus. It is fully licensed by the Colorado Department of Social Services. Space is available for 30 toddlers, aged 18 months to 3 years, and 120 children, aged 3 to 8 years. Professional staff provide a toddler, preschool and state certified kindergarten program. Call 556-3188.

Real Kids Center

The Auraria Campus Real Kids Center provides a full-day program in early childhood care and education. The center is licensed by the Colorado Department of Human Resources and accredited by the National Academy for the

Education of Young Children. Hours are Monday through Friday, 7:30 a.m. to 5:30 p.m. The Center accepts children between the ages of 2 1/2 and 6 years old. Call 556-2439 for current information.

Interfaith Ministry

The Auraria Interfaith Ministry (AIM) is a cooperative endeavor of several church denominations. AIM provides programs and counseling and promotes individual spiritual growth. AIM offices are in the St. Francis Center. For more information, call 556-8591.

Parking and Transportation Services

Prospective students and new students coming to the college for advising, orientation, Basic Skills Assessment, financial aid workshops, or registration may park in Lot G, at the corner of Lawrence Way and 9th Street. Validate your parking ticket for four hours of free parking in South Classroom Building, room 134. Once you register, you no longer are eligible for free parking.

Parking is available in daily fee lots ranging in price from \$1.25 to \$2 and the parking garage at Seventh St. and Lawrence Way. The \$2 daily fee for the Parking Garage and Lots H (\$2) and D (\$1.75) may be paid in cash or by debit card. Debit cards may be purchased for \$1 in the basement of the Student Union next to the postal vending machines or at the Parking and Transportation Center Office in the elevator lobby on the first level of the parking garage.

A student ID is required for parking in Lot R. A limited number of monthly permits is available. Students also may park free for 20 minutes in Lot G to go to the Parking Office. Bring your ticket with you for validation.

The Parking Office is open Monday through Friday, 7:30 a.m. to 5:30 p.m. For more information about the following services, call 556-2000.

- Free carpool-matching assistance
- Carpool parking discounts
- Free on-campus transportation for disabled students on the wheelchair-accessible handivan
- Free campus shuttle service for evening students on the Auraria Evening Express (Monday through Thursday, dusk to 10 p.m.)

Public Safety

Public Safety provides professional 24-hour crime prevention and law enforcement service for the Auraria Campus. For routine calls to Public Safety, phone 556-3271; for emergency calls, phone 911.



POLICIES & STANDARDS

college policies & academic standards



So you'll know what you can expect of us at Community College of Denver (CCD) and what we'll expect of you, please read this alphabetized section carefully. Your counselor, advisor, or a staff member in Student Services, South Classroom Building, room 134, can help if you have additional questions.

Academic Standards

Attendance

Your regular and punctual attendance is expected, and each instructor will keep a complete record of your attendance for the entire length of each course. You will be counted absent from missed class meetings, beginning with the first official date of enrollment or the first day of classes, whichever is later.

Faculty may give a failing grade to any student who has a 15 percent or greater absence from a class, starting from the first class meeting. You are responsible for informing the instructor of the reason for an absence and for doing so in a timely fashion. You, whether present or absent, are responsible for obtaining all material presented and completing all course assignments.

The attendance policy for certain programs, such as health careers, may differ from the general policy because of clinical requirements or requirements of approving agencies.

You are responsible for properly processing a withdrawal.

Course Load

A full-time course load is 12 to 15 credits. If you are registered for fewer than 12 credits, you are classified a part-time student.

Eighteen credits is considered a heavy load. Twenty credits is the maximum load for all students without special permission of the instructional division dean.

Academic Standards of Progress

1. You are required to maintain a cumulative grade point average of 2.0 for all course work attempted.
2. If your cumulative grade point average falls below the required 2.0 on an attempted six or more credits, you will be placed on academic probation for the following term of enrollment.
3. Should you fail to raise your cumulative GPA to 2.0 by the end of the probationary instructional term, CCD will consider suspending you academically for a minimum of one term.
4. If you are placed on academic suspension, you must meet with the vice president for Student Services to determine eligibility for continued enrollment.

5. You may appeal your suspension to the Suspension Review Board. Decisions of the board are final.

Appeal Procedure

Students wishing to appeal academic suspension or seeking information about the appeal procedure, should contact the Office of the Vice President for Student Services, 556-2413.

Assessment

1. Basic Skills Assessment

If you are a first-time CCD student, you must take a basic skills assessment test for English, math, reading and study skills unless you meet one of the following criteria for an exemption.

- a. You have associate or higher degree with a "C" grade or better in English 121 and Math 121 or their equivalents.
- b. You enrolled for employment in-service or upgrading.
- c. You reached the 50th percentile on ACT (minimum composite score of 20 with minimum score of 20 in subject area test) or SAT (minimum scores of 900, composite; 420, verbal; 480, math).
- d. You successfully completed ENG 121 and MAT 121 or their equivalents with a "C" grade or better within the last five years. (Students taking math or English must take that portion of the assessment).
- e. You enrolled in one course for personal enrichment.
- f. You can provide assessment and placement scores from another accredited institution that meet CCD criteria.

If you initially enrolled in one course for personal enrichment or job upgrading and have not been assessed, you must participate in assessment before entering into a certificate or degree program.

Our assessment methods include one or both of the following:

1. a comprehensive review of your past records such as standardized test results, high school and college transcripts and prior learning experiences.
2. a test battery that includes writing, study skills, reading, mathematics and English as a Second Language.

Either assessment method includes a personal interview with an advisor to review test results and your academic and personal background to determine classes for which you are academically ready.



If your score is below program-entry level in writing, study skills, reading and/or mathematics, you should take review courses beginning your first semester at CCD. You are expected to pursue basic skills until you reach college-level competency. Usually, you can enroll in certificate and degree requirement classes at the same time you take review courses. However, if the review course is a prerequisite, you must complete it before enrolling in a higher-level course.

2. English as a Second Language

If English is your second language, you should take tests to assess your level of English. You will take the Levels of English Proficiency (LOEP) Reading and Language Use tests and a listening comprehension test. If your score on the Language Use test is high, you will write a short essay. You will take these tests in the Test Center, South Classroom Building, room 232. When you receive your test scores, talk with an advisor to help you choose the classes you need to improve your English.

CCD Rights

CCD reserves the right to change provisions, requirements and fees in this catalog. Without notice, CCD may cancel any course or program or change its content, description, timing, availability, location, academic credit, or any other aspect.

Cooperative Programs with Emily Griffith Opportunity School

CCD provides advanced placement status in various programs to students who have credits from many Emily Griffith programs. See your advisor for details.

Drug-Free Schools

In compliance with the Drug-Free Schools and Communities Act Amendment of 1989, Public Law 101-226, CCD informs all students and employees about its drug and alcohol abuse prevention program.

- I. **Standard of Conduct.** Students and employees shall not engage in the unauthorized or unlawful manufacture, distribution, dispensation, possession, use/abuse of alcohol and/or illicit drugs on college property or use as a part of college activities.
- II. **Legal Sanctions for Violation of the Standards of Conduct.** Any student or employee who is convicted of the unlawful manufacture, distribution, dispensation, production, use/abuse of illicit drugs or alcohol is subject to criminal penalties under local, state and federal law. These penalties range in severity from a fine of up to \$100 to life imprisonment and/or a fine of \$8,000,000.
- III. **Penalties Which May Be Imposed by the College.** Students and/or employees who violate the above standard of conduct will be subject to disciplinary action under student and employee disciplinary policies. The

sanctions include, but are not limited to, a requirement to complete an appropriate rehabilitation or re-entry program; expulsion from college or termination of employment; and/or referral to authorities for prosecution; possible loss of financial aid.

- IV. **Health Risks Associated with Use of Illicit Drugs and Alcohol Abuse.** Health risks associated with drug and alcohol abuse include, but are not limited to: malnutrition, brain damage, heart disease, pancreatitis, cirrhosis of the liver, mental illness, death, low birth weight babies, and babies with drug addictions.
- V. **Available Counseling, Treatment, Rehabilitation or Re-entry Programs.** Information on available counseling, treatment, rehabilitation or re-entry programs is available through the Colorado Department of Health and as follows:

For Information on Substance Abuse, contact:

MSCD Student Health Clinic

SU-140, 556-2525

Bethesda PsychHealth System

758-1123 (24 hours)

CCD Referral

SO 134, 556-2600

For Information on treatment centers, call:

Adams Community Mental Health Center

287-8001 (24 hours)

Arapahoe Mental Health Center

761-0620

Boulder County Mental Health Center

447-1665 (24 hours)

Denver Mental Health Corporation

377-4300

Jefferson County Mental Health Center

425-0300 (24 hours)

Family Education Rights and Privacy Act of 1974

This act protects the privacy of education records, establishes the right of students to inspect and review their educational records and provides guidelines for the correction of inaccurate or misleading data through informal and formal hearings.

Students have the right to file complaints with the Family Education Rights and Privacy Act Office (FERPA) concerning alleged failures by CCD to comply with the act.

The CCD policy explains in detail the procedures to be used by the institution for compliance with the act's provisions. Copies of the policy are available from the Office of Admissions, Registration and Records and the Office of the Vice President for Student Services. These offices also maintain a Directory of Records that lists all educational records maintained on students by CCD.

Please refer questions about the Family Education Rights and Privacy Act to the Office of Admissions, Registration and Records, 556-2430.

Grades

Grade A — A distinguished grade for superior work

1. You mastered the content and objectives of the course, can apply what you learned to new situations and can relate it to other knowledge.
2. You consistently distinguish yourself in examinations, reports, projects, class participation and laboratory or training situations.
3. You show independent thinking in assignments and class discussion.
4. Your work is consistently in proper form, shows satisfactory evidence of careful research (where required) and is submitted punctually.
5. Where achievement in the course involves development of hand or body skills, you consistently demonstrate superior skills, ability and performance.
6. You complied with the instructor's attendance requirements.

Grade B — A better-than-acceptable grade

1. You consistently show mastery of the course content and objectives and usually apply what you learned to new situations or relate it to other knowledge.
2. Your work is in proper form, shows satisfactory evidence of research (where required) and is submitted punctually.
3. Where achievement in the course involves development of hand or body skills, you consistently demonstrate above average skills, ability and performance.
4. You complied with the instructor's attendance requirements.

Grade C — An acceptable grade permitting progress forward in course sequence

1. You show evidence of a reasonable comprehension of the subject matter of the course and have an average mastery of the content sufficient to indicate success in the next course in the same field.
2. You consistently make average scores in examinations, reports, projects, class participation and laboratory or training situations.
3. If the subject carries transfer credit, your work indicates sufficient competence in the content to continue in the subject field upon transfer.
4. You complete your assignments in good form and on time.
5. Where achievement in the course involves development of hand or body skills, you consistently demonstrate average skills, ability and performance.
6. You complied with the instructor's attendance requirements.

Grade D — A less-than-acceptable, passing grade

1. You fall below the average in examinations, projects, reports, class participation and laboratory or training situations, but show some competence in the assigned subject matter of the course.
2. The competence demonstrated is insufficient to indicate success in the next course in the subject field.
3. Assignments are completed in imperfect form, are sometimes late, or of inconsistent quality.
4. Where achievement in the course involves development of hand or body skills, you consistently demonstrate below-average skills, ability and performance.
5. You complied with the instructor's attendance requirements.

Grade F — A failing grade

1. With respect to examinations, projects, reports, class participation and laboratory or training situations, you fail to perform at the "D" grade level.
2. You show little or no competence in the assigned subject matter of the course.
3. Where achievement in the course involves development of hand or body skills, you fail to perform at the "D" or above grade level.
4. You did not comply with the instructor's attendance requirements.

Credit/No Credit

CCD offers some courses on a credit/no credit basis. Upon successful completion of such a course, unit credit is awarded. However, courses taken on a credit/no credit basis are not used in the computation of a student's grade point average (GPA). Regulations for such courses follow:

1. In authorized credit/no credit courses, the credit grade is granted for performance equivalent to the letter grade of "C" or better.
2. Credit/no credit-graded courses must be designated by the respective division. Each term, CCD will specify courses that fall into this category in the class schedule. Departments may require majors to obtain letter grades in that department's major subjects.

Grade SP — Satisfactory progress

Some courses, designated as open-entry/open-exit, may extend beyond the normal end of a semester. Upon successful completion of such courses, CCD will award unit credits and a grades. Regulations for such courses follow:

1. In courses for which this grade is authorized, the SP will be given in either of the following cases.
 - a. You attended for a full term and show satisfactory progress, but have not yet mastered required course objectives.

- b. Under the college's continuous enrollment policy, you enrolled late in the semester and are making satisfactory progress, but have not had sufficient time to master required course objectives.
2. You may be required to reregister for a course in which you received an SP grade, if you do not complete the course work by the end of the next consecutive 15-week semester. When the remaining time needed for completion is short, or when other extenuating circumstances occur, the dean may waive the requirement for re-enrollment.
3. You must, before the end of the term, make arrangements with the instructor to complete the course. If you receive financial aid, you must finish the course within the semester you register. Contact the Office of Financial Aid for more information.
4. An SP grade will revert to NC (no credit) after the end of the next consecutive 15-week term.
5. Home study and on-line courses are open-entry/open-exit and must comply with the above regulations. If you receive financial aid, you must complete the class in the semester in which you enroll for the class.

Grade I — Incomplete

1. You have not completed the course requirements due to extenuating circumstances.
2. A minimum of two-thirds of the course work has been satisfactorily completed.
3. You must, before the end of the term, make arrangements with the instructor to complete the course. These arrangements include a formal contract with a deadline date on or before the end of the next 15-week semester.
4. You must complete the necessary course work prior to the deadline date.
5. An "I" grade that is not made up reverts to an "NC" grade.
6. Home study and open-entry/open-exit courses are not eligible for incomplete grades.

Grade W — Withdrawal

You officially withdrew from the class after the add/drop deadline as published in the class schedule.

Grade AU — Audit

You audited the course.

Grade AW — Administrative Withdrawal

You attended one or more class sessions, but too few to be appropriately evaluated or to receive an "I" grade.

Grade Changes

Grade changes are made by the faculty person who administered the grade. In cases where the faculty is not available to consider a grade change, such change may be made by the instructional dean in consultation with the vice presi-

dent for Instruction. Grade appeals go to the dean responsible for the course, then to the vice president for Instruction.

Grade Point Average

Grade points measure your achievement for the number of credits completed. To calculate your grade point average, multiply the number of grade points by the number of credits for each course. Total the credits and points, then divide the grade points by the total number of credits.

- A = 4 grade points
- B = 3 grade points
- C = 2 grade points
- D = 1 grade point
- F = 0 grade points

Note: All other grades (AU, AW, F, & SP) are not calculated into the CCD GPA.

The following example will help you calculate your grade point average:

Course	Credits	Grade	Points
ANT 111			
Principles of Anthropology	3	A	12 (3 x 4)
BIO 111			
General College Biology	15	A	20 (5 x 4)
CIS 115			
Intro. to Computing	3	B	9 (3 x 3)
ENG 121			
English Comp. Essay Writing	3	D	3 (3 x 1)
POS 111			
American Government	3	F	0 (3 x 0)
TOTALS	17		41

Total grade points divided by total credits equals the cumulative grade point average. Therefore, the grade point average for the above example is 41 divided by 17 for a 2.41 GPA.

Recognition of Achievement or Continuing Education Units (CEU)

CCD offers many courses, conferences, workshops and seminars for upgrading job skills and for personal enrichment. Successful completion of courses of this type may result in the granting of a Recognition of Achievement or a CEU that may be requested from the appropriate instructional division.

Repeating Courses

- A. You may repeat a course only once if you receive a D or F grade.
- B. You must request a "Petition to Repeat a Course Form" from the Office of Admissions, Registration and Records, South Classroom Building, room 133, complete it and turn it in when registering for the class you wish to repeat.

- C. All forms must be submitted prior to Census Date, posted in the class schedule.
- D. You may, while enrolled at CCD, register inter-institutionally to repeat a course originally taken at CCD at Metropolitan State College of Denver or University of Colorado at Denver.
- E. The GPA will be changed only once for the same class.
- F. Under extenuating circumstances, you may appeal to the dean of the division responsible for offering a course for permission to retake a course and/or adjust a grade more than once.

Student Code of Conduct

Admission to CCD implies that you agree to respect the rights of others and observe moral and civil laws. Interference with the normal processes of education in the classroom or elsewhere on the campus will be regarded as unacceptable conduct, warranting suspension or dismissal.

Disciplinary proceedings for violations of standards of conduct are the responsibility of the vice president for Student Services.

Conduct for which students are subject to discipline includes the following factors:

1. Dishonesty, such as cheating, plagiarism, or knowingly furnishing false information to the college.
2. Forgery, alteration or misuse of college documents, records or identification.
3. Obstruction or disruption of teaching, administration, disciplinary procedures or other college activities.
4. Physical abuse of or action that threatens the health or safety of any person on college-owned or controlled property or at college-sponsored functions.
5. Theft of, misuse of, or damage to property.
6. Unauthorized entry to or use of college facilities; unauthorized use of college equipment.
7. Manufacture, possession, control, sale, transmission, or use of any substance in violation of state or federal laws. (The college has the policy of full cooperation with law enforcement agencies in such cases.)
8. Disorderly, indecent, or obscene conduct on college-owned or controlled property or at college-sponsored functions.
9. Abuse or unauthorized use of alcohol. (See State Liquor Code).
10. Condoning any act by another student that violates college policy.
11. Unauthorized representation or contracting in the name of the Community College of Denver. (A student may not claim to be an official representative of the college for any commercial purpose.)
12. Verbal or written communication that threatens, or unlawfully exposes, any individual or group to hatred, contempt, or ridicule, and thereby injures the person, property, or reputation of another.

13. Sexual harassment, verbal or written, will not be tolerated.
14. Dress that fails to meet established safety or health standards in specific classes and on college-owned or controlled property or at college-sponsored activities.
15. Possession of weapons, fireworks, or explosives. (Weapons are defined as firearms, knives, explosives, inflammable materials, or any other items that may cause bodily injury or damage to property.)

Student Grievance Procedure

CCD has a grievance procedure for students who believe their rights have been violated. If you have a grievance, contact the vice president for Student Services no later than 15 days after the occurrence.

The Grievance Procedure for Students begins on page 25 of this catalog. Additional copies are available in the Student Life and Activities Office (Tivoli Student Union, room 309) and the Office of the Vice President for Student Services (South Classroom Building, room 305).

Student Recognition

President's Honors List — First Honors

Students are selected for the President's Honors List during the semester preceding their graduation from CCD. To be eligible for this academic honor, you must be completing at least 30 semester credit hours in a certificate program, or be completing the requirements for one of the four associate degrees. In addition, you must have a cumulative grade point average of at least 3.85, based on all courses attempted while enrolled at CCD. Selection for the First Honors List is printed on your permanent academic transcript.

Vice President's Honors List — Second Honors

Each semester, students who take six or more credits may be considered for the Vice President's Honors list. To be eligible for this academic honor, you must have completed at least 15 semester credit hours toward a certificate or degree program. In addition, the student must have a cumulative grade point average of at least 3.5, based on all courses attempted while enrolled at CCD. You will be notified by mail of this honor. Selection for the Second Honors List is printed on your permanent academic transcript.

Dean's Honors List

Each semester, students who take six or more credits may be considered for the Dean's Honors List. To be eligible for this academic honor, you must have completed at least nine semester credit hours in a certificate or degree program. In addition, you must have a cumulative grade point average of at least 3.0, based on all courses attempted while enrolled at CCD. You will be notified by mail of this honor. Selection for the Dean's Honors List is printed on your permanent academic transcript.

Phi Theta Kappa

Phi Theta Kappa, the national scholastic honorary society for two-year community and junior colleges, recognizes student academic excellence at CCD and promotes academic community at the college.

To be eligible for membership in CCD's Alpha Mu Mu Chapter, you must have a 3.5 grade point average after completing 12 or more credit hours of college-level work, and carry three or more credit hours during the current academic year. Phi Theta Kappa members are honored at graduation for their outstanding academic achievements. Eligible students are invited to join each semester.

In spring 1996, Alpha Mu Mu received two international Hallmark Awards for Distinguished Chapter and Distinguished Chapter President. We scored in the top one percent of more than 1,200 chapters worldwide, based on how our members fulfilled the four hallmarks of leadership, service, scholarship and fellowship. Alpha Mu Mu also received the 1996 Most Distinguished Chapter in the Colorado Region, capturing three Hallmark Awards for outstanding programs in scholarship, leadership and service. In addition, CCD's advisor received the regional Horizon Award for outstanding chapter advisor.

For more information, interested and eligible students should contact any current executive board member or the faculty sponsors by calling 556-4521, 556-3848 or 556-2461.

Student Rights and Responsibilities

CCD students have all the rights and responsibilities of other citizens and are subject to the same federal, state and local laws as non-students. As members of the college community, you also are subject to the rules and regulations of the college. If you believe your rights have been violated, you may file a grievance using the Grievance Procedure for Students, which begins on page 25 of this catalog.

A detailed copy of "Students' Rights and Responsibilities" is available in the Student Life and Activities Office (Tivoli Student Union, room 309) and the Office of the Vice President for Student Services (South Classroom Building, room 305).

Student Right-to-Know Information

Of the 542 first-time, full-time, degree-seeking students who entered CCD in the fall of 1993, 34.1 percent either had graduated or transferred to another Colorado public postsecondary institution at the end of three academic years (by the end of summer 1996). Another 12.0 percent were enrolled still at CCD in the fall 1996. The overall completion, transfer and persistence rate of 46.1 percent (34.1 percent + 12.0 percent) is above the statewide community college average of 41.1 percent during the same time period.



GRIEVANCE PROCEDURE

grievance procedure for students

The objective of these procedures is to provide for the prompt, fair and equitable resolution of all student grievances. If you believe your rights or freedoms have been violated, you are advised to use the grievance procedure.

This procedure is not intended to be used when the college takes disciplinary action against a student for violation of the Student Code of Conduct or related student actions. Grievance procedures could apply to college admissions, access to the college, treatment by the college in its educational programs, or college activities.

Student rights and freedoms include, but are not limited to, such things as discrimination on the basis of race, color, national origin, disability, religion, age and sexual preference, as well as sexual harassment and other provisions of the Students Rights and Responsibilities College Policy.

We hope our students will attempt to resolve problems first through the informal grievance procedure (Step 1 below). If the grievance is not resolved satisfactorily through the informal procedure as detailed in Step 1, students may file a formal written grievance (Step 2). Petitions for change of grade are limited to Step 1. Where a student is uncomfortable discussing the harassment with the alleged harasser, s/he may satisfy the first step by working directly with the vice president for Student Services.

Definitions

- A. Grievant: Enrolled student, a client or volunteer who is providing a service to benefit the college under the supervision and control of a college employee. A client or volunteer may only grieve a decision that bans him or her from the campus.
- B. Grievance: A grievable offense is any alleged action that violates or inequitably applies written college policies or procedures. The grievant must be personally affected by such violation or inequitable action. A grievance must be brought to the formal stage within 20 calendar days of the date the student knew or reasonably should have known about the action.
- C. Vice President for Student Services: The college employee designated by the college president to administer student grievances. Grievances alleging discrimination issues may be referred to the employee responsible for ensuring equal opportunity and access.
- D. Remedy: The relief the grievant is requesting.
- E. Respondent(s): Another student, volunteer, client, faculty member and/or administrator identified by the grievant as causing or contributing to the grievance.
- F. Non-grievable matters: The following matters are not grievable under this procedure except as noted: matter over which the college is without authority to act;

grades and other academic decisions unless there is an allegation that the decision was motivated by illegal discrimination; and disciplinary actions taken pursuant to BP 4-30.

Step 1 - The Informal Grievance Procedure

Grievant is encouraged to resolve the issue with the respondent or his/her supervisor. In the case of grievances based on one's race, color, creed, national origin or ancestry, disability, age or gender, the grievant may first contact the college employee responsible for affirmative action to seek informal resolution of the issues. If the complaint alleges facts that might constitute a violation of SP 3-120a, concerning sexual harassment, the administrator shall investigate and process the complaint under that procedure. While the grievant is encouraged to resolve the issues through the informal process, he or she may at any time elect to go to the formal stage by following the process outlined below.

Step 2 - The Formal Grievance Procedure

- A. Grievant timely files a written statement of the actions complained of and describes the remedy he or she is seeking with the vice president for Student Services. A matter could also be referred to this process by the college president or his/her designee. Once a written grievance is filed or referred, the vice president for Student Services or designee will determine whether or not the situation states a grievable offense. The matter will be closed if the situation is determined not grievable and the grievant will be notified of the reasons.
- B. If the matter is determined to be grievable, the vice president for Student Services or designee (which may be an individual or a committee) shall hear the grievance. A hearing will be held that will give the grievant, respondent, and others invited to appear, the opportunity to explain what they know about the issues surrounding the grievance. Considering the oral and written statements and documents, the vice president for Student Services or designee shall issue a decision within 10 calendar days of close of the hearing. The decision shall be served upon the grievant and the respondent personally or by certified mail to the addresses on file in the Office of Admissions, Registration and Records. The decision shall reject the grievance or grant the grievance and make recommendation(s) to resolve the issue(s). The vice president for Student Services or designee's decision is final unless a Petition for Review is filed with the president by either party within five (5) calendar days of service of the decision.

- C. Upon receipt of a Petition for Review, the college president will review the record and issue a written decision within 10 calendar days of receipt of the Petition for Review. The president's decision is final.
- D. The vice president for Student Services or designee may extend the scheduling timelines described above for good cause.
- E. If the grievance is against the vice president for Student Services, the vice president of Instruction or other person designated by the president shall perform the duties of the vice president for Student Services.



GRADUATION REQUIREMENTS

graduation requirements

Degree Requirements

All degrees and certificates will list the degree or certificate only, not the emphasis.

If you are applying for a Community College of Denver (CCD) degree program, you must meet all of the following requirements. The vice president for Instruction may approve exceptions.

1. Complete a minimum of 60 semester hours of credit in approved course work.
2. Earn a cumulative grade point average of 2.0 ("C" average). Courses counting toward the general education core curriculum must be completed with a grade of "C" or higher. Some programs, as stated in the current catalog, may require a student to earn at least a "C" in specific course work. Students should check with their instructional division or advisor for information about the minimum grade point average requirement.
3. Complete a minimum of 15 credits at CCD in the program area.
4. Complete the Academic Profile, a general education assessment, during your final academic semester.
5. Complete your program's capstone course with a "C" or better grade.
6. Complete all courses taken to fulfill general education requirements with a "C" or better.
7. Complete the required survey of all graduating students.

General Education Requirements

All associate degrees have general education requirements that meet goals for general education established by the State Board for Colorado Community Colleges and Occupational Education. They are:

1. to build skills for advanced and lifelong learning.
2. to expose students to the mainstream of thought and interpretation in the humanities, sciences, mathematics, social sciences, communications and the arts.
3. to integrate learning in ways that cultivate a student's broad understanding and ability to think about a large and complex subject, formulate and analyze valid concepts, solve problems and clarify values.

In addition, the following rationale for the Associate of Arts (AA) and Associate of Science (AS) general education core curriculum was developed by AA/AS faculty and adopted by CCD, the Colorado Community College and Occupational Education System and the Colorado Commission on Higher Education.

"General education addresses the needs of all students — regardless of program area, degree sought, or major — since all people share certain experiences and have certain life goals that are unrelated to any specific discipline of study. The core curriculum is that set of courses that satisfy the general education portion of the requirements for an AA, an AS, or an Associate of General Studies (AGS) degree. All courses in the core curriculum are designed to transfer to baccalaureate, degree-granting colleges and universities. Core courses are academically rigorous and of such quality that transfer students may be assured of their ability to compete successfully on transfer.

"The offerings within the core curriculum are designed to stimulate students to think deeply, clearly and logically about a variety of human questions. These offerings provide a balanced, broadly-based program that will require students to develop critical thinking and problem-solving skills, to analyze, synthesize and communicate information, and to use knowledge and technology intelligently and responsibly.

"These core offerings:

- expose students to the mainstems of thought and interpretation in humanities, sciences, communications, mathematics, social sciences and arts, and develop students' understanding of the interrelationships among these fields of study.
- expand students' interpersonal, intercultural and international understanding and develop their perceptions of the evolving nature of societies and the interdependence among all peoples.
- develop students' skills in self-understanding, oral and written communication, numerical calculations and reasoning to help them achieve personal independence.
- develop students' skills in leadership and in group dynamics.
- increase students' knowledge of the value of physical and environmental well-being to help them fulfill their roles as citizens within a free and changing society."

Certificate Requirements

All CCD certificate program graduates must meet the following requirements. The vice president for Instruction may approve exceptions.

1. Complete the specified requirements of an approved vocational/technical program.
2. Earn a cumulative grade point average of 2.0 ("C"). Some programs, as stated in the current catalog, may require you to earn at least a "C" grade in specific course work. Check with your instructional division and your advisor



for information about the minimum grade point average required for graduation;

3. Complete a minimum of 15 credits in the program area at CCD.
4. Complete the capstone course.

Graduation Requirements

Degrees and certificates will be granted during the semester in which the final requirements are completed. Students need to apply for graduation by the deadline date published in the class schedule. If the deadline date is missed, the student will automatically be added to the next semester graduating class.

If you receive an (I) in a course required for graduation in your final semester, you will not graduate until the semester in which the (I) is replaced by a letter grade. During that semester, you must reapply for graduation. You will not need to retake the Academic Profile.

Students must take at least 15 credit hours at CCD to receive a diploma from this institution.

Other Graduation Policies

1. You can apply no more than six semester hours of courses numbered "299" (independent study course work) toward an associate degree program.
2. There is no limit on special topics courses allowed to count toward a degree. In individual cases, the limit is determined by the program area. If you take special topic courses, consult with your advisors about how these credits apply toward a degree.
3. Degrees and certificates will be granted during the semester in which the final requirements are completed. For example, if you receive an ("I") in a course required for graduation in your final semester, you will not graduate until the semester in which the ("I") is replaced by a letter grade. During that semester, you must reapply for graduation. You will not need to retake the Academic Profile.

Catalog Requirements for Graduation

You may graduate under the catalog requirements listed for the academic year in which you were first enrolled. If you interrupt attendance for one year or more and then return, the catalog of the re-admission year is the document of authority. If graduation requirements and policies change, you may choose to follow the catalog of the year of initial entry or the current catalog. Obtain and keep a copy of the catalog published the year in which you enter or are re-admitted. The instructional division or program will determine the extent to which semester credit hours previously earned will apply to degree requirements listed in the most current college catalog.

The catalog should not be considered a contract between you and CCD. The college retains the right to cancel or change programs or course offerings where enrollments are insufficient or for any other reason. Every course listed in the catalog may not be offered every semester.

Petitioning for Waivers and/or Program Substitutions

Due to extenuating circumstances, you may wish to petition for a waiver and/or substitution of program requirements. You must complete a "Waiver/Program Substitution Request Form." The form is available in each instructional division office.

Please complete the request and have it approved by the program coordinator, the division dean and the vice president for Instruction. The Office of Admissions, Registration and Records will keep the form on file.

CONTINUING EDUCATION

continuing education programs

Non-Traditional Learning Programs

The Division of Continuing Education extends campus programs into the community and makes lifelong education and personal development available to all who seek it. We offer college-level courses at times, days and locations convenient for people who cannot enroll in regular on-campus college classes. Continuing Education courses cover the same material as do traditional classes and are offered for the same credit.

Guided Independent Study courses require an amount of work from the average student equal to 135 hours for a 3-credit course (approximating six-nine hours of work per week during a 15 week-semester). Guided Independent Study credit hours are based on identical instructional outcomes and objectives as traditional classroom credit hours and on Community College of Denver's (CCD) existing curricula. These courses demand an equal commitment from you as would any class offered on campus.

For more information about CCD's Continuing Education programs, contact the Division of Continuing Education, 1391 N. Speer Blvd., Suite 200, Denver, (303) 620-4433.

Guided Independent Study: Home Study

You study at home or the office for these open-entry/open-exit credit courses. You have the semester in which you register and the following 15-week semester to complete course work. If you receive financial aid, you have only the semester in which you register to complete course work. After registration, you will attend an orientation. Instructors are available and course materials will explain procedures, assignments and textbook information. Student/instructor contact is by phone, mail and electronic mail (E-mail). See the Schedule of Classes Home Study section for current offerings.

Guided Independent Study: On-line Courses

These credit courses are identical to the home-study courses (see above) except that the primary form of communication is via electronic mail (E-mail) and/or the Internet's World Wide Web (WWW). Students must have access to a computer and an Internet provider. Student accounts are available. See the Schedule of Classes On-line Courses section for complete listings.

Guided Independent Study: Television Courses

Televised credit classes (telecourses) offered through Channel 6 and Channel 54 allow maximum flexibility for the busy, self-motivated student. Most of the offerings qualify as core courses that can apply toward certificate or degree programs. After registration, you'll attend an orientation. Instructors are available and you'll receive course materials, assignments and textbook information. Student/instructor contact is by phone, mail and E-mail and optional meetings.

See the Schedule of Classes Television Courses section for complete listings.

Weekend College

Weekend College offers a variety of traditional credit classes on Friday evenings and Saturdays. These courses are offered for students who may not be able to attend classes during the week or have weekday scheduling conflicts. See the Schedule of Classes Weekend College section.

Extended Campus

CCD offers Extended Campus courses for credit at off-campus locations. Credit courses apply toward certificate or associate degree programs.

Business and Industry Services

Business and Industry meets our business community's training needs through credit and non-credit offerings at the work site or at CCD's training center. Companies may select from current college programs or tailored courses and workshops. Training ranges from basic skills to professional management development. Contact the Business and Industry Services director at the Corporate Training Center, 1391 N. Speer Blvd., Suite 200, Denver, (303) 620-4433.

Computer Consulting and Training Services

CCD's state-of-the-art, networked, Pentium-based computer lab offers beginning, intermediate and advanced computer instruction in an expanding range of software packages, including MS-DOS/PC-DOS, Paradox, WordPerfect, Windows, Excel, Lotus 1-2-3, Quattro Pro, Harvard Graphics, Word, Microsoft Office, Access and Netscape. Call the CIS coordinator at (303) 620-4433.

The Small Business Development Center

The Small Business Development Center (SBDC) provides small business owners and would-be entrepreneurs with guidance in small business planning and start-up preparation, loan package preparation, bid package preparation, contract identification and marketing plan development. SBDC personnel work extensively with grant writing and funding for small businesses with small business computerized databases and information networking. The Small Business Development Center is at 1445 Market St., Denver, CO 80202, (303) 620-8076.

Work and Family Resource Center

The Work and Family Resource Center offers a broad spectrum of services to working families and employers. These include enhanced corporate child care resource and referral, workplace needs assessments and employer consultation, parent-education seminars, advocacy provider recruitment and support services. In addition, we offer a community information and referral telephone counseling service to help citizens find child care. For more information, call (303) 534-3789.

READING GUIDE

reading guide to degree & certificate programs

Definitions

Area of Emphasis

In the Associate of Arts (AA) and Associate of Science (AS) Degree programs, the area of emphasis refers to 12 or more credit hours in a subject field in preparation for transfer and selection of a major at a baccalaureate college.

Capstone Courses

These are courses, usually taken during the final semester, in which program competencies are reviewed and assessed. All courses identified as Capstone courses require a grade of "C" or better for graduation. Capstone courses must be taken at CCD.

Contact Hour

This is a 50-minute period of classroom or lab contact between student and instructor.

Core Curriculum

These are courses that fulfill lower division general education requirements as defined and agreed upon between the State Board for Community Colleges and Occupational Education and the governing boards of all public four-year institutions in Colorado.

Corequisite

This is a course or requirement that must be completed during the same semester as the course that identifies the corequisite.

Credit Hour

This is the basic unit of academic credit. Generally, one-credit hour is earned by attending a lecture class for a 50-minute period, once a week, for a full semester. In a laboratory course, one-credit hour is granted for two to three 50-minute periods per week in the laboratory.

Credit or Contact Hours in Parenthesis

Course options from which you may choose. These options are not individually included in the total credit or contact hours listed below the parenthetical numbers.

General Education

General Education is the liberal arts component of a baccalaureate degree that may include lower division and upper division courses as defined by each institution.

Open Entry

This course designation allows the student to start at any time prior to the last date to drop classes published in the Schedule of Classes. The student must complete all course requirements by the end of the semester, regardless of entry date.

Open-entry/Open-exit

This course designation allows students to enroll at any time prior to the last date to drop classes and progress at their own learning pace. If the student does not complete course requirements by the end of the semester, an "SP" (Satisfactory Progress) grade will be given and the student may continue in the course the following semester at no additional tuition charge.

Prerequisite

This is a required course that must be completed satisfactorily before registering for the course that identifies that prerequisite.

Speech Intensive Courses

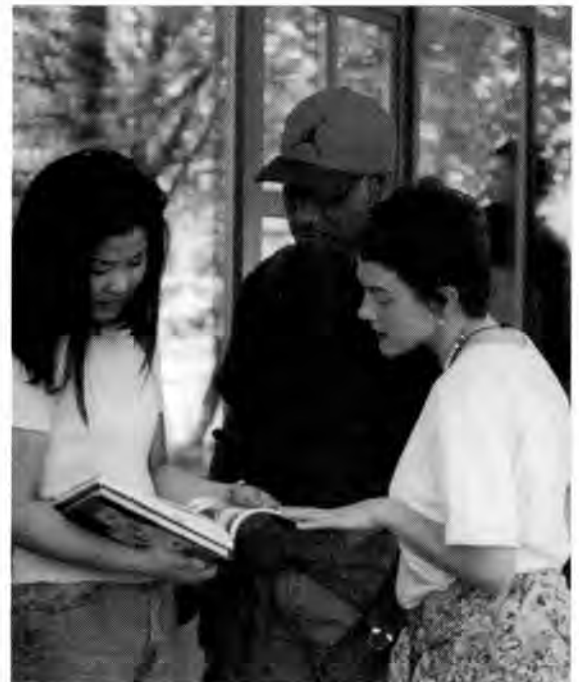
Associate of Applied Science "Speech Intensive" courses combine the requirements of SPE 115 with the content of vocational classes. Students who transfer a course from another college that is noted as "speech intensive" at CCD may meet the SPE 115 requirements only by taking SPE 115 as a separate course.



Program Titles and Course Prefixes

Accounting	.ACC
Administrative Health Assistant	.AHA
Anthropology	.ANT
Appliance Repair Technology	.APT
Art	.ART
American Sign Language	.ASL
Arabic	.ARB
Astronomy	.AST
Biology	.BIO
Business Administration	.BUS
Business Technology: Office Management and Secretarial Studies	.BTE
Business of Travel and Tourism	.BTT
Chemistry	.CHE
Chinese	.CHN
Commercial Credit Management	.CRM
Communications	.COM
Computer-Aided Drafting	.CAD
Computer Information Systems	.CIS
Computer Science	.CSC
Dental Hygiene	.DEH
Drafting for Industry	.DRI
Early Childhood Education	.ECE
Economics	.ECO
Education	.EDU
Electronics Technology	.ELT
English	.ENG
English as a Second Language	.ESL
French	.FRE
General Education Development	.GED
Geography	.GEO
Geology	.GEY
Gerontology	.GNT
Graphic Arts	.GRA
Graphic Design	.GRD
Health and Wellness Management	.HWM
Health Occupations	.HOC
History	.HIS
Human Services	.HSE
Humanities	.HUM
Japanese	.JPN
Journalism	.JOU
Literature	.LIT
Machine and CNC Tool Operator	.MTO
Magnetic Resonance Imaging	.MRI
Mammography	.MAM
Mathematics	.MAT
Multimedia Design	.MUM
Music	.MUS
Nuclear Medicine Technology	.NMT
Nursing	.NUR
Nutrition	.NUT
Paralegal	.PAR
Personal Growth and Development	.PGD

Philosophy	.PHI
Photography	.PHO
Physics	.PHY
Political Science	.POS
Postal Service	.PST
Psychiatric Technician	.LPT
Psychology	.PSY
Radiography	.RTR
Reading	.REA
Real Estate (Emily Griffith Opportunity School)	.REE
Recreational Assistant	.RAE
Refrigeration, Heating and Air Conditioning (Commercial-Industrial)	.RAC
Science	.SCI
Sociology	.SOC
Spanish	.SPA
Special Learning Support Program	.SLS
Speech	.SPE
Surgical Technology	.STE
Technical Health Assistant	.THA
Theatre	.THE
Welding and Fabrication	.WEF



ASSOCIATE DEGREE

associate degree programs

ASSOCIATE OF ARTS DEGREE

University Parallel, Transfer Program

An Associate of Arts (AA) degree provides a learning foundation in communications, social science, arts or humanities. Some students work toward the Associate of Arts degree for purposes of personal enrichment. Many others plan to transfer to four-year colleges and universities to continue their work toward baccalaureate degrees and pre-professional training in such fields as law, education, the arts and social sciences.

The Associate of Arts degree is sometimes referred to as a "university parallel" or "transfer" degree. The general education core requirements, when completed at CCD, meet the lower division general education requirements of all public baccalaureate colleges and universities in the state of Colorado. Students graduating with the AA degree may transfer into liberal arts programs in all public baccalaureate colleges and universities with junior standing. Courses to be counted toward the general education core curriculum must be completed with a grade of "C" or higher. Students planning to transfer should familiarize themselves with the full requirements of the school they plan to attend. These are available in the Transfer Center in South Classroom Building, room 134.

Student Performance Objectives for Transfer Education (AA Degree)

1. Students will plan and write well-structured compositions demonstrating the writing capabilities to express, inform, analyze, evaluate, persuade, argue, conduct research, and use primary and secondary sources logically and stylistically.
2. Students will compose and deliver oral presentations, providing ideas and information, and using delivery skills suitable to the topic, purpose and audience. Students will demonstrate an understanding of speeches and be able to evaluate speeches.
3. Students will read and think critically about a variety of interdisciplinary topics, demonstrating college-level reading skills in a variety of disciplines, including humanities, social sciences and the natural sciences.
4. Students will demonstrate orally and in writing the critical-thinking skills of analysis, synthesis and evaluation.
5. Students will analyze and use numerical data and qualitative reasoning skills, including applying proper formulas to mathematical data and calculating results, illustrating quantitative data graphically, rearranging general formulas to solve for any term, and interpreting graphic data and assessing the importance of the portrayed trends.

AA Degree Program Entry

Students must apply for entry to the Associate of Arts degree program. Students are encouraged to apply to a program by the time they have completed 12 credits of 100-level courses. At the time of application, students are encouraged to identify an area of emphasis. Program

application forms are in South Classroom Building, room 134, and division offices. Students should obtain an Advising Transcript from the registrar's office and attach it to the program application.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 3 or completion of MAT 105 with a C or better.
2. Meet with a faculty program advisor and obtain an authorized signature.

AA Degree Program Requirements

Within the AA degree, the college offers 12 possible areas of emphasis: Art, Behavioral Sciences, Communications, Economics, English/Literature, History, Humanities/Philosophy, Music, Photography, Political Sciences, Speech or Theatre. The same course may not count toward both general education requirements and an area of emphasis. An area of emphasis consists of four identified courses in one academic area. If students do not select an area of emphasis or have fewer than 60 credit hours with their core courses and area of emphasis, they should take transfer electives as needed to complete the 60 credit hours required for the Associate of Arts degree. Up to 3 credits of physical education may apply toward this degree. All general education core and capstone courses must be completed with a C or better. All graduates of the Associate of Arts (AA) degree must meet the following program requirements.

General Education Core

	Credit Hours
I. English	6
ENG 121, ENG 122	
II. Speech	3
SPE 115	
III. Mathematics	3-5
(Select any 1 of the following)	
MAT 121, 125, 135, 201, 202	
IV. Physical & Biological Sciences	4-5
(Select any 1 of the following)	
AST 101, 102	
BIO 105, 111, 112	
CHE 101, 102, 111, 112	
PHY 105, 111, 112, 211, 212	
GEY 111, 121	

V.	Social & Behavioral Sciences (Select 9 credit hours from a minimum of 2 disciplines.) ANT 101, 111 ECO 201, 202 GEO 105 HIS 101, 102, 201, 202 POS 105, 111 PSY 101, 102 SOC 101, 102	9
VI.	Humanities (Select 9 credit hours from a minimum of 2 disciplines.) ART 110, 111, 112 HUM 121, 122, 123 Any foreign language 111 or higher LIT 115, 201, 202 MUS 120, 121, 122 PHI 111, 112, 113 THE 105, 211, 212	9

General Education Sub-Total **34-37**

Area of Emphasis (Optional)

and/or electives (Must include a minimum of 6 credit hours in 200-level courses.)

Sub-Total **20-23**

Capstone Course

HUM 285	Seminar in Critical Thinking	3
or		
SCI 285	Critical Thinking	

Total Hours **60**

Approved Electives for the AA Degree

- ANT - all courses
- ART - all courses
- AST - all courses
- BIO - 105 and higher
- CHE - 101 and higher
- COM - all courses
- CIS - 118
- CSC - 150, 230
- ECO - 201 and higher
- ENG - 121 and higher
- Any foreign language 111 or higher
- GEO - all courses
- GEY - all courses
- HIS - all courses
- HUM - all courses
- JOU - all courses
- LIT - all courses
- MAT - 121 and higher

- MUS - all courses
- PER - all courses
- PHI - all courses
- PHY - all courses
- POS - all courses
- PSY - 101 and higher
- REA - 151, 223 (approved by MSCD only)
- SOC - all courses
- SPE - all courses
- THE - all courses

Courses in any prefix whose numbers begin with "0" will not meet requirements for the AA degree. English and math courses with numbers below 121 will not meet requirements for the AA degree.

Credit and Contact Hours

Credits are the hours of credit awarded to the course. An Associate degree requires a minimum of 60 credits. Contacts are the in-class contact hours required for the course. Credit or contact hours in parenthesis, e.g., (3), are options from which students may choose. They also may be course-embedded content. They are not included in the total credit or contact hours listed below. An average full-time student course load is 15 credit hours. An Associate of Arts degree takes four semesters of 15 credits each semester, assuming that all courses taken count toward the degree.

AA Degree Areas of Emphasis

ART EMPHASIS		Credits	Contacts
ART 122	Drawing II/Mixed Media (Prerequisite ART 121, Drawing I)	3	90
ART 131	Design I	3	90
ART 211	Painting I	3	90
ART 212	Painting II	3	90
Total		12	360

The following may be taken as Art electives:

ART 132	Design II	(3)	(90)
ART 151	Fundamentals of Black & White Photography	(3)	(90)
GRD 100	Lettering & Typographic Design	(3)	(90)
MUM 101	Intro. to Multimedia	(3)	(68)
ART 213	Painting III	(3)	(90)
ART 214	Painting IV	(3)	(90)
ART 231	Watercolor I	(3)	(90)
ART 232	Watercolor II		
ART 270	Figure Drawing I		
ART 290	Special Topics (with instructor consent)	(1-3)	(15-45)
HUM 285	Seminar in Critical Thinking (Capstone)	(3)	(45)

BEHAVIORAL SCIENCES EMPHASIS

Select four courses from one option, or from among the three options listed below. At least three must be 200-level courses:

Gerontology Emphasis

	Credits	Contacts
GNT 201 Intro. to Gerontology	(3)	(45)
GNT 213 Psychology of Aging	(3)	(45)
GNT 214 The Social Aspects of Aging	(3)	(45)
GNT 215 Aging in a Diverse Society	(3)	(45)
GNT 221 Services & Resources of the Aging	(3)	(45)
GNT 237 Death & Dying	(3)	(45)
GNT 297 Leadership Development	(3)	(45)

Psychology Emphasis

	Credits	Contacts
PSY 101 General Psychology I	(3)	(45)
PSY 102 General Psychology II	(3)	(45)
PSY 227 Psychology of Death & Dying	(3)	(45)
PSY 235 Psychology of Human Growth & Development	(3)	(45)
PSY 249 Abnormal Psychology	(3)	(45)
PSY 295 Leadership Development	(3)	(45)

Sociology Emphasis

	Credits	Contacts
SOC 101 Intro. to Sociology	(3)	(45)
SOC 102 Intro. to Sociology II	(3)	(45)
SOC 205 Sociology of Marriage & Family	(3)	(45)
SOC 215 Contemporary Social Problems	(3)	(45)
SOC 220 Race, Gender, Class, Culture	(3)	(45)
SOC 237 Death & Dying	(3)	(45)
SOC 260 Sociology of Deviance	(3)	(45)
Total	12	180

COMMUNICATIONS EMPHASIS

	Credits	Contacts
SPE 125 Interpersonal Communication	3	45
COM 126 Intro. to Mass Media	3	45
or		
JOU 106 Fundamentals of Reporting		
COM 251 Intro. to Television Production	3	45
COM 255 Survey of Film	3	45
Total	12	180

ECONOMICS EMPHASIS

	Credits	Contacts
ECO 105 Intro. to Economics	3	45
ECO 201 Principles of Macro Economics	3	45
ECO 202 Principles of Micro Economics	3	45
Total	9	135

ENGLISH/LITERATURE EMPHASIS

Select 4 courses, at least 2 of which are ENG:

	Credits	Contacts
ENG 131 Intro. to Technical Writing I	(3)	(45)
or		
ENG 132 Technical Writing II	(3)	(45)
ENG 221 Creative Writing I	(3)	(45)
ENG 227 Poetry Writing	(3)	(45)
LIT 115 Intro. to Literature	(3)	(45)
LIT 201 Masterpieces of Literature I	(3)	(45)
Total	12	180

HISTORY EMPHASIS

Select 4 courses from the following:

	Credits	Contacts
HIS 101 Western Civilization I	(3)	(45)
HIS 102 Western Civilization II	(3)	(45)
HIS 201 United States History I	(3)	(45)
HIS 202 United States History II	(3)	(45)
HIS 225 Colorado History	(3)	(45)
Total	12	180

HUMANITIES/PHILOSOPHY EMPHASIS

	Credits	Contacts
PHI 111 Intro. to Philosophy	3	45

*Select 1 course from the following:

	Credits	Contacts
HUM 121 Survey of Humanities I	(3)	(45)
HUM 122 Survey of Humanities II	(3)	(45)
HUM 123 Survey of Humanities III	(3)	(45)

Select 2 courses from the following:

	Credits	Contacts
PHI 112 Ethics	(3)	(45)
PHI 113 Logic	(3)	(45)
PHI 115 Myth & Religion	(3)	(45)
PHI 250 Topics in Philosophy	(3)	(45)
HUM 116 Intro. to African-American Studies	(3)	(45)
HUM 121 Survey of Humanities I	(3)	(45)
HUM 122 Survey of Humanities II	(3)	(45)
HUM 123 Survey of Humanities III	(3)	(45)
HUM 185 Cultural Diversity in the Humanities	(3)	(45)
HUM 225 Contemporary Chicano Studies	(3)	(45)
HUM 250 Topics in Humanities	(3)	(45)
Total	12	180

MUSIC EMPHASIS

	Credits	Contacts
MUS 101 Music Theory I	3	45
MUS 102 Music Theory II	3	45
MUS 142 Private Instruction (Voice)	1	30

Select 1 course from the following:

	Credits	Contacts
MUS 120 Music Appreciation	(3)	(45)
MUS 121 Survey of Music History I	(3)	(45)
MUS 122 Survey of Music History II	(3)	(45)
Total	12	195

PHOTOGRAPHY EMPHASIS

	Credits	Contacts
ART 151 Fundamentals of Photography	3	90
ART 153 Fundamentals of Color Photography	3	90

* Students wishing to take the entire sequence of HUM 121, HUM 122, and HUM 123 may do so. These three courses also are listed in the third grouping.

Select a total of 6 credits from the following:			6	135-180
ART	157	History of Photography	(3)	(45)
ART	154	Intermediate Color Photography	(3)	(90)
ART	152	Intermediate Black & White Photography	(3)	(90)
ART	253	View Camera Technique	(3)	(90)
ART	255	Points of View (Special Topics) (Workshop at selected locations)	(3)	(90)
Total			12	315-360

POLITICAL SCIENCE EMPHASIS			Credits	Contacts
POS	105	Intro. to Political Science	3	45
POS	111	American Government	3	45
POS	125	American State & Local Government	3	45
POS	205	International Relations	3	45
Total			12	180

SPEECH EMPHASIS			Credits	Contacts
SPE	125	Interpersonal Communication	3	45
SPE	205	Voice & Diction	3	45
SPE	216	Principles of Speech Communication II	3	45
SPE	219	Group Dynamics	3	45
Total			12	180

THEATRE EMPHASIS			Credits	Contacts
THE	111	Acting I	3	45
THE	112	Acting II	3	45

Select 2 courses from the following:			6	90
THE	105	Intro. to Theatre Arts	(3)	(45)
THE	211	Development of Theatre I	(3)	(45)
THE	212	Development of Theatre II	(3)	(45)
Total			12	180

ASSOCIATE OF SCIENCE DEGREE

University Parallel, Transfer Program

The Associate of Science (AS) degree provides a learning foundation in mathematics and the sciences. Although some students work toward the Associate of Science degree for personal enrichment, many plan to transfer to four-year colleges and universities to continue work toward a baccalaureate degree and professional training in such fields as engineering, medicine, biology, chemistry and physics.

The Associate of Science degree is sometimes referred to as a "university parallel" or "transfer" degree. The general education core requirements, when completed at CCD, meet the lower division general education requirements of all public Colorado baccalaureate colleges and universities in the state of Colorado. Students graduating with the AS degree may transfer into liberal arts or sciences programs in all Colorado public baccalaureate colleges and universities with junior standing. Courses to be counted toward the general education core curriculum must be completed with a grade of "C" or higher. Students planning to transfer should familiarize themselves with the full requirements of the school they plan to attend. These are available in the Transfer Center in South Classroom Building, room 134.

Student Performance Objectives for Transfer Education (AS Degree)

1. Students will plan and write well-structured compositions demonstrating the writing capabilities to express, inform, analyze, evaluate, persuade, argue, conduct research, and use primary and secondary sources logically and stylistically.
2. Students will compose and deliver oral presentations, providing ideas and information, and using delivery skills suitable to the topic, purpose and audience. Students will demonstrate an understanding of others' speeches and be able to evaluate others' speeches.
3. Students will read and think critically about a variety of interdisciplinary topics, demonstrating college-level reading skills in a variety of disciplines, including humanities, social sciences and the natural sciences.
4. Students will demonstrate orally and in writing the critical-thinking skills of analysis, synthesis and evaluation.
5. Students will analyze and use numerical data and qualitative reasoning skills including applying proper formulas to mathematical data and calculating results, illustrating quantitative data graphically, rearranging general formulas to solve for any term, and interpreting graphic data and assessing the importance of the portrayed trends.

AS Degree Program Entry

Students must apply for entry into the Associate of Science degree program. Students are encouraged to apply to a program by the time they have completed 12 credits of 100-level courses. At the time of application, students are encouraged to identify an area of emphasis. Program application forms are in SO 134 and SO 306. Students should obtain an Advising Transcript from the Registrar's Office and attach it to the program application. To complete the program application, the student will need to meet with a designated advisor for his or her probable emphasis area.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 3 or completion of MAT 105 with a C or better.
2. Meet with a faculty program advisor and obtain an authorized signature.

AS Degree Program Requirements

Within the Associate of Science degree, the college offers eight areas of emphasis: Biology, Chemistry, Computer Science, Earth Science, Mathematics, Medical Cluster, Pre-Engineering Cluster and Physics. The same course may not count both toward general education requirements and toward an area of emphasis. If students do not select an area of emphasis or have fewer than 60 credit hours with their core courses and area of emphasis, they should take transfer electives as needed to complete the 60 credit hours required for the Associate of Science degree. Up to three credits of physical education may count

toward this degree. All general education core and capstone courses must be completed with a C or better. All graduates of the Associate of Science (AS) degree must meet the following program requirements.

General Education Core	Contact Hours
I. English ENG 121, 122	6
II. Speech SPE 115	3
III. Mathematics (any 1 of the following) MAT 121, 125, 201, 202	4-5
IV. Physical & Biological Sciences (any 2 of the following) AST 101, 102 BIO 111, 112 CHE 111, 112 GEY 111, 121 PHY 111, 112, 211, 212	8-10
V. Social & Behavioral Sciences (6 credit hours from 2 disciplines) ANT 101, 111 ECO 201, 202 GEO 105 HIS 101, 102, 201, 202 POS 105, 111 PSY 101, 102 SOC 101, 102	6
VI. Humanities (any 2 of the following) ART 110, 111, 112 HUM 121, 122, 123 Any foreign language 111 or higher LIT 115, 201, 202 MUS 120, 121, 122 PHI 111, 112, 113 THE 105, 211, 212	6
General Education Sub-Total	33-36
Area of Emphasis (Optional) and/or electives	21-24
(12 credits must be in science or math prefixes, 6 credits must be in 200-level courses)	
Capstone Course	3
HUM 285 Seminar in Critical Thinking or SCI 285 Critical Thinking	
Total	60

Approved Electives for the AS Degree

An area of emphasis consists of four identified courses in one academic area. Students who do not select an area of emphasis or who have fewer than 60 credit hours with their core courses and their area of emphasis should take general electives as needed to complete the 60 credit hours required for the Associate of Science degree.

Approved Electives for the AS Degree

ANT	-	all courses
ART	-	all courses
AST	-	all courses
BIO	-	111 and higher
CHE	-	111 and higher
COM	-	all courses
CIS	-	118
CSC	-	150, 230
ECO	-	201 and higher
ENG	-	121 and higher
Any foreign language 111 or higher		
GEO	-	all courses
GEY	-	all courses
HIS	-	all courses
HUM	-	all courses
JOU	-	all courses
LIT	-	all courses
MAT	-	121 and higher
MUS	-	all courses
PER	-	all courses
PHI	-	all courses
PHY	-	111 and higher
POS	-	all courses
PSY	-	101 and higher
REA	-	151, 223 (approved by MSCD only)
SOC	-	all courses
SPE	-	all courses
THE	-	all courses

Any course whose number begins with a "0" in any prefix will not meet requirements for the AS degree. English and mathematics courses must be numbered 121 or above.

Credit and Contact Hours

Credits are the hours of credit awarded to the course. An Associate degree requires a minimum of 60 credits. Contacts are the in-class contact hours required for the course. Credit or contact hours in parenthesis, e.g., (3) are options from which students may choose. They also may be course-embedded content. They are not included in the total credit or contact hours listed below. An average full-time student course load is 15 credit hours. An Associate of Science degree takes four semesters of 15 credits each semester assuming that all courses taken count toward the degree.

Areas of Emphasis for the AS Degree

Students should complete the courses listed under the emphasis area if planning to transfer to a four-year degree program in one of these emphasis areas, or planning to enter a professional school in an area listed. An associate degree can be earned without completing an emphasis area, and associate degree requirements may be fulfilled before all the courses listed under an area of emphasis have been completed. Any courses completed beyond those required for an associate degree can be applied to a four-year degree program. **Courses shown in bold under the emphasis area meet core requirements.** Students must complete a total of 60 semester hours for the associate degree. Of these, 21-24 must be from courses listed below having science or math prefixes and not used to fulfill the core requirements. Requirements in four-year or professional programs sometimes change yearly. We recommend students speak frequently with the appropriate advisor in the Division of Science and Technology (SO 306) while completing degree requirements.

BIOLOGY EMPHASIS

	Credits	Contacts
BIO 111 General College Biology I	5	90
BIO 112 General College Biology II	5	90
CHE 111 General College Chemistry I	5	105
CHE 112 General College Chemistry II	5	105
MAT 121 College Algebra	4	60
MAT 122 Trigonometry	3	45
PHY 111 Physics: Algebra-Based I	5	105
PHY 112 Physics: Algebra-Based II	5	105
Total	37	705

CHEMISTRY EMPHASIS

	Credits	Contacts
CHE 111 General College Chemistry I	5	105
CHE 112 General College Chemistry II	5	105
MAT 121 College Algebra	4	60
MAT 122 Trigonometry	3	45
MAT 201 Calculus I	5	75
MAT 202 Calculus II	5	75
PHY 111 Physics: Algebra-Based I	5	105
PHY 112 Physics: Algebra-Based II	5	105
Total	37	675

COMPUTER SCIENCE EMPHASIS

	Credits	Contacts
CIS 118 Intro. to Computers	4	68
CSC 150 PASCAL Programming	3	45
CSC 230 C++ Programming I	3	45
MAT 121 College Algebra	4	60
MAT 122 Trigonometry	3	45
MAT 135 Intro. to Statistics	3	45
MAT 201 Calculus I	5	75
MAT 202 Calculus II	5	75
PHY 211 Physics: Calculus-Based I	5	105
PHY 212 Physics: Calculus-Based II	5	105
Total	40	668

Recommended:

CHE 111 General College Chemistry I	5	105
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EARTH SCIENCE EMPHASIS

	Credits	Contacts
BIO 112 General College Biology II	(5)	(90)
GEY 111 Physical Geology	(4)	(60)
GEO 105 Geography	(3)	(45)
BIO 118 Human Ecology & the Environment or		
GEO 200 Human Ecology or	(3)	(45)
GEY 225 Planet Earth	(3)	(45)
Total	13-14	195-225

ENGINEERING CLUSTER

PRE-ENGINEERING GENERAL EMPHASIS

	Credits	Contacts
MAT 201 Calculus I	5	75
MAT 202 Calculus II	5	75
MAT 203 Calculus III	4	60
MAT 3191 Applied Linear Algebra (CU-Denver)	3	45
MAT 3200 Elementary Differential Equations (CU-Denver)	3	45
CHE 111 General College Chemistry I	5	105
PHY 211 Physics: Calculus-Based I	5	105
PHY 212 Physics: Calculus-Based II	5	105
Total	35	615

Also required for Applied Mathematics majors:

CSC 150 PASCAL Programming	3	45
ENGR 1025 Engineering Graphics/CAD (CU-Denver)	3	45

Also required for Computer Science majors:

CSC 150 PASCAL Programming	3	45
CSC 2421 Data Structures & Program Design (CU-Denver)	3	45
CSC 1510 Logic Design (CU-Denver)	3	45

Also required for Electrical Engineering majors:

CSC 150 PASCAL Programming	3	45
CSC 1510 Logic Design (CU-Denver)	3	45
ME 2023 Statics (CU-Denver)	3	45
ME 2033 Dynamics (CU-Denver)	3	45

Also required for Civil Engineering majors:

GEY 111 Physical Geology	4	60
CSC 1100 Computing with FORTRAN (CU-Denver)	3	45
ENGR 1025 Engineering Graphics/CAD (CU-Denver)	3	45
CE 2121 Analytical Mechanics I (CU-Denver)	3	45

Also required for Mechanical Engineering majors:

CSC 1100 Computing with FORTRAN (CU-Denver)	3	45
ENGR 1025 Engineering Graphics/CAD (CU-Denver)	3	45
ME 2023 Statics (CU-Denver)	3	45
ME 2033 Dynamics (CU-Denver)	3	45

MATHEMATICS EMPHASIS			Credits	Contacts
MAT 121	College Algebra		4	60
MAT 122	Trigonometry		3	45
MAT 135	Intro.to Statistics		3	45
MAT 201	Calculus I		5	75
MAT 202	Calculus II		5	75
MAT 203	Calculus III		4	60
MAT 265	Ordinary Differential Equations		3	45
Total			27	405

MEDICAL CLUSTER

PRE-DENTAL EMPHASIS			Credits	Contacts
BIO 111	General College Biology I		5	90
BIO 112	General College Biology II		5	90
CHE 111	General College Chemistry I		5	105
CHE 112	General College Chemistry II		5	105
MAT 121	College Algebra		4	60
MAT 122	Trigonometry		3	45
PHY 111	Physics: Algebra-Based I		5	105
PHY 112	Physics: Algebra-Based II		5	105
Total			37	705

PRE-MEDICAL EMPHASIS			Credits	Contacts
BIO 111	General College Biology I		5	90
BIO 112	General College Biology II		5	90
CHE 111	General College Chemistry I		5	105
CHE 112	General College Chemistry II		5	105
MAT 121	College Algebra		4	60
MAT 122	Trigonometry		3	45
PHY 111	Physics: Algebra-Based I		5	105
PHY 112	Physics: Algebra-Based II		5	105

<i>Select 2 courses from the following:</i>			6	90
LIT 115	Intro. to Literature	(3)	(45)	
LIT 201	Masterpieces of Literature I	(3)	(45)	
LIT 202	Masterpieces of Literature II	(3)	(45)	
Total			43	795

PRE-MEDICAL TECHNOLOGY EMPHASIS			Credits	Contacts
BIO 201	Anatomy & Physiology I		4	75
BIO 205	Microbiology		4	75
CHE 111	General College Chemistry I		5	105
CHE 112	General College Chemistry II		5	105
MAT 121	College Algebra		4	60
MAT 122	Trigonometry		3	45
MAT 135	Intro. to Statistics		3	45
PHY 111	Physics: Algebra-Based I		5	105
PHY 112	Physics: Algebra-Based II		5	105
Total			38	720

PRE-PHARMACY EMPHASIS			Credits	Contacts
BIO 111	General College Biology I		5	90
BIO 112	General College Biology II		5	90
BIO 215	Microbiology		4	75
CHE 111	General College Chemistry I		5	105
CHE 112	General College Chemistry II		5	105
MAT 121	College Algebra		4	60

MAT 122	Trigonometry		3	45
MAT 201	Calculus I		5	75
<i>Select 2 courses from the following:</i>			6	90
ANT 101	Cultural Anthropology	(3)	(45)	
HIS 101	Western Civilization I	(3)	(45)	
HIS 102	Western Civilization II	(3)	(45)	
HIS 201	United States History I	(3)	(45)	
HIS 202	United States History II	(3)	(45)	
PSY 101	General Psychology I	(3)	(45)	
PSY 102	General Psychology II	(3)	(45)	
SOC 101	Intro. to Sociology I	(3)	(45)	
SOC 102	Intro. to Sociology II	(3)	(45)	
Total			42	735

PRE-PHYSICAL EMPHASIS			Credits	Contacts
BIO 111	General College Biology I		5	90
BIO 112	General College Biology II		5	90
BIO 201	Anatomy & Physiology I		4	75
CHE 111	General College Chemistry I		5	105
CHE 112	General College Chemistry II		5	105
MAT 121	College Algebra		4	60
MAT 122	Trigonometry		3	45
MAT 135	Intro. to Statistics		3	45
PHY 111	Physics: Algebra-Based I		5	105
PHY 112	Physics: Algebra-Based II		5	105

<i>Select 2 courses from the following:</i>			6	90
PSY 101	General Psychology I	(3)	(45)	
PSY 102	General Psychology II	(3)	(45)	
PSY 235	Psychology of Human Growth & Development	(3)	(45)	
PSY 249	Abnormal Psychology	(3)	(45)	
Total			50	915

PRE-PHYSICIAN ASSISTANT EMPHASIS			Credits	Contacts
BIO 111	General College Biology I		5	90
BIO 112	General College Biology II		5	90
CHE 111	General College Chemistry I		5	105
CHE 112	General College Chemistry II		5	105
MAT 121	College Algebra		4	60
MAT 135	Intro. to Statistics		3	45
PSY 101	General Psychology I		3	45
PSY 102	General Psychology II		3	45
Total			33	585

PRE-VETERINARIAN SCIENCE EMPHASIS			Credits	Contacts
BIO 111	General College Biology I		5	90
BIO 112	General College Biology II		5	90
CHE 111	General College Chemistry I		5	105
CHE 112	General College Chemistry II		5	105
MAT 121	College Algebra		4	60
MAT 122	Trigonometry		3	45
MAT 135	Intro. to Statistics		3	45
PHY 111	Physics: Algebra-Based I		5	105
Total			35	645

PHYSICS EMPHASIS			Credits	Contacts
MAT	121	College Algebra	4	60
MAT	122	Trigonometry	3	45
MAT	201	Calculus I	5	75
MAT	202	Calculus II	5	75
PHY	211	Physics: Calculus-Based I	5	105
PHY	212	Physics: Calculus-Based II	5	105
Total			20	405

ASSOCIATE OF GENERAL STUDIES DEGREE

CCD offers two types of Associate of General Studies degrees. Both require the lower division core general education courses that transfer to all majors at all state baccalaureate colleges and universities. Only grades of C or better are acceptable for the core general education requirements. Up to three credits of physical education may apply toward this degree.

1. The Associate of General Studies-Generalist Degree (AGS-G).

In addition to the general education core requirements, the degree allows students to self-select 23 credits of transfer and/or career courses. The general education core courses fully meet the general education requirements of all baccalaureate schools.

Transferability of the career courses is not guaranteed. If students select this option, they should request and consult with a faculty advisor. Students are strongly encouraged to develop specific career goals and to transfer to the CCD degree program appropriate to those goals.

Entry requirements: the AGS-G degree is the only degree that does not require application for program entry. All CCD certificate and degree-seeking students are classified as Associate of General Studies-Generalist students until they apply and are accepted into another certificate or degree program. Any CCD career/vocational course from any CCD campus may count as an elective for the AGS-Generalist degree. All students who pursue this degree plan should be assigned to a faculty advisor after completing 12 semester hours.

Program Admission Requirements

None

2. All other Associate of General Studies (AGS) Degrees.

Most AGS degrees (with the exception of the AGS-G degree) are the result of articulation agreements and provide a transfer option for students in vocational programs. The career courses are fully transferable only into the particular program and college identified by the articulation agreement. Consult with a faculty advisor.

Entry requirements: students must apply for entry. Students are encouraged to apply to a program by the time they have completed 12 credits of 100-level courses. At the time of application, students must identify which Associate of General Studies degree program they desire to enter. Program application forms are in South Classroom Building, room 134, and appropriate division offices. Entry requirements are the same as for the matching AAS degree.

Program Admission Requirements

See individual articulated degree options.

Credit and Contact Hours

Credits are the hours of credit awarded to the course. An Associate degree requires a minimum of 60 credits. Contacts are the in-class contact hours required for the course. Credit or contact hours in parenthesis, e.g., (3) are options from which students may choose. They also may be course-embedded content. They are not included in the total credit or contact hours listed below. An average full-time student course load is 15 credit hours. An Associate of General Studies degree of 60 credit hours takes four semesters of 15 credits each semester assuming that all courses count toward the degree. AGS degrees of more than 60 credit hours may take more than four semesters to complete.

AGS Degree Program Requirements

All AGS degrees require the following:

	Credit Hours
General Education Core Courses	34-37
Electives or Courses Prescribed by Articulation Agreements	20-23
Capstone Course	3
Total	60

Courses to be counted toward the core General Education requirement must be completed with a grade of "C" or better.

ASSOCIATE OF GENERAL STUDIES-GENERALIST DEGREE (AGS-G)

All CCD certificate and degree-seeking students are classified as Associate of General Studies-Generalist students until they apply and are accepted into another certificate or degree program. Students remain in the AGS-G program if they want to complete a broad program of both career and transfer courses without the constraints of specialization.

The AGS-G general education core curriculum transfers to and fully meets the lower division general education requirements of all public baccalaureate colleges and universities in Colorado. Transferability of AGS-G career courses depends upon the courses taken and the receiving institution. Students should see their advisors. All students who have completed 12 college-level credits should see a faculty advisor in their area of interest.

Students may take either the Associate of Arts (AA) core curriculum or the Associate of Science (AS) core curriculum. The AA core follows.

General Education AA Core		Credits	Hours
I.	English ENG 121, ENG 122	6	
II.	Speech SPE 115	3	
III.	Mathematics (any 1 of the following) MAT 121, 125, 135, 201, 202	3-5	
IV.	Physical & Biological Sciences (any 1 of the following) AST 101, 102 BIO 105, 111, 112 CHE 101, 102, 111, 112 PHY 105, 111, 112, 211, 212 GEY 111, 121	4-5	
V.	Social & Behavioral Sciences (Select 9 credit hours from a minimum of 2 disciplines.) ANT 101, 111 ECO 201, 202 GEO 105 HIS 101, 102, 201, 202 POS 105, 111 PSY 101, 102 SOC 101, 102	9	
VI.	Humanities* (Select 9 credit hours from a minimum of 2 disciplines.) ART 110, 111, 112 HUM 121, 122, 123 Any foreign language 111 or higher LIT 115, 201, 202 MUS 120, 121, 122 PHI 111, 112, 113 THE 105, 211, 212	9	

* Many four-year schools prefer a concentration of 2 classes in same prefix.

General Education Sub-Total **34-37**

* *Elective Sub-Total (Must include a minimum of 6 hours in 200-level courses.)* 20-23

Capstone Course	3
HUM 285 Seminar in Critical Thinking or SCI 285 Critical Thinking	

Total **60**

* Any course whose number begins with "0" in any prefix will not meet requirements for the AGS-G degree. English and mathematics courses numbered before the core general education courses will not meet requirements for the AGS-G. All general education and capstone courses must be completed with a "C" or better for all AGS degrees.

ASSOCIATE OF GENERAL STUDIES ARTICULATED DEGREES

Associate of General Studies Degree

BUSINESS ADMINISTRATION (AGS-BUS)

This is a business transfer agreement between Colorado public community colleges and Colorado public four-year institutions of higher education. In accordance with HB 85-1187 and SB 93-136, the Schools of Business agree to the following policies and conditions governing the transfer of credit earned at a Colorado community college into a business program offered at any of the Colorado public four-year colleges and universities participating.

Community college students who completed the Colorado community college core curriculum, as certified on their community college transcript, are considered to have satisfied the college's lower division general education requirements. The following courses represent the CCD/Colorado Commission on Higher Education transfer agreement in business. Students completing these courses will be admitted as juniors in the Colorado public four-year colleges and universities participating in this agreement (Adams State College, Colorado State University, Ft. Lewis College, Mesa State College, Metropolitan State College of Denver (MSCD), University of Colorado at Denver (CU-Denver) and Western State College).

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 3 or completion of MAT 105 with a C or better.
- Completion of ACC 121 with a C or better grade.

General Education AA Core	Credit Hours
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(AS General Education Core is acceptable)		
I.	English ENG 121, ENG 122	6
II.	Speech SPE 115	3
III.	Mathematics (Select any 1 of the following) MAT 121, *124, *125, 135, 201, 202	3-5
IV.	Physical & Biological Sciences (Select any 1 of the following) AST 101, 102 BIO 105, 111, 112 CHE 101, 102, 111, 112 PHY 105, 111, 112, 211, 212 GEY 111, 121	4-5
V.	Social & Behavioral Sciences (Select 9 credit hours from a minimum of 2 disciplines.) ANT 101, 111 * ECO 201, 202 GEO 105 HIS 101, 102, 201, 202 POS 105, 111 * PSY 101, 102 SOC 101, 102	9

* recommended for all business majors

VI. Humanities	9
<i>(Select 9 credit hours from a minimum of 2 disciplines.)</i>	
ART 110, 111, 112	
HUM 121, 122, 123	
Any foreign language 111 or higher	
LIT 115, 201, 202	
MUS 120, 121, 122	
PHI 111, 112, 113	
THE 105, 211, 212	

General Education Sub-Total 34-37

Course Requirements for Area of Emphasis in the College of Business Administration

Institutions will accept in transfer the following business courses:

	Credits	Contacts
ACC 121 Accounting Principles I	4	60
ACC 122 Accounting Principles II	4	60
BUS 221 Legal Environment of Business	3	45
BUS 115 Intro. to Business	3	45
BUS 217 Business Communications	3	45
BUS 226 Business Statistics	3	45
CIS 118 Intro. to Computers	4	68
*BUS 228 Principles of Management	3	45
*BUS 236 Principles of Marketing	3	45

* The following prerequisite course completions are required before enrolling in BUS 228 and BUS 236: ACC 121, 122, ECO 202, MAT 135 (or BUS 226), BUS 115 and sophomore standing.

Business Course Sub-Total Hours 30 503

Capstone Course (Required)

SCI 285 or HUM 285 Critical Thinking	3	45
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Total 67-68 043-1158

Associate of General Studies Degree: MSCD/CU-Denver

GRAPHIC DESIGN (AGS-GRD)

The following courses represent CCD/MSCD and CCD/CU-Denver Fine Arts transfer agreements. Students completing these degree requirements will have completed their lower division general education requirements and will be admitted to MSCD or CU-Denver as juniors in Fine Arts.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 3 or completion of MAT 105 with a C or better.
- Meet with a faculty program advisor and obtain an authorized signature.

General Education Core

I. English	6
ENG 121 English Composition I	
ENG 122 English Composition II	
II. Speech	3
SPE 115 Principles of Speech	
III. Mathematics	3-5
(any 1 of the following)	
MAT 121, 125, 135, 201, 202	
IV. Physical & Biological Sciences	4
(any 1 of the following)	
AST 101, 102; BIO 105, 111, 112;	
CHE 101, 102, 111, 112; GEY 111, 112;	
PHY 105, 111, 112, 211, 212.	
V. Social & Behavioral Sciences	9
<i>(Select 9 credit hours from a minimum of 2 disciplines.)</i>	
ANT 101, 111, ECO 201, 202; GEO 105;	
HIS 101, 102, 201, 202; POS 105, 111;	
PSY 101, 102; SOC 101, 102	
VI. Humanities	9
<i>(Select 9 credit hours from a minimum of 2 disciplines.)</i>	
ART 110, 111, 112; HUM 121, 122, 123;	
LIT 115, 201, 202; FRE, SPA, JPN,	
MUS 120, 121, 122; PHI 111, 112, 113;	
THE 105, 211, 212	
General Education Sub-Total	34-36

Major Requirements (MSCD ONLY)

*ART 111 Art History I	3
*ART 112 Art History II	3
ART 121 Drawing I	3
ART 131 Design I	3
ART 132 Design II	3
GRD 100 Lettering & Typographic Design	3
GRD 103 MAC Computer Art	3
GRD 105 Advertising Typography & Layout	3
GRD 207 Graphic Design Production & Prepress II	3

Capstone Course

GRD 285 Creative Graphic Design & Portfolio Preparation	3
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* Students who take ART 111 and ART 112 as general education should add ART 122 and GRD 200.

Arts Subtotal 30
Total 64-66

Major Requirements (CU-Denver ONLY)

ART 121 Drawing I	3
ART 131 Design I	3
ART 211 Painting I	3
GRD 100 Lettering & Typographic Design	3
GRD 103 MAC Computer Art	3
GRD 105 Advertising Typography & Layout	3
GRD 200 Advertising Design & Portfolio Preparation (Speech Intensive)	3

GRD 206	Graphic Design Production & Prepress I	3
GRD 207	Graphic Design Production & Prepress II	3

Capstone Course

GRD 285	Creative Graphic Design & Portfolio Preparation	3
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Arts Subtotal		30
Total		64-66

Associate of General Studies Degree: MSCD

HUMAN SERVICES (AGS-HSE)

The following courses represent CCD/MSCD Human Services transfer agreement. Students completing these degree requirements will be admitted to MSCD as juniors in Human Services.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 1b or completion of ENG 030 with a C or better;
 - b. reading at level 2 or completion of REA 060 with a C or better;
 - c. study skills at level 2 or completion of REA 060 with a C or better; and
 - d. math at level 2a or completion of MAT 056 with a C or better.
2. Signature authorization on program application from HSE faculty advisor.

General Education AA Core

	Credits	Contacts
I. English	6	90
ENG 121 English Composition I		
ENG 122 English Composition II		
II. Speech	3	45
SPE 115 Principles of Speech		
III. Mathematics	3-5	45-75
MAT 121, 125, 135, 201, 202		
IV. Physical & Biological Sciences	4-5	60-75
AST 101, 102; BIO 105, 111, 112;		
CHE 101, 102, 111, 112; GEY 111;		
PHY 105, 111, 112, 211, 212.		
V. Social & Behavioral Sciences	9	135
<i>(Select 9 credit hours from a minimum of 2 disciplines.)</i>		
ANT 101, 111; ECO 201, 202; GEO 105;		
HIS 101, 102, 201, 202; POS 105, 111;		
PSY 101, 102; SOC 101, 102		
VI. Humanities	9	135
<i>(Select 9 credit hours from a minimum of 2 disciplines.)</i>		
ART 110, 111, 112; HUM 121, 122, 123;		
LIT 115, 201, 202; FRE, SPA, JPN,		
MUS 120, 121, 122; PHI 111, 112, 113;		
THE 105, 211, 212		
General Education Sub-Total	34-37	510-555

Major Requirements

HSE 106	Survey of Human Services	3	45
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Offered Fall Semester Only:

HSE 107	Interviewing Principles & Practices	3	45
HSE 205	Human Services for Groups	3	45
HSE 206	Human Services for Families	3	45
HSE 211	Human Services Practicum II	4	150

Offered Spring Semester Only:

HSE 108	Intro. to Therapeutic Systems	3	45
HSE 115	Human Services Practicum I	4	150
HSE 212	Human Services Practicum III (Capstone)	7	285

Total		64-67	1320-1365
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Associate of General Studies Degree: CU-Denver

PARALEGAL (AGS-PAR)

The following courses represent the CCD/CU-Denver paralegal transfer agreements. Students completing these degree requirements will have completed their lower division general education requirements and will be admitted to the CU-Denver as juniors in sociology or political science in the College of Liberal Arts and Sciences (CLAS).

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 3 or completion of MAT 105 with a C or better.
2. Meet with a faculty program advisor and obtain an authorized signature.

General Education AA Core

	Credit Hours
I. English	6
ENG 121 English Composition I	
ENG 122 English Composition II	
II. Speech	3
SPE 115 Principles of Speech	
III. Mathematics	3-5
<i>(any 1 of the following)</i>	
MAT 121, 125, 135, 201, 202	
IV. Physical & Biological Sciences	4-5
<i>(any 1 of the following)</i>	
AST 101, 102; BIO 105, 111, 112;	
CHE 101, 102, 111, 112; GEY 111,	
112; PHY 105, 111, 112, 211, 212.	
V. Social & Behavioral Sciences	9
<i>(Select 9 credit hours from a minimum of 2 disciplines.)</i>	
ECO 201, 202; GEO 105; HIS 101, 102,	
201, 202; POS 105, 111; PSY 101, 102;	
SOC 101, 102	

VI. Humanities	9
(Select 9 credit hours from a minimum of 2 disciplines.)	
ART 110, 111, 112; HUM 121, 122, 123;	
LIT 115, 201, 202; FRE, SPA, JPN,	
MUS 120, 121; PHI 111, 112, 113;	
THE 105, 211, 212	
General Education Sub-Total	34-37

Major Requirements	
BTE 151 WordPerfect	3
PAR 121 Intro. to Paralegal	3
PAR 124 Legal Research	3
PAR 221 Civil Procedures	3
PAR 222 Evidence	3
PAR 223 Computers & the Law	3
PAR 280 Paralegal Workshop	6
PAR 285 Paralegal II Synthesis (Capstone)	3
Total	27

Select 9 hours from any of the following:	9
PAR 105 Torts	(3)
PAR 109 Property	(3)
PAR 115 Domestic Relations	(3)
PAR 125 Tax Law	(3)
PAR 126 Creditor/Debtor/Bankruptcy	(3)
PAR 201 Business Organizations	(3)
PAR 205 Probate	(3)
PAR 207 Legal Research Seminar I	(3)
PAR 208 Legal Research Seminar II	(3)
PAR 214 Administrative Law	(3)
PAR 231 Investigations I	(3)
PAR 239 Criminal Law	(3)
PAR 241 Environmental Law I	(3)
PAR 252 Constitutional Law	(3)
PAR 258 Contracts	(3)
PAR 297 Cooperative Education	(3-6)
PAR 299 Independent Study	(1-3)
Total	65-66

Associate of General Studies Degree: MSCD/CU-Denver

PHOTOGRAPHY (AGS-PHO)

The following courses represent the CCD/MSCD and CCD/CU-Denver Fine Arts transfer agreements. Students completing these degree requirements will have completed their lower division general education requirements and will be admitted to MSCD or CU-Denver as juniors in fine arts.

Recommended Humanities General Education Requirement

ART 111, 112, Art History I & II

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 3 or completion of MAT 105 with a C or better.

General Education AA Core

	Credit Hours
I. English	6
ENG 121 English Composition I	
ENG 122 English Composition II	
II. Speech	3
SPE 115 Principles of Speech	
III. Mathematics	3-5
(any 1 of the following)	
MAT 121, 125, 135, 201, 202	
IV. Physical & Biological Sciences	3-5
(any 1 of the following)	
AST 101, 102; BIO 105, 111, 112	
CHE 101, 102, 111, 112; GEY 111, 112;	
PHY 105, 111, 112, 211, 212.	
V. Social & Behavioral Sciences	9
(Select 9 credit hours from a minimum of 2 disciplines.)	
ANT 101, 111; ECO 201, 202; GEO 105;	
HIS 101, 102, 201, 202; POS 105, 111;	
PSY 101, 102; SOC 101, 102	
VI. Humanities	9
(Select 9 credit hours from a minimum of 2 disciplines.)	
*ART 110, 111, 112; HUM 121, 122, 123;	
LIT 115, 201, 202; FRE, SPA, JPN,	
MUS 120, 121, 122; PHI 111, 112, 113;	
THE 105, 211, 212	

* Must be taken as general education or extra electives.

General Education Sub-Total

33-37

Major Requirements

ART 121 Drawing I	3
ART 131 Design I	3
PHO 101 Fundamentals of Photography	3
PHO 102 Fundamentals of Color Photography	3
PHO 111 Intermediate Black & White Photography	3
PHO 112 Intermediate Color Photography	3

Select 1 course from the following:

PHO 201 View Camera Techniques	(3)
PHO 202 Studio Lighting	(3)
PHO 203 The Fine Print	(3)

Select 1 course from the following:

PHO 211 Portrait Photography	(3)
PHO 212 Landscape Photography	(3)
PHO 213 Craft & Expression	(3)

Electives

Select a minimum of 3 credit hours from the following:	3
PHO 205 Photography Workshop	(3)
PHO 215 Seminar in Photography	(3)
GRD 103 MAC Computer Art	(3)
GRD 105 Advertising Typography & Layout	(3)
*BUS 115 Intro.to Business	(3)
PHO 107 History of Photography	(3)
*PHO 297 Cooperative Education	(3)

* CU-Denver will not accept

Capstone Course

PHO 285 Seminar in Photography	3
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Total 63-67

Associate of General Studies Degree: MSCD

TEACHER EDUCATION: EARLY CHILDHOOD EDUCATION (AGS-ECE)

The following courses represent the CCD/MSCD Early Childhood Education (ECE) Teacher Education 2-plus-3 transfer agreement.

Students completing degree requirements will be admitted to MSCD as juniors in the ECE Teacher Education program. A grade of "C" or better is required in all degree classes. Graduate exit competency is measured by successful completion ("C" or better) of the ECE capstone course.

Any student not completing CCD's capstone course must successfully complete with a "C" or better the exit competency test prior to approval of graduation.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 4 or completion of ENG 060 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2a or completion of MAT 056 with a C or better.

General Education	Credit Hours
I. English	6
**ENG 121 English Composition I	
**ENG 122 English Composition II	
II. Speech	3
**SPE 115 Principles of Speech	
III. Mathematics	3-4
(any 1 of the following)	
MAT **121, 125, **135, 201, 202	
IV. Physical & Biological Sciences	4-5
(any 1 of the following)	
AST 101, 102; BIO **105, 111, 112;	
CHE 101, 102, 111, 112; GEY 111;	
PHY 105, 111, 112, 211, 212	

V. Social & Behavioral Sciences	9
(Select 9 credit hours from a minimum of 2 disciplines.)	
ANT 101, 111; ECO 201, 202; GEO 105;	
HIS 101, 102, 201, 202; *PSY 101 or 102;	
*SOC 101 or 102	
VI. Humanities	9
ART 110, 111, 112; HUM 121, 122, 123;	
Any foreign language 111 or higher; LIT 115, 201, 202;	
MUS 120, 121, 122; PHI 111, 112, 113;	
THE 105, 211, 212	

General Education Sub-Total 34-36

* Required for Colorado Department of Human Resources Director License

** Required courses to complete MSCD ECE Teacher Education requirements.

Teacher Education majors will need to declare an academic major when they transfer to MSCD. Courses from the CCD core may be used for lower division major or minor courses.

Major Requirements

The MSCD courses that will substitute for CCD courses are listed in parentheses.

ECE 101 Intro.to ECE (MSCD 234-4)	3
ECE 102 ECE Lab Experience (MSCD 235-2)	2
ECE 110 Child Growth & Development (MSCD PSY 180-4)	4
ECE 115 Curriculum: Creative Activities (MSCD EDU 236-3)	3

Electives or Contract Minor

These courses may be used as electives or contract minor courses but DO NOT substitute for MSCD-ECE licensure courses:

ECE 105 Nutrition & the Young Child	3
ECE 111 Infants & Toddlers: Developmental Theories & Practices (Optional)	(3)
ECE 117 Methods/Techniques: Curriculum Development Theories & Practices	3
ECE 120 Classroom Management Techniques	3

Capstone Course

ECE 126 Administration of ECE Programs	4
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Total 60-65

Associate of General Studies Degree: MSCD

TEACHER EDUCATION: EARLY CHILDHOOD EDUCATION/ VIOLENCE COUNSELING (AGS-ECE/VC)

The following courses represent the CCD/MSCD Early Childhood Education (ECE) Teacher Education 2-plus-3 transfer agreement. Students completing degree requirements will be admitted to MSCD as Juniors in the ECE Teacher Education program. A grade of "C" or better is required in all degree classes. Graduate exit competency is measured by successful completion ("C" or better) of the ECE capstone course. Any student not completing CCD's capstone course must successfully complete with a "C" or better the exit competency test prior to approval of graduation.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 4 or completion of ENG 060 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2a or completion of MAT 056 with a C or better.

General Education Core	Credit Hours
I. English	6
**ENG 121 English Composition I	
**ENG 122 English Composition II	
II. Speech	3
**SPE 115 Principles of Speech	
III. Mathematics	3-4
<i>(any 1 of the following)</i>	
MAT **121, 125, **135, 201, 202	
IV. Physical & Biological Sciences	4-5
<i>(any 1 of the following)</i>	
AST 101, 102; BIO **105, 111, 112;	
CHE 101, 102, 111, 112; GEY 111;	
PHY 105, 111, 112, 211, 212.	
V. Social & Behavioral Sciences	9
<i>(Select 9 credit hours from a minimum of 2 disciplines.)</i>	
ANT 101, 111; ECO 201, 202; GEO 105;	
HIS 101, 102, 201, 202; *PSY 101 or 102;	
*SOC 101 or 102	
VI. Humanities	9
ART 110, 111, 112; HUM 121, 122, 123;	
Any foreign language 111 or higher; LIT 115, 201, 202;	
MUS 120, 121, 122; PHI 111, 112, 113;	
THE 105, 211, 212	

General Education Sub-Total **34-36**

* Required for Colorado Dept. of Human Resources Director License

** Required courses to complete MSCD ECE Teacher Education requirements.

Teacher Education majors will need to declare an academic major when they transfer to MSCD. Courses from the CCD core may be used for lower division major or minor courses.

Major Requirements

The MSCD Courses that will substitute for CCD courses are listed in parentheses.

ECE 110	Child Growth & Development (MSCD PSY 180-4)	4
ECE 115	Curriculum: Creative Activities (MSCD EDU 236-3)	3
ECE 171	Intro. to ECE/Violence Counseling (MSCD EDU 234-3)	3
ECE 172	ECE Field Experience: ECE Violence Counseling Strategies (MSCD EDU 235-2)	3

Electives or Contract Minor

These courses may be used as electives or contract minor courses but DO NOT substitute for MSCD ECE licensure courses:

ECE 105	Nutrition & the Young Child	3
ECE 111	Infants & Toddlers: Developmental Theories & Practices (Optional)	(3)
ECE 117	Methods/Techniques: Curriculum Development	3
ECE 120	Classroom Management Techniques	3
ECE 225	Curriculum: Anti-Bias	3
ECE 271	ECE Violence Counseling Strategies	3
ECE 272	Curriculum: Violence Prevention	3

Capstone Course

ECE 126	Administration of ECE Programs	4
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Total **69-73**

Associate of General Studies Degree: MSCD

TEACHER EDUCATION: ELEMENTARY EDUCATION (AGS-EE)

The following courses represent the CCD/MSCD Elementary Education (EE) Teacher Education 2-plus-3 transfer agreement. Students completing degree requirements will be admitted to MSCD as Juniors in the EE Teacher Education program.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 4 or completion of ENG 060 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2a or completion of MAT 056 with a C or better.

General Education Core	Credit Hours
I. English	6
**ENG 121 English Composition I	
**ENG 122 English Composition II	
II. Speech	3
**SPE 115 Principles of Speech	
III. Mathematics	3-4
<i>(any 1 of the following)</i>	
MAT **121, 125, 135, 201, 202	

IV.	Physical & Biological Sciences (any 1 of the following)	4-5
	AST 101, 102; BIO **105, 111, 112; CHE 101, 102, 111, 112; GEY 111; PHY 105, 111, 112, 211, 212.	
V.	Social & Behavioral Sciences	9
(Select 9 credit hours from a minimum of 2 disciplines.)		
	ANT 101, 111; ECO 201, 202; **GEO 105; HIS 101, 102, **201, **202; POS 105, **111 PSY 101 or 102; SOC 101 or 102	
VI.	Humanities	9
	ART 110, **111, 112; HUM 121, 122, 123; Any foreign language 111 or higher; LIT 115, 201, 202; MUS **120, 121, 122; PHI 111, 112, 113; THE 105, 211, 212	
General Education Sub-Total		34-36

** Required courses to complete MSCD Elementary Teacher Education requirements.

Teacher Education licensure students will need to declare an academic major and minor when they transfer to MSCD. Courses from the CCD core may be used for lower division major or minor courses.

Major Requirements

The MSCD courses that will substitute for CCD courses are listed in parentheses.

EDU 161	Elementary Education in US (MSCD EDU 212-3)	3
EDU 162	Urban & Multicultural Education (MSCD EDU 264-2)	3
ECE 110	Child Growth & Development (MSCD PSY 180-4)	4

Electives or Contract Minor

MAT 161	MSCD	3
ENG 346	MSCD	3
One approved course in any major or minor field		3

Capstone Course

EDU 285	Issues & Trends in Education	3
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Additional Recommended General Studies

HPL	Any Class	2
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Total **60**

ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAMS

The AAS degree prepares students for entry-level employment in a given occupation or upgrades employable skills.

While not intended for transfer to a baccalaureate degree program, all AAS degrees have limited transferability. In each AAS program, some of the courses are articulated with and accepted by at least one specific baccalaureate program. Talk with an advisor for specific details.

Student Performance Objectives for Vocational Education (AAS Degree Programs)

Students who complete vocational programs will be able to perform the following:

1. Basic and advanced academic skills appropriate to the profession:
 - a. Basic skills: reading, writing, mathematics, speaking, listening.
 - b. Thinking skills: ability to learn, reason, make decisions, solve problems.
2. General occupational skills appropriate to the profession.
 - a. Information: ability to acquire and evaluate data, organize and maintain files, use computers to process information.
 - b. Interpersonal: ability to work on teams and with people, teach others, serve customers, lead, negotiate; value and serve, work well with and for people from diverse cultures.
 - c. Personal: responsibility, self-management, integrity; personal, professional and social ethics.
 - d. Resources: ability to allocate time, money, materials, space and staff.
 - e. Systems: understand technological, organizational and social systems; monitor and correct performance, design or improve systems.
 - f. Technology: select equipment, apply technology to specific tasks.
3. Specific occupational skills that include all aspects of the profession. These include planning, management, finances, underlying principles of technology, technical skills, labor and community issues, health and safety and environmental issues.

Each vocational program has identified student performance objectives for each vocational program area. These performance objectives are given to students during the advising process. They are collectively bound and published for general distribution and constitute the college's guarantee to the employer. Copies are available in division and counseling offices.

AAS Degree Program Entry

Students must apply for entry to all Associate of Applied Science degree programs. Students are encouraged to apply to a program by the time they have completed 12 credits of 100-level courses. At the time of application, students must identify which Associate of Applied Science degree program they desire to enter. Program application forms are in South Classroom Building, room 134, and division offices.

AAS Degree Program Requirements

The AAS degree requires a minimum of 60 credit hours, 15 of which must meet General Education requirements (completed with a C or better) and 45 of which must meet specific program requirements.

General Education Requirements	Credit Hours
I. English - ENG 100 or Higher	3
II. Mathematics - MAT 103 or higher	3-5
III. One course from 3 of the following 4 areas:	9-13
A. Speech SPE 115 SPE 115 may be earned through "Speech Intensive" programs. (See specific AAS program recommendations or an advisor.)	
B. Physical and Biological Sciences AST 101, 102 BIO 105, 111, 112* CHE 101, 102, 111, 112 GEY 111, 121 PHY 105, 111, 112, 211, 212 *Nursing requires BIO 201, 202 and 205. **Health Occupations require BIO 201 and 202	
C. Social & Behavioral Science ANT 101, 111 ECO 201, 202 GEO 105 HIS 101, 102, 201, 202 PSY 101, 102* POS 105, 111 SOC 101, 102 *Nursing requires PSY 235. ECE and HSE allow PSY 235	
D. Humanities ART 110, 111, 112 CIS 118 HUM 121, 122, 123 LIT 115, 201, 202 MUS 120, 121, 122 PHI 111, 112, 113 Any foreign language 111 or higher THE 105, 211, 212	
Program-specific requirements including a Capstone Course	45
Total	60-66

Individual departments may specify particular courses that may be counted toward the general education requirements.

Credit and Contact Hours

Credits are the hours of credit awarded to the course. An Associate degree requires a minimum of 60 credits. Contacts are the in-class contact hours required for the course. Credit or contact hours in parenthesis, for example (3), are options from which students may choose and are not individually included in the total credit or contact hours listed below the parenthetical numbers. An average full-time student course load is 15 credit hours. An Associate of Applied Science degree of 60

credit hours takes four semesters of 15 credits each semester, assuming that all courses count toward the degree. AAS degrees of more than 60 credit hours may take more than four semesters to complete.

ASSOCIATE OF APPLIED SCIENCE DEGREE IN ACCOUNTING GENERAL ACCOUNTING EMPHASIS

This is a technical degree in accounting. If planning to transfer to a senior institution, students may design, in conjunction with an accounting advisor, their associate degree program for maximum transferability. Students should contact an advisor early to plan their programs.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 3 or completion of MAT 105 with a C or better.
2. Completion of ACC 121 with a C or better.
3. Overall GPA of 2.0 or higher in business and business-related courses.

General Education Requirements		Credits	Contacts
CIS 118	Intro. to Computers	4	68
ECO 201	Principles of Macro Economics	3	45
ENG 121	English Composition I	3	45
MAT 103	Contemporary College Mathematics (or MAT 124 or 125)	3-4	45-60
SPE 115	Principles of Speech	3	45

Major Requirements

ACC 121	Accounting Principles I (Corequisite ACC 110 or Level 3 math placement)	4	60
ACC 122	Accounting Principles II	4	60
ACC 110	Business Math	3	45
ACC 111	Individual Income Tax	3	45
ACC 113	Computerized Accounting	4	68
CIS 155	Spreadsheet Concepts	3	45
ACC 211	Intermediate Accounting (Capstone)	3	45
ACC 221	Cost Accounting	3	45
BTE	Keyboarding Elective	2	30
BTE 108	Business Machines: Ten Key by Touch	2	23
BUS 217	Business Communications	3	45
BUS 226	Business Statistics	3	45

Select 2 courses with advisor approval:		6-7	90-165
ACC 101	Fundamentals of Accounting (Must be taken prior to ACC 121 to be counted for graduation.)	(3)	(45)
ACC 215	Accounting Systems	(3)	(45)
ACC 297	Cooperative Education (Prerequisite ACC 122)	(3)	(120)
CIS 156	Advanced Spreadsheets	(3)	(45)
CIS 260	COBOL Language Programming	(3-4)	(45-60)

Select 2 courses with advisor approval:			6	90
BUS	115	Intro. to Business	(3)	(45)
BUS	116	Intro. to Management/Supervision	(3)	(45)
BUS	118	Intro. to Marketing	(3)	(45)
BUS	221	Legal Environment of Business	(3)	(45)
Total			65-66	984-1074

Associate of Applied Science Degree in Accounting

COMMERCIAL CREDIT MANAGEMENT EMPHASIS

This program is specifically designed to train and to upgrade skills of credit managers, assistants and other credit personnel who work in the area of extension of commercial credit and desire an associate degree.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 3 or completion of MAT 103 with a C or better.
- Completion of 12 semester hours of college level courses with overall GPA of 2.0.

General Education Requirements			Credits	Contacts
CIS	118	Intro. to Computers	4	68
ECO	201	Principles of Macro Economics	3	45
ENG	121	English Composition I	3	45
MAT	103	Contemporary College Mathematics (or MAT 121, 124, or 125)	3	45
PSY	101	General Psychology I	3	45
SPE	115	Principles of Speech	3	45

Major Requirements

ACC	110	Business Math	3	45
ACC	121	Accounting Principles I	4	60
ACC	122	Accounting Principles II	4	60
BTE	151	WordPerfect	3	45
		or		
BTE	152	Microsoft Word	3	45
BUS	115	Intro. to Business	3	45
BUS	116	Intro. to Management/Supervision	3	45
BUS	118	Intro. to Marketing	3	45
BUS	125	Intro. to Finance	3	45
BUS	217	Business Communications	3	45
BUS	221	Legal Environment of Business	3	45
CIS	155	Spreadsheet Concepts	3	45
*CRM	217	Business Credit Principles (Capstone)	3	45
ECO	202	Principles of Micro Economics	3	45
**AIB		Financial Statement Analysis	3	45
Total			63	953

* Taken at the National Association of Credit Management Office Building

** Taken at American Institute of Banking

ASSOCIATE OF APPLIED SCIENCE DEGREE IN AIRFRAME/POWER PLANT

Students must register for airframe/power plant courses at Emily Griffith Opportunity School. Upon completion of airframe/power plant courses, students will receive an FAA certificate. With an additional 15 semester hours at CCD, students may receive an AAS degree. Other FAA certificates may be substituted for Emily Griffith Opportunity School courses. This program also allows students to readily transfer into a Bachelor of Science degree program with a major in Technical and Industrial Administration. Please see the division dean in Science and Technology for information on this program.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 2 or completion of ENG 060 with a C or better;
 - reading at level 2 or completion of REA 060 with a C or better;
 - study skills at level 1; and
 - math at level 2a or completion of MAT 035 with a C or better.

ASSOCIATE OF APPLIED SCIENCE DEGREE IN BUSINESS ADMINISTRATION

This program provides a broad exposure to general business functions and fundamental management concepts. Upon completion, students are qualified for an entry-level position in a wide variety of general business occupations. Students already employed are able to acquire skills necessary for personal development directed toward job security and advancement. **A grade of "C" or better must be maintained in business core area.**

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 1; and
 - math at level 2a or completion of MAT 035 with a C or better.
- Completion of MAT 103 and BUS 115 with a C or better.
- Overall GPA of 2.5 on all college-level work after completing 12 semester hours.

General Education Requirements			Credits	Contacts
CIS	118	Intro. to Computers	4	68
ECO	201	Principles of Macro Economics	3	45
ENG	121	English Composition I	3	45
Elective		Math	3-4	45-60
		MAT 103, 121, 124 or 125		
SPE	115	Principles of Speech	3	45

Major Requirements

ACC 121	Accounting Principles I	4	60
ACC 122	Accounting Principles II	4	60
BUS 115	Intro. to Business	3	45
BUS 116	Intro. to Management/Supervision	3	45
BUS 118	Intro. to Marketing	3	45
BTE 151	WordPerfect	3	45
	or		
BTE 152	Microsoft Word		
CIS 155	Spreadsheet Concepts	3	45
BUS 217	Business Communications	3	45
BUS 221	Legal Environment of Business	3	45
BUS 226	Business Statistics	3	45
BUS 228	Principles of Management (Capstone)	3	45
Business Electives (with advisor approval)		12	135
Total		63-64	923

Custom programs can be designed with a business advisor or students may choose one of the following areas of emphasis: Commercial Credit, Customer Service, Finance, International Business, Management, or Marketing. All custom programs must be approved by a business advisor. All general electives for custom programs must have a course number greater than 100.

**Associate of Applied Science Degree in Business Administration
COMMERCIAL CREDIT EMPHASIS**

Select 12 credits from the following:			
ACC 110	Business Math	(3)	(45)
BUS 125	Intro. to Finance	(3)	(45)
ACC 211	Intermediate Accounting	(3)	(45)
ACC 215	Accounting Systems	(3)	(45)
CRM 217	Business Credit Principles	(3)	(45)

All American Institute of Banking courses and other electives must be approved by business advisor.

**Associate of Applied Science Degree in Business Administration
CUSTOMER SERVICE EMPHASIS**

Select 12 credits from the following:			
PSY 101	General Psychology I	(3)	(45)
BUS 117	Time Management	(1)	(30)
BUS 207	Teleservices	(3)	(45)
BUS 237	Customer Service	(3)	(45)

Other electives must be approved by business advisor.

**Associate of Applied Science Degree in Business Administration
FINANCE EMPHASIS**

Select 12 credits from the following:			
ACC 110	Business Math	(3)	(45)
BUS 125	Intro. to Finance	(3)	(45)
CIS 156	Advanced Spreadsheets	(3)	(45)
ACC 211	Intermediate Accounting	(3)	(45)
ACC 215	Accounting Systems	(3)	(45)

ACC 226	Cost Accounting	(3)	(45)
ECO 202	Principles of Micro Economics	(3)	(45)

Other electives must be approved by business advisor.

**Associate of Applied Science Degree in Business Administration
INTERNATIONAL BUSINESS EMPHASIS**

Select 12 credits from the following:			
ACC 110	Business Math	(3)	(45)
BUS 125	Intro. to Finance	(3)	(45)
ECO 202	Principles of Micro Economics	(3)	(45)
BUS 210	International Business	(3)	(45)
BUS 211	International Marketing	(3)	(45)

Other electives must be approved by business advisor.

**Associate of Applied Science Degree in Business Administration
MANAGEMENT EMPHASIS**

Select 12 credits from the following:			
ACC 110	Business Math	(3)	(45)
BUS 117	Time Management	(1)	(30)
BUS 125	Intro. to Finance	(3)	(45)
CIS 156	Advanced Spreadsheets	(3)	(45)
BUS 210	International Business	(3)	(45)
ACC 215	Accounting Systems	(3)	(45)
BUS 235	Retail Marketing & Management	(3)	(45)
BUS 236	Principles of Marketing	(3)	(45)
BUS 297	Cooperative Education		

**Associate of Applied Science Degree in Business Administration
MARKETING EMPHASIS**

Select 12 credits from the following:			
BUS 210	International Business	(3)	(45)
BUS 211	International Marketing	(3)	(45)
BUS 231	Principles of Sales	(3)	(45)
BUS 235	Retail Marketing & Management	(3)	(45)
BUS 236	Principles of Marketing	(3)	(45)
BUS 237	Customer Service	(3)	(45)
BUS 239	Advertising & Promotion	(3)	(45)
BUS 297	Cooperative Education	(3)	(45)

Other electives must be approved by business advisor.

**Associate of Applied Science Degree in Business Administration
BUSINESS OF TRAVEL AND TOURISM**

This program provides a broad exposure to general business functions and fundamentals of the travel and tourism industry. Upon completion, students are qualified for an entry-level position in a wide variety of general travel and tourism occupations. Students already employed are able to acquire skills necessary for personal development directed toward job security and advancement. **A grade of "C" or better must be maintained in business core area.**

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 1; and
 - math at level 2a or completion of MAT 035 with a C or better.
- Completion of MAT 103 and BUS 115 with a grade of C or better.
- GPA of 2.5 on all college-level work after completing 12 semester hours.

General Education Requirements

		Credits	Contacts
CIS	118 Intro. to Computers	4	68
ECO	201 Principles of Macro Economics	3	45
ENG	121 English Composition I	3	45
Elective	Math	3-4	45-60
	MAT 103, 121, 124 or 125		
SPE	115 Principles of Speech	3	45

Major Requirements

ACC	121 Accounting Principles I	4	60
BUS	115 Intro. to Business	3	45
BUS	116 Intro. to Management/Supervision	3	45
BUS	118 Intro. to Marketing	3	45
BTE	151 WordPerfect	3	45
	or		
BTE	152 Microsoft Word		
CIS	155 Spreadsheet Concepts	3	45
BUS	217 Business Communications	3	45
BUS	221 Legal Environment of Business	3	45
BUS	239 Advertising & Promotion	3	45
BTT	110 Intro. to Travel	3	45
BTT	111 Travel Geography I	3	45
BTT	112 Travel Geography II	3	45
BTT	113 Selecting & Selling Cruises	3	45
BTT	210 Domestic Ticketing	3	45
BTT	211 International Travel	3	45
BTT	212 Computer Reservations I	3	45
BTT	213 Computer Reservations II (Capstone)	3	45
Total		68-69	1028-1043

Associate of Applied Science Degree in Business Administration

CUSTOMER INFORMATION SERVICES

This program provides a basis for developing customer information services for client service, survey-taking, appointment making, direct sales and follow-up. Includes paper flow management, telephone skills, terms and concepts, along with some job skills necessary for entry-level positions. The customer information services industry is growing and offers considerable employment opportunity for those persons prepared and who exhibit unique abilities. Client services orientation, call center management and outsourcing of services from a contractual point of view will be explored.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2b or completion of MAT 103 with a C or better.

General Education Requirements

		Credits	Contacts
CIS	118 Intro. to Computers	4	68
ENG	121 English Composition I	3	45
PSY	101 General Psychology I	3	45
MAT	103 Contemporary College Mathematics	3	45
SPE	115 Principles of Speech	3	45

Major Requirements

BUS	115 Intro. to Business	3	45
ACC	101 Fundamentals of Accounting	3	45
BUS	116 Intro. to Management/Supervision	3	45
BUS	118 Intro. to Marketing	3	45
BUS	217 Business Communications	3	45
BTE	139 Professional Development	3	45
BUS	231 Principles of Sales	3	45
BUS	207 Teleservices	3	45
BUS	237 Customer Service	3	45
BTE	151 WordPerfect	3	45
	or		
BTE	152 Microsoft Word		
CIS	155 Spreadsheet Concepts	3	45
BUS	117 Time Management	1	30
	Product Specific Electives: e.g., Novell, Airline Reservations, travel, etc., with advisor approval	9	135
BUS	297 Cooperative Education (Capstone)	3-6	135-270
Total		62-65	1043-1178

Associate of Applied Science Degree in Business Administration

INSURANCE

The AAS degree program in Business Administration: Insurance is offered jointly by CCD and Emily Griffith Opportunity School. The program consists of a maximum of 12 semester credit hours of insurance-specific credits. Students may earn these credits via technical education course work at Emily Griffith Opportunity School, plus a minimum of 48 credit hours of core general education courses at CCD.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2b or completion of MAT 103 with a C or better.
- Official transcript showing completion of Emily Griffith Opportunity School's insurance program.

Transfer Credits from Emily Griffith Opportunity School

			Credits	Contacts
INS	290	Insurance Special Topics	6	135
INS	299	Insurance Independent Study	6	135

General Education Requirements

			Credits	Contacts
ACC	121	Accounting Principles I	4	60
BUS	115	Intro. to Business	3	45
BUS	116	Intro. to Management/Supervision	3	45
BUS	217	Business Communications	3	45
BUS	231	Principles of Sales	3	45
CIS	118	Intro. to Computers	4	68
ECO	201	Principles of Macro Economics	3	45
ENG	121	English Composition I	3	45
SPE	115	Principles of Speech	3	45
MAT	103	Contemporary College Mathematics	3	45

Select 1 course from the following AAS **4-5** **80-105**

Physical and Biological Sciences requirements:

AST 101, 102; BIO 105, 111, 112;
CHE 101, 102, 111, 112; GEY 111;
PHY 105, 111, 112, 211, 212

Select 2 courses from the following AAS **6-10** **90-150**

Humanities requirements:

ART 110, 111, 112; HUM 121, 122, 123;
LIT 115, 201, 202; MUS 120, 121, 122;
PHI 111, 112, 113; Any foreign language 111 or higher;
THE 105, 211, 212

Select 2 courses from the following AAS **6** **90**

Social and Behavioral Sciences requirements:

ANT 101, 111; ECO 201, 202; GEO 105;
HIS 101, 102, 201, 202; PSY 101, 102;
POS 105, 111; SOC 101, 102

Total **60-65** **1018-1103**

Associate of Applied Science Degree in Business Administration

POSTAL SERVICE MANAGEMENT

The Postal Service Management (PSM) Associate in Applied Science degree is designed to prepare the student with the necessary knowledge and skills to gain employment and/or to advance to positions of increased responsibility within the United States Postal Service (USPS).

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2b or completion of MAT 103 with a C or better.
- Completion of 12 semester hours of college-level work with a C or better.
- GPA of 2.0 on all college-level work.

General Education Requirements

			Credits	Contacts
ENG	121	English Composition I	3	45
ENG	122	English Composition II	3	45
SPE	115	Principles of Speech	3	45
MAT	103	Contemporary College Mathematics	3	45
Elective		Science	4-5	60-75
		(any course listed below: AST 101, 102, BIO 105, 111, 112, CHE 101, 102, 111, 112, GEY 111, 121, PHY 105, 111, 112, 211, 212)		
ECO	201	Principles of Macro Economics	3	45
CIS	118	Intro. to Computers	4	68
Elective		Humanities	3	45
		(any course listed below: ART 110, 111, 112, HUM 121, 122, 123, LIT 115, 201, 212, MUS 120, 121, PHI 111, 112, 113 Any foreign language 111 or higher, THE 105, 211, 212)		

Major Requirements

PST	105	Postal Service History & Organization	3	45
PST	106	Postal Service Finance	3	45
PST	112	Postal Mail Processing I	3	45
PST	114	Delivery & Collections	3	45
PST	200	Postal Service Automation	3	45
PST	205	Personnel Services	3	45
PST	226	Labor Relations I	3	45
PST	227	Labor Relations II (Capstone)	3	45

Select a minimum of 12 credit hours **12** **540**

from the following:

ACC	121	Accounting Principles I	(4)	(60)
ECO	202	Principles of Micro Economics	(3)	(45)
BUS	115	Intro. to Business	(3)	(45)
BUS	226	Business Statistics	(3)	(45)
CIS	155	Spreadsheet Concepts	(3)	(45)
BTE	151	WordPerfect	(3)	(45)
		or		
BTE	152	Microsoft Word		
BUS	217	Business Communications	(3)	(45)
PSY	265	Psychology of Personality	(3)	(45)
SOC	101	Intro. to Sociology I	(3)	(45)
SOC	102	Intro. to Sociology II	(3)	(45)
ENG	131	Intro. to Technical Writing I	(3)	(45)
BUS	227	Human Resources Management	(3)	(45)

Total **62-63** **1295-1310**

Associate of Applied Science Degree in Business Administration

REAL ESTATE

The AAS degree program in Business Administration: Real Estate is offered jointly by CCD and Emily Griffith Opportunity School. The program consists of a maximum of 12 semester credit hours of real estate-specific credits. Students may earn these credits via technical education course work at Emily Griffith Opportunity School, plus a minimum of 48 credit hours of core general education courses at CCD.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2b or completion of MAT 103 with a C or better.
- Official transcript showing completion of Emily Griffith Opportunity School's real estate program.

Transfer Credits from Emily Griffith Opportunity School

	Credits	Contacts
REE 290 Real Estate Special Topics	6	135
REE 299 Real Estate Independent Study	6	135

General Education Requirements

	Credits	Contacts
ACC 121 Accounting Principles I	4	60
BUS 115 Intro. to Business	3	45
BUS 116 Intro. to Management/Supervision	3	45
BUS 217 Business Communications	3	45
BUS 231 Principles of Sales	3	45
CIS 118 Intro. to Computers	4	68
ECO 201 Principles of Macro Economics	3	45
ENG 121 English Composition I	3	45
SPE 115 Principles of Speech	3	45
MAT 103 Contemporary College Mathematics	3	45

Select 1 course from the following AAS **4-5** **80-105**

Physical and Biological Sciences requirements:

AST 101, 102; BIO 105, 111, 112;
CHE 101, 102, 111, 112; GEY 111;
PHY 105, 111, 112, 211, 212

Select 2 courses from the following AAS **6-10** **90-150**

Humanities requirements:

ART 110, 111, 112; HUM 121, 122, 123;
LIT 115, 201, 202; MUS 120, 121, 122;
PHI 111, 112, 113; Any foreign language 111 or higher;
THE 105, 211, 212

Select 2 courses from the following AAS **6** **90**

Social and Behavioral Sciences requirements:

ANT 101, 111; ECO 201, 202; GEO 105;
HIS 101, 102, 201, 202; PSY 101, 102;
POS 105, 111; SOC 101, 102

Total **60-65** **1018-1103**

ASSOCIATE OF APPLIED SCIENCE DEGREE IN BUSINESS TECHNOLOGY: OFFICE MANAGEMENT AND SECRETARIAL STUDIES

These Business Technology program options are designed to prepare students for entry-level positions and advancement in business, governmental and medical agencies and other institutions that employ persons in secretarial and administrative support areas.

Associate of Applied Science Degree in Business Technology: Office Management and Secretarial Studies ADMINISTRATIVE ASSISTANT

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2a or completion of MAT 056 with a C or better.

General Education Requirements

	Credits	Contacts
CIS 118 Intro. to Computers	4	68
Elective Economics or Political Science (with advisor approval)	3	45
ENG 121 English Composition I	3	45
MAT 103 Contemporary College Mathematics	3	45

Major Requirements

(With the help of the faculty advisor, select 47 credits from the following.)

	Credits	Contacts
BTE 297 must be included .)	47	705
ACC 101 Fundamentals of Accounting or	(3)	(45)
ACC 121 Accounting Principles I	(4)	(60)
BTE 155 Spreadsheets for Office Management	(3)	(45)
BUS 115 Intro. to Business	(3)	(45)
BUS 116 Intro. to Management/Supervision	(3)	(45)
BTE 101 Keyboarding I	(5)	(83)
BTE 202 Keyboarding II	(5)	(83)
BTE 104 Keyboarding Speedbuilding	(4)	(60)
BTE 108 Business Machines: Ten Key by Touch	(2)	(23)
BTE 120 Filing & Records Control	(4)	(68)
BTE 151 WordPerfect	(3)	(45)
BTE 152 Microsoft Word	(3)	(45)
BTE 133 Word Processing Communications & Applications	(3)	(45)
BUS 217 Business Communications (Speech Intensive)	(3)	(45)
BTE 139 Professional Development (Speech Intensive)	(3)	(45)
BTE 230 Machine Transcription	(5)	(83)
BTE 288 Model Office	(4)	(68)
BTE 297 Cooperative Education (Capstone)	3	135
Total	60	900-1128

**Associate of Applied Science Degree in Business Technology:
Office Management and Secretarial Studies**

LEGAL SECRETARIAL

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2a or completion of MAT 056 with a C or better.

General Education Requirements		Credits	Contacts
Elective	Economics or Political Science Course	3	45
ENG 121	English Composition I	3	45
CIS 118	Intro. to Computers	4	68
MAT 103	Contemporary College Mathematics	3	45

Major Requirements

(With the help of the faculty advisor, select 47 credits from the following.

BTE 297 must be included.) 47 705

ACC 101	Fundamentals of Accounting or	(3)	(45)
ACC 121	Accounting Principles I	(4)	(60)
BUS 115	Intro. to Business	(3)	(45)
BUS 221	Legal Environment of Business	(3)	(45)
PAR 124	Legal Research	(3)	(45)
BTE 101	Keyboarding I	(5)	(83)
BTE 202	Keyboarding II	(5)	(83)
BTE 104	Keyboarding Speedbuilding	(4)	(60)
BTE 120	Filing & Records Control	(4)	(68)
BTE 121	Alpha Speedwriting I	(4)	(60)
BTE 133	Word Processing Communications & Applications	(3)	(45)
BTE 151	WordPerfect	(3)	(45)
BTE 152	Microsoft Word	(3)	(45)
BUS 217	Business Communications (Speech Intensive)	(3)	(45)
BTE 139	Professional Development (Speech Intensive)	(3)	(45)
BTE 155	Spreadsheets for Office Management	(3)	(45)
BTE 209	Legal Terminology	(2)	(40)
BTE 288	Model Office	(4)	(68)
BTE 230	Machine Transcription	(5)	(83)
BTE 251	Advanced WordPerfect	(3)	(45)
BTE 297	Cooperative Education (Capstone)	3	135
Total		60	900-1128

**Associate of Applied Science Degree in Business Technology:
Office Management and Secretarial Studies**

MEDICAL SECRETARIAL

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2a or completion of MAT 056 with a C or better.

General Education Requirements		Credits	Contacts
CIS 118	Intro. to Computers	4	68
ENG 121	English Composition I	3	45
MAT 103	Contemporary College Mathematics	3	45
Elective	Social & Behavioral Sciences (with advisor approval)	3	45

Major Requirements

(With the help a faculty advisor, each student must select 47 credits from

the following. BTE 297 must be included.) 47 705

ACC 101	Fundamentals of Accounting or	(3)	(45)
ACC 121	Accounting Principles I	(4)	(60)
HOC 100	Medical Terminology	(1)	(15)
BUS 115	Intro. to Business	(3)	(45)
BTE 101	Keyboarding I	(5)	(83)
BTE 202	Keyboarding II	(5)	(83)
BTE 104	Keyboarding Speedbuilding	(4)	(60)
BTE 121	Alpha Speedwriting I	(4)	(60)
BTE 108	Business Machines: Ten Key by Touch	(2)	(23)
BTE 120	Filing & Records Control	(4)	(68)
BTE 151	WordPerfect	(3)	(45)
BTE 152	Microsoft Word	(3)	(45)
BTE 133	Word Processing Communications & Applications	(3)	(45)
BTE 155	Spreadsheets for Office Management	(3)	(45)
BUS 217	Business Communications (Speech Intensive)	(3)	(45)
BTE 139	Professional Development (Speech Intensive)	(3)	(45)
BTE 206	Health Insurance Methods & Claims	(3)	(45)
BTE 230	Machine Transcription	(5)	(83)
BTE 288	Model Office	(4)	(68)
BTE 297	Cooperative Education (Capstone)	3	135
Total		60	900-1128

**Associate of Applied Science Degree in Business Technology:
Office Management and Secretarial Studies
SECRETARIAL**

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2a or completion of MAT 056 with a C or better.

General Education Requirements			Credits	Contacts
CIS 118	Intro. to Computers		4	68
Elective	Economics or Political Science (with advisor approval)		3	45
ENG 121	English Composition I		3	45
MAT 103	Contemporary College Mathematics		3	45

Major Requirements

(With the help of their faculty advisor, students must select 47 credits from the following. BTE 297 must be included.)

		Credits	Contacts
ACC 101	Fundamentals of Accounting or	(3)	(45)
ACC 121	Accounting Principles	(4)	(60)
BTE 155	Spreadsheets for Office Management	(3)	(45)
BUS 115	Intro. to Business	(3)	(45)
BTE 101	Keyboarding I	(5)	(83)
BTE 202	Keyboarding II	(5)	(83)
BTE 104	Keyboarding Speedbuilding	(4)	(60)
BTE 121	Alpha Speedwriting I	(4)	(60)
BTE 108	Business Machines: Ten Key by Touch	(2)	(23)
BTE 120	Filing & Records Control	(4)	(90)
BTE 151	WordPerfect	(3)	(45)
BTE 152	Microsoft Word	(3)	(45)
BTE 133	Word Processing Communications & Applications	(3)	(45)
BUS 217	Business Communications (Speech Intensive)	(3)	(45)
BTE 139	Professional Development (Speech Intensive)	(3)	(45)
BTE 230	Machine Transcription	(5)	(83)
BTE 251	Advanced WordPerfect	(3)	(45)
BTE 288	Model Office	(4)	(68)
BTE 297	Cooperative Education (Capstone)	3	135
Total		60	900-1128

**Associate of Applied Science Degree in Business Technology:
Office Management and Secretarial Studies
WORD PROCESSING**

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2a or completion of MAT 056 with a C or better.

General Education Requirements			Credits	Contacts
CIS 118	Intro. to Computers		4	68
ENG 121	English Composition I		3	45
MAT 103	Contemporary College Mathematics		3	45
Elective	Social & Behavioral Sciences (with advisor approval)		3	45

Major Requirements

(With the help of their faculty advisor, students must select 47 credits from the following. BTE 297 must be included.)

		Credits	Contacts
ACC 101	Fundamentals of Accounting or	(3)	(45)
ACC 121	Accounting Principles	(4)	(60)
BTE 155	Spreadsheets for Office Management	(3)	(45)
BUS 115	Intro. to Business	(3)	(45)
BTE 101	Keyboarding I	(5)	(83)
BTE 202	Keyboarding II	(5)	(83)
BTE 104	Keyboarding Speedbuilding	(4)	(60)
BTE 108	Business Machines: Ten Key by Touch	(2)	(23)
BTE 120	Filing & Records Control	(4)	(90)
BTE 133	Word Processing Communications & Applications	(3)	(45)
BTE 151	WordPerfect	(3)	(45)
BTE 152	Microsoft Word	(3)	(45)
BTE 251	Advanced WordPerfect	(3)	(45)
BUS 217	Business Communications (Speech Intensive)	(3)	(45)
BTE 139	Professional Development (Speech Intensive)	(3)	(45)
BTE 230	Machine Transcription	(5)	(83)
BTE 288	Model Office	(4)	(68)
BTE 297	Cooperative Education (Capstone)	3	135
Total		60	900-1128

ASSOCIATE OF APPLIED SCIENCE DEGREE IN COMPUTER INFORMATION SYSTEMS

Associate of Applied Science Degree in Computer Information Systems COMPUTER SPECIALIST

This program prepares the student as an entry-level specialist in working with and utilizing personal computers. Upon completion of the program, students will be competent to set up and configure personal computers and their peripherals, to configure application systems, manage communications and/or networks and use many major software packages. Students may select an emphasis in their program, such as networking or multimedia, by choosing courses in the elective section.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 3 or completion of MAT 105 with a C or better.
- Completion of CIS 118 with a grade of C or better.
- GPA of 2.0 or higher in CIS courses.
- Completion of 12 semester hours of college-level work.

General Education Requirements		Credits	Contacts
CIS 118	Intro. to Computers	4	68
ENG 121	English Composition I	3	45
Elective	Math	3-4	45-60
	MAT 121, MAT 135, or BUS 226		
SPE 115	Principles of Speech	3	45

Select 1 course from the following:		3	45
ECO 201	Principles of Macro Economics or	(3)	(45)
POS 105	Intro. to Political Science	(3)	(45)

Major Requirements

CIS 119	Intro. to Programming	3	45
CIS 131	Intro. to the Internet & World Wide Web	3	45
CIS 145	Database Concepts	3	45
CIS 155	Spreadsheet Concepts	3	45
CIS 179	Software System Survey	3	45
CIS 216	Microcomputer Hardware	3	45
CIS 275	Telecommunications	3	45
CIS 254	Networks: Windows NT Client or	4	68
CIS 255	Networks: Novell 4x Administration or		
CIS 256	Networks: Novell 3x Administration		
CIS 276	Systems Analysis & Design	3	45
(Note: CIS 276 is the capstone course for a CIS degree.)			
BUS 115	Intro. to Business	3	45
ACC 121	Accounting Principles I	4	60

BTE 151	WordPerfect or	3	45
BTE 152	Microsoft Word		

Select 1 course from the following:		3	45
CSC 150	PASCAL Programming	(3)	(45)
CSC 230	C++ Programming I	(3)	(45)
CIS 260	COBOL Language Programming	(3)	(45)
CIS 178	Visual BASIC with Windows	(3)	(45)
CIS 176	BASIC with DOS	(3)	(45)

Select any 9 credit hours from the following:		9-12	135-188
CIS 111	Intro. to Internet	(2)	(45)
CIS 132	Business Applications on the World Wide Web	(3)	(45)
CIS 135	Graphics Technology (PowerPoint)	(2)	(30)
CIS 156	Advanced Spreadsheets	(3)	(45)
CIS 175	Intro. to UNIX	(3)	(45)
CIS 206	Intro. to Multimedia Technology	(3)	(45)
CIS 208	Advanced Multimedia Systems	(3)	(45)
CIS 226	Computer Diagnosis & Repair	(3)	(45)
CIS 254	Networks: Windows NT Client	(4)	(68)
CIS 255	Networks: Novell 4x Administration	(4)	(68)
CIS 256	Networks: Novell 3x Administration	(4)	(68)
CIS 282	Networks: Advanced Novell Administration	(4)	(68)
CIS 283	Networks: Windows NT Server	(4)	(68)
GRD 103	MAC Computer Art	(3)	(90)
Any 3 credit hours of self-paced courses		3	45
BTE 100	Intro. to Keyboarding	3	68
Total		67-70	976-1029

Associate of Applied Science Degree in Computer Information Systems APPLICATIONS PROGRAMMER

This program serves the general student population, but is designed, developed, and operated for and by the nationally recognized and award winning Computer Training for People with Disabilities (CTPD) Program. The program prepares students for careers as applications programmers emphasizing the COBOL language. This is a fast-track program that can be completed in 13 months or more depending on the semester the student begins the curriculum and the amount of remediation, general studies and adaptation skill development required. The program has a fall and spring semester curriculum. Students must have completed the "prerequisites to fall semester" and are encouraged to complete the general education requirements prior to beginning the fall and spring curriculum.

Students with disabilities are encouraged to make application to the Computer Training for People with Disabilities program that offers special services, support and placement for program participants. Application information may be obtained from the Center for Persons with Disabilities, South Classroom Building, room 134, or by phone at (303) 556-3300.

All students must satisfy the following program admission requirements prior to beginning the program:

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2b or completion of MAT 103 with a C or better.
- Students with a disability requiring adaptive equipment must be functioning at a professional level. Skills are assessed and evaluated by the CTPD Coordinator.

* Prerequisites to Fall Semester

Business Core	Credits	Contacts
*ACC 121 Accounting Principles I	4	60
*BUS 115 Intro. to Business	3	45
*BUS 217 Business Communications	3	45
*CIS 218 Advanced Computer Applications or	2-3	30-45
*CIS 119 Intro. to Programming		

General Education Requirements	Credits	Contacts
*CIS 118 Intro. to Computers	4	68
ECO 202 Principles of Micro Economics	3	45
ENG 131 Intro. to Technical Writing I	3	45
MAT 103 Contemporary College Mathematics	3	45
SPE 115 Principles of Speech	3	45

Fall	Credits	Contacts
CIS 276 Systems Analysis & Design	3	45
CIS 260 COBOL Language Programming	3	45
CIS 145 Database Concepts	3	45
CIS 277 Operating Systems & JCL (mainframe emphasis)	3	45
CIS 266 On-line Program Development (TSO)	3	45

Spring	Credits	Contacts
CIS 261 Advanced COBOL	3	45
CIS 263 CICS/COBOL Programming	3	45
CIS 230 C++ Programming I	3	45
CIS 240 Oracle	3	45

May 15-July 15	Credits	Contacts
CIS 297 Cooperative Education/ Internship (Capstone)	6	270
Total	61-62	1103-1118

Associate of Applied Science Degree in Computer Information Systems

PC SPECIALIST/LAN ADMINISTRATOR

This program serves the general student population, but is designed, developed, and operated for and by the nationally recognized and award winning Computer Training for People with Disabilities (CTPD) Program. The program prepares students for careers as PC specialists, emphasizing the LAN Administration. This is a fast-track program that can be completed in 13 months or more depending on the semester the student begins the curriculum and the amount of remediation and adaptation skill development required. The program has a fall and

spring semester curriculum. Students must have completed the "pre-requisites to the fall semester" and are encouraged to complete the general education requirements prior to beginning the fall and spring curriculum. Applications should be submitted by May 1.

Students with disabilities are encouraged to make application to the Computer Training for People with Disabilities program which offers special services, support and placement for program participants. Application information may be obtained from the Center for Persons with Disabilities, South Classroom Building, room 134, or by phone at (303) 556-3300.

All students must satisfy the following program admission requirements prior to beginning the program:

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2b or completion of MAT 103 with a C or better.
- Students with a disability requiring adaptive equipment must be functioning at a professional level. Skills are assessed and evaluated by the CTPD Coordinator.

* Prerequisites to Fall Semester

Business Core	Credits	Contacts
*ACC 121 Accounting Principles I	4	60
*BUS 115 Intro. to Business	3	45
*BUS 217 Business Communications	3	45
*CIS 218 Advanced Computer Applications or	2-3	30-45
*CIS 119 Intro. to Programming		

General Education Requirements	Credits	Contacts
*CIS 118 Intro. to Computers	4	68
ECO 202 Principles of Micro Economics	3	45
ENG 131 Intro. to Technical Writing I	3	45
MAT 103 Contemporary College Mathematics	3	45
SPE 115 Principles of Speech	3	45

Fall	Credits	Contacts
CIS 145 Database Concepts	3	45
CIS 216 Microcomputer Hardware	3	45
CIS 255 Networks: Novell 4x Administration	4	68
CIS 266 On-line Program Development (TSO)	2	30
CIS 276 Systems Analysis & Design	3	45
CIS 277 Operating Systems & JCL (Microcomputer emphasis)	3	45

Spring

CIS 240	Oracle	3	45
CIS 155	Spreadsheet Concepts	3	45
CIS 179	Software System Survey	3	45
CIS 275	Telecommunications	3	45
CIS 282	Networks: Advanced Novell Administration	4	68

May 15-July 15

CIS 297	Cooperative Education/Internship (Capstone)	6	270
Total		68-69	1224-1239

ASSOCIATE OF APPLIED SCIENCE DEGREE IN DENTAL HYGIENE

This program prepares the student to practice as a professional dental hygienist following successful completion of two semesters of pre-professional prerequisites and four semesters of professional study. Completion of the prerequisites and the full two-year Dental Hygiene program curriculum with a grade of C or better results in an Associate of Applied Science degree. After receiving the AAS degree, students are eligible to take the licensure exam to become registered dental hygienists.

Dental hygienists are licensed preventive oral health professionals who provide educational, clinical and therapeutic services in dentistry. Dental hygienists perform procedures such as oral prophylaxis, application of preventive agents, exposure of dental radiographs, patient education and nutritional counseling. Career opportunities for hygienists are available in a variety of settings, including private dental practices, community dental health clinics, public schools, clinical and basic science research laboratories, state and federal health facilities and management positions. Licensure by national and state examination is required.

Application materials must be submitted no later than March 1 to be considered for admission into the class beginning fall of the next academic year. Eligible applicants are selected according to overall GPA, GPA for prerequisite science courses, prior experience in health care, a commitment to a health care career and interpersonal skills. Because of the competitive admissions process, all prerequisite courses must be taken for a letter grade. Applicants not accepted are considered for the following year; however, reapplication is necessary. Graduate exit competency is measured by successful completion of the capstone course, DEH 252, Dental Hygiene Clinic Care III.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3b or completion of REA 151 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2b or completion of MAT 103 with a C or better.
- Submit the CCD application to the Registrar's Office, South Classroom Building, room 133, on the Auraria Campus.
- Submit a completed Dental Hygiene application form and packet. Dental Hygiene application packets can be requested by calling (303) 364-4821.

- Complete the following general education prerequisites with a grade of C or better. Sciences courses must show cumulative GPA of 2.8 or better prior to the beginning of the fall semester of the intended year of entry. Courses in progress and those to be completed by August of the year in which application is made will be considered. Proof of successful completion of these courses must be submitted to both the CCD registrar and the CCD Dental Hygiene program at the end of each semester in which they are taken. An official, final transcript must be forwarded to both CCD Admissions and the CCD Dental Hygiene program as soon as it becomes available.
- All prerequisite courses must be taken for a letter grade. Foreign students must take the Anatomy and Physiology I and II, Microbiology and Chemistry courses in an accredited institution within the United States or Canada to prepare them with medical terminology/nomenclature skills.
- A personal interview with the Dental Hygiene Admissions Committee is required. The interview will be scheduled by the Dental Hygiene program following a preliminary screening of applicants.
- Following acceptance into the program, the student must present documentation of a CPR Certification and Dental and Medical Examination that includes up-to-date immunization records. More information on this subject will be sent to the applicant following acceptance into the program.

General Education Requirements

Must be completed with a grade of "C" or better. Science courses must show cumulative GPA of 2.8 or better prior to enrollment date:

General Education Requirements		Credits	Contacts
ENG 121	English Composition	3	45
BIO 201	Human Anatomy & Physiology I	4	50
BIO 202	Human Anatomy & Physiology II	4	60
BIO 205	Microbiology	4	60
CHE 106	General, Organic & Biochemistry	4	60
MAT 103	Contemporary College Mathematics	3	45
SOC 101	Intro. to Sociology	3	45
	or		
PSY 101	General Psychology I		
	or		
PSY 235	Psychology of Human Growth & Development		
SPE 115	Principles of Speech	3	45
NUT 100	Intro. to Nutrition	3	45
	Total	31	455

DENTAL HYGIENE PROGRAM

First Semester		Credits	Contacts
DEH 101	Pre-Clinic Dental Hygiene Science	2	30
DEH 102	Pre-Clinic Care	2	90
DEH 103	Embryology & Histology	2	30
DEH 105	Radiology	3	45
DEH 107	Head & Neck Anatomy	2	30
DEH 109	Dental Anatomy	3	45
DEH 111	Medical & Dental Emergencies	2	60

Second Semester

DEH 150	Dental Hygiene Clinic Science I	2	30
DEH 152	Dental Hygiene Clinic Care I	3	90
DEH 154	Periodontology I	3	45
DEH 156	Applied Pharmacology	3	45
DEH 158	General & Oral Pathology	3	45
DEH 160	Preventive Dentistry	3	45
Total First Year		33	630

Third Semester

		Credits	Contacts
DEH 201	Dental Hygiene Clinic Science II	2	30
DEH 203	Dental Hygiene Clinic Care II	4	180
DEH 205	Dental Materials	3	45
DEH 209	Local & Regional Dental Anesthesiology	3	45
DEH 211	Community Dental Health	3	45

Fourth Semester

DEH 250	Dental Hygiene Clinic Science III	2	30
DEH 252	Dental Hygiene Clinic Care III (Capstone)	4	180
DEH 254	Periodontology II	3	45
DEH 256	Community Field Experience	3	90
DEH 258	Ethics & Issues in Dental Hygiene	2	30
DEH 260	Practice Management	1	15
Total Second Year		30	735

Total for Program 94 1820

(Includes General Education Courses)

ASSOCIATE OF APPLIED SCIENCE DEGREE IN DRAFTING FOR INDUSTRY

The AAS Drafting for Industry includes five emphases: Civil/Topographic, Mechanical, Structural, Process Piping and Electrical. All drafting exit competencies in all drafting programs will be measured by portfolio review at the end of the program. This program also allows students to transfer readily into a Bachelor of Science degree program to major in Technical and Industrial Administration.

Associate of Applied Science Degree in Drafting for Industry CIVIL/TOPOGRAPHIC EMPHASIS

Drafting for Industry, Civil/Topographic emphasis, prepares students for job-entry positions on drafting teams for local, state and federal government agencies and petroleum, geological, civil engineering, mineral development and planning companies.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 1; and
 - math at level 2a or completion of MAT 035 with a C or better.
- Completion of DRI 105 and 106 with a C or better.

General Education Requirements		Credits	Contacts
ENG 131	Intro. to Technical Writing I	3	45
MAT 103	Contemporary College Mathematics	3	45
PHY 105	Conceptual Physics	4	75
AAS requirements in Arts, Humanities and Social Studies		5	75
Major Requirements			
DRI 105	Intro. to Drafting	5	113
CAD 110	Computer-Aided Drafting I	3	68
DRI 106	Dimensioning & Tolerancing	2	45
DRI 107	Geometric Tolerancing	2	45
DRI 109	Pictorial Drawing	2	45
DRI 111	Descriptive Geometry & Auxillary Views	2	45
DRI 113	Intersections & Developments	3	68
DRI 116	Mechanical Detail Drafting	5	113
DRI 200	Intro. to Civil/Topographic Drafting	3	68
DRI 203	Intro. to Architectural Drafting	3	68
DRI 205	Intro. to Process Piping Drafting	2	45
DRI 207	Intro. to Structural Drafting	2	45
DRI 209	Intro. to Electrical Drafting	2	45
DRI 230	Civil/Topographic Drafting I	8	180
DRI 235	Civil/Topographic Drafting II (Capstone)	4	90
Total		63	1323

With permission of the program faculty, DRI 297 Cooperative Education (variable credit) and DRI 299 Independent Study (variable credit) may be used in place of other drafting courses.

Associate of Applied Science Degree in Drafting for Industry ELECTRICAL EMPHASIS

Drafting for Industry, Electrical emphasis, prepares students for job-entry positions on drafting and design teams in electrical, architectural and mechanical engineering firms.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 1; and
 - math at level 2a or completion of MAT 035 with a C or better.
- Completion of DRI 105 and 106 with a C or better.

General Education Requirements		Credits	Contacts
ENG 131	Intro. to Technical Writing I	3	45
MAT 103	Contemporary College Mathematics	3	45
PHY 105	Conceptual Physics	4	75
AAS requirements in Arts, Humanities and Social Studies		5	75

Major Requirements

DRI 105	Intro. to Drafting	5	113
CAD 110	Computer-Aided Drafting I	3	68
DRI 106	Dimensioning & Tolerancing	2	45
DRI 107	Geometric Tolerancing	2	45
DRI 109	Pictorial Drawing	2	45
DRI 111	Descriptive Geometry & Auxiliary Views	2	45
DRI 113	Intersections & Developments	3	68
DRI 116	Mechanical Detail Drafting	5	113
DRI 200	Intro. to Civil/Topographic Drafting	3	68
DRI 203	Intro. to Architectural Drafting	3	68
DRI 205	Intro. to Process Piping Drafting	2	45
DRI 207	Intro. to Structural Drafting	2	45
ELT 100	DC Fundamentals	3	60
ELT 102	AC Fundamentals	2	40
DRI 209	Intro. to Electrical Drafting	2	45
DRI 260	Electrical Drafting (Capstone)	6	136
Total		62	1289

With permission of the program faculty, DRI 297 Cooperative Education (variable credit) and DRI 299 Independent Study (variable credit) may be taken in place of other drafting courses.

Associate of Applied Science Degree in Drafting for Industry

MECHANICAL EMPHASIS

Drafting for Industry, Mechanical emphasis, prepares students for job-entry positions on drafting teams in industrial plants, engineering and manufacturing firms and governmental agencies.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 1; and
 - math at level 2a or completion of MAT 035 with a C or better.
- Completion of DRI 105 and 106 with a C or better.

General Education Requirements

	Credits	Contacts
ENG 131 Intro. to Technical Writing I	3	45
MAT 103 Contemporary College Mathematics	3	45
PHY 105 Conceptual Physics	4	75
AAS requirements in Arts, Humanities and Social Sciences	5	75

Major Requirements

DRI 105	Intro. to Drafting	5	113
CAD 110	Computer-Aided Drafting I	3	68
DRI 106	Dimensioning & Tolerancing	2	45
DRI 107	Geometric Tolerancing	2	45
DRI 109	Pictorial Drawing	2	45
DRI 111	Descriptive Geometry & Auxiliary Views	2	45
DRI 113	Intersections & Developments	3	68
DRI 116	Mechanical Detail Drafting	5	113

DRI 200	Intro. to Civil/Topographic Drafting	3	68
DRI 203	Intro. to Architectural Drafting	3	68
DRI 205	Intro. to Process Piping Drafting	2	45
DRI 207	Intro. to Structural Drafting	2	45
DRI 209	Intro. to Electrical Drafting	2	45
DRI 220	Advanced Mechanical Drafting I	8	180
DRI 225	Advanced Mechanical Drafting II (Capstone)	4	90
Total		63	1323

With permission of the program faculty, DRI 297 Cooperative Education (variable credit), and DRI 299 Independent Study (variable credit) may be taken in place of other drafting courses.

Associate of Applied Science Degree in Drafting for Industry

PROCESS PIPING EMPHASIS

Drafting for Industry, Process Piping emphasis, prepares students for job-entry positions on drafting and design teams in the petro/chemical industry, and design, engineering and manufacturing firms that supply that industry.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 1; and
 - math at level 2a or completion of MAT 035 with a C or better.
- Completion of DRI 105 and 106 with a C or better.

General Education Requirements

	Credits	Contacts
ENG 131 Intro. to Technical Writing I	3	45
MAT 103 Contemporary College Mathematics	3	45
PHY 105 Conceptual Physics	4	75
AAS requirements in Arts, Humanities and Social Sciences	5	75

Major Requirements

DRI 105	Intro. to Drafting	5	113
CAD 110	Computer-Aided Drafting I	3	68
DRI 106	Dimensioning & Tolerancing	2	45
DRI 107	Geometric Tolerancing	2	45
DRI 109	Pictorial Drawing	2	45
DRI 111	Descriptive Geometry & Auxiliary Views	2	45
DRI 113	Intersections & Developments	3	68
DRI 116	Mechanical Detail Drafting	5	113
DRI 200	Intro. to Civil/Topographic Drafting	3	68
DRI 203	Intro. to Architectural Drafting	3	68
DRI 205	Intro. to Process Piping Drafting	2	45
DRI 207	Intro. to Structural Drafting	2	45
DRI 209	Intro. to Electrical Drafting	2	45
DRI 250	Process Piping Drafting I	8	180
DRI 255	Process Piping Drafting II (Capstone)	4	90
Total		63	1323

With permission of the program faculty, DRI 297 Cooperative Education (variable credit) and DRI 299 Independent Study (variable credit) may be taken in place of other drafting courses.

Associate of Applied Science Degree in Drafting for Industry

STRUCTURAL EMPHASIS

Drafting for Industry, Structural emphasis, prepares students for job-entry positions on drafting and design teams for local, state and federal government agencies; civil, architectural and mechanical engineering firms; and petroleum, mineral and planning firms.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 1; and
 - math at level 2a or completion of MAT 035 with a C or better.
- Completion of DRI 105 and 106 with a C or better.

General Education Requirements		Credits	Contacts
ENG 131	Intro. to Technical Writing I	3	45
MAT 103	Contemporary College Mathematics	3	45
PHY 105	Conceptual Physics	4	75
AAS requirements in Arts, Humanities and Social Studies		5	75

Major Requirements

DRI 105	Intro. to Drafting	5	113
CAD 110	Computer-Aided Drafting I	3	68
DRI 106	Dimensioning & Tolerancing	2	45
DRI 107	Geometric Tolerancing	2	45
DRI 109	Pictorial Drawing	2	45
DRI 111	Descriptive Geometry & Auxiliary Views	2	45
DRI 113	Intersections & Developments	3	68
DRI 116	Mechanical Detail Drafting	5	113
DRI 200	Intro. to Civil/Topographic Drafting	3	68
DRI 203	Intro. to Architectural Drafting	3	68
DRI 205	Intro. to Process Piping Drafting	2	45
DRI 207	Intro. to Structural Drafting	2	45
DRI 209	Intro. to Electrical Drafting	2	45
DRI 240	Structural Drafting I	8	180
DRI 245	Structural Drafting II (Capstone)	4	90
Total		64	1323

With permission of the program faculty, DRI 297 Cooperative Education (variable credit) and DRI 299 Independent Study (variable credit) may be taken in place of other drafting courses.

ASSOCIATE OF APPLIED SCIENCE DEGREE IN EARLY CHILDHOOD EDUCATION

This program meets the vocational training needs for personnel involved in the care and education of young children (birth through 8 years) and all Colorado Department of Human Services licensing academic requirements. A grade of "C" or better is required in all degree classes. Graduate exit competency is measured by successful completion (C or better) of the ECE capstone course. Any student not completing CCD's capstone course must successfully complete with a C or better the exit competency test prior to approval of graduation.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 4 or completion of ENG 060 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 2 or completion of REA 109 with a C or better; and
 - math at level 2a or completion of MAT 056 with a C or better.

General Education Requirements		Credits	Contacts
MAT 103	Contemporary College Mathematics	3	45
ENG 100	Composition, Style & Technique	3	45
SPE 115	Principles of Speech	3	45
SOC 101	Intro. to Sociology I	3	45
PSY 235	Psychology of Growth & Development	3	45
or			
PSY 101	General Psychology		
Course from AAS Humanities Requirement		3	45

Major Requirements

ECE 101	Intro. to Early Childhood Education	3	45
ECE 102	ECE Lab Experience	3	90
ECE 105	Nutrition & the Young Child	3	45
ECE 110	Child Growth & Development	4	60
ECE 117	Methods/Techniques: Curriculum Development	3	45
ECE 120	Classroom Management Techniques	3	45
ECE 126	Administration of ECE Programs	4	60
ECE 235	Curriculum: Music/Movement & the Young Child	3	45
ECE 250	Supervised Student Practicum/Seminar I	5	188
ECE 251	Supervised Student Practicum/Seminar II (Capstone)	5	188

Select 9 credits from the following:		9	135
ECE 111	Infants & Toddlers: Development Theories & Practices	(3)	(45)
ECE 115	Curriculum: Creativity & the Young Child	(3)	(45)
ECE 215	Curriculum: Science/ Math & the Young Child	(3)	(45)
ECE 225	Curriculum: Anti-Bias	(3)	(45)
ECE 245	Curriculum: Art & the Young Child	(3)	(45)
Total		63	1302

ASSOCIATE OF APPLIED SCIENCE DEGREE IN ELECTRONICS TECHNOLOGY

This program prepares students with job-entry skills in assembly, testing, repair and maintenance of electronic equipment. Basic knowledge to advance into more detailed and specific areas with further training and experience is provided. This program also allows students to readily transfer into a Bachelor of Science degree program to major in Technical and Industrial Administration.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 1; and
 - math at level 2a or completion of MAT 035 with a C or better.
- Complete ELT 100 and 101 with a C or better.

General Education Requirements		Credits	Contacts
MAT 103	Contemporary College Mathematics	3	45
PHY 105	Conceptual Physics	4	75
SPE 115	Principles of Speech	3	45
ENG 131	Intro. to Technical Writing I (must be completed in first 2 semesters)	3	45
CIS 118	Intro. to Computers	4	68

Major Requirements

ELT 100	DC Fundamentals	3	60
ELT 101	DC Circuits & Magnetism	2	40
ELT 102	AC Fundamentals	2	40
ELT 103	AC Circuits	3	60
ELT 104	Complex Circuit Analysis	3	60
ELT 110	Diode Circuits	3	60
ELT 111	Transistor Amplifiers	3	60
ELT 112	JFET's & Oscillators	2	40
ELT 114	IC Operational Amplifiers	3	60
ELT 200	Pulse & Digital Fundamentals	3	60
ELT 201	Digital Circuits	3	60
ELT 202	Microprocessor Fundamentals	2	40
ELT 203	Microprocessor & Microcomputer Systems	3	60
ELT 210	Communications I	3	60
ELT 211	Instruments & Measurements I	3	60
ELT 285	Troubleshooting Techniques for Analog & Digital Systems (Capstone)	5	100
Total		63	1198

ASSOCIATE OF APPLIED SCIENCE DEGREE IN ENVIRONMENTAL AND REFRIGERATION TECHNOLOGY

Associate of Applied Science Degree in Environmental and Refrigeration Technology

COMMERCIAL/INDUSTRIAL REFRIGERATION, HEATING AND AIR CONDITIONING

This program prepares students with job-entry skills in the fields of commercial-industrial refrigeration, heating and air conditioning. Demonstrated mastery of skills is required. Programs are open-entry/open-exit. Students may complete some of the courses, enter the work force, then return at any time to either complete the program for a certificate or degree or upgrade specific skills. To satisfy the requirements for an Associate degree, the RAC courses must be taken in the listed sequence. Exit competencies will be measured by a comprehensive examination and final "hands-on" project assigned by the instructor. This program also allows students to transfer readily into a Bachelor of Science degree program, majoring in Technical and Industrial Administration.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 1; and
 - math at level 2a or completion of MAT 035 with a C or better.
- Complete RAC 111 and 112 with a C or better.

General Education Requirements		Credits	Contacts
ENG 131	Intro. to Technical Writing I	3	45
MAT 103	Contemporary College Mathematics	3	45
PHY 105	Conceptual Physics	4	75
SPE 115	Principles of Speech	3	45
SOC 101	Intro. to Sociology	3	45

Major Requirements

CAD	Computer-Aided Drafting Elective	3	68
RAC 111	Electricity & Electronics I	3	68
RAC 112	Electricity & Electronics II	2	45
RAC 114	Fundamentals of Refrigeration I	2	45
RAC 116	Fundamentals of Refrigeration II	3	68
RAC 200	Refrigeration Systems, Components & Applications	3	68
RAC 205	Heat Loads & System Development	2	45
RAC 208	Special Refrigeration Systems	3	68
RAC 211	Installation & Service Refrigeration Systems	3	68
RAC 212	Fundamentals of Air Conditioning	3	68
ELT 113	Waveforms, Harmonics & Direct Digital Sensors	2	45
RAC 214	Unitary & Central Station Systems	3	68
RAC 215	Air Flow Principles & Distribution	2	45
RAC 216	HVAC Control Systems	3	68
RAC 297	Cooperative Education or		
RAC 299	Independent Study	3	90-135

RAC 285	Troubleshooting & Servicing (Capstone)	4	75
Total		60	1229-1252

ASSOCIATE OF APPLIED SCIENCE DEGREE IN GRAPHIC ARTS (PRINTING)

This program prepares students with job-entry skills to accomplish most operations necessary on the process camera and the offset press. Students also will be able to work in basic bindery, stripping, general layout and composition, electronic page make up and prepress. Upon completion of the program, students will be equipped to enter positions with commercial print shops, trade shops, in-plant shops and any other operation requiring printers.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 2 or completion of ENG 060 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2a or completion of MAT 056 with a C or better.
- Meet with a faculty program advisor and obtain an authorized signature.

General Education Requirements		Credits	Contacts
ENG 131	Intro. to Technical Writing	3	45
MAT 103	Contemporary College Mathematics	3	45
PSY 101	General Psychology I	3	45

Select 1 course from the following AAS

General Education Requirements:		3	45
ART 151; LIT 115, 201, 202; MUS 120;			
CHN 101, JPN 101, SPA 101			

Major Requirements

GRA 101	Intro. to Graphic Arts & Traditional Layout	3	67.5
GRA 102	Electronic Composition Art & Copy Prep	3	67.5
GRA 103	Line & Halftone Photography	3	67.5
GRA 104	Digital Halftone Photography	3	67.5
SPE 115	Principles of Speech	3	45-67.5
	or		
GRA 105	Résumé & Portfolio		
GRA 109	Microcomputing	1	22.5
GRA 111	Beginning Offset Presses	3	60
GRA 112	Stripping, Image Assembly, Platemaking & Inks	3	60
GRA 113	Paper & Ink Management & Print Production I	3	60
GRA 114	Intermediate Offset Press & Print Production II	3	60
GRA 201	Electronic Graphics	3	68
GRA 202	Electronic Page Layout	3	68

GRA 203	Electronic Scanner & Color Theory	3	68
GRA 204	Electronic Prepress	3	68
GRA 205	Photo Manipulation	3	68
GRA 185	Bindery & Portfolio (Speech Intensive)	3	60
	or		
GRA 285	Printers Portfolio & Advanced Printing Techniques (Capstone) (Speech Intensive)		
GRA 299	Independent Studies/ GRA Internship	3-6	68-136
Total		61-64	1225.5-1324

ASSOCIATE OF APPLIED SCIENCE DEGREE IN GRAPHIC DESIGN

This program is designed to provide the skills necessary for entry into the field of graphic design. The graphic design field broadly covers production of paste-up art, graphic or advertising design and illustration. The Graphic Design program allows students to develop basic skills common to all three specialties while developing an emphasis in one.

Students are expected to buy their own tools and materials. The beginning program courses require an original investment of between \$100 and \$300, and students are expected to add needed tools and materials as the program progresses.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 2 or completion of ENG 060 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2a or completion of MAT 056 with a C or better.
- Meet with a faculty program advisor and obtain an authorized signature.

General Education Requirements		Credits	Contacts
SPE 115	Principles of Speech	3	45
ENG 121	English Composition I	3	45
MAT 103	Contemporary College Mathematics	3	45

Select AAS general education courses from

2 of the following 3 areas:		6	90
	Arts and Humanities		
	Physical and Biological Sciences		
	Social and Behavioral Sciences		

Major Requirements

ART 121	Drawing I	3	90
ART 131	Design I	3	90
GRD 100	Lettering & Typographic Design	3	90
GRD 103	MAC Computer Art	3	90
GRD 105	Advertising Typography & Layout	3	90
GRD 107	Rendering/Mixed Media	3	90
GRD 200	Advertising Design & Portfolio Preparation	3	90

GRD 203	Adobe Illustrator	3	90
GRD 206	Graphic Design Production & Prepress I	3	90
GRD 207	Graphic Design Production & Prepress II	3	90
GRD 209	Quark Express	3	90
GRD 220	Intro. to Photoshop	3	90
GRD 297	Graphic Design Internship	3	135
GRD 285	Creative Graphic Design & Portfolio Preparation (Capstone)	3	90

Select 2 courses from the following:		6	158-180
ART 122	Drawing II/Mixed Media	(3)	(90)
ART 132	Design II	(3)	(90)
ART 151	Fundamentals of Black & White Photography	(3)	(90)
ART 211	Painting I	(3)	(90)
MUM 101	Intro. to Multimedia	(3)	(68)
Total		63	1688-1710

ASSOCIATE OF APPLIED SCIENCE DEGREE IN HEALTH AND WELLNESS MANAGEMENT

This program is designed to prepare students for entry-level employment in the broad field of health and wellness. Some the occupations for which students will be prepared include personal care providers, home health aides, fitness center staff, health promotion and wellness coordinators within business and industry, wellness educators with health insurance companies or national health organizations (i.e. American Cancer Society), diet center staff, fitness resort staff, and fitness event coordinators or staff (i.e. "Run for the Cure").

It is possible many of the occupations for which students will be prepared have not yet been created. Health and wellness promotion is "on the cutting edge" of health care, fitness, social services and education. As health care reform takes hold, we expect the health and wellness job market to explode.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 3 or completion of MAT 105 with a C or better.
- Signature authorization on completed program application from the Health and Wellness Management program coordinator. To apply to the program, arrange an appointment with the program coordinator in the South Classroom Building, room 301, (303) 556-2472.

General Education Requirements

Must be completed with a grade of "C" or better

		Credits	Contacts
BIO 111	General College Biology I	5	90
ENG 121	English Composition or	3	45
ENG 131	Intro. to Technical Writing I		

MAT 121	College Algebra or	3-4	45-60
MAT 135	Intro. to Statistics		
SOC 101	Intro. to Sociology	3	45
SPE 115	Principles of Speech	3	45
PSY 101	General Psychology I or	3	45
ECO 202	Principles of Micro Economics		
AAS	Humanities requirement	3	45

Major Requirements

ACC 121	Accounting Principles I	4	60
BUS 115	Intro. to Business	3	45
BUS 236	Principles of Marketing	3	45
CIS 118	Intro. to Computers	3	45
GNT 201	Intro. to Gerontology	3	45
HWM 101	Essentials of Total Fitness & Wellness	3	45
HWM 103	First-aid & CPR	2	30
HWM 201	Health Psychology	3	45
HWM 205	Educational Principles of Health & Wellness	3	45
NUT 100	Nutrition	3	45
PER 100	Aerobics	2	45
HSE 213	Substance Abuse: A Multi-Model Approach or	3	45
PSY 235	Psychology of Human Growth & Development	3	45
HWM 285	Health & Wellness Practicum (Capstone)	2	90
Total		63-64	1035-1050

ASSOCIATE OF APPLIED SCIENCE DEGREE IN HUMAN SERVICES

This program prepares students for entry-level employment in communities and institutions that serve clients with a variety of human needs. Students may choose to focus on specific skill areas, such as social service agencies, health care centers, youth services, substance abuse programs, geriatric centers, child abuse, community corrections, crisis centers and domestic violence.

With the exception of MAT 103, the AAS in human services degree at CCD may be transferred to the Human Services Department at MSCD. Students who wish to meet the MSCD Human Services Department's mathematics requirement while at CCD are advised to take MAT 135. AAS students in human services must earn a grade of "C" or better in all general education and major course requirements.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 1b or completion of ENG 030 with a C or better;
 - reading at level 2 or completion of REA 060 with a C or better;
 - study skills at level 2 or completion of REA 060 with a C or better; and
 - math at level 2a or completion of MAT 056 with a C or better.
- Signature authorization on program application from Human Services faculty advisor.

General Education Requirements			Credits	Contacts
ENG 131	Intro. to Technical Writing I	or	3	45
ENG 121	English Composition			
MAT 103	Contemporary College Mathematics	or higher	3-5	45-75
SPE 115	Principles of Speech		3	45
PSY 101	Intro. to Psychology	or		
SOC 101	Intro. to Sociology	or		
PSY 235	Psychology of Human Growth & Development		3	45
AAS	Humanities requirement		3	45

Major Requirements

HSE 105	Intro. to Social Welfare	3	45
HSE 106	Survey of Human Services	3	45

Offered Fall Semester Only:

HSE 107	Interviewing Principles & Practices	3	45
HSE 109	Social Issues in Human Services	3	45
HSE 205	Human Services for Groups	3	45
HSE 206	Human Services for Families	3	45
HSE 207	Community Organization	3	45
HSE 211	Human Services Practicum II	4	150

Offered Spring Semester Only:

HSE 108	Intro. to Therapeutic Systems	3	45
HSE 115	Human Services Practicum I	4	150
HSE 208	Social Welfare Policy	3	45
HSE 209	Crisis Theory & Intervention	3	45
HSE 212	Human Services Practicum III (Capstone)	7	285

Total 60-62 1260-1290

ASSOCIATE OF APPLIED SCIENCE DEGREE IN MULTIMEDIA DESIGN

This program is designed to provide students with skills necessary for entry into the field of multimedia design. Students may choose to focus on specific skill areas, such as computer graphics, graphic design, music, video production, or graphic arts. The Multimedia Design program allows students to develop basic skills common to all five specialties while developing an emphasis in one.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3 or completion of REA 115 with a C or better;
 - study skills at level 1; and
 - math at level 2a or completion of MAT 035 with a C or better.
- Signature authorization on program application from MUM faculty advisor.
- All students are required to be computer literate before entering the program. Students may complete deficiencies (GRD 102, Intro. to Macintosh) concurrently with the beginning courses in the program.

General Education Requirements			Credits	Contacts
SPE 115	Principles of Speech		3	45
ENG 121	English Composition I		3	45
MAT 103	Contemporary College Mathematics		3	45
Total			9	135

Select AAS general education courses from

2 of the following 3 areas:

6-8 90-120

- Arts and Humanities
- Physical and Biological Sciences
- Social and Behavioral Sciences

Major Requirements

GRA 109	Microcomputing	1	22.5
MUM 100	Intro. to Macintosh	1	22.5
MUM 101	Intro. to Multimedia	3	68
MUM 104	Design for the Computer	3	68
GRD 103	MAC Computer Art	3	90
MUM 105	Image Processing & Manipulation	3	68
MUM 107	Integrated Video Production Studio	3	68
MUS 202	Music Theory IV	3	45
MUM 206	Fractal Design Studio	3	68
MUM 207	Multimedia Animation Studio	3	68
MUM 285	Multimedia Portfolio Preparation (Speech Intensive Capstone)	3	68
MUM 297	Multimedia Internship	3-6	135-270
Total			33 739-806

Associate of Applied Science Degree in Multimedia Design

COMPUTER GRAPHICS EMPHASIS

ART 131	Design I	3	90
GRD 203	Adobe Illustrator	3	90
GRD 209	Quark Xpress (Capstone)	3	90
GRD 220	Introduction to Photoshop	3	90
MUM 210	3-D Modeling and Animation	3	90
Total			15 450

Associate of Applied Science Degree in Multimedia Design

GRAPHIC ARTS EMPHASIS

GRA 102	Electronic Composition, Art & Copy Preparation	3	67.5
GRA 103	Line & Halftone Photography	3	67.5
GRA 104	Digital Halftone Photography	3	67.5
GRA 107	Intro. to Web & Homepage	3	67.5
GRA 202	Electronic Page Layout	3	68
Total			15 338

Associate of Applied Science Degree in Multimedia Design

GRAPHIC DESIGN EMPHASIS

GRD 100	Lettering & Typographic Design	3	90
GRD 105	Advertising Typography & Layout	3	90
GRD 200	Ad Design & Portfolio Preparation	3	90
GRD 206	Graphic Design Production & Prepress I	3	90
GRD 285	Creative Graphic Design & Portfolio Preparation (Capstone)	3	90
Total			15 450

Associate of Applied Science Degree in Multimedia Design

MUSIC EMPHASIS

MUS 101	Music Theory I	3	45
MUS 102	Music Theory II	3	45
MUS 220	Computer Music Composing	3	45
MUS 221	Computer Music Arranging	3	45
Total		12	180

Associate of Applied Science Degree in Multimedia Design

PHOTOGRAPHY EMPHASIS

PHO 101	Fundamentals of Photography	3	90
PHO 102	Fundamentals of Color Photography	3	90
PHO 107	History of Photography	3	90
PHO 204	Intro. to Digital Imaging	3	90
PHO 205	Non-Chemical Printing	3	90
Total		15	450

Associate of Applied Science Degree in Multimedia Design

VIDEO PRODUCTION/COMMUNICATIONS

COM 251	Intro. to Television Production	3	45
COM 255	Survey of Film	3	45
COM 257	Videography	3	45
COM 258	Script & Storyboard Writing	3	45
COM 259	Media Writing/Media Overview	3	45
Total		15	225
Program Total		62-65	1144-1511

ASSOCIATE OF APPLIED SCIENCE DEGREE IN NURSING

This program prepares the student to practice as a professional nurse through a two-year course of study. The program begins in the fall term, and continues fall and spring semesters for two academic years. After the first semester, students receive a nurse aide certificate and are eligible for state certification. After successfully completing the first year, students will receive a certificate in practical nursing, while completion of the full two-year program results in an Associate of Applied Science degree. After students receive the AAS degree, they are eligible to take the licensure exam to become a registered nurse.

Application materials must be submitted by March 1, to be considered for admission into the class beginning fall of the academic year. Eligible applicants are selected first come, first served, based on the date their applications were received by the Nursing Office, South Classroom Building, room 312. Applicants not accepted are considered for the following year. Graduate exit competency is measured by successful completion of the capstone course, NUR 285 Comprehensive Nursing.

The Nursing program is a member of the Colorado Nursing Articulation Project. Credit earned by completing the AAS degree is accepted by Colorado baccalaureate-level nursing programs under the terms of the articulation agreement.

Program Admission Requirements

There are four steps for admission into the nursing program.

1. Qualify for an application by meeting the following criteria:
 - a. English assessment level 3 or completion of ENG 100 with a C or better;
 - b. math assessment level 2a or completion of MAT 035 with a C or better;

- c. reading assessment level 3b or completion of REA 151 with a C or better; and
- d. study skills assessment level 3 or completion of REA 109 with a C or better.

All prospective nursing students must take the Basic Skills Assessment. There are no exceptions.

2. Submit a Nursing program application. Students must attend a mandatory nursing orientation, held every Tuesday at 3:30 p.m. in the South Classroom Building, room 246. Students should bring a copy of their Basic Skills Assessment results and student transcripts of course work at CCD or other colleges attended.

Students should submit their application as soon as they meet the above qualifications. Applicants are considered for admission according to the date the complete application packet is received in the Nursing office.

A completed application packet includes the program application, a copy of the Basic Skills Assessment, two sealed letters of reference dated within the past two years (one letter must be from a supervisor or teacher) and official transcripts from other colleges attended. Official transcripts also must be sent to the CCD registrar for credit evaluation and official transfer of course work.

3. Be enrolled in BIO 202 by March 1 of the year of intended entry. Students must have completed BIO 201 with a "C" or better and also have completed one other general education prerequisite course listed in #4 below.
4. Complete the following first-year prerequisites with a C or better by the beginning of the fall of the year of intended entry.

First-year Prerequisites and/or General Education		Credits	Contacts
NUT 100	Intro. to Nutrition	3	45
*BIO 201	Human Anatomy & Physiology I	4	75
*BIO 202	Human Anatomy & Physiology II	4	75
MAT 100 or higher		3-5	45-75
(MAT 121 or 135 are recommended for students expecting to transfer to a four-year college.)			
*PSY 235	Psychology of Human Growth & Development	3	45
ENG 121	English Composition	3	45

Second-year Prerequisites and/or General Education

Humanities Core Elective (See AAS curriculum for list of approved courses.)		3	45
*BIO 205	Microbiology	3-4	60-75

(Courses taken at another institution must have lab component.)

* Must have been completed within the past 10 years.

Major Requirements First and Second Year

NUR 101	Core Concepts of Pharmacology	1	22.5
NUR 102	Core Concepts of Nursing	1	22.5
NUR 103	Pharmacology for Nursing	2	45
NUR 109	Basic Nursing Skills	6	135
NUR 111	Nursing Concepts & Issues	6	135
NUR 112	Nursing Care of the Hospitalized Client I	4	90

NUR 113	Nursing Care of the Older Adult	4	90
NUR 114	Family-Centered Nursing I	4	90
NUR 202	Management of Intravenous Therapy	1	17
NUR 208	Nursing Assessment & Diagnosis	4	90
NUR 211	Mental Health Nursing	4	90
NUR 212	Nursing Care of the Hospitalized Client II	4	90
NUR 210	Family-Centered Nursing Care II	4	90
NUR 214	Nursing Leadership & Management	4	90
NUR 285	Comprehensive Nursing Internship (Capstone)	3	135
Total		78-81	1667-1712

NURSING: ADVANCED PLACEMENT

Graduates of approved schools of practical nursing may enter the second year of the Nursing program to become graduate professional nurses. Applicants must meet the following admission requirements: provide two letters of recommendation and submit transcripts of PN education and other related course work to both the registrar and the nursing coordinator. The Nursing program is a member of the Colorado Nursing Articulation Project. Applicants must have their practical nurse education evaluated under the terms of the articulation agreement. If the student graduated 10 years or more from the practical nurse level, or from an out-of-state non-college program, ACT-PEP or NLN Mobility Testing must be completed to validate education. Students will receive advising regarding preparation for testing. Under the articulation agreement, students are given 30 hours of credit from the practical nurse level.

Applicants must complete BIO 201 and BIO 202, and three other general education courses before enrolling in NUR 126, the bridge course. Admission into the clinical courses depends on completion of all general education courses and NUR 126, and is subject to available clinical space. Program begins in the fall semester only.

Applicants should contact the nursing coordinator or program assistant at (303) 556-3624 for information and application.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3b or completion of REA 151 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2a or completion of MAT 035 with a C or better.

Prerequisites and/or General Education		Credits	Contacts
*BIO 201	Human Anatomy & Physiology I	4	75
*BIO 202	Human Anatomy & Physiology II	4	75
ENG 121	English Composition I	3	45
*PSY 235	Psychology of Human Growth & Development	3	45
MAT 100	or higher	3-5	45-75
*BIO 205	Intro. to Microbiology (If course taken at another institution, must have lab component.)	3-4	60-75
Humanities Core Elective	(See AAS curriculum for list of approved courses.)	3	45
NUR 126	Nursing Process: Concepts & Skills	1	15

Credit awarded for Practical Nurse Education under Colorado Nursing Articulation Agreement. 28 338

Major Requirements Second Year

NUR 202	Management of Intravenous Therapy	1	17
NUR 208	Nursing Assessment & Diagnosis	4	90
NUR 211	Mental Health Nursing	4	90
NUR 212	Nursing Care of the Hospitalized Client II	4	90
NUR 210	Family-Centered Nursing Care II	4	90
NUR 214	Nursing Leadership & Management	4	90
NUR 285	Comprehensive Nursing Internship (Capstone)	3	135
Total		76-81	1345-1390

* Transfer credit accepted if completed within last 10 years.

ASSOCIATE OF APPLIED SCIENCE DEGREE IN PARALEGAL

This program is designed to prepare students with job-entry skills for the general paralegal field. Emphasis is placed on practical skills such as interviewing, research and document drafting.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 3 or completion of MAT 105 with a C or better.
- Meet with a faculty program advisor and obtain an authorized signature.

General Education Requirements		Credits	Contacts
ENG 121	English Composition I	3	45
MAT 121	College Algebra	4	60
	or		
MAT 103	Contemporary College Mathematics	3	45
SPE 115	Principles of Speech	3	45

Select 1 course from the following

AAS Humanities requirements:		3-5	45
ART 111, 112; CIS 118;			
HUM 121, 122, 123; LIT 115, 201, 202			
MUS 120, 121, 122; PHI 111, 112, 113			
Any foreign language 111 or higher;			
THE 105, 211, 212			

Select 1 course from the following

AAS Social & Behavioral Sciences requirements:		3	45
ANT 101, 111; ECO 201, 202; GEO 105;			
HIS 101, 102, 201, 202; PSY 101, 102;			
POS 105, 111; SOC 101, 102			

Major Requirements			
PAR 121	Intro. to Paralegal	3	45
PAR 124	Legal Research	3	45
PAR 221	Civil Procedures	3	45
PAR 222	Evidence	3	45
PAR 223	Computers & the Law	3	45
PAR 280	Paralegal Workshop	6	225
BTE 151	WordPerfect	3	45

Select 9 courses from the following:				25-30	375-450
PAR 105	Torts	(3)	(45)		
PAR 109	Property	(3)	(45)		
PAR 115	Domestic Relations	(3)	(45)		
PAR 125	Tax Law	(3)	(45)		
PAR 126	Creditor/Debtor/Bankruptcy	(3)	(45)		
PAR 185	Paralegal Synthesis I	(3)	(45)		
PAR 201	Business Organizations	(3)	(45)		
PAR 205	Probate	(3)	(45)		
PAR 207	Legal Research Seminar I	(3)	(45)		
PAR 208	Legal Research Seminar II	(3)	(45)		
PAR 214	Administrative Law	(3)	(45)		
PAR 231	Investigations I	(3)	(45)		
PAR 239	Criminal Law	(3)	(45)		
PAR 241	Environmental Law I	(3)	(45)		
PAR 252	Constitutional Law	(3)	(45)		
PAR 258	Contracts	(3)	(45)		
PAR 297	Cooperative Education	(3-6)	(30-180)		
PAR 299	Independent Study	(1-3)	(30-90)		
PAR 285	Paralegal Synthesis II (Capstone)	3	45		
Total		67-72	1005-1080		

ASSOCIATE OF APPLIED SCIENCE DEGREE IN PHOTOGRAPHY

This program provides technical and aesthetic training to prepare graduates with the skills necessary to enter the field of professional photography, including freelance, portrait and creative photography.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 2 or completion of ENG 060 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2a or completion of MAT 056 with a C or better.
- Meet with a faculty program advisor and obtain an authorized signature.

General Education Courses			
		Credits	Contacts
ENG 121	English Composition I	3	45
MAT 121	College Algebra	3	45
	or		
MAT 103	Contemporary College Mathematics		
SPE 115	Principles of Speech	3	45

Select 2 courses from the following three areas:				6	90
AAS Arts & Humanities requirements					
AAS Physical & Biological Sciences requirements					
AAS Social & Behavioral Sciences requirements					

Major Requirements

ART 121	Drawing I	3	90
ART 131	Design I	3	90
PHO 101	Fundamentals of Photography	3	90
PHO 102	Fundamentals of Color Photography	3	90
PHO 107	History of Photography	3	90
PHO 111	Intermediate Black & White Photography	3	90
PHO 112	Intermediate Color Photography	3	90

Select 2 courses from the following:				6	180
PHO 201	View Camera Techniques	(3)	(90)		
PHO 202	Studio Lighting	(3)	(90)		
PHO 203	The Fine Print	(3)	(90)		

Select 2 courses from the following:				6	180
PHO 211	Portrait Photography	(3)	(90)		
PHO 212	Landscape Photography	(3)	(90)		
PHO 213	Craft & Expression	(3)	(90)		

Select a minimum of 9 credit hours from the following:				9	270
ART 211	Painting I	(3)	(90)		
ART 132	Design II	(3)	(90)		
BUS 115	Intro. to Business	(3)	(45)		
GRD 103	MAC Computer Art	(3)	(90)		
GRD 105	Advertising Typography & Layout	(3)	(90)		
GRD 220	Intro. to Photoshop	(3)	(90)		
PHO 290	Special Topics	(1-3)	(30-90)		
PHO 295	Job Search Workshop	(1)	(15)		
PHO 297	Cooperative Education (variable credit)	(3-6)	(30-180)		
PHO 285	Seminar in Photography (Capstone)	3	90		
Total		60	1755		

ASSOCIATE OF APPLIED SCIENCE DEGREE IN RADIOGRAPHY

The Radiography program prepares the student for an entry-level position as a radiographer in a variety of medical settings. The program consists of five semesters of course work that includes classroom, laboratory and clinical internship experience. Graduates earn an Associate of Applied Science degree and are eligible to apply for registration by the American Registry of Radiologic Technologists.

The program begins fall semester of each year. Information and requirements can be obtained from the Educational Planning and Advising Center. Students who are interested in articulating their career with a Bachelor of Science degree should contact the degree-awarding institution for information regarding transferable prerequisite course work.

Program Admission Requirements

There are two steps for admission into the radiography program.

1. Qualify for an application by meeting the following criteria:
 - a. English assessment level 3 or completion of ENG 100 with a C or better;
 - b. math assessment level 2a or completion of MAT 035 with a C or better;
 - c. reading assessment level 3 or completion of REA 151 with a C or better; and
 - d. study skills assessment level 3 or completion of REA 109 with a C or better.

All prospective Radiography students must take the Basic Skills Assessment. There are no exceptions.

To get an application, students must meet with a radiography program advisor. Call (303) 556-2472 to make an appointment. Bring a copy of the Basic Skills Assessment results and student transcripts of course work at CCD, or other colleges attended.

It is important to submit an application as soon as the above qualifications are met. Applicants are accepted for admission by the date the completed application packet is received.

A completed application packet includes the program application, copies of Basic Skills Assessment results, a copy of the high school diploma or GED and an educational plan.

2. Complete the following general education requirements with a "C" or better prior to starting the program.

General Education Requirements		Credits	Contacts
ENG 121	English Composition I	3	45
Select either BIO 119, or both BIO 201 and 202:		4-8	60-150
*BIO 119	Radiographic Anatomy or both	(4)	(60)
*BIO 201	Anatomy & Physiology I and	(4)	(75)
*BIO 202	Anatomy & Physiology II	(4)	(75)
Select 1 course from the following:		3-4	45-60
MAT 100	Elementary Algebra	(3)	(60)
MAT 103	Contemporary College Mathematics	(3)	(45)

MAT 105	Intermediate Algebra	(4)	(60)
MAT 121	College Algebra	(4)	(60)
MAT 135	Intro. to Statistics	(3)	(45)

Select 1 course from the following: **3** **45**

SOC 101	Intro. to Sociology I	(3)	(45)
PSY 101	General Psychology I	(3)	(45)
PSY 235	Psychology of Human Growth & Development	(3)	(45)

* Must have been completed within the past five years.

Radiography Program		Credits	Contacts
Fall			
RTR 102	Radiographic Imaging I	3	45
RTR 103	Radiographic Equipment	3	45
RTR 104	Radiographic Internship I	5	225
RTR 105	Radiographic Patient Care I	3	45
Spring			
RTR 112	Radiographic Imaging II	3	45
RTR 113	Radiographic Equipment II	3	45
RTR 114	Radiographic Internship II	5	225
RTR 115	Radiographic Patient Care II	3	45
Summer			
RTR 124	Radiographic Internship III	7	315
Fall			
RTR 202	Imaging III (Speech Intensive)	3	45
RTR 203	Radiation Biology/Protection	2	30
RTR 204	Radiographic Internship IV	8	360
Spring			
RTR 214	Radiographic Internship V	11	495
RTR 216	Radiography Capstone	3	45
Total		75-78	2205-2310

ASSOCIATE OF APPLIED SCIENCE DEGREE IN RECREATIONAL ASSISTANT

The Recreational Assistant program awards either the AAS degree or the certificate of program completion. Upon successful completion of 400 hours of externship experiences, the graduate qualifies under the National Recreation and Park Association as a Certified Leisure Assistant. This program is currently in the process of articulating with bachelor's degree programs for transfer of credits for the BS degree in recreation therapy. Two of the program's courses are offered as "open enrollment" and can be taken by anyone interested in the Recreation Assistant program, or in the activities taught. To earn the AAS degree in the Recreational Assistant program, the student must complete all required courses with a "C" or better.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2b or completion of MAT 103 with a C or better.
- Signature authorization on completed program application from the Recreational Assistant program coordinator. To apply to the program, arrange an appointment with the program coordinator in the South Classroom Building, room 301, (303) 556-2472.

General Education Requirements		Credits	Contacts
BIO 201	Human Anatomy & Physiology I	4	75
ENG 121	English Composition I	3	45
or			
ENG 131	Intro. to Technical Writing I		
MAT 135	Intro. to Statistics	3	45
PSY 101	General Psychology I	3	45
PSY 235	Psychology of Human Growth & Development	3	45
SOC 101	Intro. to Sociology	3	45
SPE 115	Principles of Speech	3	45
AAS Humanities requirement		3	45

Other Required Courses

BUS 115	Intro. to Business	3	45
CIS 118	Intro. to Computers	3	45

Recreational Assistant Program		Credits	Contacts
Fall			
RAE 201	Intro. to Recreational Leisure	3	45
RAE 202	Intro. to Recreational Therapy	3	45
RAE 205	Recreational Assistant Externship I	4	180
RAE 207	Specialized Areas in Recreation Electives (Open enrollment. Offered spring semester, also.)	4	60
SOC 103	Sociology of Health Care	3	45

Spring

RAE 203	Recreation & Leisure in Special Populations	3	45
RAE 204	Health & Safety in Recreation & Leisure	3	45
RAE 207	Specialized Areas in Recreation Electives (Open enrollment. Offered fall semester, also.)	(4)	(60)
RAE 285	Recreational Assistant Externship II	5	225
Total		59	1170

ASSOCIATE OF APPLIED SCIENCE DEGREE IN TRADES

The Trades AAS degree program consists of a maximum of 58 semester credit hours of trade-specific credits. Students may earn this credits via apprenticeship training (classroom and on-the-job hours) or technical education course work and training, plus a maximum of 20 credit hours of core general education courses at CCD. For those registered apprentices who complete a three-year registered apprenticeship program, 20 CCD credit hours will be required; for those completing a four-year or five-year apprenticeship program, 17 CCD general education credits will be required. Students completing CCD/TEC certificate course sequences and wishing to pursue the AAS degree must complete a minimum of 25 semester hours of general education credit and a minimum of 60 credit hours as noted below.

Associate of Applied Science Degree in Trades

CONSTRUCTION

This program is offered jointly by CCD, Emily Griffith Opportunity School and the Joint Apprenticeship Training Committee. Students enrolled in apprenticeship training part of this program are not eligible for financial aid from CCD.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2b or completion of MAT 103 with a C or better.
- Official transcript showing completion of Emily Griffith Opportunity School's Apprenticeship program.

Apprenticeship Training	Credits	Contacts
Four- to five-year training and Capstone	43	3870
Three-year training and Capstone	40	3600

General Education Requirements

ENG 121 or 131	3	45
MAT 103 or 121	4	60

Select 1 course from the following

AAS Physical and Biological Sciences requirements: 4-5 80-105

AST 101, 102; BIO 105, 111, 112*
 CHE 101, 102, 111, 112; GEY 111;
 PHY 105, 111, 112, 211, 212

Select 1 course from the following

AAS Humanities requirements: 3-4 45-68

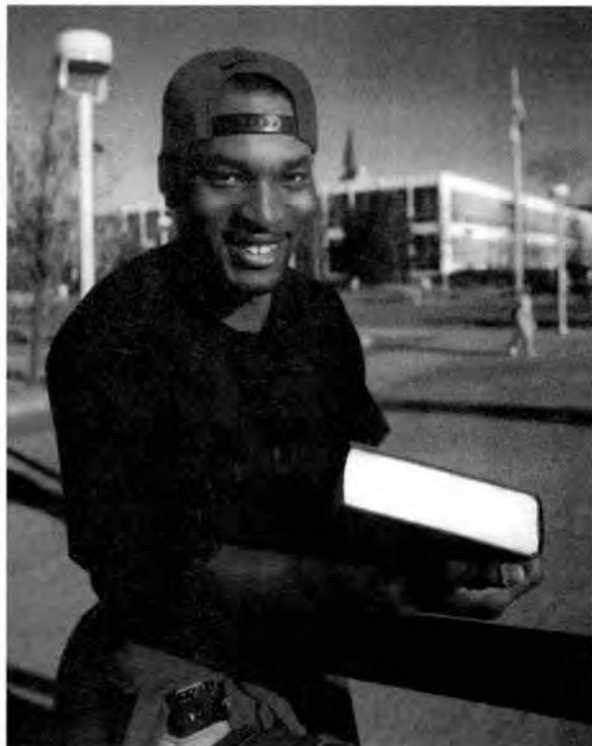
ART 111, 112; CIS 118;
 HUM 121, 122, 123; LIT 115, 201, 202
 MUS 120, 121, 122; PHI 111, 112, 113
 Any foreign language 111 or higher;
 THE 105, 211, 212

Select 1 course from the following

AAS Social & Behavioral Sciences requirements: 3 45

ANT 101, 111; ECO 201, 202; GEO 105;
 HIS 101, 102, 201, 202; PSY 101, 102;
 POS 105, 111; SOC 101, 102
 SPE 115 Intro. to Speech 3 45
 (3-year apprenticeship program only)

Total 63-68 3985-4295



CERTIFICATE PROGRAMS

certificate programs

In addition to associate degree programs, specially designed courses and sequences leading to the awarding of certificates have been designed in cooperation with business, commerce and local government. These certificates provide opportunity and rewards for persons seeking to improve skills in their occupational fields. Courses in certificate sequences are applicable to appropriate associate degree programs.

Student Performance Objectives for Vocational Education (Certificate Programs)

Students who complete vocational programs will be able to perform the following:

1. Basic and advanced academic skills appropriate to the profession.
 - a. Basic skills: reading, writing, mathematics, speaking, listening;
 - b. Thinking skills: ability to learn, reason, make decisions, solve problems;
2. General occupational skills appropriate to the profession.
 - a. Information: ability to acquire and evaluate data, organize and maintain files, use computers to process information.
 - b. Interpersonal: ability to work on teams and with people, teach others, serve customers, lead, negotiate; value and serve, work well with and for people from diverse cultures.
 - c. Personal: responsibility, self-management, integrity; personal, professional and social ethics.
 - d. Resources: ability to allocate time, money, materials, space and staff.
 - e. Systems: understand technological, organizational and social systems; monitor and correct performance, design or improve systems.
 - f. Technology: select equipment, apply technology to specific tasks.
3. Specific occupational skills that include all aspects of the profession. These include planning, management, finances, underlying principles of technology, technical skills, labor and community issues, health and safety and environmental issues.

Each vocational program has identified student performance objectives for each vocational program area. These performance objectives are given to students during the advising process. They are collectively bound and published for general distribution and constitute the college's guarantee to the employer. Copies are available in division and counseling offices.

Certificate Program Entry Requirements

Students must apply for entry to all certificate programs. Program application forms are available in the South Classroom Building, room 134 and in instructional division offices.

ACCOUNTING

This is recommended for students who wish to study basic business fundamentals while developing entry-level accounting skills, and constitutes an acceptable first-year curriculum in accounting and business for an associate degree.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2b or completion of MAT 103 with a C or better.

			Credits	Contacts
ACC	110	Business Math	3	45
ACC	101	Fundamentals of Accounting	3-4	45-60
		or		
ACC	121	Accounting Principles I (Corequisite ACC 110 or Level 2b Math placement)		
ACC	121	Accounting Principles I or	4	60
ACC	122	Accounting Principles II		
ACC	113	Computerized Accounting	3	45
CIS	118	Intro. to Computers	4	68
CIS	155	Spreadsheet Concepts	3	45
BUS	115	Intro. to Business	3	45
BUS	217	Business Communications	3	45
Elective		BTE Keyboarding	2	30
BTE	108	Business Machines	1	15
BTE	120	Filing & Records Control	3	45
		Total	32-33	488-503

Accounting

ACCOUNTING WITH COMPUTER APPLICATIONS

This program prepares the student for entry-level positions: accounting clerk, data entry clerk, accounts payable clerk, accounts receivable clerk and accounting assistant. Students will develop specialized computer skills in word processing, accounting software, spreadsheet and computer programming most requested by today's employers.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2b or completion of MAT 103 with a C or better.

			Credits	Contacts
ACC	121	Accounting Principles I (Corequisite ACC 110 or Level 3 math placement)	4	60
ACC	122	Accounting Principles II	4	60
ACC	110	Business Math	3	45
ACC	113	Computerized Accounting	3	45
ACC	215	Accounting Systems	3	45
CIS	118	Intro. to Computers	4	68
CIS	155	Spreadsheet Concepts	3	45
BUS	115	Intro. to Business	3	45

Select 6 credits with advisor approval:			6	90-105
CIS	145	Database Concepts	(2)	(40)
CIS	156	Advanced Spreadsheets	(3)	(45)
CIS	176	BASIC with DOS or	(3)	(45)
CIS	178	Visual BASIC with Windows	(3)	(45)
CIS	260	COBOL Language Programming	(3)	(45)
BTE	151	WordPerfect or	(3)	(45)
BTE	152	Microsoft Word		
ACC	297	Cooperative Education (Prerequisite ACC 122)	(3)	(45)
Total			334	95-510

BUSINESS ADMINISTRATION

Business Administration

COMMERCIAL CREDIT MANAGEMENT

These certificate programs for students working in commercial credit management are specifically designed to train and upgrade skills of credit managers, assistants and other credit personnel who work in the area of exterior or commercial credit.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2b or completion of MAT 103 with a C or better.

			Credits	Contacts
BUS	115	Intro. to Business	3	45
CRM	217	Business Credit Principles	3	45
BUS	217	Business Communications	3	45
ACC	121	Accounting Principles I	4	60
BUS	221	Legal Environment of Business	3	45
CIS	155	Spreadsheet Concepts	3	45
Total			19	285

			Credits	Contacts
Certificate Option II				
ACC	226	Cost Accounting	3	45
BTE	151	WordPerfect or	3	45
BTE	152	Microsoft Word		
ACC	122	Accounting Principles II	4	60
BUS	116	Intro. to Management/Supervision	3	45
BUS	221	Legal Environment of Business	3	45
BUS	226	Business Statistics	3	45
CRM	217	Business Credit Principles	3	45
Total			22	330

Business Administration

CUSTOMER INFORMATION SERVICES AGENT;

Call Center Management, Teleservices Agent/Rep

This program provides a basis for developing customer information services for client service, survey-taking, appointment making, direct sales and follow up. Includes paper flow management, telephone skills, terms and concepts, along with other job skills necessary for entry-level positions. The customer information services industry is growing and offers considerable employment opportunity for those persons prepared and who exhibit these unique abilities. Client services orientation, call-center management and outsourcing of services from a contractual point of view will be explored.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2b or completion of MAT 103 with a C or better.

			Credits	Contacts
REA	090	College Preparation Reading	3	45
MAT	033	General Skills in Math I	3	45
ENG	100	Composition Style & Technique	3	45
SPE	125	Interpersonal Communication or		
SPE	205	Voice & Diction	3	45
BUS	217	Business Communications	3	45
BTE	139	Professional Development	3	45
BTE	101	Keyboarding I	4	80
BUS	115	Intro. to Business	3	45
CIS	118	Intro. to Computers	4	68
BUS	217	Customer Service	3	45
BUS	231	Principles of Sales	3	45
BUS	207	Teleservices	3	45
BUS	297	Cooperative Education/Internship (Capstone)	3-6	135-270
Total			41-44	733-868

Business Administration

ENTREPRENEURSHIP

This program provides the concepts and skills necessary to succeed in business. Enrollment in this curriculum will engage students in entrepreneurial activities. Students will learn key concepts of small business, management and marketing.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2b or completion of MAT 103 with a C or better.

Certificate Option I

	Credits	Contacts
ACC 101 Fundamentals of Accounting	3	45
ACC 110 Business Math	3	45
BUS 115 Intro. to Business	3	45
BUS 231 Principles of Sales	3	45
Electives With faculty advisor approval	12	180
Total	24	360

Certificate Option II

	Credits	Contacts
BUS 217 Business Communications	3	45
SPE 115 Principles of Speech	3	45
ACC 110 Business Math	3	45
CIS 118 Intro. to Computers	4	68
ACC 121 Accounting Principles I	4	60
BUS 118 Intro. to Marketing	3	45
Electives With faculty advisor approval	4	60
BUS 185 Business Certificate (Capstone)	1	15
Total	25	383

Business Administration

INTERNATIONAL BUSINESS

This program is designed for individuals and businesses who would like to explore the possibilities of doing or improving their business in international markets. Basic essentials of foreign trade and cultural understanding will be necessary for an effective business relationship.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2b or completion of MAT 103 with a C or better.

	Credits	Contacts
BUS 115 Intro. to Business	3	45
BUS 185 Business Certificate (Capstone)	1	15
BUS 210 International Business	3	45
POS 205 International Relations	3	45
BUS 211 International Marketing	3	45
CIS 118 Intro. to Computers	4	68

Select 10 credit hours from foreign languages	10	150
Total	27	413

Business Administration

MARKETING

This program is part of a two-year Associate degree in Business Administration. All courses are applicable to the advanced degree.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2b or completion of MAT 103 with a C or better.

	Credits	Contacts
ACC 110 Business Math	3	45
BUS 115 Intro. to Business	3	45
BUS 217 Business Communications	3	45
CIS 118 Intro. to Computers	4	68
BUS 118 Intro. to Marketing	3	45
ENG 121 English Composition I	3	45
BUS 231 Principles of Sales	3	45
BUS 239 Advertising & Promotion	3	45
BUS 116 Intro. to Management/Supervision	3	45
BUS 297 Business Administration Cooperative Education	3	45
BUS 185 Business Certificate (Capstone)	1	15
Total	32	488

Business Administration

PROFESSIONAL SELLING

This program is designed to give a motivated student the entry-level skills necessary to get a job in the lucrative field of sales. All these classes apply toward a two-year Associate degree, Business Administration in Marketing option.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2b or completion of MAT 103 with a C or better.

	Credits	Contacts
First Semester		
BUS 115 Intro. to Business	3	45
BUS 217 Business Communications	3	45
CIS 118 Intro. to Computers	4	68
BUS 231 Principles of Sales	3	45
SPE 115 Principles of Speech	3	45

Second Semester

CIS 155 Spreadsheet Concepts	3	45
BUS 118 Intro. to Marketing	3	45
MAT 103 Contemporary College Mathematics	3	45
BTE 139 Professional Development	3	45

Third Semester

BUS 297	Marketing Cooperative Education	3	45
BUS 185	Business Certificate (Capstone)	1	15
Total		32	488

Business Administration

SMALL BUSINESS

This program provides the basic fundamentals for success as a small business entrepreneur. Students receive the essentials of small business operations from initiating the small business plan to getting and maintaining customers and clients.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2b or completion of MAT 103 with a C or better.

		Credits	Contacts
ACC 101	Fundamentals of Accounting or	3-4	45-60
ACC 121	Accounting Principles I		
BUS 115	Intro. to Business	3	45
ACC 110	Business Math	3	45
BUS 217	Business Communications	3	45
CIS 118	Intro. to Computers	4	68
CIS 155	Spreadsheet Concepts	3	45
BUS 221	Legal Environment of Business	3	45
Elective	BUS	3	45
ACC 111	Individual Income Tax	3	45
BTE 151	WordPerfect	3	45
orbit 152	Microsoft Word or		
BTE 152	Microsoft Word		
BUS 185	Business Certificate (Capstone)		
Total		31-32	473-488

Business Administration

SUPERMARKET MANAGEMENT

This program is designed to give the student the necessary knowledge and skills to gain employment and/or to advance to positions of increased responsibility within the supermarket industry.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 1c or completion of MAT 035 with a C or better.

		Credits	Contacts
BUS 115	Intro. to Business	3	45
BUS 116	Intro. to Management/Supervision	3	45
BUS 118	Intro. to Marketing	3	45
BUS 170	Supermarket Loss Prevention	3	45
BUS 221	Legal Environment of Business Law	3	45
BUS 227	Human Resources Management	3	45
BUS 229	Motivation & Management	3	45
BUS 270	Business Ethics	3	45
BUS 235	Retail Marketing & Management (Capstone)	3	45

Select 1 course from the following:

		3-4	45-68
ACC 110	Business Math	(3)	(45)
ACC 121	Accounting Principles I	(4)	(60)
ECO 118	Labor Economics	(3)	(45)
BUS 217	Business Communications	(3)	(45)
BUS 228	Principles of Management	(3)	(45)
BUS 239	Advertising & Promotion	(3)	(45)
CIS 118	Intro. to Computers	(4)	(68)
ECO 201	Principles of Macro Economics	(3)	(45)
Total		30-31	450-473

Business Administration

TRAVEL AND TOURISM

This two-semester certificate program provides entry-level skills for employment in the travel, tourism and hospitality industries. Courses prepare students for jobs such as entry-level reservations assistant, clerk and travel agent trainee.

Courses must be taken in the sequence as shown.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2b or completion of MAT 103 with a C or better.

		Credits	Contacts
BTT 110	Principles of Travel Administration	3	45
BTT 210	Domestic Ticketing	3	45
BTT 211	International Travel	3	45
BTT 111	Travel Geography I	3	45
BTT 112	Travel Geography II	3	45
BTT 113	Selecting & Selling Cruises	3	45
BTT 212	Computer Reservations I	3	45
BTT 213	Computer Reservations II (Capstone)	3	45
Total		24	360

BUSINESS TECHNOLOGY: OFFICE MANAGEMENT AND SECRETARIAL STUDIES

Business Technology: Office Management and Secretarial Studies

GENERAL CLERICAL

Designed to prepare students for jobs in offices where general clerical opportunities exist (filing, word processor, clerk, etc.)

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 2 or completion of REA 109 with a C or better; and
 - d. math at level 2a or completion of MAT 103 with a C or better.

Certificate Option I — 1 Semester

(with permission of faculty advisor)

		Credits	Contacts
BTE 104	Keyboarding Speedbuilding	4	60
BTE 108	Business Machines: Ten Key by Touch	2	23
BTE 120	Filing & Records Control	4	68
BTE 151	WordPerfect	3	45
	or		
BTE 152	Microsoft Word		
BTE 297	Cooperative Education (Capstone)	3	135
	Total	16	331

Certificate Option II — 2 Semesters (with permission of faculty advisor)

		Credits	Contacts
ACC 101	Fundamentals of Accounting	3-4	45-60
	or		
ACC 121	Accounting Principles I		
BTE 101	Keyboarding I	5	83
BTE 202	Keyboarding II		
BTE 104	Keyboarding Speedbuilding	4	60
BTE 108	Business Machines: Ten Key by Touch	2	23
BTE 120	Filing & Records Control	4	68
BTE 133	Word Processing Communications & Applications	3	45
BTE 151	WordPerfect	3	45
	or		
BTE 152	Microsoft Word		
BTE 139	Professional Development	3	45
BTE 297	Cooperative Education (Capstone)	3	135
	Total	30-31	564-579

Business Technology: Office Management and Secretarial Studies

MEDICAL SECRETARIAL

Designed to prepare students for jobs such as medical records clerk, medical secretary, etc.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 2 or completion of REA 109 with a C or better; and
 - d. math at level 2a or completion of MAT 103 with a C or better.

			Credits	Contacts
ACC 101	Fundamentals of Accounting		3-4	45-60
	or			
ACC 121	Accounting Principles I			
HOC 100	Medical Terminology		1	15
BTE 101	Keyboarding I		5	83
	or			
BTE 202	Keyboarding II			
BTE 104	Keyboarding Speedbuilding		3	45
BTE 108	Business Machines: Ten Key by Touch		2	23
BTE 120	Filing & Records Control		4	68
BTE 151	WordPerfect		3	45
	or			
BTE 152	Microsoft Word			
BTE 133	Word Processing Communications & Applications		3	45
BTE 139	Professional Development		3	45
BTE 206	Health Insurance Methods & Claims		3	45
BTE 230	Machine Transcription		5	83
BTE 288	Model Office		4	68
BTE 297	Cooperative Education (Capstone)		3	135
	Total		42-43	770-775

Business Technology: Office Management and Secretarial Studies

STENOGRAPHIC

Designed to prepare students for jobs such as secretary, stenographer, word processor and office assistant/specialist.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 2 or completion of REA 109 with a C or better; and
 - d. math at level 2a or completion of MAT 103 with a C or better.

			Credits	Contacts
BTE	101	Keyboarding I or	5	83
BTE	202	Keyboarding II		
BTE	104	Keyboarding Speedbuilding	4	60
BTE	121	Alpha Speedwriting I	4	60
BTE	108	Business Machines: Ten Key by Touch	2	23
BTE	120	Filing & Records Control	4	68
BTE	151	WordPerfect or	3	45
BTE	152	Microsoft Word		
BTE	133	Word Processing Communications & Applications	3	45
BUS	217	Business Communications	3	45
BTT	288	Model Office	4	68
BTE	297	Cooperative Education (Capstone)	3	135
Total			35	632-647

Business Technology: Office Management and Secretarial Studies

WORD PROCESSING

Designed to prepare students as entry-level word processors.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 2 or completion of REA 109 with a C or better; and
 - math at level 2a or completion of MAT 103 with a C or better.

Certificate Option I — 1 Semester (with permission of instructor/faculty advisor)

			Credits	Contacts
BTE	202	Keyboarding II	5	83
BTE	104	Keyboarding Speedbuilding	4	60
BTE	151	WordPerfect or	3	45
BTE	152	Microsoft Word		
BTE	133	Word Processing Communications & Applications	3	45
BTE	297	Cooperative Education (Capstone)	3	135
Total			18	368

Certificate Option II — 2 Semesters

Designed to prepare students as entry-level word processors.

			Credits	Contacts
BUS	217	Business Communications	3	45
BTE	101	Keyboarding I	5	83
BTE	202	Keyboarding II	5	83
BTE	104	Keyboarding Speedbuilding	4	60
BTE	151	WordPerfect or	3	45
BTE	152	Microsoft Word		
BTE	133	Word Processing Communications & Applications	3	45

BTE	139	Professional Development	3	45
BTE	251	Advanced WordPerfect	3	45
BTE	288	Model Office	4	68
BTE	297	Cooperative Education (Capstone)	3	135
Total			36	654

COMPUTER INFORMATION SYSTEMS

Computer Information Systems

APPLICATIONS PROGRAMMER

This program serves the general student population, but is designed, developed, and operated for and by the nationally recognized and award-winning Computer Training for People with Disabilities (CTPD) program. The certificate program prepares students for careers as applications programmers emphasizing the COBOL language. This is a fast-track program that can be completed in 13 months or more depending on the semester the student begins the curriculum and the amount of remediation, general studies and adaptation skill development required. The program has a fall and spring semester curriculum. Students must have completed the "prerequisites to fall semester" and are encouraged to complete the general education requirements prior to beginning the fall and spring curriculum. Applications should be submitted by May 1.

Students with disabilities are encouraged to make application to the CTPD program, which offers special services, support and placement for program participants. Application information may be obtained from the Center for Persons with Disabilities, South Classroom Building, room 134, or by phone at (303) 556-3300.

All students must satisfy the following program admission requirements prior to beginning the program.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2b or completion of MAT 103 with a C or better.
- Students with a disability requiring adaptive equipment must be functioning at a professional level. Skills are assessed and evaluated by the CTPD coordinator.

* Prerequisites to Fall Semester

			Credits	Contacts
*CIS	118	Intro. to Computers	4	68
*ACC	121	Accounting Principles I	4	60
*BUS	115	Intro. to Business	3	45
*BUS	217	Business Communications	3	45
*CIS	218	Advanced Computer Applications or	2-3	30-45
*CIS	119	Intro. to Programming		

Fall				
CIS	276	Systems Analysis & Design	3	45
CIS	260	COBOL Language Programming	3	45
CIS	145	Database Concepts	3	45
CIS	277	Operating Systems & JCL (mainframe emphasis)	3	45
CIS	266	On-line Program Development (TSO)	3	45

Spring				
CIS	261	Advanced COBOL	3	45
CIS	263	CICS/COBOL Programming	3	45
CIS	230	C++ Programming I	3	45
CIS	240	Oracle	3	45

May 15-July 15				
CIS	297	Cooperative Education/ Internship (Capstone)	6	270
Total			49-50	923-938

Computer Information Systems

PC SPECIALIST/LAN ADMINISTRATOR

This program serves the general student population, but is designed, developed, and operated for and by the nationally recognized and award-winning Computer Training for People with Disabilities (CTPD) program. The certificate program prepares students for careers as PC specialists, emphasizing the LAN Administration. This is a fast-track program that can be completed in 13 months or more depending on the semester the student begins the curriculum and the amount of remediation and adaptation skill development required. The program has a fall and spring semester curriculum. Students must have completed the "prerequisites to the fall semester" and are encouraged to complete the general education requirements prior to beginning the fall and spring curriculum. Applications should be submitted by May 1.

Students with disabilities are encouraged to make application to the CTPD program, which offers special services, support and placement for program participants. Application information may be obtained from the Center for Persons with Disabilities, South Classroom Building, room 134, or by phone at (303) 556-3300.

All students must satisfy the following program admission requirements prior to beginning the program.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2b or completion of MAT 103 with a C or better.
2. Students with a disability requiring adaptive equipment must be functioning at a professional level. Skills are assessed and evaluated by the CTPD coordinator.

* Prerequisites to Fall Semester

Business Core				Credits	Contacts
*CIS	118	Intro. to Computers	4	68	
*ACC	121	Accounting Principles I	4	60	
*BUS	115	Intro. to Business	3	45	
*BUS	217	Business Communications	3	45	
*CIS	218	Advanced Computer Applications	2-3	30-45	
or					
*CIS	119	Intro. to Programming			

Fall				
CIS	145	Database Concepts	3	45
CIS	216	Microcomputer Hardware	3	45-72
CIS	255	Networks: Novell 4x Administration	4	68
CIS	266	On-line Program Development (TSO)	2	30
CIS	276	Systems Analysis & Design	3	45
CIS	277	Operating Systems & JCL (Microcomputer emphasis)	3	45

Spring				
CIS	240	Oracle	3	45
CIS	155	Spreadsheet Concepts	3	45
CIS	179	Software System Survey	3	45
CIS	275	Telecommunications	3	45

May 15-July 15				
CIS	297	Cooperative Education/Internship (Capstone)	6	270
Total			52-53	976-1018

Computer Information Systems

COMPUTER SPECIALIST

This program is designed to train students in microcomputer use and operations, with a focus on the currently popular software packages used by business and industry.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 3 or completion of MAT 105 with a C or better.

				Credits	Contacts
CIS	118	Intro. to Computers	4	68	
CIS	119	Intro. to Programming	3	45	
CIS	179	Software/Systems Survey	3	45	
CIS	216	Microcomputer Hardware	3	45	
BUS	115	Intro. to Business	3	45	
BTE	151	WordPerfect	3	45	
or					
BTE	152	Microsoft Word			
CIS	155	Spreadsheet Concepts	3	45	
CIS	275	Telecommunications	3	45	
CIS	276	System Analysis & Design	3	45	

Select any 9 credits from the following:		9	135
CIS 111	Intro. to Internet	(2)	(45)
CIS 131	Intro. to the Internet & World Wide Web	(3)	(45)
CIS 132	Business Applications on the World Wide Web	(3)	(45)
CIS 135	Graphics Technology (PowerPoint)	(2)	(30)
CIS 145	Database Concepts	(3)	(45)
CIS 156	Advanced Spreadsheets	(3)	(45)
CIS 175	Intro. to UNIX	(3)	(45)
CIS 176	BASIC with DOS	(3)	(45)
CIS 178	Visual BASIC with Windows	(3)	(45)
CIS 206	Intro. to Multimedia	(3)	(45)
CIS 208	Advanced Multimedia Systems	(3)	(45)
CIS 254	Networks: Windows NT Client	(4)	(68)
CIS 255	Networks: Novell 4x Administration	(4)	(68)
CIS 256	Networks: Novell 3x Administration	(4)	(68)
CIS 260	COBOL Language Programming	(3)	(45)
BTE 100	Intro. to Keyboarding	(3)	(45)
Any 3 credits of self-paced courses		(3)	(45)
Total		37	563

Computer Information Systems

COMPUTERS AND MULTIMEDIA

This program is designed to train students in microcomputer use and operations with a focus on the hardware and software that is used to create and develop multimedia presentations.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 3 or completion of MAT 105 with a C or better.

		Credits	Contacts
CIS 118	Intro. to Computers	4	68
CIS 179	Software/Systems Survey	3	45
CIS 216	Microcomputer Hardware	3	45
CIS 206	Intro. to Multimedia Systems	3	45
CIS 208	Advanced Multimedia Systems	3	45
CIS 275	Telecommunications	3	45
BUS 115	Intro. to Business	3	45
CIS 276	Systems Analysis & Design	3	45

Select any 9 credits from the following:		9	135
CIS 111	Intro. to Internet	(2)	(45)
CIS 131	Intro. to the Internet & World Wide Web	(3)	(45)
CIS 132	Business Applications on the World Wide Web	(3)	(45)
CIS 135	Graphics Technology (PowerPoint)	(2)	(30)
CIS 145	Database Concepts	(3)	(45)
CIS 155	Spreadsheet Concepts	(3)	(45)
CIS 156	Advanced Spreadsheets	(3)	(45)
CIS 175	Intro. to UNIX	(3)	(45)

CIS 176	BASIC with DOS	(3)	(45)
CIS 178	Visual BASIC with Windows	(3)	(45)
CIS 254	Networks: Windows NT Client	(4)	(68)
CIS 255	Networks: Novell 4x Administration	(4)	(68)
CIS 256	Networks: Novell 3x Administration	(4)	(68)
CIS 260	COBOL Language Programming	(3)	(45)
BTE 100	Intro. to Keyboarding	(3)	(45)
BTE 151	WordPerfect	(3)	(45)
	or		
BTE 152	Microsoft Word	(3)	(45)
Any 3 credits of self-paced courses		(3)	(45)
Total		34	518

Computer Information Systems

WINDOWS NT NETWORK ADMINISTRATION

This program prepares the student for employment as a computer network administrator. Upon completion of the program, the student will be able to install, configure, administer and optimize a Windows NT network. Additionally, the program prepares the student for evaluation as a certified network administrator (CNA).

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 3 or completion of MAT 105 with a C or better.

		Credits	Contacts
CIS 118	Intro. to Computers	4	68
CIS 119	Intro. to Programming	3	45
CIS 176	BASIC with DOS	3	45
CIS 178	Visual BASIC with Windows	3	45
CIS 216	Microcomputer Hardware	3	45
CIS 254	Networks: Windows NT Client	4	68
CIS 283	Networks: Windows NT Server	4	68

Select any 6-7 credits from the following:		6-7	90-105
ACC 121	Accounting Principles I	(4)	(60)
CIS 131	Intro. to the Internet & World Wide Web	(3)	(45)
CIS 132	Business Applications on the World Wide Web	(3)	(45)
BTE 151	WordPerfect	(3)	(45)
	or		
BTE 152	Microsoft Word		
CIS 111	Intro. to Internet	(2)	(45)
CIS 145	Database Concepts	(3)	(45)
CIS 155	Spreadsheet Concepts	(3)	(45)
CIS 175	Intro. to UNIX	(3)	(45)
CIS 179	Software/Systems Survey	(3)	(45)
CIS 275	Telecommunications	(3)	(45)
CIS 276	Systems Analysis & Design	(3)	(45)
Total		30-31	474-489

Computer Information Systems

NOVELL 4X NETWORK ADMINISTRATION

This program prepares the student for employment as a computer network administrator. Upon completion of the program, the student will be able to install, configure, administer and optimize a Novell 4x network. Additionally, the program prepares the student for evaluation as a certified network administrator (CNA).

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 3 or completion of MAT 105 with a C or better.

		Credits	Contacts
CIS	118	Intro. to Computers	4 68
CIS	119	Intro. to Programming	3 45
CIS	176	BASIC with DOS	3 45
CIS	178	Visual BASIC with Windows	3 45
CIS	216	Microcomputer Hardware	3 45
CIS	255	Networks: Novell 4x Administration	4 68
CIS	282	Networks: Advanced Novell Administration	4 68

Select any 6-7 credits from the following:

		6-7	90-105
ACC	121	Accounting Principles I	(4) (60)
CIS	131	Intro. to the Internet & World Wide Web	(3) (45)
CIS	132	Business Applications on the World Wide Web	(3) (45)
BTE	151	WordPerfect or	(3) (45)
BTE	152	Microsoft Word	(3) (45)
CIS	111	Intro. to Internet	(2) (45)
CIS	145	Database Concepts	(3) (45)
CIS	155	Spreadsheet Concepts	(3) (45)
CIS	175	Intro. to UNIX	(3) (45)
CIS	179	Software/Systems Survey	(3) (45)
CIS	275	Telecommunications	(3) (45)
CIS	276	Systems Analysis & Design	(3) (45)
Total		30-31	474-489

Computer Information Systems

NOVELL 3X NETWORK ADMINISTRATION

This program prepares the student for employment as a computer network administrator. Upon completion of the program, the student will be able to install, configure, administer and optimize a Novell 3x network. Additionally, the program prepares the student for evaluation as a certified network administrator (CNA).

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 3 or completion of MAT 105 with a C or better.

			Credits	Contacts
CIS	118	Intro. to Computers	4	68
CIS	119	Intro. to Programming	3	45
CIS	176	BASIC with DOS	3	45
CIS	178	Visual BASIC with Windows	3	45
CIS	216	Microcomputer Hardware	3	45
CIS	256	Networks: Novell 3x Administration	4	68

Select any 6-7 credits from the following:

		6-7	90-105
ACC	121	Accounting Principles I	(4) (60)
CIS	131	Intro. to the Internet & World Wide Web	(3) (45)
CIS	132	Business Applications on the World Wide Web	(3) (45)
BTE	151	WordPerfect or	(3) (45)
BTE	152	Microsoft Word	(3) (45)
CIS	111	Intro. to Internet	(2) (45)
CIS	145	Database Concepts	(3) (45)
CIS	155	Spreadsheet Concepts	(3) (45)
CIS	175	Intro. to UNIX	(3) (45)
CIS	179	Software/Systems Survey	(3) (45)
CIS	275	Telecommunications	(3) (45)
CIS	276	Systems Analysis & Design	(3) (45)
Total		26-27	406-421

DRAFTING

Drafting

COMPUTER-AIDED DRAFTING-CAD

The Computer-Aided Drafting (CAD) certificate program prepares students for entry positions as CAD operators in industrial plants, engineering firms, manufacturing firms and government agencies.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;
 - c. study skills at level 1; and
 - d. math at level 2 or completion of MAT 035 with a C or better.
2. Completion of DRI 105, 106, and CAD 110 with a C or better.

			Credits	Contacts
DRI	105	Intro. to Drafting	5	100
DRI	106	Dimensioning & Tolerancing	2	40
CAD	110	Computer-Aided Drafting I	3	68
CAD	111	Computer-Aided Drafting II	3	60
CIS	118	Intro. to Computers	4	68
ENG	131	Intro. to Technical Writing I	3	45
CAD	210	Computer-Aided Drafting III	3	60
JSW	295	Job Search Workshop	1	15
CAD	211	Computer-Aided Drafting IV (Capstone)	3	60
Total			27	516

The DRI 105 Intro. to Drafting and DRI 106 Dimensioning and Tolerancing can be waived with proof of prior experience in the drafting field.

Drafting

DRAFTING FOR INDUSTRY

The Drafting for Industry certificate program prepares students for entry positions on drafting teams in industrial plants, engineering and manufacturing firms and government agencies.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 1; and
 - math at level 2 or completion of MAT 035 with a C or better.
- Completion of DRI 105 and 106 with a C or better.

			Credits	Contacts
DRI	105	Intro. to Drafting	5	100
CAD	110	Computer-Aided Drafting I	3	68
DRI	106	Dimensioning & Tolerancing	2	40
DRI	107	Geometric Tolerancing	2	40
DRI	109	Pictorial Drawing	2	40
DRI	111	Descriptive Geometry & Auxiliary Views	2	40
DRI	113	Intersections & Developments	3	60
JSW	295	Job Search Workshop	1	15
DRI	116	Mechanical Detail Drafting (Capstone)	5	100
Total			25	498

EARLY CHILDHOOD EDUCATION

Early Childhood Education

EARLY CHILDHOOD EDUCATION DIRECTOR

This program prepares graduates for director-qualified positions in day care and preschool services. This curriculum meets Colorado Human Services licensing education requirements.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 4 or completion of ENG 060 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math: N/A

			Credits	Contacts
ECE	101	Intro. to Early Childhood Education	3	45
ECE	102	ECE Lab Experience	3	90
ECE	105	Nutrition & the Young Child	3	45
ECE	110	Child Growth & Development	4	60
ECE	117	Methods/Techniques: Curriculum Development	3	45
ECE	120	Classroom Management Techniques	3	45
ECE	126	Administration of ECE Programs (Capstone)	4	60
SOC	101	Intro. to Sociology	3	45
PSY	101	General Psychology or	3	45
PSY	235	Psychology of Human Growth & Development		

Select 1 course from the following:

ECE	111	Infants & Toddlers: Developmental Theories & Practices or	3	45
ECE	115	Curriculum: Creative Activities & the Young Child	(3)	(45)
Total			32	510

Early Childhood Education

EARLY CHILDHOOD EDUCATION GROUP LEADER

CCD offers Colorado Group Leader Certificate or child development associate (CDA) training and advisement in conjunction with the following Early Childhood Education courses at CCD. Students completing this sequence will receive a Colorado Group Leader Certificate from CCD. In addition to this academic requirement, the Colorado Department of Human Services requires nine (9) months, (1392 hours) of work experience. Students desiring a CDA will need to contact the Council for Early Childhood Professional Recognition prior to beginning the process.

ECE	101	Intro. to Early Childhood Education (ECE)	3	45
ECE	102	ECE Lab Experience	3	90
ECE	110	Child Growth & Development	4	60
ECE	120	Classroom Management Techniques	3	45
Select 1 course from the following:			3	45
ECE	111	Infants & Toddlers: Developmental Theories & Practices or	(3)	(45)
ECE	117	Methods/Techniques: Curriculum Development	(3)	(45)
Total			16	285

ELECTRONICS TECHNOLOGY

The electronics certificate options offer the opportunity for specialization and upgrading. All courses have a prerequisite of the preceding course or proof of competency.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 1; and
 - math at level 2 or completion of MAT 035 with a C or better.
- Completion of ELT 100 and 101 with a C or better.

Electronics Technology

PRINCIPLES OF ELECTRONICS

			Credits	Contacts
ELT	100	DC Fundamentals	3	60
ELT	101	DC Circuits & Magnetism	2	40
ELT	102	AC Fundamentals	2	40
ELT	103	AC Circuits	3	60
ELT	104	Complex Circuit Analysis	3	60
ELT	110	Diode Circuits	3	60
ENG	100	Composition Style & Technique or	3	45
ENG	131	Intro. to Technical Writing I (recommended)		
MAT	103	Contemporary College Mathematics	3	45
ELT	111	Transistor Amplifiers (Capstone)	3	60
	Total		25	470

Electronics Technology

ADVANCED SOLID STATE, DIGITAL & IC PRINCIPLES

			Credits	Contacts
ELT	112	JFETs & Oscillators	2	40
ELT	114	Operational Amplifiers	3	60
MAT	103	Contemporary College Mathematics or	3	45
MAT	121	College Algebra (recommended)		
PHY	105	Conceptual Physics	4	75
ELT	200	Pulse & Digital Fundamentals	3	60
ELT	201	Digital Circuits	3	60
ELT	202	Microprocessor Fundamentals	2	40
ELT	203	Microprocessor & Microcomputer Systems (Capstone)	3	60
ENG	131	Intro. to Technical Writing I	3	45
	Total		26	485

Electronics Technology

BROADCAST TECHNOLOGIST

This program prepares the student for entry-level positions in the broadcast industry. Job titles include master control operator, production technician, video production assistant and maintenance technician.

			Credits	Contacts
ELT	100	DC Fundamentals	3	60
ELT	101	DC Circuits & Magnetism	2	40
ELT	102	AC Fundamentals	2	40
COM	251	Intro. to Television Production	3	45
CIS	118	Intro. to Computers	4	68
ELT	217	Basic Television & Video Systems (Capstone)	3	60

Select 9 credits from the following:

			9	225-315
SPE	115	Principles of Speech	(3)	(45)
ENG	131	Intro. to Technical Writing I	(3)	(45)
ELT	297	Cooperative Education	(3-6)	(135-270)
	Total		26	538-628

ENVIRONMENTAL AND REFRIGERATION TECHNOLOGY

Programs are open-entry/open-exit. Students may complete some of the courses, enter the work force, then return at any time to either complete the program for a certificate or degree or upgrade specific skills. Students may waive 100-level courses with prior knowledge and experience. The advanced placement credit is by portfolio and must be approved by the instructor. To satisfy the requirements for a certificate, the following courses must be taken in the listed sequence.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3a or completion of REA 090 with a C or better;
 - study skills at level 1; and
 - math at level 2 or completion of MAT 035 with a C or better.
- Completion of RAC 111 and 112 or equivalent with a C or better.

Environmental and Refrigeration Technology

APARTMENT MANAGER

This program prepares students to enter the field of apartment management. It includes training in basic service and installation of common appliances used in apartments, an introduction to basic electricity, refrigeration, air conditioning and heating and training in areas needed by persons managing an apartment complex.

			Credits	Contacts
RAC	111	Electricity & Electronics I	3	60
RAC	112	Electricity & Electronics II	2	40
RAC	114	Fundamentals of Refrigeration I	2	40
RAC	214	Unitary & Central A/C Systems	3	60
APT	220	Kitchen Equipment I	3	60
APT	225	Refrigerators & Freezers I	3	60
RAC	295	Job Search Workshop	1	15
ACC	101	Fundamentals of Accounting	3	45
CIS	118	Intro. to Computers	4	68
APT	226	Room Air Conditioners (Capstone)	3	60
	Total		27	508

Environmental and Refrigeration Technology

MAJOR APPLIANCE REPAIR

This program prepares the student for entry-level positions in small and major appliance repair. Most graduates work for small repair businesses.

			Credits	Contacts
RAC	111	Electricity & Electronics I	3	60
RAC	112	Electricity & Electronics II	2	40
RAC	114	Fundamentals of Refrigeration I	2	40
RAC	116	Fundamentals of Refrigeration II	3	60
APT	218	Automatic Washers I	3	60
APT	219	Clothes Dryers I	3	60
APT	220	Kitchen Equipment I	3	60
APT	225	Refrigerator/Freezers I	3	60
APT	226	Room Air Conditioners	3	60
APT	228	Clothes Dryers II	3	60
APT	229	Kitchen Equipment II	3	60
APT	230	Refrigerator/Freezers II	3	60
JSW	295	Job Search Workshop	1	20
APT	285	Automatic Washers II (Capstone)	6	120
Total			41	820

Environmental and Refrigeration Technology

REFRIGERATION AND AIR CONDITIONING

This program prepares the student with job-entry skills in the fields of commercial-industrial refrigeration, heating and air conditioning. Job skills cover installation, maintenance and servicing. Job titles include HVAC maintenance technician, environmental control technician and refrigeration maintenance technician.

			Credits	Contacts
RAC	111	Electricity & Electronics I	3	68
RAC	112	Electricity & Electronics II	2	45
RAC	114	Fundamentals of Refrigeration I	2	45
RAC	116	Fundamentals of Refrigeration II	3	68
RAC	200	Refrigeration Systems, Components & Applications	3	68
RAC	205	Heat Loads & System Development	2	45
RAC	208	Special Refrigeration Systems	3	68
RAC	211	Installation & Service Refrigeration Systems	3	68
RAC	212	Fundamentals of Air Conditioning	3	68
RAC	214	Unitary & Central Station System	3	68
RAC	215	Air Flow Principles & Distribution	2	45
RAC	216	HVAC Control Systems	3	68
JSW	295	Job Search Workshop	1	20
RAC	285	Troubleshooting & Servicing (Capstone)	4	75
Total			37	819

GERONTOLOGY

CCD offers the only gerontology certificate program at the community college level in Colorado. Through courses, practical experiences and seminars, this program provides theory and experience regarding the physical, social and psychological aspects of aging. This certificate enhances the human services program, the health sciences programs and the behavioral sciences program by developing a specialization in aging studies and services. It also is a professional development program for persons already active in the gerontology field.

All potential applicants to the gerontology program should call (303) 556-3891 for an appointment with the gerontology program coordinator.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3b or completion of REA 151 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 3 or completion of MAT 105 with a C or better.

			Credits	Contacts
GNT	201	Intro. to Gerontology	3	45
GNT	285	Practicum in Gerontology	3	110
BIO	204	Physiological Aspects of Aging	(3)	(45)
GNT	213	Psychology of Aging	(3)	(45)
GNT	214	Social Aspects of Aging	(3)	(45)
GNT	215	Aging in a Diverse Society	(3)	(45)
GNT	221	Overview of Services & Resources for the Aging	(3)	(45)
GNT	236	Nutrition & Aging	(3)	(45)
GNT	237	Death & Dying	(3)	(45)
GNT	295	Leadership Development	(3)	(45)
Total			24	425

GRAPHIC ARTS

Graphic Arts

PRINTING

This program will prepare students with job-entry skills to accomplish most operations necessary on the process camera and the offset press, and to function in the areas of basic bindery, stripping, and general layout and composition work. Upon completing the program, students will be equipped to enter positions with commercial print shops, trade shops, in-plant shops and any other operation requiring printers.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 2 or completion of ENG 030 with a C or better;
 - reading at level 2 or completion of REA 060 with a C or better;
 - study skills at level 2 or completion of REA 060 with a C or better; and
 - math at level 2 or completion of MAT 030 with a C or better.

		Credits	Contacts
GRA 101	Intro. to Graphic Arts & Traditional Layout	3	67.5
GRA 102	Electronic Composition, Art & Copy Prep	3	67.5
GRA 103	Line & Halftone Photography	3	67.5
GRA 104	Digital Halftone Photography	3	67.5
GRA 105	Résumé & Portfolio (Capstone)	3	67.5
GRA 111	Beginning Press Operations	3	60
GRA 112	Stripping, Image Assembly, Platemaking & Inks	3	60
GRA 113	Paper & Ink Management & Print Production I	3	60
GRA 114	Intermediate Offset Press & Print Production II	3	60
GRA 185	Bindery & Portfolio	3	60
Total		30	637.5

Graphics Arts

PREPRESS

This program prepares students with job-entry skills to accomplish most operations necessary for the process camera, general layout and composition work. It also provides skills to use state-of-the-art electronic equipment for graphics, page make-up, photo manipulation and scanning. Upon completing the program students will be equipped to enter positions with desk-top publishing businesses, commercial print shops, trade shops and in-plant shops.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 1 or completion of ENG 030 with a C or better;
 - reading at level 1 or completion of REA 060 with a C or better;
 - study skills at level 1 or completion of REA 060 with a C or better; and
 - math at level 1 or completion of MAT 030 with a C or better.

		Credits	Contacts
GRA 101	Intro. to Graphic Arts & Traditional Layout	3	67.5
GRA 102	Electronic Composition, Art & Copy Preparation	3	67.5
GRA 103	Line & Halftone Photography	3	67.5
GRA 104	Digital Halftone Photography	3	67.5
GRA 105	Résumé & Portfolio (Capstone)	3	67.5
GRA 201	Electronic Graphics	3	68
GRA 202	Electronic Page Layout	3	68
GRA 203	Electronic Scanner & Color Theory	3	68
GRA 204	Electronic Prepress	3	68
GRA 205	Photo Manipulation	3	68
Total		30	677.5

GRAPHIC DESIGN

Courses in the certificate sequence are applicable to the Associate of Applied Science degree and normally can be completed in two semesters. Upon completion of major requirements, students may choose one of three emphases, each of which will prepare students for a career in graphic design. Instructor permission is required to omit GRD 102, which could be substituted with an elective. GRD 103 is prerequisite to all computer classes.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 1b or completion of ENG 030 with a C or better;
 - reading at level 2 or completion of REA 060 with a C or better;
 - study skills at level 2 or completion of REA 060 with a C or better; and
 - math at level 1b or completion of MAT 030 with a C or better.

Major Requirements

		Credits	Contacts
ENG 100	Composition Style & Technique	3	45
ART 121	Drawing I	3	90
ART 131	Design I	3	90
GRD 100	Lettering & Typographic Design	3	90
GRD 102	Intro. to Macintosh	3	90
GRD 103	MAC Computer Art	3	90
GRD 105	Advertising Typography & Layout	3	90
Total		21	585

Graphic Design

COMPUTER GRAPHICS

		Credits	Contacts
Major Requirements		21	585
Select 2 courses with advisor approval:		6	180-225
ART 132	Design II	(3)	(90)
GRD 185	PageMaker Design	(3)	(90)
GRD 203	Adobe Illustrator	(3)	(90)
GRD 220	Intro. to Photoshop	(3)	(90)
GRD 297	Graphic Design Internship	(3)	(135)
GRD 209	Quark Xpress on Macintosh (Capstone)	3	90
MUM 210	3-D Modelling & Animation	(3)	(90)
Total		30	855-900

Graphic Design

GRAPHIC DESIGN

		Credits	Contacts
Major Requirements		21	585
Select 2 courses with advisor approval:		6	180-225
ART 122	Drawing II/Mixed Media	(3)	(90)
GRD 185	PageMaker Design	(3)	(90)
	or		
GRD 209	Quark Xpress		
GRD 200	Advertising Design & Portfolio Preparation	(3)	(90)
GRD 206	Graphic Design Production & Prepress I	(3)	(90)

GRD 297	Graphic Design Internship	(3)	(135)
GRD 285	Creative Graphic Design & Portfolio Preparation (Capstone)	3	90
Total		30	855-900

Graphic Design SERVICE BUREAU

		Credits	Contacts
Major Requirements		21	585
GRA 204	Electronic Prepress	3	68
Select 1 class with advisor approval:		3	90-135
GRD 185	PageMaker Design	(3)	(90)
	or		
GRD 209	Quark Xpress		
GRD 200	Advertising Design & Portfolio Preparation	(3)	(90)
GRD 206	Graphic Design Production & Prepress I	(3)	(90)
GRD 297	Graphic Design Internship	(3)	(135)
GRA 203	Electronic Scanner & Color Theory (Capstone)	3	68
Total		30	811-856

HUMAN SERVICES

Human Services

CASE MANAGEMENT/RESIDENTIAL SERVICE AIDE

This program prepares students for entry-level positions as case management aides or residential aides. The certificate program is transferable to the AAS and AGS in Human Services. Students must complete all certificate course work with a C or better.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 1b or completion of ENG 030 with a C or better;
 - b. reading at level 2 or completion of REA 060 with a C or better;
 - c. study skills at level 2 or completion of REA 060 with a C or better; and
 - d. math at level 2a or completion of MAT 056 with a C or better.

		Credits	Contacts
Electives	Basic Skills	6	90
HSE 106	Survey of Human Services	3	45
HSE 107	Interviewing Principles & Practices	3	45
Elective	HSE or Core	5	75

Offered Spring Semester Only:

HSE 209	Crisis Theory & Intervention	3	45
HSE 115	Human Services Practicum I (Capstone)	4	60
Total		24	360

PARALEGAL

Paralegal

GENERAL

This program is designed to prepare individuals with job-entry skills for the general paralegal field. Emphasis is placed on practical skills such as interviewing, researching and document drafting.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 1b or completion of ENG 030 with a C or better;
 - b. reading at level 2 or completion of REA 060 with a C or better;
 - c. study skills at level 2 or completion of REA 060 with a C or better; and
 - d. math at level 1b or completion of MAT 030 with a C or better.

		Credits	Contacts
PAR 121	Intro. to Paralegal	3	45
PAR 124	Legal Research	3	45
PAR 221	Civil Procedures	3	45
PAR 222	Evidence	3	45
PAR 223	Computers & the Law	3	45
PAR 280	Paralegal Workshop	6	225
Elective	PAR	3	45
BTE 151	WordPerfect	3	45
	or		
BTE 152	Microsoft Word		
CIS 140	Microcomputers Databases	3	45
PAR 185	Paralegal Synthesis I (Capstone)	3	45
Total		33	630

NURSING

PRACTICAL NURSING

This program represents the first year of the two-year Associate of Applied Science degree in nursing. It begins in the fall term and continues through the spring semester. Prospective applicants must complete the necessary prerequisite course work with a "C" grade or better.

After successful completion of this program, which is a C grade or better in each course, students receive a Certificate of Practical Nursing and are eligible to take the examination for licensure as a practical nurse. After the first semester, students receive a Nurse Aide Certificate and are eligible for state certification. The Nursing program is a member of the Colorado Nursing Articulation Project. Credit earned by completing the Practical Nurse Certificate is accepted by other Colorado nursing programs under the terms of the articulation agreement.

Application materials must be submitted by March 1 to be considered for admission to the class beginning fall of that academic year. To be eligible for consideration, applicants must meet all admission requirements by March 1 of their expected entry. Eligible applicants then are selected first come, first served, based on the date their application was received by the Nursing Office, South Classroom Building, room 312. Applicants not accepted are placed in the waiting pool for the following year. More specific program information may be obtained from the Division of Health and Human Services.

Program Admission Requirements

There are four steps for admission into the Nursing program.

1. Qualify for an application by meeting the following criteria:
 - a. English assessment level 3 or completion of ENG 100 with a C or better;
 - b. math assessment level 2a or completion of MAT 035 with a C or better;
 - c. reading assessment level 3b or completion of REA 151 with a C or better; and
 - d. study skills assessment level 3 or completion of REA 109 with a C or better.

All prospective nursing students must take the Basic Skills Assessment. There are no exceptions.

2. Submit a Nursing program application. Students must attend a mandatory nursing orientation, held every Tuesday at 3:30 p.m. in the South Classroom Building, room 246. Students should bring a copy of their Basic Skills Assessment results and student transcripts of course work at CCD or other colleges attended.

Students should submit their application as soon as they meet the above qualifications. Applicants are considered for admission according to the date the completed application packet is received in the Nursing Office.

A completed application packet includes the program application, a copy of the Basic Skills Assessment, two sealed letters of reference dated within the past two years (one letter must be from a supervisor or teacher), and official transcripts from other colleges attended. Official transcripts also must be submitted to the CCD registrar for credit.

3. Be enrolled in BIO 202 by March 1 of the year of intended entry. Students must have completed BIO 201 with a "C" or better and also have completed one other general education prerequisite course listed in #4 below.
4. Complete the following first-year prerequisites with a C or better by the beginning of the fall of the year of intended entry.

Prerequisites and/or General Education			Credits	Contacts
*BIO	201	Human Anatomy & Physiology I	4	75
*BIO	202	Human Anatomy & Physiology II	4	75
*PSY	235	Psychology of Human Growth & Development	3	45
NUT	100	Intro. to Nutrition	3	45
MAT	100	or higher-level course	3-5	45-75
ENG	121	English Composition	3	45

Requirements			Credits	Contacts
NUR	101	Core Concepts in Pharmacology	1	22.5
NUR	102	Core Concepts of Nursing	1	22.5
NUR	103	Pharmacology for Nursing	2	45
NUR	109	Basic Nursing Skills	6	135
NUR	111	Nursing Concepts & Issues	6	135
NUR	112	Nursing Care of the Hospitalized Client I	4	90
NUR	113	Nursing Care of the Older Adult	4	90
NUR	114	Family-Centered Nursing Care I	4	90
Total			48-50	990

* Must have been completed within the past 10 years.

PERIOPERATIVE NURSING

This program prepares the student to practice as an operating room nurse after completing 14 credit hours of study. Students enrolled in this program are not eligible for financial aid. The program begins in the fall semester and continues through the spring semester with an individualized practicum experience. After successfully completing the program, students receive a certificate in perioperative nursing.

Application materials must be submitted by May 1 to be considered for admission into the class beginning fall of the academic year. Eligible applicants are selected first-come-first-served, based on the dates applications are received by the Surgical Technology/ Perioperative Nursing Office, South Classroom Building, room 301. Applicants not accepted are considered for the following year. Graduate exit competency is measured by successful completion of the capstone course, NUR 221, Perioperative Nursing II.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3b or completion of REA 151 with a C or better;
 - c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2a or completion of MAT 035 with a C or better.
2. All applicants must be eligible for licensure as registered nurses.
3. Applicants must submit a Perioperative Nursing program application, available from the office of Health and Human Services, South Classroom Building, room 301, or by calling 556-2472 to have an application mailed.

A completed application packet includes the program application; a copy of current licensure as a registered nurse, or documentation of pending licensure as a registered nurse; two sealed letters of reference dated within the past two years (one letter must be from a supervisor or teacher); a copy of the high school diploma or GED; and official transcripts from other colleges attended. Official transcripts also must be submitted to the CCD registrar.

4. Applicants must submit a separate application to the college. Applications are available in the South Classroom Building, room 136, or by calling 556-2600 to have an application mailed.
5. Applicants must schedule an interview with the Perioperative Nursing program coordinator. Please call 556-2464 for an appointment.

Major Requirements

Major Requirements		Credits	Contacts
Fall			
NUR	220	Perioperative Nursing I	4
Spring			
NUR	221	Perioperative Nursing II	10
Total		14	450

PHOTOGRAPHY

This program provides technical and aesthetic training to prepare students with the skills necessary to enter the field of professional photography, including freelance, portrait and creative photography.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 1b or completion of ENG 030 with a C or better;
 - reading at level 2 or completion of REA 060 with a C or better;
 - study skills at level 2 or completion of REA 060 with a C or better; and
 - math at level 1b or completion of MAT 030 with a C or better.

			Credits	Contacts
ART 121	Drawing I		3	90
ART 131	Design I		3	90
ENG 121	English Composition		3	45
PHO 101	Fundamentals of Photography		3	90
PHO 102	Fundamentals of Color		3	90
PHO 111	Intermediate Black & White		3	90
PHO 112	Intermediate Color Photography		3	90

Select a minimum of 6 credits from the following: 6 120-270

GRD 105	Advertising Typography & Layout	(3)	(90)
BUS 115	Intro. to Business	(3)	(90)
PHO 201	View Camera Techniques	(3)	(90)
PHO 202	Studio Lighting	(3)	(90)
PHO 203	The Fine Print	(3)	(90)
PHO 205	Photography Workshop	(3)	(90)
PHO 211	Portrait Photography	(3)	(90)
PHO 213	Craft & Expression	(3)	(90)
PHO 215	Photography Seminar	(3)	(90)
PHO 297	Cooperative Education	(3-6)	(30-180)
PHO 185	Advanced Photography (Capstone)	3	90
Total		30	795-945

PSYCHIATRIC TECHNICIAN

Psychiatric Technician

This program prepares the student to practice as a psychiatric technician in specialized health care settings with client populations experiencing psychiatric disorders and/or developmental disabilities. The program begins fall semester and continues spring semester for one academic year. After the first semester, students are eligible for state licensing as a psychiatric technician with an emphasis in developmental disabilities. After completing the second semester, students are eligible for state licensing as a psychiatric technician with an emphasis in mental illness.

Application materials must be submitted by March 1 to be considered for admission into the class beginning fall of the academic year. Eligible applicants are selected first-come, first-served, based on the dates applications are received by the program coordinator, South Classroom Building, room 312. Applicants not accepted are considered for the following year. Graduate exit competency is measured by successful completion of the capstone course, LPT 111, Nursing Principles of Psychiatric Care and Clinical Application for the Psychiatric Technician.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3b or completion of REA 151 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2a or completion of MAT 035 with a C or better.

All prospective students must take the Basic Skills Assessment. There are no exceptions.

- Attend a mandatory orientation, held every Tuesday at 3:30 p.m. in the South Classroom Building, room 243. Bring a copy of the Basic Skills Assessment results and copies of official transcripts from other colleges attended. At orientation, the student will receive the Psychiatric Technician program application.
- Submit a Psychiatric Technician program application with two sealed letters of reference dated within the past two years (one letter must be from a supervisor or teacher) and a copy of the high school diploma or GED to the program coordinator in the South Classroom Building, room 312.

Major Requirements

			Credits	Contacts
BIO 114	Biology of Humans for Psychiatric Technicians		3	45
HSE 113	Human Services for Persons with Developmental Disabilities		3	45
NUR 101	Core Concepts of Pharmacology		1	22.5
NUR 109	Basic Nursing Skills		6	135
LPT 110	Fundamental Concepts & Clinical Application		2	45
LPT 111	Nursing Principles of Psychiatric Care		6	135
Total			21	427.5

Psychiatric Technician: Advanced Placement

Graduates of Colorado Board of Nursing-approved psychiatric technician programs with an emphasis in developmental disabilities may enter CCD's Psychiatric Technician program in the LPT 111, Nursing Principles of Psychiatric Care and Clinical Application for the Psychiatric Technician course.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3b or completion of REA 151 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2a or completion of MAT 035 with a C or better.
- Submit two letters of recommendation, a copy of high school diploma or GED, a Certificate of Completion of Colorado Board of Nursing Accredited Psychiatric Technician Developmental Disabilities program, and a copy of Colorado License as Psychiatric Technician with Developmental Disability emphasis. Students are awarded 15 credit hours from the approved Psychiatric Technician Developmental Disabilities program.

Major Requirements	Credits	Contacts
Completion of Psychiatric Technician DD program	15	297
LPT 111 Nursing Principles of Psychiatric Care	6	135
Total	21	432

RADIOLOGIC HEALTH SCIENCES

Offered to registered radiologic technologists, these certificate programs provide opportunity for cross training and enhancing professional competence and employability. These programs are offered on an "as-needed" basis. Please call the coordinator at 556-2472 for more information about any of the Radiologic certificate programs. Check with the Office of Financial Aid for program eligibility for the following programs.

Radiologic Health Sciences

MAGNETIC RESONANCE IMAGING (MRI) TECHNOLOGY

Offered on an "as-needed" basis, this certificate program limits application to those who have registry and/or certification in another diagnostic imaging modality (nuclear medicine technology or registered diagnostic medical sonography, radiologic technology). Call the MRI coordinator for more information at 566-2472.

Radiologic Health Sciences

MAMMOGRAPHY

Offered on an "as-needed" basis, this program is designed to meet the needs of the working radiographer. Call the Radiography program coordinator, 556-3846, for more information.

Radiologic Health Sciences

NUCLEAR MEDICINE TECHNOLOGY

Offered on an "as-needed" basis, this program provides course work and clinical experiences necessary to qualify for the nuclear medicine registry. Call the Nuclear Medicine coordinator at 556-3845 for more information.

RECREATIONAL ASSISTANT

Program applicants who previously have earned credits for general education courses, or have documented equivalencies for these courses, may apply directly to the Recreational Assistant program and complete the Recreational Assistant program courses only. Upon successful completion of course work and 400 hours of externship experience, the graduate qualifies under the National Recreation and Park Association as a certified leisure assistant. The program is currently in the process of articulating with bachelor's-degreed programs for transfer of credits for the BS degree in recreational therapy. Two of the program's courses are offered as "open enrollment" and can be taken by anyone interested in the activities taught.

Program Admission Requirements

1. Assessment scores or course equivalents as follows:
 - a. English at level 3 or completion of ENG 100 with a C or better;
 - b. reading at level 3a or completion of REA 090 with a C or better;

- c. study skills at level 3 or completion of REA 109 with a C or better; and
 - d. math at level 2b or completion of MAT 103 with a C or better.
2. Proof of general education equivalencies:
 - BIO 201 Human Anatomy & Physiology I
 - ENG 121 English Composition I or
 - ENG 131 Intro. to Technical Writing I
 - MAT 135 Intro. to Statistics
 - PSY 101 General Psychology I
 - PSY 235 Psychology of Human Growth & Development
 - SOC 101 Intro. to Sociology
 - SPE 115 Principles of Speech
 - AAS Humanities requirement
 - BUS 115 Intro. to Business (optional)
 - CIS 118 Intro. to Computers (optional)
3. Application to the Recreational Assistant program.

Fall

RAE 201	Intro. to Recreational Leisure	3	45
RAE 202	Intro. to Recreational Therapy	3	45
RAE 205	Recreational Assistant Externship I	4	180
RAE 207	Specialized Areas in Recreation Electives (Open enrollment; also offered fall semester.)	4	60
SOC 103	Sociology of Health Care	3	45

Spring

RAE 203	Recreation & Leisure in Special Populations	3	45
RAE 204	Health & Safety in Recreation & Leisure	3	45
RAE 207	Specialized Areas in Recreation Electives (Open enrollment; also offered spring semester.)	(4)	(60)
RAE 285	Recreational Assistant Externship II	5	225
Total		28	690

SURGICAL TECHNOLOGY

This program begins the summer term and continues for 12 months. Applications and all applicable documentation and test results need to be submitted to the Surgical Technology coordinator by the last day in February of each calendar year for the program starting the following summer. Admission information may be obtained from the Educational Planning and Advising Center or the Health and Human Services Division. Enrollment is limited to 25 students.

The Surgical Technology program at CCD depends upon voluntary affiliation by clinical affiliates for clinical practicum spaces. Students must recognize that due to the need to utilize all available clinical resources, they may have to travel some distance to sites outside the Denver metropolitan area.

Program Admission Requirements

- Assessment scores or course equivalents as follows:
 - English at level 3 or completion of ENG 100 with a C or better;
 - reading at level 3b or completion of REA 151 with a C or better;
 - study skills at level 3 or completion of REA 109 with a C or better; and
 - math at level 2a or completion of MAT 035 with a C or better.
- All applicants must schedule an interview with the program coordinator. Please call 556-2464 to schedule an interview.
- All applicants must submit two sealed letters of reference dated within the past two years (one letter must be from a supervisor or teacher), a copy of the high school diploma or GED, a copy of the GATB score, and an official transcript from any other college attended (students also must send the CCD registrar an official transcript), and schedule an interview with the program coordinator.
- Application material must be submitted by March 1 to be considered for admission into the class beginning summer of the academic year. Eligible applicants are selected first-come, first-served, based on the dates applications are received by the Surgical Technology Office, South Classroom Building, room 301-H. Applicants not accepted are considered for the following year.



Prerequisites and/or General Education			Credits	Contacts
BIO 201	Human Anatomy & Physiology I		4	75
BIO 202	Human Anatomy & Physiology II		4	75
MAT 103	or higher		3-5	45-75
(MAT 121 or 135 are for students expecting to transfer to a four-year college)				
ENG 121	English Composition I		3	45
Summer				
HOC 100	Medical Terminology		1	15
STE 100	Intro. to Surgical Technology		4	60
Fall				
STE 105	Pharmacology for Surgical Technology		2	30
STE 106	Surgical Skills		6	120
STE 107	Surgical Instrumentation		3	60
Spring				
STE 109	Surgical Technology Laboratory Experience		3	128
STE 110	Surgical Technology Practicum (Capstone)		7	315
STE 115	Surgical Pathology & Intervention		4	60
Total			30	773

Surgical technology students wishing to complete the requirements for the Associate degree/General Studies must complete the requirements for a certificate in surgical technology and meet the other core general education requirements for the AGS degree. Students should contact their advisor for specific courses.

TEC PROGRAMS

technical education center programs

TECHNICAL EDUCATION CENTERS North, East and West Campuses

TEC North
6221 Downing Street
Denver, CO 80216
289-2243

TEC East
3532 Franklin Street
Denver, CO 80205
293-8737

TEC West
2420 West 26th Avenue, #100D
Denver, CO 80211
477-5864

Technical Education Center Programs

Community College of Denver's (CCD) Technical Education Centers (TEC) offer fast-track job training certificate programs and Associate of Applied Science degrees at each campus. Fast-track training permits students to complete TEC certificate programs in as few as 15 weeks and as many as 30 weeks, assuming full-time attendance and depending on which job training program is chosen. CCD grants college credit for all courses successfully completed.

Certificate programs are open-entry/open-exit and operate year-round. Instruction is provided in an individualized and self-directed format that allows students to enroll at any time throughout the year and complete a program at any time when requirements are met. Full-time students attend classes an average of six hours per day, five days each week. All courses offered at TEC campuses provide 24 contact hours (1,200 minutes) of instruction for each credit; except cooperative education and internship courses that require 45 contact hours (37.5 clock hours) of paid or unpaid work experience for each credit.

TEC campuses also provide classes in Career Exploration, GED Preparation, Basic Academic Skills, English as a Second Language, and Parenting. Career assessment, GED testing, case management support and job placement assistance are available services.

CCD/TEC Certificate and Associate of Applied Science Degree Programs

All certificate and AAS degree programs are designed in cooperation with business, industry and local government to provide current and relevant training to persons seeking to gain or improve job skills and employability. TEC provides certificate programs in three tiers of length and intensity: QuickTrain, XpressTrain and WorkTrain. Each tier is part of the next tier, and the top tier, WorkTrain, is part of an AAS degree. Together, these programs form a ladder of career training.

QuickTrain programs are the shortest in length and focus on one or two specific occupations. These programs average 15 weeks in length at full-time attendance and require that students have at least eighth grade level basic academic skills, as measured by the Test of Adult Basic Education (TABE). QuickTrain program credits are accepted into the next tier of programs, XpressTrain.

XpressTrain programs average 30 weeks in length at full-time attendance and develop skills in several related occupations. These programs require at least ninth grade level basic academic skills as measured by the TABE and credits are accepted into the next tier of programs, WorkTrain.

WorkTrain is the most extensive set of certificate programs and averages 30 to 34 weeks to complete at full-time attendance. These programs cover the skills needed to enter a cluster of occupations or an occupation that requires a high level of training for entry. Basic academic skills at the ninth grade level as measured by the TABE are required. All WorkTrain program credits are accepted into a specific Associates of Applied Science degree program.

The Associates of Applied Science degree programs are the next step in the ladder of career programs at TEC. All WorkTrain program credits plus a general studies core of 25 credits of academic classes comprise this degree. These classes are available at the CCD Auraria campus in each of the three traditional academic semesters, as well as at TEC campuses on a limited basis. At full-time enrollment, these classes require an additional two semesters of work to complete the degree.

General Studies Core courses:

			Credits
ENG	121	English Composition I	3
SPE	115	Principles of Speech	3
MAT	121	College Algebra	4
PSY	101	General Psychology I	3
SOC	101	Introduction to Sociology	3
HUM	121	Survey of Humanities I	3
PHI	111	Introduction to Philosophy	3
PHI	112	Ethics	3
Total			25

Student Performance Objectives for Certificates and Associate of Applied Science Degrees

Students who complete certificates or Associate of Applied Science degrees are able to do:

1. basic and advanced academic skills appropriate to the profession.
 - a. Basic Skills: read, write, compute, speak, and listen.
 - b. Thinking skills: earn, reason, make decisions and solve problems
2. general occupational skills appropriate to the profession.
 - a. Information: acquire and evaluate data, organize and maintain files and use computers to process information.
 - b. Interpersonal: work on teams and with people; teach others,

- serve customers, lead, negotiate; value and work well with and for people from diverse cultures.
 - c. Personal: demonstrate responsibility, self-management, integrity; and personal, professional and social ethics.
 - d. Resources: allocate time, money, materials, space and personnel.
 - e. Systems: understand technological, organizational, and social systems; monitor and correct system performance or design.
 - f. Technology: select equipment and apply technology to specific tasks.
3. specific occupational skills that include all aspects of the profession. These include planning, management, finance, principles of technology, technical skills, labor and community issues, health and safety and environmental issues.

Each certificate and Associate of Applied Science program has identified student performance objectives. These performance objectives are available to students during career planning activities and as part of case management processes. They are collectively bound together for distribution and constitute the college's guarantee to employers. Copies are available in the campus offices of TEC Deans and case managers.

Child Development Services

The infant/toddler/pre-school child development centers at TEC North and TEC West accommodate children from 6 weeks to 6 years of age. Space is limited. Call TEC North, 289-2243, or TEC West, 477-0901, for more information.

Official GED Test Center

TEC North is an official, state-sanctioned GED test center. Testing times are Monday from 8 a.m. to 4 p.m., Tuesday from 8 a.m. to 11:30 a.m., and Thursday from 5 p.m. to 9 p.m. TEC West is a satellite test center with testing on Friday from 8:30 a.m. to 4:30 p.m. TEC East is a satellite test center with testing on Tuesday from 12:30 p.m. to 4:30 p.m. Test fees are \$7 for each of the five GED tests and \$7 for each test re-take. Effective September 1, 1997, all GED tests and re-takes are \$10 each. For information, contact the GED test center at 289-2243.

ASSOCIATE OF APPLIED SCIENCE DEGREE ACCOUNTING Computerized Accounting Specialist

This degree is comprised of the 25 credits defined as the General Education Core, listed earlier in the CCD/TEC Certificate and AAS degree section, and the 39 credits listed below in the WorkTrain Computerized Accounting Specialist certificate program.

COMPUTERIZED ACCOUNTING SPECIALIST CERTIFICATE TEC North, TEC East, TEC West

Computerized accounting specialist is a WorkTrain program designed for completion in two, 17-week semesters. It prepares students with the job entry skills necessary to perform both manual and computerized full-charge bookkeeping activities that include: financial statements, general journals, ledgers, accounts payable and receivable, bank reconciliation, payroll, bad debts, depreciation and inventory. Students gain skills in computerized accounting and payroll applications for per-

sonal computers; MicroSoft Office software that includes Word, Access, Excel and Powerpoint applications; and use of E-mail, the Internet and the World Wide Web. Keyboard skills of 40 words per minute and 10-key skills of 100 strokes per minute are minimum standards for completion. Program graduates are prepared for jobs such as full-charge bookkeeper, computerized accounting clerk, computerized payroll clerk and general office clerk.

The WorkTrain Computerized Accounting Specialist certificate program credits and the previously listed General Education Core credits complete the requirements of the AAS degree in accounting, computerized accounting specialist.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
ACC	101	Fundamentals of Accounting	3	72
ACC	113	Computerized Accounting (Capstone)	4	96
ACC	115	Computerized Payroll	2	48
ACC	121	Accounting Principles I	5	120
BTE	101	Keyboarding I	4	96
BTE	160	Data Entry I	3	72
BTE	200	Office Procedures or	3	72
ACC	297	Co-op. Work Experience	3	135
CIS	111	Introduction to the Internet	2	48
CIS	118	Introduction to Computers	3	72
CIS	120	Microcomputer Word Processors, MS Word	3	78
CIS	135	Graphics Technology, Powerpoint	1	24
CIS	140	Microcomputer Databases, Access	2	48
CIS	150	Electronic Spreadsheets, Excel	2	48
PSY	115	Psychology of Adjustment	2	48
Total			39	936-999

BOOKKEEPER CERTIFICATE

TEC North, TEC East, TEC West

Bookkeeper is an XpressTrain program designed for completion in two, 15-week semesters. It prepares students with the job entry skills necessary to perform bookkeeping activities that include: financial statements, general journals, ledgers, accounts payable and receivable and payroll. Students gain skills in computerized payroll applications and MicroSoft Word and Excel applications. Keyboard skills of 35 words per minute and 10-key skills of 100 strokes per minute are minimum standards for completion. Program graduates are prepared for jobs such as bookkeeper, accounts payable and/or receivable clerk, payroll clerk and general office clerk.

All XpressTrain Bookkeeper certificate program credits apply toward the WorkTrain Computerized Accounting Specialist certificate program requirements.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
ACC	101	Fundamentals of Accounting	3	72
ACC	115	Computerized Payroll	2	48
ACC	121	Accounting Principles I - (Capstone)	5	120
BTE	101	Keyboarding I	4	96
BTE	200	Office Procedures	3	72
		or		
ACC	297	Co-op. Work Experience	3	135
CIS	118	Introduction to Computers	3	72
CIS	120	Microcomputer Word Processors, Word	3	72
CIS	150	Electronic Spreadsheets, Excel	2	48
PSY	115	Psychology of Adjustment	2	48
		Total	27	624-687

PAYROLL CLERK CERTIFICATE

TEC North, TEC East, TEC West

Payroll clerk is a QuickTrain program designed for completion in one, 15-week semester. It prepares students with the job entry skills necessary to perform manual and computerized payroll activities. Students gain skills in computerized payroll applications and MicroSoft Word and Excel applications. Keyboard skills of 20 words per minute and 10-key skills of 100 strokes per minute are minimum standards for completion. Program graduates are prepared for jobs such as payroll clerk and general office clerk.

All QuickTrain Payroll Clerk certificate program credits apply toward the XpressTrain Bookkeeper certificate program requirements.

Program Admission Requirements: Minimum TABE assessment score of 8th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
ACC	101	Fundamentals of Accounting	3	72
ACC	115	Computerized Payroll - (Capstone)	2	48
BTE	101	Keyboarding I	4	96
CIS	118	Introduction to Computers	3	72
CIS	120	Microcomputer Word Processors, Word	3	72
CIS	150	Electronic Spreadsheets, Excel	2	48
		Total	17	408

ASSOCIATE OF APPLIED SCIENCE DEGREE IN BUSINESS ADMINISTRATION

Travel Service Agent

This degree is comprised of the 25 credits defined as the General Education Core, listed earlier in the CCD/TEC Certificate and AAS degree section, and the 36 credits listed below in the WorkTrain Travel Service Agent certificate program.

TRAVEL SERVICE AGENT CERTIFICATE

TEC East

Travel service agent is a WorkTrain program designed for completion in two, 17-week semesters. It prepares students to keyboard at 30 words per minute, input data, use and understand personal computers, use MS Office applications for word processing and database management, use principles of sales and customer service, and use knowledge and skills to provide travel planning services and domestic ticketing using the Apollo reservations system. Program graduates are prepared to enter positions as a travel agent assistant, corporate travel coordinator, airline reservations/sales agent, conservation/collections representative, audit processor, customer relations representative member service representative and quality assurance representative.

The WorkTrain Travel Service Agent certificate program credits and the previously listed General Education Core credits complete the requirements of the AAS degree in Business Administration, travel service agent.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
BTE	101	Keyboarding I	5	120
BTE	160	Data Entry I	3	72
		or		
BTT	297	Co-op. Work Experience	3	135
BTT	110	Introduction to Travel	3	72
BTT	111	Travel Geography I	3	72
BTT	210	Domestic Ticketing	3	72
BTT	212	Computer Reservations I - (Capstone)	3	72
BUS	118	Introduction to Marketing	3	72
BUS	207	Teleservices	3	72
CIS	118	Introduction to Computers	3	72
CIS	120	Microcomputer Word Processors, Word	3	72
CIS	140	Microcomputer Databases, Access	2	48
PSY	115	Psychology of Adjustment	2	48
		Total	36	864-927

CUSTOMER SERVICE SPECIALIST CERTIFICATE

TEC North, TEC East, TEC West

Customer service specialist is an XpressTrain program designed for completion in two, 15-week semesters. It prepares students to keyboard at 30 words per minute, input data, use and understand personal computers, use MS Office applications for word processing and database management, and use principles of sales and customer service. Program graduates are prepared to enter positions such as conservation/collections representative, audit processor, customer relations representative, member service representative and quality assurance representative.

All XpressTrain Customer Service Specialist certificate program credits apply toward the WorkTrain Travel Service Agent certificate program requirements.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
BTE	101	Keyboarding I	5	120
BTE	160	Data Entry I	3	72
		or		
BTT	297	Co-op. Work Experience	3	120
BUS	118	Introduction to Marketing	3	72
BUS	207	Teleservices - (Capstone)	3	72
CIS	118	Introduction to Computers	3	72
CIS	120	Microcomputer Word Processors, Word	3	72
CIS	140	Microcomputer Databases, Access	2	48
PSY	115	Psychology of Adjustment	2	48
Total			24	576-639

CUSTOMER SERVICE REPRESENTATIVE CERTIFICATE

TEC North, TEC East, TEC West

Customer service representative is a QuickTrain program designed for completion in one, 15-week semester. It prepares students to keyboard at 20 words per minute, use and understand personal computers, use Microsoft Word for word processing, and use principles of sales and customer service. Program graduates are prepared to enter positions as customer relations, member service, and quality assurance representatives.

All QuickTrain Customer Service Representative certificate program credits apply toward the XpressTrain Customer Service Specialist certificate program requirements.

Program Admission Requirements: Minimum TABE assessment score of 8th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
BTE	101	Keyboarding I	4	96
BUS	118	Introduction to Marketing	3	72
BUS	207	Teleservices - (Capstone)	3	72
CIS	118	Introduction to Computers	3	72
CIS	120	Microcomputer Word Processors, Word	3	72
Total			16	384

ASSOCIATE OF APPLIED SCIENCE DEGREE IN BUSINESS TECHNOLOGY: OFFICE MANAGEMENT AND SECRETARIAL STUDIES

Office Specialist

This degree is comprised of the 25 credits defined as the General Education Core, listed earlier in the CCD/TEC Certificate and AAS degree section, and the 37 credits listed below in the WorkTrain Office Specialist certificate program.

OFFICE SPECIALIST CERTIFICATE

TEC North, TEC East, TEC West

Office specialist is a WorkTrain program designed for completion in two, 17-week semesters. It prepares students to write business letters, input data, use and understand personal computers, use the Internet, and use MS Office applications for word processing, database management, spreadsheet functions and graphic presentations. Program graduates are prepared to enter positions such as receptionist, data entry clerk, secretary, word processor, office assistant and office specialist.

The WorkTrain Office Specialist certificate program credits and the previously listed General Education Core credits complete the requirements of the AAS degree in Business Technology: office management and secretarial studies, office specialist.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading, mathematics and language skills, or co-enrollment in REA 060, MAT 033, and/or ENG 060.

			Credits	Contacts
BTE	101	Keyboarding I	4	96
BTE	103	Typing Development I	3	72
BTE	160	Data Entry I	3	72
BTE	200	Office Procedures - (Capstone)	3	72
BTE	202	Keyboarding II	3	72
BTE	297	Co-op. Work Experience	3	135
		or		
BUS	218	Business Communications II	3	72
BUS	217	Business Communications	3	72
CIS	111	Introduction to the Internet	2	48
CIS	118	Introduction to Computers	3	72
CIS	120	Microcomputer Word Processors, Word	3	72
CIS	135	Graphics Technology, Powerpoint	1	24
CIS	140	Microcomputer Databases, Access	2	48
CIS	150	Electronic Spreadsheets, Excel	2	48
PSY	115	Psychology of Adjustment	2	48
Total			37	888-951

WORD PROCESSOR CERTIFICATE

TEC North, TEC East, TEC West

Word processor is an XpressTrain program designed for completion in two, 15-week semesters. It prepares students to write business letters, input data, use and understand personal computers and use MicroSoft Word for word processing applications. Program graduates are prepared to enter positions such as receptionist, data entry clerk, secretary and word processor.

All XpressTrain Word Processor certificate program credits apply toward the WorkTrain Office Specialist certificate program requirements.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading, mathematics and language skills, or co-enrollment in REA 060, MAT 033, and/or ENG 060.

			Credits	Contacts
BTE	101	Keyboarding I	4	96
BTE	103	Typing Development I	3	72
BTE	160	Data Entry I	3	72
BTE	200	Office Procedures - (Capstone)	3	72
BTE	202	Keyboarding II	3	72
		or		
BTE	297	Co-op. Work Experience	3	135
BUS	217	Business Communications	3	72
CIS	118	Introduction to Computers	3	72
CIS	120	Microcomputer Word Processors, Word	3	72
PSY	115	Psychology of Adjustment	2	48
	Total		27	648-711

RECEPTIONIST/OFFICE CLERK CERTIFICATE

TEC North, TEC East, TEC West

Receptionist/Office clerk is a QuickTrain program designed for completion in one, 15-week semester. It prepares students to perform general office functions, use and understand personal computers and use MicroSoft Word for word processing applications. Program graduates are prepared to enter positions such as receptionist and office clerk.

All QuickTrain Receptionist/Office Clerk certificate program credits apply toward the XpressTrain Word Processor certificate program requirements.

Program Admission Requirements: Minimum TABE assessment score of 8th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
BTE	101	Keyboarding I	4	96
BTE	103	Typing Development I	3	72
BTE	200	Office Procedures - (Capstone)	3	72
CIS	118	Introduction to Computers	3	72
CIS	120	Microcomputer Word Processors, Word	3	72
	Total		16	384

MICROSOFT OFFICE PRO CERTIFICATE

TEC North, TEC East, TEC West

MicroSoft office pro is a QuickTrain program designed for completion in one, 15-week semester. It prepares students to perform general office functions, use and understand personal computers, and use MS Office applications for word processing, database management and spreadsheet functions. Program graduates are prepared to enter positions such as MicroSoft applications specialist and office clerk.

All QuickTrain MicroSoft Office Pro certificate program credits, except CIS 140 and CIS 150, apply toward the XpressTrain Word Processor certificate program requirements. CIS 140 and CIS 150 apply toward the WorkTrain Office Specialist program.

Program Admission Requirements: Minimum TABE assessment score of 8th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
BTE	101	Keyboarding I	4	96
BTE	200	Office Procedures	3	72
CIS	118	Introduction to Computers	3	72
CIS	120	Microcomputer Word Processors, Word - (Capstone)	3	72
CIS	140	Microcomputer Databases, Access	2	48
CIS	150	Electronic Spreadsheets, Excel	2	48
	Total		17	408

DATA ENTRY CLERK CERTIFICATE

TEC North, TEC East, TEC West

Data entry clerk is a QuickTrain program designed for completion in one, 15-week semester. It prepares students to perform general office functions, input data and use MicroSoft Word for word processing applications. Program graduates are prepared to enter data entry and office clerk positions.

All QuickTrain Data Entry Clerk certificate program credits apply toward the XpressTrain Word Processor certificate program requirements.

Program Admission Requirements: Minimum TABE assessment score of 8th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
BTE	101	Keyboarding I	4	96
BTE	103	Typing Development I	3	72
BTE	160	Data Entry I - (Capstone)	3	72
BTE	200	Office Procedures	3	72
CIS	120	Microcomputer Word Processors, Word	3	72
	Total		16	384

**Associate of Applied Science Degree in Business Technology:
Office Management and Secretarial Studies**

Medical Records Clerk

This degree is comprised of the 25 credits defined as the General Education Core, listed earlier in the CCD/TEC Certificate and AAS degree section, and the 39 credits listed below in the WorkTrain Medical Records Clerk certificate program.

MEDICAL RECORDS CLERK CERTIFICATE

TEC East

Medical records clerk is a WorkTrain program designed for completion in two, 17-week semesters. It prepares students to use MicroSoft Word for word processing, manage medical files, medical coding, prepare admissions and discharge records, and assemble and analyze medical data. Program graduates are prepared to enter medical records clerk positions.

The WorkTrain Medical Records Clerk certificate program credits and the previously listed general studies core credits complete the requirements of the AAS degree in Business Technology: office management and secretarial studies, medical records clerk.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
AHA	152	Medical Office Communications	3	72
AHA	155	The Medical Manager	3	72
AHA	160	Coding I	2	48
AHA	200	Medical Transcription I	4	96
AHA	204	Medical Records I	3	72
AHA	250	Medical Records II - (Capstone)	3	72
AHA	297	Internship Work Experience	2	90
		or		
BTE	104	Typewriting Speedbuilding I	2	48
BTE	101	Keyboarding I	4	96
CIS	120	Microcomputer Word Processors, Word	3	72
PSY	115	Psychology of Adjustment	2	48
THA	110	Medical Terminology I	2	48
THA	111	The Human Body	4	96
THA	112	Social Issues in Health	3	72
THA	114	Medical Emergencies	1	24
		Total	39	936-978

**Associate of Applied Science Degree in Business Technology:
Office Management and Secretarial Studies**

Medical Secretary

This degree is comprised of the 25 credits defined as the General Education Core, listed earlier in the CCD/TEC Certificate and AAS degree section, and the 37 credits listed below in the WorkTrain Medical Secretary certificate program.

MEDICAL SECRETARY CERTIFICATE

TEC East

Medical secretary is a WorkTrain program designed for completion in two, 17-week semesters. It prepares students to use MicroSoft Word for word processing and to prepare various medical office correspondence, papers, forms and data base information and insurance forms. Program graduates are prepared to become medical secretaries.

The WorkTrain Medical Secretary certificate program credits and the previously listed general studies core credits complete the requirements of the AAS degree in Business Technology: Office Management and Secretarial Studies, medical secretary.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
AHA	152	Medical Office Communications	3	72
AHA	155	The Medical Manager	3	72
AHA	200	Medical Transcription I	4	96
AHA	211	Medical Secretary Skills - (Capstone)	4	96
AHA	297	Internship Work Experience	2	90
		or		
BTE	104	Typewriting Speedbuilding I	2	48
BTE	101	Keyboarding I	4	96
BTE	120	Filing and Records Control	2	48
CIS	120	Microcomputer Word Processors, Word	3	72
PSY	115	Psychology Of Adjustment	2	48
THA	110	Medical Terminology I	2	48
THA	111	The Human Body	4	96
THA	112	Social Issues in Health	3	72
THA	114	Medical Emergencies	1	24
		Total	37	888-930

**Associate of Applied Science Degree in Business Technology:
Office Management and Secretarial Studies**

Medical Transcriptionist

This degree is comprised of the 25 credits defined as the General Education Core, listed earlier in the CCD/TEC Certificate and AAS degree section, and the 39 credits listed below in the WorkTrain Medical Transcriptionist certificate program.

MEDICAL TRANSCRIPTIONIST CERTIFICATE

TEC East

Medical transcriptionist is a WorkTrain program designed for completion in two, 17-week semesters. It prepares students to use MicroSoft Word for word processing and medical coding, to prepare insurance billings, and to transcribe general, medical, surgical and radiological data. Program graduates are prepared to enter medical transcriptionist positions.

The WorkTrain Medical Transcriptionist certificate program credits and the previously listed general studies core credits complete the requirements of the AAS degree in Business Technology: Office Management and Secretarial Studies, medical transcriptionist.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
AHA	152	Medical Office Communications	3	72
AHA	155	The Medical Manager	3	72
AHA	156	Basic Coding	2	48
AHA	200	Medical Transcription I	4	96
AHA	207	Medical Transcription II - (Capstone)	6	144
AHA	297	Internship Work Experience	2	90
		or		
BTE	104	Typewriting Speedbuilding I	2	48
BTE	101	Keyboarding I	4	96
CIS	120	Microcomputer Word Processors, Word	3	72
PSY	115	Psychology of Adjustment	2	48
THA	110	Medical Terminology I	2	48
THA	111	The Human Body	4	96
THA	112	Social Issues in Health	3	72
THA	114	Medical Emergencies	1	24
	Total		39	936-978

**Associate of Applied Science Degree in Business Technology:
Office Management and Secretarial Studies**

MEDICAL UNIT COORDINATOR

This degree is comprised of the 25 credits defined as the General Education Core, listed earlier in the CCD/TEC Certificate and AAS degree section, and the 38 credits listed below in the WorkTrain Medical Unit Coordinator certificate program.

MEDICAL UNIT COORDINATOR CERTIFICATE

TEC East

Medical unit coordinator is a WorkTrain program designed for completion in two, 17-week semesters. It prepares students to use MicroSoft Word for word processing, organize non-clinical functions of the nursing unit, provide liaison between physicians, nurses, patients, family members and other departments and plan/coordinate the daily activities of the nursing unit. Program graduates are prepared to enter medical unit coordinator positions.

The WorkTrain Medical Unit Coordinator certificate program credits and the previously listed general studies core credits complete the requirements of the AAS degree in Business Technology: Office Management and Secretarial Studies, medical unit coordinator.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
AHA	152	Medical Office Communications	3	72
AHA	155	The Medical Manager	3	72
AHA	158	Medical Unit Coordinator I		44
AHA	209	Medical Unit Coordinator II - (Capstone)	5	120
AHA	297	Internship Work Experience	2	90
		or		
BTE	104	Typewriting Speedbuilding I	2	48
BTE	101	Keyboarding I	4	96
CIS	120	Microcomputer Word Processors, Word	3	72
PSY	115	Psychology of Adjustment	2	48
THA	110	Medical Terminology I	2	48
THA	111	The Human Body	4	96
THA	112	Social Issues in Health	3	72
THA	114	Medical Emergencies	1	24
	Total		38	912-954

MEDICAL CLERK

TEC East

Medical clerk is an XpressTrain program designed for completion in two, 15-week semesters. It prepares students to use MicroSoft Word for word processing, to prepare basic medical office papers and forms, and to process office files and records. Program graduates are prepared to enter positions as medical clerks.

All XpressTrain Medical Clerk certificate program credits apply toward the WorkTrain Medical Secretary certificate program requirements; all but BTE 120 transfer to Medical Records Clerk, Medical Transcriptionist and Medical Unit Coordinator programs.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
AHA	155	The Medical Manager - (Capstone)	3	72
AHA	297	Internship Work Experience	2	90
		or		
BTE	104	Typewriting Speedbuilding I	2	48
BTE	101	Keyboarding I	4	96

BTE	120	Filing and Records Control	2	48
CIS	120	Microcomputer Word Processors, Word	3	72
PSY	115	Psychology of Adjustment	2	48
THA	110	Medical Terminology I	2	48
THA	111	The Human Body	4	96
THA	112	Social Issues in Health	3	72
THA	114	Medical Emergencies	1	24
Total			26	624-642

**Associate of Applied Science Degree in Business Technology:
Office Management and Secretarial Studies**

Comprehensive Medical Assistant

This degree is comprised of the 25 credits defined as the General Education Core, listed earlier in the CCD/TEC Certificate and AAS degree section, and the 48 credits listed below in the WorkTrain Comprehensive Medical Assistant certificate program.

COMPREHENSIVE MEDICAL ASSISTANT CERTIFICATE

TEC East

Comprehensive medical assistant is a WorkTrain program designed for completion in three, 15-week semesters. It is a nationally certified program. It prepares students to perform front office tasks such as insurance forms, office appointments, and ICD-9 and CPT coding. Students also are prepared in back office tasks such as conducting patient evaluations, taking and recording clinical measurements, giving injections and providing other patient treatments.

This program is nationally certified by the American Association of Medical Assisting through which graduates can obtain certification status by examination. Program graduates are prepared to enter positions such as certified medical assistants and medical assistants.

The WorkTrain Comprehensive Medical Assistant certificate program credits and the previously listed general studies core credits complete the requirements of the AAS degree in Business Technology: office management and secretarial studies, comprehensive medical assistant.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
AHA	152	Medical Office Communications	3	72
AHA	155	Medical Manager	2	48
AHA	156	Basic Coding	2	48
AHA	211	Medical Secretary Skills	4	96
BTE	102	Basic Keyboarding Applications	3	72
PSY	115	Psychology of Adjustment	2	48
THA	110	Medical Terminology I	2	48
THA	111	The Human Body	4	96
THA	112	Social Issues in Health	3	72
THA	114	Medical Emergencies	1	24
THA	151	Technical Procedures	3	72
THA	153	Medical Terminology II	2	48
THA	205	Pharmacology Practices	4	96

THA	212	Internship Seminar	1	24
THA	230	Clinical Procedures	8	192
THA	297	Internship Work Experience (Capstone)	4	180
Total			48	1236

**Associate of Applied Science Degree in Business Technology:
Office Management and Secretarial Studies**

Clinical Medical Assistant

This degree is comprised of the 25 credits defined as the General Education Core, listed earlier in the CCD/TEC Certificate and AAS degree section, and the 37 credits listed below in the WorkTrain Clinical Medical Assistant certificate program.

CLINICAL MEDICAL ASSISTANT CERTIFICATE

TEC East

Clinical medical assistant is a WorkTrain program designed for completion in two, 17-week semesters. It prepares students to conduct patient evaluations, take and record clinical measurements, give injections and provide other patient treatments. Program graduates are eligible to take the Certified Medical Assistant examination and are prepared to enter positions such as clinical medical assistants and medical assistants.

The WorkTrain Clinical Medical Assistant certificate program credits and the previously listed general studies core credits complete the requirements of the AAS degree in Business Technology: Office Management and Secretarial Studies, clinical medical assistant.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
BTE	102	Basic Keyboarding Applications	3	72
PSY	115	Psychology of Adjustment	2	48
THA	110	Medical Terminology I	2	48
THA	111	The Human Body	4	96
THA	112	Social Issues in Health	3	72
THA	114	Medical Emergencies	1	24
THA	151	Technical Procedures	3	72
THA	153	Medical Terminology II	2	48
THA	205	Pharmacology Practices	4	96
THA	212	Internship Seminar	1	24
THA	230	Clinical Procedures	8	192
THA	297	Internship Work Experience (Capstone)	4	180
Total			37	972

**Associate of Applied Science Degree in Business Technology:
Office Management and Secretarial Studies**

Radiology/Orthopedic Assistant

This degree is comprised of the 25 credits defined as the General Education Core, listed earlier in the CCD/TEC Certificate and AAS degree section, and the 37 credits listed below in the WorkTrain Radiology/Orthopedic Assistant certificate program.

RADIOLOGY/ORTHOPEDIC ASSISTANT CERTIFICATE

TEC East

Radiology/Orthopedic assistant is a WorkTrain program designed for completion in two, 17-week semesters. It prepares students to conduct patient evaluations, take and record clinical measurements, assist in radiological procedures, process radiological film and assist in orthopedic procedures. Program graduates are prepared to enter positions as radiology assistants and orthopedic technicians.

The WorkTrain Radiology/Orthopedic Assistant certificate program credits and the previously listed general studies core credits complete the requirements of the AAS degree in Business Technology: Office Management and Secretarial Studies, radiology/orthopedic assistant.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
BTE	102	Basic Keyboarding Applications	3	72
PSY	115	Psychology of Adjustment	2	48
THA	110	Medical Terminology I	2	48
THA	111	The Human Body	4	96
THA	112	Social Issues in Health	3	72
THA	114	Medical Emergencies	1	24
THA	151	Technical Procedures	3	72
THA	153	Medical Terminology II	2	48
THA	210	Radiology Assisting	6	144
THA	212	Internship Seminar	1	24
THA	220	Orthopedic Technology	6	144
THA	297	Internship Work Experience - (Capstone)	4	180
Total			37	972

NURSE ASSISTANT CERTIFICATE

TEC East

Nurse assistant is an XpressTrain program designed for completion in two, 15-week semesters. It prepares students to use medical terminology, adhere to health care standards, use CPR and first-aid procedures and provide patient services in a professional manner. This program is approved by the State Board of Nursing, and graduates are eligible to take the examination for certified nurse aide. Program graduates are prepared to enter positions as nurse assistants, patient care providers, nurse aides and home health aides.

All XpressTrain Nurse Assistant certificate program credits, except NUR 100, apply toward the WorkTrain Comprehensive Medical Assistant, Clinical Medical Assistant and Radiology/Orthopedic Assistant program requirements.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
NUR	100	Nurse Aide Practices and Concepts	9	216
PSY	115	Psychology of Adjustment	2	48
THA	110	Medical Terminology I	2	48
THA	111	The Human Body	4	96
THA	112	Social Issues in Health	3	72
THA	114	Medical Emergencies	1	24
THA	212	Internship Seminar	1	24
THA	297	Internship Work Experience (Capstone)	3	135
Total			25	663

NURSE AIDE CERTIFICATE

TEC East

Nurse aide is a QuickTrain program designed for completion in one, 15-week semester. It prepares students to use medical terminology, adhere to health care standards, use CPR and first-aid procedures and provide patient services in a professional manner. This program is approved by the State Board of Nursing and graduates are eligible to take the examination for certified nurse aide. Program graduates are prepared to become nurse and home health aides.

All QuickTrain Nurse Aide certificate program credits apply toward the XpressTrain Nurse Assistant certificate program requirements.

Program Admission Requirements: Minimum TABE assessment score of 8th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
NUR	100	Nurse Aide Practices and Concepts	9	216
THA	110	Medical Terminology I	2	48
THA	114	Medical Emergencies	1	24
THA	212	Internship Seminar	1	24
THA	297	Internship Work Experience (Capstone)	3	135
Total			16	447

ASSOCIATE OF APPLIED SCIENCE DEGREE IN COMPUTER INFORMATION SYSTEMS

PC Network Specialist

This degree is comprised of the 25 credits defined as the General Education Core, listed earlier in the CCD/TEC Certificate and AAS degree section, and the 37 credits listed below in the WorkTrain PC Network Specialist certificate program.

PC NETWORK SPECIALIST CERTIFICATE

TEC North

PC network specialist is a WorkTrain program designed for completion in two, 17-week semesters. It prepares students with the job entry skills necessary to install PC applications; use E-mail, the Internet and the World Wide Web; use BASIC and Visual Basic programming; perform minor PC repairs and install PC upgrades; and set up and manage 3x Novell and Windows NT LANs and connecting equipment. Program graduates are prepared to enter positions as PC network and PC support specialists.

The WorkTrain PC Network Specialist certificate program credits and the previously listed General Studies Core credits complete the requirements of the AAS degree in Computer Information Systems, PC network specialist.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
BTE	102	Basic Keyboarding Applications	2	48
CIS	111	Introduction to the Internet	2	48
CIS	118	Introduction to Computers	3	72
CIS	119	Introduction to Programming	3	72
CIS	138	Microcomputer Interfaces, Windows 95	3	72
CIS	178	Visual Basic with Windows	3	72
CIS	216	Microcomputer Hardware	3	72
CIS	226	Computer Diagnosis and Repair	3	72
CIS	254	Networks: Windows NT Client (Capstone)	4	96
CIS	256	Networks: Novell 3x Administration	3	72
CIS	275	Telecommunications	3	72
		or		
CIS	297	Co-op. Work Experience	3	135
CIS	283	Networks: Windows NT Server	3	72
PSY	115	Psychology of Adjustment	2	48
		Total	37	888-951

Associate of Applied Science Degree in Computer Information Systems

PC APPLICATIONS SPECIALIST

This degree is comprised of the 25 credits defined as the General Education Core, listed earlier in the CCD/TEC Certificate and AAS degree section, and the 36 credits listed below in the WorkTrain PC Applications Specialist certificate program.

PC APPLICATIONS SPECIALIST CERTIFICATE

TEC North, TEC East, TEC West

PC applications specialist is a WorkTrain program designed for completion in two, 17-week semesters. It prepares students with the job entry skills necessary to install PC applications; use and instruct others to use MicroSoft Office software that includes Word, Access, Excel and Powerpoint applications; use E-mail, the Internet, the World Wide Web and develop home pages; use BASIC programming; use multimedia authorware; and perform minor PC repairs and install PC upgrades. Program graduates are prepared to enter positions such as PC applications/support specialists, PC help desk specialists and netscape/WWW developers.

The WorkTrain PC Applications Specialist certificate program credits and the previously listed General Studies Core credits complete the requirements of the AAS degree in Computer Information Systems, PC applications specialist.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
BTE	102	Basic Keyboard Applications	2	48
CIS	111	Introduction to the Internet	2	48
CIS	118	Introduction to Computers	3	72
CIS	119	Introduction to Programming	3	72
CIS	120	Microcomputer Word Processors, Word	3	72
CIS	135	Graphics Technology, Powerpoint	1	24
CIS	138	Microcomputer Interfaces, Windows 95	3	72
CIS	139	Integration Software - (Capstone)	4	96
CIS	140	Microcomputer Databases, Access	2	48
CIS	150	Electronic Spreadsheets, Excel	2	48
CIS	206	Introduction to Multimedia Technology	3	72
		or		
CIS	297	Co-op. Work Experience	3	135
CIS	216	Microcomputer Hardware	3	72
CIS	226	Computer Diagnosis and Repair	3	72
PSY	115	Psychology of Adjustment	2	48
		Total	36	864-927

EARLY CHILDHOOD EDUCATOR/GROUP LEADER CERTIFICATE

TEC West

Early childhood educator/group leader is a QuickTrain program designed for completion in one, 15-week semester. It prepares students to perform group leader duties for infants and toddlers, or for pre-school children. Program graduates are prepared to enter positions as child care group leader and child care worker.

The next program level in this career ladder is available at the CCD Auraria Campus and not at TEC. This is the Early Childhood Educator/Director certificate program. All credits from the QuickTrain Early Childhood Educator/Group Leader program are accepted into this certificate program. The Associate of Applied Science degree at Auraria is the Early Childhood Education and Management program. See the earlier CCD Auraria sections for specific program requirements and design.

Program Admission Requirements: Minimum TABE assessment score of 8th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
ECE	101	Introduction to Early Childhood Education	3	72
ECE	102	ECE Lab Experience	3	72
ECE	111	Infants and Toddlers: Developmental Theories and Practices or	3	72
ECE	117	Methods/Techniques: Curriculum Development	3	72
ECE	120	Classroom Management	3	72
ECE	238	Child Development and Growth (Capstone)	4	96
Total			16	384

SPECIAL EDUCATION PARAPROFESSIONAL CERTIFICATE

TEC North

Special education paraprofessional is an XpressTrain program designed for completion in two, 15-week semesters. It prepares students to provide services to special populations and their parents in a public school or agency environment. Working under the direct supervision of a certified teacher or other professional, the special education paraprofessional communicates with, provides supervision to, delivers direct instruction and other services to, provides emergency first-aid to and is sensitive to the needs of special education populations. Program graduates are prepared to enter positions such as special education paraprofessionals, special education aides and teachers aides. Employment often requires a Colorado Bureau of Investigation background check.

The next step in this career ladder is not at TEC. HSE 110, HSE 114 and HSE 297 are accepted into the Associate of Applied Science degree in Human Services on the Auraria Campus.

Program Admission Requirements: Minimum TABE assessment score of 8th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
HSE	110	Overview of Special Populations	3	72
HSE	111	Communication Skills/ Special Populations	3	72
HSE	112	First-aid/CPR	1	24
HSE	114	Student Supervision/Behavior Management	3	72
HSE	141	Basic Instructional Techniques	3	72
HSE	142	Transitional Support Skills	3	72
HSE	217	Cultural Diversity in Human Services	3	72
HSE	297	Internship Work Experience (Capstone)	6	270
PSY	115	Psychology of Adjustment	2	48
Total			27	774

SPECIAL EDUCATION AIDE CERTIFICATE

TEC North

Special education aide is a QuickTrain program designed for completion in one, 15-week semester. It prepares students to provide services to special populations and their parents in a public school or agency environment. Working under the direct supervision of a certified teacher or other professional, the special education aide communicates with, provides supervision to, delivers direct instruction to and provides emergency first-aid to special education populations. Program graduates are prepared to enter positions as special education aide and teachers aide.

All QuickTrain Special Education Aide certificate program credits apply toward the XpressTrain Special Education Paraprofessional certificate program requirements.

Program Admission Requirements: Minimum TABE assessment score of 8th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

			Credits	Contacts
HSE	110	Overview of Special Populations	3	72
HSE	111	Communication Skills/Special Populations	3	72
HSE	112	First-aid/CPR	1	24
HSE	114	Student Supervision/Behavior Management	3	72
HSE	141	Basic Instructional Techniques	3	72
HSE	297	Internship Work Experience (Capstone)	3	135
Total			16	447

ASSOCIATE OF APPLIED SCIENCE DEGREE IN TRADES

CNC Machine Tool Operator

This degree is comprised of the 25 credits defined as the General Education Core, listed earlier in the CCD/TEC Certificate and AAS degree section, and the 40 credits listed below in the WorkTrain CNC Machine Tool Operator certificate program.

CNC MACHINE TOOL OPERATOR CERTIFICATE

TEC North

CNC machine tool operator is a WorkTrain program designed for completion in two, 17-week semesters. It prepares students with the job entry skills necessary to perform most operations on the vertical mill, horizontal mill, lathe, grinder/shaper, CNC mill and CNC lathe. Program graduates are prepared to enter positions such as CNC machine tool operators or can enter apprentice programs for CNC machinists.

The WorkTrain CNC Machine Tool Operator certificate program credits and the previously listed general studies core credits complete the requirements of the AAS degree in Trades, CNC machine tool operator.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

		Credits	Contacts
MTO 130	Introduction to Machine Shop	1	24
MTO 131	Machine Math and Prints I	3	72
MTO 132	Vertical Mills I	4	96
MTO 133	Engine Lathes I	4	96
MTO 140	Metrology	2	48
MTO 141	Vertical Mills II	4	96
MTO 142	Machine Math and Prints II	2	48
MTO 143	Engine Lathes II	4	96
MTO 221	Engine Lathes III	4	96
MTO 223	Job Shop Machining I	3	72
	or		
MTO 297	Co-op. Work Experience	3	135
MTO 250	Auto Cad I	3	72
MTO 251	CNC Operations (Capstone)	2	48
MTO 252	CNC Principles	2	48
MTO 253	CNC Mathematics I	2	48
Total		40	960-1023

MACHINE TOOL OPERATOR CERTIFICATE

TEC North

Machine tool operator is an XpressTrain program designed for completion in two, 15-week semesters. It prepares students with the job entry skills necessary to perform most operations on the vertical mill, horizontal mill, lathe, and grinder/shaper. Program graduates are prepared to enter positions such as machine tool operators or enter apprentice programs for machinists.

All XpressTrain Machine Tool operator certificate program credits apply toward the WorkTrain CNC Machine Tool Operator program requirements.

Program Admission Requirements: Minimum TABE assessment score of 9th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

		Credits	Contacts
MTO 130	Introduction to Machine Shop	1	24
MTO 131	Machine Math and Prints I	3	72
MTO 132	Vertical Mills I	4	96
MTO 133	Engine Lathes I	4	96
MTO 140	Metrology	2	48
MTO 141	Vertical Mills II	4	96
MTO 143	Engine Lathes II - (Capstone)	4	96
MTO 223	Job Shop Machining I	3	72
	or		
MTO 297	Co-op. Work Experience	3	135
Total		25	600-663

LATHE OPERATOR CERTIFICATE

TEC North

Lathe operator is a QuickTrain program designed for completion in one, 15-week semester. It prepares students with the job entry skills necessary to perform most operations on the lathe. Program graduates are prepared to enter positions as lathe operators.

All QuickTrain Lathe Operator certificate program credits apply toward the XpressTrain Machine Tool Operator certificate program requirements.

Program Admission Requirements: Minimum TABE assessment score of 8th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

		Credits	Contacts
MTO 130	Introduction to Machine Shop	1	24
MTO 131	Machine Math and Prints I	3	72
MTO 133	Engine Lathes I	4	96
MTO 140	Metrology	2	48
MTO 143	Engine Lathes II	4	96
MTO 223	Job Shop Machining I (Capstone)	3	72
Total		17	408

MILL OPERATOR CERTIFICATE

TEC North

Mill operator is a QuickTrain program designed for completion in one, 15-week semester. It prepares students with the job entry skills necessary to perform most operations on mills. Program graduates are prepared to enter positions as mill operators.

All QuickTrain Mill Operator certificate program credits apply towards the XpressTrain Machine Tool Operator certificate program requirements.

Program Admission Requirements: Minimum TABE assessment score of 8th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

		Credits	Contacts
MTO 130	Introduction to Machine Shop	1	24
MTO 131	Machine Math and Prints I	3	72
MTO 132	Vertical Mills I	4	96
MTO 140	Metrology	2	48
MTO 141	Vertical Mills II	4	96
MTO 223	Job Shop Machining I (Capstone)	3	72
Total		17	408

Associate of Applied Science Degree in Trades

Fabrication Welder

This degree is comprised of the 25 credits defined as the General Education Core, listed earlier in the CCD/TEC Certificate and AAS degree section, and the 39 credits listed below in the WorkTrain Fabrication Welder certificate program.

FABRICATION WELDER CERTIFICATE

TEC North

Fabrication welder is a WorkTrain program designed for completion in two, 17-week semesters. It prepares students with the job entry skills necessary to perform most operations in oxyacetylene welding, shielded metal arc welding, gas metal arc welding and gas tungsten arc welding on materials that range from heavy plate to thin gauge sheet metals and are composed of various steels and aluminum. Program graduates are prepared to enter positions such as arc welders, plate welders, industrial welders, production welders, fabrication welders, TIG or MIG welders, or construction welders.

The WorkTrain Fabrication certificate program credits and the previously listed General Studies Core credits complete the requirements of the AAS degree in Trades, fabrication welder.

Program Admission Requirements: Minimum TABE assessment score of 8th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

		Credits	Contacts
WEF 100	Oxyacetylene Welding I	3	72
WEF 102	Air Arc Gouging	2	48
	or		
WEF 297	Co-op. Work Experience	2	90
WEF 108	SMAW Set Up and Padding	4	96
WEF 109	SMAW I	4	96
WEF 110	SMAW II	4	96
WEF 111	SMAW Structural I	4	96
WEF 112	SMAW Structural II	3	72
WEF 114	Welding Math and Prints I	3	72
WEF 130	GMAW Set Up	2	48

WEF 205	GMAW Thin Gauge and Structural	4	96
WEF 207	GTAW Set Up	2	48
WEF 208	GTAW Thin Gauge and Alloy (Capstone)	4	96
Total		39	936-978

ARC WELDER CERTIFICATE

TEC North

Arc welder is an XpressTrain program designed for completion in two, 15-week semesters. It prepares students with the job entry skills necessary to perform most operations in oxyacetylene welding and shielded metal arc welding on various sizes of steel materials. Program graduates are prepared to enter positions such as arc welders, plate welders and construction welders.

All XpressTrain Arc Welder certificate program credits apply toward the WorkTrain Fabrication Welder program requirements.

Program Admission Requirements: Minimum TABE assessment score of 8th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

		Credits	Contacts
WEF 100	Oxyacetylene Welding I	3	72
WEF 102	Air Arc Gouging	2	48
	or		
WEF 297	Co-op. Work Experience	2	90
WEF 108	SMAW Set Up and Padding	4	96
WEF 109	SMAW I	4	96
WEF 110	SMAW II	4	96
WEF 111	SMAW Structural I	4	96
WEF 112	SMAW Structural II (Capstone)	3	72
WEF 114	Welding Math and Prints I	3	72
Total		27	648-690

WELDER CERTIFICATE

TEC North

Welder is a QuickTrain program designed for completion in one, 15-week semester. It prepares students with job entry skills necessary to perform most operations in shielded metal arc welding on common sizes of steel materials. Program graduates are prepared to enter positions such as welder or arc welder.

All QuickTrain Welder certificate program credits apply toward the XpressTrain Arc Welder certificate program requirements.

Program Admission Requirements: Minimum TABE assessment score of 8th grade on reading and mathematics, or co-enrollment in REA 060 and/or MAT 033.

		Credits	Contacts
WEF 108	SMAW Set Up and Padding	4	96
WEF 109	SMAW I	4	96
WEF 110	SMAW II	4	96
WEF 111	SMAW Structural I (Capstone)	4	96
Total		16	384

COURSE DESCRIPTIONS

course descriptions

Course descriptions are listed in alphabetical order by prefix and course number. Please refer to the semester class schedules for the list of courses offered each semester.

Alternative Delivery Methods

Courses delivered through traditional methods often are delivered also through alternative methods, such as telecourses or "on-line" courses. The course delivered through alternative methods uses the identical content guide, requires the identical student outcomes and awards the identical student credit hours as the same course delivered through traditional methods.

Study Abroad

Course credits are based on the type of instructional delivery and must meet the same criteria as courses delivered on campus.

Course Modifications

The courses listed in the following pages are an indication of college course offerings. Courses and programs are subject to modification at any time. Not all courses are offered every semester.

Courses Common to More Than One Program

085 Recitation

Variable Credit

Designed for students with limited science or mathematics background. Provides opportunities for the student to practice study skills and strategies for learning biology, chemistry, mathematics and physics.

290 Special Topics Course

Carries 1 to 6 credits and 15 to 90 contact hours. Course titles (topics) will vary. Permission of the instructor and division director is required prior to registration. Four-year institutions vary in their policies regarding acceptance of special topics courses. Students planning to transfer should keep a portfolio of their work.

295 Job Search Workshop

Variable Credit

Presents information on the nature of work, employer expectations, resumé writing, job interview techniques and job search skills.

297 Cooperative Education (Co-op.)

Provides opportunities to supplement course work with practical work experiences related to the student's educational program and occupational objective. Credit and contact hours are variable. Permission of the instructor/coordinator and the cooperative job supervisor is required. Four-year institutions vary in their policies regarding acceptance of cooperative education credit. Students who plan to transfer should consult an advisor.

199, 299 Independent Study

Variable credit and contact hours.

Students contract with a faculty member for a program-related, independent project not covered by existing curriculum. Each credit hour assigned corresponds to a plan for a minimum of 30, 50-minute hours of student time. Permission of the faculty and division dean is required prior to registration. Students planning to transfer should consult with an advisor; four-year institutions vary in their policies regarding acceptance of independent study. Students with fewer than 30 college-level credits take 199. Students with more than 30 college-level credits take 299.

Accounting

ACC 101 Fundamentals of Accounting

3 Credit Hours/45 Contact Hours

Emphasizes the basic elements of the accounting cycle through statement preparation. Includes common bookkeeping procedures for handling cash receipts and disbursements and working with accounts receivable and payable. Includes practice in handling journals and ledgers.

ACC 110 Business Math

3 Credit Hours/45 Contact Hours

Prerequisite: MAT 035 or equivalent

Emphasizes the application of math to business situations. Teaches problem-solving techniques in areas of merchandising, accounting, general business and personal finance.

ACC 111 Individual Income Tax

3 Credit Hours/45 Contact Hours

Prerequisite: ACC 121

Introduces taxation and explains how the income tax affects individuals.

ACC 113 Computerized Accounting

4 Credit Hours/68 Contact Hours

Prerequisite: ACC 101

Corequisite: ACC 121

Introduces data entry procedures on the computer for accounting applications. Includes a review of manual procedures with extensive hands-on experience with computerized accounting systems. This course is the certificate capstone course.

ACC 115 Computerized Payroll

2 Credit Hours/30 Contact Hours

Provides the student with a better understanding of the laws governing payroll and the theory and procedures for setting up payroll systems.

ACC 121 Accounting Principles I

4-5 Credit Hours/60-120 Contact Hours

Corequisite: ACC 110 or equivalent

Introduces the study of accounting principles to give the student an understanding of the theory and logic that underlie procedures and practices.

ACC 122 Accounting Principles II

4-5 Credit Hours/60-120 Contact Hours

Prerequisites: ACC 121, 110

Introduces the study of partnership and corporate accounting systems and issues. Provides an overview of financial statement analysis, manufacturing cost control, and management planning and budgeting techniques.

ACC 211 Intermediate Accounting (Capstone)

3 Credit Hours/45 Contact Hours

Prerequisite: ACC 122

Studies the asset valuation process. Acquaints students with the historical, conceptual and pragmatic dimension of a wide range of major accounting issues that are integral to the development of balance sheets, income statements and statements of changes in financial positions for the complex organization. This is a capstone course.

ACC 215 Accounting Systems

3 Credit Hours/45 Contact Hours

Prerequisite: ACC 122

Studies the principles, concepts and tools used in the design, implementation and integration of accounting systems, controls and procedures. Illustrates manual and computerized systems through practical application projects.

ACC 226 Cost Accounting

3 Credit Hours/45 Contact Hours

Prerequisite: ACC 122

Introduces the theory, concept and procedures of cost accounting. Gives students a basic understanding of managerial and cost accounting systems used in manufacturing businesses.

ACC 251 BPI Computer Accounting

5 Credit Hours/120 Contact Hours

Prerequisite: ACC 121

Introduces the student to computerized accounting systems. Reviews manual accounting procedures and applies the theory of computerized accounting techniques to a hypothetical business. Students will create work sheets and complete a business project.

Administrative Health Assistant**AHA 152 Medical Office Communication**

3 Credit Hours/72 Contact Hours

Develops the skills of expression of ideas when speaking and writing; addresses listening skills and improves awareness of correct speech patterns and listening for incorrect grammar usage; and introduces beginning medical filing with an emphasis placed on alphabetic and numeric methods.

AHA 155 The Medical Manager

3 Credit Hours/72 Contact Hours

Prerequisites: BTE 101, CIS 120, THA 114

Uses the software package titled Medical Manager to explore activities such as making appointments, entering patient information, recording superbills, billing insurance companies and posting receipts of payments. Also covers regulations governing insurance billing.

AHA 156 Basic Coding

2 Credit Hours/48 Contact Hours

Prerequisites: BTE 101, CIS 120, THA 114

Introduces the basic coding principles for using the International Classification of Diseases, 9th Revisions, Clinical Modifications (ICD-9-CM), as well as some special coding situations. The student also will be introduced to procedure codes through the Current Procedural Terminology (CPT).

AHA 158 Medical Unit Coordinating I

6 Credit Hours/144 Contact Hours

Prerequisites: BTE 101, CIS 120, THA 114

Introduces the history, growth and development of medical unit coordinating and provides an orientation to the work environment. Includes the knowledge and skills necessary to perform the coordination duties needed in a medical facility, including safety for patients and others, transcription of doctors' orders and other medical tasks as required.

AHA 160 Coding I

2 Credit Hours/48 Contact Hours

Prerequisites: BTE 101, CIS 120, THA 114

Introduces the basic rules and principles of medical coding, using International Classification of Diseases (ICD-9-CM) formats and conventions, including V Codes and E Codes. Also introduces procedural codes through the Current Procedural Terminology (CPT).

AHA 200 Medical Transcription I

Prerequisites: BTE 101, CIS 120, THA 114

4 Credit Hours/96 Contact Hours

Introduces the use of transcription equipment, principles of grammar, proofreading and word processing skills. Provides practice in transcribing history and physical reports, discharge summaries and other reports used in common medical procedures.

AHA 204 Medical Records I

3 Credit Hours/72 Contact Hours

Prerequisites: BTE 101, CIS 120, THA 114

Explores the development and content of the hospital medical record, medical records for ambulatory care, long-term care and mental health. Management of record content, medical forms and filing methods also are presented.

AHA 207 Medical Transcription II

6 Credit Hours/144 Contact Hours

Prerequisites: AHA 200

Continues the topics of Medical Transcription I and introduces advanced terminology and technical reports. Specialty areas of surgery, radiology and general reports are covered. Practice tapes contain various medical background noise and use dictators with foreign accents.

AHA 209 Medical Unit Coordinating II

5 Credit Hours/120 Contact Hours

Prerequisites: AHA 158

Continues the topics of AHA 158, Medical Unit Coordinating I and includes laboratory orders, diagnostic orders, treatment orders, miscellaneous orders, health unit coordinator procedures, management techniques, communications and medical/legal considerations.

AHA 210 Pharmacology

2 Credit Hours/48 Contact Hours

Provides an overview of medication measurement, regulation forms, classifications, dosage parameters, safety and routes of administration.

AHA 211 Medical Secretarial Skills

4 Credit Hours/96 Contact Hours

Prerequisites: AHA 152, 155, 200

Covers secretarial topics such as record-keeping duties, bank reconciliation, accounting terminology and basic accounting practices. Types of mailing procedures, basic insurance filing and making referral appointments also are presented.

AHA 250 Medical Records II

3 Credit Hours/72 Contact Hours

Prerequisites: AHA 200

Continues the topics of AHA 204, Medical Records I and presents indexes, registers, statistics, medical records in reimbursement, computer and information systems, legal aspects and quality assurance.

Anthropology**ANT 101 Cultural Anthropology**

3 Credit Hours/45 Contact Hours

Studies human cultural patterns and learned behavior. Includes linguistics, social and political organization, religion, culture and personality, culture change and applied anthropology.

ANT 107 Introduction to Archaeology

3 Credit Hours/45 Contact Hours

Surveys the recovery of human prehistoric and historic past through excavation, analysis and interpretation of material remains, including the archaeology and prehistory of several areas of the world. Covers the work of archaeologists along with discussions of major theories and excavations.

ANT 111 Physical Anthropology

3 Credit Hours/45 Contact Hours

Studies human biology and its effects on behavior. Includes principles of genetics and evolution, vertebrates and primates, human origins, human variations and ecology.

Appliance Repair Technology**APT 218 Automatic Washers I**

3 Credit Hours/68 Contact Hours

Prerequisites: RAC 116 or equivalent experiences

Examines control devices and the electrical circuits common to most automatic washers and the methods of troubleshooting electrical circuits.

APT 219 Clothes Dryers I

3 Credit Hours/68 Contact Hours

Prerequisites: RAC 116 or equivalent experiences

Examines circuits, control devices, diagnostic and repair procedures on various makes of automatic electric clothes dryers.

APT 220 Kitchen Equipment I

3 Credit Hours/68 Contact Hours

Prerequisites: RAC 116 or equivalent experiences

Examines the repair of automatic dishwashers and disposals.

APT 225 Refrigerators and Freezers I

3 Credit Hours/68 Contact Hours

Prerequisites: RAC 116 or equivalent experiences

Presents the procedures for the repair of various makes and models of upright refrigerator/freezers and chest freezers.

APT 226 Room Air Conditioners (Certificate Capstone)

3 Credit Hours/68 Contact Hours

Prerequisites: RAC 116 or equivalent experiences

Presents circuits, control devices, diagnostic and repair procedures on various makes of room air conditioners.

APT 228 Clothes Dryers II

3 Credit Hours/68 Contact Hours

Prerequisites: RAC 116 or equivalent experiences

Presents circuits, control devices, diagnostic and repair procedures on various makes of automatic gas clothes dryers.

APT 229 Kitchen Equipment II

3 Credit Hours/68 Contact Hours

Prerequisites: RAC 116 or equivalent experiences

Presents the study and repair of gas and electric ranges, microwave ovens and trash compactors.

APT 230 Refrigerators and Freezers II

3 Credit Hours/68 Contact Hours

Prerequisites: RAC 100 Series or equivalent experiences

Presents the study and repair of various makes and models of upright refrigerator/freezers and chest freezers.

APT 285 Automatic Washers II (Capstone)

6 Credit Hours/ 136 Contact Hours

Prerequisites: RAC 100 Series or equivalent experiences

Continues to present the concepts of washing machine components and operation and apply them to customer repair.

Arabic**ARB 111 First-Year Arabic I**

5 Credit Hours/75 Contact Hours

Gives students a fundamental understanding of the Arabic language while developing their basic listening, speaking, reading and writing skills.

Art**ART 110 Art Appreciation**

3 Credit Hours/45 Contact Hours

Introduces the cultural significance of the visual arts, to include painting, photography, sculpture, crafts, design and architecture. Surveys the techniques, terminology and traditions of art, as well as current trends. Provides students with opportunities to visit galleries and museums of art in the Denver area.

ART 111 Art History I

3 Credit Hours/45 Contact Hours

Provides the knowledge base to understand the visual arts, including works from Western and non-Western cultures. Surveys the visual arts from the ancient through the medieval periods.

ART 112 Art History II

3 Credit Hours/45 Contact Hours

Provides the knowledge base to understand the visual arts, including works from Western and non-Western cultures. Surveys the visual arts from the Renaissance through the modern periods.

ART 121 Drawing I

3 Credit Hours/90 Contact Hours

Introduces various approaches and media designed to develop drawing skills and visual awareness.

ART 122 Drawing II/Mixed Media

3 Credit Hours/90 Contact Hours

Prerequisite: ART 121

Continues topics introduced in ART 121 with emphasis in the use of a variety of contemporary media and drawing materials, individual expressive style, color and advanced composition.

ART 131 Design I

3 Credit Hours/90 Contact Hours

Studies basic design elements, visual perception, form and composition.

ART 132 Design II

3 Credit Hours/90 Contact Hours

Prerequisite: ART 131

Continues Design I with further examination of composition, modular repetition, color effect and three-dimensional design.

ART 135 Computer Graphics Art I

3 Credit Hours/90 Contact Hours

Prerequisites: GRD 102, GRD 103

Corequisite: GRA 109

Approaches fine arts through use of the computer. Computer software based on natural media — pencils, brushes, charcoal, oils, etc. — make fine art results possible. Introduces photo manipulation and graphic design to the field of computer graphics.

ART 151 Fundamentals of Black and White Photography

3 Credit Hours/90 Contact Hours

Covers basic black and white photographic craft. Places special emphasis on approaching photography as a visual language. Includes the language of photography, the camera, film exposure and processing, printing, print finishing and photographic criticism.

ART 152 Intermediate Black and White Photography

3 Credit Hours/90 Contact Hours

Prerequisite: ART 151

Familiarizes the student with the basic principles of the Zone System for black and white photography; use of mathematics in photography; basic sensitometry and film analysis; data plotting, graphing and interpreting; testing procedures; light metering techniques; controlling film exposure and development; visualization for expressive black and white prints.

ART 153 Fundamentals of Color Photography

3 Credit Hours/90 Contact Hours

Introduces color theory, the nature of light and light sources, the reproduction of color, color films and processing. Emphasizes building individual experience with color transparency films and potential expression through color photography.

ART 154 Intermediate Color Photography

3 Credit Hours/90 Contact Hours

Prerequisites: ART 151, 153

Covers printing from color negatives, the most popular mode in use. Emphasizes creative expression coupled with sound lab procedures.

ART 157 History of Photography

3 Credit Hours/90 Contact Hours

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 210 Asia, Africa and the Americas: An Introduction to Non-Western Art

3 Credit Hours/45 Contact Hours

Prerequisite: ART 111 or 112

Introduces the art of non-Western culture. Provides a knowledge base to understand the visual arts outside the Western tradition.

ART 211 Painting I

3 Credit Hours/90 Contact Hours

Introduces a fundamental technical and formal foundation for the beginning student, including composition, color, materials and techniques of acrylic painting.

ART 212 Painting II

3 Credit Hours/90 Contact Hours

Prerequisite: ART 211

Emphasizes color, composition, techniques and formal visual concepts as they relate to oil painting.

ART 213 Painting III

3 Credit Hours/90 Contact Hours

Prerequisite: ART 212

Continues advanced work with consistent thematic development, sophisticated color relationships, formal and technical concerns.

ART 214 Painting IV

3 Credit Hours/90 Contact Hours

Prerequisite: ART 213

Continues advanced work with thematic development, sophisticated color relationships, experimentation in conceptual forms, formal and technical concerns, conceptualization and consistent progression of subject matter.

ART 231 Watercolor I

3 Credit Hours/90 Contact Hours

Prerequisite: ART 121

Introduces a fundamental, technical and formal foundation for the beginning student, to include color, composition, materials and techniques of watercolor painting.

ART 232 Watercolor II

3 Credit Hours/90 Contact Hours

Prerequisite: ART 231

Continues study of watercolor techniques with an emphasis on subject development, form, color and theme.

ART 251 The Fine Print

3 Credit Hours/90 Contact Hours

Prerequisites: ART 151, 152, 153

Introduces and refines advanced skills of the student interested in producing better quality black and white prints. The experience and instruction gained in this class prepare students for a variety of career objectives, including original fine art printing of the highest caliber.

ART 252 Studio Lighting

3 Credit Hours/90 Contact Hours

Prerequisites: ART 151, 152, 153

Introduces basic concepts and principles needed to produce personally expressive photographs with studio lighting equipment, especially electronic flash. Includes working with a variety of camera formats, from 35mm to 4x5 view camera.

ART 253 View Camera Techniques

3 Credit Hours/90 Contact Hours

Prerequisites: ART 151, 153

Provides each student with an introduction to the visual aesthetics of photographic images and light, making use of hands-on photographic experience with the 4x5 view camera. Covers processing techniques.

ART 255 Points of View

3 Credit Hours/90 Contact Hours

Prerequisites: ART 151, 152

Provides each student with on-site photographic opportunities and direct experience with the changing light and colors of the fabulous American West environment.

ART 270 Figure Drawing I

3 Credit Hours/90 Contact Hours

Prerequisite: ART 121

Introduces the basic techniques of drawing the human figure, to include general anatomy and gesture drawing using a variety of media.

American Sign Language

ASL 101 American Sign Language I

3 Credit Hours/45 Contact Hours

Introduces American Sign Language (ASL). Includes both an awareness of American deaf culture and methods by which the American deaf interrelate. Includes basic ability to communicate with deaf individuals using ASL, and topics of places, names and the ability to ask and answer questions that include "who, what, where and how" types of questions.

ASL 102 American Sign Language II

3 Credit Hours/45 Contact Hours

Prerequisite: ASL 101

Continues topics introduced in ASL 101. Emphasizes critical and logical thinking in ASL. Assists the non-native user of ASL to better integrate signing into the larger deaf community. Also, students will add to their basic ability to communicate with the deaf in social and individual settings.

Astronomy

AST 101 Astronomy I

4 Credit Hours/60 Contact Hours

Examines methods of science, overall content and structure of the universe, motions of the sun, moon and stars, history of astronomy, tools of the astronomer, the composition, structure, characteristics and origins of the solar system and potential for extraterrestrial life. Course includes laboratory and observational experience.

AST 102 Astronomy II

4 Credit Hours/60 Contact Hours

Prerequisite: AST 101

Studies the nature of light, stellar spectra, stellar energy sources, structure and life cycle of stars, the sun, galaxies, and the origin and evolution of the universe. Course includes laboratory and observational experience.

Biology

BIO 105 Science of Biology

4 Credit Hours/75 Contact Hours

Designed for non-science majors.

Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Biology as a science, a process of gaining new knowledge, is explored as is the impact of biological science on society. Includes laboratory experiences.

BIO 111 General College Biology I

5 Credit Hours/90 Contact Hours

Prerequisite: Reading Assessment level 3 or REA 090, English Assessment level 3 or ENG 100

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure, function and the metabolic processes of respiration and photosynthesis, as well as cell reproduction and basic concepts of heredity. Includes laboratory experience.

BIO 112 General College Biology II

5 Credit Hours/90 Contact Hours

Prerequisite: BIO 111 or instructor consent

Continues General College Biology I. Includes ecology, evolution, classification, structure, and function in plants and animals. Includes laboratory experience.

BIO 114 Biology of Humans for Psychiatric Technicians

3 Credit Hours/45 Contact Hours

Prerequisite: Admission to the Psychiatric

Technician (LPT) program or instructor consent

Provides a brief survey of the anatomy and physiology of all systems. Concentration will be on the nervous system along with the muscular system, related drug physiology, the endocrine system and the lymphatic system with immunity.

BIO 116 Human Biology

3 Credit Hours/45 Contact Hours

Prerequisite: Reading Assessment level 2 or REA 060

Introduces human anatomy and physiology for those who have no background in science. Does not substitute for a year-long anatomy and physiology course with a laboratory. Topics include: atoms, molecules, cells, energetics, genetics and a brief survey of systems.

BIO 118 Human Ecology and the Environment

3 Credit Hours/60 Contact Hours

Prerequisite: ENG 100 and MAT 100 or

Assessment level 3 in English and 2b in Math

Explores the ways in which human population ecology has an impact on global environmental balance and is, in turn, affected by it. Topics focus on population, natural resources and land use.

BIO 119 Radiographic Anatomy

4 Credit Hours/60 Contact Hours

Provides a brief survey of anatomy with very limited physiology for all of the body systems. Concentrates on the skeletal system, anatomical landmarks, cross-sectional anatomy and details of those features that are used by technicians in radiography and the radiologic health sciences.

BIO 201 Human Anatomy and Physiology I

4 Credit Hours/75 Contact Hours

Prerequisites: Study Skills Assessment level 3 or REA 109, Reading Assessment level 3 or REA 090, one year of high school chemistry or instructor consent

Includes atomic, molecular, cellular, histology, gross morphology and physiology of the skeletal, muscular, nervous and endocrine systems. Includes a required laboratory.

BIO 202 Human Anatomy and Physiology II

4 Credit Hours/75 Contact Hours

Prerequisite: BIO 201

Includes atomic, molecular, cellular, histology, gross morphology and physiology of the reproductive integumentary, urinary, cardiovascular, lymphvascular, digestive and respiratory systems plus homeostatic mechanisms. Includes required laboratory.

BIO 204 Physiological Aspects of Aging

3 Credit Hours/45 Contact Hours

Prerequisites: BIO 105 or above, or instructor consent

Covers the normal or expected changes that the older adult may experience. Addresses normal structure and function of body systems, the changes with aging and pathologic conditions that are commonly observed in the aged individual. Reviews health maintenance practices.

BIO 205 Microbiology

4 Credit Hours/75 Contact Hours

Prerequisite: BIO 111 or instructor consent

Studies microorganisms with an emphasis on their structure, development, physiology, classification and identification. The laboratory experience includes culturing, identifying, controlling microorganisms and the study of the role of microorganisms in infectious disease.

BIO 228 Field Biology

3 Credit Hours/60 Contact Hours

Prerequisite: BIO 112

Introduces students to field experiences and ecology. Includes identification of plants and animals in their natural environment. The course includes mandatory field trips to nearby natural areas.

Business Administration

BUS 115 Introduction to Business

3 Credit Hours/45 Contact Hours

Prerequisites: MAT 035, REA 090 or basic skills assessment levels of 1c and 3 respectively

Introduces students to the broad spectrum of business activities. Introduces and defines appropriate vocabulary used in the various aspects of business.

BUS 116 Introduction to Management/Supervision

3 Credit Hours/45 Contact Hours

Prerequisite: BUS 115

Explores the fundamentals of management practice and acknowledges that management concepts have universal application to all problem-solving situations.

BUS 117 Time Management

1 Credit Hour/15 Contact Hours

Provides the student with the conceptual knowledge and tools to make better use of time in management functions and/or for personal use.

BUS 118 Introduction to Marketing

3 Credit Hours/45 Contact Hours

Introduces students to the broad field of marketing. Examines the importance of target markets, pricing and promotion.

BUS 125 Introduction to Finance

3 Credit Hours/45 Contact Hours

Prerequisites: BUS 115, ACC 110, 121

Surveys financial markets, the place of finance in the business economy, the role of the financial manager, the organization of finance intermediaries and the basic techniques of financial analysis. Primarily reflects the needs of non-finance majors.

BUS 170 Supermarket Loss Prevention

3 Credit Hours/45 Contact Hours

Familiarizes managers from all areas of the supermarket with the broad spectrum of supervisory areas that can cause losses to profits within an overall supermarket company environment and what they might do to prevent those occurrences.

BUS 185 Business Certificate (Capstone)

1 Credit Hour/15 Contact Hours

Prerequisites: ACC 121, BUS 115, 217, 221, ECO 201

Reviews and focuses on preceding management and business study; to be completed during the final semester before receiving a certificate in management.

BUS 205 Small Business Management

3 Credit Hours/45 Contact Hours

Prerequisites: BUS 115, ACC 101

Explores the fundamentals of organizing and operating a small business. Recognizes the variations in application suited to individual needs. Studies problems of labor, location, financing, management, accounting, entrepreneurship and research. Provides a view of entrepreneurship in the economy.

BUS 207 Teleservices

3 Credit Hours/45 Contact Hours

Prerequisites: BUS 118

Introduces the various components of the teleservices industry, including outsourcing. Provides emphasis on the telephone as a vehicle for customer service.

BUS 210 International Business

3 Credit Hours/45 Contact Hours

Prerequisite: BUS 115

Introduces students to the concept, development, present and future importance of international business.

BUS 211 International Marketing

3 Credit Hours/45 Contact Hours

Prerequisite: BUS 115

Provides a foundation for developing marketing strategies that apply to export and import operation with international businesses.

BUS 215 International Business Environments

3 Credit Hours/45 Contact Hours

Examines the business relationship among nation states, including business environments, business relations, economics power, diplomacy, nationalism, conflict and cooperation, and economic balance of power and influence.

BUS 217 Business Communications

3 Credit Hours/45-72 Contact Hours

Helps meet the demands of today's businesses seeking employees with good communication skills. Introduces students to the principles of good communications and alerts them to barriers in communications.

BUS 218 Business Communications II

3 Credit Hours/60 Contact Hours

Prerequisite: BUS 217 or instructor consent

Continuation of BUS 217 Business Communications. Students continue to develop skills in grammar, sentence skill development and spelling.

BUS 221 Legal Environment of Business

3 Credit Hours/45 Contact Hours

Prerequisites: ACC 121, BUS 115

Corequisite: BUS 228

Introduces the study of business law and includes topics such as: foundations of the legal system, contracts, sales (UCC) agency and property (real and personal).

BUS 226 Business Statistics

3 Credit Hours/45 Contact Hours

Prerequisites: BUS 115, and MAT 100 or 103

Covers statistical study, descriptive statistics, mobility and the binomial distribution, index numbers, time series, decision theory, confidence intervals, hypothesis testing, testing of 10 samples, chi-square and ANOVA, linear regression and correlation.

BUS 227 Human Resources Management

3 Credit Hours/45 Contact Hours

Prerequisite: BUS 115

Designed to assess the role, organization and evaluation of one of an organization's most valuable resources — personnel. Covers skills and knowledge of human resources (HR) managers in making strategic plans and decision making and their contributions toward the achievement of organizational objectives.

BUS 228 Principles of Management

3 Credit Hours/45 Contact Hours

Prerequisites: ACC 121, ECO 202, MAT 135, BUS 226

Presents the basic fundamentals of management practice and acknowledges that management concepts have universal application to all problem-solving situations. This course should be completed during the final semester before completing a degree in business administration.

BUS 229 Motivation and Management

3 Credit Hours/45 Contact Hours

Introduces motivation as an inner force that results from an individual's desire to satisfy unmet needs. Productivity is a result of the behavior of members of an organization; influencing behavior through motivation is a manager's key to increasing productivity.

BUS 231 Principles of Sales

3 Credit Hours/45-72 Contact Hours

Prerequisite: BUS 115

Introduces proper sales techniques. Covers the role of selling in the marketing process, consumer behavioral consideration in the buying-selling process, sales techniques and sales management.

BUS 235 Retail Marketing and Management

3 Credit Hours/45 Contact Hours

Prerequisite: BUS 115

Familiarizes students with the business activities collectively referred to as "retailing."

BUS 236 Principles of Marketing

3 Credit Hours/45 Contact Hours

Prerequisite: ACC 122, ECO 202, MAT 135, BUS 226

Enables the student to obtain a broad understanding of marketing as a functional process and managerial variable. Presents marketing strategies as an integrated system of the marketing mix designed to plan, promote, price, and distribute goods and services to businesses and consumers.

BUS 237 Customer Service

3 Credit Hours/45-72 Contact Hours

Prerequisites: BUS 115, SPE 115

Enables students to learn the relationship of self to one's customers, do problem solving and understand the importance of communicating with customers.

BUS 238 Customer Service II

3 Credit Hours/72 Contact Hours

Prerequisite: BUS 237

Covers voice quality and the telephone, telephone technology, effective teamwork, service delivery, job enrichment and career paths.

BUS 239 Advertising and Promotion

3 Credit Hours/45 Contact Hours

Prerequisite: BUS 115

Offers an overview of the social, economic and marketing environment in which advertising functions.

BUS 270 Business Ethics

3 Credit Hours/45 Contact Hours

Prerequisites: ACC 121, BUS 115, 116, 118

Teaches students to discern ethical issues and the influence these issues have on management decision making. Considers social, ethical and public issues from a strategic perspective. Includes appropriate business response and management approaches for dealing with social issues.

Business Technology: Office Management and Secretarial Studies**BTE 100 Introduction to Keyboarding**

3 Credit Hours/45-68 Contact Hours

Introduces touch keyboarding, as well as basic operations and functions of equipment. Emphasizes learning the alphanumeric keyboard, proper techniques, and speed and control. Designed for students who have minimal or no keyboarding skills.

BTE 101 Keyboarding I

4-5 Credit Hours/75-113 Contact Hours

Introduces keyboard, machine parts, correct techniques and accuracy in keyboarding applications of centering, tabulating letters and manuscripts.

BTE 102 Basic Keyboarding Applications

2-3 Credit Hours/45-68 Contact Hours

Prerequisite: BTE 100 or 15 wpm

Designed for students with minimal keyboarding skills. Introduces tables, memos and reports. Emphasizes speed and accuracy.

BTE 103 Typing Development I

3 Credit Hours/72 Contact Hours

Prerequisite: BTE 101

Improves typing speed and accuracy using the Cortez Peters Championship Typing Method.

BTE 104 Typewriting Speedbuilding

1-5 Credit Hours/20-100 Contact Hours

Prerequisite: BTE 101

Builds keyboarding speed and improves accuracy through the use of course technique and concentrated effort using the Cortez Peters Championship Typing Method.

BTE 108 Business Machines: Ten Key by Touch

1-2 Credit Hours/23-45 Contact Hours

Introduces the student to touch control of a 10-key pad. The class emphasizes the development of speed and accuracy using proper technique.

BTE 120 Filing and Records Control

2-4 Credit Hours/45-90 Contact Hours

Corequisite: BTE 101 or instructor consent

Develops the ability to file and retrieve documents using alphabetic, numeric, subject and geographic systems. Provides the participant with records management skills, including emphasis on PC computer management.

BTE 121 Alpha Speedwriting I

4 Credit Hours/60 Contact Hours

Prerequisite: BTE 101

Covers the theory of an alphabetic system of shorthand. Develops skills in brief forms, theory, dictation speed and transcription.

BTE 133 Word Processing Communications and Applications

3 Credit Hours/45 Contact Hours

Prerequisites: BTE 101, 151

Prepares students for the central roles they will play in the electronic office. Provides them with the opportunity to acquire the conceptual knowledge essential to today's and tomorrow's office environment. Presents a thorough explanation of the rapidly changing and expanding nature of office technology.

BTE 138 Windows 95

1 Credit Hour/15 Contact Hours

Introduces the functions of an environment or shell. Demonstrates the use of Windows 95 showing the mechanisms of control and of file manipulation, as well as program and graphic regulation.

BTE 139 Professional Development

3 Credit Hours/45 Contact Hours

Helps the student find the key to success and professional development. Examines the role of professional ethics, job search strategies and professional image. Integrates speech communication throughout the course.

BTE 151 WordPerfect

3 Credit Hours/45-72 Contact Hours

Prerequisite: BTE 101

Provides instruction in WordPerfect, which includes the preparation of business documents for the modern office, using basic software commands and functions. This includes originating, processing and editing documents using WordPerfect.

BTE 152 Microsoft Word

3 Credit Hours/45-72 Contact Hours

Prerequisite: BTE 101

Provides instruction in Microsoft Word, which includes the preparation of business documents for the modern office, using basic software commands and functions. This includes originating, processing and editing documents using Microsoft Word.

BTE 155 Spreadsheets for Office Management

3 Credit Hours/45 Contact Hours

Prerequisite: CIS 118

Covers such topics as basic spreadsheet functions, Excel, LOTUS command structure, file saves, retrieval, combining, printing, database development, extracts, macros, graphics, fonts, menu-driven macros and what-if tables.

BTE 156 Typing Development II

2 Credit Hours/48 Contact Hours

Prerequisite: BTE 103

Designed to continue improving typing speed and accuracy using the Cortez Peters Championship Typing Method.

BTE 160 Data Entry I

3 Credit Hours/60-72 Contact Hours

Prerequisite: BTE 101

Introduces basic data-entry activities for the microcomputer. A number of activities provide source documents with fields for entering information; speed and accuracy in keyboarding will be stressed.

BTE 200 Office Procedures

3 Credit Hours/45-72 Contact Hours

Prerequisite: BTE 101

Acquaints students with the many dimensions of a professional secretary. Acquaints the student with the managerial functions of the office, as well as how to perform the operational functions of the office.

BTE 202 Keyboarding II

3-5 Credit Hours/69-113 Contact Hours

Prerequisite: BTE 101

Reinforces fundamentals of keyboarding procedures. Develops speed and accuracy in more advanced levels of production work using the prevailing business forms. Emphasizes quality of output.

BTE 204 Typewriting Speedbuilding

1-5 Credit Hours/24-120 Contact Hours

Prerequisite: BTE 101

Builds greater keyboarding speed and improves accuracy through the use of course technique and concentrated effort.

BTE 206 Health Insurance Methods Claims

3 Credit Hours/45 Contact Hours

Prerequisites: BTE 101

Instructs students in the general types of health insurance plans on the market, methods of payment, common insurance terms, benefits, and limitations of government-sponsored and mandated insurance plans.

BTE 207 Typing Development III

2 Credit Hours/48 Contact Hours

Prerequisite: BTE 156

Designed to continue improving typing speed and accuracy using the Cortez Peters Championship Typing Method.

BTE 209 Legal Terminology

2 Credit Hours/30 Contact Hours

Prerequisite: BTE 101

Provides a background in basic legal terminology.

BTE 230 Machine Transcription

4-5 Credit Hours/90-113 Contact Hours

Prerequisite: ENG 100

Helps the student attain competency in these major areas: transcribing from machine dictation, using the language arts and formatting office papers.

BTE 251 Advanced WordPerfect

3 Credit Hours/45 Contact Hours

Prerequisites: BTE 101

Provides advanced instruction in the application of word processing concepts using the microcomputer. Teaches word processing and applications using commercial software, the manufacturer's manuals and supplementary text and exercises.

BTE 288 Model Office

4 Credit Hours/68 Contact Hours

Prerequisites: BTE 104 or 202, 108, 151 or 152, and 230

Prepares students to make the transition from college to the workplace. Assimilated office environment gives students a realistic work experience in answering the telephone, using the fax machine, personal computers, making decisions and increasing proficiency in all office-related skills.

Business of Travel and Tourism**BTT 103 Sales for the Travel Industry (TEC East only)**

3 Credit Hours/72 Contact Hours

Provides training in developing and marketing a travel product, choosing target audiences, creating advertising, and implementing customer service. Teaches how to turn marketing strategies into powerful sales techniques.

BTT 110 Introduction to Travel

3 Credit Hours/45-72 Contact Hours

Introduces various components of the travel and tourism industry, including career opportunities. Provides product knowledge and develops basic skills in researching and selling.

BTT 111 Travel Geography I

3 Credit Hours/45-72 Contact Hours

Presents the location of countries and capital cities, as well as major tourist attractions throughout the Western hemisphere. Gives a broad knowledge of the geography and understanding of the culture, with an emphasis on planning travel itineraries.

BTT 112 Travel Geography II

3 Credit Hours/45 Contact Hours

Presents the location of countries and capital cities, as well as major tourist attractions throughout the Eastern hemisphere. Gives a broad knowledge of the geography and understanding of the culture, with an emphasis on planning travel itineraries.

BTT 113 Selecting and Selling Cruises

3 Credit Hours/45 Contact Hours

Introduces the student to the cruise product. Primarily a hands-on course covering the techniques of selecting, selling and reserving accommodations on a cruise to the client's intended destination during the time period stipulated by the client, and on a ship of the client's choice and price range.

BTT 210 Domestic Ticketing

3 Credit Hours/45-72 Contact Hours

Gives the student experience in manually issued travel documents as required by the Airlines Reporting Corporation. Emphasizes manually issuing airline tickets, interpreting fare and rule displays, and refunding and exchanging airline tickets.

BTT 211 International Travel

3 Credit Hours/45 Contact Hours

Provides the student with information on international travel details such as passports, visas, customs, time zones and currencies. An itinerary is planned using codes, flight schedules, fares and rules. Provides hands-on experience in manually constructing air fares for worldwide itineraries, combining several currencies and exchange rates.

BTT 212 Computer Reservations I

3 Credit Hours/45-72 Contact Hours

Introduces the student to United Airlines' Apollo reservation system to make scheduled air reservations. Training includes flight availability, selling, canceling and rebooking, finding the best fare, creating a PNR and issuing tickets.

BTT 213 Computer Reservations II (Capstone)

3 Credit Hours/45 Contact Hours

Prerequisite: BTT 212 or instructor consent, CIS 118

Introduces the student to advanced Apollo computer skills, including seat assignment, special services, queues, car and hotel availability, selling and canceling and converting Apollo to other reservation systems.

Chemistry

CHE 085 Problem Solving

1 Credit Hour/30 Contact Hours
Corequisite for All CHE Courses.

A tutorial class designed to assist students in developing problem-solving skills.

CHE 101 Introduction to Chemistry I

5 Credit Hours/90 Contact Hours
Prerequisites: Two years of high school algebra, MAT 100, or math assessment level 2b, and REA 090 or reading assessment level 3. Algebra or instructor consent and Assessment scores assuring entrance into REA 151
Corequisite: CHE 085

For non-science majors, students in occupational and health programs, or students with no chemistry background. 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.

CHE 102 Introduction to Chemistry II

5 Credit Hours/90 Contact Hours
Prerequisite: CHE 101
Corequisite: CHE 085

Includes the study of hybridization of atomic orbitals for carbon, nomenclature of organic compounds, properties of different functional groups, nomenclature of various biologically important compounds, their properties and their biological pathways. Laboratory experiments demonstrate the above topics quantitatively and qualitatively.

CHE 106 General, Organic and Biochemistry

4 Credit Hours/60 Contact Hours

Introduces the fundamentals of inorganic, organic and biochemistry. Primarily for students in health or life sciences.

CHE 111 General College Chemistry I

5 Credit Hours/105 Contact Hours
Prerequisites: One year of high school chemistry or instructor consent. Reading assessment level 3 or REA 090.
Corequisites: CHE 085, college algebra or instructor consent. Pre- and post-assessment tests are required for science and engineering majors.

Includes the study of measurement atomic theory, chemical bonding, stoichiometry, gases, condensed states, solutions and thermochemistry. Also includes problem-solving skills and descriptive contents for these topics. Laboratory techniques used in the experiments will demonstrate the above concepts, as well as the qualitative and quantitative analytical techniques involved in chemistry.

CHE 112 General College Chemistry II

5 Credit Hours/105 Contact Hours
Prerequisites: CHE 111
Corequisite: CHE 085

Includes the study of thermodynamics, chemical kinetics, chemical equilibrium, acid-base equilibrium, ionic equilibrium, electrochemistry, nuclear chemistry and organic chemistry. Includes problem-solving skills and descriptive contents. Organic chemistry may be included if time permits. Laboratory experiments demonstrate both qualitative and quantitative analytical techniques.

Chinese

CHN 101 Conversational Chinese I

3 Credit Hours/45 Contact Hours

Gives students a fundamental understanding of the Chinese language, while developing basic listening, speaking, reading and writing skills. Emphasizes practical conversation, basic sentence structure, vocabulary and culture.

CHN 111 First-Year Chinese I

5 Credit Hours/75 Contact Hours

Gives students a fundamental understanding of the Chinese language while developing their listening, speaking, reading and writing skills.

CHN 112 First-Year Chinese II

5 Credit Hours/75 Contact Hours
Prerequisite: CHN 111

Continues developing students' skills in listening, speaking, reading and writing. Emphasizes basic competency in further use of the Chinese language.

Commercial Credit Management

CRM 217 Business Credit Principles (Capstone)

3 Credit Hours/45 Contact Hours
Prerequisites: ACC 121, CIS 118 or instructor consent

Acquaints the student with the concepts and principles of credit and identifying the interdependent types of credit encountered in everyday life. Concepts include department organization, personnel, training, policies, procedures and systems development, techniques used to gather credit information and making credit decisions.

Communications

COM 126 Introduction to Mass Media

3 Credit Hours/45 Contact Hours

Examines the basic concepts, principles and social issues relating to various traditional and emerging mass media for the communications, journalism and general student.

COM 251 Introduction to Television Production

3 Credit Hours/45 Contact Hours

Introduces students to television studio production. Emphasizes skills in the operation of video equipment and production of television programs.

COM 255 Survey of Film

3 Credit Hours/45 Contact Hours

Introduces students to the history and appreciation of film. Explores the major movements and issues in the cinema. Covers visual literacy skills used in the analysis of film.

COM 257 Videography

3 Credit Hours/45 Contact Hours

Prerequisites: COM 251, 255, ENG 257

Introduces theory and practice, history and processes of camera and editing formats that will be integrated with instruction or digital editing software/platforms.

COM 258 Script and Storyboard Writing

3 Credit Hours/45 Contact Hours

Prerequisites: ENG 121, 122

Introduces theory and practice of script writing and storyboarding within a multimedia environment, incorporating graphics, video, text, animation and interactivity.

COM 259 Media Writing/Media Overview

3 Credit Hours/45 Contact Hours

Prerequisites: ENG 121, 122

Surveys the history of mass media and industry, including structure, legal issues, regulation, ethics and future trends from a critical perspective. Incorporates writing for the media in light of these issues and practices.

Computer-Aided Drafting (CAD)

CAD 110 Computer-Aided Drafting I

3 Credit Hours/68 Contact Hours

Prerequisites: DRI 105 and DRI 106

Introduces computer-aided drafting for drafting majors and non-majors. Includes an overview of equipment, CAD applications in various engineering, drafting and architectural environments. Concepts include the CAD menu, two-dimensional drawing commands, drawing set-up procedures, editing and viewing commands, basic plotting techniques, basic blocks and symbols, basic dimensioning and basic text commands.

CAD 111 Computer-Aided Drafting II

3 Credit Hours/68 Contact Hours

Prerequisite: CAD 110

Introduces basic 3-D concepts, intermediate usage of blocks, symbols and shapes, attributes and data extractions, menu customization and techniques. Introduces AutoLisp, intermediate plotting techniques, assembling multiple drawings, and use of macros and script files.

CAD 210 Computer-Aided Drafting III

3 Credit Hours/68 Contact Hours

Prerequisite: CAD 111

Introduces students to three-dimensional and surface modeling, extended and wire frame construction, and editing 3-D objects. Covers customization of AutoCAD with macros and menus.

CAD 211 Computer-Aided Drafting IV

3 Credit Hours/68 Contact Hours

Prerequisite: CAD 210

Continuation of CAD 210 with the customization of AutoCAD with macros, menus and AutoLisp. Also introduces students to AutoLisp and how AutoCAD and AutoLisp work together. Students will be able to maximize AutoCAD through the use of AutoLisp.

Computer Information Systems

CIS 105 Introduction to the PC (Auraria only)

1 Credit Hour/24 Contact Hours

Offers the beginning computer user hands-on experience in the elementary use of the personal computer. Introduces the basic features of and the terminology associated with personal computers, including topics such as database, spreadsheets and word processing.

CIS 110 Microcomputer Operating Systems (Auraria only)

2-3 Credit Hours/45-74 Contact Hours

Introduces concepts, terminology and skills in the use of an operating system. Emphasizes understanding and using the operating system in practical ways. May be designated as PC-DOS, MS-DOS, UNIX or OS/2 WARP.

CIS 111 Introduction to Internet

2 Credit Hours/45 Contact Hours

Introduces Internet fundamentals. Includes Unix for Internet, connectivity, E-mail, conferencing, newsgroups, FTP, Telnet,archie, gopher and veronica. (Self-paced.)

CIS 117 Computer Access Methods for the Physically Handicapped (Auraria only)

2-4 Credit Hours/45-90 Contact Hours

Acquaints student with the concepts and principles of adaptations for disabilities. These concepts include initial terminology, application packages, adaptation packages, etc.

CIS 118 Introduction to Computers

3-4 Credit Hours/45-68 Contact Hours

Prerequisites: English assessment level 2 or ENG 060, math assessment level 2b or MAT 100, reading assessment level 3a or REA 090, study skills assessment level 3 or REA 109.

Introduces the use of computers in a business/work environment. Focuses on computer concepts and terminology. Reviews standard software packages available to support microcomputer-based work stations. Focuses on the hands-on experience of the software most often applied in the business world to meet work-related problems.

CIS 119 Introduction to Programming

3 Credit Hours/45 Contact Hours

Prerequisite: CIS 118

Introduces major programming concepts, including numbering systems, program documentation and design, the DOS operating system and authoring computer programs. Uses the BASIC programming language.

CIS 120 Microcomputer Word Processors

2-3 Credit Hours/45-74 Contact Hours

Introduces the features of a word processing software package. Includes creating, editing, formatting and printing documents. Also includes tables and some graphic features. May be designated Microsoft Word or WordPerfect.

CIS 121 Advanced Word Processing (Auraria only)

2-3 Credit Hours/45-60 Contact Hours

Prerequisite: CIS 120

Demonstrates advanced word processing techniques. Includes macros, graphic features, font utilization and transferring files to other software. May be designated as WordPerfect or Microsoft Word.

CIS 131 Introduction to the Internet and World Wide Web (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisite: CIS 118 or instructor consent

Displays, demonstrates and illustrates the Internet and World Wide Web as a powerful and useful tool for business and personal use. Hands-on and interactive, the course will familiarize students with web background, tools, types of websites, new technologies, business applications and issues.

CIS 132 Business Applications on the World Wide Web (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisite: CIS 118 or instructor consent

Explores, demonstrates and illustrates the World Wide Web as a powerful business tool. Hands-on and interactive, the course will familiarize students with web tools, transactional web sites, electronic commerce, and business applications in a variety of areas and industries.

CIS 135 Graphics Technology (PowerPoint)

1-2 Credit Hours/22-30 Contact Hours

Prerequisite: CIS 118

Introduces the student to a presentation graphics application that includes creating, modifying, enhancing a presentation, and integrating MS Word, Excel, Access and PowerPoint.

CIS 138 Microcomputer Interfaces

2-4 Credit Hours/30-72 Contact Hours

Prerequisites: Instructor consent

Introduces the functions of an environment or shell. Demonstrates the use of Graphic-User-Interfaces (GUI), showing the mechanisms of control and of file manipulation, as well as program and graphic regulation. May be designated by any state-of-the-art package such as Windows 95, OS/2 and Windows NT.

CIS 139 Integration Software

1-5 Credit Hours/24-120 Contact Hours

Prerequisite: Instructor consent

Covers the basic mechanisms of using an office package — word processor, spreadsheet, graphics, telecommunications and

database. Emphasizes moving information among the various sub-programs of the package to create composite documents. May be designated as MS Office, Corel-Perfect, etc.

CIS 140 Microcomputers Databases

2-3 Credit Hours/45-74 Contact Hours

Introduces the functions of a database. Includes skills such as file creation, searches, sorts, indexing and editing. May be designated as ACCESS, dBase, Foxpro, or Paradox.

CIS 141 Advanced Databases (Auraria only)

2-3 Credit Hours/45-60 Contact Hours

Prerequisite: CIS 140

Introduces databases, programming, problem solving and advanced report writing. Continues work with query language. May be designated as advanced ACCESS, advanced dBase, advanced Foxpro, or advanced Paradox.

CIS 145 Database Concepts (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisite: CIS 118 or instructor consent

Covers the operations database package, including file creation, searches, sorts, editing, designing printed reports, report and screen generation, file manipulation, applications programming and systems design.

CIS 150 Electronic Spreadsheets

2-3 Credit Hours/45-74 Contact Hours

Introduces the student to concepts and applications of an electronic spreadsheet. Includes calculations, built-in functions and spreadsheet design. Introduces graphics, databases and macros. May be designated as Excel, Lotus, or Quattro.

CIS 151 Advanced Electronic Spreadsheets (Auraria only)

2-3 Credit Hours/45-60 Contact Hours

Prerequisite: CIS 130

Introduces menu-driven macros, graphics, fonts, and interfacing with other software packages. May be designated as advanced Excel, advanced Lotus, or advanced Quattro.

CIS 155 Spreadsheet Concepts (Auraria only)

3 Credit Hours/45 Contact Hours

Covers such topics as basic spreadsheet functions, command structures, file commands, printing techniques, database development, data extraction, data what-if tables, macros, graphs, fonts and formatting and menu-driven macros.

CIS 156 Advanced Spreadsheets (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisite: CIS 155

Involves advanced study of LOTUS 1-2-3 and Excel software and business applications. Includes advanced database applications, macro programming and graphic presentation of business information.

CIS 175 Introduction to UNIX (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisite: CIS 118

Introduces the UNIX operating system. Includes UNIX fundamentals, logging-in, the UNIX file structure, listings, searching, comparing, sorting, text editors, manual pages and KornShell programming.

CIS 176 BASIC with DOS (Auraria only)

3 Credit Hours/45-72 Contact Hours

Prerequisites: CIS 119

Covers the coding and execution of BASIC programs, including I/O operations, batch and interactive processing, string and arithmetic operations and file handling. Continues DOS system operations, BAT files, system utilities, system configuration and system optimization.

CIS 178 Visual BASIC with Windows (Auraria and TEC North only)

3 Credit Hours/45 Contact Hours

Prerequisites: CIS 119

Acquaints the student with the concepts and principles of event-driven programming in Windows. These concentrate on the Windows environment, file manager and utilities, visual basic environment, forms and functionality, variables/operators and functions, control and data structures, dialog boxes, debugging and file handling.

CIS 179 Software System Survey (Auraria only)

3 Credit Hours/45-68 Contact Hours

Prerequisite: CIS 118

Compares numerous software packages (word processors, databases, spreadsheets, etc.) using hands-on analysis. Reviews the processes of various operating systems. Demonstrates the techniques of a variety of other software packages.

CIS 206 Introduction to Multimedia Technology (Auraria, TEC North and East only)

3 Credit Hours/45 Contact Hours

Prerequisite: CIS 118

Defines multimedia and its impact on art, biology, business, education, entertainment,

government, music and science. Provides multimedia toolbox and shows how to use it. Introduces the information superhighway. Emphasizes hardware, explaining how to purchase, install, and configure multimedia computer and components.

CIS 208 Advanced Multimedia Systems (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisite: CIS 206

Explores multimedia on the Internet and investigates practical elements of multimedia production. Aids in developing plans with samples and examples. Demonstrates the latest technologies of multimedia for presentations and the virtual worlds of sight, sound and motion.

CIS 210 Hardware and Telecommunications (TEC North and East only)

3 Credit Hours/60-72 Contact Hours

Prerequisite: CIS 118

Acquaints the student with the concepts and principles of data communications, including data transmission, communication networking techniques, computer architecture, integrated services digital network and other related topics.

CIS 216 Microcomputer Hardware (Auraria, TEC North and TEC East only)

3 Credit Hours/45-72 Contact Hours

Prerequisite: CIS 118

Introduces the maintenance and installation of microcomputers and peripheral devices, including printers, expanded memory, modems, video display terminals and secondary storage devices. Introduces electronics and microcomputer architecture.

CIS 217 Advanced Computer Access Methods for the Handicapped (Auraria only)

2-4 Credit Hours/45-90 Contact Hours

Prerequisite: CIS 117

Continues the concepts and principles of adaptations for students with disabilities. Emphasizes the more sophisticated capabilities for their adaptation. Includes advanced terminology in adaptations and applications.

CIS 218 Advanced Computer Applications (Auraria only)

2 Credit Hours/30 Contact Hours

Corequisite: CIS 118

Focuses on advanced computer concepts and terminology. Reviews advanced applications of standard word processing, spreadsheets and database software.

CIS 220 PC Data Recovery and Software Repair (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisite: CIS 118

Covers how data is stored on personal computers, how to recover data from bad disk media, and how to handle file allocation problems, disk errors and computer boot problems.

CIS 226 Computer Diagnosis and Repair (Auraria, TEC North and TEC East only)

3 Credit Hours/45-72 Contact Hours

Prerequisite: CIS 216

Covers the maintenance and installation of microcomputer networks and peripheral devices, including printers, expanded memory, modems, video displays and secondary storage devices.

CIS 230 Programming in C++ (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisite: CIS 119 or 218

Introduces the 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."

CIS 240 Oracle (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisites: CIS 145 and CIS 119 or 218

Acquaints students with the concepts and principles of using the Oracle package. These concepts include database fundamentals, creating and populating, organizing a database, screen forms and reports, queries, expressions and functions, relational databases, database systems, programming and other related topics.

CIS 254 Networks: Windows NT Client (Auraria and TEC North only)

3-4 Credit Hours/68 Contact Hours

Prerequisite: 12 CIS credits

Introduces Windows NT administration, including login, file systems, security, print services, network architecture, performance monitoring and event viewing.

CIS 255 Networks: Novell 4x Administration (Auraria only)

3-4 Credit Hours/68 Contact Hours

Prerequisite: 12 CIS credits

Introduces Novell 4x network administration, including login, file systems, Netware directory services, security, login scripts, menus and printing. Includes common CLUs, menu utilities, NLMs and network management.

CIS 256 Networks: Novell 3x Administration (Auraria and TEC North only)

3-4 Credit Hours/68-72 Contact Hours

Prerequisite: 12 CIS credits

Introduces Novell 3x network administration, including login, file systems, security, login scripts, menus and printing. Includes common CLUs, menu utilities, NLMs and network management.

CIS 260 COBOL Language Programming (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisite: CIS 118

Examines program design, coding, debugging and document solutions to a variety of business problems using COBOL language. Includes I/O operations editing, math operations, IF statements, tables, sorts and searches.

CIS 261 Advanced COBOL Language Programming (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisite: CIS 118, 260

Continues the study of the COBOL programming language. Emphasizes sequential file maintenance, subprograms, indexed files, multi-level tables and mainframe topics.

CIS 263 CICS/COBOL Programming (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisites: any programming language, but BASIC, or instructor consent

Introduces the student to the basics of CICS command-level programming. Includes an overview of a CICS on-line system, the CICS language, terminal device concepts and programming techniques for mapping the terminal screen.

CIS 264 COBOL and JCL Seminar (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisites: CIS 118, 257

Provides students with a brief overview of COBOL and Job Control Language (JCL) as they relate to local area network administration.

CIS 266 On-line Program Development (Auraria only)

2-3 Credit Hours/30-45 Contact Hours

Prerequisite: CIS 118

Acquaints the student with the various technique and software packages used to develop computer programs on an IBM mainframe computer running under OS/MVS, utilizing IBM's time-sharing option (150) and interaction system productivity (ISPF) to develop, test and execute COBOL source programs and JCL job streams.

CIS 275 Telecommunications (Auraria and TEC North only)

3 Credit Hours/45 Contact Hours

Prerequisites: CIS 118

Acquaints the student with the concepts and principles of telecommunications. Includes essential features, codes and characters, media and hardware, transmission characteristics, terminal equipment, data link protocols, error handling networks, mainframe to micro links and other related topics.

CIS 276 Systems Analysis and Design (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisite: CIS 118

Introduces the materials, techniques, procedures and human interrelations involved in developing a computerized business system. Includes systems approach, fact gathering techniques, forms design, input/output, file design, file organization, system audits, project management and evaluation.

CIS 277 Operating Systems and JCL (Auraria only)

2-3 Credit Hours/30-45 Contact Hours

Prerequisites: CIS 118 and one programming language

Introduces the IBM OS/VS operating system and Job Control Language. Includes components of the operating system, JOB, EXEC and DD statements for sequential, partitioned and indexed data sets, instream and cataloged data sets, utility routines and the function of virtual storage.

CIS 278 Introduction CICS (Auraria only)

3 Credit Hours/45 Contact Hours

Prerequisites: CIS 118, 174, 277

Acquaints students with the following concepts and principles: 1) creating and utilizing a BMS mapset; 2) writing structured techniques to code a pseudo-conversational program in CICS using COBOL; 3) working with data sets in CICS; and 4) updating all CICS transactions and tables.

CIS 282 Networks: Advanced Novell Administration (Auraria only)

3-4 Credit Hours/68 Contact Hours

Prerequisite: CIS 255 or 256

Covers server and work station installation, mail-handling services, backup procedures, CD ROM manuals, network performance optimization, industry access, LAN analyzing and certification preparation.

CIS 283 Networks: Windows NT Server (Auraria and TEC North only)

3-4 Credit Hours/68 Contact Hours
Prerequisite: 12 CIS credits

Covers server and work station installation, customizing the interface, configuring system settings, server and network management, E-mail, hardware adaptations and scheduling.

Computer Science

CSC 150 PASCAL Programming

3 Credit Hours/45 Contact Hours
Prerequisites: CIS 118, MAT 121

Acquaints the student with the concepts and principles of PASCAL programming.

CSC 230 C++ Programming I

3 Credit Hours/45 Contact Hours
Prerequisite: CSC 150, MAT 121

Introduces the 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".

Dental Hygiene

DEH 101 Pre-Clinic Dental Hygiene Science

2 Credit Hours/30 Contact Hours
Prerequisites: BIO 201, 202, 205, CHE 106
Corequisites: DEH 102, 103, 105, 107, 109

Explores the practice of dental hygiene, including infection control, recording medical and dental histories, providing oral health care instructions, scaling and polishing teeth and applying fluorides. The lab work includes the application of diagnostic, preventive and therapeutic procedures of current dental hygiene practice.

DEH 102 Pre-Clinic Care

2 Credit Hours/90 Contact Hours
Corequisites: DEH 101, 103, 105, 107, 109, 111

Introduces dental hygiene students to the basics of clinical care in a laboratory setting.

DEH 103 Embryology and Histology

2 Credit Hours/30 Contact Hours
Corequisites: DEH 101, 105, 107, 109

Explores the origin and structure of the tissues of the head with emphasis on the teeth, face and oral cavity. Discussion will focus on the sequencing of formation and the possibility of malformations.

DEH 105 Radiology

3 Credit Hours/45 Contact Hours
Corequisites: DEH 101, 103, 107, 109

Studies dental radiography, the techniques of film placement, exposure, processing, mounting and interpretation. Radiation safety, dosage and hazards will be considered for both patients and operators.

DEH 107 Head and Neck Anatomy

2 Credit Hours/30 Contact Hours
Corequisites: DEH 101, 103, 105, 109

Explores the anatomy of the head and neck with emphasis on the skull, mandible, nasal and oral cavities. Focus is on clinical application for the purposes of recording patient information.

DEH 109 Dental Anatomy

3 Credit Hours/45 Contact Hours
Corequisites: DEH 101, 103, 105, 107

Explores the anatomy of the teeth and surrounding structure of the mouth. Students are expected to become proficient at identifying extracted specimens as to their dentition, arch, class and order.

DEH 111 Medical and Dental Emergencies

2 Credit Hour/60 Contact Hours
Corequisites: DEH 101, 102, 103, 105, 107, 109

Provides practicum instruction and certification in basic cardiopulmonary resuscitation according to American Heart Association standards. Introduces beginning skills in evaluating the reason for the emergency, suggestions for preventing these occurrences, and familiarity with equipment and procedures.

DEH 150 Dental Hygiene Clinic Science I

2 Credit Hours/30 Contact Hours
Prerequisites: DEH 101, 102, 103, 105, 107, 109, 111
Provides theory and discussion of beginning dental hygiene clinical practice.

DEH 152 Dental Hygiene Clinic Care I

3 Credit Hours/90 Contact Hours
Prerequisites: DEH 101, 102, 103, 105, 107, 109, 111

Provides clinical experience in treating patients, including providing health assessment, dental charting, periodontal evaluations, oral health instructions and scaling and polishing of tooth surfaces.

DEH 154 Periodontology I

3 Credit Hours/45 Contact Hours
Corequisites: DEH 150, 152, 156, 158, 160

Provides a comprehensive study of the periodontium. Introduces the structure and normal functions of the oral tissues as well as periodontal diseases, their etiology, epidemiology and pathogenic mechanism.

DEH 156 Applied Pharmacology

3 Credit Hours/45 Contact Hours
Corequisites: DEH 150, 152, 154, 158, 160

Introduces fundamentals of pharmacology for the dental hygienist. Groups of drugs are studied with special emphasis on dosage, therapeutic effects and side effects.

DEH 158 General and Oral Pathology

3 Credit Hours/45 Contact Hours
Corequisites: DEH 150, 152, 154, 156, 160

Explores general and oral pathology, including systemic pathologic manifestations of the mouth. Oral disorders are discussed in terms of pathology, pathogenesis, clinical signs and symptoms and the disease process.

DEH 160 Preventive Dentistry

3 Credit Hours/45 Contact Hours
Corequisites: DEH 150, 152, 154, 156, 158

Provides an in-depth study of principles of interpersonal communication in order to practice nutritional counseling. Explores the problems associated with special populations and their nutritional choices.

DEH 201 Dental Hygiene Clinic Science II

2 Credit Hours/30 Contact Hours
Prerequisites: First-year DEH courses
Corequisites: DEH 203, 205, 207, 209, 211

Provides lecture discussion and student presentations to support and reinforce DEH 203. Special emphasis focused on caring for handicapped persons.

DEH 203 Dental Hygiene Clinic Care II

4 Credit Hours/180 Contact Hours
Corequisites: DEH 201, 205, 207, 209, 211

Provides continued clinical experience to treat patients with more advanced levels of periodontal disease. The place of occlusal sealants and amalgam polishing is added to the variety of services available.

DEH 205 Dental Materials

3 Credit Hours/45 Contact Hours
Corequisites: DEH 201, 203, 207, 209, 211

Provides information on the physical properties of those materials commonly used in dentistry. Provides experience in the manipulation and preparation of those materials most often used in the practice of dentistry.

DEH 209 Local and Regional Dental Anesthesiology

3 Credit Hours/45 Contact Hours

Corequisites: DEH 201, 203, 205, 207, 211

Introduces basic and current concepts of pain control as used in the practice of dentistry. Topics covered include pharmacological agents, physical and emotional evaluation of patients, anatomy and neurophysiology, emergency procedures. Hands-on practice in administering local anesthesia and nitrous oxide is included.

DEH 211 Community Dental Health

3 Credit Hours/45 Contact Hours

Corequisites: DEH 201, 203, 205, 209

Explores, through practicum experience, the principles of research, epidemiology of dental disease, health care agencies, federal and state responsibility, community preventive measures and program planning. Explores the role of dental hygienists as health educators; a special focus is on underserved dental populations in the community.

DEH 250 Dental Hygiene Clinic Science III

2 Credit Hour/30 Contact Hours

Prerequisites: DEH 201, 203, 205, 207, 209

Corequisites: DEH 252, 254, 256, 258, 260, 211

Explores the practices of dental specialties and the options available for private practice. Students develop a case study system for evaluating and creating clinical patients, as well as self-evaluation skills in preparation for entry into the dental hygiene profession.

DEH 252 Dental Hygiene Clinic Care III (Capstone)

4 Credit Hours/180 Contact Hours

Corequisites: DEH 250, 254, 256, 258, 260

Provides clinical experiences so students are prepared to offer the full range of dental hygiene services, including administering pain control measures. Serves as capstone course for dental hygiene.

DEH 254 Periodontology II

3 Credit Hours/45 Contact Hours

Corequisites: DEH 250, 252, 256, 258, 260

Explores applied periodontics with patients presenting advanced levels of periodontal disease. Topics are immediately used and applied in the clinic section of this course.

DEH 256 Community Field Experience

3 Credit Hours/90 Contact Hours

Corequisites: DEH 250, 252, 254, 258, 260

Provides practical application of community dental health theory and "best practice" techniques in a field setting.

DEH 258 Ethics and Issues in Dental Hygiene

2 Credit Hours/30 Contact Hours

Corequisites: DEH 250, 252, 254, 256, 260

Explores the ethical considerations associated with the practice of dental hygiene. Reviews professional, community and individual ethical concerns and how to evaluate them. Includes a discussion of legal considerations, standards of practice and the concept of negligence.

DEH 260 Practice Management

1 Credit Hour/15 Contact Hours

Corequisites: DEH 250, 252, 254, 256, 258

Presents a variety of management and leadership styles; explores recall systems and marketing strategies as they apply to the practice of dental hygiene. Financial considerations, occupational hazards, continuing education and future employment options are covered.

Drafting for Industry

DRI 105 Introduction to Drafting

5 Credit Hours/100 Contact Hours

Prerequisites: reading assessment at level 3 or REA 090, and math assessment at level 2 or MAT 103

Introduces drafting for drafting majors and non-majors. Includes lettering, line work, reproduction methods and geometric constructions, orthographic projections and sketching, isometric sketching, orthographic and sectioning drafting practices and introduction to inking.

DRI 106 Dimensioning and Tolerancing

2 Credit Hours/45 Contact Hours

Prerequisite: DRI 105

Introduces the principles of basic dimensioning and tolerancing practices. Uses cumulative, aligned fractional and unidirectional, coordinate and decimal dimensional systems.

DRI 107 Geometric Tolerancing

2 Credit Hours/45 Contact Hours

Prerequisite: DRI 106

Introduces the principles of geometric tolerancing practices. Includes terms and datums, straightness, flatness, roundness, cylindricity, parallelism, perpendicularity, angularity, concentricity and runouts.

DRI 109 Pictorial Drawing

2 Credit Hours/45 Contact Hours

Prerequisite: DRI 107, CAD 110

Introduces the principles of pictorial drawing practices. Includes isometric drawing, oblique drawing, perspective drawing, charts and graphs.

DRI 111 Descriptive Geometry and Auxiliary Views

2 Credit Hours/45 Contact Hours

Prerequisite: DRI 109

Introduces line problems: true length, point view, bearing, slope, azimuth and plane problems; edge view, dihedral angles, true size and shape of any plane; true length of a line by principal line method; and shortest distance between parallel and non-parallel lines, lines and planes, and intersecting lines and planes.

DRI 113 Intersections and Developments

3 Credit Hours/68 Contact Hours

Prerequisites: DRI 111 and CAD 110

Introduces the principle of flat- and curved-surface intersection and their resulting developments in terms of thin materials and heavy plate applications. Completes right and oblique prisms, cylindrical and conical surface transitions, and their resulting intersections and developments.

DRI 116 Mechanical Detail Drafting

5 Credit Hours/113 Contact Hours

Prerequisites: DRI 113 and CAD 110

Introduces the drawing of threads, fasteners, springs. Also covers welding drawings, along with gear and cam drawings and manufacturing processes.

DRI 200 Introduction to Civil/Topographic Drafting

3 Credit Hours/68 Contact Hours

Prerequisites: DRI 116 and CAD 110

Introduces various techniques of civil/topographic drafting, utilizing a specified plat. Includes working from field notes, bearings and distances, traverses, coordinates, plat maps, plot or site plans, contours, and various civil and topographic conventions.

DRI 203 Introduction to Architectural Drafting

3 Credit Hours/68 Contact Hours

Prerequisites: DRI 200 and CAD 110

Introduces the field of architectural drafting by preparing the students to draw a small single-family residence. Requires floor plans, foundation plans, elevations and all necessary detail plans along with roofing plan.

DRI 205 Introduction to Process Piping Drafting

2 Credit Hours/45 Contact Hours

Prerequisites: DRI 203 and CAD 110

Introduces the equipment, terms and drafting symbols, flanges, fittings and various valves. Covers flow diagrams and symbols, piping and general specifications along with piping details.

DRI 207 Introduction to Structural Drafting

2 Credit Hours/45 Contact Hours

Prerequisites: DRI 205 and CAD 110

Introduces a general overview of structural drafting to include drawing, checking, correcting and the revising process. Covers product fabrication and shipping and structural connections.

DRI 220 Advanced Mechanical Drafting I

8 Credit Hours/180 Contact Hours

Prerequisites: DRI 116 and CAD 110

Introduces the drawing of mechanical and operating mechanical assemblies and sub-assemblies and may include cast, welded, or machined materials and purchased parts. Includes preparation of appropriate assembly drawings and necessary detail drawings, utilizing required parts, callouts and material list and appropriate dimensioning for the subject matter.

DRI 225 Advanced Mechanical Drafting II (Capstone)

4 Credit Hours/90 Contact Hours

Prerequisites: DRI 220 and CAD 110

Introduces the development of large mechanical assemblies, their subassemblies and detailed drawings pertinent to their manufacturing and assembly.

DRI 230 Civil/Topographic Drafting I

8 Credit Hours/180 Contact Hours

Prerequisites: DRI 209 and CAD 110

Introduces methods and theories used in civil/topographic drafting, the use of map scales and measurements, standard civil drafting symbols and abbreviations, interpretation of surveyor's notations, legal land descriptions, map drafting procedures, and plats and subdivisions.

DRI 235 Civil/Topographic Drafting II (Capstone)

4 Credit Hours/90 Contact Hours

Prerequisites: DRI 230 and CAD 110

Introduces topographic mapping, transportation mapping, municipal mapping and structural drafting as it applies to the civil/topographic drafting area.

DRI 240 Structural Drafting I

8 Credit Hours/180 Contact Hours

Prerequisites: DRI 209 and CAD 110

Introduces structural steel drafting, including steel framing plans, steel connections, steel sections, fabrication details and bills of material. Covers the area of pre-cast concrete drafting, pre-cast concrete framing plans, concrete sections and concrete fabrication details and pre-cast concrete bill of materials.

DRI 245 Structural Drafting II (Capstone)

4 Credit Hours/90 Contact Hours

Prerequisites: DRI 240 and CAD 110

Continues Structural Drafting I and covers structural poured-in-place concrete foundations, walls and columns, concrete floors systems, and stairs and ramps. Also covers structural wood drafting with structural wood flooring systems, structural wood walls, structural wood roofs, and structural wood posts, beams, girds and arches.

DRI 250 Process Piping Drafting I

8 Credit Hours/180 Contact Hours

Prerequisites: DRI 209 and CAD 110

Introduces piping drawings, control stations, orifice flanges, meters, runs, pipe racks, instrument details and specifications. Covers isometric definitions, dimensioning, spools and call-outs.

DRI 255 Process Piping Drafting II (Capstone)

4 Credit Hours/90 Contact Hours

Prerequisites: DRI 250 and CAD 110

Reviews equipment foundations, piping specifications and general specifications, standard piping details and general piping details. Students draw major project-plan, elevation, sections and isometric pipe runs of depropanizer area.

Early Childhood Education (ECE)

ECE 101 Introduction to Early Childhood Education

3 Credit Hours/45-72 Contact Hours

Corequisite: ECE 102

Introduces the field of early childhood education, including various philosophies, goals and purposes for early childhood education programs for children ages birth through 8. Examines basic child growth and development, services available to parents, quality programs, curriculum, facilities, professional opportunities and teacher competencies.

ECE 102 ECE Lab Experience

3 Credit Hours/90 Contact Hours

Corequisite: ECE 101

Presents skills for observing and recording children's behaviors. Examines and practices appropriate methods for guiding and interacting with young children.

ECE 105 Nutrition and the Young Child

3 Credit Hours/45-72 Contact Hours

Prerequisite: ECE 110 or advisor approval

This course provides parents and teachers with comprehensive nutritional information and its implications for the optimal growth and development of young children. Students participate in planning meals and snacks appropriate to the needs of the young child. In addition, activities will be included for planning nutritional curricula for young children.

ECE 110 Child Growth and Development

4 Credit Hours/60-96 Contact Hours

Identifies the growth and development of the child from the prenatal stage through age 8. Explores patterns and mechanisms of developmental change. Investigates and applies theories of child development and current research. Emphasizes the integration and relationship of physical, perceptual, language cognitive and social-emotional development at all stages of growth.

ECE 111 Infants and Toddlers:

Developmental Theories and Practices

3 Credit Hours/45 Contact Hours

Corequisite: ECE 112

Explores the developmental stages and issues of infants and toddlers in the areas of social, emotional, intellectual and physical development. Relates theories to developmental stages and interactions in group settings. Analyzes state requirements for licensed infant-toddler homes and centers.

ECE 112 Care and Nurturing of Infants and Toddlers Lab

3 Credit Hours/72 Contact Hours

Prerequisites: Health check, TB tine test, CBI check, and 3 letters of reference

Corequisite: ECE 111

Teaches students to interact with infants and toddlers in an open, supervised, approved lab site. Priority is in three areas: observation skills, developmentally appropriate practice and learning opportunities.

ECE 113 Responsive Caregiving for Infants and Toddlers

Prerequisites: Health check, TB tine test, CBI check, 3 letters of reference

3 Credit Hours/72 Contact Hours

Explores the roles and skill development of the care giver in the areas of a child's behavior, feeding and communication through routine-based play.

ECE 114 Environments for Children Ages Birth to 3 Years

Prerequisites: Health check, TB tine test, CBI check, 3 letters of reference

3 Credit Hours/72 Contact Hours

Explores the roles of the family, care giver, child development program and community in providing a supportive environment for children ages birth to 3 years.

ECE 115 Curriculum: Creative Activities and the Young Child

3 Credit Hours/45-72 Contact Hours

Considers the facilitation of children's creative expression and problem solving in music, movement, art, drama, literature and other forms. Emphasizes ways to create a curriculum and maintain a classroom atmosphere and environment that allows creative expression, and encourages and supports self-expression and creativity in individual children.

ECE 117 Methods/Techniques: Curriculum Development

3 Credit Hours/45-72 Contact Hours

This course includes the overall and specific processes of planning appropriate learning environments, materials and experiences that meet the developmental needs of individuals or groups of children from birth through age 8 in a classroom setting.

ECE 120 Classroom Management Techniques

3 Credit Hours/45 Contact Hours

Explores various techniques and theories for understanding and guiding children individually and in groups. Analyzes various contemporary approaches to management and guidance.

ECE 126 Administration of ECE Programs

4 Credit Hours/60-96 Contact Hours

Examines and interprets Colorado's minimal requirements pertaining to the establishment and operation of centers for young children. Focuses on site selection, policy formation, administrative forms, staffing needs and patterns, fiscal management, the selection of appropriate equipment, program and curriculum development/evaluation, leadership, and administrative styles and techniques.

ECE 150 Supervised Lab for Infants/Toddlers and Preschoolers

3 Credit Hours/72 Contact Hours

Prerequisites: Health check, TB tine test, CBI check, 3 letters of reference

Facilitates interaction with infants/toddlers and preschoolers in an open, supervised, approved lab site. At the completion of ECE 150, the student will decide upon a specialty in ECE.

ECE 215 Curriculum: Science/Math and the Young Child

3 Credit Hours/45 Contact Hours

Examines Piaget's theory of cognitive development as a framework for conceptualizing the manner in which young children acquire scientific and mathematical skills, concepts and abilities. Includes researching and developing appropriate individual and group scientific/mathematical activities for young children.

ECE 225 Curriculum: Anti-Bias

3 Credit Hours/45 Contact Hours

Presents an analysis of anti-bias issues that have an impact on the early childhood care and education work force. Emphasizes planning curriculum and creating an atmosphere in the classroom through an anti-bias lens, embracing developmentally appropriate practices (DAP) philosophy, technique and content.

ECE 235 Curriculum: Music/Movement and the Young Child

3 Credit Hours/45 Contact Hours

Teaches early childhood educators techniques for facilitating music and movement with young children.

ECE 245 Curriculum: Art and the Young Child

3 Credit Hours/45 Contact Hours

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 250 Supervised Student Practicum/Seminar I

5 Credit Hours/188 Contact Hours

Develops understanding of children's growth and behavior and the ability to meet their individual and group needs. Focuses on the teaching styles and ways of relating to children and adults. Requires a weekly seminar.

ECE 251 Supervised Student Practicum/Seminar II (Capstone)

5 Credit Hours/188 Contact Hours

Prerequisite: ECE 250

Includes organizing, management and implementation of instruction, resources, administration. Requires a weekly seminar.

Economics**ECO 105 Introduction to Economics**

3 Credit Hours/45 Contact Hours

Provides an introduction to economic thinking through an examination of the history of economic thought and a brief discussion of contemporary concepts.

ECO 118 Labor Economics

3 Credit Hours/45 Contact Hours

Introduces national labor trends and analyzes labor trends using contemporary labor market theory. Explores the economics of collective bargaining, labor law, the role of government and additional union labor topics affecting business.

ECO 201 Principles of Macro Economics

3 Credit Hours/45 Contact Hours

Prerequisites: Basic Skills Assessment levels of 3 in math, 3b in reading and 3 in English or instructor consent

Presents an overview of the American economy, stressing the interrelationships among the consumer, business and government sectors. Analysis of savings and investment decisions, underemployment, inflation, national income accounting, Federal Reserve system, and the money and banking systems.

ECO 202 Principles of Micro Economics

3 Credit Hours/45 Contact Hours

Prerequisites: Basic Skills Assessment levels of 3 in math, 3B in reading and 3 in English or ECO 105

Analyzes the firm as it relates to the economy as a whole and economic issues. Students construct and study several economic models related to the firm: perfect competition, monopoly, oligopoly and monopolistic competition.

Education**EDU 161 Elementary Education in the USA**

3 Credit Hours/45 Contact Hours

Corequisite: EDU 162

Provides students with an understanding of elementary education within the context of the preschool through 12th grade perspective from a variety of philosophical, historical, sociological and psychological contexts.

EDU 162 Urban and Multicultural Education

3 Credit Hours/45 Contact Hours

Corequisite: EDU 161

Acquaints education students with a changing technological society. Investigates cultural and ethnic variations, human relations and the school as a social institution within an interdisciplinary environment.

EDU 205 Review for PLACE Exam: Basic Skills

1-3 Credit Hours/15-45 Contact Hours

Assesses knowledge and skills of candidates for admission to educator preparation programs and for licensure in Colorado. Covers the following areas: reading, mathematics and writing.

EDU 206 Review for PLACE Exam: Liberal Arts and Sciences

1-3 Credit Hours/15-45 Contact Hours

Assesses knowledge and skills in the following areas: scientific processes, historical and social scientific awareness, artistic expression and the humanities, communication skills and written analysis/expression.

EDU 207 Review for PLACE Exam: Professional Knowledge

1-3 Credit Hours/15-45 Contact Hours

Assesses pedagogical knowledge of candidates seeking teaching licenses. Covers knowledge and skills in the following areas: knowledge of the learner, instructional planning and assessment, instructional delivery, the professional environment and written performance assignment.

EDU 285 Issues and Trends in Education

3 Credit Hours/45 Contact Hours

Corequisites: EDU 161, 162

Gives students relevant experience in identifying historical and current issues and trends relating to education in the United States.

EDU 295 Job Search Skills

3 Credit Hours/45 Contact Hours

Provides ESL students with basic pre-employment skills that include developing a résumé, completing applications, interviewing for a job, calling for information about a job, focusing the job search and discussing other job search skills.

EDU 297 School Internship (Elementary Grades only)

3 Credit Hours/90 Contact Hours

Prerequisite: Must pass CAT assessment

Corequisite: EDU 212 (MSCD Course)

Gives the prospective teacher an opportunity to translate theoretical information from course work to practical settings in elementary schools, and to gain better understanding of the social and cultural issues in such schools.

Electronics Technology**ELT 100 DC Fundamentals**

3 Credit Hours/60 Contact Hours

Prerequisite: Assessment scores that assure placement in REA 105, MAT 103 and ENG 100

Introduces the student to simple components and DC circuits, while developing safe work habits. The student will construct and evaluate series and parallel circuits to show relationships of voltage, current, resistance and power, using DC meters to measure circuit values.

ELT 101 DC Circuits and Magnetism

2 Credit Hours/40 Contact Hours

Prerequisite: ELT 100

Continues the study of DC circuits by examining properties of magnetism, inductance and capacitance, series-parallel resistive circuits, such as loaded voltage dividers, and RC/RL time constant circuits.

ELT 102 AC Fundamentals

2 Credit Hours/40 Contact Hours

Prerequisite: ELT 101

Introduces AC concepts and circuits, using AC meters, oscilloscopes and signal generators. Students construct and analyze series and parallel circuits with inductance or capacitance and resistance to show relationships of voltage, current, phase, power and impedance with phasor analysis.

ELT 103 AC Circuits

3 Credit Hours/60 Contact Hours

Prerequisite: ELT 102

Continues the study of AC circuits with RCL phasor analysis. Students construct, analyze and troubleshoot complex series-parallel circuits, both on and off resonance, with filter applications.

ELT 104 Complex Circuit Analysis

3 Credit Hours/60 Contact Hours

Prerequisite: ELT 103

Applies advanced analysis to AC and DC circuits with Thevenin's, Norton's, Superposition and Maximum Power Transfer theorems. Students also construct and analyze vacuum tube amplifiers, using DC load lines and curve families.

ELT 110 Diode Circuits

3 Credit Hours/60 Contact Hours

Prerequisite: ELT 104

Introduces the fundamentals of solid-state devices, both diodes and transistors. Students construct and analyze diode circuits, including rectifiers, clippers and clampers, and examine characteristics of zener- and transistor-related power supplies.

ELT 111 Transistor Amplifiers (Certificate Capstone)

3 Credit Hours/60 Contact Hours

Prerequisite: ELT 110

Continues the study of transistors by examining three basic amplifier configurations for AC and DC characteristics, using load lines and equivalent circuits. Students construct class A and B power amps, phase splitters and phase inverters.

ELT 112 JFETs and Oscillators

2 Credit Hours/40 Contact Hours

Prerequisite: ELT 111

Continues the study of amplifiers with classes C, D and S, and introduces the junction field-effect transistor and principles of oscillation. Students construct and analyze JFET amplifiers and oscillator circuits, including multivibrators, phase-shift, and Hartley Culpitts and Schmitt triggers.

ELT 113 Waveforms, Harmonics and Direct Digital Sensors

2 Credit Hours/40 Contact Hours

Prerequisite: ELT 112

Examines a variety of special-application solid-state devices. The student will determine operating characteristics of MOSFETs, SCRs, UJT's, TRIACs, LEDs and opto-couplers, while constructing power-control and other circuits.

ELT 114 Operational Amplifiers

3 Credit Hours/60 Contact Hours

Prerequisite: ELT 113

Examines the OP amp by analyzing and demonstrating a wide range of applications. Students construct differential and IC operational amplifier circuits, including summers, integrators, differentiators, active filters and 555 timers.

ELT 200 Digital Fundamentals

3 Credit Hours/60 Contact Hours

Prerequisite: ELT 114

Introduces digital electronics. Students demonstrate the principles of digital integrated circuits, using binary, octal, hexadecimal and other codes, logic gates, truth tables, Boolean algebra and combinational logic.

ELT 201 Digital Circuits

3 Credit Hours/60 Contact Hours

Prerequisite: ELT 200

Continues the study of digital circuits by demonstrating the principles and operation of logic circuits, including flip-flops, counters, registers and memory circuits. Includes algebraic techniques and Karnaugh mapping as tools for circuit simplification.

ELT 202 Microprocessor Fundamentals

2 Credit Hours/40 Contact Hours

Introduces the microprocessor by examining the arithmetic logic unit, microprocessor families, memories and bus construction. Demonstrates the operation of a computer using the 8080A and 6800 microprocessor.

ELT 203 Microprocessor and Microcomputer Systems (Certificate Capstone)

3 Credit Hours/60 Contact Hours

Prerequisite: ELT 202

Continues the study of microprocessors by writing assembly language programs for an 8080A and 6800A, continuing converting programs to machine code, applying digital to a real computer by examining interfacing and timing cycles for computer systems, including display and printer. Includes minor troubleshooting and alignment, using software and other test equipment.

ELT 205 Microcomputer System Assembly

9 Credit Hours/180 Contact Hours

Prerequisite: ELT 101

Assembles a microcomputer system from power supply, chassis, memory and adapter components; interfaces the system to peripheral devices; and troubleshoots with diagnostic software breakout box, DMM and logic probes. Designed for students seeking the Microcomputer Repair Technician certificate.

ELT 206 Microcomputer Software Installation and Testing

3 Credit Hours/60 Contact Hours

Prerequisite: ELT 205

Introduces students to the parameters of installing features of common software packages and testing them for operation with peripherals. Features DOS, spreadsheet, word processing, database and desktop publishing software.

ELT 210 Communications I

3 Credit Hours/60 Contact Hours

Prerequisite: ELT 204

Introduces the theory of communications by examining and demonstrating the principles of amplitude and frequency modulation and single sideband transmission. Covers both transmitters and receivers at the circuit level.

ELT 211 Instruments and Measurements

3 Credit Hours/60 Contact Hours

Prerequisite: ELT 204

Demonstrates principles of measurements and measuring systems with selection, application and limitation of test instruments. Examines operation, special applications and circuitry of analog and digital meters, oscilloscopes and function generators.

ELT 215 Instruments and Measurements II

3 Credit Hours/60 Contact Hours

Prerequisite: ELT 211

Examines applications and limitations of specialized test equipment, including frequency counters, spectrum analyzers and storage scopes. Students select and apply signal conditioners and transducers and test citizens band transceivers.

ELT 217 Basic Television and Video Systems

3 Credit Hours/60 Contact Hours

Prerequisites: ELT 210 or AAS, instructor consent

Prepares the student for an entry-level position in the video industry. Covers the fundamentals of television and video systems. Qualifies students to take the broadcast technician certification exam from the Society of Broadcast Engineers.

ELT 222 Introduction to Biomedical Technology

3 Credit Hours/60 Contact Hours

Prerequisite: ELT 203

Applies terminology and theory of optics, electromagnetism, transducers, fluid dynamics and basic physiology to servicing medical equipment, including autoclaves and incubators.

ELT 223 High Frequency and Clinical Lab Instrumentation

4 Credit Hours/75 Contact Hours

Prerequisite: ELT 222

Demonstrates principles of operation of telemetry, diathermy, ultrasound and electrosurgical equipment, and examines blood chemicals and cell-counting tests/measurements.

ELT 224 Biophysical Measurements, EKG Equipment and Troubleshooting

4 Credit Hours/75 Contact Hours

Prerequisite: ELT 223

Presents concepts relating to the cell, cardiovascular system, EEG, EMG, blood pressure and fibrillators. Emphasizes instrumentation, using and servicing of the same, and development and operation of EKG instrumentations. Laboratory exercises on the EK5 and Datascope 720 or more advanced equipment as required.

ELT 225 Hospital Internship (Capstone)

2 Credit Hours/60 Contact Hours

Prerequisite: ELT 224

Provides clinical exposure for students in the Biomedical program. Students observe and apply theory under supervision at a local hospital.

ELT 285 Troubleshooting Techniques for Analog and Digital Systems (Capstone)

5 Credit Hours/100 Contact Hours

Prerequisite: ELT 204

Provides students with opportunities to apply all accumulated theory by analyzing and isolating representative circuit faults, using troubleshooting procedures such as signal tracing and signal substitution, and voltage and signal measurements.

English**ENG 005 English Grammar**

3 Credit Hours/45 Contact Hours

Reviews the basics of traditional English grammar and the conventions of academic and professional punctuation, mechanics, and usage. Explains common sentence errors and how to correct them and the construction of clear, effective sentences, paragraphs and essays.

ENG 030 Basic Language Skills

3 Credit Hours/45 Contact Hours

Prerequisite: Assessment Placement

Reviews basic grammar, usage and punctuation. Emphasizes sentence structure and other elements of effective writing. Introduces paragraph format.

ENG 060 Language Fundamentals

1-5 Credit Hours/15-225 Contact Hours

Prerequisite: ENG 030

Advances the student from sentence to paragraph structure. Incorporates critical-thinking skills through formulation of topic sentences and effective paragraph development. Emphasizes writing as a process, including prewriting and revising activities, and reviews grammar, usage and punctuation.

ENG 061 Language Fundamentals II

1-5 Credits/15-255 Contact Hours

Prerequisite: ENG 060

Utilizes various approaches to develop writing and/or study techniques according to the student's needs. Can focus on basic paragraph, essay writing, or study skills critical for student success.

ENG 070 Applying Technology to Writing

1-3 Credit Hours/15-45 Contact Hours

Utilizes technology (word processing tools) to improve writing for writers at all levels. Offers support for working on writing assignments in a structured setting.

ENG 080 Workshop in Reading, Writing and Speaking

3 Credit Hours/45 Contact Hours

Provides students with an understanding of the interrelationship among reading, writing and speaking. Aids students in developing language fluency necessary in other communication-based classes.

ENG 100 Composition Style and Technique

3 Credit Hours/45 Contact Hours

Introduces academic writing with emphasis on the writing process, information sources, and organization and development of written assignments for specific audiences and purposes. Examines composition techniques, including language fluency, effective diction, and appropriate sentence, paragraph and essay structure.

ENG 121 English Composition I

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 100 or assessment level 3, instructor/advisor consent

Emphasizes the planning, writing and revising of compositions, including the development of critical and logical thinking skills. Includes a minimum of five (5) compositions, which may include expressive and informative writing, but stress analytical, evaluative and persuasive writing.

ENG 122 English Composition II

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 121

Expands and refines the objectives of English Composition I. Emphasizes critical/logical thinking and reading, problem definition, research strategies, and writing analytical, evaluative and/or persuasive papers that incorporate research.

ENG 131 Introduction to Technical Writing I

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 100 or assessment level 3

Develops proficiency in technical writing, emphasizing principles for organizing, drafting and revising a variety of documents for industry, business and government.

ENG 132 Technical Writing II

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 131 or instructor consent

Expands and refines the objectives of ENG 131 for students whose jobs or majors require advanced skills in technical writing.

ENG 221 Creative Writing I

3 Credit Hours/45 Contact Hours

Prerequisite: Instructor consent

Teaches techniques for creative writing. Explores imaginative uses of language through writing short stories, drama, poetry and/or creative nonfiction.

ENG 222 Creative Writing II

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 221

Continues development of expression through writing; provides instruction in literary forms such as poetry, fiction and/or nonfiction; emphasizes techniques for developing and controlling such forms; and stresses the multicultural and diverse nature of language.

ENG 227 Poetry Writing

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 221 or instructor consent

Teaches techniques for creating poems, including the study and appreciation of the language, forms and sound patterns of poetry.

English as a Second Language (ESL)**ESL 001 ESL Spelling Strategies**

3 Credit Hours/45 Contact Hours

Introduces ESL students to techniques that increase basic spelling skills in English. Includes structured word analysis, rule analysis and word attack skills for words not governed by rules.

ESL 011 Basic Pronunciation

3 Credit Hours/45 Contact Hours

Provides listening and speaking activities that help students recognize and produce English vowel and consonant sounds, and common stress and intonation patterns.

ESL 012 Intermediate Pronunciation

3 Credit Hours/45 Contact Hours

Prerequisite: ESL 011

Provides listening, speaking and reading activities that help students recognize and produce a variety of stress and intonation patterns in English. Focuses on helping ESL students speak and read English more clearly and confidently.

ESL 021 Basic Grammar

3 Credit Hours/45 Contact Hours

Assists the non-native speaker of English in mastering basic structures in English grammar.

ESL 022 Intermediate Grammar

3 Credit Hours/45 Contact Hours

Prerequisite: ESL 021

Reviews basic structures in English grammar and introduces more advanced structures.

ESL 023 Advanced Grammar

3 Credit Hours/45 Contact Hours

Prerequisite: ESL 022

Assists the non-native speaker of English in developing and using more advanced structures in English grammar. Prepares the student for introductory ESL composition courses.

ESL 031 Basic Conversation

3 Credit Hours/45 Contact Hours

Provides speaking and listening activities that help the student communicate more competently. Develops vocabulary use and also assists in developing clearer pronunciation.

ESL 032 Intermediate Conversation

3 Credit Hours/45 Contact Hours

Prerequisite: ESL 031

Provides speaking and listening activities that increase the student's communicative skills. Continues to help the student increase vocabulary range and improve pronunciation skills.

ESL 041 Basic Reading

3 Credit Hours/45 Contact Hours

Assists the student in improving comprehension of simple written texts by discussing the meaning, developing word analysis skills and improving vocabulary range.

ESL 042 Intermediate Reading

3 Credit Hours/45 Contact Hours

Prerequisite: ESL 041

Assists the student to read more quickly and accurately and understand a variety of more complex reading material.

ESL 052 Intermediate Composition

3 Credit Hours/45 Contact Hours

Prerequisite: ESL 023

Introduces the fundamentals of paragraph organization and development. Assists the student in developing sentence variety and grammatical competency within well-organized paragraphs.

ESL 053 Advanced Composition

3 Credit Hours/45 Contact Hours

Prerequisite: ESL 052

Reviews paragraph organization and structure and introduces the student to essay writing. Emphasizes writing as a process, and continues to assist students in improving syntactic and grammatical competency in English.

ESL 061 Vocational ESL I

1-4 Credit Hours/24-96 Contact Hours

Teaches limited English vocational students basic communication skills in preparation for vocational training and work.

ESL 062 Vocational ESL II

1-4 Credit Hours/24-96 Contact Hours

Provides instruction in advanced English skills for those with limited English for vocational courses and employment.

ESL 080 High Intermediate Language Skills

6-15 Credit Hours/90-225 Contact Hours

Prerequisite: ESL assessment score at the high intermediate level

Provides high intermediate English language students with intensive instruction and practice in reading, writing and speaking English. Teaches intermediate and advanced-level grammar concepts. Prepares students for further academic and vocational study.

ESL 090 VESL Recitation

1-3 Credit Hours/30-90 Contact Hours

Corequisite: Vocational program and faculty consent

Facilitates English language development of key concepts and terminology related to core content curricula.

Finance

(FIN) COURSES HAVE CHANGED TO BUSINESS ADMINISTRATION (BUS). SEE BUS.

French**111 First-Year French I**

5 Credit Hours/90 Contact Hours

Instructs the student in the pronunciation of all the French sounds and introduces first-semester basic grammatical structures. Immerses students in the culture and flavor of France through the innovative materials of French in Action.

FRE 112 First-Year French II

5 Credit Hours/73-75 Contact Hours

Prerequisite: FRE 111

Teaches the student how to establish and maintain average conversation in French and introduces second-semester grammatical structure. Immerses student in detailed culture and flavor of France through the innovative materials of French in Action.

FRE 211 Second-Year French I

3 Credit Hours/45 Contact Hours

Prerequisite: FRE 112

Teaches the student how to establish and maintain an advanced conversation in French and introduces third-semester grammatical structure and writing. Gives more detailed culture and flavor of France.

General Education Development**GED 001 GED Preparation**

1-12 Credit Hours/15-180 Contact Hours

Prepares the student for the five areas of the GED test: writing, social studies, science, interpreting literature and the arts and mathematics. Includes diagnostic and simulated GED test practice.

GED 052 GED Preparation (Off-campus)

1-12 Credit Hours/15-180 Contact Hours

Prerequisite: Student must be 17 years of age

Prepares the student for the five areas of the Colorado High School Equivalency Examination (formerly GED Test): writing, social studies, literature and mathematics. Includes diagnostic assessment and simulated test practice. Offered by the GED Institute at community-based sites.

Geography**GEO 105 World Regional Geography**

3 Credit Hours/45 Contact Hours

Includes concepts 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. Analyzes interrelationships between developed and developing regions.

GEO 125 Geography of Colorado

3 Credit Hours/45 Contact Hours

Surveys Colorado, including physical and cultural aspects, such as land forms, weather and climate, natural resources, economic activities, cultural migration and trends. Also studies regional differences and human impact upon the environment.

GEO 200 Human Ecology

3 Credit Hours/45 Contact Hours

Surveys world resources, the nature of resources, attitude toward resources, environmental principles and the impact of population on resource bases.

Geology**GEY 111 Physical Geology**

4 Credit Hours/60 Contact Hours

Studies the materials of the earth, its structure, surface features and the geologic processes involved in its development. Includes laboratory experience.

GEY 225 Planet Earth

3 Credit Hours/45 Contact Hours

Introduces students to an interdisciplinary approach to earth sciences and human ecology. Topics include continental drift, paleomagnetism, theories of climate change, the origin of the solar system, the sun's effect on earth, earth resources and humans' impact on the environment.

Gerontology

GNT 101 Nutrition

3 Credit Hours/45 Contact Hours

Prerequisites: ENG 100, REA 090, MAT 105

Introduces basic nutrition with emphasis on personal nutrition. Satisfies the nutrition requirement for students entering the Nursing program. Attendance at first session is required.

GNT 201 Introduction to Gerontology

3 Credit Hours/45 Contact Hours

Prerequisites: Program enrollment and instructor consent

Acquaints students with the major issues and concepts pertinent to the field of gerontology. Introduces various theoretical perspectives on aging, changing trends in life expectancy and other demographic considerations, the interrelationships between elders and key social institutions, and provides an overview of physical and psychological factors associated with aging.

GNT 213 Psychology of Aging

3 Credit Hours/45 Contact Hours

Prerequisites: GNT 201 and instructor consent

Studies adult development and aging. Contrasts existing myths about adult development with the best available scientific data to separate fact from fiction. Identifies important questions for the existing scientific or empirical data.

GNT 214 The Social Aspects of Aging

3 Credit Hours/45 Contact Hours

Prerequisites: GNT 201 and instructor consent

Educates students in the various social aspects of the aging process and the ways in which an aging population affects social structure. Introduces demographic processes, demographic characteristics of the current older population, the importance of understanding the social context of aging individuals, and sociological perspectives on time and aging as a social issue.

GNT 215 Aging in a Diverse Society

3 Credit Hours/45 Contact Hours

Corequisite: GNT 201 or instructor consent

Explores ethnic, religious and sexual diversity issues as they relate to older Americans. Ties together gerontological and diversity concerns to develop students into more sensitive and effective practitioners when dealing with older adults.

GNT 221 Overview of Programs and Services to the Aged

3 Credit Hours/45 Contact Hours

Corequisite: GNT 201

Prerequisites: Program admission and instructor consent

Examines the myriad programs and services available to elderly individuals and their families. Explores legislative, historic and demographic trends in the field of aging: health and mental health, information and referral, income maintenance, housing, transportation, long-term care, nutrition, employment and senior centers. For anyone who interacts with the elderly, either professionally or personally.

GNT 236 Nutrition and Aging

3 Credit Hours/45 Contact Hours

Prerequisite: GNT 212

Emphasizes that aging is not synonymous with deterioration, and many of the signs and symptoms of chronic nutritional imbalances are often identified as changes attributed to aging. Studies effects of various nutrients upon the aging process.

GNT 237 Death and Dying

3 Credit Hours/45 Contact Hours

Pre- or Corequisite: GNT 101 or instructor consent

Examines the event of death and the process of dying. Explores the causes of death and the experience of dying in nursing homes, emergency rooms and hospices. Reviews the ethical and political issues of death and dying.

GNT 285 Gerontology Practicum (Capstone)

3 Credit Hours/45-90 Contact Hours

Prerequisite: GNT 201

Provides the student with a practical experience in gerontology. Emphasizes developing observation skills, individual growth in self-awareness, establishing effective communication and understanding case management skills.

GNT 295 Leadership Development

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 100, PSY 101, or instructor consent

Studies and applies the theories and techniques of leadership and group processes. Introduces leadership skills and experience with applications in a group setting.

Graphic Arts

GRA 101 Introduction to Graphic Arts and Traditional Layout

3 Credit Hours/67.5 Contact Hours

Introduces the student to offset printing, processes and job opportunities. Teaches the basics of traditional layout.

GRA 102 Electronic Composition, Art and Copy Preparation

3 Credit Hours/67.5 Contact Hours

Prerequisite: GRA 101

Introduces concepts and techniques of desktop publishing. Covers treatment of original art and graphics for reproduction and paste up of electronic mechanicals, including display type, illustrations, registration work and typesetting elements.

GRA 103 Line and Halftone Photography

3 Credit Hours/67.5 Contact Hours

Prerequisites: GRA 101, 102

Introduces the student to basic darkroom work and theory. Teaches the production of halftone photos and various methods of exposure and development including various types of film, paper and chemistry used in the darkroom.

GRA 104 Digital Halftone Photography

3 Credit Hours/67.5 Contact Hours

Prerequisites: GRA 101, 102, 103

Introduces the student to digital halftone photography. Teaches the proper use of digital camera images and their conversion into a format that can be accessed through a computer.

GRA 105 Résumé and Portfolio (Capstone)

3 Credit Hours/67.5 Contact Hours

Corequisites: GRA 101, 102, 103, 104

Introduces the student to portfolio presentation and preparation. Teaches résumé writing, including composing the cover letter and comparing job opportunities in the graphic arts industry.

GRA 107 Introduction to Web and Homepage

3 Credit Hours/67.5 Contact Hours

Introduces students to the Internet, its history and functionality. This course will consist of using the computer, browsing the World Wide Web, and creating web presentations and on-line teaching/learning.

GRA 109 Microcomputing

1 Credit Hour/22.5 Contact Hours

Corequisites: GRA 201-205, GRD 102, 103, 203, ART 135

Provides student individualized training in software programs including PageMaker, Adobe Illustrator and Quark Xpress, to better prepare students to undertake projects required in selected graphic arts, graphic design and art classes.

GRA 111 Beginning Offset Presses

3 Credit Hours/60 Contact Hours

Prerequisites: GRA 101, 102, 103, 104, 105

Introduces basic concepts of how to set up and operate an offset press. Teaches press set up for paper feeder, register board, delivery and printing.

GRA 112 Stripping, Image Assembly, Platemaking and Inks

3 Credit Hours/60 Contact Hours

Prerequisites: GRA 101, 102, 103, 104, 105, 111

Introduces basic concepts of how to strip negatives into flats for plate making and how to make plates. Increases expertise in small press preparation, while learning simple, advanced book and process color stripping, as well as the use of register pins.

GRA 113 Paper and Ink Management and Print Production I

3 Credit Hours/60 Contact Hours

Prerequisite: GRA 101, 102, 103, 104, 105, 111, 112

Introduces the student to the different facets of paper and ink while he/she experiences small production jobs. Presents data on paper, small press and production time.

GRA 114 Intermediate Offset Press and Print Production II

3 Credit Hours/60 Contact Hours

Prerequisite: GRA 101, 102, 103, 104, 105, 111, 112, 113

Introduces the student to large presses and the quick-copy system while presenting more detailed information on small presses. Instructs students on pressure settings and adjustments, registering techniques, the 25-inch press, and multicolor registering and running.

GRA 185 Bindery and Portfolio (Capstone)

3 Credit Hours/60 Contact Hours

Prerequisite: GRA 101, 102, 103, 104, 105, 111, 112, 113, 114

Introduces the student to small and large bindery operations and to small press operations while learning about paper, job pricing, job planning, scheduling, work flow and portfolio preparation.

GRA 201 Electronic Graphic

3 Credit Hours/68 Contact Hours

Corequisite: GRA 109

Introduces the combination of traditional skills and applicable Macintosh electronic prepress technology necessary to begin the preparation of camera-ready art.

GRA 202 Electronic Page Layout

3 Credit Hours/68 Contact Hours

Prerequisite: GRA 201

Corequisite: GRA 109

Continues topics introduced in GRA 201, applying Macintosh computer skills for assembling workable solutions to various types of print media.

GRA 203 Electronic Scanner and Color Theory

3 Credit Hours/68 Contact Hours

Prerequisites: GRA 202

Corequisite: GRA 109

Introduces the use of the scanner and Macintosh computer equipment for bringing black and white and color images into an electronic manipulation environment.

GRA 204 Electronic Prepress

3 Credit Hours/68 Contact Hours

Prerequisites: GRA 203

Corequisite: GRA 109

Continues topics introduced in GRA 201, GRA 202, GRA 203: working with photo imaging service bureaus in the industry, as well as within the Graphic Arts department. Students produce camera-ready art.

GRA 205 Photo Manipulation

3 Credit Hours/68 Contact Hours

Prerequisites: GRA 204

Corequisite: GRA 109

Continues topics introduced in GRA 201, GRA 202, GRA 203, GRA 204: combining images, design elements and type into a single image as camera-ready art.

GRA 285 Printer Portfolio and Advanced Printing Techniques (Capstone)

3 Credit Hours/68 Contact Hours

Prerequisites: GRA 212

Continues to prepare student for printing presentation and job interviewing techniques. Develops skills for competing in the local job market. Includes developing specs. and estimating for the industry.

Graphic Design

GRD 100 Lettering and Typographic Design

3 Credit Hours/90 Contact Hours

Introduces the history and concepts of typography as applied to graphic communications. Explores appropriate use of typography in a variety of design and advertising applications, emphasizing hand and digital lettering. Covers type recognition and typographic terms. Explores career possibilities with tours.

GRD 102 Introduction to Macintosh

3 Credit Hours/90 Contact Hours

Corequisite: GRA 109

Acquaints students with the Macintosh computer, its terminology and development, system management, graphics applications and business applications.

GRD 103 MAC Computer Art

3 Credit Hours/90 Contact Hours

Prerequisite: CIS 118 or instructor consent

Corequisite: GRA 109

Introduces methods for creating artistic output using various computer software programs currently used by the graphic design industry. Emphasizes skills with two-dimensional media that are applicable to a variety of visual communication professions.

GRD 105 Advertising Typography and Layout

3 Credit Hours/90 Contact Hours

Prerequisite: GRD 100

Covers production of layouts for graphic projects from conceptualization and research, to copy fitting and indication of headlines, subheads and text. Develops skills in rendering of thumbnails and rough and comprehensive layouts, as well as skills in working with clients and presenting designs. Introduces digital layout.

GRD 107 Rendering/Mixed Media

3 Credit Hours/90 Contact Hours

Prerequisite: ART 121

Introduces product rendering in a variety of media, including opaque water media, scratch and textured board, and pen and ink for both two- and three-dimensional design projects. Prepares for print production, both traditionally and digitally.

Explores freehand and electronic methods.

GRD 185 PageMaker Design

3 Credit Hours/90 Contact Hours

Prerequisite: GRD 103

Corequisite: GRA 109

Introduces the MAC Ilci computer and PageMaker software to solve fundamental graphic design problems in page layout, grid development and electronic type for the print medium.

GRD 200 Advertising Design and Portfolio Preparation

3 Credit Hours/90 Contact Hours

Prerequisites: GRD 100, 103, 105

Covers the process of comprehensive problem solving of complex and advanced print design. Provides experience in digital production of designs using multiple computer applications and in exploring a variety of color output options.

GRD 203 Adobe Illustrator

3 Credit Hours/90 Contact Hours

Prerequisite: GRD 103

Uses the computer to create object-based graphics for color illustration applications that range from designing ads, brochures and packing, to logos or any other print project. Students work with scanners to input existing art and photographs for manipulation on the computer.

GRD 206 Graphic Design Production and Prepress I

3 Credit Hours/90 Contact Hours

Prerequisite: GRD 100

Introduces the production of final print-ready art, both mechanically and electronically. Emphasizes black and white, one-, two- and three-color processes and the production of digital prepress files for printed projects.

GRD 207 Graphic Design Production and Prepress II

3 Credit Hours/90 Contact Hours

Prerequisites: GRD 100, 103, 105, 206

Continues to explore digital prepress production, emphasizing more complex, multi-color printing projects, including the four-color process. Includes problem solving from initial concept to the final printed piece and mastering the necessary computer applications.

GRD 208 Illustration

3 Credit Hours/90 Contact Hours

Prerequisite: GRD 207

Develops competencies in illustration. Develops proficiency in a variety of traditional, as well as experimental techniques. (Entry-level skills: demonstrated drawing and layout skills.)

GRD 209 Quark Xpress (Capstone)

3 Credit Hours/90 Contact Hours

Prerequisite: GRD 103

Corequisite: GRD 209

Uses advanced electronic software on the computer to create all types of publications. Instructs students on black and white page layout to multicolor magazine layouts with Quark, demonstrating how this desktop publishing software is being used by the graphic design industry.

GRD 220 Introduction to Photoshop

3 Credit Hours/90 Contact Hours

Prerequisite: GRD 103

Acquaints students with Adobe's Photoshop software, its tools and features. Exercises in photo retouching and manipulation and image generation for preparation of print medium or as finished product.

GRD 285 Creative Graphic Design and Portfolio Preparation (Capstone)

3 Credit Hours/90 Contact Hours

Prerequisites: GRD 100, 103, 105, 200

Corequisite: GRD 209

Continues to explore the production of comprehensive and complex design projects to display advanced design and computer skills. Provides further experience in digital production of designs, in application of multiple computer programs and in preparation of a portfolio.

GRD 297 Graphic Design Internship

3-6 Credit Hours/135-225 Contact Hours

Prerequisite: GRD 206

Introduces students to an on-site internship experience in a wide variety of graphic design-related situations.

Health Occupations

HOC 100 Medical Terminology

1-3 Credit Hours/15-45 Contact Hours

Surveys the origin and structure of medical terms; helps the student interpret and pronounce medical terms used in various health-related areas.

HOC 107 Speedy Spanish for Medical Personnel

2 Credit Hours/30 Contact Hours

Provides health professionals the opportunity to learn basic conversational Spanish needed to communicate with clients and families in a variety of situations.

Health and Wellness Management

HWM 101 Essentials of Total Fitness and Wellness

3 Credit Hours/45 Contact Hours

Prerequisite: PSY 101 or SOC 101

Provides a systematic introduction to explore health-related fitness and wellness; general principles of exercise for health and fitness; connections among nutrition, health and fitness; and connections among exercise, diet and weight control. Explores relationships of exercise to the environment, to rehabilitation and to disease prevention.

HWM 103 First-aid and CPR

2 Credit Hours/30 Contact Hours

Presents basic information and practice in identifying ways to prevent injury and/or illness, recognize emergencies, follow three emergency action steps in any emergency, and provide basic care for injury and/or sudden illness until victim receives medical help. Upon successful demonstration of specific skills and 80 percent or higher score on written exam, student will receive an American Red Cross certificate.

HWM 201 Health Psychology

3 Credit Hours/45 Contact Hours

Prerequisite: HWM 101

Provides systematic introduction to explore the psychological procedures in prevention, diagnosis and treatment of such medical problems as cardiovascular disorders, headaches, obesity, asthma and chronic pain. Explores psychological factors that contribute to promotion and maintenance of good health and to recovery of existing illness.

HWM 205 Educational Principles of Health and Wellness

3 Credit Hours/45 Contact Hours

Prerequisite: HWM 101

Provides a systematic introduction to the principles of health and wellness education. Provides opportunity for students to analyze various methods of health and wellness instruction, and to prepare teaching units appropriate for K-12 and for adult education.

HWM 285 Health and Wellness Management Practicum (Capstone)

2 Credit Hours/90 Contact Hours

Prerequisites: HWM 101, 103, 201, 205

Provides practical experience in health and wellness management that facilitates students' learning how to apply theoretical concepts to hands-on situations and how to problem solve given practical limitations of real world environment. Emphasizes developing professional behaviors and skills, addressing individual needs of clients, and developing research, entrepreneurial and job-search skills.

History

HIS 101 Western Civilization I

3 Credit Hours/45 Contact Hours

Explores the major political, economic, social, diplomatic/military, cultural and intellectual events and roles of key personalities that shaped Western civilization from the prehistoric era to 1715.

HIS 102 Western Civilization II

3 Credit Hours/45 Contact Hours

Prerequisites: HIS 101

Explores the major political, economic, social, diplomatic/military, cultural and intellectual events and the roles of key personalities that shaped Western civilization from 1650 to present day.

HIS 201 United States History I

3 Credit Hours/45 Contact Hours

Examines the major political, economic, social, diplomatic/military, cultural and intellectual events in American history from the first inhabitants through Civil War reconstruction.

HIS 202 United States History II

3 Credit Hours/45 Contact Hours

Prerequisite: HIS 201

Examines the major political, economic, social, diplomatic/military, cultural and intellectual events in American history from reconstruction to present.

HIS 205 Women in History

3 Credit Hours/45 Contact Hours

Conveys the primary ideas of women's history and uses these ideas to analyze the lives of American women from many cultures and to assess the impact of their lives on the history of the United States.

HIS 218 Vietnam History, Culture

3 Credit Hours/45 Contact Hours

Explores the socio-political, religious and cultural developments from ancient to present-day Vietnam.

HIS 225 Colorado History

3 Credit Hours/45 Contact Hours

Introduces students to Colorado history. The course stresses historically important fact and analysis, as well as more colorful historical issues.

HIS 226 History of Denver

3 Credit Hours/45 Contact Hours

Focuses primarily on the history of Denver from its founding in the Pikes Peak Gold Rush down to the present time. The prime focus is on the colorful people and the major events by which Denver established itself as the "Queen City of the High Plains."

HIS 235 The American West

3 Credit Hours/45 Contact Hours

Traces the major political, social, economic, cultural and environmental forces that have made the American West a distinct region.

Human Services

HSE 105 Introduction to Social Welfare

3 Credit Hours/45 Contact Hours

Examines the historical and philosophical background of statutes, ideologies, political process, policy making, decision rules and influential leaders who have had an impact on shaping the social welfare institutions in the United States.

HSE 106 Survey of Human Services

3 Credit Hours/45 Contact Hours

Provides a philosophical, political, statutory and contemporary overview of social problems as they relate to social work. Includes future trends.

HSE 107 Interviewing Principles and Practices

3 Credit Hours/45 Contact Hours

Identifies basic concepts of the interview relationship with emphasis on the helping interview. Examines the principles, processes, documentation and techniques of interviewing. Gives opportunity to engage in practice interviews, role playing and feedback. Includes principles of speech requirements. Offered during the fall semester only.

HSE 108 Introduction to Therapeutic Systems

3 Credit Hours/45 Contact Hours

Prerequisites: HSE 107 or instructor consent

Introduces basic concepts of major therapeutic systems, including backgrounds, developmental theories and practices of specific systems from psychoanalysis to reality therapy. Offered during the spring semester only.

HSE 109 Social Issues in Human Services

3 Credit Hours/45 Contact Hours

Prerequisites: HSE 105 or instructor consent

Provides an analytical overview of the social functions of human services. Examines the welfare system from the liberal, conservative and radical perspectives. Presents idealism and pragmatism of the present state of human services and trends for the future. Offered during the fall semester only.

HSE 110 Overview of Special Populations

3 Credit Hours/72 Contact Hours

Provides students with knowledge in the areas of laws and history of special education; roles and responsibilities of paraprofessionals in schools; planning for students with disabilities; basic learning concepts; and cognitive, communicative, physical and affective needs of students with disabilities.

HSE 111 Communication Skills with Special Populations

3 Credit Hours/72 Contact Hours

Provides knowledge in the areas of effective communication skills, problem-solving skills and analyzing self as a communicator.

HSE 112 First-aid/CPR

1 Credit Hour/24 Contact Hours

Provides students with knowledge in the areas of health and safety issues in schools, basic first-aid procedures and CPR procedures.

HSE 113 Human Services for Persons with Developmental Disabilities

3 Credit Hours/45 Contact Hours

Prerequisites: REA 060, 109, MAT 035, ENG 060

Provides a basic overview of the historical development, philosophy and values of rehabilitative services for those who plan to work with persons with developmental disabilities. Offered during the fall semester only.

HSE 114 Student Behavior Management

3 Credit Hours/72 Contact Hours

Provides students with knowledge in the areas of behavior modification, teaching appropriate behaviors, contingency contracts, observing and recording behavior, lunchroom supervision and playground supervision.

HSE 115 Human Services Practicum I (Certificate Capstone)

1-6 Credit Hours/45-150 Contact Hours

Prerequisites: Instructor consent

Provides experience in various service agencies to familiarize students with agency work. Emphasizes developing observational skills, individual growth in self-awareness, interviewing skills, introduction to agencies and client systems. A weekly classroom seminar complements the agency experience. Offered during the spring semester only.

HSE 116 Public Assistance Practicum

3 Credit Hours/105 Contact Hours

Provides practical experience in a social setting where students learn to apply human services theoretical concepts to hands-on situations. Presents students with the practical limitations and specialized program offerings available to clients in the context of a public assistance service delivery setting.

HSE 117 Confidentiality

1 Credit Hour/15 Contact Hours

Emphasizes working with mental health and substance abuse clients, using confidentiality in a clinical practice. Details specific provisions of federal and state statutory regulations involved with client confidentiality.

HSE 141 Basic Instructional Techniques

3 Credit Hours/72 Contact Hours

Prerequisite: HSE 111

Provides students with knowledge in the areas of delivering instruction, grouping students, reading with students, modifying instructional materials and using technology and adaptive equipment.

HSE 142 Transitional Support Skills

3 Credit Hours/72 Contact Hours

Prerequisite: HSE 111

Provides students with knowledge in the areas of transition planning, job coaching and student self-advocacy.

HSE 205 Human Services for Groups

3 Credit Hours/45 Contact Hours

Prerequisite: HSE 108 or instructor consent

Introduces the concepts, principles, goals and skills of group work as a method of providing human services. Emphasis is on basic practice skills and intervention techniques. Offered during the fall semester only.

HSE 206 Human Services for Families

3 Credit Hours/45 Contact Hours

Prerequisite: HSE 108 or instructor consent

Introduces family theory and practice. Covers such topics as: systems theory, communication theorists, structure therapists, developmental theory and future directions in research of family therapy. Offered during the fall semester only.

HSE 207 Community Organization

3 Credit Hours/45 Contact Hours

Prerequisite: HSE 108 or instructor consent

Examines the theory and practice of organizing communities, neighborhoods, committees and advisory boards as they relate to the social services delivery system. Offered during the fall semester only.

HSE 208 Social Welfare Policy

3 Credit Hours/45 Contact Hours

Prerequisite: HSE 109 or instructor consent

Presents models for social policy analysis, program planning and evaluation. Applies models to relevant social welfare issues. Offered during the spring semester only.

HSE 209 Crisis Theory and Intervention

3 Credit Hours/45 Contact Hours

Prerequisites: HSE 107, HSE 108, HSE 115

Introduces basic theories and principles of crisis intervention from a historical and practical orientation. Offered during the spring semester only.

HSE 211 Human Services Practicum II

4 Credit Hours/150 Contact Hours

Prerequisite: HSE 115 or instructor consent

Provides placement in a service agency where the student applies the values, concepts and skills gained in theory courses to

the actual process of helping people. Emphasis is on sharpening skills and knowledge, use of self in the helping process, understanding systems and use of community resources. Offered during the fall semester only.

HSE 212 Human Services Practicum III (AAS Capstone)

7 Credit Hours/285 Contact Hours

Prerequisites: HSE 211

Provides practical experience working in an approved social service agency. The student participates in various service agency functions as a group member and leader, and further develops skills and knowledge in the use of self and systems in the helping process. Offered during the spring semester only.

HSE 213 Substance Abuse: A Multi-Model Approach

3 Credit Hours/45 Contact Hours

Prerequisite: HSE 108

Provides a study of major treatment modalities in the area of substance abuse. Topics include the history of treatment approaches, prevention with emphasis on adolescent groups and the families. Major emphasis is on the delivery of services in helping people with substance abuse problems. Offered during the spring semester only.

HSE 215 Introduction to Delinquency and Justice

3-7 Credit Hours/45-150 Contact Hours

Prerequisite: HSE 108 or instructor consent

Provides a historical and philosophical background of theories, ideologies, statutes, political processes and policies of the American Juvenile Justice System. Examines juvenile process from predelinquency and adjudication, through corrections.

HSE 217 Cultural Diversity in Human Services

3 Credit Hours/45 Contact Hours

Prerequisites: HSE 107, 108

Presents an analysis of multicultural issues that can have an impact on the human services work force. Emphasizes cultural differences and backgrounds of African-Americans, Hispanics, Native Americans and immigrants of Asian heritage, and how they respond to mental health services.

HSE 221 Substance Abuse Counseling

4 Credit Hours/60 Contact Hours

Emphasizes two areas of Drug and Alcohol Counselor preparatory work for state certification: basic counseling skills and client records management. Prepares students for entry-level work in the substance abuse treatment field. Includes the development of treatment plans, clinical notes, discharge summary and demonstration.

HSE 225 Clinical Techniques in Substance Abuse

3 Credit Hours/45 Contact Hours

Prerequisite: HSE 221

Corequisites: HSE 107, 108

Applies advanced counseling skills and staff supervision techniques to clinical practices in substance abuse and mental health settings. Reviews the role of a clinical supervisor and details the process of therapeutic counseling practices.

HSE 297 Internship Work Experience

1-6 Credit Hours/30-180 Contact Hours

Prerequisites: HSE 114 or 217

Provides students desiring jobs as paraprofessionals with the guided opportunity to practice skills that have been learned in the classroom.

Hospitality and Travel Administration

(HTA) COURSES HAVE CHANGED TO BUSINESS OF TRAVEL AND TOURISM (BTT). SEE BTT.

Humanities

HUM 115 Introduction to Chicano Studies

3 Credit Hours/45 Contact Hours

Introduces students to skills development in multicultural education. Consists of Chicano history, migration and labor, education, law and Chicano culture.

HUM 116 African-American Studies

3 Credit Hours/45 Contact Hours

Emphasizes significant contributions of African-American writers, artists, scientists and political leaders to American civilization. Examines key African-American cultural contributors.

HUM 117 Introduction to Asian-American Studies

3 Credit Hours/45 Contact Hours

Examines the contemporary experiences, as well as the historical background of Asians in America. Students will be introduced and will introduce each other to characteristics of diverse Asian-American populations. Variables such as culture, cuisine, history, family politics and society, which shape the Asian-American character, will be studied. Classroom sessions will be enriched by activities such as biographical interviews and field trips.

HUM 121 Survey of Humanities I

3 Credit Hours/45 Contact Hours

Introduces students to the history of ideas in Western cultures through a study of the visual arts, literature, drama, music and philosophy of early civilizations, Greek and Roman antiquity and Christian eras. Emphasizes connections among the arts, values and diverse cultures.

HUM 122 Survey of Humanities II

3 Credit Hours/45 Contact Hours

Examines the medieval, Renaissance and baroque periods through a study of the visual arts, literature, music and philosophy. Compares and contrasts diverse cultural ideas, and feminine and masculine viewpoints.

HUM 123 Survey of Humanities III

3 Credit Hours/45 Contact Hours

Examines the cultures of the 17th through the 20th centuries by focusing on the interrelatedness of the arts, ideas and history. Considers the influences of industrialism, scientific development and non-European peoples.

HUM 185 Cultural Diversity in the Humanities

3 Credit Hours/45 Contact Hours

Introduces students to the various aspects of social and cultural diversity. Promotes development of critical thought and growth of multicultural, multisocial and multilingual understanding.

HUM 215 Ideas in a Changing Society

1-3 Credit Hours/15-45 Contact Hours

Prerequisite: ENG 121 or instructor consent

Presents an interdisciplinary study of the modes of change as manifested in the arts, mass culture, language, or lifestyles.

HUM 251 Curanderismo: A Cultural Approach to Holistic Medicine

3 Credit Hours/45 Contact Hours

Introduces students to intercultural, alternative and holistic approaches to health, diet and medical care.

HUM 285 Seminar in Critical Thinking (Capstone)

3 Credit Hours/45 Contact Hours

Prerequisites: ENG 121, MAT 135, SPE 115

Shows the interconnections among the various courses required for CCD's AA and AGS degrees. Reviews both the common and unique properties of the subject areas studied.

Japanese

JPN 101 Conversational Japanese I

3 Credit Hours/45 Contact Hours

Introduces basic vocabulary and grammar to students with no knowledge of Japanese. Includes simple vocabulary, sentence structure, the writing system and emphasizes practical conversational skills to develop a basic understanding of the language.

JPN 111 First-Year Japanese I

5 Credit Hours/75 Contact Hours

Emphasizes continued development of conversational ability, reading and writing skills and more complex grammatical forms. Intended for students having a basic prior understanding of Japanese phrases and simple sentence structure.

JPN 112 First-Year Japanese II

5 Credit Hours/75 Contact Hours

Prerequisite: JPN 111

Emphasizes conversational ability, while introducing complex grammatical structures, colloquial forms and more "kanji" characters. Intended for students having a good understanding of Japanese sentence structure, vocabulary and the writing system.

JPN 211 Second-Year Japanese I

3 Credit Hours/45 Contact Hours

Prerequisite: JPN 112

Introduces complex grammatical structures, emphasizes development of conversational ability, and stresses additional reading/writing skills for students having a good understanding of Japanese sentence structure, vocabulary and the writing system.

Journalism

JOU 105 Introduction to Mass Media

3 Credit Hours/45 Contact Hours

Examines the basic concepts and principles of various mass media for the journalism student and average consumer of mass media.

JOU 106 Fundamentals of Reporting

3 Credit Hours/45 Contact Hours

Prerequisites: JOU 105

Examines the basic principles of print media reporting. Designed for journalism students and for other students interested in learning to write clearly, succinctly and accurately.

Literature

LIT 115 Introduction to Literature

3 Credit Hours/45 Contact Hours

Introduces students to fiction, poetry and drama. Emphasizes active and responsive reading.

LIT 150 The Bible as Literature

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 121 or instructor consent

Introduces various Biblical texts and the exegetical methods of reading and interpreting such texts. Emphasizes the aesthetics and multiplicity of meaning in Biblical literature through the discussion of various Biblical writings, published academic exegeses and student exegeses.

LIT 201 Masterpieces of Literature I

3 Credit Hours/45 Contact Hours

Prerequisites: ENG 121

Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful reading and understanding of the works and their cultural backgrounds.

LIT 202 Masterpieces of Literature II

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 121

Examines significant writings in world literature from the 17th century to the present. Emphasizes careful reading and understanding of the works and their cultural backgrounds.

LIT 225 Introduction to Shakespeare

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 121 or instructor consent

Provides guided reading and interpretation of Shakespeare's most popular plays. Examines their cultural background, as well as their significance to contemporary society.

LIT 235 Science Fiction

3 Credit Hours/45 Contact Hours

Examines the techniques and issues of science fiction through a close reading of a variety of writers in the genre.

LIT 236 Fantasy Literature

3 Credit Hours/45 Contact Hours

Examines the unique qualities of representative works from literature that present mythical, unreal or imaginary worlds.

LIT 245 Literature of the American West

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 121

Examines works in various genres by writers of the American West. Investigates predominant themes and social and historical backgrounds.

Machine and CNC Tool Operator

MTO 130 Introduction to Machine Shop

1 Credit Hour/24 Contact Hours

Provides basic instruction on the use of hand bench tools, power saws, drill presses, pedestal grinders, heat-treat equipment, drill grinding machine, belt sanders and hardness testing equipment.

MTO 131 Machine Math and Prints I

3 Credit Hours/72 Contact Hours

Provides instruction for basic math and blueprint reading needed in machine tool operations, including whole-number concepts, common fractions, decimal fractions, direct measure, computer measure, proportions, geometry, trigonometry and shop finance.

MTO 132 Vertical Mills I

4 Credit Hours/96 Contact Hours

Prerequisite: MTO 130

Introduces the student to the parts and functions of the vertical mill, including how to set feeds and speeds, cutter selections and identification, identify and use a vise, edge locator and indicators.

MTO 133 Engine Lathes I

4 Credit Hours/96 Contact Hours

Prerequisite: MTO 130

Introduces the student to the engine lathe, including how to use and mount the three-jaw chuck on the spindle of the lathe, how to set lathe tools on center drill, and drill, ream, knurl, tap and chamfer.

MTO 140 Metrology

2 Contact Hours/48 Contact Hours

Introduces the student to English and metric measurements by using outside, inside, depth and internal micro-meters, scales, combination square set, protractors, vernier gauges, sine bar, gauge blocks, indicators, inspection devices, optical comparator, and telescoping and small hole gauges.

MTO 141 Vertical Mills II

4 Credit Hours/96 Contact Hours

Prerequisite: MTO 132

Develops advanced knowledge of vertical mill operation, including rotary table operation, computation of coordinate locations for hole circles, slots and angles, and the selection of metals.

MTO 142 Machine Math and Prints II

2 Credit Hours/48 Contact Hours

Prerequisite: MTO 131

Provides advanced machine shop math, including division of decimal fractions, gear computations, speed and feed calculations for cylindrical tools, taper calculations, powers, roots, equations, circles and polygons, and numerical control drawing fundamentals.

MTO 143 Engine Lathes II

4 Credit Hours/96 Contact Hours

Prerequisite: MTO 133

Provides the knowledge and skills required to perform lathe operations at tolerances of plus/minus .005". Includes single point external and internal threads holding tolerances of class 2 and 3, and use of the taper attachment and "radius" forming.

MTO 150 Machine Shop Lab

1-5 Credit Hours/24-120 Contact Hours

Allows students to practice on basic machine equipment for the purpose of upgrading job skills.

MTO 221 Engine Lathes III

4 Credit Hours/96 Contact Hours

Prerequisite: MTO 143

Continues MTO 143, Engine Lathes II. Student will develop more advanced skill and knowledge on the engine lathe, holding tolerances to plus or minus .002 or .0005.

MTO 223 Job Shop Machining I

3 Credit Hours/72 Contact Hours

Prerequisites: MTO 221

Covers the fabrication process. Students will produce machine parts and machinist tools from an already prepared shop blueprint, write process sheets, select metal and estimate machining time to performance level expected in industry.

MTO 250 AutoCAD I

3 Credit Hours/72 Contact Hours

Prerequisite: MTO 251

Provides more advanced instruction on using the CNC for production of parts, and introduces the student to the use of AutoCAD software.

MTO 251 CNC Operations

2 Credit Hours/48 Contact Hours

Prerequisite: MTO 221

Provides introductory skills in the use of CNC digital readouts and the operations of a CNC vertical mill and CNC lathe.

MTO 252 CNC Principles

2 Credit Hours/48 Contact Hours

Prerequisite: MTO 141, 221

Provides skills and knowledge on preparatory functions and operations of a CNC milling machine and a CNC lathe. Includes safety, system start up, and use of pre-written programs, as well as macros.

MTO 253 CNC Mathematics I

2 Credit Hours/48 Contact Hours

Prerequisite: MTO 142

Develops skills in calculations and mathematical operations that are used in the operation of CNC milling machines and CNC lathes.

MTO 261 IBM DOS for CNC

1 Credit Hour/24 Contact Hours

Provides an overview of the basic use of the Disk Operating System.

MTO 262 CNC WordPerfect

1 Credit Hour/24 Contact Hours

Provides basic instruction in using the WordPerfect word processing software to enable CNC operators to comfortably do programming.

MTO 263 CNC Programming I

3 Credit Hours/72 Contact Hours

Prerequisites: MTO 251, 252, 253

Provides beginning instruction, using BOSS 10, on programming for the CNC, including word processing skills, language, blocks, coordinate words, and functions of G Codes and M Codes.

MTO 264 AutoCAD II

3 Credit Hours/72 Contact Hours

Prerequisite: MTO 250

Continues MTO 250, AutoCAD I. Provides more advanced instruction in the use of the AutoCAD software.

MTO 265 CNC Programming II

3 Credit Hours/72 Contact Hours

Prerequisites: MTO 261, 263

Continues MTO 263, CNC Programming I. Includes more advanced instruction in programming for the CNC, which includes Z-Axis canned cycles, canned milling cycles, cutter diameter compensation, feed functions and auxiliary machine control functions.

Magnetic Resonance Imaging**MRI 274 Clinical Applications of Magnetic Resonance Imaging I**

1 Credit Hour/15 Contact Hours

Prerequisite: Program acceptance

Corequisites: MRI 276, 277, 278

Covers the imaging procedures performed and explains the results in imaging from MRI clinical protocols. Includes parameters for setting instrumentation and emphasizes expected results in normal (non-pathological) studies. Commences in the fall, and is presented in a self-study/self-paced format.

MRI 276 Physics and Instrumentation of Magnetic Resonance Imaging

2 Credit Hours/30 Contact Hours

Prerequisite: Program acceptance

Corequisites: MRI 274, 277, 278

Provides the physical theory of electromagnetism and explains how physical principles are applied in obtaining diagnostic magnetic resonance images of internal human anatomy. Commences in the fall semester, and is presented in a self-paced/self-study format.

MRI 277 Magnetic Resonance Imaging Laboratory

1 Credit Hour/30 Contact Hours

Prerequisite: Program acceptance

Corequisites: MRI 274, 276, 278

Provides for students' observation and limited involvement in the actual clinical environment. Includes experience in communications with and preparation of patients, equipment familiarization and introduction to actual procedural protocols. Thirty contact hours are arranged at the clinically affiliated site for 1 credit in the fall.

MRI 278 Cross-Sectional Anatomy in Imaging

1 Credit Hour/15 Contact Hours

Prerequisite: Program acceptance

Examines human anatomy as viewed in transaxial, sagittal and coronal planes. Incorporates magnetic resonance images as a basis of recognition for anatomy in other diagnostic imaging modalities. Self-paced/self-study format.

MRI 284 Clinical Applications of Magnetic Resonance Imaging II

2 Credit Hours/30 Contact Hours

Prerequisite: MRI 277

Corequisite: MRI 287

Expands upon clinical applications of MRI I with emphasis on the in-depth knowledge of protocols as applied to pathologies and recognition of pathologies in MRI images. Presented in a self-study format in the spring semester.

MRI 287 Clinical Internship in Magnetic Resonance Imaging

9 Credit Hours/412 Contact Hours

Prerequisite: MRI 278

Corequisite: MRI 284

Provides for experience in the actual practice of MRI technology. Gives the student an opportunity to apply theoretic knowledge, learn and/or refine skills needed in the practice of magnetic resonance imaging technology. Upon completion of 412 contact hours at a clinically affiliated site, the student earns 9 credit hours.

Mammography

MAM 274 Mammographic Theory

3 Credit Hours/45 Contact Hours

Prerequisite: ARRT Registered Radiographer

Corequisite: MAM 276

Provides the theoretical framework to be a competent mammographer. Includes: psychosocial aspects, anatomy, physiology, pathology, positioning, clinical breast exam, instrumentation, mammography technique, special procedures and patient education.

MAM 276 Mammographic Internship

2 Credit Hours/86 Contact Hours

Corequisites: MAM 274

Applies theoretical concepts in the actual practice of mammography.

Mathematics

MAT 013 Basic Operations I

1-5 Credit Hours/24-120 Contact Hours

Provides review of basic math through multiplication.

MAT 014 Basic Operations II

1-5 Credit Hours/24-120 Contact Hours

Provides review of multiplication, place values, long division and word problems.

MAT 030 Operations of Whole Numbers, Decimals and Percents

3 Credit Hours/45 Contact Hours

Reviews multiplication tables and strengthens skills in adding, subtracting, multiplying and dividing whole numbers and decimals. Teaches the concepts of roots, prime factoring and least common multiples. Includes percents and solving basic percent and simple/compound-interest word problems.

MAT 033 General Skills in Math

1-10 Credit Hours/24-225 Contact Hours

Reviews arithmetic principles including fractions, decimals, percents, and ratios and proportions. Prepares students for basic math skills needed in vocational programs.

MAT 035 Fractions, Proportions and Applied Geometry

3 Credit Hours/45 Contact Hours

Reviews adding, subtracting, multiplying and dividing both arithmetic and simple algebraic fractions, including order of operations. Reviews proportions and their applications in general and in percent word problems. Deals with basic terminology in geometry, similar and right triangles with applications, perimeters, areas and volumes of basic geometric figures.

MAT 056 Pre-Algebra

3 Credit Hours/45 Contact Hours

Prerequisite: Basic skills assessment level 1c or

MAT 035

Teaches integer operations and how to solve linear equations in one variable, as well as solving them for one variable in terms of others. The second half of the semester will be devoted to solving a variety of word problems taken from various courses using the techniques covered in the first half of the semester.

MAT 080 Basic Mathematics Review

3 Credit Hours/45 Contact Hours

Reviews basic arithmetic. Includes whole numbers, decimals, percents, fractions, proportions, and pre-algebraic and geometric concepts and applications. May review set theory, probability, logic and the Cartesian Coordinate System.

MAT 100 Elementary Algebra

3 Credit Hours/60 Contact Hours

Prerequisite: MAT 035 or basic skills assessment level 2a

Includes manipulation of algebraic expressions, solving first-degree equations in one and two variables, factoring, solving quadratic equations using factors, solving fractional equations, graphing and oral problem solving.

MAT 103 Contemporary College Mathematics

3 Credit Hours/45 Contact Hours

Presents a practical approach to basic operations in arithmetic, fractions, decimals, percents, elements of algebra, geometry, ratios and proportion, triangular trigonometry, graphing, business applications and problem solving. Optional material may include one or more of the following topics: inequalities, probability and statistics, and sets and logic.

MAT 105 Intermediate Algebra

4 Credit Hours/60 Contact Hours

Prerequisite: MAT 100 or high school algebra, or assessment level 2b

Covers sets, axiomatic approach to the set of real numbers, extension of exponents, radicals, first- and second-degree equations in one and two variables and graphs.

MAT 121 College Algebra

4 Credit Hours/60 Contact Hours

Prerequisite: MAT 105 or equivalent or basic skills assessment level 3

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, progressions, permutations and combinations, the binomial theorem and theory of equations.

MAT 122 College Trigonometry

3 Credit Hours/45 Contact Hours

Prerequisite: MAT 121 or instructor consent

Includes trigonometric function (with graphs and inverse functions), identities and equations, solutions of triangles, complex numbers and other topics as time permits.

MAT 124 Finite Mathematics

3-4 Credit Hours/45-60 Contact Hours

Prerequisite: MAT 105 or instructor consent

Designed primarily for students majoring in business, social science, or computing. Includes function evaluation and graphing, matrix operations, linear equations and inequalities, and introduction to set theory, combinatorics and probability. Fourth credit hour is used for extended topics and applications.

MAT 125 Survey of Calculus

4 Credit Hours/60 Contact Hours

Prerequisite: MAT 121, 124

Includes derivatives, integrals and their applications, with attention restricted to algebraic, exponential and logarithmic functions. For business, life science and/or social science majors.

MAT 135 Introduction to Statistics

3 Credit Hours/45 Contact Hours

Prerequisite: MAT 105

Includes data presentation and summarization, introduction to probability concepts and distributions, statistical inference estimation, hypothesis-testing comparison of populations, correlation and regression.

MAT 201 Calculus I

5 Credit Hours/75 Contact Hours

Prerequisite: MAT 122

Introduces single variable calculus and analytic geometry.

MAT 202 Calculus II

5 Credit Hours/75 Contact Hours

Prerequisite: MAT 201

Extends and further develops concepts of single variable calculus and analytic geometry studies as found in MAT 201.

Emphasis on applications of differentiation, integration and techniques of integration and infinite series.

MAT 203 Calculus III

4 Credit Hours/60 Contact Hours

Prerequisite: MAT 202

Completes the traditional subject matter of single variable calculus not covered in MAT 201 and MAT 202 and introduces vector analysis, multi-variable calculus, solid analytic geometry and dimensional vector space.

MAT 226 Computer Applications for Statistical Procedures

1 Credit Hour/30 Contact Hours

Prerequisite: MAT 105

Corequisite: MAT 135

Includes computer applications of statistical procedures such as correlation, chi-square analysis. Data analysis will be done by using commercially prepared computer software. Laboratory course.

MAT 265 Ordinary Differential Equations

3 Credit Hours/45 Contact Hours

Prerequisite: MAT 202

Introduces ordinary differential equations. Includes equations of first and second order with applications, linear equations, series methods and transformation methods.

Multimedia Design**MUM 100 Introduction to Macintosh**

1 Credit Hour/22.5 Contact Hours

Introduces the student to the skills necessary to understand and operate the Macintosh computer for computer graphic applications.

MUM 101 Introduction to Multimedia

3 Credit Hours/68 Contact Hours

Prerequisites: MUM 100, GRD 103

Corequisite: GRA 109

Examines the latest developments in the field of multimedia production. Produces a multimedia project on the computer.

MUM 104 Design for the Computer

3 Credit Hours/68 Contact Hours

Prerequisite: MUM 100

Corequisite: GRA 109

Introduces the student to the computer skills necessary for visual production for multimedia presentations, color theory, shape, design and composition. Continuity for the storyboard will be taught.

MUM 105 Image Processing and Manipulation

3 Credit Hours/68 Contact Hours

Prerequisites: MUM 100, 104, GRD 103

Corequisite: GRA 109

Introduces the student to the skills necessary to process and manipulate visual images from photographic and video-graphic input for the production of multimedia assets.

MUM 107 Integrated Video Production Studio

3 Credit Hours/68 Contact Hours

Prerequisites: MUM 100, 101, GRA 103, ENG 257

Corequisite: GRA 109

Introduces practices and issues in transition from traditional analog studio production to studio production in digital multimedia environment.

MUM 206 Fractal Design Studio

3 Credit Hours/68 Contact Hours

Prerequisites: GRD 103, MUM 100, 104

Corequisite: GRA 109

Introduces the student to a paint software for digital illustration and painting for multimedia applications.

MUM 207 Multimedia Animation Studio

3 Credit Hours/68 Contact Hours

Prerequisite: MUM 100, 101, GRD 103

Corequisite: GRD 109

Introduces the student to 2-D and 3-D solid modeling with animation for the production of multimedia assets.

MUM 210 3-D Modeling and Animation

3 Credit Hours/90 Contact Hours

Prerequisite: GRD 103

Familiarizes students with desktop multimedia using the Macintosh. Includes color illustration, 3-D illustration, animation, audio processing and video imaging. Due to the advanced nature of the material, students are required to have prior Macintosh experience.

MUM 285 Multimedia Portfolio Preparation

3 Credit Hours/68 Contact Hours

Prerequisite: GRA 109

Introduces the student to the processes involved in producing a visual and audio computer-animated CD-ROM portfolio of work produced in previous multimedia courses.

MUM 297 Multimedia Internship

3-6 Credit Hours/68 Contact Hours

Prerequisites: MUM 100, 101, GRD 103

Corequisite: GRA 109

Introduces the student to an "on-site" experience as an intern working in a multimedia production facility.

Music**MUS 100 Fundamental Music Theory**

3 Credit Hours/45 Contact Hours

Provides each student with a working knowledge of musicianship, and includes the study of melody, harmony and rhythm.

MUS 101 Music Theory I

3 Credit Hours/45 Contact Hours

Prerequisite: MUS 100 or instructor consent

Corequisite: MUS 111

Reviews music fundamentals and emphasizes diatonic, four-part harmony, analysis, ear training and keyboard harmony.

MUS 102 Music Theory II

3 Credit Hours/45 Contact Hours

Prerequisite: MUS 101 or instructor consent

Corequisite: MUS 112

Emphasizes diatonic, four-part harmony, analysis, ear training and keyboard harmony.

MUS 111 Ear Training and Rhythm Drill I

2 Credit Hours/40 Contact Hours

Corequisite: MUS 101

Provides instruction and drill in the aural perception of intervals, chords, rhythmic patterns and the interpretation of these in performance.

MUS 112 Ear Training and Rhythm Drill II

2 Credit Hours/40 Contact Hours

Prerequisite: MUS 111

Corequisite: MUS 102

Continues instruction and drill in the aural perception of intervals, chords and rhythmic patterns and the interpretation of these in performance.

MUS 120 Music Appreciation

3 Credit Hours/45 Contact Hours

Outlines what is needed to develop a thorough appreciation of music. Introduces students to basic musical terms and concepts; then a discussion of selected historical eras and their musical styles.

MUS 121 Introduction to Music History I

3 Credit Hours/45 Contact Hours

Studies the various periods of music history with regard to the composers, aesthetics, forms and genres of each period. Considers music from the Middle Ages through the classical period.

MUS 122 Introduction to Music History II

3 Credit Hours/45 Contact Hours

Continues Introduction to Music History I with a study of music from the early Romantic Movement to the present.

MUS 131 Performance Class I

1-2 Credit Hours/30-60 Contact Hours

None may be repeated for credit

Applies the fundamentals of music to the piano, voice or guitar, plus introduces basic technique, repertoire and sight-reading. Evaluation will be on written and practical skills.

MUS 141 Private Instruction I (in Guitar, Piano, or Voice)

1-2 Credit Hours/15-30 Contact Hours

Prerequisite: MUS 100, audition

Emphasizes practical skills and information relevant to performing and includes the study of techniques and repertoire. Intended for musicians with more than an elementary knowledge of performance techniques. Consists of one, 30-minute lesson a week, practice 30 minutes plus.

MUS 142 Private Instruction II (in Guitar, Piano, or Voice)

1-2 Credit Hours/15-30 Contact Hours

Prerequisite: MUS 141

Emphasizes practical skills and information relevant to performing and includes the study of technique and repertoire. Intended for musicians with more than an elementary knowledge of performance techniques. Consists of one, 30-minute lesson a week, practice 30 minutes plus. Continues practical skills and information relevant to performing and intensifies the study of technique and repertoire.

MUS 143 Private Instruction III (in Guitar, Piano, or Voice)

1-2 Credit Hours/15-30 Contact Hours

Prerequisite: MUS 142

Emphasizes practical skills and information relevant to performing and includes the study of technique and repertoire. Intended for musicians with more than an elementary knowledge of performance techniques. Consists of one, 30-minute lesson a week, practice 30 minutes plus. Continues practical skills and information relevant to performing and intensifies the study of technique and repertoire.

MUS 144 Private Instruction IV (in Guitar, Piano, or Voice)

1-2 Credit Hours/15-30 Contact Hours

Prerequisite: MUS 143

Emphasizes practical skills and information relevant to performing and includes the study of technique and repertoire. Intended for musicians with more than an elementary knowledge of performance techniques. Consists of one, 30-minute lesson a week, practice 30 minutes plus. Continues practical skills and information relevant to performing and intensifies the study of technique and repertoire.

MUS 180 Music and the Media

3 Credit Hours/45 Contact Hours

Provides students with an understanding of career opportunities and survival skills within the music industry and an understanding of the relationship of music to the media world.

MUS 190 Introduction to Computer Music

3 Credit Hours/45 Contact Hours

Acquaints the student with the fundamentals of music writing on the personal computer, including sequencing and music engraving.

MUS 201 Music Theory III

3 Credit Hours/45 Contact Hours

Prerequisites: MUS 102 and 116

Presents chromatic, harmonic materials, form and analysis and modulation formulae.

MUS 202 Music Theory IV

3 Credit Hours/45 Contact Hours

Prerequisites: MUS 102 and 116

Presents 20th century composition techniques.

MUS 211 Performance (Ear Training and Rhythm Drill) III

2 Credit Hours/40 Contact Hours

Prerequisites: MUS 102, 111, and 112

Provides the student with instruction and drill in the complex rhythmic and melodic patterns of the 20th century musical performance.

MUS 212 Performance (Ear Training and Rhythm Drill) IV

2 Credit Hours/40 Contact Hours

Prerequisites: MUS 211

Provides instruction and drill in the complex rhythmic and melodic patterns of 20th century musical performance.

MUS 220 Computer Music Composing

3 Credit Hours/45 Contact Hours

Prerequisites: MUS 100, 121

Introduces students to music composition utilizing the MIDI system.

MUS 221 Computer Music Arranging

3 Credit Hours/45 Contact Hours

Prerequisite: MUS 220

Instructs the student to synchronize MIDI and digital audio systems in arranging music.

Nuclear Medicine Technology**NMT 210 Nuclear Medicine Physics**

4 Credit Hours/60 contact Hours

Prerequisites: MAT 121

Provides an in-depth study of atomic and nuclear structure. Includes terminology and symbols specific to the understanding of radioactive decay modes. Explains radiation's interactions with matter and the consequent detection of radiation. Explains statistical interpretation of detection as it applies in Nuclear Medicine Technology.

NMT 211 Clinical Applications I

2 Credit Hours/30 Contact Hours

Analyzes each procedure performed in the nuclear medicine department: mechanisms of localization of radiopharmaceuticals to specific organs and/or organ systems, techniques for performing procedures, parameters for defining normal anatomy and physiology.

NMT 212 Clinical Applications II

3 Credit Hours/45 Contact Hours

Prerequisites: NMT 211

Integrates the anatomy, physiology and methodology of nuclear medicine studies. Includes diagnostic in-vivo and in-vitro studies and radionuclide therapy. Emphasizes common pathologic findings in diagnosis. (Speech intensive.)

NMT 213 Nuclear Medicine Instrumentation

4 Credit Hours/60 Contact Hours

Prerequisites: NMT 222

Provides a study of basic scintillation detectors, gas detectors, scintillation spectrometry, well counters, stationary- and moving-imaging devices, photographic media, calibrators and computers and quality assurance procedures for all major instrumentation used in nuclear medicine departments.

NMT 215 Radiopharmaceutical Preparations

3 Credit Hours/45 Contact Hours

Prerequisites: NMT 221

Describes the basic theory and practice of radiopharmaceutical preparation and quality control in nuclear medicine. Emphasizes the design and function of radionuclide generators, labeling procedures, sterility and pyrogenicity considerations, radionuclide and radiochemical quality control procedures.

NMT 216 Radioassay Procedures

3 Credit Hours/45 Contact Hours

Prerequisites: NMT 215

Examines the theory of radioassay procedures performed in nuclear medicine: radioimmunoassay, competitive protein binding, hematology and urinalysis. Also includes quality control and troubleshooting.

NMT 217 Computers in Nuclear Medicine

3 Credit Hours/45 Contact Hours

Prerequisite: NMT 216

Corequisite: NMT 224

Provides the theoretic basis of computer operations and medical applications in the nuclear medicine department. Provides hands-on experience with computerized systems at hospital sites.

NMT 221 Clinical Internship I

6 Credit Hours/270 Contact Hours

Introduces students to nuclear medicine technology: patient care, radiation safety, quality control, record keeping, scheduling and routine diagnostic procedures. Provides the opportunity to practice basic procedures at the hospital site. First in a series of four internship courses.

NMT 222 Clinical Internship II

8 Credit Hours/360 Contact Hours

Prerequisite: NMT 221

Provides the opportunity to practice more advanced procedures and techniques at the hospital site. Continues the first internship and introduces skills needed to perform procedures in the third internship course.

NMT 223 Clinical Internship III

8 Credit Hours/360 Contact Hours

Prerequisite: NMT 222

Provides the opportunity to practice radiopharmaceutical preparation and quality control, radioassay procedures, cardiovascular nuclear medicine and other computer applications. Third in the series of four internship courses.

NMT 224 Clinical Internship IV (Capstone)

9 Credit Hours/405 Contact Hours

Prerequisite: NMT 223

Corequisite: NMT 217

Refines all skills associated with nuclear medicine technology. Offers the opportunity to study and discuss social, political, bioethical and personal stressors encountered by the technologist. Culminates in a review and practice registry examination.

Nursing**NUR 100 Nurse Aide Practices and Concepts**

1-9 Credit Hours/24-216 Contact Hours

Demonstrates and provides practice of clinical skills essential for five nurse aide roles. Includes basic understanding of health care principles for the patient, including illness and patient needs, patient care skills, critical thinking, and effective oral and written communication skills for nursing.

NUR 101 Core Concepts of Pharmacology

1 Credit Hour/22.5 Contact Hours

Prerequisites: BIO 201, 202, ENG 121, MAT 100 or higher, PSY 235 for NUR students

Corequisites: NUR 102, 109, 111 for NUR students; BIO 114, HSE 113, LPT 110, NUR 109 for LPT students

Introduces general core concepts and ethical/legal implications of pharmacology, including the nursing process and biopsychosocial aspects of medication administration. Demonstrates and provides practice of medication administration and dose calculation.

NUR 102 Core Concepts of Nursing

1 Credit Hour/22.5 Contact Hours

Prerequisites: BIO 201, 202, ENG 121, MAT 100 or higher, NUT 100, PSY 235

Corequisites: NUR 101, 109, 111

Introduces concepts of nursing roles, nursing process, critical thinking, the diversity of the health care client and environment, and effective oral and written communication skills for nursing. Concludes with laboratory practicum that incorporates concepts in a clinical simulation.

NUR 103 Pharmacology for Nursing

2 Credit Hours/45 Contact Hours

Prerequisites: NUR 101, 102, 109, 111

Corequisites: NUR 112, 113, 114

Combines details of the clinical use of drugs with implications for nursing practice, emphasizing absorption, distribution, biotransformation, excretion of drugs, interactions, indications, contraindications, side/adverse effects and dosing. Provides medication administration practice in the laboratory.

NUR 109 Basic Nursing Skills

6 Credit Hours/135 Contact Hours

Prerequisites: BIO 201, 202, ENG 121, MAT 100 or higher, NUT 100, PSY 235 for acceptance into LPT program

Corequisites: NUR 101, 102, 111 for NUR students; BIO 114, HSE 113, LPT 110, NUR 101 for LPT students

Demonstrates and provides practice of clinical skills essential for the nursing role of care provider, including maintenance of a safe, effective care environment, task organization and implementation, time management, documentation and application of critical thinking to solve clinical problems.

NUR 111 Nursing Concepts and Issues

6 Credit Hour/135 Contact Hours

Prerequisites: BIO 201, 202, ENG 121, MAT 100, NUT 100, PSY 235

Corequisites: NUR 101, 102, 109

Introduces concepts and behaviors of nursing roles within the context of the nursing process, holistic health care and the health care industry. Develops skills of critical thinking, communication and health care education. Examines nursing issues across the lifespan with emphasis on the aging adult.

NUR 112 Nursing Care of the Hospitalized Client I

4 Credit Hours/90 Contact Hours

Prerequisites: NUR 101, 102, 109, 111

Corequisites: NUR 103, 113, 114

Provides practice of nursing care for the acutely ill client who requires hospitalization, emphasizing maintenance of a safe, effective environment and protection of physiological and psychosocial integrity. Includes the causes, pathology, treatment and nursing care of commonly occurring diseases in adults. Presents ethical dilemmas common when caring for hospitalized adults.

NUR 113 Nursing Care of the Older Adult

4 Credit Hours/90 Contact Hours

Prerequisites: NUR 101, 102, 109, 111

Corequisites: NUR 112, 103, 114

Provides practice of nursing care for the elderly client emphasizing maintenance of a safe, effective environment and protection of physiological and psychosocial integrity. Includes the causes, pathology, treatment, principles of rehabilitation and nursing care of commonly occurring diseases in the elderly adult. Discusses ethical dilemmas common in health care of the elderly, and develops concepts of loss, death and dying.

NUR 114 Family-Centered Nursing Care I

4 Credit Hours/90 Contact Hours

Prerequisites: NUR 101, 102, 111, 109

Corequisites: NUR 103, 112, 113

Presents concepts of and provides practice for the nursing care of growing families, including obstetrical care, growth and development across the life span, common health problems in children, and health promotion and maintenance of the entire family.

NUR 202 Management of Intravenous Therapy

1 Credit Hour/17 Contact Hours

Teaches concepts and techniques required for the administration of intravenous fluids and medications in the treatment of health problems. The student practices intravenous therapy techniques in the laboratory before applying this skill to clinical practice.

NUR 208 Nursing Assessment and Diagnosis

4 Credit Hours/90 Contact Hours

Prerequisites: NUR 103, 112, 113, 114, BIO 205

Corequisites: NUR 202, 211, 212

Develops skills of nursing assessment of the health client across the life span using effective interview and examination; develops ability to analyze data to identify actual or potential health care needs or problems. Introduces concepts of health promotion and maintenance of physiologic and psychological integrity.

NUR 210 Family-Centered Nursing Care II

4 Credit Hours/90 Contact Hours

Prerequisites: NUR 208, 211, 212

Corequisites: NUR 214, 285

Provides practice in the nursing care of families facing health concerns in both clinical and community settings. Includes concepts of family theory, and issues related to contraception, infertility, unwanted pregnancy, teen pregnancy, and disturbances of psychosocial and physiologic integrity of family members.

NUR 211 Mental Health Nursing

4 Credit Hours/90 Contact Hours

Prerequisite: BIO 105, NUR 103, 113, 112, 114

Corequisites: NUR 208, 212

Develops the concepts of psychosocial integrity and emphasizes the function and responsibility of nursing in promoting and maintaining mental health of individuals and families through the use of the therapeutic relationship and nursing process.

NUR 212 Nursing Care of the Hospitalized Client II

4 Credit Hours/90 Contact Hours

Prerequisites: BIO 205, NUR 103, 113, 112, 114

Corequisites: NUR 208, 211

Presents the causes, pathology and treatment of complicated illnesses of adults requiring hospitalization; provides clinical practice of nursing care, emphasizing maintenance of a safe, effective environment, and protection of physiological and psychosocial integrity.

NUR 214 Nursing Leadership and Management

4 Credit Hours/90 Contact Hours

Prerequisite: NUR 208, 211, 212

Corequisites: NUR 210, 285

Provides nursing practice and instruction in the health care environment, while developing basic principles of leadership and management, including leadership styles, management issues and professional responsibilities.

NUR 220 Perioperative Nursing I

4 Credit Hours/60 Contact Hours

Prerequisites: RN or BSN required

Delineates the role of the perioperative nurse in the operating room, focusing on intraoperative nursing care. Traditional, endoscopic and laser surgery will be included.

NUR 221 Perioperative Nursing II (Certificate Capstone)

10 Credit Hours/390 Contact Hours

Provides second-semester perioperative nursing students with a supervised clinical experience designed to provide a directed introduction to the operating room environment, to apply the concepts and techniques learned in NUR 220 and to assess student performance of course objectives.

NUR 285 Comprehensive Nursing Internship

3 Credit Hours/135 Contact Hours

Prerequisites: NUR 101, 102, 103, 109, 111, 112, 113, 114, 208, 211, 212

Corequisites: NUR 210, 214

Facilitates the transition from student to graduate nurse by applying all principles and concepts of nursing to clinical practice during a structured internship. Faculty collaborate with clinical preceptor and student to design an internship that individualizes the student's learning needs and prepares job readiness. Includes review of nursing theory.

Nutrition

NUT 100 Nutrition

3 Credit Hours/45 Contact Hours

Prerequisites: ENG 100, REA 090, MAT 105

Introduces basic nutrition with emphasis on personal nutrition. Satisfies the nutrition requirement for students entering the Nursing program. Attendance at first session is required.

NUT 236 Nutrition of Aging

3 Credit Hours/45 Contact Hours

Prerequisite: GNT 212

Emphasizes that aging is not synonymous with deterioration and that many of the signs and symptoms of chronic, nutritional imbalances are often (mis)identified as changes attributed to aging. Studies the relationships between the aging process and various nutrients.

Paralegal

PAR 105 Torts

3 Credit Hours/45 Contact Hours
Introduces basic area of law dealing with civil wrongs, with emphasis in negligence, defamation and products liability.

PAR 109 Property

3 Credit Hours/45 Contact Hours
Emphasizes substantive legal rules related to property law with added emphasis in real estate law practice.

PAR 115 Domestic Relations

3 Credit Hours/45 Contact Hours
Emphasizes substantive legal rules related to domestic relations law with an emphasis in dissolution of marriage.

PAR 121 Introduction to Paralegal

3 Credit Hours/45 Contact Hours
Introduces students to the paralegal field, including, but not limited to, legal terminology and scope of paralegal skills and responsibilities, vis-à-vis the practice of law.

PAR 124 Legal Research

3 Credit Hours/45 Contact Hours
Introduces basic concepts and methods of legal research, emphasizing practical applications by the preparation of two case opinion briefs and two memorandums.

PAR 126 Creditor/Debtor/Bankruptcy

3 Credit Hours/45 Contact Hours
Gives students basic understanding of bankruptcy law covering the various types of bankruptcy cases with emphasis on the documentation utilized in such cases.

PAR 185 Paralegal Synthesis I (Capstone)

3 Credit Hours/45 Contact Hours
Prerequisites: PAR 124, 221, 222
Helps the student synthesize information and skills previously learned in such courses as legal research, civil procedures and evidence. Includes legal terms, preparation of legal briefs, documents and legal research.

PAR 201 Business Organizations

3 Credit Hours/45 Contact Hours
Emphasizes substantive legal rules related to corporations, partnerships, agency and securities law.

PAR 205 Probate

3 Credit Hours/45 Contact Hours
Emphasizes the drafting of wills, settling estates and the creation of trusts, plus the impact of tax law in these areas.

PAR 207 Legal Research Seminar I

3 Credit Hours/45 Contact Hours
Prerequisite: PAR 124
Introduces students to computer-assisted legal research. Students will draft legal memorandums and a trial court brief.

PAR 208 Legal Research Seminar II

3 Credit Hours/45 Contact Hours
Prerequisite: PAR 124, 207
Continues from Legal Research Seminar I with computer-assisted legal research utilized in drafting appeals court briefs.

PAR 214 Administrative Law

3 Credit Hours/45 Contact Hours
Introduces administrative and regulatory agencies, their jurisdiction, rule-making and decision-making processes and how the paralegal can work within the legal context.

PAR 221 Civil Procedures

3 Credit Hours/45 Contact Hours
Provides students with an introduction to the civil procedural rules and their application by use of a trial notebook assignment and other related exercises.

PAR 222 Evidence

3 Credit Hours/45 Contact Hours
Prerequisite: ENG 121
Introduces the student to the basic concepts and terminology of evidence as they apply in Colorado courts, and the basic methods of marshalling of evidence and investigative procedures.

PAR 223 Computers and the Law

3 Credit Hours/45 Contact Hours
Prerequisite: PAR 221, 222, CIS 120, 140
Introduces students to computer-assisted litigation support systems. Utilization of computers includes use of dBase III, Litidex and time management systems.

PAR 231 Investigation

3 Credit Hours/45 Contact Hours
Prerequisite: Instructor consent
Introduces general techniques of investigation of cases pertaining to a wide variety of law situations, civil and criminal.

PAR 239 Criminal Law

3 Credit Hours/45 Contact Hours
Prerequisite: ENG 121
Introduces basic concepts of criminal law and criminal procedure, including Colorado and procedural rules related to this area.

PAR 241 Environmental Law

3 Credit Hours/45 Contact Hours
Emphasizes federal and Colorado regulations and their application in environmental cases.

PAR 252 Constitutional Law

3 Credit Hours/45 Contact Hours
Introduces basic concepts of constitutional law, including information relating to federal government structure and powers, and individual liberties granted under the federal Constitution.

PAR 258 Contracts

3 Credit Hours/45 Contact Hours
Prerequisite: ENG 121
Introduces basic terminology and concepts in contract law as applied in Colorado and a basic system for contract preparation.

PAR 280 Paralegal Internship

6 Credit Hours/270 Contact Hours
Prerequisite: To be taken in student's last semester in program.
Introduces students to an "on-site" experience as an "intern in training" in a wide variety of law situations.

PAR 285 Paralegal Synthesis II (Capstone)

3 Credit Hours/45 Contact Hours
Prerequisites: All required courses in Certificate and AAS degree programs
Emphasizes a synthesis of the information and skills that students learned throughout their paralegal studies.

Personal Growth and Development

PGD 091 Parenting

1-3 Credit Hours/24-72 Contact Hours
Provides skills in understanding and integrating child values, behavior, discipline, development, emotions and special needs in the processes of positive parenting practices.

PGD 098 Career Exploration

1 Credit Hours/24 Contact Hours
Directs students to select a career using interest testing, aptitude testing, values clarification, field trips, market research and job opportunity evaluation.

Philosophy

PHI 111 Introduction to Philosophy

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 121, REA 090, or reading assessment level 3

Introduces significant human questions. Emphasizes understanding the meaning and methods of philosophy. Includes the human condition, knowledge, freedom, history, ethics, the future and religion.

PHI 112 Ethics

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 121, REA 090, or reading assessment level 3

Examines human life, experience and thought to discover and develop the principles and values for pursuing a more fulfilled existence. Applies ethical theories to a selection of contemporary social issues.

PHI 113 Logic

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 121, REA 090, or reading assessment level 3

Studies effective thinking. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving skills.

PHI 115 World Religions - West

3 Credit Hours/45 Contact Hours

Introduces students to the concepts predominant in the religions originating in the Middle East, which became major religions of the Western Hemisphere. Includes sociological, political, psychological and philosophical aspects of a variety of belief systems.

PHI 116 World Religions - East

3 Credit Hours/45 Contact Hours

Introduces students to common and different concepts predominant in the religions originating in Asia. Includes sociological, political, psychological and philosophical aspects of a variety of belief systems.

Photography

PHO 101 Fundamentals of Photography

3 Credit Hours/90 Contact Hours

Covers basic black and white photographic craft. Places special emphasis on approaching photography as a visual language. Includes the language of photography, the camera, film exposure and processing, printing, print finishing and photographic criticism.

PHO 102 Fundamentals of Color Photography

3 Credit Hours/90 Contact Hours

Introduces color theory, the nature of light and light sources, the reproduction of color, color films and processing. Emphasizes building individual experiences with color transparency films and potential expressions through color photography.

PHO 107 History of Photography

3 Credit Hours/90 Contact Hours

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.

PHO 111 Intermediate Black and White Photography

3 Credit Hours/90 Contact Hours

Prerequisites: PHO 101, 102

Familiarizes the student with the basic principles of the Zone System for black and white photography: use of mathematics in photography; basic sensitometry and film analysis; data plotting, graphing and interpretation; testing procedures; light metering techniques; controlling film exposure and development; and visualization for expressive black and white prints.

PHO 112 Intermediate Color Photography

3 Credit Hours/90 Contact Hours

Prerequisite: PHO 101, 102

Presents the student with basic principles of color printing and provides practical experience in the areas of physics of light, color film and paper and human color vision.

PHO 185 Advanced Photography (Capstone)

3 Credit Hours/90 Contact Hours

Prerequisite: PHO 101, 102

Introduces professional quality techniques, the zone system, the view camera, photographic chemistry, proper use of the light meter, how to produce a professional-quality black and white print. Emphasizes practical testing and application of the technical controls that augment expression.

PHO 201 View Camera Techniques

3 Credit Hours/90 Contact Hours

Prerequisites: PHO 101, 102

Provides each student with an introduction to the visual aesthetics of photographic images and light, making use of hands-on photographic experience with the 4x5 camera. Covers theory of lenses, depth-of-field practice and sheet film exposure/processing techniques.

PHO 202 Studio Lighting

3 Credit Hours/90 Contact Hours

Prerequisites: PHO 101, 111, 112

Introduces basic concepts and principles needed to produce personally expressive photographs with studio lighting equipment, especially flash. Includes working with a variety of camera formats, from 35 mm to 4x5 view camera.

PHO 203 The Fine Print

3 Credit Hours/90 Contact Hours

Prerequisites: PHO 101, 102, 111, 112

Introduces and refines advanced skills of the student interested in producing professional-quality black and white prints. Integrates concepts of zone system with tone reproduction.

PHO 204 Introduction to Digital Imaging

3 Credit Hours/90 Contact Hours

Prerequisites: PHO 101, 111

Introduces digital imaging to students who have no previous computer experience, but are familiar with still photography. Covers film formats, basic color, and black and white scanning and image manipulation in photoshop.

PHO 205 Non-Chemical Printing

3 Credit Hours/90 Contact Hours

Prerequisites: PHO 101, 111

Explores a variety of digital imaging printing methods from scanned photographs and image files. Includes an introduction to color separation, halftone screens, and photographic style printing by electronic means.

PHO 211 Portrait Photography

3 Credit Hours/90 Contact Hours

Prerequisite: PHO 101, 111

Explores personal style of portraiture, history of the field and portraiture as visual language and creative expression.

PHO 212 Landscape Photography

3 Credit Hours/90 Contact Hours

Prerequisite: PHO 101, 102

Introduces basic concepts in landscape photography, including an overview of the history of landscape photography, artistic and technical aspects of final prints, landscape photography as creative expression, criticism and production of portfolio.

PHO 213 Craft and Expression

3 Credit Hours/90 Contact Hours

Prerequisite: PHO 101, 111

Integrates creative expression and photographic craft, two sides of the same coin. Encourages students to produce inner-directed work.

PHO 285 Seminar in Photography

3 Credit Hours/90 Contact Hours

Prerequisites: PHO 111, 112

Provides an opportunity to compile a professional portfolio as a preparation for job entry. Provides the advanced student with an opportunity to receive personal attention from the photography faculty in her/his specific area of professional expertise.

Physics**PHY 105 Conceptual Physics**

4 Credit Hours/75 Contact Hours

Prerequisite: reading assessment level 2 or REA 060

Studies mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. Includes laboratory. Some algebra is preferred.

PHY 111 Physics: Algebra-Based I

5 Credit Hours/105 Contact Hours

Prerequisites: MAT 121, reading assessment level 3 or REA 090

Corequisite: MAT 122

First semester of a two-semester sequence of classical physics, namely mechanics and heat. Includes laboratory experience.

PHY 112 Physics: Algebra-Based II

5 Credit Hours/105 Contact Hours

Prerequisite: PHY 111

Continues PHY 111. Explores classical physics, including optics, electromagnetism, wave motion and modern physics. Utilizes laboratory experience.

PHY 211 Physics: Calculus-Based I

5 Credit Hours/105 Contact Hours

Prerequisites: MAT 201, reading assessment level 3 or REA 090

Studies mechanics and heat. Includes laboratory experience.

PHY 212 Physics: Calculus-Based II

5 Credit Hours/105 Contact Hours

Prerequisites: PHY 211

Studies wave motion, electricity and magnetism and light. Includes laboratory experience.

PHY 281 Modern Physics

3 Credit Hours/45 Contact Hours

Prerequisites: PHY 211, 212, MAT 201, 202

Offers a one-semester introduction to modern physics. The topics include quantum mechanics, atomic and nuclear physics, superconductivity, the special and general theories of relativity and elementary particles. Discusses theoretical and experimental foundations with examples of major applications.

Political Science**POS 105 Introduction to Political Science**

3 Credit Hours/45 Contact Hours

Surveys political science, including political philosophy and ideology, democratic and nondemocratic governments and processes and international relations.

POS 111 American Government

3 Credit Hours/45 Contact Hours

Includes background of the U.S. Constitution; the philosophy of the American government; general principles of the Constitution; civil liberties; public opinion and citizen participation; political parties, interest groups and the electoral process; and the structure and functions of the national government.

POS 125 American, State and Local Government

3 Credit Hours/45 Contact Hours

Studies structure and function of state, county and municipal governments, including their relations with each other and with the national government. Emphasizes Colorado government and politics.

POS 205 International Relations

3 Credit Hours/45 Contact Hours

Examines the relations among modern nation-states, including diplomacy, nationalism, ideologies, power and influence, conflict and cooperation, the role of non-state actors and theoretical attempts to international behavior.

POS 215 Current Political Issues

3 Credit Hours/45 Contact Hours

Analyzes critical issues in Political Science. Topics to be determined each term.

POS 251 Chicano Political Experience

3 Credit Hours/45 Contact Hours

Explores leading issues affecting Chicanos in local, state, national and international political events and developments.

Postal Service**PST 105 Postal Service History and Organization**

3 Credit Hours/45 Contact Hours

Traces delivery of written communication and merchandise from earlier eras to present. Compares private corporate and governmental agencies responsible for mail services, and studies postal organizations, philosophies, policies, procedures, rules and regulations.

PST 106 Postal Service Finance

3 Credit Hours/45 Contact Hours

Prerequisite: PST 105

Covers sources, receipt and control of postal revenue, procedures of the Board of Governors and Postal Commission, budgeting, financial accounting and reporting, timekeeping, travel regulations, Postmaster General/CEO annual report and administrative services.

PST 112 Postal Mail Processing I

3 Credit Hours/45 Contact Hours

Prerequisite: PST 105

Covers mail classifications and rate service standards. The following topics also will be covered: postal terminology, mail processing functions, distributions systems, including automation and mechanization; objectives and responsibilities; mail preparation operation; platform operation; manual distribution; revenue protection; and bulk mail centers.

PST 113 Postal Mail Processing II

3 Credit Hours/45 Contact Hours

Prerequisites: PST 105, 112

Continues the study of mail processing, postal automation and mechanization, machine distribution, human resource management, reporting systems and data analysis, operational planning, scheduling and staffing, and budgeting and functional coordination with customer service.

PST 114 Delivery and Collections

3 Credit Hours/45 Contact Hours

Prerequisite: PST 105

Designed to familiarize the student with the procedures used in the delivery and collection of mail within the United States Postal Service. Includes the basis of the delivery unit, organizational structure and route management. Identifies the intricacies of the delivery and collections operations.

PST 200 Postal Service Automation

3 Credit Hours/45 Contact Hours

Prerequisite: PST 105

Acquaints the student with the USPS employee relations practices, policies, procedures, etc.

PST 205 Personnel Services

3 Credit Hours/45 Contact Hours

Gives an understanding of the functions provided in the employee relations of the United States Postal Service. Provides students with knowledge related to numerous aspects of the personnel services area, though not inclusive nor exclusive to the overall services provided to postal employees.

PST 226 Postal Labor Relations I

3 Credit Hours/45 Contact Hours

Prerequisite: PST 105

Gives U.S. Postal employees/students a detailed introduction and review of the history, legislation, procedures and outcomes of the various facts relative to labor relations when viewed from the USPS perspective.

PST 227 Labor Relations II (Capstone)

3 Credit Hours/45 Contact Hours

Prerequisites: PST 105, 226

Outlines collective bargaining issues for bargaining employees; reviews management rights, employee classifications, principles of seniority, posting and re-assignments; review local implementation and union-management cooperation.

Psychiatric Technician

LPT 100 Nursing Concepts for Advanced Placement Psychiatric Technician

1 Credit Hour/22 Contact Hours

Prerequisite: admission to the LPT program

Corequisite: LPT 111

Introduces the concepts of the nursing process and critical thinking for the advanced placement psychiatric technician. Reviews medication administration, emphasizing fundamental skills, ethical/legal and biopsychosocial implications, and provides practice of parenteral medication administration and dosage.

LPT 110 Fundamental Concepts and Clinical Application

2 Credit Hours/45 Contact Hours

Prerequisite: admission to Psychiatric Technician program

Corequisites: BIO 114, HSE 113, NUR 101 and 109

Introduces concepts of wellness, death and dying, communication, nutritional aspects of care and dual diagnosis of developmental disabilities. Nursing process is introduced as the framework in which the psychiatric technician cares for clients.

LPT 111 Nursing Principles of Psychiatric Care

6 Credit Hours/135 Contact Hours

Prerequisites: BIO 114, HSE 113, LPT 110, NUR 101, 109

Develops the concepts of psychosocial integrity and psychiatric nursing principles with an emphasis on the function and responsibility of the psychiatric technician in promoting and maintaining mental health of individuals and families through the use of the therapeutic relationship and framework of nursing process.

Psychology

PSY 101 General Psychology I

3 Credit Hours/45 Contact Hours

Examines the biological foundations of behavior, including physiological psychology, consciousness, sensation, perception, learning, memory, language, intelligence and research methods. As a survey course, the goal is to expose students to the broad disciplines of psychology and to stimulate further interest in the field.

PSY 102 General Psychology II

3 Credit Hours/45 Contact Hours

Examines the psycho social foundations of behavior, including child, adolescent and adult development, motivation, emotion, personality, psychological disorders, psychotherapy, social psychology, stress and mental health, diversity and research methods. As a survey course, the goal is to expose students to the broad disciplines of psychology and to stimulate further interest in the field.

PSY 115 Psychology of Adjustment

1-3 Credit Hours/15-45 Contact Hours

Emphasizes personal growth and the development of interpersonal skills. Focuses on practical application of psychological principles and theories in achieving self-understanding and personal growth.

PSY 227 Death and Dying

3 Credit Hours/45 Contact Hours

Prerequisites: PSY 101 or instructor consent

Examines the psychological theories and research on the American experience of death and dying. Emotional, cross-cultural, philosophical and historical influences of attitudes about mourning, death and dying are examined.

PSY 235 Psychology of Human Growth and Development

3 Credit Hours/45 Contact Hours

Surveys human development from conception to death, emphasizing physical, cognitive, emotional and psychosocial factors.

PSY 249 Abnormal Psychology

3 Credit Hours/45 Contact Hours

Abnormal psychology is a comprehensive study of psychological disorders. Focuses on psychological theory, assessment, treatment and current definitions of mental illness in Western society.

PSY 260 Psychology of Aging

3 Credit Hours/45 Contact Hours

Prerequisites: Program admission, instructor consent, GNT 201

Studies adult development and aging. Contrasts existing myths about adult development with the best available scientific data to separate fact from fiction. Identifies important questions for the existing scientific or empirical data.

PSY 295 Leadership Development

3 Credit Hours/45 Contact Hours

Prerequisite: ENG 100, PSY 101, or instructor consent

Studies and applies the theories and techniques of leadership and group processes. Introduces leadership skills and experience with applications in a group setting.

Radiography**RTR 102 Imaging I**

3 Credit Hours/45 Contact Hours

Prerequisites: ENG 121, MAT 100 or higher, BIO 201, 202, PSY 101, SOC 101

Corequisites: RTR 103, 104, 105

Introduces fundamentals of radiographic positioning, including use of radiographic equipment and safety, positioning terminology, anatomy, pathology, and skill necessary to perform radiographic procedures of the chest, abdomen, upper extremity, gastrointestinal and urinary systems

RTR 103 Radiographic Equipment I

3 Credit Hours/45 Contact Hours

Prerequisites: ENG 121, MAT 100 or higher, BIO 201, 202, PSY 101, SOC 101

Corequisites: RTR 102, 104, 105

Introduces the fundamental aspects of radiographic equipment, including a basic review of physics fundamentals pertaining to X-ray production, the X-ray machine, image receptors and control of scatter radiation.

RTR 104 Radiographic Internship I

5 Credit Hours/225 Contact Hours

Prerequisites: ENG 121, MAT 100 or higher, BIO 201, 202, PSY 101, SOC 101

Corequisites: RTR 102, 103, 105

Introduces the clinical education experience at the clinical education center. Students will apply knowledge learned in the classroom to the actual practice of radiography.

RTR 105 Radiographic Patient Care I

3 Credit Hours/45 Contact Hours

Prerequisites: ENG 121, MAT 100 or higher, BIO 201, 202, PSY 101, SOC 101

Corequisites: RTR 102, 103, 104

Provides an introduction to radiology and the knowledge necessary for the radiography student to provide safe patient care, including communication skills, legal and ethical issues in medicine, body mechanics, patient transfer, medical terminology, valuing diversity, universal precautions and radiography as a profession.

RTR 112 Radiographic Imaging II

3 Credit Hours/45 Contact Hours

Prerequisites: RTR 102, 103, 104, 105

Corequisites: RTR 113, 114, 115

Introduces additional material to that covered in RTR 102 to include the knowledge of anatomy, pathology and skills necessary to perform radiographic procedures of the lower extremity, pelvis, spine and boney thorax.

RTR 113 Radiographic Equipment II

3 Credit Hours/45 Contact Hours

Prerequisites: RTR 102, 103, 104, 105

Corequisites: RTR 112, 114, 115

Introduces additional material to that covered in RTR 103 and gives the student an in-depth knowledge of radiographic exposure technique and the factors affecting radiographic film quality including radiographic film quality and quality control, technique chart formulation, sensitometry, film processing, fluoroscopic equipment and how pathophysiological change relates to exposure.

RTR 114 Radiographic Internship II

5 Credit Hours/225 Contact Hours

Prerequisites: RTR 102, 103, 104, 105

Corequisites: RTR 112, 113, 115

Introduces additional concepts and more complex radiographic procedures to those learned in Internship I.

RTR 115 Radiographic Patient Care II

3 Credit Hours/45 Contact Hours

Prerequisites: RTR 102, 103

Corequisites: RTR 112, 113, 114

Expands the information presented in RTR 105 and includes lecture and laboratory experience in the patient care areas of asepsis, vital signs, medical emergencies, assistance with drug administration, patients with special needs, EKG, and death and dying.

RTR 124 Radiographic Internship III

7 Credit Hours/315 Contact Hours

Prerequisites: RTR 112, 113, 114, 115

Reinforces the basic concepts of Internships I and II.

RTR 202 Radiographic Imaging III

3 Contact Hours/45 Credit Hours

Prerequisite: RTR 124

Corequisites: RTR 203, 204

Introduces advanced imaging techniques including radiography of the cranium, facial bones and special radiographic procedures. These concepts are combined with the basic oral communication techniques necessary for the professional radiographer.

RTR 203 Radiation Biology/Protection

2 Credit Hours/30 Contact Hours

Prerequisite: RTR 124

Corequisites: RTR 202, 204

Provides the basic knowledge and understanding of the biologic effects of ionizing radiation protection and safety.

RTR 204 Radiographic Internship IV

8 Credit Hours/360 Contact Hours

Prerequisite: RTR 124

Corequisites: RTR 202, 203

Encourages independent assessment, develops proficiency in the radiographic procedures introduced in Internships I, II and III and applies the knowledge learned in the classroom during the first year of the program.

RTR 214 Radiographic Internship V

11 Credit Hours/495 Contact Hours

Prerequisite: RTR 202, 203, 204

Corequisite: RTR 216

Introduces the student to the radiographic specialty areas of pediatrics, geriatrics, the out-patient clinic, as well as increasing proficiency in general radiography.

RTR 216 Radiographic Capstone

3 Credit Hours/45 Contact Hours

Prerequisites: RTR 202, 203, 204

Corequisite: RTR 214

Prepares the student for job search and emphasizes the five major subject areas covered during the two years of study in the program, prior to the student sitting for the National Registry Examination.

Reading

REA 020 Basic Reading Skills

1-5 Credit Hours/20-100 Contact Hours

Intended for those who score at 1-1.5 reading level using the AVT Placement Test. Includes beginning phonics, spelling, vocabulary, comprehension and writing skills.

REA 030 Vocabulary Development I

3 Credit Hours/45 Contact Hours

Prerequisite: Basic Skills Assessment level 2 in English, 3 in reading, and 2 in study skills

Emphasizes various vocabulary strategies, dictionary and thesaurus skills, words in context, word analysis, sight vocabulary and pronunciation, personalized vocabulary cards, spelling, analogies and other unique strategies for vocabulary improvement.

REA 031 Building Reading Skills I

1-5 Credit Hours/24-120 Contact Hours

Provides instruction in spelling, reading, comprehension and writing skills.

REA 041 Building Reading Skills II

1-5 Credit Hours/24-120 Contact Hours

Provides instruction in spelling, vocabulary, comprehension, getting meaning from selections and following directions.

REA 060 Foundations of Reading

3-6 Credit Hours/45-90 Contact Hours

Prerequisite: Basic Skills Assessment level 1 in English, 1 in reading and 1 in study skills

Provides intensive review of basic reading concepts based on diagnostic/prescriptive methods. Helps students build a solid foundation of basic word analysis, vocabulary development and reading skills. Builds on students' strengths and is recommended for students who need an intensive review of the basic reading skills necessary for successful comprehension.

REA 070 Foundations of Reading II

3 Credit Hours/45 Contact Hours

Prerequisite: Basic skills assessment level 2 in English, 3 in reading, and 2 in study skills

Designed to help students build a solid foundation of word analysis, vocabulary development and reading skills. Builds on students' strengths and is recommended for students who need reading instruction at a level that provides additional support between the core reading classes.

REA 090 College Preparatory Reading

3 Credit Hours/45 Contact Hours

Prerequisite: REA 060, Basic Skills Assessment level 2 in English, 3 in reading, and 2 in study skills

Introduces students to reading skills necessary to succeed in a college environment. Includes how to read textbooks more effectively, locate main ideas and supporting details, develop literal and critical comprehension, improve vocabulary development and increase reading rates. Emphasizes applying these strategies to content area courses.

REA 105 Workshop in Reading, Writing and Speaking

3 Credit Hours/45 Contact Hours

Prerequisite: Basic Skills Assessment level 2 in English, 3 in reading, 2 in study skills or instructor consent

Facilitates the student's transfer of skills between the three basic areas of communication — reading, writing and speaking. Surveys small-group communication skills and reviews logical structure and its implementation in the three communication areas. Also concentrates on critical-thinking skills.

REA 106 Vocabulary Development II: College Vocabulary

3 Credit Hours/45 Contact Hours

Prerequisite: REA 030, Basic Skills Assessment level 2 in English, 3 in reading and 2 in study skills

Designed to facilitate the transfer of basic vocabulary skills to more advanced levels of usage. Requires students to apply advanced vocabulary concepts to content-area classes through analyzing word structure and visualizing concepts. Also introduces specialized vocabulary.

REA 107 Computerized Speed Reading

3 Credit Hours/45 Contact Hours

Designed to meet the needs of students who want to develop reading power, reading speed and reading comprehension. Built upon the fundamental principles of increasing speed and comprehension, this course focuses on the mechanics of reading, the purpose for reading, the various components of comprehension, reading rate and vocabulary enrichment.

REA 108 Planning for Success

3 Credit Hours/45 Contact Hours

Provides an introduction to the nature of a college education. Designed to help freshmen develop a better understanding of the learning process and acquire basic academic "survival skills."

REA 109 Advanced Learning Strategies

3 Credit Hours/45 Contact Hours

Prerequisites: Basic Skills Assessment level 2 in English, 2 in reading, and 2 in study skills

Focuses on critical-thinking and problem-solving techniques. Offers a dynamic and practical approach to providing students with opportunities to determine and improve how they learn and succeed in a college environment. Strategies covered may include test-taking strategies, listening techniques, time management, concept development, memory devices, textbook reading strategies, note-taking methods and concentration.

REA 151 College Reading

3 Credit Hours/45 Contact Hours

Prerequisite: REA 090, Basic Skills Assessment level 3 in English, 3 in reading, 3 in study skills or instructor consent

Develops cognitive and metacognitive strategies for improving reading comprehension in a college environment. Areas covered include critical thinking and analysis, inferential comprehension, concept development, textbook reading strategies, questioning techniques, patterns of organization, evaluating evidence and reasoning logically. Emphasizes the application of reading techniques to academic fields of study.

REA 223 Critical Analysis Reading

3 Credit Hours/45 Contact Hours

Prerequisite: REA 090 or REA 151, instructor consent, Basic Skills Assessment level 3 in English, 3 in reading, and 3 in study skills

Designed for those who want to sharpen their abilities to think and read critically when analyzing, synthesizing and evaluating reading material in various fields of study. Some of the areas of emphasis are problem solving, argumentation, logic, reasoning processes, and evaluating inferences, judgments, facts and opinions.

Recreational Assistant

RAE 201 Introduction to Recreational Leisure

3 Credit Hours/45 Contact Hours

Prerequisites (for degree or certificate enrollees only): ENG 121 or 131, SPE 115, SOC 101, PSY 101, BIO 201, AAS Humanities requirement, PSY 235, MAT 135, plus BUS 115, CIS 118 for degree enrollees.

Corequisites (for degree or certificate enrollees only): RAE 202, 205, SOC 103

Introduces the student to the field of recreational leisure. Topics include an overview, health benefits, practical applications in public and private facilities, and choices and opportunities in recreation and leisure. Open to any student considering the Recreational Assistant program.

RAE 202 Introduction to Recreational Therapy

3 Credit Hours/45 Contact Hours

Corequisites: RAE 201, 205, SOC 103

Introduces the student to the field of recreational therapy. Topics include an overview, communication skills in special populations, facilitating special needs, practical applications in public and private facilities, and choices and opportunities as an assistant in recreational therapy. Open to Recreational Assistant program students only.

RAE 203 Recreation and Leisure in Special Populations

3 Credit Hours/45 Contacts

Prerequisites: RAE 201, 202, 205, SOC 103

Corequisites: RAE 204, 207, 285

Examines and analyzes each of six recreational processes and models (e.g. medical, long-term care, youth centers, recreation centers, etc.) from the perspective of the recreational assistant, recreational therapist, private business manager, and recipient of recreational services. Open to Recreational Assistant program students only.

RAE 204 Health and Safety in Recreation and Leisure

3 Credit Hours/45 Contact Hours

Prerequisites: RAE 201, 202, 205, SOC 103

Corequisites: RAE 203, 207, 285

Provides instruction and practice in recognition, prevention and treatment of medical emergencies. Topics include an overview, practical applications in public and private facilities and facilitating special needs. Open to Recreational Assistant program students only.

RAE 205 Recreational Assistant Externship I

4 Credit Hours/180 Contact Hours

Corequisites: RAE 201, 202, SOC 103

Provides the opportunity to practice basic skills in services and care-giving in three different field settings. This course is open to Recreational Assistant program students only.

RAE 207 Specialized Areas in Recreation Electives

1-4 Credit Hours/15-60 Contact Hours

Prerequisites (for degree or certificate enrollees only): ENG 121 or 131, SPE 115, SOC 101, PSY 101, BIO 201, AAS Humanities requirement, PSY 235, MAT 135, plus BUS 115, CIS 118 for degree enrollees.

Corequisites (for degree or certificate enrollees only): RAE 202, 205, SOC 103

Provides theory and practice of actual activities in the field of recreation and leisure activities including, but not limited to, golf, Qi Gong (Tai Chi), dance and music therapy, billiards and an activity chosen by the student. Also open for one credit hour to students who are interested in the four-week segment to learn the activity only.

RAE 285 Recreational Assistant Externship II

5 Credit Hours/225 Contact Hours

Prerequisites: RAE 201, 202, 205, SOC 103

Corequisites: RAE 203, 204, 207

Continues RAE 205, Recreational Assistant Externship I. Provides the opportunity to continue practices, refine skills and specialize in a leisure service or recreational care-giving area. One specific field setting is selected by the student. This course is open to Recreational Assistant program students only.

Refrigeration, Heating and Air Conditioning (Commercial/Industrial)

RAC 111 Electricity and Electronics I

3 Credit Hours/68 Contact Hours

Introduces atomic theory, charges, the basic concepts of electrical circuits and safe procedures when working with electrical breakboards and developing simple circuits.

RAC 112 Electricity and Electronics II

2 Credit Hours/45 Contact Hours

Prerequisite: RAC 111

Introduces magnetism, electrical motor design and operation, and the use and care of testing meters.

RAC 114 Fundamentals of Refrigeration I

2 Credit Hours/45 Contact Hours

Prerequisites: RAC 111, 112

Introduces molecular theory, heat and methods of heat transfer, the basic compression cycle, molecular construction and nature of refrigerants.

RAC 116 Fundamentals of Refrigeration II

3 Credit Hours/68 Contact Hours

Prerequisite: RAC 114

Presents the opportunity to construct, evacuate, charge, start up and test the operation of a basic refrigeration system.

RAC 200 Refrigeration Systems, Components and Applications

3 Credit Hours/68 Contact Hours

Prerequisite: RAC 111, 112, 114, 116

Presents the individual components of refrigeration systems and their applications. Includes calculating evaporator and condensing unit capacities and matching components.

RAC 205 Heat Loads and System Development

2 Credit Hours/45 Contact Hours

Prerequisite: RAC 100 courses

Presents the concepts of heat gains and losses. Utilizes these concepts to calculate heat loads and presents methods of equipment selection.

RAC 208 Special Refrigeration Systems

3 Credit Hours/68 Contact Hours

Prerequisite: RAC 116

Examines refrigeration systems in common use other than normal mechanical refrigeration, which have commercial and industrial applications. Includes absorption, expendable and multi-stage systems.

RAC 211 Installation and Service Refrigeration Systems

3 Credit Hours/68 Contact Hours

Prerequisite: RAC 200

Presents the requirements for the installation of refrigeration system components and accessories and the construction of complete refrigeration systems. Introduces the proper procedure for troubleshooting and servicing refrigeration systems and components through the use of manufacturers' specifications and wiring diagrams.

RAC 212 Fundamentals of Air Conditioning

3 Credit Hours/68 Contact Hours

Prerequisite: RAC 111

Examines the principles and definitions of atmosphere, humidity, measurements and controls, psychometric charts and tables.

RAC 214 Unitary and Central Station Systems

3 Credit Hours/68 Contact Hours

Prerequisite: RAC 200, 212

Examines heat pump operation and the installation of packaged units, components and piping for split systems and evaporative coolers.

RAC 215 Air Flow Principles and Distribution

2 Credit Hours/45 Contact Hours

Prerequisite: RAC 116 or equivalent

Presents applications of air requirements, flow and sizing of air flow ducts.

RAC 216 HVAC Control Systems

3 Credit Hours/68 Contact Hours

Prerequisite: RAC 116

Examines control methods and devices used in air conditioning electrical systems and pneumatics.

RAC 275 Direct Digital Control Systems

1 Credit Hour/22.5 Contact Hours

Prerequisite: RAC 216

Provides an understanding of the evolution of Direct Digital Control (DDC) in the HVAC industry and its present applications. Introduces the basic features and capabilities of DDC systems and provides a basic understanding of how a DDC system is programmed and commissioned.

RAC 276 Metasys: HVAC Application-Specific Controller Engineering

2 Credit Hours/45 Contact Hours

Prerequisite: RAC 275

Enables building personnel to install and configure Metasys HVAC Application-Specific Controllers (ASCs). HVAC PRO (tm) software is used to configure HVAC controls' strategies for the AHU, VAV and UNT.

RAC 277 Metasys DX-9100 Engineering

2 Credit Hours/45 Contact Hours

Prerequisite: RAC 276

Provides engineering personnel with the knowledge and skills needed to build programs for the DX-9100 product using the WGX-9100 Windows software tool. Intended for building engineers who plan to implement or modify applications designed for the DX-9100 controller, or to design a unique strategy to solve a control problem.

RAC 278 Metasys Companion Facility

Operators

1 Credit Hour/22.5 Contact Hours

Prerequisite: RAC 275, 276, 277

Enables facility operators to communicate with their Metasys Companion system, as well as HVAC Application-Specific Controllers (ASCs) connected to the companion. Provides hands-on experience with all aspects of the companion and shows how to set up companion features with points from ASCs and adding ASC points to the companion database. Distinguishes between the panel and PC versions of the companion.

RAC 279 Metasys Facility Operators

2 Credit Hours/45 Contact Hours

Prerequisite: RAC 278

Enables building personnel to use the features of Metasys to control facilities effectively. Provides skills and knowledge to communicate with the Metasys system and to interpret systems messages. Demonstrates efficient use of system features using Operator Workstation or Network Terminals to maximize the benefits derived from the Metasys system.

RAC 285 Air Conditioning Troubleshooting and Service (Capstone)

4 Credit Hours/75 Contact Hours

Prerequisite: RAC 116 or equivalent experiences

Examines procedures in troubleshooting systems and servicing components of air conditioning systems.

Science

SCI 285 Critical Thinking (Capstone)

3 Credit Hours/45 Contact Hours

Prerequisites: MAT 121, ENG 122, SPE 115, 2

semesters of laboratory science and completion of 30 hours of transfer credit

Shows the interconnections among the various courses required for CCD's AA and AGS degrees. Students review both the common and unique properties of the subject areas they have studied: Sciences, Arts, Humanities and Social Sciences. Materials foster integrative and critical-thinking skills. Brings closure to the CCD educational experience and stresses those thinking skills useful to further formal studies and the world of work.

Secretarial

(SEC) COURSES HAVE CHANGED TO BUSINESS TECHNOLOGY (BTE). SEE BTE.

Sociology

SOC 101 Introduction to Sociology

3 Credit Hours/45 Contact Hours

Prerequisite: Basic Skills Assessment levels: MAT 3, ENG 3, REA 3, SS 3

Examines social institutions, mores and principles of sociology, as well as human cultures, social groups, and the social issues of age, gender, class and race.

SOC 102 Introduction to Sociology II

3 Credit Hours/45 Contact Hours

Prerequisite: Basic Skills Assessment levels: MAT 3, ENG 3, REA 3, SS 3

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.

SOC 103 Sociology of Health Care

3 Credit Hours/45 Contact Hours

Prerequisites: SOC 101 or PSY 101 or PSY 235

Introduces the student to the health care industry's finances, organization and various occupational roles. Explores the array of educational and vocational opportunities available in health care.

SOC 201 Introduction to Gerontology

3 Credit Hours/45 Contact Hours

Prerequisites: Program enrollment, instructor consent

Explores various theoretical perspectives on aging, the demography of aging, the inter-relationship between elders and key social institutions, and physical and psychological aspects of aging.

SOC 205 Sociology of Marriage and Family

3 Credit Hours/45 Contact Hours

Prerequisite: SOC 101 or instructor consent

Develops an understanding of marriage, family and kinship. Examines the family as an institution and how social, cultural and personal factors influence family relations. Explores the stability and diversity of the family, along with current trends and some alternative life styles.

SOC 215 Contemporary Social Problems

3 Credit Hours/45 Contact Hours

Prerequisite: SOC 101 or instructor consent

Explores current social issues that result in societal problems. Focuses on issues such as civil liberties, gender discrimination, substance abuse, crime, poverty and social change.

SOC 220 Race, Gender, Class, Culture

3 Credit Hours/45 Contact Hours

Prerequisite: SOC 101 or instructor consent

Explores the variety of intergroup relations: race, nationality, ethnicity, income groups and other minority classifications. Examines patterns of prejudice, discrimination and possible solutions to these issues.

SOC 221 Services and Resources for the Aging

3 Credit Hours/45 Contact Hours

Prerequisites: Program admission, instructor consent

Corequisite: GNT 201

Examines the myriad programs and services available to elderly individuals and their families. Explores legislative history and demographic trends in the field of aging: health and mental health, information and referral, income maintenance, housing, transportation, long-term care, nutrition, employment and Senior Centers.

SOC 222 Aging in a Diverse Society

3 Credit Hours/45 Contact Hours

Pre- or Corequisite: GNT 201 or instructor consent

Explores ethnic, religious and sexual diversity issues as they relate to older Americans. Ties together gerontological and diversity concerns to develop students into more sensitive and effective practitioners when dealing with older adults.

SOC 236 The Social Aspects of Aging

3 Credit Hours/45 Contact Hours

Prerequisites: Program admission, instructor consent

Corequisite: GNT 201

Educates students in the various social aspects of the aging process and the ways in which an aging population affects social structure. Introduces demographic processes, demographic characteristics of the current older population, the importance of understanding the social context of aging individuals, sociological perspectives on time and aging as a social issue.

SOC 237 Death and Dying

3 Credit Hours/45 Contact Hours

Prerequisites: SOC 101 or instructor consent

Examines the event of death and the process of dying. Explores the causes of death and the experience of dying in nursing homes, emergency rooms and hospices. Reviews the ethical and political issues of death and dying.

SOC 258 Gerontology Practicum

3 Credit Hours/105 Contact Hours

Prerequisite: GNT 201

Provides the student with a practical experience in gerontology. Emphasizes developing observation skills, individual growth in self-awareness, establishing effective communication and understanding case management skills.

SOC 260 Sociology of Deviance

3 Credit Hours/45 Contact Hours

Prerequisite: SOC 101 or instructor consent

Studies the nature and origin of deviant behavior, including crime, mental disorders and counter-cultural life styles. Theories of deviance and problems in social control are examined.

Spanish**SPA 101 Conversational Spanish I**

3 Credit Hours/45 Contact Hours

Introduces the student to basic vocabulary, grammar, sentence structure, expressions, and practical communication skills used in daily situations and travel.

SPA 111 First-Year Spanish I

5 Credit Hours/75 Contact Hours

Introduces a sequence dealing with the development of functional proficiency in listening, speaking, reading and writing the Spanish language.

SPA 112 First-Year Spanish II

5 Credit Hours/75 Contact Hours

Prerequisite: SPA 111 or instructor consent
Continues Spanish I in the development of functional proficiency in listening, speaking, reading and writing the language.

SPA 211 Second-Year Spanish II

3 Credit Hours/45 Contact Hours

Prerequisite: SPA 111, SPA 112
Reviews and reinforces skills and abilities gained in first-year Spanish courses. Emphasis is on conversation, culture, reading short stories and writing compositions. The goal is to expand the functional proficiency in speaking, reading, writing and listening to the language.

Special Learning Support Program (SLSP)

ALL SLSP COURSES ARE DESIGNED FOR PERSONS WITH LEARNING DISABILITIES AND OTHER SPECIAL LEARNING NEEDS. STAFF APPROVAL IS NEEDED TO ENROLL IN THESE COURSES.

SLS 001 Spelling Strategies I

3 Credit Hours/45 Contact Hours

Develops techniques to improve spelling strategies and to increase basic spelling skills. Includes structured word analysis, rule analysis and word attack for words not governed by rules.

SLS 002 Process and Procedures of Mathematics I

3 Credit Hours/45 Contact Hours

Provides special learning techniques and compensatory strategies, including retention of math facts, organization of materials and conceptualization of principles. Emphasizes alternative approaches to basic operations on whole numbers, decimals and fractions.

SLS 005 Learning and Skill Development

1 Credit Hour/15 Contact Hours

Serves students with learning disabilities and other special learning needs. Emphasizes compensatory strategies for attention and concentration, organization skills, memorization, following directions and instructions, problem solving and time management.

SLS 011 Spelling Strategies II

3 Credit Hours/45 Contact Hours

Reviews skills introduced in SLS 001 and develops advanced strategies for spelling English exceptions. Includes analysis of words with difficult spellings, frequently misspelled words and commonly confused word pairs.

Speech**SPE 115 Principles of Speech**

3 Credit Hours/45 Contact Hours

Combines the basic theory of speech communication with public speech performance skills. Emphasizes speech delivery, preparation, organization, support and audience analysis.

SPE 125 Interpersonal Communication

3 Credit Hours/45-72 Contact Hours

Introduces students to the theory and practices of interpersonal communication. The course will teach students to observe and analyze basic interpersonal communication concepts in family, social and organizational settings.

SPE 205 Voice and Diction

3 Credit Hours/45 Contact Hours

Studies the physiological production of the speaking voice and methods for improving the quality of the spoken word in general American speech.

SPE 216 Principles of Speech Communication II

3 Credit Hours/45 Contact Hours

Prerequisite: SPE 115

Emphasizes the intensification of ideas and styles with a focus on persuasive speaking. Includes additional studies in rhetorical analysis and oral interpretation of speeches.

SPE 219 Group Dynamics

3 Credit Hours/45 Contact Hours

Prerequisite: SPE 115

Examines group communication theories with an emphasis on leadership and group behaviors. Provides opportunities for group participation.

Surgical Technology

STE 100 Introduction to Surgical Technology

4 Credit Hours/60 Contact Hours

Prerequisite: Admission to STE program or instructor consent

Introduces surgical care. Emphasizes theoretical application in areas of asepsis, anesthesia, hemostasis, radiology and care of the surgical patient in the operating room.

STE 105 Pharmacology for Surgical Technology

2 Credit Hours/30 Contact Hours

Prerequisite: STE 100

Explores chemical therapy utilized preoperatively, intraoperatively and postoperatively for the patient undergoing surgical intervention. Emphasizes drug types, effects/side effects, principles of administration and appropriate personnel actions.

STE 106 Operating Room Skills

6 Credit Hours/120 Contact Hours

Prerequisites: STE 100, BIO 201

Corequisite: STE 107

Presents principles and applications of basic operating room skills with emphasis on safe and efficient use of mechanized and non-mechanized equipment common to surgery.

STE 107 Surgical Instrumentation

3 Credit Hours/42 Contact Hours

Prerequisites: STE 100, HOC 100

Corequisite: STE 106

Presents applications of principles related to use and management of instruments, sutures, needles, sponges and dressings commonly used in major surgical procedures.

STE 109 Surgical Technology Laboratory Experience

3 Credit Hours/128 Contact Hours

Prerequisite: STE 107

Applies surgical principles in the clinical setting under supervision of instructor. Emphasizes skill refinement and performance evaluation.

STE 110 Surgical Technology Practicum (Capstone)

7 Credit Hours/315 Contact Hours

Prerequisite: STE 107

Emphasizes refinement of skills in STE 109, application of proper aseptic technique and provision of quality patient care in the clinical setting under supervision of hospital personnel.

STE 115 Surgical Pathology and Intervention

4 Credit Hours/60 Contact Hours

Prerequisite: STE 107

Deals with functions of the surgical technician related to instrumentation and supplies. Presents surgical intervention theory related to pathology of body systems with focus on preoperative, intraoperative and postoperative progression, prognosis, complications and appropriate actions by operating room staff.

Technical Health Assistant

THA 110 Medical Terminology

2 Credit Hours/48 Contact Hours

Develops the root word and structure of medical terms, and examines the interpretation and pronunciation of terms used in various health-related areas.

THA 111 The Human Body

4 Credit Hours/96 Contact Hours

Explores the human body through a systems approach. Human anatomy, physiology and pathology are presented.

THA 112 Social Issues in Health

3 Credit Hours/72 Contact Hours

Introduces social issues in health care including medical ethics, law, patient communications, psychology and professionalism of health care workers.

THA 114 Medical Emergencies

1 Credit Hour/24 Contact Hours

Explores common medical emergencies and the appropriate response based on education and experience. Includes CPR certification.

THA 151 Technical Procedures

3 Credit Hours/72 Contact Hours

Develops the knowledge and skills necessary to perform technical medical procedures, including aseptic technique and infection control, patient history, vital signs, height and weight, examination preparation, assisting with physical exams, medical office emergencies and transporting patients.

THA 153 Medical Terminology II

2 Credit Hours/48 Contact Hours

Introduces commonly used medical abbreviations, symbols, names of laboratory tests, common drugs, use of the Physician's Desk Reference, and words used in specialties such as surgery, pathology and radiology.

THA 205 Pharmacology Practices

4 Credit Hours/96 Contact Hours

Prerequisites: THA 114, 151, 153

Provides an overview of medication measurement, regulation forms, classifications, dosage parameters, safety and routes of administration.

THA 210 Radiology Assisting

6 Credit Hours/144 Contact Hours

Prerequisites: THA 114, 151, 153

Develops the knowledge and skills needed to assist the radiologic technologist with radiologic procedures, radiographic film processing, filing systems, contrast media preparation, special radiologic modalities, department organization, patient education and professionalism.

THA 212 Internship Seminar

1 Credit Hour/24 Contact Hours

Corequisite: THA 297

Examines the skills and applications learned in a medical facility through an internship; contrasts practical procedures against the ideal; and explores workplace relationships, team skills and conflict management. Provides a faculty advisor to assist with special workplace problems.

THA 220 Orthopedic Technology

6 Credit Hours/144 Contact Hours

Prerequisites: THA 114, 151, 153

Presents basic anatomy in its relation to location, positioning, and treatment of orthopedic conditions. Provides practice in the application and removal of plaster and fiberglass casts.

THA 230 Clinical Procedures

8 Credit Hours/192 Contact Hours

Prerequisites: THA 114, 151, 153

Develops the knowledge and skills needed to perform clinical medical assisting activities, including drug administration, office surgical procedures, basic laboratory procedures, electrocardiography and radiology. Also examines the assistant's role, legal aspects and professionalism.

Theatre**THE 105 Introduction to Theatre Arts**

3 Credit Hours/45 Contact Hours

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.

THE 106 Cross-Cultural Storytelling

4 Credit Hours/60 Contact Hours

Prerequisite: Instructor consent

Offers international students and American students the opportunity to share ethnic/cultural experiences by using the theatre techniques of story telling, improvisation, mime, verbal and non-verbal language, scripting and staging techniques resulting in performance projects.

THE 111 Acting I

3 Credit Hours/45 Contact Hours

Introduces fundamentals of acting. The course is for students to develop technique, analyze scripts and evaluate performances.

THE 112 Acting II

3 Credit Hours/45 Contact Hours

Prerequisite: THE 111

Refines basic acting technique, character vision, performance orchestration, and a personal aesthetic sense about the art of acting.

THE 116 Practicum in Stage Acting

1-3 Credit Hours/30-90 Contact Hours

Prerequisite: Instructor consent

Offers credit for students rehearsing and performing roles in college theatre productions.

THE 118 Practicum in Technical Theatre

1-3 Credit Hours/30-90 Contact Hours

Prerequisite: Instructor consent

Provides hands-on experience in college productions in areas of technical capacities of settings, lighting, sound, costumes, properties, house management and/or stage management.

THE 206 Oral Interpretation

3 Credit Hours/45 Contact Hours

Pre- or Corequisite: SPE 205

Explores writers' experiences in drama, prose and poetry, and employs performance techniques that make the literature come alive for leaders and audiences.

THE 211 Development of Theatre I

3 Credit Hours/45 Contact Hours

Traces the evolution of Western-world theatre from primitive rites through the European Renaissance era. Emphasizes historical developments and major plays written in key periods.

THE 212 Development of Theatre II

3 Credit Hours/45 Contact Hours

Traces the evolution of the Western-World Theatre from neo-classic period through modern drama. Emphasizes historical development and major plays written in key periods.

THE 218 Reader's Theatre

3 Credit Hours/45 Contact Hours

Prerequisite: SPE 205, 206

Studies ensemble interpretation of literature—prose and/or drama—primarily through the medium of the spoken word.

Welding and Fabrication**WEF 100 Oxyacetylene Welding I**

3 Credit Hours/72 Contact Hours

Provides the student with a thorough technical understanding of oxyacetylene welding, flame cutting and brazing fundamentals and welding safety.

WEF 102 Air Arc Gouging

2 Credit Hours/40 Contact Hours

Prerequisite: WEF 100

Provides the student with the fundamentals of carbon air arc cutting and gouging, including equipment set up operations.

WEF 108 SMAW Set Up and Padding

4 Credit Hours/96 Contact Hours

Provides the student with a thorough technical understanding of arc welding fundamentals, welding safety, arc welding machines, electrode classifications and selection.

WEF 109 SMAW Welding I

4 Credit Hours/96 Contact Hours

Prerequisite: WEF 108

Continues WEF 108, SMAW Set Up and Padding. Provides reinforcement on safety and health in welding and practical application of arc welding fundamentals.

WEF 110 SMAW Welding II

4 Credit Hours/96 Contact Hours

Prerequisite: WEF 109

Continues WEF 109, SMAW Welding I. Provides review in health and safety for welding, practical application of welding techniques and an introduction to structural welding.

WEF 111 SMAW Structural Welding I

4 Credit Hours/96 Contact Hours

Prerequisite: WEF 110

Continues WEF 110, SMAW Welding II. Provides review of major health and safety issues and continues development of application skills necessary to produce quality welds.

WEF 112 SMAW Structural II

3 Credit Hours/72 Contact Hours

Prerequisite: WEF 111

Continues WEF 111, SMAW Structural Welding I. Provides continued practical application of welding skills and ways to recognize destructive testing and non-destructive testing.

WEF 114 Welding Math and Blueprints

3 Credit Hours/72 Contact Hours

Prerequisite: WEF 109

Provides the student with an understanding of the principles, systems of views, lines and symbols, and dimensional data for fit up and welding, as provided on engineered drawings of blueprints.

WEF 130 GMAW Set Up

2 Credit Hours/48 Contact Hours

Prerequisite: WEF 100

Provides the student with a thorough technical understanding of welding safety, gas metal arc welding fundamentals, gas metal arc equipment adjustments, metal transfer and shielding gases. Develops skills to produce high quality GMAW welds in all positions on mild steel, using short-circuit transfer.

WEF 150 Welding Lab

1-5 Credit Hours/24-120 Contact Hours

Allows students to practice on all welding skills to prepare them for certification tests for upgrading job skills.

WEF 205 GMAW Thin Gauge and Structural

3 Credit Hours/72 Contact Hours

Prerequisite: WEF 140

Provides the student with a thorough technical understanding of welding safety and gas metal arc welding of aluminum, including basic fundamentals, types of equipment and metal transfers.

WEF 207 GTAW Set Up

2 Credit Hours/48 Contact Hours

Prerequisite: WEF 130

Provides the student with a thorough technical understanding of gas tungsten arc welding fundamentals, preparation for welding pipe and pipe-welding defects.

WEF 208 GTAW Thin Gauge and Alloy

3 Credit Hours/72 Contact Hours

Prerequisite: WEF 130

Provides training to develop the manual skill necessary to make high quality gas tungsten arc welds in all positions on 16 and 11 gauge mild steel, 16 gauge stainless and 11 gauge aluminum, using both direct and alternating current.



President's Office**McClenney, Byron**

President

Ed.D., University of Texas, 1969

M.Ed., University of Texas, 1963

B.S., University of Texas, 1961

Underwood, Wanda

Program Assistant II

Administrative Services**Hunter, Stephen T.**

Vice President

M.B.A., Regis College, 1982

B.A., Ohio Northern University, 1970

Blash, Melissa

Payroll Officer

Blecha, Donna

Payroll Officer

Callison, Kevin

Subsystems Manager

Dahl, Jerri

Accounting Technician III

Downen, Niles

Controller

B.S., Southern Illinois University, 1974

Hasslock, Ray

General Ledger

B.S., University of Colorado at Denver, 1974

Hudak, William

Business Office

Limon, Nora

Business Office

Nitcher, Barrie

Accounts Payable Supervisor

Peppers, Sandi

Network Technician

Turnell, Patsy

Accounts Receivable Technician

Zinn, Sue

Sponsored Programs Accountant

A.A., Grand Rapids Junior College

Admission, Registration and Records**Gutierrez, Juanita**

Interim Director

M.A., University of Denver, 1997

B.A., Metropolitan State College of Denver, 1985

Abeyta, Sandra

Admission and Veteran's Coordinator

Martinez, Paula

Data Specialist II

A.A.S., Community College of Denver, 1994

Sanchez, Rosie

Graduation Coordinator

Arts and Humanities**Fleck, Richard F.**

Division Dean

Ph.D., University of New Mexico, 1970

M.A., Colorado State University, 1962

B.A., Rutgers University, 1959

Edgett, Maureen

Office Manager

Ward, Evelyn

Administrative Assistant II

Business and Governmental Studies**Norden, Robert**

Interim Division Dean

C.M.A., Institute of Certified Management Accounting, 1995

M.S., University of Colorado, 1986

C.P.A., 1986

B.S., University of Denver, 1969

Alvarez, Iris

Administrative Assistant II

Evans, Guy

Coordinator, Academic Computer Lab

A.S., Pima Community College, 1983

Latchman, June

Office Manager

A.S., Community College of Denver, 1992

Career Service Center**Brooks, Larry**

Director/Career Counseling

M.A., University of Northern Colorado, 1968

B.A., University of Northern Colorado, 1967

Brown, Michelle

Career Advisor/Graduate Placement

B.S., Metropolitan State College of Denver

Holland, Laurie

Student Services Specialist

Cooperative Education/Job Placement

Muniz, Bob

Job Development

M.A., University of Northern Colorado

B.A., University of Colorado

Rodriguez, Frank

Coordinator, Cooperative Education

B.A., University of Wyoming

Steele, Terry

Job Placement Officer

B.A., Colorado State University

Center for Persons with Disabilities**King, Jackie**

Instructional Support Manager

M.A., California State University, 1979

B.A., California State University, 1977

Aeschlimann, Nancy

Interpreter

B.A., Metropolitan State College of Denver, 1989

Certificate-Interpreter for the Deaf, 1982

Powell, Darlene

Counselor

B.S., Nebraska Wesleyan University, 1963

Continuing Education**Fleming, Richard**

Interim Division Dean

M.S., University of Dallas, 1977

M.B.A., University of Dallas, 1976

B.S., Memphis State University, 1968

Baker, Elaine

Director, Workplace Learning Project

B.A., University of Massachusetts at Amherst, 1974

Burke, Connie

Director, Educational and Economic Development Services

M.S., Amber University, 1985

B.A., Regis University, 1970

Counihan, Carolyn Berkley

Co-Director, Non-Traditional Learning Programs

M.A., University of Southampton, England, 1987

B.A., Kansas State University, 1985

Blum Garcia, Cheryl L.

Director, Training Partnerships
 M.A., Webster University, 1993
 B.S.W., University of Wisconsin-Eau Claire,
 1982

Lee, Tamela

Director, Small Business Development
 Center
 B.B.A., Howard University, 1981

Priest, Fran J.

Coordinator, Business and Industry Services

Shaw, Linda

Administrative Assistant III
 A.A.S., Denver Technical College, 1993

Smith, Elizabeth Amidon

Co-Director, Non-Traditional Learning
 Programs
 B.A., Bates College, 1987

Yearn, Debra K.

Manager, Contracts and Grants
 A.A.S., Parks Junior College, 1984

Education and Academic Services**Griego, Orlando**

Division Dean
 A.B.D., University of Northern Colorado,
 1988
 M.A., University of Northern Colorado,
 1980
 B.A., Adams State College, 1969

Burden, Leah

Administrative Assistant, Education and
 Academic Services

Butler, Janet

Director, Academic Support Center
 M.A., University of Colorado, 1988
 B.A., University of Alabama, 1971

Cox, Michelle

Office Manager I

DeHerrera, Teresa

Case Manager, Student Support Services
 M.A., Colorado State University, 1994
 B.A., Adams State College, 1984

Garcia, Gail

Administrative Assistant III, Student Support
 Services

Gonzalez, Michelle

Office Manager, Academic Support Center

Lee, Chung

Master Teacher, Real Kids Center
 B.A., Metropolitan State College of
 Denver, 1995

Mahan, Shawna

Math Lab Technical Coordinator
 M.S., University of Colorado at Denver,
 1995
 B.A., University of Colorado at Boulder,
 1988

Polak, Vera

Assistant Coordinator, GED Institute
 Ed.S., University of Colorado at Boulder,
 1981
 M.S., City University of New York, 1977
 B.A., Hunter College, 1968

Rooney, Judy

Director, Student Support Services
 M.A., University of Kansas, 1969
 B.A., Benedictine College, 1966

Sanchez, Vicky

Master Teacher, Real Kids Center
 A.G.S., Community College of Denver,
 1995

Stroh, Jeanne

CAI Writing Center Coordinator
 B.A., University of Colorado at Denver

Walton-Hunt, Sharon

Coordinator, Special Learning Support
 Program
 M.A., University of Colorado at Denver,
 1993
 B.A., Metropolitan State College of
 Denver, 1988

Educational Opportunity Center**Lovato, Florence**

Director
 M.Ed., Antioch University, 1982
 B.A., University of Colorado, 1975

Caballero, Jessica

Administrative Assistant II

Chavez, Jan

University Counselor
 M.A., University of Colorado, 1985
 B.A., University of Northern Colorado,
 1977

Davis, Elbria

Administrative Assistant II
 A.A., Community College of Denver, 1974

Gallegos-Mitchell, Maria

University Counselor
 B.A., University of Colorado, 1984

Hamilton, Delmar

University Counselor

Hunt, Yvette

University Counselor
 M.A., Webster University, 1984
 B.S., Florida A & M University, 1966

Porter, Larry

University Counselor
 M.A., State University of New York at
 Albany, 1971
 B.A., Oswego State College, 1969

**Educational Planning and Advising
Center****Nast, Emilia**

Interim Director, Student Development
 Academic Advisor/Credit for Prior Learning
 Coordinator
 M.A., University of Northern Arizona,
 1994
 B.A., Governor's State University, 1984

Griego, Louise

Academic Advisor/Transfer Coordinator

Joda, Kateri

Academic Advisor/Recruitment and
 Student Outreach
 B.A., University of Colorado, 1983

McCown, Lynnissa

Office Manager
 A.A.S., Community College of Denver,
 1997

Medina, Jane

Academic Advisor/ Coordinator for
 Immigrant Students
 B.A., University of Denver, 1967

Ryan, Elaine

Academic Advisor/Orientation Coordinator
 M.A., University of Colorado at Denver,
 1988
 B.A., Colorado State University, 1976

Trujillo, Consuelo

Senior Administrative Clerk

Financial Aid**Garnett, Carol A.**

Director
 B.A., University of Connecticut

Allen, Anne

Financial Aid Counselor
 B.A., University of Colorado, 1989

Chapman, Tisha

Financial Aid Counselor
 M.P.A., University of Colorado at Denver,
 1996
 B.A., University of Colorado, 1992

Coleman, Susan

Financial Aid Counselor
 B.S., University of Texas, 1969

Francavilla, Mary

Financial Aid Counselor
 M.A., University of Phoenix, 1994
 B.A., Colorado State University, 1981

Marshall, Crystal

Administrative Assistant III

Martinez, Genevieve

Financial Aid Counselor
 A.A., Community College of Denver, 1987

Health and Human Services**Bollmann, Barbara**

Division Dean
 Ph.D., Union Institute, 1990
 M.S.W., University of Chicago, 1969
 B.A., University of Missouri, 1965

Dapceвич, Michael

Administrative Assistant II

Robey, John

Office Manager

Ross, Eloise

Program Assistant I
 B.A., Metropolitan State College of Denver,
 1992
 A.A., Gossmont College, 1980

Schell, Pat

Administrative Assistant III

Sally Schroeder

Dental Assistant I

Human Resources**Wilson, Barbara J.**

Director
 M.S., Chapman University, 1996
 B.A., Alaska Pacific University, 1991
 A.A.S., Anchorage Community College,
 1988

Berry, Cynthia H.

Benefits Officer

Crockett, Sandra

Data Specialist

Knauber, Phyllis

Administrative Assistant III
 B.A., University of Wisconsin-Platteville,
 1967

Information Resources and Planning**Smith, Gregory P.**

Vice President
 Ph.D., University of Denver, 1983
 M.A., University of Denver, 1979
 B.A., Western Illinois University, 1974

Baradan, Mary Ann

Administrative Assistant III

Butler, Will

Programmer/Analyst II
 B.A., University of Colorado at Denver,
 1989

Fox, Pat

Network Technician

Price, Ken

Network Analyst/Admin. III
 B.S., Regis University, 1991

Information Services**Huey, Traci**

Office Manager

Institutional Advancement**O'Donnell, Mary Kelly**

Vice President
 M.A., University of Michigan, 1964
 B.A., St. Mary's College, 1960

Elsner, Adene

Administrative Assistant III
 M.S., University of Colorado, 1992
 B.A., University of Colorado, 1987

Jensen, Patricia

Director, Development and
 Communications
 B.A., University of Northern Colorado,
 1972

Jividen, Richard

Director, Marketing and Publications
 A.A.S., Community College of Denver,
 1987

Occionero, Gretchen

Designer, Marketing and Publications

Instruction**Coronado, Herlinda Martinez**

Vice President
 Ed.D., Texas Tech University, 1996
 M.Ed., University of Texas at El Paso, 1976
 B.S., University of Texas at El Paso, 1971

Andrews, Carol

Program Assistant

Science and Technology**Halleck, Dianne**

Division Dean
 Ph.D., University of Colorado at Boulder,
 1974
 M.S., University of Colorado at Boulder,
 1963
 B.S., Illinois State University, 1960

Brown, Shirley

Administrative Assistant II

Ekberg, Shirley

Office Manager
 B.S., University of Southern Colorado,
 1977

Student Assistance Center and Women's Services**Casados, Benita**

Interim Director
 B.A., Metropolitan State College of
 Denver, 1987

Bernstein, Rebecca

Program Specialist/Case Manager
 M.N.M., Regis University, 1995
 B.S.S., Cornell College, 1989

Messinger, Laura

Program Specialist/Case Manager
 B.A., Metropolitan State College of
 Denver, 1989

Student Life and Activities**Sykes, Felicia**

Director
 M.A., University of Denver, 1994
 B.B.A., Howard University, 1987

Binard, Kris

Leadership Coordinator
 M.S., Colorado State University, 1994
 B.S., Colorado State University, 1989

Kosempel, Paul

Events Coordinator
 M.A., University of Denver, 1995
 B.S., B.A., Bucknell University, 1992

Student Services**Michael Poindexter**

Vice President
 M.Ed., University of Northern Iowa, 1977
 B.A., Creighton University, 1975

Gomez, Isabel

Administrative Assistant III

Smith, Jacquelyn

Student Service Coordinator

Teaching/Learning Center**Cyr, Dianne**

Coordinator
 M.A., Colorado State University, 1991
 B.S., Regis College, 1986
 A.A., Red Rocks Community College, 1978

Bryant, Jim

Instructional Designer
 M.A., University of Colorado at Denver,
 1990
 B.A., University of South Carolina, 1979

Edlin, Michael

Instructional Designer
M.B.A., Colorado State University, 1991
B.S., Colorado School of Mines, 1989

Lewis, Clare

Administrative Assistant III
B.S., Colorado State University, 1984

Technical Education Centers**Hall, James C.**

Vice President
Ph.D., Colorado State University, 1980
M.Ed., Colorado State University, 1975
B.E., Colorado State University, 1971

Vadikin, Cindy

Accounting Technician

Sanchez, Julia

Administrative Assistant

Technical Education Center East**Coe, Fred D.**

Division Dean
D.P.A., University of Colorado at Denver,
1987
M.P.A., University of Colorado at Denver,
1978
B.S.B.A., Rockhurst College, 1975

Bray, Brenda

Community Liaison, Youth Fair Chance

Duran, Dolores

Administrative Assistant III

Fitzgerald, Michelle

Teleservices Coordinator, Denver Workforce Initiative

Matheny, Mary Ann

Case Manager
B.S., Wichita State University, 1981
M.P.A. University of Colorado at Denver,
1997

Miller, Carol

Coordinator, Marketing/Recruiting, TEC Sites
M.S., University of Colorado, 1996
B.S./B.A., University of Denver, 1977

Rodriguez, Richard

Case Manager, Youth Fair Chance
B.A. University of Texas at San Antonio,
1992

Technical Education Center North**Dingwall, Wanda M.**

Division Dean
Ph.D., Colorado State University, 1996
M.A., University of Northern Colorado,
1983
B.A., University of Northern Colorado,
1975

Alire, Jay

Director, Youth Fair Chance
M.A., University of Colorado at Denver,
1996
B.A., Colorado State University, 1975

Bateman, James

Senior Maintenance Mechanic

Berlin, Lora

School-to-Career Job Coordinator
M.A., University of Colorado at Denver,
1993
B.A., Roosevelt University, Chicago, 1974

Borquez, Melissa

Child Care Teacher Aide

Chaney, Sheila

Child Care Teacher Aide

Espinoza, Elma

Custodian

Evans, Erica

Child Development Center Director
A.A.S., University of Southern Colorado

Galiz, Micaela

Project Counselor/Case Manager
M.A., University of Colorado, 1987
B.A., University of Southern Colorado,
1976

Gooch, Reva

Child Care Lead Teacher

Hermosillo, Anthony

Project Counselor/Case Manager
Coordinator
M.S., Regis University, 1991
B.A., Loretto Heights, 1979

Hubert, Jamie

School-to-Career Job Developer
M.A., Boston University, 1979
B.S., Northeastern University, 1978

Johnson, Michael

Project Counselor/Case Manager
B.A., Metropolitan State College of
Denver, 1989

Miller, Thomas

Maintenance Mechanic Helper

Shellhamer, Lisa

Child Care Teacher Aide

Solt, Jackie

Administrative Assistant

Sullivan, Catherine

Child Care Lead Teacher

Walker, Kristy

Child Care Lead Teacher

Weise, Mikki

Case Manager
B.A., University of Iowa, 1967

Technical Education Center West**Crespin, Levi**

Division Dean
Ph.D., University of Colorado, 1992
M.S., University of Colorado, 1975
B.S., Adams State, 1972

Carter, Patricia

Child Care Master Teacher

Casteel, Diana

Project Counselor/Case Manager
B.A., Metropolitan State College of
Denver, 1993
A.A.S., Community College of Denver,
1989

Chacon, Darlene

Administrative Assistant

Counterman, Gary

Job Placement/Job Coach
B.A., Western State College

Fishburn, Sharon

Coordinator, ISP Project

Gayton, Maria

Child Care Master Teacher

Hammond, Wilma

Child Care Master Teacher

Moinsad, Linda

Case Manager, Youth Fair Chance
M.A., University of Phoenix, 1992

Roth, Ann

Director, Child Development Center

Work and Family Resource Center**Pfalmer, Beth**

Director
B.A., Metropolitan State College of
Denver, 1988

Alexander, Susan (Sue)

Program Specialist II

Boltz, Susan

Database Specialist
B.S., Colorado State University, 1988

Cataline, Cindy

Database Specialist

Dalpes, Anne Marie

Program Specialist I

Gardner, Patty

Provider Liaison
B.A., Southern Illinois University, 1970

Hite, Sarah

Call Line Advisor, 4 Parents Helpline
M.A., University of Colorado at Denver,
1988

Langkamp, Ruby

Program Specialist I

Metherd, Abbie

Child Care Resource and Referral Specialist
B.A., California State University, 1993

Naylor, Kendall

Child Care Resource and Referral Specialist

Sawyer, Barbara

Project Coordinator

Wallace, Anita

Administrative Assistant II

Wahrenbrock, Jill

Child Care Resource and Referral Specialist
B.A., University of Wisconsin, 1990

Faculty**Aaker, Barbara**

Assistant Professor, Mathematics
M.B.S., University of Colorado at Denver,
1994
B.S., Northern State University, 1976

Adams, Richard

Assistant Professor, Drafting and CAD

Baade, Randy

Professor, Geography and Political Science
M.A., University of Northern Colorado,
1975
B.A., University of Northern Colorado,
1969

Batthey, Robert

Professor, Paralegal
M.Div., Princeton Theological Seminary,
1966
J.D., University of Nebraska, 1963
B.A., University of Nebraska, 1957

Baumann, Maryann

Associate Professor/Coordinator, Early
Childhood Education
M.A., Colorado State University, 1971

Blan, Santito

Professor, Accounting and Business
Mathematics
M.B.A., Regis College, 1983
B.S., Metropolitan State College of
Denver, 1973

Blasius, Ronald R.

Professor, Psychology and Philosophy
Graduate Certificate, University of
Denver, 1986
M.A., DePaul University, 1967
B.A., DePaul University, 1964

Brancard, Ruth

Assistant Professor/Coordinator, English as
a Second Language
M.A., University of Northern Colorado,
1980
B.A., Goshen College, 1971

Bratko, Christine

Assistant Professor, Paraprofessional
M.A., University of Colorado at Denver,
1996
B.A., University of Florida, 1989

Bremer, Sheri

Associate Professor, Nursing
M.S.N., Wichita State University, 1981
B.S.N., University of Colorado, 1973

Carfrae, Cal

Professor, Computer Information Systems
M.A., University of Colorado, 1971
B.A., Grinnel College, 1968

Cassio, Sam

Coordinator, GED Institute
Director, Testing Center
Associate Professor, GED/Mathematics/
Education
M.A., Regis University, 1995
B.A., University of Colorado, 1980

Centa, Mary

Assistant Professor/Coordinator, Surgical
Technology
B.A., Metropolitan State College of
Denver, 1988
A.A.A., Metropolitan State College of
Denver, 1971

Chaney, Cobi

Associate Professor, Accounting
M.A., Colorado Christian University, 1996
B.S., Regis College, 1986
A.A.S., Red Rocks Community College,
1977

Choi, Buck

Assistant Professor, Welding
B.A., Kyung Nee University, 1969

Coulter, William

Professor, Computer Science and
Mathematics
M.A., University of Colorado, 1977
B.S., University of Michigan, 1966

Dawson, Sandra

Associate Professor, Reading and Study
Skills Coordinator, Reading
M.A., University of Colorado at Denver,
1988
B.A., University of Colorado at Denver,
1980

DeMarco, Anita

Associate Professor, Basic Skills
M.A., Regis University, 1995
B.A., Loretto Heights College, 1983

Doherty, Gudryn

Associate Professor, Mathematics
M.A., University of Colorado, 1985
B.A., University of Denver, 1966

Ernest, Vicki V.

Professor/Coordinator, Nursing
M.S., University of Colorado, 1975
B.S.N., Cornell University, 1964

Edwards, Paul

Professor/Coordinator, Dental Hygiene
Ph.D., University of New Mexico, 1993
M.P.H., University of Michigan, 1981
M.S., University of Michigan, 1981
Dental Hygiene Certificate, University of
Michigan, 1980
B.A., University of Colorado, 1977

Ellerman, Kevin

Assistant Professor, Computer Training for
People with Disabilities
Certificate of Achievement, C.C.D., 1987
A.A.S., Community College of Denver,
1980

Faubion, Betty

Professor, Health Occupations
B.S., Metropolitan State College of
Denver, 1989
A.A.S., Community College of Denver,
1982
Certificate, Presbyterian Medical Center,
1965

Fleischauer, Monica

Assistant Professor, Mathematics
M.A., University of Colorado, 1991
B.S., Colorado State University, 1974

Forkner, Linda

Associate Professor/Coordinator,
Radiography
B.A., Regis University, 1994
A.A.S., Mesa College, 1981
Radiologic Technology Certificate, Allen
Memorial Hospital, 1965

Frye, Yvonne

Professor, Reading and English
M.Ed., University of Colorado, 1976
B.A., Metropolitan State College of
Denver, 1970

Golden, Barbara

Assistant Professor, Basic Skills
B.A., Colorado State University, 1963

Grammer, Sally

Associate Professor, Word Processing
B.S., Regis College, 1990

Green, Janet

Assistant Professor, Word Processing
 M.A., Colorado Christian College, 1995
 B.S., Southeast Missouri State University,
 1982
 B.S., Green Memorial Bible College, 1990

Guatney, Jiansheng

Assistant Professor, English as a Second
 Language
 M.A., Eastern Washington University,
 1989
 B.A., Anhui Teacher's University, China,
 1976

Hall, Dianne

Instructor, Computer Information Systems
 M.B.A., Regis University, 1997
 B.S.B.A., Regis University, 1995

Hamilton, Eric

Associate Professor, Computer Information
 Systems
 M.A., Webster University, 1996
 B.S., Thomas Edison State College, 1994

Harr, Dolores

Associate Professor, Word Processing
 M.A., University of Northern Colorado,
 1973
 B.S., University of Northern Colorado,
 1968

Hart, Richard

Associate Professor, Economics
 M.A., The American University, 1971
 B.S., Oklahoma State University, 1962

Hindie, Jean

Assistant Professor, Mathematics
 M.S., University of Colorado, 1990
 B.S., University of Colorado at Denver,
 1988

I, Jesse Cheng-Fan

Professor, Chemistry
 Ph.D., University of Colorado, 1973
 M.S., Kansas State College, 1968
 B.S., Chung-Yuan College, 1965

Ihlenfeldt, Sandie

Assistant Professor, Graphic Design
 B.A., Metropolitan State College of
 Denver, 1981
 B.S., University of Wyoming, 1961

Johnson, Ann

Professor, English and GED
 Coordinator, Developmental English
 M.A., University of Detroit, 1972
 B.A., University of Detroit, 1970

Kalam, Abul

Associate Professor, Physics, Mathematics
 Ed.D., University of Northern Colorado,
 1968
 M.A., University of Northern Colorado,
 1967
 M.S., University of Dalla, 1961
 B.S., University of Dalla, 1960

Kleysteuber, Helen

Professor, Business Technology
 M.A., Colorado State University, 1980
 B.S., University of Colorado, 1969
 B.C.S., Oklahoma School of Accounting,
 1959

Knauber, David

Professor, Computer Information Systems
 Graduate Certificate, University of
 Denver, 1986
 M.A., University of Colorado, 1970
 M.Div., McCormick Theological Seminary,
 1961
 B.A., University of Nebraska, 1958

Knighten, Calvin

Associate Professor, Electronics Technology
 A.A.S., Community College of Denver,
 1982

Lancaster, Kathy

Assistant Professor, Computer Information
 Systems
 B.S., Southern Oregon State, 1965

Langford, Andrew

Associate Professor, Biology
 M.S., Utah State University, 1981
 B.S., University of Utah, 1976

LeBlanc, Joyce

Assistant Professor, Accounting
 B.S., Metropolitan State College of
 Denver, 1981

LeCoq, Cynthia

Assistant Professor/Clinical Coordinator,
 Radiologic Health Services
 B.A., Regis University, 1995
 A.A.S., Community College of Denver,
 1975

Lehman, Patricia

Professor, Art
 M.F.A., University of Kansas, 1971
 B.A., Colorado State University, 1966

Lewis-Cason, Diane

Assistant Professor, Accounting
 B.S., Arkansas State University, 1977
 A.A.S., Southern Baptist College, 1975

Lindsey, Priscilla E.

Assistant Professor, Administrative and
 Technical Health Assistant
 B.S.N., Metropolitan State College of
 Denver, 1974
 A.D.N., Community College of Denver,
 1972
 L.P.N., Queen of the World School of
 Practical Nursing, 1958

Lundgren, Mary Linda

Professor, Biology
 M.S., University of Colorado, 1970
 B.S.N., DePaul University, 1969

Mackey, T. Michael

Assistant Professor, English
 M.Div., Lutheran School of Theology at
 Chicago, 1987
 M.A., Colorado State University, 1985
 B.A., Colorado State University, 1983

Mardones, Harold

Assistant Professor, Mathematics
 M.S., University of Colorado at Denver,
 1994
 B.A., University of Colorado at Denver,
 1983

Martinez, Esteban A.

Assistant Professor, English
 M.A., University of Colorado, 1993
 B.A., Metropolitan State College of
 Denver, 1987

McCallin, Maureen

Assistant Professor, Early Childhood
 Education
 B.A., California State University, 1975

McCarthy, Michael

Professor, History
 Ph.D., University of Denver, 1969
 M.A., University of Denver, 1964
 B.A., Regis College, 1962

McCullough, Donald

Associate Professor, Machine Tool
 Certificate-Machinist/Toolmaker

Mead, Pamela

Assistant Professor, Dental Hygiene
 A.S., University of Southern Colorado,
 1978

Metier, Amy

Professor, Art
 M.F.A., University of Colorado, 1979
 B.F.A., Colorado State University, 1975

Miles, Kathy

Professor, English
 Ph.D., University of Colorado, 1985
 M.A., Northwestern University, 1966
 B.A., University of Rochester, 1964

Miranda, Judy

Associate Professor, Graphic Arts
M.A., California State University, 1978
B.A., California State University, 1976

Moran, James

Assistant Professor, Environmental and Refrigeration Technology

O'Connell, Helen

Assistant Professor, Accounting
B.A., Metropolitan State College of Denver, 1990

Ortega, Donna

Professor, Nursing
M.S.N., University of Colorado, 1986
B.S.N., Loretto Heights College, 1962

Osborn, Ed

Assistant Professor, Theatre
M.A., University of Northern Colorado, 1969
B.A., University of Denver, 1963

Ott, Albert

Assistant Professor, Accounting
M.B.A., University of Northern Colorado, 1984
B.S., Metropolitan State College of Denver, 1981

Peterson, Dana

Assistant Professor, Biology
M.S., University of Oklahoma, 1990
B.A., University of Missouri, 1981

Pigford, Lois

Professor, Business Technology and Business Communications
M.A., Colorado State University, 1973
B.S., University of Denver, 1969
A.A., Riverside Junior College, 1955

Rhodes, Arlene

Assistant Professor/Coordinator, Human Services
M.S.W., University of Illinois, Jane Addams Graduate School of Social Work, 1971
B.A., University of Dubuque, 1969

Richards, C. Preston

Professor, English
B.A., Peru State College, 1966

Salaz, Roberto E.

Professor, Spanish and Humanities
Ph.D., University of Colorado, 1988
M.Ed., Antioch College, 1976
B.A., University of Colorado, 1971

Sheffey, Larry

Assistant Professor, Human Services
M.S.W., Colorado State University, 1988
B.S., Metropolitan State College of Denver, 1986
A.S., Community College of Denver, 1984

Simons, Susan

Professor, English
Writing Center Coordinator
M.A., Ohio University, 1966
B.A., Denison University, 1964

Spade, Charlotte

Assistant Professor, Nursing
M.S., University of Colorado, 1983
B.S., University of Northern Colorado, 1972
Certified Clinical Specialist in Psychiatric Mental Health Nursing

Staub, Mary

Associate Professor, Word Processing
B.A., University of Colorado, 1968

Stephan, Alice

Associate Professor, Basic Skills
M.Ed., Lesley College, 1987
B.A., Colorado State University, 1966

Stoeckel, Pamela

Assistant Professor, Nursing
Family Nurse Practitioner Certificate, Metropolitan State College of Denver, 1981
M.S., University of Colorado, 1980
B.S., Texas Womens University, 1974

Strand, Connie

Assistant Professor, Administrative Health Assistant
B.A., Western State College, 1971

Swiney, Ken

Associate Professor, Sociology
M.A., University of Colorado at Denver, 1989
B.A., Northeast Louisiana University, 1981

Thomas, Judy

Professor, Business Technology
M.A., Colorado State University, 1977
B.A., University of Northern Colorado, 1965

Thomas, Stephen

Associate Professor, English
M.A., University of Montana, 1987
B.A., University of Northern Colorado, 1983

Thompson, Kathryn

Assistant Professor, Administrative Health Assistant
A.A.S., Arapahoe Community College, 1991

Tichy, Toni

Assistant Professor, Basic Skills
B.A., Loyola University, 1969
B.A., University of Illinois, 1959

Thies-McWilliams, Karen

Assistant Professor/Coordinator, Behavioral Sciences
M.S.W., University of Nebraska, 1977
B.S.W., Wartburg College, 1974

Tjeerdsma, Catrinus

Professor, Mathematics
Coordinator, Developmental Math
M.B.A., University of Colorado at Denver, 1985
M.S., University of Notre Dame, 1971
B.S., Calvin College, 1960

Valdez-Ferguson, Peggy

Professor, English
M.A., University of Colorado, 1983
B.A., Metropolitan State College of Denver, 1972

Vigil, Ernesto

Assistant Professor, Basic Skills
B.A., Goddard College, 1973

Walo, Abraham

Assistant Professor, Basic Skills
B.S., University of Colorado, 1986

Weber, James

Assistant Professor, Mathematics
Ph.D., Kansas State University, 1966
M.S., University of Denver, 1961
B.S., Regis University, 1959

Whalen, Kathleen (Smith)

Associate Professor, Nursing
M.N., Louisiana State University Medical Center, 1979
B.S.N., Northwestern State University, 1974

Wheatlake, Linda

Assistant Professor, Basic Skills
B.A., Westminster College, 1971

Whiting, Ray

Professor, Photography
M.F.A., Ohio University, 1973
B.F.A., University of Denver, 1964

Winograd, Leonard

Professor, English
M.F.A., University of Iowa, 1982
M.A., University of Colorado, 1979
B.A., University of Colorado, 1973

Wohlauer, Ron

Professor, Photography
M.A., University of Oregon, 1973
M.A., University of Colorado, 1970
B.A., University of Colorado, 1969

Woodward, Barbara

Associate Professor, Marketing

M.Ed., Colorado State University, 1991

B.A., Colorado State University, 1970

Yamasaki, Christine

Assistant Professor/Coordinator,

Recreational Assistant Education

B.A., Metropolitan State College of

Denver, 1983

A.A.S., Community College of Denver,

1980

York, Kathleen

Assistant Professor, Reading

M.A., California State University, 1983

B.A., California State University, 1973

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notes **NOTES**

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CITIZENSHIP

Are you a U.S. Citizen? Yes No If No, Country of Citizenship: _____

If you are not a U.S. Citizen, please attach photocopy of I-94 (Arrival-Departure Record), or I-551 (Alien Registration Receipt Card) (both sides).

Visa Type: _____ Visa Expiration Date: _____

SELECTIVE SERVICE

Information on selective service registration status must be provided in order to comply with Colorado state law. Individuals providing false information are subject to penalty of law. Are you required to register with the Selective Service? Yes No
If Yes, are you registered? Yes No

STUDENT BACKGROUND

Which best describes the level of education you have completed (choose one)?

- | | | |
|---|---|---|
| <input type="checkbox"/> Less than High School | <input type="checkbox"/> Associate Degree | <input type="checkbox"/> Doctorate (Ed.D, Ph.D) |
| <input type="checkbox"/> High School Graduate/GED | <input type="checkbox"/> Bachelor's Degree | |
| <input type="checkbox"/> Certificate | <input type="checkbox"/> Professional Degree (MD,JD,MBA,Ed.S) | |

Name of Last High School Attended _____	City _____	State <input style="width: 30px; height: 20px;" type="text"/>
Name of Last College Attended _____	City _____	State <input style="width: 30px; height: 20px;" type="text"/>

Type of Secondary Diploma (Please Indicate one).

HIGH SCHOOL DIPLOMA-INDICATE YEAR RECEIVED:

19... 0 1 2 3 4 5 6 7 8 9

(G)G.E.D.-INDICATE YEAR RECEIVED:

19... 0 1 2 3 4 5 6 7 8 9

- (C) Currently enrolled in High School
 (N) Non-Graduate

* Marital Status: (S) Single/Divorced
 (M) Married/Separated

Current Employment Status: (F) Full Time (30+hrs/week)
 (P) Part-Time (1-29 hrs/week)
 (U) Currently not employed

* Ethnic Origin: (I) American Indian or Alaskan Native
 (W) White Non-Hispanic
 (O) Asian or Pacific Islander
 (H) Hispanic
 (B) Black Non-Hispanic

* Have your parents earned a baccalaureate (4-year) degree?
 (M) mother (F) father (B) both

Veteran/Military Service: (1) Veteran or Dependent Eligible for a VA Education Benefits (4) Active Duty Military in Colorado
 (2) Veteran not Eligible for VA Education Benefits None
 (3) Active Duty Veteran

This institution provides services for students with disabilities.
Would you like to receive information about these services? Yes No
* Do you consider yourself to be economically disadvantaged? Yes No
* Do you consider yourself to be academically disadvantaged? Yes No
* Would you learn better using a language other than English? Yes No

Language _____

STUDENT GOALS

While at this institution, do you intend to:
 Earn an academic degree (AA/AS/AGS)
 Earn a vocational-technical degree (AAS)
 Earn a vocational-technical certificate
 None of the above

Do you plan to transfer to another institution?
 Yes, to a 4 year school after graduation
 Yes, to a 4 year school before graduation
 Yes, to a 2 year school after graduation
 Yes, to a 2 year school before graduation
 No, I do not plan to transfer

Are you enrolling at this college for job or career reasons?
 Yes
 No

Please indicate planned length of study at this institution:
 1 semester 2 years
 1 year More than 2 years

Program/Major area of study:

All items are subject to change without notice.

I hereby certify that, to the best of my knowledge, the information furnished in this application is true and complete without intent of evasion or misrepresentation. I understand that if it is found otherwise, it is sufficient cause for rejection or dismissal.

Signature _____

Date _____

Collegiate institutions using this application do not unlawfully discriminate on the basis of race, color, national origin, sex, age, or handicapped admission or access to, or treatment or employment in its educational programs or activities. Inquiries may be referred to the Director of Affirmative Action for the Colorado Community College and Occupational Education System, 1391 North Speer Blvd., Suite 600, Denver, CO 80204, (303) 620-4000 or the Office for Civil Rights, U.S. Department of Education, 1961 Stout Street, Denver, CO 80294.

COLLEGE	CLASS	DEGREE	MAJOR	MINOR	SPEC	HIGH SCHOOL CODE	COLLEGE CODE
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