## MSI Separator Sheet

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1991-1992
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# AIMS COMMUNITY COLLEGE 1991-92 CATALOG 

(Effective Summer Quarter, 1991)
Established 1967

# A College Serving North-Central Colorado 

MAIN CAMPUS<br>5401 W. 20th Street<br>P.O. Box 69<br>Greeley, Colorado 80632<br>(303) 330-8008

## SOUTH CAMPUS

260 College Avenue
P.O. Box 949

Fort Lupton, Colorado 80621
(303) 857-4022

Greeley 352-4664
Metro 659-2243

# WEST CAMPUS 

104 E. Fourth Street
Loveland, Colorado 80537
(303) 667-4611

# A LETTER FROM THE PRESIDENT. . . 

A College's catalog is its most important reference document. It tells almost everything worth knowing about the institution: its history, rules, courses, activities, and fees. It even includes a roster of key players. The catalog is "must" reading for anyone interested in a school. From that perspective, this catalog is not much different from similar documents produced at over 3,000 other institutions of higher education in America. Yet, because this book reports on this particular College, it is distinctive. As such, for prospective students and supporters of Aims Community College, this catalog should be fascinating reading. Look it over and see if you don't agree.

Incidentally, the year 2000 is not far
 off. We are already well into the final decade of the century in which you and I were born. This College is well into positioning itself for a future that is destined to be quire different from today's world. Rapid political, technological, social and environmental changes are forcing all of us to be more serious and better prepared than was the generation ahead of us. We have an obligation to make certain that there is a sane and healthy world for the generation that follows us. Aims Community College is an excellent place for you to make preparations for yourself to face those uncommon challenges.

Yours very truly,
George R. Conger
President

## TABLE OF CONTENTS

GENERAL INFORMATION
Campus Map ..... 2
Academic Calendar .....  3
Degree and Certificate Index .....  5
Aims Overview .....  7
Main Campus ..... 10
South Campus .....  .11
West Campus ..... 12
Admissions ..... 13
Tuition and Fees ..... 16
Records, Transcipts, and Requests for Information ..... 17
Financial Aid ..... 18
Financial Assistance Programs ..... 19
Scholarships .....  23 .....  23
Advising ..... 25
Course Information
Course Information ..... 25 ..... 25
Grading System ..... 27
Academic Standards ..... 28
Special Instructional Programs ..... 29
Student Activities and Organizations ..... 30
Degrees and Certificates Awarded ..... 31
Student Services ..... 33
SCHOOL OF ARTS AND SCIENCES ..... 37
Associate of Arts (A.A.) Degree- Liberal Arts Major. ..... 38
Associate of Science (A.S.) Degree- Liberal Arts Major ..... 40
Associate of General Studies (A.G.S.) Degree ..... 42
Areas of Emphasis - A.A.
Behavioral and Social Sciences Division ..... 43
Communications and Humanities Division. ..... 49
Design and Creative Studies Division ..... 51
Mathematics and Science Division ..... 54
Areas of Emphasis - A.S.
Mathematics and Science Division ..... 55
DEVELOPMENTAL STUDIES ..... 62
SCHOOL OF OCCUPATIONAL EDUCATION ..... 64
Business Division ..... 65
Public Service Division ..... 71
Technical Division ..... 80
Trades and Industry Division ..... 91
COURSE DESCRIPTIONS ..... 101
BOARD OF TRUSTEES AND ADMINISTRATION ..... 168
FACULTY ..... 169
INDEX ..... 176


## ACADEMIC CALENDAR

## SUMMER QUARTER, 1991 <br> (Four-Day Week)

May 3, 1991June 17, 1991June 19, 1991Graduation Application Deadline for Summer Quarter

Registration
June 27, 1991Last Day to Drop Classes with 100\% Regin
July 4, 1991
.Fourth of July Holiday (College Closed)
August 21, 1991
August 22, 1991September 2, 1991
July 22-25, 1991
Last Day of ClassesGraduation/End of QuarterLabor Day (College Closed)
FALL QUARTER, 1991
July 25, 1991
September 11-13, 1991
September 17, 1991
September 19, 1991
September 30, 1991
October 25, 1991
October 21-25, 1991
November 8, 1991
November 11-15, 1991
November 27-29, 1991December 4-5, 1991
December 6, 1991
December 23-27, 1991January 1, 1992Graduation Application Deadline for Fall QuarterFall Early Registration for Spring and Summer StudentsRegistration
Classes BeginLast Day to Drop Classes with 100\% RefundFaculty to Faculty Conferences (no classes)Midterm Week.Staff Development Day (No Classes)Winter Early Registration for Fall StudentsThanksgiving Holiday (College Closed)Evaluation DaysGraduation/End of Quarter
Christmas Holiday (College Closed)New Year's Holiday (College Closed)
October 25, 1991
January 2, 1992.Graduation Application Deadline for Winter QuarterJanuary 6, 1992January 15, 1992February 3-7, 1992February 24-28, 1992March 12-13, 1992
March 13, 1992.
..................................................................................................................................................................................Graduation/End of Quater
SPRING QUARTER, 1992
February 7, 1992Graduation Application Deadline for Spring Quarter
March 23, 1992Registration
March 25, 1992 Classes Begin
April 3, 1992. Last Day to Drop Classes with 100\% Refund
April 27-30, May 1, 1992Midterm Week
May 25, 1992 ..... Memorial Day (College Closed)
June 3-4, 1992 Evaluation DaysJune 5, 1992Graduation/End of Quarter


```
ASSOCIATE OF ARTS (A.A.) DEGREE
    Liberal Arts Major 2 YR
    Areas of Emphasis:
General Psychology (page 44)
Paraprofessional Counseling (page 44)
Biofeedback (page 45)
Business Transfer (page 49)
Criminal Justice (page 45)
Literature (page 50)
Prelaw (page 46)
Political Science (page 46)
Social Science (page 47)
Communications Media (page 50)
Design (page 51)
Fine Arts (page 52)
Music (page 53)
Computer Information Systems (page 54)
Elementary Education (page 43)
Colorado Alcohol & Drug
    Abuse Certification (page 47)
```


## ASSOCIATE OF SCIENCE (A.S.) DEGREE

## Liberal Arts Major 2 YR

 Areas of Emphasis:Chemistry (page 57)
Chemical Testing Technology (page 57)
Computer Programming (page 56)
Computer Science (page 56)
Pre-Engineering (page 58)
Life Sciences (page 59)
Mathematics (page 58)
Pre-Health Profession (page 59)
Pre-Nursing (page 60)

## ASSOCIATE OF GENERAL STUDIES (A.G.S.) DEGREE 2 YEAR PROGRAM

ASSOCIATE of APPLIED SCIENCE (A.A.S.) DEGREE PROGRAMS
Accounting (page 65) 2 YR
Agriculture Technology (page 81) 3 YR
Farm \& Ranch Business Management Option (page 81)
Auto Body Repair (page 92) 2 YR
Auto Mechanics (page 93) 2 YR
Aviation (page 83) 2 YR
General Aviation Pilot Option (page 83)
Professional Pilot Program
(PPP) Option (page 83)

Business Information Systems (page 66) 2 YR
Criminal Justice (page 71) 2 YR
Early Childhood Education (page 95) 2 YR
Electronics (page 85) 2 YR
General Electronic Technician
Option (page 85)
Automated Process Technician
Option (page 86)
Engineering Technology (page 88) 2 YR
Architectural Option (page 88)
Civil Option (page 90)
Computer Aided Manufacturing
Option (page 89)
Mechanical Option (page 88)
Fire Service Technology (page 74) 2 YR
Fire Protection Option (page 74)
Fire Science Option (page 74)
Graphic Technology (page 96)
2 YR
Press Option (page 97)
Pre-Press Option (page 97)
Marketing/Management (page 69) 2 YR
Fashion Merchandising Option (page 69)
Supervisory Management Option (page 70)
Marketing Option (page 69)
Small Business Management Option (page 69)
Office Occupations (page 67)
2 YR
Administrative Support (page 67)
Legal Office Option (page 67)
Radiologic Technology (page 78) 2 YR
Welding Technology (page 99) 1 YR

## CERTIFICATE PROGRAMS

Farm \& Ranch Business Management Options (page 81)
Drafting (page 87) 3 QT
Auto Body Refinishing (page 91) 3 QT
Auto Body Repair (page 92) 3QT
Auto Mechanics (page 93) 3 QT
Aviation (page 84) 4QT
Basic Peace Officer Academy (page 73) 3 QT
Early Childhood Education (page 94) 3 QT
Emergency Medical Technician 1 QT
Basic (page 76)
Emergency Medical Technician 2 QT
Intermediate (page 76)
Fire Service Training Academy (page 75) 1 QT
Volunteer Fire Fighter Training (page 75) 4QT
Geriatric Aide (page 79) 1QT
Graphic Technology (page 96) 3QT
Office Clerical (page 68) 4 QT
Welding Technology (page 98) 3 QT
Young Farmer (page 82) 1 YR


## AIMS OVERVIEW

## HISTORY

In the summer of 1966, a citizen's committee representing all of Weld County's school districts recommended the formation of a junior college district. In January of 1967, voters of the district overwhelmingly approved the establishment of Aims Community College. Two months later a governing board was elected and it, in turn, selected Dr. Ed Beaty as the college's first president.

After Dr. Beaty's death in 1975, Dr. Richard Laughlin was appointed president. He served the college in this post until 1979 when Dr. George R. Conger assumed the position.

Enrollment has expanded over the past twenty-one years from 900 students in 1967 to over 14,000 credit students annually in 1987.

Aims Community College's permanent 175 acre campus site was purchased in 1970. In 1971 the college secured a 50,000 square foot industrial building on ten acres adjacent to the main campus. This acquisition brought the Greeley campus to its present size of 185 acres.

The college's first totally new building, the Trades and Industry Building, was constructed in 1971. Next came Horizon Hall which opened in 1973. In 1975 the Emergency Services Academy was completed. The Physical Education Building was constructed in time for the opening of the winter quarter in 1976.

Ed Beaty Hall, opened in the Fall of 1978. This distinctive facility provides over 60,000 square feet of laboratory and classroom space.

Planning for additional construction on the Greeley campus was initiated in 1982, culminating in the opening of the Welding Technology Building in the fall of 1983 and Westview Classroom Building in the fall of 1984.

The Aims Community College South Campus in Fort Lupton was also completed in late 1984. This facility serves the community and educational needs of our students in the Southern Weld County region.

To meet the needs of Aims students living in the Loveland/ Berthoud area, classes are offered through the cooperation and facilities of Thompson Valley School District R2-J. A new facility, the Loveland Center, opened in the fall of 1986 and expanded in 1989 to meet the needs of students in our service area of Larimer County. With a gift from the McKee Charitable Trust, Aims Community College West Campus - Loveland opened in the Fall of 1990.

## PHILOSOPHY

The educational offerings and services of Aims Community College are based upon the belief that the primary obligation of the public educational system is to assist in the development of individuals for meaningful, productive lives in a democratic society. This philosophy implies a deep and abiding faith in the worth and dignity of the individual as the most important component of a democracy. This conviction recognizes that ideas are as valuable as facts in our dynamic and complex society, and it suggests that the college has an obligation to:

1. Create an educational environment which encourages the development of intellectual, social, and physical skills;
2. Foster a climate for students to develop rewarding personal and social patterns of life for their roles at home and in the community;
3. Assist students to achieve optimum vocational maturity; and
4. Promote an appreciation for the creativity of others and, thereby, to discover the potential for one's own creativeness.

## PURPOSES

Aims Community College was established in accordance with the laws of Colorado as a post-secondary educational institution authorized to offer instruction and training for students over the age of 16 years who are not enrolled in a regular $K$ through 12 program in a public, independent, or parochial school. Very broadly, therefore, the purposes of Aims Community College are to provide:

1. College parallel courses preparing students to transfer to four year colleges or universities;
2. Occupational education to help prepare students for initial employment or for advancement in specific vocational fields;
3. General educational offerings designed to prepare students to make intelligent choices in all aspects of life, integrating skills, knowledge, and values to promote personal and community growth;
4. Developmental education for those not prepared for college level study to achieve a higher level of educational attainment;
5. Counseling and guidance services to enable students to more clearly define their educational goals; and
6. Community services and continuing educational offerings for adults of all ages.

## APPROVAL

The operation of Aims Community College is approved by the State of Colorado. It is governed by the five member Aims Junior College District Board of Trustees elected by the voters of the Aims Junior College District. All degree programs are approved by the Colorado State Board for Community Colleges and Occupational Education and the Colorado Commission on Higher Education.

## ACCREDITATION

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

## FAMILY EDUCATION RIGHTS AND PRIVACY ACT

Aims Community College complies with the Federal Family Education Rights and Privacy Act of 1974, which specifies that (a.) a student's record is closed to non-college officials unless specific
authorization to review those records is granted in writing by the student or is granted by provisions of the law and (b.) a student has the right to inspect and review certain specified official records, files, and data directly related to that student. Students desiring to inspect and/or review their official records should contact the Registrar, Office of Admissions and Records.

## AFFIRMATIVE ACTION

Aims Community College is committed to equal opportunity in employment and education regardless of age, race, color, religion, sex, national origin, or handicap. Publicly adopted throughout the college is an affirmative action policy which shall assure equal employment and educational opportunities to all minorities in the college, whether classified staff, faculty, students, or administrators. Any student or college employee who encounters acts of discrimination because of age, race, religion, color, sex, national origin, or handicap should contact the Affirmative Action Officer, Associate Dean of the College, Robert Rangel, room 204, General Services Building, Ext. 0 .

## THE FOUNDATION

The Aims Community College Foundation was established during the 1979-1980 academic year to provide financial and other support for the college and its activities beyond those which are available through normal institutional funding sources. Because of the continuous limitations on such routine sources, the college has been obliged to rely increasingly upon private and corporate donor support.

Foundation activities are moderated by a board of directors selected from various segments of the business and professional community. Current members of the Foundation Board are: George R. Conger, Tom Cowan, Conrad J. Greicar, Mike Geile, Wes Goehring, Marion Jobe, Bob Mitchell, Linda Morgensen, Norman Noe, Louis C. Rieker, Kenneth Whitney, Sherry White, and Jerry Winters.

## SMOKING POLICY

Smoking is prohibited in all buildings owned and operated by the college except in designated areas.

## DRUG FREE WORKPLACE

Aims Community College is a drug-free workplace.

## AN ALCOHOL AND DRUG FREE EDUCATIONAL INSTITUTION ALCOHOL AND DRUG ABUSE PREVENTION PROGRAM

## I. Background

The National Drug Control Strategy issued in September 1989, proposed that the Congress pass legislation requiring schools, colleges and universities to implement and enforce firm drug prevention and education programs as a condition of eligibility to receive Federal financial assistance. On December 12, 1989, President Bush signed the Drug-Free Schools and Communities Act Amendment of 1989 (PL 101-226) which requires institutions of higher education to
implement a program to prevent the unlawful possession, use, or distribution of illicit drugs and alcohol by their students and employees on school premises or as part of any school activity.
This law, in addition to the Drug Free Workplace Act (PL 100-690, $5151-5160$ ), which requires applicants for federally funded grants and contracts to certify that they will institute affirmative steps to prohibit the unlawful manufacture, distribution, possession, and use of controlled substances in the workplace, establishes the foundation on which Aims Community College has established it's drug and alcohol policy.

## II. Standard of Conduct

Aims Community College complies with both the Drug-Free Schools and Communities Act and the Drug Free Workplace Act. In compliance with these Acts all students and employees are prohibited from the unlawful manufacturing, possession, use or distribution of illicit drugs and alcohol on any of the Aims' campuses or at any Aims sponsored activity. In addition Aims has adopted a policy of "NO ALCOHOL" for all students and employees on all campuses, and at all school sponsored activities both on and off campus.

## III. Legal Sanctions

Students and employees are reminded that local, state, and federal laws provide for a variety of legal sanctions and penalties for the unlawful manufacturing, possession, or distribution of illicit drugs and alcohol. These sanctions include but are not limited to incarceration and monetary fines.

The Federal Controlled Substances Act specifies penalties, for a first offense individual involved in the unlawful manufacturing, distribution, or possession with intent to distribute narcotics, of not less than 10 years or more than life imprisonment and a fine up to 4 million dollars, or both. The penalty for simple possession, knowingly or intentionally possessing a controlled substance, is imprisonment up to one year and a minimum fine of $\$ 1,000$, or both. Penalties for unlawful distribution of a controlled substance to a person under twenty-one (21) years of age is imprisonment or a fine, or both, up to twice that established for distribution offenses.

The Colorado Criminal Code relating to controlled substances (Titte 18, Article 18) establishes penalties for the unlawful distribution, manufacturing, dispensing, sale, or possession of a controlled substance ranging from six months imprisonment or $\$ 500$ fine, or both, to 16 years imprisonment and/or $\$ 750,000$ in fines, depending of the classification of substance. Penalties under the Colorado Beer Code (Title 12, Article 47) relating to unlawful manufacturing, distribution, and possession of alcoholic beverages range up to one year imprisonment and/or up to $\$ 5,000$ in fines, or both.

Local ordinances for the City of Greeley, relating to illicit drugs and alcohol, coincide with the State of Colorado statutes.

## IV. College Sanctions

Students and/or employees (full or part-time) who violate the standards set forth under the Aims Substance Abuse Policy will be subject to disciplinary actions. Sanctions include, but are not limited to, reprimand, probation, suspension, expulsion or termination and/or referral to the appropriate authorities for prosecution.

## AIMS OVERVIEW, cont.

## V. Health Risks

Health risks associated with drug and alcohol abuse encompass physical and psychological effects, including but not limited to : malnutrition, brain damage, paranoia, psychosis, hepatitis, convolutions, coma, depression, heart disease, death, pancreatitis, cirrhosis of the liver, damage to the central nervous system elevated blood pressure, respiratory failure, low birth weight babies, babies with drug/alcohol addictions, and an increased probability of intravenous drug users contracting AIDS. It is recommended that anyone having specific questions relating to their heath and drugs/ alcohol should consult their physician.

## VI. Counseling and Referral Sources

## ON CAMPUS

A. Counseling Center - 330-8008 ext. 251
B. Personnel Office - 330-8008 ext. 434

## OFF CAMPUS

A. Weld Information and Referral Service (WIRS) 352-9477
B. Weld Mental Health Center - $353-3686$
C. Island Grove Regional Treatment Center

1. Detox-356-6664
2. Outpatient - $351-6678$
D. Alcoholics Anonymous - 353-9851 (Greeley) - 669-9989 (Loveland)
E. Narcotics Anonymous - 353-6324
F. Students Against Drunk Driving (SADD) - 352-8947
G. New Beginning Treatment Center - 1-800-950-5150
H. Larimer County Alcohol and Drug Center - 679-4465
I. Brighton Counseling Center - 659-62080
J. Salud Clinic - 857-2771 (Ft. Lupton)

## COLORADO <br> 1-320-8333

Alcohol and Drug Abuse, Department of Health

## NATIONAL HOTLINES

1-800-COCAINE
1-800-662-HELP
Directs callers to cocaine abuse treatment center
1-800-241-9746
National Drug Abuse Hotline
1-800-SAY-NO-TO
National Clearinghouse for Alcohol and Drug Abuse
Information on ordinances/statutes, health risks, and referral sources will be maintained in the Office of the Dean of Student Services, the Personnel Office, and the Counseling Center, all located in the General Services Building.

## CATALOG CHANGES

Aims Community College reserves the right, whenever it judges it necessary or advisable to meet changing academic, instructional, student, or fiscal needs, to cancel or modify, without notice, any course or program described in this catalog. The College also reserves the right to change any provision or requirement of this catalog, including tuition and fees.


## MAIN CAMPUS GREELEY

The main campus in west Greeley overlooks 100 miles of Rocky Mountain Grandeur. Nine buildings comprise the 185 acre campus, including several general classroom buildings, a physical education center, administrative services complex and a library.

Of the 17,500 students that attend Aims annually, $80 \%$ of them take classes on the Greeley campus.

For a comprehensive look of the campus, refer to the map at the beginning of the catalog.


Map not to scale
5401 W. 20th Street
Greeley, Colorado 80634
(303)330-8008


## SOUTH CAMPUS <br> FORT LUPTON

The Aims Community College-South Campus, located in Fort Lupton, was opened in September of 1984. This Facility services the community and educational needs in the southern Weld County region. South Weld County students can designate the South Campus as their "home campus" and thereby receive time passes and registration information at the South Campus. Situated one mile east of downtown Fort Lupton, the space age, solar design building has an array of ultra-sophisticated teaching facilities spread over 27,000 square feet.
Advising and assessment are regularly scheduled by the faculty and student services staff to facilitate on-line computerized for both day and evening students. Other student services available include career and job counseling and assistance and information regarding financial aid programs of assistance.
A learning lab equipped with IBM compatible and Apple personal computers is available to assist students with homework assignments. During the school quarter, the lab has both day and evening hours including some Saturday hours.

South Campus hours of operation are designed to meet the needs of day and evening students and are as follows: Monday - Thursday 8:00 a.m. - 10:00 p.m. and Friday 8:00 a.m. - 5:00 p.m. Hours on Saturday are established atter the beginning of each quarter and normally set at 9:00 a.m. - 12:00 noon.

Because the South Campus is a satellite campus, course and degree offerings are limited to the following:
I. Liberal Arts - Associate of Arts (A.A.) Degree - 2 year.

Areas of Emphasis:
*Elementary Education (2 year)
*Business Transfer (2 year)
*Literature (2 year)
*General Psychology (2 year)
*Paraprofessional Counseling (2 year)
*Criminal Justice (2 year)
-Prelaw (2 year)
*Political Science (2 year)
*Social Science (2 year)
*Computer Information Systems (2 year)
II. Vocational Training - Associate of Applied Science or Certificate Programs:
*Accounting Degree (2 year)
*Criminal Justice ( 2 year)
*MarketingManagement, Marketing Option (2 year)
*MarketingManagement, Small Business Management
Option (2 year)
*Supervisory Management
*Office Clerical Certificate (1 year)
*Office Occupations, Administrative Support Option (2 year)
*Business Information Systems (2 year)
*Emergency Medical Technician Certificate (1 quarter)
*Volunteer Fire Fighter Training Certificate (4 quarters)
${ }^{*}$ Farm and Ranch Business Management Certificate (3 year)
*Young Farmer Certificate (1 year)
III. Developmental Studies:
*English as a Second Language (ESL)
*Developmental Education (Dev Ed)
*General Education Development (GED)
*College Skills


Map no to scale
260 College Avenue Fort Lupton, Colorado 80621
(303)857-4022

Greeley - 352-4664 Denver-659-2243


## WEST CAMPUS LOVELAND

Larimer County students can determine the West Campus Loveland as their "home campus" and thereby receive time passes and registration information in Loveland. Placed in the heart of Loveland, the West Campus facility donated by the McKee Charitable Trust was opened in the fall of 1990. In addition, Aims shares an educational complex, the Loveland Center, with Regis University of Denver. Close-in, free parking makes the West Campus ideal for the busy student. Advising, financial aid information and assessment testing are provided. On-line, computerized registration is available.

A computer lab with an HP-9000 donated by Hewlett Packard Company, IBM compatible and Apple personal computers with a variety of software is housed at the Loveland Center with open lab as well as classroom hours during both the day and the evening; weekend hours are announced each quarter.

The new West Campus facility has allowed Aims Community College to broaden its services to the communities in Larimer County. In particular, the addition of a science laboratory significantly expands the scope of courses offered for the Associate of Arts Degree as well as other degrees and certificate programs.

Classes for most degree plans are regularly available as well as special non-credit workshops and seminars. Center hours are designed for the working student's convenience: $\mathrm{M}-\mathrm{Th}, 8: 00$ a.m. - 6:30 p.m.; F, 8:00 a.m.- 5:00 p.m. Regis University is our partner at the Center and RECEP Program information is available. CSU/Aims Community College and UNC/Aims Community College tuition agreement forms are also available.


Map not to scale
104 E. Fourth Street Loveland, Colorado 80537
(303)667-4611


William Green
Barbara Porter
General Services Building
330-8008, Ext. 446

## ADMISSION

Aims Community College has an "open door" policy and will not deny admission to any district resident because of financial need as determined by the student Financial Aid Office. No admission fee or entrance examination is required as a condition for admission. Admission does not assure acceptance of an individual student in a particular course or program. Admission to the College does not, therefore, imply entry into any program which has selective admission standards nor does it assure admission to courses and programs in which an applicant's mental or physical handicap may, in the opinion of the College, appear to be impractical or dangerous. Some students may be requested to enroll in special courses for correction of scholastic or other deficiencies as identified by the college's Assessment Center. Minimum skill levels are required for admission to even basic education courses.

Students may apply for admission at any time during the quarter; however, in most cases course registration must be made at the beginning of that course's term.

Aims Community College does not require (but strongly encourages) immunization for measles or other diseases prior to admission. Students are urged to consult their personal health authorities regarding potential health risks

## ENROLLMENT PROCESS

Students are responsible for their own enrollment. Details appear in the Schedule of Classes.

To become enrolled at Aims Community College, you must:

- Attend an Information Session.
- Complete the admissions procedure
- Complete the assessment procedure
- Apply for financial aid (if desired).
- Attend Orientation (new students)
- Complete the advising process.
- Complete the registration process.
- Complete payment/down payment process.


## ADMISSION PROCEDURE

New students are urged to attend an Information Session where they will receive information about:

- program options
- deciding on a degree/major
- required assessment testing
- steps for enrollment
- career planning options
- orientation sessions

New students should go to the Counseling Center in the General Services Building. Sessions are held on a regular basis.

A completed admission application is required for all new students and students returning after a one year absence including students taking courses for self-improvement or personal interest only. Some programs such as Radiologic Technology require separate applications for admission to be submitted to the specific division.

Students are urged to submit applications and acquire registration materials well in advance of registration day to avoid delays and long lines.

For Domestic Students:

- Submit Application for Admission
- If pursuing a degree or certificate program and a high school or other college was attended, provide an official transcript of high school or college credits or a certified record of GED completion or ACT/SAT scores.


## ADMISSION REQUIREMENTS FOR INTERNATIONAL (FOREIGN) STUDENTS

1. Submit application for admission.
2. Submit English proficiency results from the Test of English as a Foreign Language (TOEFL). To be considered for admission to Aims Community College, international students must have a minimum score of 520 on the TOEFL. All international students admitted are required to take the college assessment test.
3. Completed application and supporting credentials must be in the Admissions Office by midterm of the quarter preceding the quarter of enrollment.
4. International students must pay their tuition and fees on the day they register. Failure to comply will result in withdrawal of their U.S. Immigration Form 20 (1-20).
5. International students are required to maintain satisfactory progress to be eligible for reenrollment in a subsequent quarter.
If an international student is admissible, the student will be issued the U.S. Immigration Form 20 ( $1-20$ ). Questions regarding the admission of international students should be forwarded to the Admissions Office.

## ASSESSMENT

Assessment is designed to assist students in understanding their current academic levels and to aid them and their advisors in the selection of college courses. New and returning students are responsible for making arrangements at the Assessment Center to meet the assessment requirement prior to conferring with an advisor and registration.
The assessment requirement may be met in one of the following ways:

1. Take the Aims Community College assessment tests in reading, English, arithmetic, and algebra (if applicable), or
2. Show proof of successful previous college experience at an accredited college ( 2.0 grade point average with transfer college level English and math classes), or
3. Show proof of minimum ACT scores of 25 in English, 21 in Math, and 21 in the composite category on the New Enhanced ACT. Minimum scores on the ACT taken before October, 1989 are 22 in English, 20 in Math, and 20 in the composite, or
4. Show proof of minimum SAT scores of 550 in the verbal area and 500 in the math area.
Assessment scores, including ACT and SAT scores, are considered valid for initial placement for a period of two years.
NOTE: Some departments may require that a student take one or more of the assessment tests even if he/she has previous college, ACT or SAT scores. This is done in the best interest of the student to ensure that he/she possesses the necessary basic skills to be successful in the specific area of study.
Some students will be taking courses for self-interest or for job enhancement. If the student chooses not to test for a course which requires an entry-level assessment score, he/she waives any right to tutoring offered by Supplemental Services.

Students should contact the Assessment Center for information and for testing times.

## ORIENTATION

All new degree seeking students are encouraged to attend an Orientation session prior to enrollment. Orientation provides the student with general information concerning admission procedures, registration, academic programs and services. Information on scheduled orientations can be obtained from the Counseling Information Center or Admissions and Records.

## REGISTRATION

After completing the admissions, orientation, and assessment processes, the student must complete the following registration process at the beginning of each quarter. A schedule of classes listing day and evening courses is published each quarter and is available in the Admissions and Records Office prior to early registration for returning students and registration for new students. Consult the calendar in the front of the schedule of classes for registration dates and other important deadlines.

The steps in the registration process are:

1. Obtain advising/registration form from Office of Admissions and Records.
2. Contact faculty advisor (see academic information section).
3. Apply for financial aid (if desired).
4. Complete the course registration process as described in the schedule of classes.
5. Obtain billing of tuition and fees.
6. Pay tuition and fees. See tuition payment policy. A fee will be charged for late payments.
NOTE: Students must have all financial obligations to Aims Community College paid before they will be permitted to register for subsequent course work.

## ADD, DROP, WITHDRAWAL, CANCELLATION OF CLASSES AND REFUNDS

## COURSE CANCELLATIONS

Aims Community College must retain the customary right to cancel course offerings where enrollment is too low to make a course educationally sound and economically efficient. Course cancellations will result in refund of tuition.

## ADDING, DROPPING, WITHDRAWING FROM CLASSES

Adding and dropping of classes must be done within the first 8 days of the quarter ( 6 days of summer quarter). For other short term courses the adding and dropping of courses must be done within the first $15 \%$ of the course meetings. This is the registration adjustment period and no academic record will be generated for classes dropped within this time line.
After the 15\% date has passed, adding or registration may be done on an exception basis only if space is available and the instructor has given signed permission to enroll. Students may also enroll in certain courses which are designated as continuous enrollment courses.
Any class drop after the 8th class day for a full term class or atter the $15 \%$ deadline for other short term courses will become a withdrawal and will generate a W grade on the student's record. W grades can affect the student's academic standing. Students may
withdraw from classes through $60 \%$ of class meetings. After $60 \%$ of the class meetings, neither the student nor the faculty can process a standard withdrawal for a W grade (see grade policy section regarding WF and WP).

## HOW TO ADD, DROP, WITHDRAW

1. Fill out add/drop/withdraw form from Admissions and Records, General Services Building Room 202.
2. Obtain instructor's approval and signature to add courses designated in the Schedule of Classes as "Division Approval Required."
3. Submit form to Admissions and Records by deadlines in the Schedule of Classes.

## ADD, DROP, WITHDRAWAL REGULATIONS

1. Students are responsible for properly processing adds, drops, and withdrawals.
2. A faculty member or administrator may withdraw a student from class for non-attendance, failure to achieve course objectives, or if it is considered to be in the student's best interest. This is an optional process; therefore, students cannot expect to be withdrawn due to non-attendance.
3. In case of emergencies, students are to submit written withdrawal requests to Admissions and Records, P.O. Box 69, Greeley, CO 80632. Students should provide an explanation about the situation regarding withdrawal requests.
4. Telephone requests for adds, drops, or withdrawals are not honored.

## REFUND REGULATIONS

Under specific conditions, the College grants refunds for tuition and special course fees to students who withdraw from college or make a reduction in credit hours EVEN IF CLASSES ARE NOT ATTENDED, THEY MUST BE DROPPED IN ADMISSIONS BY THE SPECIFIED DEADLINE IN THE CURRENT QUARTER SCHEDULE OF CLASSES IN ORDER TO ELIMINATE CHARGES ON ACCOUNT.

To be eligible for a refund, a DROP (reduction in credit hours) form must be initiated in person, or in cases of emergency, by letter through the Admissions Office. The date the request is made at the Admissions Office, or the postmark date for letters, will be used in determining the eligibility of the refund. If the student was provided assistance from College funds or funds managed by the College, the refund will be returned to the appropriate scholarship/grant fund or applied to the student's note in the loan fund.
REFUNDS will be made in accordance with the following schedule. (Please consult calendar in Quarterly Class Schedule for Refund dates.)*
A. Registration day through eighth (8) day of the Quarter, sixth (6) day of Summer Quarter. $\qquad$ 100\%
B. Atter eighth (8) day of the Quarter, sixth (6) day of Summer Quarter. $\qquad$ NO REFUND
C. Cancelled Classes: $100 \%$ refund will be available atter the refund period.
D. Self-Supporting Classes: Refunds will be granted only for classes which are dropped prior to the first class meeting.
*For classes which begin after the first full week of the quarter, the first day a class is to meet will be considered the "first official class date."

## COOPERATIVE REGISTRATION AGREEMENTS

UNC - Aims
Students enrolled full time (twelve credits) and paying full-time tuition at the University of Northern Colorado (UNC) or Aims Community College are eligible to take one class (maximum 5 credits) at the other school without additional tuition charges. The free course must be one not offered at the student's home school during that term. Continuing Education courses (non-credit) do not count in the twelve credit full-time requirement and cannot be taken as the free class. Details are available at the UNC Registration Center in the University Center and at the Aims Admissions and Records Office.

## CSU - Alms

Students enrolled full time (twelve credits) and paying full time tuition at Colorado State University (CSU) or Aims Community College are eligible to take one class (maximum 5 credits) at the other school without additional tuition charges. Continuing Education courses (non-credit) do not count in the twelve credit full-time requirement and cannot be taken as the free class. Details are available at the CSU Admissions Office and at the Aims Admissions and Records office.

(Tuition and fees subject to change atter May 1, 1991. Consult quarterly schedule.)

Tuition charges at Aims Community College are dependent upon the student's residency status:

Full-time Students: ( $12-20$ credit hours)
In-State, *In-District residents: ....................... $\$ 216.00$ per qtr.
In-State, Out-of-District residents: ....................... $\$ 396.00$ per qtr.
Out-of-State residents:... $\$ 1,248.00$ per qtr.

Part-time Students: ( $1-11$ credit hours)
In-State, "In-District residents: .................... $\$ 18.00$ per cr. hr. In-State, Out-of-District residents:................ $\$ 33.00$ per cr. hr.
Out-of-State residents:.. $\qquad$ $\$ 104.00$ per cr. hr.

Surcharge: (Over 20 credit hours)
In-State, *In-District residents: ..................... $\$ 14.00$ per cr. hr.
In-State, Out-of-District residents:............... $\$ 26.00$ per cr. hr.
Out-of-State residents:................................ $\$ 83.00$ per cr. hr.
*In-district classification for tuition purposes is for students who have been Colorado residents for a minimum of one year (according to tuition classification law) and who have lived a minimum of thirty days in the Aims tax district. The Aims tax district is most of Weld County excluding the Mead, Dacono, Erie, Frederick, and Firestone area.

Classes requiring payment of a lab fee will be designated in the quarterly registration materials.

Active duty members of the U. S. Armed Forces (and their dependents) residing in Colorado on a permanent change-of-station status may be eligible for in-state tuition rates. Contact the Registrar for details.

Complete information regarding residency is available in the Admissions/Records office. Also, students may obtain a Change of Residency Pettion from the Admissions Office. The final petition must be submitted to the Admissions Office by the deadline published in current quarter Schedule of Classes and approved prior to registration.

ALL TUITION AND FEE CHARGES ARE SUBJECT TO CHANGE BY THE AIMS JUNIOR COLLEGE DISTRICT BOARD OF TRUSTEES AS CIRCUMSTANCES MAY REQUIRE, WITHOUT NOTICE. SEE CURRENT QUARTER SCHEDULE OF CLASSES FOR UPDATED INFORMATION.

## STUDENT INSURANCE FEES

Each full-time student ( 12 credit hours or more) is assessed a mandatory fee of $\$ 5.75$ per quarter for accident insurance coverage. This insurance is non-mandatory for part-time students (11 credit hours or less) but is available at $\$ 6.75$ per quarter. Additional information may be obtained through the Dean of Students Office.

## TUITION PAYMENT POLICY

1. A combined bill/schedule must be picked up by each student at the time of registration, add, or drop.

Each student must make a down-payment at the time of registration according to the following range based on bill total:

| Bill Range | Minimum Down-payment |
| :--- | :---: |
| Up to $\$ 100.00$ | $\$ 25.00$ |
| $\$ 101.00$ to $\$ 250.00$ | $\$ 50.00$ |
| $\$ 251.00$ to $\$ 450.00$ | $\$ 75.00$ |
| $\$ 451+$ | $\$ 200.00$ |

If no down-payment is made, classes will be dropped. Financial Aid Awards and Third Party Authorizations will be considered as down payments for those who qualify (only if awarded by the time of registration).
When a down-payment is made, the registered student is required to sign a promissory note. Final payment will be due thirty (30) days from the start of the quarter. A $\$ 15.00$ late fee will be assessed on all unpaid accounts at that time. Students will not be allowed to register for subsequent quarters and their records will be held until all financial obligations have been satisfied.

## REFER TO CURRENT QUARTER SCHEDULE OF CLASSES FOR SPECIFIC DUE DATES AND UPDATED INFORMATION.

2. Payments may be made in cash, Money Order, VISA, MasterCard, or Choice Card. Cashier will accept personal, one-party checks in the amount of charges only. A valid driver's license is required. Every check returned to the College will be collected by CheckRites. Checks will not be accepted from students who have written or submitted two or more returned checks to the College. If a check written as a down-payment or full-payment is returned to the college for any reason, classes will be dropped.
3. Self-Supporting/Continuing Education Classes: Tuition and fees for these classes are due upon registration.
4. Students Sponsored by a Third Party Agency:
A. A valid letter of sponsorship must be on file in Fiscal Services.
B. Students must make arrangements for agency billing with Fiscal Services in accordance with payment deadlines.
C. Students are responsible for any charges not covered by their Agency and are subject to late fees and refund guidelines.
D. Questions? Call Fiscal Services, 330-8008,
5. It must be understood that each student is responsible for payment of his/her own expenses. The College is not responsible for making payment arrangements with parents, guardians, international agencies, or other third parties.
6. Seriously past due accounts will be assigned for collection to a local attorney by the college. This attorney will pursue court proceedings when necessary.

## FINANCIAL OBLIGATIONS OF STUDENTS

The financial obligations of students to the college, such as payments for tuitions, fees, and books, are due and payable on specific dates or at the time the obligations are incurred. Students will not be allowed to register, graduate, or receive transcripts of courses completed unless all financial obligations to the college have been met. See current quarter Schedule of Classes for updated information and specific due dates.

## STUDENT RECORDS

The Admissions and Records Office under the direction of the Registrar keeps the following student information:

1. Personal Data: name, address, phone number, sex, birthdate, ethnic background, employment status, student/social security number.
2. Educational background information: previous high school, and/or college attended, degrees earned.
3. College major and degree expectations.
4. Degrees and honors received.
5. College records containing courses attempted, grades earned, credits earned, and dates of enrollment.
6. Courses, hours, and credits of current enrollment.

A cumulative record of each student's college application, correspondence, and other miscellaneous forms is kept active while the student is enrolled in the College. If the student's enrollment ceases, the file is kept active for two years. If the student does not enroll again during this two-year period, the record is retired, and the file is destroyed in accordance with the regulations of the Colorado State Archives. A security copy of the inactive permanent transcript also is on file in the Colorado State Archives.

All students in attendance and students who have previously attended Aims Community College are provided access to their records in compliance with the requirements under the Federal Family Education Rights and Privacy Act of 1974 (Public Law 93-380 Subsection 513, 88 Stat. 571; 20 U.S.C. 1232q).
Students may review their records upon request in the Admissions and Records Office. Students may contact the Registrar to appeal any errors which they feel have been made on their records.

The college will not permit the access to or the release of student educational records or personally identifiable information contained therein, other than items designated as public information, without the written consent of the student except as noted below under "Requests for Information."

## TRANSCRIPTS

A student may request a transcript (copy of academic record) in writing from the Admissions and Records Office. Transcripts are issued by Aims Community College free of charge. All student accounts with Aims College must be settled and students must be in compliance with the terms of any student loans before a transcript may be released. Transcripts or copies of transcripts from other colleges or institutions which were used for evaluation of transfer credit are not released by Aims and must be obtained from the institution holding the original record.

## REQUESTS FOR INFORMATION

The following items are considered public data/information and may be disclosed by the College in response to inquiries concerning individual students whether the inquiries are in person, in writing, or over the telephone.

1. Name
2. Affirmation of whether currently enrolled full time or part time.
3. Dates and terms of attendance.
4. Major fields of study.
5. Degrees and/or certificates earned.

Addresses are considered personally identifiable information except for the following:

1. Graduation lists released to news media.
2. Other listings to the news media for special awards, honors, and events.

Consent for release of education records or personally identifiable information shall not be required for the following parties:

1. Aims Community College officials.
2. Officials of other schools or colleges where the student intends to enroll.
3. State or federal educational authorities in connection with a student's application for financial aid.
4. State and local officials requiring reporting data.
5. Organizations conducting studies for educational institutions or agencies.
6. Accrediting organizations.
7. Parents of a dependent child as certifiable with notarized documents.
8. In compliance with judicial order or subpoena..
9. Law enforcement agencies of Colorado demonstrating that requested information is necessary for an investigation.
10. In case of emergency to protect the health, safety, or welfare of the student or other persons.
11. Officials of reciprocal lending libraries when materials borrowed are overdue.


Director:
Location:
Telephone:

Terry Carr
General Services Building
330-8008, Ext. 304

Aims Community College participates in a wide variety of federal, state, and local programs designed to assist undergraduate students in meeting the costs of education. Applications and information concerning all the Financial Aid programs are available in the Financial Aid Otfice, General Services Building, Room 201.

## ELIGIBILITY

Most financial aid is awarded to students on the basis of NEED. In determining NEED in a consistent way for all aid candidates, Aims Community College requires all financial aid applicants to submit the ACT Family Financial Statement to the ACT program in lowa City, lowa. The ACT Family Financial Statement and information about financial aid may be obtained from the high school guidance counselors and/or the Financial Aid Office at Aims Community College.

Complete program eligibility guidelines are listed in the Financial Aid Handbook and in the ACT Application Packet. Contact Financial Aid Office for additional information.

## APPLICATION PROCEDURES

The following items are required from those students requesting financial assistance and must be submitted before consideration may be given:

1. Family Financial Statement (FFS) of the American College Testing program (ACT) and Pell Student Aid Report.
2. Financial Aid Transcript (only for students who have attended another college)
3. Copy of previous year's Federal Income Tax 1040 Form
4. Verification of Non-taxable Income
5. Any other required documents as determined by your financial aid application.

Applicants for financial assistance are considered after the applicants have complied with the admissions and pre-assessment procedures listed in this catalog. The following dates will be the deadlines for submitting applications for guaranteed processing:

Summer quarter. April 1
Fall quarter. June 15
Winter quarter $\qquad$ October 31
Spring quarter $\qquad$ January 31
Students are advised that the availability of aid funds is limited, so apply early.

Consequently, students who are seeking financial assistance are urged to submit their completed application and all required documentation well in advance of the deadline date before the anticipated quarter of registration. The Financial Aid Office will accept applications after the deadline dates,except for summer which is a strict deadline date. Awards will depend on the availability of funds at the time of processing.

## ESTIMATED ACADEMIC YEAR BUDGETS (9 MONTHS)

Single Resident
(Weld County)
Tuition/Fees....... $\$ 663.00$
Room/Board ....... 4262.00
Books/Supplies..... 290.00
Personal Exp....... 964.00
Transportation ..... 603.00

Single Nonresident
Tuition/Fees ............... $\$ 3759.00$
Room/Board................ 4262.00
Books/Supplies ............. 290.00
Personal Exp. ................ 964.00
Transportation.................. 603.00
$\$ 9978.00$
Single Resident Out of Weld County District
Add $\$ 936$ to above Resident Budget.
These budgets are current as of the publication date. Check with the Financial Aid Office for most recent estimates.


## LOANS

## CARL D. PERKINS <br> NATIONAL DIRECT STUDENT LOANS (NDSL):

Undergraduate students may borrow up to $\$ 4,500$ during the first two years of college. Funding priority will be given to students with exceptional financial need atter determination has been made on Pell Grant eligibility. Repayment of the Perkins loan begins nine months after the student ceases to be a half-time ( 6 to 8 credit hours) student. Perkins loan funds are to be repaid at a minimum of $\$ 30$ per month. The current interest rate is $5 \%$. Principal and interest payments are deferrable during periods of at least part time study. The period of repayment may not exceed ten years. Additional information may be obtained in the Financial Aid Office. ACT application is required to determine eligibility.

## STAFFORD STUDENT LOANS (SSL)

Undergraduate students may borrow up to $\$ 2,625$ per academic year depending upon the student's financial need. The current interest rate on SSL loans is $8 \%$. Undergraduate students must have Pell Grant eligibility determination made before a loan application can be certified. Stafford loans are disbursed in equal payments during the academic year. There is a 30 day delayed disbursement for all new first time borrower at Aims College. ACT application is required to determine eligibility.

## SUPPLEMENTAL LOANS FOR STUDENTS (SLS):

Undergraduate independent students who do not qualify for a Stafford loan may apply for this loan program. Students must have Pell Grant and Stafford loan eligibility determination made before a loan application can be certified. The maximum loan amount is $\$ 4,000$ per academic year. Current interest rate is $12 \%$ with repayment beginning within 60 days of the final disbursement. There is a 30 day delayed disbursement for all new first time borrowers at Aims College. ACT application is required to determine eligibility.

## PARENT LOANS FOR UNDERGRADUATE STUDENTS (PLUS):

Parents of dependent student may borrow up to $\$ 4,000$ each academic year dependent upon the student's cost of attendance. Awarded only if the student is ineligible for any other types of aid. Current interest rate is $12 \%$ with repayment beginning within 60 days of the final disbursement. ACT application is required to determine eligibility.

## WILLIAM M. THORKLIDSEN TRUST

Eligible students shall be Colorado high school graduates, of good character, considered by their college or University administration as responsible citizens. The specific purposes for the loans are limited to tuition, student fees, laboratory fees, book and supply costs.

Loans shall be funded by the United Bank of Greeley as Trustee at $5 \%$ per annum. The loans shall have maturities not to exceed five years following scheduled graduation. Payments will be due in equal monthly installment commencing six months after scheduled graduation or withdrawal from school whichever occurs first.

For further details, contact the Aims Financial Aid Office.

## GRANTS

## PELL GRANT:

Pell Grant eligibility is determined by the Federal Government. Pell Grant awards are preliminary and may be adjusted, depending upon residency status while attending classes, number of credit hours carried, and the final payment schedule developed by the Office of Education. Awards will be made after all required documentation is received by the Office of Financial Aid. Financial Aid applicants must establish their eligibility for this program before other aid can be awarded. Awards ranged from $\$ 200$ to $\$ 2300$ for the 1990-91 academic year. ACT or Federal Aid application is required to determine eligibility.

## SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (SEOG):

Awards will be made to undergraduate students with the lowest family contribution who are also receiving a Pell Grant. Allocated atter all other sources of aid are awarded and the applicant still has unmet need. Awards currently range from $\$ 100$ to $\$ 4,000$ for full academic year of attendance. ACT application is required to determine eligibility.

## COLORADO STATE GRANT (CSG):

State funds made available to Colorado resident undergraduate students. Awards are made after Pell Grant determination is made. Awards vary from $\$ 200$ to $\$ 2,500$, per academic year depending upon the financial need of the individual student and the amount of funds allocated to the College by the State of Colorado. ACT application is required to determine eligibility.

## COLORADO STUDENT INCENTIVE GRANT (CSIG):

Awarded to students with exceptional need as defined by the State of Colorado as students with family contribution of less than $\$ 900$ per year. Awards range from $\$ 200$ to $\$ 2,500$ per academic year dependent upon the student's need and available funds. Funds are allocated to the college in $50 \%$ Federal and $50 \%$ State monies. ACT application is required to determine eligibility.

## COLORADO DIVERSTTY GRANT (CDG):

Awards are made to students after completion of a Colorado Diversity Grant application. Funds are to be used for undergraduate students from diverse backgrounds as defined by the college. Awards range from $\$ 200$ to $\$ 1,000$ per academic year. Awarding of funds is dependent upon funding from the Colorado General Assembly. Separate application in addition to the ACT is required to determine eligibility.

## STUDENT EMPLOYMENT

## FEDERAL COLLEGE WORK-STUDY PROGRAM:

Awards from the college work-study program are made to students who have financial need or their cost of education exceeds their family contribution. Wages are paid on the basis of an hour's pay for an hour's work. Students may not earn over the maximum award figure as allocated by the Financial Aid Office. Awards will range from $\$ 900$ to $\$ 2,400$ per academic year. ACT application is required to determine eligibility.

## COLORADO NEED WORK-STUDY PROGRAM:

Awards from the Colorado work-study program are made to students who have financial need or their cost of education exceeds their family contribution. Wages are paid on the basis of an hour's pay for an hour's work. Students may not earn over the maximum award figure as allocated by the Financial Aid Office. Awards will range from $\$ 900$ to $\$ 2,400$ per academic year. ACT application is required to determine eligibility.

## COLORADO NO-NEED WORK-STUDY PROGRAM:

Awards from the Colorado No-Need Work-Study Program must be made to students who do not demonstrate financial need. Students who demonstrate financial need are not eligible for funds under this program. Wages are paid on the basis of an hour's pay for an hour's work. Students may not earn over the maximum award figure as allocated by the Financial Aid Office. Awards will range from $\$ 900$ to $\$ 2,400$ per academic year. ACT application is required to determine eligibility.

## AIMS TUITION GRANTS

Aims tuition grants are available to in-district students whose financial status is defined as low income by the Financial Aid Office guidelines. Grants are made to cover the costs of tuition. Students approved for tuition grants are required to apply for a Pell Grant.

A senior citizen's tuition grant is available for Colorado residents of the Aims Community College taxing district who are 60 years of age or older. This grant is applicable only in credit courses on a space available basis.Tuition grants do not apply to self-supporting courses, including Continuing Education Workshops and Community Non-credit Courses.

Tuition grants do not cover lab fees, books and student insurance.

## SCHOLARSHIPS

(See following section)

## VETERANS BENEFITS

The Financial Aid/Veterans Office helps the Veterans Administration implement the provisions of the various programs of benefit to veterans or eligible relatives of veterans under benefits of Chapter 31, 32, 35, 106, Chapter 30 - Montgomery GI Bill, and Title 38, United States Code.

Students who are eligible for Veterans Benefits should contact the Veterans Office, preferably at least eight weeks before actual enrollment, to assure timely payment of benefits.

Students receiving VA benefits are required to complete a quarterly enrollment form for the Veterans Office during registration for each quarter they are enrolled. Failure to do so will result in termination of enrollment certification to the VA.

## CHAPTER 32 VEAP/MAXIMUM MONTHLY RATES

$\qquad$
Three-Fourths Time ( $9-11$ credit hrs.)...................................... 225
Half Time ( $6-8$ credit hrs.)....................................................... 150
Individual rates may vary according to amount of contribution.

## CHAPTER 30 - MONTGOMERY GI BILL

Students eligible for this program should contact the Veterans Office for information on application procedure and pay rates.
CHAPTER 106 - SELECTED RESERVE - MONTHLY RATES Full-Time ( 12 credit hrs.) ..... $\$ 140$
Three-Fourths Time ( $9-11$ credit hrs.). ..... 105
Half Time ( $6-8$ credit hrs.). ..... 70

Students who are receiving VA benefits must report any change in their program of study or training status immediately. Failure to do so may result in overpayments which the student must pay back to the Veterans Administration. Collection of overpayments will be aggressively pursued by the Veterans Administration.

If a veteran or eligible student has previously attended other colleges, universities, trade or vocational schools, VA requires that the student provide the Admissions Office with an official academic transcript from each school attended. The transcripts are evaluated to determine whether or not any transfer credits can be accepted toward the student's program at Aims.

## COLORADO NATIONAL GUARD TUITION ASSISTANCE PROGRAM

The State of Colorado has extended the National Guard Tuition Assistance Program to include students attending Aims. The purpose of the program is to encourage enlistment and promote retention in the Colorado National Guard. Students must meet the following eligibility requirements:

1. be a current member of the Colorado National Guard
2. be pursuing studies leading to an associate degree or a certificate of completion
3. be approved for participation by the Department of Military Affairs
4. have agreed to serve two years in the Colorado National Guard for each year of tuition assistance granted
5. be in good standing and demonstrate academic progress according to standards established by the Tuition Advisory Board.
The maximum amount of the award is 75 percent of the student's in-state tuition charges each quarter. Assistance may not be granted for more than 198 quarter hours of course work.
Applications for this program should be obtained from the National Guard Unit Commanders. Completed, approved applications should be presented to the Business Office at the time of registration.

## FINANCIAL AID SATISFACTORY PROGRESS

All Aims Community College students who receive Federal or State Aid, Stafford Student Loan, PLUS/SLS loans and/or Veterans assistance are required to:
A. Enroll each quarter for the minimum number of credit hours determined by enrollment status in classes that are within the student's degree or certificate program.

1. Full-time enrollment 12 credit hours per quarter
2. Three-quarter time enrollment 9 to 11 credit hours per quarter
3. Half-time enrollment 6 to 8 credit hours per quarter
B. Maintain satisfactory academic progress each quarter while receiving aid.
C. Seek and receive academic advising from his/her area of emphasis.

## MEASURABLE SATISFACTORY ACADEMIC PROGRESS

A. All students, both full and part-time, are expected to make satisfactory academic progress with the Grade Point Average (GPA) and number of credit hours completed each quarter being used as the basis for determining standards of progress. A standard 0-4.00 scale is used to determine academic progress:
1st Quarter in attendance: 1.75 quarter GPA
2nd Quarter in attendance: 1.90 quarter GPA and cumulative GPA of 1.90
3rd Quarter in attendance: 2.00 quarter GPA and cumulative GPA of 2.00
B. Full-time students must complete a minimum of 12 credit hours after each quarter of enrollment.
C. Three-quarter time students must complete a minimum of 9 credit hours after each quarter of enrollment.
D. Half-time students must complete a minimum of 6 credit hours atter each quarter of enrollment.
E. Courses which receive the following passing grades shall be considered as credits completed:

1. " $A$ " through " $D$ " grades ( $D$ grade will not meet passing requirements or graduation requirements in some programs). 2. " S " (passing with credit)
F. The following shall not be considered as credits completed:
2. "F" grades
3. "W", "W-P", "W-F" withdrawals
4. "U" unsatisfactory grades
5. "
6. "NC" no credits
G. Students receiving scholarship funding must maintain a 3.00 GPA each quarter and maintain a cumulative 3.00 GPA.

## REVIEW PROCEDURE

Following each quarter the GPA and number of credit hours completed by each aid student will be reviewed in the Financial Aid Office.

## FINANCIAL AID PROBATION

A. In the event that a student fails to meet the measurable satisfactory academic progress criteria in a particular quarter, the student will be placed on financial aid probation. 1. A student on probation may receive assistance for the following quarter in which he/she enrolls, but must maintain satisfactory progress during future quarters in order to continue schooling with financial assistance.

## FINANCIAL AID SUSPENSION

A. If a student fails to meet satisfactory academic progress after being placed on financial aid probation, the student is considered to be making "unsatisfactory progress" and is placed on financial aid suspension.
Suspension will remain until student has met the conditions of reinstatement, as listed below.

1. Financial aid suspension means the termination of all financial assistance.

## APPEAL OF FINANCIAL AID SUSPENSION

Once "unsatisfactory progress" has been determined, the student's recourse is:
A. A student will indicate in writing (use financial aid appeal form) to the Financial Aid Committee (a) the reasons why he/she did not achieve satisfactory academic progress, and (b) reasons why his/her aid should not be terminated.
B. The Financial Aid Committee will review the appeal and determine whether the financial aid suspension is justified. The student will be advised, in writing, of the Committee's decision.
C. A student wishing to appeal the decision of the Financial Aid Committee, may do so in writing, to the Dean of Student Services.
D. A student will be granted an appeal only once atter being placed on Financial Aid Suspension. If suspension occurs again, the student may not appeal again.

## CONDITIONS OF REINSTATEMENT

A. To be reinstated a student must: Option 1- Have an appeal approved by Financial Aid Committee. Option II - With hisher own funds complete 12 credit hours with a 2.00 GPA . At that time a student may re-apply, in writing, for financial aid to be reinstated for the following quarters in which he/she will enroll.
B. Students reinstated will receive financial aid, but the student may not appeal again.
C. A student placed on suspension may be reinstated only once.
D. Incompletes that result in a student being placed on Probation/Suspension will be reviewed by the Director of Financial Aid.

## LIMIT ON STUDENT AID ASSISTANCE

A. No full-time student will receive aid for more than 8 quarters. However, the 8 quarter limit may be appealed if remedial course work is required, or if other unusual circumstances require aid beyond 8 quarters.

## TABLE \#1

FULL-TIME ENROLLMENT STATUS $=12+$ credit hours each quarter


## GIFTS AND BEQUESTS

THREE-QUARTER TIME ENROLLMENT STATUS $=9$ to 11 credit hours each quarter

| NUMBER OF QUARTERS | HOURS COMPLETED EACH QUARTER |
| :---: | :---: |
| 1..................... | .................. 9 |
| 2................... | ................. 18 |
| 3................... | ............... 27 |
| 4.................. | $\ldots . . . . . . . . . . . . . . . ~ 36 ~$ |
| 5................... | ............... 45 |
| 6............. | ............ 54 |
| 7.................. | ............. 63 |
| 8.............. | ............. 72 |
| 9................ | ............... 81 |
| 10................. | ............. 90 |
| 11.................. | .............. 99 |

HALF-TIME ENROLLMENT STATUS $=6-8$ credit hours each quarter NUMBER OF QUARTERS HOURS COMPLETED EACH QUARTER
1.
2............................................................. 12
3................................................................. 18
4.................................................................. 24
5............................................................. 30
6................................................................ 36
7................................................................. 42
8.................................................................. 48
9................................................................ 54
10............................................................... 60
11................................................................. 66
12.................................................................. 72
13............................................................. 78
14............................................................... 84
15............................................................ 90
16............................................................ 96

## AIMS COMMUNITY COLLEGE

Aims Community College is authorized to receive, disburse, and hold in trust, funds for educational purposes.

Gifts and bequests from private benefactors have been and important aid in advancing human knowledge and in providing additional education opportunities to the youth of the state.

The donor may designate a gitt or bequest for specific purpose or make available an unrestricted gitt to be used at the discretion of the Board of Trustees. In either case, it is possible for the donor to establish a permanent memorial if he/she so desires.

## FORMS OF BEQUEST

I give to Aims Community College $\qquad$
(Insert sum of money or description of property. 0 which sum (or property or proceeds thereof) shall be known as the Fund, the
principal and income to be used for such College purposes as the Board of Trustees may determine.

## Restricted

I give to Aims Community College, $\qquad$
(Insert sum of money or description of property.) to be used by the Board of Trustees as follows: $\qquad$

Signature


## COMMUNICATIONS AND HUMANITIES

## AWARD:

Awarding Division:
Award Amount:
Application Deadline:
Qualifications:

WRITING AWARD
Communications/Humanities $\$ 100$ cash prize and framed certificate No deadline. Recipient chosen by instructors
Contact awarding Division for criteria.

## MATH AND SCIENCE

AWARD:
Awarding Division: Award Amount:

Application Deadline:
Qualifications:

CHEMICAL RUBBER COMPANY (CRC) CHEMISTRY AWARD
Math/Science (Chemistry)
Handbook of Chemistry and Physics,
Current Edition. Cash value \$ $\qquad$ No deadline. Recipient chosen by instructors.
Contact awarding Division for criteria.

## DEVELOPMENTAL STUDIES

AWARD:
Awarding Division:
Award Amount:
Application Deadline:
Qualifications:

ED BEATY MEMORIAL SCHOLARSHIP
Developmental Studies
Tuition waiver for one academic year, (in-district).
May 1
Contact awarding Division for criteria.

## SCHOOL OF OCCUPATIONAL EDUCATION

## AWARD:

Awarding Division:
Award Amount: Application Deadline:
Qualifications:

## BERGER SCHOLARSHIP

School of Occupational Education
$\$ 1,500$. Up to four awards given.
End of Spring Quarter
Contact the Associated Dean of
Occupational Education for criteria

## BUSINESS

AWARD:
Awarding Division:
Award Amount:
Application Deadline: Qualifications:

RUTH J. YOUDER SCHOLARSHIP
Business
Tuition grant. Amount based on available funds.
Spring Quarter
Contact awarding Division for criteria

| AWARD: | ARA LIVING CENTERS |
| :--- | :--- |
|  | SCHOLARSHIPS |
| Awarding Division: | Business |
| Award Amount: | Tuition grant. Amount based on available |
| funds. |  |
| Application Deadline: | Spring Quarter |
| Qualifications: | Contact awarding Division for criteria |

## PUBLIC SERVICE

AWARD:
Awarding Division:
Award Amount:
Application Deadline: Qualifications:

AWARD:
Awarding Division:
Award Amount:
Application Deadline:
Qualifications:

GREELEY MEDICAL FOUNDATION SCHOLARSHIP
Public Service (Geriatric Aide) Reimbursement for books and supplies. Award given quarterly.
Prior to first day of class each quarter Contact awarding Division for criteria

WESTERN MEDICAL SERVICES SCHOLARSHIP
Public Service (Geriatric Aide) Tuition reimbursement after satisfactory employment. Award given quarterly.
Prior to first day of class each quarter. Contact awarding Division for criteria

## TRADES AND INDUSTRY

AWARD:
Awarding Division:
Award Amount:
Application Deadline:
Qualifications:
AWARD:
Awarding Division:
Award Amount:
Application Deadline:
Qualifications:
AWARD:
Awarding Division:
Award Amount:
Application Deadline:
Qualifications:

ROY L. SMITH MEMORIAL SCHOLARSHIP
Trades and Industry (Auto Mechanics)
$\$ 100$ per quarter throughout the recipient's program
Eighth week of Fall quarter Contact awarding Division for criteria

WINOGRAD'S STEEL AND SUPPLY SCHOLARSHIPS
Trades and Industry (Welding)
Two \$300 awards
End of Fall and Winter quarters
Contact awarding Division for criteria
BILL YOUDER SCHOLARSHIP
Trades and Industry (Auto Body Repair)

## $\$ 200$ to $\$ 00$

Mid-term of Winter quarter
Contact awarding Division for criteria

## HIGH SCHOOL

AWARD:

Awarding Division:
Award Amount: Application Deadline and Qualifications:

AIMS PROGRAM OF SCHOLARS
(Available for at least one graduating senior from each high school within the Aims Junior College District (greater Weld County).
Financial Aid Office
Tuition wavier for two years.
Contact Financial Aid, or local high school counselor.

## AWARD:

Awarding Division: Award Amount: Application Deadine and Qualifications:

ANTHONY/SOSS SCHOLARS (Available to high school students who participate in the Leaders of Tomorrow journalism workshop held each summer at Aims.) Aims Community College Foundation $\$ 100$

## Contact the President's Office.

## COLORADO UNDERGRADUATE SCHOLARSHIP PROGRAM:

Awards are made to recognize outstanding academic achievement of Colorado undergraduate residents. Applications are available in the Financial Aid Office. Award recipients are selected by the Financial Aid Director after all application requirements are met. This program is funded by the Colorado General Assembly. Awards will range from $\$ 100$ to $\$ 1,605$ per academic year.


## ADVISING

## COURSE <br> INFORMATION

All students with a declared major and/or any student taking seven or more credits during any quarter must have an advisor. All students who have accumulated eighteen credits which will be applied to a degree must have an advisor's signature. New students need to make contact with an admission's counselor in the Counseling Information Center who will direct them to the appropriate staff for advising. A faculty advisor becomes conversant with the student's background, aptitudes, and educational objectives, and takes a personal interest in the student's education and welfare. Generally, an advisor is associated with the student's major field of study. Each student must accept the responsibility to:

1. Meet with an advisor to discuss career objectives;
2. Discuss program and class schedule prior to each registration or early registration;
3. Make an appointment with an advisor when problems arise in the student's program, or if class changes are necessary; and
4. File appropriate advisor and program change forms with Admissions and Records.
Arts and Sciences Students taking 7 or more credits during a quarter, having declared a degree program, or who have accumulated 18 credits towards a degree, must have an advisor and must secure the advisor's signature on registration forms.

Occupational Student enrollees who have a declared major, or who are enrolling in seven or more credit hours, or who have 18 credits accumulated toward a degree must meet with an occupational faculty advisor and secure their signature on registration forms.

Developmental Studies Students, full-time or part-time, must have a faculty advisor.

Undecided Students may secure an advisor in the Counseling Information Center, however, no advisor's signature is required for enrollment unless the student has accumulated 18 credits toward a degree or when enrolling in 7 credits or more in one term. Courses carrying "instructor/department signature required" designations in the Schedule of Classes always require division/department approval for enrollment.


## TRANSFER CREDIT

Aims Community College gives college credit, according to its policy and at division/department discretion for College Level Examination Program (CLEP), specific education experience in the armed forces, and courses completed at other collegiate institutions. The College reserves the right to examine all credits to determine obsolescence of content. In the event that course work is found to be obsolete, the student may be required to update the credit. The College will accept those courses for transfer which have been completed with a "C" grade or better at an accredited college or university, or other approved institutions, and are applicable to their program of choice. The acceptance of this credit is documented on the student's permanent record as earned credit only, without any indication of grade or quality points.
Students must submit to Admissions and Records a request for transfer credit evaluation toward a specified certificate or degree program. Request for review and the transcript to be reviewed must be received in the Admissions Office no later than the quarter prior to graduation. The Registrar will determine the number and nature of transfer credits applicable toward a degree or certificate. Students may indicate on the transfer credit evaluation request their desire to have transcripts forwarded to the Assessment Center to meet the assessment requirement.
Official transcripts and other documentation or previous course work are to be forwarded to Admissions and Records directly from the institution maintaining the original record. Official transcripts covering a student's previous secondary and college education, submitted to the college as part of the admissions or transfer evaluation procedures, become part of the official file and cannot be returned to the student. The college does not issue or certify copies of transcripts from other institutions.

## COURSE CHALLENGING PROCEDURE

A student may challenge a course for which the student believes his or her prior training and/or study are adequate to meet the instructor's course requirements. Credits for course work attempted through the challenge procedure do not contribute toward a student's eligibility for Financial Aid or Veteran's benefits. Only certain courses, identified by individual divisions, are available for this option. This credit will be allowed based on the following conditions and procedures:

1. The student must be currently enrolled in Aims Community College.
2. A course challenge may not be made for a course in which the student is currently enrolled, nor for one in which the student had been previously enrolled or had attended as a listener or visitor.
3. The student must secure a Course Challenge Application Form from the Office of Admissions and Records, and then submit the application to the division offering the course. The division will inform the student of divisional procedures.
4. Upon the approval of the course instructor and the division chair, the student will be offered the opportunity to complete the requirements for the course challenge.
5. A fee of $\$ 20.00$ per quarter hour credit will be charged to the student, and is payable upon divisional approval. Final arrangements for the course challenge will be made when the student presents the instructor with a receipt from the Business Office.
6. Upon successful completion of a challenge for credit, the student shall be awarded full credit for the course. A grade of " $P$ " (passing) will be recorded when it is submitted to Admissions and Records by the faculty on a copy of the application form.
7. Challenge credit is not applicable toward college graduation residency requirements.

## COURSE LOAD

The normal course load for a full-time student is from 12 to 18 credit hours. An employed student should vary a course load for the quarter according to the number of hours the student works. It is recommended that such a student consult with a counselor or faculty advisor about his or her schedule.

## COURSE NUMBERING

0-99 Precollege level courses not designed for transfer to other institutions. These courses do not count for college credit and are not used in grade point average calculation.
100-199 Courses normally taken by freshmen
200-299 Courses normally taken by sophomores

## ATTENDANCE

Students are expected to attend all classes for which they are registered, except in case of illness or other emergencies. The instructor shall determine and inform students of the effects of absences on the grade. If any student accumulates so many absences that continued enrollment in the class seems to be of little value, the student may be asked by the instructor to withdraw from the course; or by failing to withdraw as requested, the student may be officially withdrawn by the instructor. Withdrawals must be processed by the deadline shown in the schedule of classes.

## AUDITING OF COURSES

Any person may elect to enroll in a noncredit course on an audit basis if space is available. Such individuals will pay the regular fees assessed for courses taken under this option. Those enrolled in noncredit courses need not take examinations.

## REPEATING COURSES

A student who earns a grade of " $D$ " or " $F$ " may repeat the course once to raise the grade to a "C" or better to meet the performance level required for subsequent courses. The course may be used only once to meet the graduation requirements of a particular degree or certificate program. If on the second attempt, the student fails to earn a "C" or higher grade, the student will not be allowed to attempt another repeat for one full academic year unless special approval has been granted by the Academic Standards Committee. A student may not repeat a course in which he has received a letter grade of "C" or higher without instructor approval. All grades will be listed on the student's transcript and will be computed in the student's grade point average (GPA).


## GRADING SYSTEM

Aims Community College assigns the following alphabetical grades:
Grade
Symbol Indicated by Symbol ..... Grade ..... Points

A Indicates that the student has demonstrated superior achievement of the course objectives. 4

B Indicates that the student has demonstrated above-average achievement of the course
objectives.

C Indicates that the student has demonstrated acceptable achievement of the course objectives.

D Indicates that the student has demonstrated less-than-acceptable achievement of the course objective. Athough a grade of " $D$ " indicates passing, it does not constitute satisfactory performance according to the standards of some programs. These may, therefore, issue an " $F$ " grade rather than the " $D$ ".

F Indicates that the student has failed to achieve the objectives of the course.

P PASSING: Indicates a successful challenge to a course.

S SATISFACTORY: For designated courses, indicates achievement of the course objectives at a passing level.

U UNSATISFACTORY: For designated courses, indicates failure to achieve course objectives.

W WITHDRAWAL: Indicates withdrawal from the course. May be student or laculty initiated through 60\% of the course.

WP WITHDRAWAL - PASSING: Indicates that at the time of withdrawal the student was passing the course. The instructor may initiate by assigning as final grade 60\% of quarter and up to final examination.

WF WITHDRAWAL - FAILING: Indicates that at the time of withdrawal the student was failing the course. The instructor may initiate by assigning as final grade after 60\% of quarter and up to final examination.

I INCOMPLETE: An instructor may choose not to record a grade when the student has, for good reason, been delayed in completing the required work. The student who meets
the instructor's requirements for an "I" must complete an agreement with the instructor which specifically identifies the terms and conditions for completing the course. This agreement must be filed with the Office of Admissions and Records. The student has a maximum of one academic quarter to complete the course requirements. If at the end of this time the "I" has not been completed, the student will receive the " $F$ " designation for the course. If a student's individual circumstances justity, the instructor and/or the Division Chairman may approve an extension for an "l" completion up to a four-quarter maximum.
none
NC NO CREDIT: Available only in below-100 and non-credit courses

## none

AU AUDIT: Available only in non-credit courses. none

## GRADE POINT AVERAGE

A student's grade point average (GPA) is computed according to the following formula:

Number of credits of " A " multiplied by 4 ; plus
Number of credits of "B" multiplied by 3; plus
Number of credits of "C" multiplied by 2; plus
Number of credits of " $D$ " multiplied by 1 ;
Number of credits of " $F$ " multiplied by 0 .
Divided by total number of credits accumulated.
Only the credits accumulated and grade points earned in college level courses at Aims Community College are used in computation of quarterly and cumulative GPAs which appear on grade reports. Courses numbered below 100 do not count for college credit or in the grade point average. Courses graded " S " count for college credit, but are not used in the grade point average.


The primary objective of the College's Academic Standards policy is to ensure that students are provided timely assistance by their advisors when they experience academic difficulties.

Academic progress is measured by both the cumulative and the quarter grade point average (GPA). All students, both full and parttime, are expected to meet minimum standards of progress determined on the basis of the GPA.
Any student who does not maintain an appropriate GPA will be placed on Academic Probation. With this status comes the requirement that the student work with his/her advisor during the probationary period. The academic probation period is for one quarter and is a period during which the student's academic progress is monitored by the faculty advisor. During this time the student should assess, with the assistance of an advisor, his/her academic skills, study habits, class load, and/or program selection.

Any of the following criteria constitutes unsatisfactory progress:

1. Less than a 1.75 Quarterly GPA the first quarter
2. Less than a 1.90 cumulative GPA through the second quarter.
3. Less than a 2.00 cumulative GPA through the third quarter.
4. Less than a 2.00 Quarterly GPA for any quarter following the second.
5. Any international student who fails to complete twelve credits any quarter with a 2.00 Quarterly GPA; or fails to maintain a 2.00 Cumulative GPA.
6. Certain academic programs may require more rigid standards; these will be identified within a program's description in the catalog.
Students who are placed on academic probation for one quarter and continue to make unsatisfactory progress or fail to improve their GPA standing above the probationary level will be referred to the Academic Standards Committee for an Academic Standards Hearing. The Academic Standards Committee will determine which option is best for the student. Among the options are the following:
7. Remedial course work
8. Course load reduction
9. Continued probation
10. A program change
11. Suspension from program
12. Suspension from the college

If the findings of the hearing result in academic suspension from the college, the student may be readmitted after one academic quarter.

If a student finds the action of the Academic Standards Committee unsatisfactory, he/she may appeal in writing to the President of the College. This must be done within ten (10) calendar days after receiving the official ruling of the Academic Standards Committee.

If the student still feels unsatisfactory resolution has been achieved, the case may be presented to the Aims BOARD OF TRUSTEES based only on the written information submitted in previous steps. Such a meeting between the Board and the student shall be in an Executive Session of the Board. The Board may have the College Attorney in attendance and the student may bring one person of his or her choice. The request to address the Board must be made within seven (7) calendar days following the decision of the President and may be arranged through the secretary to the President.

## HONORS

Full-time students who complete at least 12 degree hours of credit during a quarter and who earn a GPA of 4.0 (straight A) will be listed on the President's List. Full time students who earn a GPA of 3.5 but less than 4.0, will be on the Dean's List. The achievement of honor status is noted on student transcripts.

## STANDARDS OF CONDUCT

Aims Community College does not deem it necessary to set forth a negative code of conduct as is typical of criminal law. It is expected, however, that students of Aims Community College will obey federal, state and local laws and respect the rights, privileges, and property of others. They are expected to conduct themselves in a manner which is not disruptive of college functions, does not interfere with free movement of students, school personnel, or guests and does not cause injury to persons or damage to property. Aims will not tolerate menacing behavior or threats by any student toward another student or toward any college employee. Exhibiting such behavior is grounds for suspension or dismissal from Aims Community College.

Any such interference, damage, or threat to persons or property will not be tolerated. In situations which he feels warrant such action, the College President may summarily suspend all persons involved in a violation of these standards, pending final dispensation of the case by the appropriate body.

## CHEATING

Cheating takes place in different ways, but basically, it involves dishonest behavior, such as copying from another person or obtaining any form of unauthorized help or assistance from any person or source.
Breaches of academic honesty will result in disciplinary measures. These can include:

1. A failing grade for a particular assignment.
2. A failing grade for a particular course.
3. Suspension for various lengths of time from the college.
4. Permanent expulsion from the college.

## DISMISSAL

In the case of serious breaches of acceptable conduct or in the case of a repetitive pattern of poor conduct, a student may be dismissed from Aims Community College.


## FAMILY \& LIFE EDUCATION

Provides learning opportunities to meet the needs of expectant families, parents and older adults in various locations throughout Weld County. Expectant Families, Parent Education and Senior Health classes are co-sponsored by North Colorado Medical Center.

## SENIOR EDUCATION PROGRAM

The Senior Education Program offers classes at convenient offcampus locations to provide learning opportunities and enhance quality of life for the community's senior population. Subject areas range from local history, drawing and music to writing, personal growth and fitness. Classes are scheduled in Greeley and throughout Weld County at senior centers, housing units, churches and anywhere there is a need and desire for learning.

## DEVELOPMENTAL STUDIES

The Developmental Studies Division exists to provide educational options for students. An initial assessment of academic skills administered by the Assessment Center is required to assure that students meet minimum academic entrance requirements for specific courses and/or programs. Students have an opportunity to improve their skills in the area of math, reading, writing, and basic oral language development to the level necessary to pass the General Education Development (GED) examination and/or to benefit from certificate or degree programs.

## CONTINUING EDUCATION

The Office of Continuing Education provides workshops and seminars for both personal and professional development. Outreach classes in Eaton, Ault and other neighboring communities are also provided through the collaborative efforts of the Divisions and the Office of Continuing Education. The new West Campus - Loveland was opened in the Fall of 1990 to serve the needs of the Larimer County area.
In a similar manner, the Office of Continuing Education develops and coordinates the College for Kids summer program initiated in 1982.

Emphasis is placed on serving community needs and developing new offerings, such as: scheduling classes on the weekend and workshops for adults returning to school.

## "COLLEGE FOR KIDS"

"College for Kids," developed by Aims Community College in 1982, is a community outreach program offering enrichment classes for children primarily in the summer. Courses are specifically designed for children and include a wide variety of subjects. Examples of course offerings are: LOGO for the Young Child, Soccer, Television Workshop, Creative Writing, and Electronics.

## COMMUNITY INTEREST PROGRAMS

Classes are offered in a number of instructional areas for the person who desires to broaden his or her experiences with the study of subjects of special interest. Major emphasis is on personal and professional improvement and interest. Courses are offered if the need or demand arises, an appropriate number of students is
available, and a qualified instructor can be secured. Adult education classes also are offered in communities outside Greeley, including Ault, Eaton, Windsor, Kersey, Johnstown, Gilcrest, Fort Lupton, Keenesburg, and others.
Examples of classes which may be offered are conversational Spanish, conversational German, microcomputers, community pottery, word processing, community guitar, social dance, and community photography

## COMMUNITY SPECIAL PROJECTS

## BUILDING BETTER BOARDS FOR

 COMMUNITY ORGANIZATIONSThe Building Better Boards for Community Organizations (BBB) project began in 1981 under the auspices of the American Association of Community and Junior Colleges and is designed to strengthen the skills for citizen boards of non-profit organizations.
Aims Community College was selected as one of 148 participating colleges in the nation. The Office of Continuing Education offers board development workshops on various topics.


| Coordinator: | Ron Fay |
| :--- | :--- |
| Location: | General Services Building |
| Telephone: | $330-8008$, Ext. 359 |

The Associated Students of Aims Community College, ASACC, serves as the student government and assists in developing a diversified activities program which includes a variety of social, cultural, recreational and career development programs. The ASACC Program Board is responsible for student initiated activities to complement the educational aspects of college life. The college believes that such activities are an important element of the college experience and aids in the development of students so that they may lead more meaningtul, productive and balanced lives.

The ASACC Advisory Board represents the diverse needs and interests of Aims' students and assists in chartering and working with student organizations. The Board recognizes that student organizations provide valuable services to students, especially if they emphasize programs for professional, philosophical or occupational development. Seats on the Board are often assigned to students who are active in chartered campus organizations. In addition, a method of financial assistance for funding club projects employed by the Board encourages greater involvement and participation in student organizations.

Advisory and Program Board members participate in the decisionmaking processes of the college. Members represent student opinions and concerns giving input on matters relating to student life,
to the college administration, and the Governing Board of the institution. Through their involvement Board Members develop leadership skills; manage student programs and student affairs; and serve as spokespersons for the student body.

The Student Boards also assist in providing information on student life through student publications, promotions, and a television program that features news, sports, entertainment and activities at Aims Community College.

Student organizations with specific purposes addressing the interests of particular segments of the student population may be chartered and receive financial assistance. Currently the chartered clubs and organizations at Aims include:

VICA - Vocational and Industrial Clubs of America DPMA - Data Processing Management Association PBL - Phi Beta Lambda<br>DEC - Mid-Management Club<br>ADDA - American Design and Dratting Association<br>APRS - Aims Program Radiography Students<br>AEYC - Association for Education of Young Children AAC - Aims Aero Club



## DEGREES AND CERTIFICATES

A student who has earned an associate or higher academic degree from an accredited institution is normally ineligible to receive an associate degree from Aims Community College in an identical or closely related discipline or program. The appropriate dean may waive this restriction when a waiver would be in the best educational interest of the student.
Each degree granted by the college contains a minimum number of general education courses. "General Education" refers to a group of courses designed to assist individuals to assume the responsibilities which they share in common as citizens in a free society and to promote wholesome and creative participation in a wide range of life activities. Aims Community College will accept any of the following courses as meeting the general education requirement of the appropriate degree:

1. Those courses accepted toward fulfiling the core requirements toward the Associate of Arts, Associate of Science and Associate of General Studies degrees.
2. Those non-occupational courses specifically designed to meet Associate of Applied Science degree requirements.
3. Other courses which the College's Academic Council identifies as falling within the overall general education definition.

Students may earn more than one degree or certificate at Aims Community College as long as all course requirements for each degree or certificate are satisfied. However, a student who has earned an Associate of Science degree at Aims Community College who wishes also to receive an Associate of Arts or an Associate of General Studies degree will be required to complete an additional twenty hours of course work in Communications, Humanities, Behavioral Science and/or Social Science.

## ASSOCIATE OF ARTS (A.A), <br> ASSOCIATE OF SCIENCE (A.S.) <br> AND ASSOCIATE OF GENERAL STUDIES (A.G.S.) DEGREES

The Associate of Arts (A.A.), the Associate of Science (A.S.), or the Associate of General Studies (A.G.S.) degree is awarded to a student who successfully completes a program designed to transfer to a four-year college or university for the purpose of earning a baccalaureate degree. Although the requirements of the three degrees are similar, the Associate of Science degree program includes more science and mathematics and the Associate of General Studies includes selected professional courses. The student who is pursuing a particular major at a four-year institution may wish to select a particular area of emphasis within these degrees.

Although all courses included within an Associate of Arts, an Associate of Science or an Associate of General Studies program are intended to be transferable, the student should realize that occasional arts and sciences courses and most occupational courses may not be accepted for transfer by baccalaureate institutions. The student who desires to include these courses as electives within an A.A., an A.S., or an A.G.S. program should check carefully the requirements of the institution and program into which he or she wishes to transfer.

The following are general requirements for the A.A., A.S. and A.G.S. degrees:

1. Ninety-six quarter hours credit in approved course work.

Forty-five quarter hours of this total must be in general
education courses. Particular program requirements are outlined in this catalog under the section on the School of Arts and Sciences.
2. A minimum cumulative grade point average of 2.0 (a " ${ }^{\circ}$ " average) in the A.A., A.S., or A.G.S. degree program curriculum.
3. Twenty-four of the last thirty-six quarter hours of course work prior to graduation must be taken in residence at Aims Community College.
4. Most courses numbered 100 and above are applicable toward these degrees.
5. Occupational courses are accepted toward the requirements of these degrees only upon the approval of the Dean of Arts and Sciences or his designee. This approval is given only when the courses are appropriate to the educational objectives of the student. Blanket approval is granted for those courses recommended as electives within the various areas of emphasis.
6. A faculty advisor in the field of study must sign the application for graduation. For A.S. degrees, the Mathematics and Science Division Chair must also sign the application. The Associate of General Studies degree requires the signature of the faculty advisor, the Dean of Arts and Sciences and the Dean of Occupational Education. Required signatures certify the advisor has reviewed the students completion of requirements.

## ASSOCIATE OF APPLIED SCIENCE (A.A.S.) DEGREE

The Associate of Applied Science (A.A.S.) degree is awarded to a student who successfully completes a program designed exclusively to prepare the student for immediate employment in a full-time skilled and/or paraprofessional occupation. Each of the College's A.A.S. degree programs is in a specified occupational field.

Although some college credits within these programs are accepted for transfer by particular four-year colleges and universities, occupational courses are not specifically designed to facilitate transfer. The student who anticipates transferring is encouraged to check carefully the requirements of the institution and program into which he or she might desire to transfer.

The following are general requirements for the A.A.S. degree:

1. A minimum of ninety quarter hours in approved course work. Since each A.A.S. program is designed for a specified occupational field, the minimum requirements will vary with the particular program. Eighteen quarter hours of the total must be in general education courses. Course requirements for the various A.A.S. degree programs are outlined in this catalog within the School of Occupational Education section.
2. A minimum cumulative grade point average of 2.0 ( a " C " average) in the particular A.A.S. degree program curriculum.
3. Twenty-four of the last thirty-six quarter hours of course work prior to graduation must be taken in residence at Aims Community College.
4. Normally, only courses numbered 100 or above are applicable toward this degree.
5. Courses used as electives in meeting degree requirements and taken in addition to specified courses in a particular program are accepted toward the requirements of this degree only upon the approval of the appropriate program official.

This approval is given only when appropriate to the educational objectives of the student.
6. A faculty advisor in the field of study must sign the application for graduation to certify the student has met requirements according to the advisor's review.

## CERTIFICATE IN OCCUPATIONAL EDUCATION

A Certificate in Occupational Education is awarded to a student who successfully completes an occupational program not leading to an associate degree. Normally, these programs are of one year or less in duration. These programs are designed exclusively to prepare students for immediate employment. No general education course work is required. Course requirements for the various certificate programs are outlined in this catalog within the School of Occupational Education section.

The following are general requirements for the Certificate in Occupational Education:

1. A minimum cumulative grade point average of 2.0 ( a " C " average) in the particular certificate program curriculum.
2. A minimum of one-half $(50 \%)$ of a program's course work must be taken in residence at Aims Community College.
3. Normally, only courses numbered 100 or above are applicable toward a Certificate of Occupational Education.
4. Courses used as electives in meeting certificate requirements and taken in addition to specified courses in a particular program are accepted toward certificate requirements only upon the approval of the appropriate program official. This approval is given only when appropriate to the educational objectives of the student.
5. A faculty advisor in the field of study must sign the application for graduation to certify the student has met requirements according to the advisor's review.

## GRADUATION REQUIREMENTS

The general requirements for receipt of an Associate of Applied Science (A.A.S.) degree, an Associate of Arts (A.A.) degree, an Associate of Science (A.S.) degree, an Associate of General Studies (A.G.S.) degree, or Certificates in Occupational Education programs are outlined in the curricula section of this catalog. A minimum cumulative grade point average of 2.0 is required in the particular program's curriculum for receipt of any type of degree or certificate, and normally only courses numbered 100 or above are applicable toward the degree or certificate. Specific requirements for individual programs may be secured from either the Admissions and Records Office or the Counseling Center.

Twenty-four of the student's last thirty-six quarter hours of course work prior to graduation must be taken in residence at Aims Community College.

Students must make application for graduation by the end of midterm week, the quarter prior to the anticipated quarter of graduation. Graduation applications are available from the Admissions and Records Office. Completed graduation applications with the faculty advisor's signature must be returned to the Admissions and Records Office where final evaluations will be made. Additional signatures are needed for the following degrees: the A.S. degree requires the Mathematics and Science Division Chair's signature and the A.G.S. degree requires the signatures of the Dean of Arts \& Sciences and the Dean of Occupational Education. The
student will be notified by mail of the conditions required for graduation.

## EFFECTIVE CATALOG

The catalog in use during a student's first enrollment in the College normally is used in determining completion of degree or certificate requirements. The effective catalog may, however, be no more than seven years old at the time of graduation. A student may elect to meet the requirements of any subsequent catalog published during the seven year period, including the current year. This election must be made when the student files a graduation application.
A student who has a break in enrollment in the College and/or program of four consecutive quarters or more, excluding summer sessions, must meet the program requirements of the catalog in use at the time of readmission. Any previously completed Aims occupational course work may be subject to an evaluation of its relevancy to any revised program. If the occupational program in which the student was previously enrolled has been discontinued, or if a public notice of program discontinuance has been given, the student cannot re-enroll in that program.
The College reserves the right to substitute courses for those no longer offered, to modify course content at any time, to approve the substitution of one course for another in any program or degree, or waive any course prerequisite or corequisite.


## SUPPLEMENTAL SERVICES

The Supplemental Services program provides assistance to all students needing "extra help" with vocational or academic courses at Aims. Our tutoring staff is prepared to help students with specific problems in individual classes in addition to helping students strengthen their skills in reading, studying, writing, spelling, and basic mathematics. Instructor referrals and completion of assessment and /or course prerequisites are required in order to receive tutoring. In addition, students must have advisors.

Computer programs for review of English, mathematics and other basic subjects are also available in the Micro Lab adjacent to the Supplemental Services Center, Horizon Hall.

Disabled students needing special materials or accommodations should contact any of the office personnel in Supplemental Services at least one month prior to registration so that appropriate arrange-ments can be made with instructors. We can be reached during the day at extensions $248,267,388$, or 496 .

## PLACEMENT SERVICES

Aims Community College provides a student placement service. The placement service aids students in securing full-time employment upon graduation. The College also cooperates with local businesses to assist students in securing part-time employment while attending school. An effort is made to place students in job fields which relate to their college programs. Placement information may be obtained from the Placement Office in Trades \& Industry Building, Room 106.

## BUS SERVICE

The City of Greeley has a bus system which includes two routes that provide service to Aims Community College. Riders can also transfer to Aims campus routes from other routes which serve the City.

## PARKING

Vehicular parking is available on campus in designated lots. Parking regulations are enforced by the Department of Public Safety.

## FOOD SERVICE

The Campus Kitchen I cafeteria is located west of the General Services Building. Regular hours are 8:00 a.m. - 4:30 p.m., Monday through Friday. Summer hours are 7:00 a.m. - 4:00 p.m. Monday through Thursday.

Food and snack vending machines are located in buildings throughout the Greeley campus.

## BOOKSTORE

The Aims College Bookstore, located in the General Services Building, is an institutionally owned facility operated for the convenience of the students of the College. Students may purchase textbooks, supplies, and soft goods during posted hours.

Textbooks are also available for purchase at the South Campus, Fort Lupton, and for Loveland classes at the West Campus Loveland.

## HEALTH SERVICES

Aims Community College provides emergency health services by a trained Emergency Medical Technician. The EMT provides first aid and emergency care on campus and referrals to appropriate health agencies when deemed necessary.

Disabled Parking Permits are issued by the Dean of Student Services Office.
The mandatory Student Accident Insurance Program is administered in the Dean of Student Services Olfice. A student must file an Accident/Incident Report within 24 hours following an accident/incident. All medical bills resulting from an accident/incident must be presented by the student to the Dean of Student Services Office for processing of insurance claims.

## EARLY CHILDHOOD EDUCATION CENTER

Aims Community College offers, for a nominal fee, an Early Childhood Education Center. The preschool program is directed by Students teachers who are supervised by a State certified director.

Applications for enrolling children are available at the Early Childhood Education Center during registration each quarter. The Center serves children ages 3 to 5 years (but not yet in kindergarten) for part-day ( 3 hour) sessions Monday through Thursday.

The purpose of the Center includes:

1. Providing children the opportunity to gain social relationships with other children.
2. Providing play experiences that contribute to the physical, social and emotional needs of the child.

## HOUSING

Since the College does not provide student housing, it is the student's responsibility to make arrangements for his or her living quarters. It is recommended that these arrangements be made prior to the beginning of the quarter for which the student intends to enroll. It should be noted that most parties who have facilities to rent to college students will require that a security deposit be paid when the final arrangements are made.

Students who attend Aims Community College have chosen to live in a variety of facilities. Many students commute daily from their family residences in the area. Others have rented private apartments available in the City of Greeley.

## LIBRARY

The Library stores and circulates about 40,000 print materials (books, journals, magazines) and nonprint materials (records, audio cassettes, filmstrips). The library subscribes to nearly 400 magazines, journals, and newspapers. Access to the holdings of UNC and other Front Range libraries is available on microcomputer through the CARL System.

Aims employees and students check out materials by providing their Social Security Numbers. Community users check out materials by providing their address in addition to their Social Security Number.

Reserve materials assigned by instructors are checked out at the main desk. Knowing the instructor's name and the exact titte of the material ensures speedy service. Call 330-8008, ext. 227 for further information.

AV equipment (projectors, recorders) is available at the main desk for student check-out with the instructor's approval.

Library hours appear every quarter in the front part of the Class Schedule. Handy phone numbers: Ext. 227 for renewals and questions about overdue materials; Ext. 326 for $A V$ equipment information; Ext. 237 for the Library Coordinator.

## ASSESSMENT CENTER

The Assessment Center provides the following services:

1. Assessment: Upon application for admission to the college, new students are assessed in reading, English, basic mathematics, and algebra to determine their skill levels. This information is utilized by the advisor and the student in making appropriate decisions about course scheduling.
2. General Educational Development (GED) Test: Upon passing this test, the student will receive a High School Equivalency Certificate. This test is available to those individuals who did not graduate from high school yet want a certificate in order to qualify for some jobs or to enter a post-secondary school.
3. Other testing offered by the Assessment Center includes the California Achievement Test for teacher certification, the Vocational Basic Skills Test for a full-time vocational credential, and proctoring of instructional tests as needed.

## COUNSELING INFORMATION CENTER

1. Sue Davisson, Director Counseling Services; Charlotte Rodriguez, Counselor; Bill Hardgrave, Career Counselor; Ruby Blandin, Secretary; Patricia Romano, Career Counselor.
2. The Counseling Information Center (CIC) consists of the Advising and Career Resource Centers which are located in the General Services Building. The Advising Center provides all students with an opportunity for assistance in making more objective and adequate decisions relative to vocational and educational plans. Advising is provided specifically to students who are undecided in their program choice. Orientations are held regularly throughout the school year to welcome and introduce new students to the College and to help them become acquainted with programs of study, services available and the registration process. The Advising Center provides a setting in which students may discuss in confidence with a qualified professional counselor any problems which may be important to them. The Counseling staff subscribe to the laws of Colorado governing the practice of mental health occupations. Specifics concerning these rights can be found in the student handbook or at the Counseling Information Center. The Career Resource Center provides resource materials, instruction and individual help with career planning. The lab is open to all students.Our emphasis is placed in helping all students with any problems that interfere with achieving success at the College. Since these services are entirely voluntary, the student must initiate contact or be referred by a member of the professional staff in order to receive assistance.

The staff assists students in the following areas:

1. Educational, Vocational planning
2. Career Planning
3. Advising, Orientation
4. Test evaluation (interest, aptitude and personality)
5. Referral services about school and community resources
6. Workshops

## MEDIA SERVICES/

## TELECOMMUNICATION TV

## DISTRIBUTION

The Media Services department supports Aims Community College programs, students, faculty, administrative and support staff personnel in the development, production and distribution of instructional materials.
This award winning department is dedicated to the highest standards of service to the academic community and has gained recognition at local, state, regional and national levels.
The production areas of this department include:Graphics, Photography, Audio and Video.
Graphic services include overhead transparencies, poster mounting, lettering, lamination, dry mounting and framing.
Photographic services include black and white and/or color original photography, either in-studio or on location, darkroom services for black and white film, duplication of slides and filmstrips, and copy stand work. Archives of historic photographs and slides are available for slide tape programs. Original graphic slides can also be produced.
Audio production is done in a four-track audio recording/production studio which includes both sound effects and production music libraries. Original narration, sound tracks, and pulsing for slide-tape programs are produced in this facility. On location audio taping, such as guest lectures, and audio = duplication services are also available.
Color television production is provided either on location or in the three-camera studio and editing suite. Television is used for a variety of instructional purposes including mirror teaching, student observation, evaluation and testing, training videotapes, telecourses, promotion and public relations and duplication services.
The Telecommunications area is used by students and faculty to develop original programming for instruction and includes scriptwriting, pre-production services, production, and post-production editing. Internships are available for qualified students seeking further television production experience. Telecommunications also coordinates PBS telecourse offerings with KRMA-TV for students wishing to utilize this academic resource.
The Television Distribution area includes a twelve channel closedcircuit television distribution system which feeds nearly $100 \%$ of the main campus classrooms and a 1500 volume tape library. TV distribution also provides access to cable and satellite transmissions for off-air recording and prepares programming supplied by Aims for cable-cast on Greeley Cablevision channel 8.

## AUDIO-VISUAL EQUIPMENT CENTER

The Audio-Visual Equipment Center provides preventative maintenance and repair service for the College's instructional equipment. The Center also has designed the media delivery systems which provide students and staff better access to learning media for both group and individualized instruction. Instruction is given to any person who requires assistance in the operation of audio and visual equipment with which he or she is not familiar.

The Audio-Visual Equipment Center functions in close harmony with the Media Services/Telecommunications Center to ensure the availability of compatible equipment in sufficient quantity.
An Office Equipment Service Center is contained within the AV Department for support of school equipment. All office equipment such as typewriters, print copiers, mimeograph, and calculators are processed through this facility for preventive maintenance and service.



# SCHOOL OF ARTS AND SCIENCES 

Dean:<br>Secretary:

Dr. Dwane Raile
Judy Elliott

Location:
Telephone:

The School of Arts and Sciences offers a large number of courses intended to serve a variety of student needs. In general, Arts and Sciences courses are designed for students enrolled in a two-year Associate of Arts, Associated of Science, or Associated of General Studies degree and for students preparing to complete a baccalaureate program at a four-year institution.

In addition, Arts and Sciences offerings may benefit Occupational Education students, serving as requirements or electives within particular occupational programs. The Arts and Sciences curriculum provides day and evening courses and, through continuing education offerings, serves the special educational interests of the community.

Students who earn the Associate of Arts and Associate of Science degrees will meet most requirements for transfer to a four-year institution. Students enrolled in these degree programs should fulfill elective requirements by taking courses that relate directly to a career or academic major at another college or university. For the Aims students who desires to begin work toward a particular major, the Arts and Sciences instructional divisions have developed areas of emphasis, some of which are described within this section of the catalog.

The School of Arts and Sciences provides a wide variety of instructional offerings. In addition to arts and sciences course work, the curriculum includes related vocational-technical instruction and continuing education courses, allowing people of all interests, ages, and skills to complete college work, acquire new skills, improve existing skills, and pursue special interest.

## GENERAL EDUCATION CORE TRANSFER PROGRAM

The Colorado Community College and Occupational Education System has been authorized by the State Legislature to develop a program that will facilitate the transfer of credits from communityjunior colleges to four-year institutions. The program that emerged is known as the General Education Core Transfer Program. All 15 community/junior colleges have based their A.A. and A.S. degrees upon a.common core curriculum. Students who complete this prescribed curriculum will be guaranteed the transferability of the core courses to one of Colorado's public four-year institutions. In addition, most students will be exempted from lower division general education requirements at the school to which they transier. Aims is proud to participate in such a worthwhile program that will benefit our students as they transfer to the four-year school of their choice.

## ASSOCIATE DEGREES

Included within the Arts and Sciences program are three degree options: the Associate of Arts (A.A.) degree, the Associate of Science (A.S.) degree and the Associate of General Studies (A.G.S.) degree.

## ASSOCIATE OF GENERAL STUDIES DEGREE (A.G.S.)

The purpose of the A.G.S. degree is to serve students who need an individualized degree program for job requirements, career advancement and/or personal development. The A.G.S. degree, however, does not guarantee transferability nor employability. A unique characteristic of the degree is that the field of study is determined by the student in consultation with a faculty advisor. Each student must develop a written statement of Goals and Objectives and specific courses needed to satisfy those objectives. In addition, a core curriculum of general education courses must be completed. The student who is pursuing a particular major at a four-year institution may wish to select a particular area of emphasis within the degree. A degree contract must be signed by the student, faculty advisor and the Deans of Arts \& Sciences and Occupational Education prior to acceptance into the degree program.

## INDEPENDENT STUDY COURSES

Some courses are offered on an independent study basis. This format provides an opportunity for the student to study intensively a specific topic under the direction of a faculty member. Prerequisites may be required. Credits available vary with each division. These courses may be repeated at different levels of proficiency. Also, the number of independent study credits taken per quarter may be limited. Consult the contact person listed with the course description for specific information regarding divisional requirements and to register for the independent study. This information is applicable also to practicums listed in the Communications and Humanities Division.

## INDIVIDUALIZED COURSES

Some classes are offered on an individual basis. These courses generally are available throughout the academic year. The format requires no class attendance, allows entry at any time, and permits the student to proceed at his or her own pace. Help is available on request. Consult the contact person listed with the course description for specific information regarding divisional requirements and how to register for the individualized class.

# ASSOCIATE OF ARTS (A.A.) <br> DEGREE (Liberal arts major) 

Students seeking the Associate of Arts degree must earn minimum credits in the following subject areas:

| General Education | Credits |
| :--- | ---: |
| Communications | 15 |
| Humanities | 15 |
| Behavioral and Social Science | 15 |
| Mathematics and Science | 15 |
| Physical Education | 5 |
| Electives | $\mathbf{3 1}$ |

Total ..... 96

## CORE CURRICULUM

Total Minimum Requirements:
CREDITS

## COMMUNICATIONS

ENG 121 English Composition 5
As a result of placement testing, students may be required to take Fundamentals of Composition (ENG 105) as a prerequisite for ENG 121. Students who take ENG 105 , which is a non-transferable course, must have a 'C' or better in that course before they will be admitted to ENG 121.
Proficiency in essay writing is required for a passing grade, and students must have a 'C' or better in ENG 121 before they will be admitted to ENG 122. Students should take ENG 121 within the first two quarters of their degree program.

ENG 122 English Composition II 5 Prerequisite: ENG 121
SPE 115 Principles of Speech Communication 5

Total Credits for A.A. Degree

## HUMANITIES

CREDITS
Students will take three courses from at least two different disciplines. The following course is required of all students:

HUM 121 Survey of Humanities I

Students will select the other two courses from those listed below.

| ART 111 | Art History I | 5 |
| :--- | :--- | :--- |
| ART 112 | Art History II | 5 |
| SPA 111 | Spanish Language I | 5 |
| SPA 112 | Spanish Language II, Part 1 | 5 |
| SPA 113 | Spanish Language II, Part 2 | 5 |
| FRE 111 | French Language I I, Part 1 | 5 |
| FRE 112 | French Language II, Par | 5 |
| FRE 113 | French Language II, Part 2 | 5 |
| JPN 111 | Japanese Language I | 5 |
| JPN 112 | Japanese Language II, Part 1 | 5 |
| JPN 113 | Japanese Language II, Part 2 | 5 |
| HUM 122 | Survey of Humanities II | 5 |
| HUM 123 | Survey of Humanities III | 5 |
| LIT 115 | Introduction to Literature | 5 |
| LIT 201 | Masterpieces of Literature I | 5 |
|  |  |  |

ART 112 Art History II 5
SPA 111 Spanish Language I 5
SPA 112 Spanish Language II, Part 1
SPA 113 Spanish Language II, Part 2 5
FRE 111 French Language I 5
FRE 112 French Language II, Part 1 5
FRE 113 French Language II, Part 2 5
JPN 112 Japanese Language II, Part 1
JPN 113 Japanese Language II, Part 2 5
HUM 122 Survey of Humanities II 5
HUM 123 Survey of Humanities III 5
LIT 201 Masterpieces of Literature I 5
LIT 202 Masterpieces of Literature II 5
MUS 120 Music Appreciation ..... 5
MUS 121 Introduction to Music History I ..... 5
MUS 122 Introduction to Music History II ..... 5
THE 211 Development of Theatre I ..... 5
THE 212 Development of Theatre II ..... 5
PHI 111 Introduction to Philosophy ..... 5
PHI 112 Ethics ..... 5
PHI 113 Logic ..... 5
Total Credits for A.A. Degree ..... 15
BEHAVIORAL AND SOCIAL SCIENCES ..... CREDITS
Select one from the following courses: ..... 5
PSY 101 General Psychology I ..... 5
SOC 101 Introduction to Sociology I ..... 5
Select from two of the following areas: ..... 10
ANTHROPOLOGY
ANT 101 Cultural Anthropology ..... 5
ECONOMICS
ECO 201 Principles of Macroeconomics ..... 5
ECO 202 Principles of Microeconomics ..... 5
HISTORY
HIS 101 Western Civilization I ..... 5
HIS 102 Western Civilization II ..... 5
HIS 103 Western Civilization III ..... 5
HIS 201 United States History I ..... 5
HIS 202 United States History II ..... 5
HIS 203 United States History III ..... 5
POLITICAL SCIENCE
POS 101 Introduction to Political Science ..... 5
POS 111 American Government ..... 5
GEOGRAPHY
GEO 105 Geography ..... 5
Total Credits for A.A. Degree ..... 15
NOTE: Behavioral-Social Science Courses not listed as corerequirements will fulfill elective credits for the A.A. degree.

## MATHEMATICS AND SCIENCE

Note: All course prerequisites must be met for the following courses. Students who earn a D grade in a course which is part of a sequence (e.g. MAT 111, MAT 112, MAT 135) should not continue on with the next course in the series. They are strongly advised to repeat the course and demonstrate mastery of the material by earning a grade of C or better.

## MATHEMATICS

## CREDTTS

Students will select a minimum of one of the following choices:
MAT 121 College Algebra 6

MAT 125 Survey of Calculus
MAT 135 Introduction to Statistics 5
MAT 201, Calculus I, II and III
202, ( 5 credits each)

## SCIENCE

Students will select a minimum of one of the following choices:

| BIO 105 | Science of Biology | 5 |
| :--- | :--- | :--- |
| BIO 111 | General College Biology I | 5 |
| BIO 112 | General College Biology II | 5 |
| BIO 113 | General College Biology III | 5 |
| CHE 111 | General College Chemistry I | 5 |
| CHE 112 | General College Chemistry II | 5 |
| CHE 113 | General College Chemistry III | 5 |
| GEY 111 | Physical Geology | 5 |
| GEY 121 | Historical Geology | 5 |
| PHY 105 | Conceptual Physics | 5 |
| PHY 111 | Physics: Algebra-based I | 5 |
| PHY 112 | Physics: Algebra-based II | 5 |
| PHY 113 | Physics: Algebra-based III | 5 |
| PHY 211 | Physics: Calculus-based I | 5 |
| PHY 212 | Physics: Calculus-based II | 5 |
| PHY 213 | Physics: Calculus-based III | 5 |

## MATHEMATICS OR SCIENCE

Students will select from courses having the following prefixes: AST, BIO, CHE, CSC, EAS, GEY, MAT, PHY, SCl or STA. minimum of 5 credits

Note: The following courses may not be used towards the Mathematics and Science requirements for the A.A. degree: MAT 101, MAT 110, MAT 111, MAT 112, MAT 113, PHY 101, SCl 230 and any courses numbered below 100 .

Total Credits for A.A. Degree

## PHYSICAL EDUCATION

CREDTS
A minimum of five, separate credits of prefixes PEA, PEB, PED, PEF will be selected from any physical education activities offered. This will provide the student with adequate opportunity to be introduced to a variety of physical fitness and leisure time activities to round out his or her general education.

Veterans or students with a doctor's excuse may have their physical education requirements waived. They must still meet the 96 credit hour requirements for the A.A. degree. Students who desire a physical education waiver must contact the Registrar.

Total credits for A.A. Degree

## ELECTIVES

Electives may be chosen from the core curriculum, other Arts and Sciences courses and specific Occupational Education courses. Occupational Education courses may be used if they will support a student's particular educational goals. However, some colleges and universities may not accept the transfer of courses that are in the School of Occupational Education. Students should consult their advisors for help in choosing appropriate courses for their specific educational needs.

Total credits for A.A. Degree
Minimum of 31


# ASSOCIATE OF SCIENCE (A.S.) <br> DEGREE (LIbERAL arts major) 

Students seeking the Associate of Science degree must earn minimum credits in the following subject areas.
General Education ..... CREDITS
Communications ..... 15
Humanities ..... 15
Behavioral and Social Science ..... 15
Physical Education ..... 5
Mathematics and Science ..... 46
Total ..... 96
CORE CURRICULUM
Total Minimum Requirements: CREDITS
COMMUNICATIONS
ENG 121 English Composition ..... 5
As a result of placement testing, students may be required to take Fundamentals of Composition (ENG 105) as a prerequisite for ENG 121 . Students who take ENG 105, which is a non-transferable course, must have a 'C' or better in that course before they will be admitted to ENG 121. Proficiency in essay writing is required for a passing grade, and students must have a 'C' or better in ENG 121 before they will be admitted to ENG 122.
Students should take ENG 121 within the first two quarters of their degree program.
ENG 122 English Composition II ..... 5Prerequisite: ENG 121SPE 115 Principles of Speech Communication5
Total Credits for A.S. Degree ..... 15

## HUMANITIES

CREDITS

Students will take three courses from at least two different disciplines. The following course is required of all students:

HUM 121 Survey of Humanities I
Students will select the other two courses from those listed below.
ART 111 Art History I 5

ART 112 Art History II 5
SPA 111 Spanish Language I 5
SPA 112 Spanish Language II, Part 1 5
SPA 113 Spanish Language II, Part 2 5
FRE 111 French Language I 5
FRE 112 French Language II, Part 1
FRE 113 French Language II, Part 2 5
JPN 111 Japanese Language I 5
JPN 112 Japanese Language II, Part 115
JPN 113 Japanese Language II, Part 2 5
HUM 122 Survey of Humanities II 5
HUM 123 Survey of Humanities III 5
LIT 115 Introduction to Literature 5
LIT 201 Masterpieces of Literature I 5

| LIT 202 | Masterpieces of Literature II | 5 |
| :--- | :--- | :--- |
| MUS 120 | Music Appreciation | 5 |
| MUS 121 | Introduction to Music History I | 5 |
| MUS 122 | Introduction to Music History II | 5 |
| THE 211 | Development of Theatre I | 5 |
| THE 212 | Development of Theatre II | 5 |
| PHI 111 | Introduction to Philosophy | 5 |
| PHI 112 | Ethics | 5 |
| PHI 113 | Logic | 5 |
|  |  |  |
| Total Credits for A.S. Degree |  |  |

BEHAVIORAL AND SOCIAL SCIENCE
CREDITS
Select one of the following courses: 5
PSY 101 General Psychology I ..... 5
SOC 101 Introduction to Sociology I ..... 5
Select from two of the following five areas: ..... 10
ANTHROPOLOGY
ANT 101 Cultural Anthropology ..... 5
ECONOMICS
ECO 201 Principles of Macroeconomics ..... 5
ECO 202 Principles of Microeconomics ..... 5
HISTORY
HIS 101 Western Civilization I ..... 5
HIS 102 Western Civilization II ..... 5
HIS 103 Western Civilization III ..... 5
HIS 201 United States History I ..... 5
HIS 202 United States History II ..... 5
HIS 203 United States History III ..... 5
POLITICAL SCIENCE
POS 101 Introduction to Political Science ..... 5
POS 111 American Government ..... 5
GEOGRAPHY
GEO 105 Geography ..... 5
Total Credits for A.S. Degree ..... 15
PHYSICAL EDUCATION ..... CREDITS

A minimum of five, separate credits of prefixes PEA, PEB, PED, PEF will be selected from any physical education activity offered. This will provide the student with adequate opportunity to be introduced to a variety of physical fitness and leisure time activities to round out his or her general education.

Veterans or students with a doctor's excuse may have their physical education requirements waived. They must still meet the 96 credit requirement for the A.S. degree. Students who desire a physical education waiver must contact the Registrar.

## MATHEMATICS AND SCIENCE

Note: Students pursuing an Associate of Science degree must see an advisor in the Mathematics and Science Division to help them plan their academic program. Furthermore, all degree plans must be approved by the Division Director of Mathematics and Science.

The Associate of Science Degree is awarded only to those students who have met the minimum degree requirements and who have demonstrated competency in both mathematics and science disciplines. This degree will not be granted to students who have completed only survey type courses in several mathematics and science areas.
A minimum of 46 credits is required for the Associate of Science Degree. Students should give maximum attention to prerequisites and corequisites as stated in the catalog. All mathematics and science courses applied to this degree must be completed with a grade of 'C' or better. All course prerequisites must be met for the following courses.

## MATHEMATICS

CREDITS
Students will select a minimum of one of the following choices:

| MAT 121 | College Algebra | 6 |
| :--- | :--- | ---: |
| MAT 125 | Survey of Calculus | 5 |
| MAT 201, | Calculus I, II and III | (5 credits each) |

202 \&
203

## SCIENCE

Students will select a minimum of one of the following sequence choices:
BIO 111, General College Biology I, II and III
113

CHE 111, General College Chemistry I, II and III

PHY 111, Physics: Algebra-based I, II and III

PHY 211, Physics: Calculus-based I, II and III

GEY 111, Physical Geology, Introduction to Field
112 \& Geology and Mapping and Historical
121 Geology

## MATHEMATICS AND/OR SCIENCE

Students will select from approved courses having the following prefixes: AST, BIO, CHE, CSC, EAS, GEY, MAT, PHY or STA.

## 28 or less as appropriate

Note: The following courses may not be used towards the mathematics and science requirements for the A. S. Degree: MAT 101, MAT 110, MAT 111, MAT 112, MAT 113, PHY 101 and any courses numbered below 100 .

Total Credits for the A. S. Degree
minimum of 46


## ASSOCIATE OF GENERAL STUDIES (A.G.S.) DEGREE

Students seeking the Associate of General Studies degree must complete the Associate of General Studies Degree Contract to be signed by the faculty advisor, the Dean of Arts \& Sciences and the Dean of Occupational Education prior to acceptance into the degree program.

Students must then earn minimum credits in the following subject areas:

Communications and Humanities
Mathematics and Science 9
Behavioral and Social Science 10
Physical Education 2
Professional Courses 14
Electives 46
Total
96
Total Minimum Requirements:
CREDITS
COMMUNICATIONS AND HUMANITIES 15
Required Courses:
ENG 121 English Composition I 5
SPE 115 Principles of Speech Communications 5
or
SPE 110 Communications Concepts
Select one of the Humanities five-hour courses listed in the current catalog for the A.A. degree.

## MATHEMATICS AND SCIENCE

Any combination of courses with the following prefixes which are 100 level and above: AST, BIO, CHE, CSC, EAS, GEY, PHY, SCI, STA OR MAT. (The following courses will not apply to this category: MAT 101, MAT 110, MAT 111, MAT 112, MAT 113, PHY 101.)

BEHAVIORAL AND SOCIAL SCIENCE
Any combination of courses listed in the current catalog for the A.A. degree.

## PHYSICAL EDUCATION

Veterans or students with a doctor's excuse may have their physical education requirements waived by the Registrar (See catalog). However, students must still meet the 96 credit requirement for the A.G.S. degree. Select from courses with the following prefixes: PEA, PEB, PED, PEF.

PROFESSIONAL COURSES
Any combination of professional courses with the following prefixes as listed in the current catalog: BUS, CSC, MGT, BIS, HLH.

## ELECTIVE CREDIT

Requirement may be satisfied with courses in the Arts and Sciences and/or Occupational Education areas as listed in the current catalog. Total credits earned with a specific occupational program or academic discipline may not exceed 30 credits.

Total Credits for A.G.S. Degree


# BEHAVIORAL \& SOCIAL SCIENCE DIVISION 

| Division Director: | John Turner |
| :--- | :--- |
| Division Secretary: | Kathy Mickelson |
| Location: | Westview, 2nd floor, 660 |
| Telephone: | $330-8008$, ext. 208 |

The curricula described in the following sections are designed to assist those students who are pursuing particular majors at a fouryear institution or particular careers. The A.A. degree Liberal Arts Major requirements must be met for each area of emphasis. It may be necessary, however, to enroll in specific courses to fulfill those degree requirements for a particular area of emphasis.


## ELEMENTARY EDUCATION EMPHASIS

This emphasis is designed to provide orientation and background for the student anticipating a teaching career in elementary education. However, students are strongly urged to obtain specific information regarding the requirements and recommendations of the institution to which they plan to transfer as well as the assistance of an Aims faculty advisor. The following plan has been designed to assist in transfer to the University of Northern Colorado.
Recommended degree requirements for area of emphasis:
CREDITS
COMMUNICATIONS 15
ENG 121 English Composition I 5
ENG 122 English Composition II 5
SPE 115 Principles of Speech Communication 5
HUMANITIES 15
HUM 121 Survey of Humanities I 5
LIT 115 Introduction to Literature 5
See A.A. degree requirements 5
BEHAVIORAL AND SOCIAL SCIENCES 15
HIS 201 U.S. History I 5
GEO 105 Geography 5
See A.A. degree requirements 5
PHYSICAL EDUCATION 5
See A.A. degree requirements 5
MATHEMATICS AND SCIENCE 15
BIO 105 Science of Biology
(or EAS 105 Earth Science)
PHY 105 Conceptual Physics 5
See A.A. degree requirements 5
ELECTIVES AND MAJOR 31
A. UNC requires a Liberal Arts and Sciences major, selected from a specific list, for those in the Elementary Education program. Transferable lower-division courses may be taken at Aims.
B. UNC requires the following additional courses for those in the Elementary Education program. They may be taken at Aims.
ART 100 Art Appreciation 5
MUS 105 Fundamentals of Music 5
SOC 215 Sociology of Minorities 5
POS 111 American Government 5
PSY 166 Developmental Psychology
(or LIT 115 - listed as option under Humanities) 5
C. It is recommended that the following three courses be taken during the first half of a bachelor's program. They are not available at Aims, but can be acquired through concurrent registration at UNC.
EDFE 170 Introduction to Field Based Experience
EDFE 270 Field Based Experience
MATH 181 Fundamentals of Mathematics I
Total Credits for Area of Emphasis

## GENERAL PSYCHOLOGY EMPHASIS

This emphasis prepares students for transferring to UNC's undergraduate program in psychology.

Recommended degree requirements for area of emphasis:
COMMUNICATIONS
See A.A. degree requirements

## HUMANITIES

See A.A. degree requirements
MATHEMATICS AND SCIENCE 15
MAT 135 Introduction to Statistics 5
See A.A. degree requirements 10
PHYSICAL EDUCATION 5
BEHAVIORAL AND SOCIAL SCIENCE 15
PSY 101 General psychology I 5
See A.A. degree requirements 10
Electives 25
PSY 102 General Psychology II 5
PSY 166 Developmental Psychology 5
PSY 221 Abnormal Psychology 5
PSY 241 Biofeedback I 5
PSY 131 Theory and Practice of Counseling 5
Take six additional credits of your choice 6
(Check with advisor to ensure the credits are transferable to UNC).
Total credits for Area of Emphasis 96

## PARAPROFESSIONAL COUNSELING EMPHASIS

Recommended degree requirements for area of emphasis:
CREDITS
COMMUNICATIONS ..... 15

See A.A. degree requirements

HUMANITIES
See A.A. degree requirements
MATHEMATICS AND SCIENCE ..... 15
MAT 135 Introduction to Statistics ..... 5
See A.A. degree requirements ..... 10
PHYSICAL EDUCATION ..... 5
BEHAVIORAL AND SOCIAL SCIENCE ..... 15
PSY 101 General Psychology I ..... 5
See A.A. degree requirements ..... 10
Electives ..... 31
PSY 131 Theory and Practice of Counseling ..... 5
PSY 225 Advanced Counseling ..... 5
PSY 288 Basic Therapeutic Skills ..... 4
PSY 221 Abnormal Psychology ..... 5
PSY 241 Biofeedback I ..... 5
PSY 138 Biofeedback and Stress Management ..... 4
PSY 111 Basic Human Potential ..... 3
Total Credits for Area of Emphasis ..... 96

## BIOFEEDBACK EMPHASIS

Recommended degree requirements for area of emphasis:

## CREDITS

COMMUNICATIONS
See A.A. degree requirements
HUMANTIES 15
See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE 15
PSY 101 General Psychology I 5
See A.A. degree requirements 10
PHYSICAL EDUCATION 5
See A.A. degree requirements
MATHEMATICS AND SCIENCE 15
MAT 135 Introduction to Statistics 5
BIO 105 Science of Biology
BIO 111 General College Biology 1 5
$\begin{array}{ll}\text { BIO } 211 & \begin{array}{l}\text { Human Anatomy and Physiology I } \\ \text { or }\end{array} \\ \text { BIO } 213 & \text { Human Anatomy and Physiology III }\end{array}$
Electives 24
PSY 131 Theory and Practice of Counseling 5
PSY 138 Biofeedback and Stress Management 4
PSY २२5 Advanced Counseling 5
PSY $241 \begin{aligned} & \text { Biofeedback I: Biofeedback \& the } \\ & \\ & \\ & \text { Psychology of Health (Principles) }\end{aligned}$
PSY 244 Biofeedback and Health 5
Electives 7
Total Credits for Area of Emphasis

## CRIMINAL JUSTICE EMPHASIS

This emphasis will prepare individuals for transfer to four-year college or university criminal justice, pre-law, political science, social work, or sociology programs. For further information and/or advising on career or transfer possibilities, contact the Criminal Justice Department.

Recommended degree requirements for area of emphasis:
CREDITS
COMMUNICATIONS
15
See A.A. degree requirements
HUMANITIES
15
See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE
15
See A.A. degree requirements
MATHEMATICS AND SCIENCE
15
See A.A. degree requirements
PHYSICAL EDUCATION
5
See A.A. degree requirements

Electives

CRJ 110 Introduction to Criminal Justice 5
CRJ 111 The Police Function 5
CRJ 112 The Judicial Function 5
CRJ 113 The Correctional Function 5
CRJ 114 Community and the Justice System 5
CRJ 201 Criminal Law 5
CRJ 202 Constitutional Law 5
CRJ 203 Criminal Procedure 5
Total Credits for Area of Emphasis 105


## PRELAW EMPHASIS

Since most law schools do not prescribe a rigid prelaw curriculum, students intending to enter law school should tailor subject selection to provide strong foundations in writing, speaking, studying, and logical thinking. Social science is frequently the undergraduate field for the prelaw student, but all law schools require sufficient English to ensure competence in grammar, composition, spelling, and speech. Both mathematics and philosophy promote the capacity to think analytically. In some instances, students who wish to provide a base for future specialization may select some beginning courses related to that specialty. Tax law, for example, could be facilitated by a strong accounting background; patent law by engineering or natural sciences; comparative or international law by foreign language competency and acquaintance with other cultures; criminal and civil law by criminal justice courses. The Political Science Department will be pleased to assist prelaw students.


## POLITICAL SCIENCE EMPHASIS

This emphasis leads graduates through university transfer to a wide variety of careers in governmental service, teaching, law practice, or journalism. For further information on career or transfer possibilities, call the Behavioral and Social Science Division.

Recommended degree requirements for area of emphasis:

## COMMUNICATIONS

CREDITS
See A.A. degree requirements
HUMANITIES
See A.A. degree requirements and consult with advisor.
BEHAVIORAL AND SOCIAL SCIENCE
Select one of the following:
PSY 101 General Psychology I 5
SOC 101 Introduction to Sociology I 5
Also:
POS 101 Introduction to Political Science 5
POS 111 American Government
POS 118 State and Local Governments 5
PHYSICAL EDUCATION
5
See A.A. degree requirements
MATHEMATICS AND SCIENCE
See A.A. degree requirements
Electives
Select courses in political science, history, and humanities in consultation with advisor.

Total Credits for Area of Emphasis 96


## SOCIAL SCIENCE EMPHASIS

An understanding of human society is necessary for the informed citizen in today's world. The Social Science curriculum is designed to fulfill this purpose as well as to provide specialized training for those desiring it. Employment opportunities include teaching, research, social work, prelaw, law enforcement, government, and other fields where an understanding of human beings and human institutions is highly desirable, if not required.

Recommended degree requirements for area of emphasis:
CREDITS
COMMUNICATIONS
15
See A.A. degree requirements
HUMANTIES
See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE 15
GEO 105 World Geography 5
$\begin{array}{lll}\text { PSY } 101 & \text { General Psychology I } & 5 \\ \text { POS } 111 & \text { American Government } & 5\end{array}$
POS 111 American Government 5
Consult with an advisor to determine which of these courses will apply to the A.A. degree "area" requirements and which will apply to "elective" requirements. All of the above courses are required to complete this emphasis.5
See A.A. degree requirements
MATHEMATICS AND SCIENCE 15
See A.A. degree requirements
Electives * 31
*ECO 201 Principles of Macroeconomics 5
*HIS 103 Western Civilization III 5
*SOC 101 Introduction to Sociology I 5
*POS 118 State and Local Governments 5

Select an additional two credit hours in consultation with advisor.
Total Credits for Area of Emphasis 96


## COLORADO ALCOHOL AND DRUG ABUSE CERTIFICATION PROGRAM AND EMPHASIS: DRUG/ALCOHOL COUNSELORI

## PROGRAM DESCRIPTION:

Completion of certificate requirements will fulfill academic and field experience requirements established by the Colorado Department of Health's Alcohol and Drug Abuse Division (ADAD), allowing the student to apply to work in certified drug/alcohol treatment centers and to apply for ADAD certification as a COUNSELOR I. Students may simultaneously work toward the completion of an A.A. degree and the Counselor I certificate by using certificate requirements as an area of emphasis within their degree program.

## POTENTIAL OPPORTUNITIES:

Cerified Drug/Alcohol Treatment Counselors are employed by treatment centers, hospitals, and private clinics. ADAD certification is required of all employees working in certified treatment centers in Colorado.

## REGISTRATION REQUIREMENTS:

The Advisors for the Program are Roger DeWitt (Ft. Lupton, South Campus) and Robert Shellenberger (Greeley Campus).

## COUNSELORI CERTIFICATE REQUIREMENTS

CREDTS

| PSY 287 | Client Records Management | 3 |
| :---: | :---: | :---: |
| PSY 288 | Basic Therapeutic Skills | 4 |
|  | PLUS |  |
| 1,000 hours of field experience in state approved treatment center. Students |  |  |
| may receive academic credit for field experience hours by enrolling in: |  |  |
| PSY 267 | Field Experience A | 10 |
| PSY 268 | Field Experience B | 10 |
| PSY 269 | Field Experience C | 10 |
|  | Electives from list, below | 15 |
| Total Credits for Certificate |  | 52 |
| Electives |  |  |
| PSY 131 | Theory and Practice of Counseling | 5 |
| PSY २21 | Abnormal Psychology | 5 |
| PSY 241 | Biofeedback I | 5 |
| PSY 225 | Advanced Counseling | 5 |
| PSY 289 | Intro to Addictive Behaviors | 5 |
| PSY 217 | Group Counseling | 5 |
| PSY 297 | Psychology of Substance Abuse in Young Adults and Adult Criminals | 3 |
| PSY 229 | Alcohol and Substance Abuse | 3 |
| HEN 107 | Advanced Red Cross First Aid | 5 |

## UPGRADING CERTIFICATION

In addition to clinical work experience and the completion of an A.A., B.A., or other degree, the State of Colorado will upgrade Counselor I certificate holders to Counselor II or Counselor III after completion of certain course work.

## COLORADO ALCOHOL AND DRUG ABUSE CERTIFICATION PROGRAM DRUG/ALCOHOL COUNSELOR II AND COUNSELOR III EMPHASIS <br> The following courses may be used to upgrade Counselor I certificate holders to Counselor II or Counselor II certificate holders to Counselor III.

Recommended degree requirements for area of emphasis:
CREDTS
COMMUNICATIONS
See A.A. degree requirements
HUMANTIES
See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE
PSY 101 General Psychology I 5
See A.A. degree requirements
PHYSICAL EDUCATION 5
See A.A. degree requirements
MATHEMATICS AND SCIENCE
See A.A. degree requirements
ELECTIVES: STUDENTS MUST SELECT A MINIMUM OF 31 ELECTIVE

CREDITS
PSY 131 Theory \& Practice of Counseling 5
PSY 225 Advanced Counseling 4
PSY 221 Abnormal Psychology 5
PSY 289 Introduction to Addictive Behaviors 5
PSY 217 Group Counseling 5
PSY 219 Resistant Client 2
PSY 297 Psychology of Substance Abuse in Adults and Adult Offenders
*PSY 138 Biofeedback and Stress Management 4
*PSY 244 Biofeedback and Heath 5
*PSY 241 Biofeedback I
${ }^{*}$ (The Biofeedback classes are pending approval from the State of Colorado)

## PROGRAM ADVISING

The Program Advisor will assist students who are ADAD certified Counselor I or Counselor II to select courses from the above Electives which will lead to certificate upgrading.

## ALCOHOL AND DRUG ABUSE COUNSELOR ADVISORY COMMITTEE

| B. J. Dean, | Judith Hayes |
| :--- | :--- |
| Island Grove Treatment | Adams County School |
| Centers, Greeley, Ft. Lupton | District \#50 |
|  |  |
| Robert Pound, | Jacqueline Crick |
| Mercy Medical Center | Governor's Task Force |
| Denver | on Drug Abuse |

David Mundy
Counselor III

## FAMILY AND LIFE EDUCATION

John Turner, M.A.
Division Director
Behavioral \& Social Science
Aims Community College

Mellie Brand, M.A.
Program Director
Aims Community College
North Colorado Medical Center

## STAFF COORDINATORS

Joan Danford, B.A. - Parent and Professional Education
Kathleen Stevens, R.N. - Expectant Families
SENIOR EDUCATION PROGRAM

John Turner, M.A.
Division Director
Behavioral and
Social Sciences
Aims Community College

Susan Malmstadt, M.A.
Director, Senior Education Program Behavioral and Social Science
Aims Community College


# COMMUNICATIONS \& HUMANITIES DIVISION 

Division Director: Division Secretary:
Secretary:
Location
Telephone:

FULL-TIME FACULTY AND AFFILIATED PERSONNEL:
Jane Abbott, Division Chair, West Campus
Christa Adams, Division Director
Dirksen Bauman, Composition, Humanities
Alysan Broda, Department Chair, Speech
Jose Fajardo, Spanish
Chuck Fisher, Assistant Chair, Writing Center
Nancy Martz, Humanities, Composition
Michael Ort, Writing Center Coordinator
Tony Park, Composition, Humanities
Keith Reierstad, Division Chair, South Campus
Tedd Runge, Chairman, Design \& Creative Studies
Ruth Slomer, Speech
Ken Sauer, Chairman, Communications Media
Dorothy Stewart, Literature, Composition
Ralph Tarnasky, Department Chair, Foreign Language
Barbara Van-Nix, Composition, Humanities
Diane Vantine, Humanities, Literature, Composition
Russ Ward, Department Chair, English

## COMMUNICATIONS AND HUMANITIES SCHOLARSHIP

AWARD:
Awarding Division:
Award Amount: Application Deadline:

Qualifications:

WRITING AWARD
Communications/Humanities
$\$ 100$ cash prize and framed certificate
No deadline. Recipient chosen by instructors
Contact awarding Division for criteria


## BUSINESS TRANSFER EMPHASIS

ADVISORS: Dirksen Bauman, Alysan Broda, Anthony Park, Ruth Slomer, and Barbara Van-Nix - Greeley Campus Jane Abbott - West Campus<br>Keith Reierstad - South Campus

Communications/Humanities faculty advise those students who plan to complete an A.A. degree at Aims and then obtain a business degree at a four-year institution. Business transfer degrees are complex for two reasons: (1) university Business Departments are often reticent to accept business transfer courses; and (2) university business requirements are diverse. Therefore, the Business Transfer Emphasis is designed not only to inform students interested in a fouryear business degree, but also to alert them of the need to consult a competent advisor.

Because different universities have different requirements, it is necessary that all (Full \& P/T) students in this emphasis have one of the above listed advisors.

The Business Transfer Program is designed for students who are interested in pursuing a four-year degree in business. The Business Transfer Emphasis combines general education classes with specific Business courses.

Recommended degree requirements for area of emphasis:

## CREDITS

COMMUNICATIONS
See A.A. degree requirements
HUMANITIES
15
See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE 15
See A.A. degree requirements
PHYSICAL EDUCATION 5
See A.A. degree requirements
MATHEMATICS AND SCIENCE
See A.A. degree requirements

| Electives | 31 |  |
| :--- | :--- | :--- |
| Select electives based on transfer institution requirements |  |  |
| SEE ADVISOR |  |  |
| ACC 101 | Principles of Accounting I | 5 |
| ACC 102 | Principles of Accounting II | 5 |
| ACC 103 | Principles of Accounting III | 5 |
| BIS 105 | Introduction to Computer Applications I | 5 |
| BUS 143 | Advanced Communications | 5 |
| BUS 119 | Legal Environment of Business | 5 |
| ECO 201 | Principles of Macroeconomics | 5 |
| ECO 202 | Principles of Microeconomics | 5 |
| POS 101 | Introduction to Political Science | 5 |
| STA 201 | Statistics for Business, Science, and |  |
|  | Social Science | 5 |
| STA 202 | Statistics for Business, Science and |  |
|  | Social Science II | 5 |

Total Credits for Area of Emphasis

## COMMUNICATIONS MEDIA EMPHASIS

## ADVISORS: Ken Sauer and Scott Lowe

This emphasis in Communications is for students who wish to transfer to a four-year college for a major in this area, or for students who wish to complete two years of college and go immediately into a career. For information on careers in the field, students may consult brochures available in the Communications and Humanities Division Office or the Career Resource Center.

Students preparing for this area of study should ensure proper preparation in writing and speaking skills. Assessment in reading and writing is a requirement before registering in this major emphasis.
Recommended degree requirements for area of emphasis:
CREDITS

## COMMUNICATIONS

The following courses are required:
ENG 121 English Composition I 5
ENG 122 English Composition II 5
SPE 115 Principles of Speech Communication 5
HUMANIIES 15
Students will take three courses from at least two different disciplines. The following course is required of all students:
HUM 121 Survey of Humanities I 5
Students will select the other two courses from those listed below:
ART 111 Art History I 5
SPA 111 Spanish Language I 5
LIT 115 Introduction to Literature 5
MUS 120 Music Appreciation 5
PHI 111 Introduction to Philosophy 5
THE 211 Development of Theatre I 5
THE 212 Development of Theatre II 5
BEHAVIORAL AND SOCIAL SCIENCE 15
See A.A. degree requirements
MATHEMATICS AND SCIENCE
See A.A. degree requirements
PHYSICAL EDUCATION 5
Electives See A.A. degree requirements 31

COM 112 Introduction to Mass Media 5
COM 113 Introduction to Radio Broadcasting I 5
COM 213 Introduction to Radio Broadcasting II 5
COM 114 Introduction to Television Broadcasting I 5
COM 214 Introduction to Television Broadcasting II 5
COM 118 Introduction to Audio Production 5
COM 210 Newswriting I 5
COM 211 Newswriting II 5
COM 245 Broadcast Copywriting and Production 5
COM 260 Broadcast Sales/Management 5
COM 291 TV Field Production Lab I (6 hours) 3
COM 298 Mass Media Internship 5
COM 299 Communications Practicum 1-3
Total Credits for Area Emphasis

## LITERATURE EMPHASIS

ADVISORS: Dirksen Bauman, Nancy Martz, Tony Park, Dorothy Stewart, Barbara Van-Nix, and Diane Vantine Greeley Campus Jane Abbott - West Campus Keith Reierstad - South Campus
The Literature Emphasis is intended for the growing number of students interested in communications, literature, or other humanities related studies.

The Literature Emphasis is intended to be transferable to a fouryear college or university for a variety of literature and other humanities related majors. Humanities and Elective courses should be selected with the help of an advisor to fit the student's interests and intended concentration within the field. Information on careers in the field can also be obtained from the student's advisor.

Students preparing for this area of study should acquire adequate preparation in writing, reading, and speaking. Assessment in reading and writing skills is required before the student registers for the Literature Emphasis. Skills-building courses may be necessary before the student can undertake literature and/or humanities courses.

## Recommended degree requirements for area of emphasis:

## COMMUNICATIONS

## The following courses are required:

ENG 121 English Composition I 5
ENG 122 English Composition II 5
SPE 115 Principles of Speech Communication 5
HUMANITIES 15
Students will take three courses from al least two different disciplines.
The following course is required of all students:
HUM 121 Survey of Humanities I 5
Students will select the other two courses from those listed below:
LIT 115 Introduction to Literature 5
LIT 201 Masterpieces of Literature I 5
LIT 202 Masterpieces of Literature II 5
HUM 122 Survey of Humanities II 5
HUM 123 Survey of Humanities III 5
BEHAVIORAL AND SOCIAL SCIENCE 15
See A.A. degree requirements
MATHEMATICS AND SCIENCE
15
See A.A. degree requirements
PHYSICAL EDUCATION
See A.A. degree requirements 31

| LlT 116 | The American West | 51 |
| :--- | :--- | ---: |

LIT 206 Shakespeare: Representative Plays 5
LIT 215 Science Fiction 5
LIT 217 Women in Literature and Media 5
LIT 286 Studies in Literature 5
ENG 226 Creative Writing 3-5
THE 211 Development of Theatre I 5
THE 212 Development of Theatre II 5
HUM 105 World Mythology 3-5
HUM 109 Modern American Culture 5
ART 111 Art History I 5
ART 112 Art History II 5

In the study of design and the arts, students may work to deepen their understanding of human expression and invention, to strengthen their sensory skills, to develop creative thinking abilities, and to create their own unique expressions, images, or objects.

Some transfer-level courses may be taken as general education requirements; others serve as electives within the program, or as course work toward a four-year program in design, visual arts, music, or theatre. Each course is not offered quarterly; some are offered annually, biannually, or on demand. (See Aims Quarterly Class Schedule.)

The curriculum for each area of emphasis is developed to fulfill both transfer university program requirements and needs of Northern Colorado firms offering work opportunities. Students who have specific plans for transfer should consult the faculty in Design and Creative Studies to choose appropriate course combinations. Areas of emphases are intended as guides and do not designate major requirements in a specific four-year designate program.

Students wishing to enroll in art, music, or theatre courses solely for recreational purposes are advised to register for one of the nontransferable "community" classes. These courses are not applicable to the degree programs of the college.


## DESIGN EMPHASIS

Recommended degree requirements for area of emphasis:
COMMUNICATIONS
See A.A. degree requirements
HUMANTIES
Students will take three courses from at least two different disciplines. The following course is required of all students:
HUM 121 Survey of Humanities I 5
Students will select the other two courses from those listed below.
ART 111 Art History I 5
ART 112 Art History II 5
MUS 120 Music Appreciation 5
MUS 121 Introduction to Music History I 5
MUS 122 Introduction to Music History II 5
THE 211 Development of Theatre I 5
THE 212 Development of Theatre II 5
BEHAVIORAL AND SOCIAL SCIENCE 15
See A.A. degree requirements
PHYSICAL EDUCATION
See A.A. degree requirements
MATHEMATICS AND SCIENCE 15
See A.A. degree requirements

## Electives

Select from the following courses, with advisor approval:
(These are required prerequisites in most college art and design programs.)
AAD 101 Fundamentals of Art \& Design I 5
AAD 102 Fundamentals of Art \& Design II 5
AAD 131 Drawing I 3
AAD 132 Drawing II 3
ART 111 Art History I 5
ART 112 Art History II 5
Select from the following studio design courses, with advisory approval:
ART 100 Art Appreciation 5
ART 113 Art History III 5
AAD 128 Computer Graphics I 3
AAD 129 Computer Graphics II 3
AAD 221 Graphic Design I 3
AAD २२2 Graphic Design II 3
AAD 223 Graphic Design III 3
AAD 225 Calligraphyl 3
AAD 226 Calligraphy II 3
AAD 227 Calligraphy III 3
AAD 231 Figure Drawing I 3
AAD 232 Figure Drawing II 3
AAD 235 Graphic Illustration 3
AAD 241 Photography I 3
AAD 242 Photography II 3
AAD 243 Photography III 3
AAD 244 Photography IV 3
AAD 251 Interior Design I 3
AAD 252 Interior Design II 3
AAD 253 Interior Design III 3
ARS 243 Water Medial 3
ARS 244 Water Media II 3
Total Credits for Area of Emphasis 96

## FINE ARTS EMPHASIS

The Fine Arts Emphasis may be directed toward teacher preparation. Two options are available to the student: Art, or Theatre. All students complete the same total minimum requirements ( 65 credits) for the A.A. degree. In choosing the remaining elective courses ( 31 credits) to complete the A.A. degree ( 96 credits), the student selects from either the Art electives listed, or from the Theatre electives listed.

Recommended degree requirements for area of emphasis:
CREDTS

## COMMUNICATIONS

See A.A. degree requirements
HUMANTIES
ART 111 Art History I 5
ART 112 Art History II 5
MUS 120 Music Appreciation 5
MUS 121 Introduction to Music History I 5
MUS 122 Introduction to Music History II 5
THE 211 Development of Theatre I 5
THE 212 Development of Theatre II 5
See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE
See A.A. degree requirements
PHYSICAL EDUCATION
See A.A. degree requirements
MATHEMATICS AND SCIENCE
See A.A. degree requirements
Electives - Art
Select from the following courses with advisor approval:
(These are required prerequisites in most college art and design programs.)

| AAD 101 | Fundamentals of Art \& Design I | 5 |
| :--- | :--- | :--- |
| AAD 102 | Fundamentals of Art \& Design II | 5 |
| AAD 131 | Drawing I | 3 |
| AAD 132 | Drawing II | 3 |
| ART 111 | Art History I | 5 |
| ART 112 | Art History II | 5 |

AAD 131 Drawing 1
AAD 131 Drawing I 3
AAD 132 Drawing II 3
ART 111 Art History I 5
ART 112 Art History II 5

Select from the following studio art courses, with advisor approval:
ART 100 Art Appreciation
ART 113 Art History III 5
AAD 225 Calligraphy I 3
AAD 226 Calligraphy II 3
AAd 227 Calligraphy III 3
AAD 231 Figure Drawing I 3
AAD 232 Figure Drawing II 3
ARS 100 Textile Cratts \& Design 3
ARS 125 Hand Built Clay I 3
ARS 126 Hand Built Clay II 3
ARS 127 Hand Built Clay III 3
ARS 131 Stained Glass I 3
ARS 132 Stained Glass II 3
ARS 241 Painting | 3
ARS 242 Painting II 3
ARS 243 Water Medial 3
ARS 244 Water Media II 3
ARS 251 Sculpture I 3
ARS 252 Sculpture II 3
ARS 261 Jewelry and Metalwork I 3
ARS 262 Jewelry and Metalwork II 3
ARS 271 Pottery and Ceramic Design I 3
ARS 272 Pottery and Ceramic Design II 3
ARS 273 Pottery and Ceramic Design III 3
ARS 274 Pottery and Ceramic Design IV 3
ARS 281 Weaving I 3
ARS 282 Weaving II 3
Total Credits for Area of Emphasis 96
Electives - Theatre 31
Select from the following courses, with advisor approval:
THE 116 Screen Acting I 3
THE 117 Screen Acting II 3
THE 118 Screen Acting III 3
THE 211 Development of Theatre I 5
THE 212 Development of Theatre II 5
THE 299 Theatre Practicum 1-3
Total Credits for Area of Emphasis 96


## MUSIC EMPHASIS

The Music Emphasis is designed for those starting a career in music. This program combines units of study in three areas: Applied Lessons, Music Theory and Music History.

Two courses in Music Theory and two in Music History are recommended. The normal sequence of theory courses starts with Music Fundamentals. Music History courses can be used for Humanities credits. The balance of the 31 credits is to be filled with Applied Lessons.

Guitar and Vocal students in the Music Emphasis program should take three quarters of piano. Piano students in the Musical Emphasis program should take three quarters of any combination of voice and guitar classes.

Recommended degree requirements for area of emphasis: CREDITS

## COMMUNICATIONS

 15See A.A. degree requirements

## HUMANTIES

Students will take three courses from at least two different disciplines. The following course is required of all students:

HUM 121 Survey of Humanities I 5
Students will select the other two courses from those listed below.
ART 111 Art History I 5
ART 112 Art History II 5
MUS 120 Music Appreciation 5
MUS 121 Introduction to Music History I 5
MUS 122 Introduction to Music History II 5
THE 211 Development of Theatre I 5
THE 212 Development of Theatre II 5
See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE 15
See A.A. degree requirements
PHYSICAL EDUCATION 5
See A.A. degree requirements
MATHEMATICS AND SCIENCE
15
See A.A. degree requirements
ELECTIVES - MUSIC
Select from the following courses, with advisor approval:
MUS 105 Fundamentals of Music I 5
MUS 115 Fundamentals of Music II 5
MUS 106 Music Theory I 4
MUS 107 Music Theory II 4
MUS 111 Music Expressions I ..... 1
MUS 112 Music Expressions II ..... 1
MUS 113 Music Expressions III ..... 1
MUS 220 Teaching Music to Children ..... 3
MUS 299 Music Practicum ..... 1-3
MUP 101 Keyboard Expressions I* ..... 2
MUP 102 Keyboard Expressions II* ..... 2
MUP 103 Keyboard Expressions III* ..... 2
MUP 104 Voice Expressions I* ..... 2
MUP 105 Voice Expressions II* ..... 2
MUP 106 Voice Expressions III* ..... 2
MUP 107 Guitar Expressions I* ..... 2
MUP 108 Guitar Expressions II* ..... 2
MUP 109 Guitar Expressions III* ..... 2
MUP 131 Pianol ..... 2
MUP 132 Piano II ..... 2
MUP 133 Piano III ..... 2
MUP 134 Piano IV ..... 2
MUP 135 Piano V ..... 2
MUP 136 Piano VI ..... 2
MUP 141 Applied Piano I* ..... 2
MUP 142 Applied Piano II* ..... 2
MUP 143 Applied Piano III* ..... 2
MUP 144 Applied Piano IV* ..... 2
MUP 145 Applied Piano V* ..... 2
MUP 146 Applied Piano VI* ..... 2
MUP 151 Voice I ..... 2
MUP 152 Voice II ..... 2
MUP 153 Voice III ..... 2
MUP 154 Voice IV ..... 2
MUP 155 Voice $V$ ..... 2
MUP 156 Voice VI ..... 2
MUP 161 Applied Voice I* ..... 2
MUP 162 Applied Voice II* ..... 2
MUP 163 Applied Voice III* ..... 2
MUP 164 Applied Voice IV* ..... 2
MUP 165 Applied Voice V* ..... 2
MUP 166 Applied Voice VI* ..... 2
MUP 171 Guitar I ..... 2
MUP 172 Guitar II ..... 2
MUP 173 Guitar III ..... 2
MUP 181 Applied Guitar I* ..... 2
MUP 182 Applied Guitar II* ..... 2
MUP 183 Applied Guitar III* ..... 2
MUP 184 Applied Guitar IV* ..... 2
MUP 185 Applied Guitar V* ..... 2
MUP 186 Applied Guitar VI* ..... 2
Total Credits for Area of Emphasis ..... 96
NOTE: * Course requires one-half hour lesson and one hour lecture per week.

# MATHEMATICS \& SCIENCE DIVISION 

Division Director:
Division Secretary: Location:
Telephone:

Walt Richter
Cathie Johnson
Ed Beaty Hall, Room 592
330-8008, Ext, 252

## COMPUTER INFORMATION SYSTEMS EMPHASIS

## (Douglas Clay, Susan Cribelli)

The Computer Information Systems emphasis is for the student who is leaning towards a career in business programming and is interested in transferring to a four year college. This emphasis combines specific courses from both the Mathematics/Science and Business Divisions. These courses will provide exposure to both Computer Science and Business topics such as: computer software, computer programming, accounting, economics and statistics.

Recommended degree requirements for area of emphasis:
CREDITS
COMMUNICATIONS
See A.A. degree requirements
HUMANTIES
See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE
ECO 201 Principles of Macroeconomics 5
ECO 202 Principles of Microeconomics 5
SOC 101 Introduction to Sociology I 5

PHYSICAL EDUCATION
See A.A. degree requirements
MATHEMATICS AND SCIENCE
Select one of the following required Mathematics courses:
MAT 125 Survey of Calculus 5
MAT 135 Introduction to Statistics 5
MAT 121 College Algebra 6
See A.A. degree requirements for Science selection
Select from CSC prefixed courses $\quad \min .5$

## ELECTIVES:

Note: Some colleges and universities may not accept the transfer of courses which are under the School of Occupational Education, while other schools will accept selected courses from these areas. The courses suggested here are intended for transfer to four-year schools. Consult with your advisor regarding the transferability of these courses to the school of your choice.

Select one from the following courses:
CSC 100 The Computer and Society
BIS 110 Introduction to Business Information Systems 5
Select one from the following courses:
CSC 141, CSC 142, CSC 143
Microcomputer Managed Applications
$2,2,3$
BIS 105
Introduction to Computer Applications I

Select any of the following courses:
MAT 115 Mathematics for Decision Making 5
STA 201 Statistics for Bus., Sci., Soc. Sci. I 5
STA 202 Statistics for Bus., Sci., Soc. Sci. Il 5
CSC 101 Introduction to Programming in BASIC 4
CSC 102 Advanced BASIC Programming 4
CSC 110 Introduction to Digital Principles 4
CSC 111 Structured Program Design 3
CSC 121 Programming in PASCAL 5
CSC 201 Programming in FORTRAN 775
CSC 215 Operating Systems 5
CSC 245 Projects in Programming 5
ACC 101 Principles of Accounting I 5
ACC 102 Principles of Accounting II 5
ACC 103 Principles of Accounting III 5
BIS 205 Assembler Language 5
BIS 117 Computer Operations 5
BIS 201 C Programming Language 5
BIS 221 Structured COBOL Programming 5
BIS २२2 Advanced Structured COBOL 5
BUS 200 Business Law 5
Total Credits for A. A. degree 96
For other computer related programs, see the Computer Programming Emphasis and the Computer Science Emphasis under the Associate of Science Degree.


Division Director: Walt Richter
Division Secretary: Cathie Johnson
Sclence Laboratory Coordinator: Kay DeBey
Location: Ed Beaty Hall, Room 592
Telephone: 330-8008, Ext. 252
FULL-TIME FACULTY AND AREAS OF ACADEMIC SPECIALTY
Alan Ackerman, Chemistry and Health Sciences
Larry Batman, Mathematics
Douglas Clay, Computer Disciplines
Sam Cooper, Computer Disciplines and Physics
Susan Cribelli, Computer Disciplines and Statistics
Marsha Driskill, Coordinator, Mathematics, Aims/UNC Math Program
Phil Edwards, Division Chairman, Computer Disciplines, Mathematics
\& Physics, Loveland)
Donald Harris, Chemistry and Chemical Technology
Liz Hull, Division Chariman, Computer Disciplines, Mathematics \&
Physics, Ft. Lupton
Keith Lane, Mathematics
Watt Richter, Division Director, Chemistry and Health Sciences
Karen Robinson, Mathematics and Computer Disciplines
Lyndon Robinson, Geology, Earth Science and Physics
The Mathematics and Science Division is committed to making available quality offerings for the non-science oriented enrollee and the student in need of background improvement, as well as community service programs. The Division also offers more formal freshman and sophomore course work for those students who wish to begin work toward a typical major in biological sciences, chemistry, engineering, computer science, or mathematics. Preparatory course work also is offered in many preprofessional programs that are based upon the life-science and health-science disciplines.

Areas of Emphasis: The Mathematics and Science Division offers students the option of an area of emphasis in the following disciplines: Chemistry, Chemical Testing Technology, Computer Programming, Computer Sciences, Computer Information Systems, Pre-Engineering, Mathematics, Pre-Health Professions, Life Sciences and Pre-Nursing. The courses listed under each emphasis are guidelines to help students identify which courses are the most applicable to their chosen area of interest. This would apply both to students who will complete their education after earning an A.S. Degree (or A. A. Degree) and to students who are planning to transier these courses into a Bachelor's program at the college or university of their choice. It is ultimately the student's responsibility to be informed about the course requirements particular to the Bachelor's program that the student intends to pursue.

A student planning to major in the sciences and/or mathematics or pursue a majority of course work in these disciplines should consult with a faculty advisor in the division at the earliest opportunity in order to plan a program that is appropriate to his or her needs.

The curriculum should be planned to complete one or more of the following:

1. Strengthen and/or broaden the student's background in one or more disciplines relative to individual needs.
2. Satisfy the general requirements for the A.A. degree.
3. Satisty the specific requirements for the A.S. degree.
4. Satisfy the specific requirements for the A.G.S. degree.
5. Satisfy the specific requirements for an area of emphasis in the Mathematics and Science Division. This is usually in conjunction with the A.S. degree.

If Option 5 is selected, it should be noted that the general 96 credit hour requirement for the A.S. degree is not altered; therefore, several additional credit hours of course work may be necessary.

Some students may decide to concentrate their studies in one or more of these following areas and yet not choose to pursue an A.S. Degree. They may prefer to follow the requirements for the A.A. Degree and apply mathematics and science credits to the 31 credit hours required under the A.A. electives category. Using this approach, the student can earn the A.A. Degree and gain substantial knowledge in one or more mathematics and/or science areas.

A student may earn either an A.A. or A.S. Degree using the following emphases as guidelines for course selection. The student should be aware that there are General Education requirements for both the A.A. and A.S. Degrees which involve course selections from the Communications, Humanities, Behavioral and Social Sciences, Mathematics and Science, and Physical Education Divisions. The student is referred to the Degree Requirements section of this catalog for specific course selections from these different areas.

Many of the course suggestions under these areas of emphasis will fulfill the Mathematics and Science general education requirements, for either the A.A. or A.S. Degrees. A number of these courses can be used to fulfill the electives category for the A.A. Degree or the additional mathematics and science requirements for the A.S. Degree. However, a student may not earn either an A.A. or an A.S. Degree by simply taking the courses listed under an area of emphasis.

\author{
MATH AND SCIENCE SCHOLARSHIP <br> AWARD: <br> Awarding Division: Award Amount: <br> Application Deadline: <br> Qualifications:

CHEMICAL RUBBER COMPANY (CRC) CHEMISTRY AWARD <br> Math/Science (Chemistry) Handbook of Chemistry and Physics, Current Edition. Cash value \$ <br> $\qquad$ No deadline. Recipient chosen by instructors. Contact awarding Division for criteria
}

## COMPUTER PROGRAMMING EMPHASIS

## (Douglas Clay, Sam Cooper, Susan Cribelli)

Programming in several high level languages and a general background in information systems are the core of this curriculum. Fitteen credits of mathematics and statistics are included:

## Recommended Courses:

CREDITS
MAT 115 Mathematics for Decision Making 5
STA 201, Statistics for Business, Science and

$$
202 \text { Social Science I, II }
$$

(each) 5
CSC 100 Computer and Society 4

CSC 141, Microcomputer Managed Applications 2-7
142, 143
CSC 144 Programming with dBase 2-3
CSC 101 Introduction to Programming in the BASIC Language
CSC 102 Advanced BASIC 3-4
CSC 111 Structured Program Design 3
CSC 121 Programming in Pascal 5
CSC 201 Programming in FORTRAN 775
CSC 215 Operating Systems 5
CSC 216 Programming the Microprocessor 5
CSC 221, Computer Science I, II (each) 5
222
CSC 232 Programming in ADA
CSC 233 Data Structures and Algorithms 5
CSC 235 Computer Graphics 3
CSC 245 Projects in Programming 4
BIS 201 C Programming Language 5
BIS 221 Structured COBOL Programming 5
BIS २२२ Advanced Structured COBOL 5
General Education Courses
Note: Some colleges and universities may not accept the transfer of courses which are under the School of Occupational Education, while other schools will accept selected courses from these areas. The Courses suggested here are intended for transfer to four-year schools. Consult with your advisor regarding the transferability of these courses to the school of your choice.

## COMPUTER SCIENCE EMPHASIS

## (Douglas Clay, Sam Cooper)

This option provides specialized courses in the theory, functions, architecture and applications of computer hardware and software. Mathematics and statistics are an integral part of this curriculum.

## Recommended Courses:

CREDITS
MAT 121 College Algebra 6
MAT 122 College Trigonometry 5
MAT 201, Calculus I, II, III (each) 5
202, 203
MAT 261 Linear Algebra 5
STA 201, Statistics for Business, Science, and Social
202 Science I, II
CSC 101 Introduction to Programming in the BASIC Language
(each) 5
CSC 102 in the BASIC Language 4
CSC 111 Structured Program Design
CSC 121 Programming in Pascal 5
CSC 201 Programming in FORTRAN 775
CSC 215 Operating Systems 5
CSC 216 Programming the Microprocessor 5
CSC 221, Computer Science I, II (each) 5
२22
CSC 232 Programming in ADA 5
CSC 233 Data Structures and Algorithms 5
CSC 235 Computer Graphics 3
CSC 245 Projects in Programming 4
General Education Courses

## COMPUTER INFORMATION SYSTEMS EMPHASIS

See program requirements under A.A. Degree, area of emphasis. (page 54)


## CHEMISTRY EMPHASIS

## (Alan Ackerman, Don Harris)

Chemistry is one of the most basic yet diverse of the sciences.Options include a professional career in chemistry or preparation to enter professional schools in, for example, pharmacy or veterinary medicine. Mathematics and physics are important corequisites for the chemistry student.

CREDTTS
INTIIAL COURSE BLOCK:
CHE 111, General College Chemistry I, II, III
(each) 5
112, 113
MAT 121, College Algebra 6
MAT 122 College Trigonometry 5
MAT 201 Calculus I 5
General Education Courses
TERMINAL COURSE BLOCK:
CHE 201, Organic Chemistry I, II, III
(each) 5
202, 203
MAT 202, Calculus II, III
(each) 5
203
PHY 211, Physics: Calculus -based I, II, III
(each) 5
212, 213
CSC 201 Programming in FORTRAN 77
General Education Courses
Note: This emphasis includes College Algebra and Trigonometry which may transfer as electives only. Consequently, students entering at this level may require a longer period for completion of the baccalaureate degree.


## CHEMICAL TESTING TECHNOLOGY EMPHASIS

## (Don Harris)

This emphasis is designed to train chemical laboratory testing technicians who will be qualified for immediate employment as chemical technicians or research assistants in area industries. They may enter such diverse fields as film processing, soil testing, sugar and associated product manufacture, animal assay, cement manufacture and research, and general analytical laboratory testing involving physical and chemical analysis. This course of study is also designed for transfer to four-year colleges and universities. Consult faculty advisor for details.

INITIAL COURSE BLOCK:
CREDTTS
Required:
CHE 111, General College Chemistry I, II, III (each) 5
112, 113
CHE 115, Chemical Technology I (each) 1
116
MAT 121 College Algebra 6
CSC 101 Introduction to Programming in
the BASIC Language
HEN 106 Safety and First Aid 3
General Education Courses
Recommended:
GEY 111 Physical Geology 5
PHY 111, Physics: Algebra-based I, II, III (each) 5
112,113
MAT 201 Calculus I 5
BIO 105 Science of Biology 5
TERMINAL COURSE BLOCK:
Required:
CHE 201, Organic Chemistry I, II, III
(each) 5
202, 203
CHE 215, Chemical Technology II (each) 1
216
CHE 2२5, Chemical Technology III
(each) 1
226
CHE 235, Chemical Technology IV
(each) 1 236
General Education Courses
Recommended:
CHE 295 Independent Study - Chemical Literature and Study Methods

1
MAT 135 Introduction to Statistics 5
CSC 201 Programming in FORTRAN 775
BIO 216 Introduction to Microbiology 5
CHEMICAL TESTING TECHNOLOGY ADVISORY COMMITTEE
Bill Beard
U.S. Department of
Agriculture

Anthony Herold
United Agri Products

Ed Lee
Monfort of Colorado

Larry Scott
Triple s. Labs

## PRE-ENGINEERING EMPHASIS

## (Larry Batman, Keith Lane, Karen Robinson)

Engineering is involved with all facets of modern technology. As such, it is a highly specialized area of study. This curriculum is designed to give the student basic courses, which may be applied to different engineering specialties at the baccalaureate level.

INITIAL COURSE BLOCK:
CREDITS
MAT 121, College Algebra
MAT 122 College Trigonometry
MAT 201, Calculus I, II, III
202, 203
CSC 121 Programming in Pascal
CSC 201 Programming in FORTRAN 77 5
CHE 111, General College
112, 113 Chemistry I, II, III
(each) 5
General Education Courses
TERMINAL COURSE BLOCK:
STA 201, Statistics for Business, Science and
202 Social Science, I, II
(each) 5
PHY 211, Physics: Calculus-based I, II, III (each) 5
212, 213
MAT 261 Linear Algebra 5
MAT 262 Calculus IV 5
MAT 263 Elementary Differential Equations 5
General Education Courses
Note: This emphasis contains College Algebra and Trigonometry which may transfer as electives only. Consequently, students may require a longer period of time to complete the baccalaureate degree.

## MATHEMATICS EMPHASIS

## (Larry Batman, Keith Lane, Karen Robinson)

Students may complete the first two years of a typical requirement through Elementary Differential Equations. This area of emphasis is also the basis of study for chemistry, computer science, engineering, physics, and statistics.

## INITIAL COURSE BLOCK:

CREDTS
CSC 101 Introduction to Programming in the BASIC Language
CSC 111 Structured Program Design 3
CSC 201 Programming in FORTRAN 775
MAT 121, College Algebra 6
MAT 122 College Trigonometry 5
MAT 201, Calculus I, II, III (each) 5
202, 203
STA 201, Statistics for Business, Science and
202 Social Science I, II
(each) 5
General Education Courses
TERMINAL COURSE BLOCK:
MAT 261 Linear Algebra 5
MAT 262 Calculus IV 5
MAT 263 Elementary Differential Equations 5
PHY 211, Physics: Calculus-based I, II, III (each) 5
212, 213
General Education Courses
Note: This emphasis contains College Algebra and Trigonometry which may transfer as electives only. Consequently, students may require a longer period of time to complete the baccalaureate degree.


## LIFE SCIENCES EMPHASIS

## (Lyn Robinson)

Students entering into biological sciences may prepare for a variety of fields such as biology, wildlife management, forestry, and biology teaching. Some fields require modified programs and students should plan this area of emphasis carefully with their advisors.

## INTIAL COURSE BLOCK:

CREDITS
BIO 111, General College Biology I, II, III
112, 113
CHE 111, General College Chemistry I, II, III
112, 113
MAT 121 College Algebra
General Education Courses

## TERMINAL COURSE BLOCK:

BIO 211, Human Anatomy and Physiology I, II, III (each) 5
212, 213
BIO 216 Introduction to Microbiology
STA 201, Statistics for Business, Science, and
202 Social Science I, II
(each) 5

## PRE-HEALTH PROFESSION EMPHASIS

This emphasis is designed for persons who want to enter various health-care professions other than nursing. The typical program would prepare students for further study in such areas as prephysical therapy, pre-veterinary medicine, pre-dentistry, pre-medicine, and pre-chiropractic medicine. Some fields require modified programs and should be planned with the assistance of an advisor.

INITIAL COURSE BLOCK:
CREDITS
BIO 111, General College Biology I, II, III
112, 113
CHE 111, General College Chemistry I, II, III
(each) 5
112, 113
PHY 111, Physics: Algebra-based I, II, III
112, 113
STA 201 Statistics for Business, Science, and Social Science I

5
General Education Courses
TERMINAL COURSE BLOCK:
BIO 211, Human Anatomy and Physiology I, II, III
(each) 5
212, 213
BIO 216 Introduction to Microbiology
General Education Courses


## PRE-NURSING EMPHASIS

## (Alan Ackerman, Walt Richter)

This curriculum is designed to provide the student with the general education, statistics and basic science requirements that will transfer into a university program leading to the Bachelor of Science in Nursing Degree (BSN). The course work can be chosen to lead to either an A.A. or A.S. Degree, or the student may opt to take a number of required courses and transfer into the program without earning an Associate Degree. The student should contact the PreNursing advisor for help in choosing the proper courses.

Recommended Courses:
CREDITS
MAT 135 Introduction to Statistics 5
CHE 110 Introduction to Inorganic Chemistry 5
CHE 120 Introduction to Organic Chemistry 5
CHE 210 Introduction to Human Biochemistry

BIO 211,
212, 213
PSY 166 Developmental Psychology 5
SOC 101 Introduction to Sociology I 5
ANT 101 Cultural Anthropology 5
General Education Courses
Note: Aims can also provide the essential science and general education courses which are required for two year Nursing programs leading to the Associate Degree Nursing, (ADN). The college has established transfer agreements with area community colleges who do offer this program. Contact the Pre-Nursing advisor in the Mathematics and Science Division for details.



# DEVELOPMENTAL STUDIES 

Division Director: Location:

Division Secretary:
Telephone:

Anna Maria Rios
330-8008, Ext. 406

FULL-TIME FACULTY AND AFFILIATED PERSONNEL<br>Katherine Bauer, Reading Lab Coordinator<br>E.C. "Vera" Benevidez, English as a Second Language, South Campus<br>Robert Bess, Reading<br>Donald Butler, Division Director<br>Ruth Gomez, Reading \& Adult Basic Education<br>Phyllis Gosch, Reading<br>Barbara Maxfield, GED<br>Karen Soutar, Chair, South Campus<br>Arthur Terrazas, Mathematics<br>Maria Velasquez, English as a Second Language<br>Mary Vigil, Chair, English as a Second Language<br>Julia Wilson, Chair, Mathematics

The Developmental Studies Division plays an important part in the success of many students. New students take assessment tests and talk to advisors to find out whether they are ready to enter a particular course of study program. Some students need to improve their academic skills in order to get a successful start in college; others need to get a high school equivalency cerificate. All of these students receive the instruction they need in the Developmental Studies Division. The courses offered there are in the areas of math, reading, writing, and English as a second language.
The College offers its developmental studies through four programs:

## SURVIVAL ENGLISH AS A SECOND LANGUAGE (ESL)

This program is for students who wish to improve or gain English speaking skills. The courses emphasize verbal skills related to subject matter which is relevant to the adult learners in the class, such as consumer education, jobs, schools, and the community. This program is not intended to be an English preparatory program for students who are seeking entrance to colleges and universities. Foreign students wishing to take this curriculum must have their visa cleared by the Office of Admissions and Records.

## DEVELOPMENTAL EDUCATION

Developmental courses include a sequence of skill development classes in reading, writing, and mathematics. They are contentoriented and designed to prepare students for GED or college skills courses.

## GENERAL EDUCATION DEVELOPMENT

The GED program is designed to help students develop the skills necessary to pass the GED examination in the content areas of mathematics, writing, literature, social science, and science. The program contains group activities, instructor presentations, and individualized activities. Students will be encouraged to study any of the content areas in greater depth than required for the GED in order to prepare themselves for future college or vocational goals. The GED certificate is equivalent to the high school diploma and is
accepted by most employers and schools of higher education. The GED certificate often provides increased opportunities for future education.

## COLLEGE SKILLS PROGRAM

The College Skills Program of Aims Community College is designed for students who want to improve their math, reading, writing, or basic communication skills. The purpose in taking courses in the program may be to improve such skills for greater achievement in college transfer or vocational courses. Students who intend to pursue a program of study may be advised into certain math, writing and reading courses as a result of their pre-assessment test scores.

## DEVELOPMENTAL STUDIES SCHOLARSHIP

AWARD:
Awarding Division:
Award Amount:
Application Deadline:
Qualifications:

ED BEATY MEMORIAL SCHOLARSHIP
Developmental Studies
Tuition waiver for one academic year. (in-district)
May 1
Contact awarding Division for criteria



## SCHOOL OF OCCUPATIONAL EDUCATION <br> Dean: <br> Division Secretary: <br> Paul Gaiser <br> Linda Krause <br> Location: <br> Telephone:

Aims Community College offers a variety of vocational technical courses designed to prepare adults, post high school, and high school students for useful and gainful employment. Persons who wish to prepare for initial employment, who are employed but desire to improve their skills, or who seek a new vocation will find a variety of programs from which to choose.

Supplemental services, which include individual tutoring, are available to assist students in successfully completing their courses. Handicapped students also can receive special assistance if needed.

Since the purpose of occupational education is to prepare students for employment, programs are developed according to the identified needs of business and industry. Advisory committees are formed to provide communication links between business, industry, public service, and education.

Students may enroll in programs leading to a Certificate in Occupational Education or to an Associate of Applied Science degree. Persons enrolling in and successfully completing an occupational course may request a certificate of completion or competency.

The Occupational Education programs are not intended for transfer to baccalaureate degree programs; however, a number of the courses may be accepted towards a bachelor's degree at some institutions. Please consult an academic advisor for further information.

NOTE: Each Associate of Applied Science degree contains a minimum 23 credit hours of "General Education." The prefixes and/or course titles for general education courses are subject to change on short notice in an effort to comply with State Guidelines.

Registration Requirement: All students taking a course or courses in the School of Occupational Education must have an appropriate Occupational Education program advisor's signature on the course registration form before registering.

## JOB PLACEMENT

Each year a large number of students qualify for employment upon graduation or upon completion of a specific course of study in the vocational-technical programs.
A record of available positions, both full and part-time, is kept in the Job Placement Office. This office coordinates all of the College's efforts in assisting students to obtain full-time employment in occupations for which they have been prepared.
The Job Placement Office is located in Trades \& Industry Building. Students interested in full and part-time jobs should contact the Job Placement Office and complete an application for employment. This free service is available to all past and present students of Aims Community College.

## SCHOOL OF OCCUPATIONAL EDUCATION SCHOLARSHIP

AWARD:
Awarding Division:
Award Amount:
Application Deadline:
Qualification:

BERGER SCHOLARSHIP
School of Occupation Education
$\$ 1,500$ up to four awards given.
End of Spring Quarter
Contact the Associated Dean of
Occupational Educational for criteria


## BUSINESS DIVISION

| Division Director: | Ann Aron |
| :--- | :--- |
| Division Secretary: | Cindy Martin |
| Location: | Westview, Room 690 |
| Telephone: | $330-8008$, Ext. 233 |

Students enrolling in Business Division programs will gain the knowledge and skills required for entry into a variety of related occupations. Courses are also offered to enable persons currently employed to improve their skills.
Students entering Aims Community College with high school credit in typewriting, bookkeeping, and/or shorthand may substitute other courses with the consent of their advisor.
A student who intends to enroll in Business Division courses should consult a faculty advisor in the Division at the earliest opportunity to plan a program that is appropriate to his or her needs.

The Business Lab, Westview 606 and 618, is designed to assist students in their various business courses through the use of personal and individualized instruction, instructional media, reference materials, computers, typewriters, and adding \& calculating machines.

## ACCOUNTING

ACCOUNTING
(two-year A.A.S. degree)

## BUSINESS INFORMATION SYSTEMS <br> BUSINESS INFORMATION SYSTEMS (two-year A.A.S. degree)

## GENERAL BUSINESS

OFFICE OCCUPATIONS
(two-year A.A.S. degree)
ADMINISTRATIVE SUPPORT OPTION
LEGAL OFFICE OPTION
OFFICE CLERICAL
(one-year certificate)

## MARKETING/MANAGEMENT

MARKETINGMANAGEMENT (two-year A.A.S. degree) FASHION MERCHANDISING OPTION SUPERVISORY MANAGEMENT OPTION MARKETING OPTION
SMALL BUSINESS MANAGEMENT OPTION
REAL ESTATE
COURSES FOR COLORADO LICENSING

## BUSINESS SCHOLARSHIPS

AWARD:
Awarding Division:
Award Amount:
Application Deadline: Qualifications:

AWARD:
Awarding Division: Award Amount:

Application Deadline: Qualifications:

RUTH J. YOUDER SCHOLARSHIP
Business
Tuition grant. Amount based on available funds.
Spring Quarter
Contact awarding Division for criteria
ARA LIVING CENTERS SCHOLARSHIPS
Business
Tuition grant. Amount based on available funds.
Spring Quarter
Contact awarding Division for criteria

## ACCOUNTING

(Betty Buxman, Kerry Colton, Marthanne Edwards, Ken Neet)
Potential Opportunities: This program is designed to prepare the student for employment in accounting positions which would include: accounts receivable or accounts payable clerk, cash receipts and disbursements clerk, payroll accounting technician, and junior accountant.

Registration Requirement: All students taking a course or courses in a Business Division program must have an appropriate Business Division program advisor's signature on the course registration form before registering.

General Education Requirements: A minimum of 23 quarter credit hours of General Education Courses are required with advisor's approval. The General Education Courses are identified by an asterisk ( ${ }^{*}$ ).
DEGREE PROGRAM

| Degree Requirements: | CREDITS |
| :--- | ---: |

ACC 101 Principles of Accounting I 5
ACC 102 Principles of Accounting II 5
ACC 103 Principles of Accounting III 5
ACC 105 Payroll Accounting 3
ACC 196 Accounting Practicum 1
ACC 197 Computerized Practicum I 1
ACC 198 Computerized Practicum II 1
ACC 201 Intermediate Accounting | 5
ACC 202 Intermediate Accounting II 5
ACC 205 Accounting Systems 5
ACC 206 Cost Accounting 5
ACC 207 Financial Management 5
ACC 208 Lotus 1-2-3 Applications for Business 3
BUS 125 Adding and Calculating Machines 2
*BUS 142 Intermediate Communications 5
*BUS 143 Advanced Communications 3
*MAT 110 Applied Business Mathematics 5
Select one from the following courses: 5
*BIS 105 Introduction to Computer Applications I 5
*BIS 110 Introduction to Business Information Systems 5
Select one from the following courses: 5
*BUS 200 Business Law 5
*BUS 208 Legal Environment of Business 5
Select one from the following courses: 5
*BUS 100 Introduction to Business 5
*BUS 165 Human Relations at Work 5
Select two from the following courses: 3-8
ACC 121 Income Tax Accounting I 5
ACC 122 Income Tax Accounting II 3
ACC 209 Lotus 1-2-3 Applications for Cost Accounting 2
ACC 215 Lotus 1-2-3 Applications for Finance 2
ACC 216 Lotus 1-2-3 Advanced Applications for Business 3
ACC 297 Advanced Computerized Practicum 2
ACC 298 Accounting Practicum II 1

Electives (selected with advisor approval)
9-14
Total Credits for A.A.S. Degree

## ACCOUNTING ADVISORY COMMITTEE

Chuck Anderson
Anderson \& Whitney
Judi Pippin
Aims Community College
Pam Vincent
Hewlett-Packard
Kathy Anderson
Monfort of Colorado


## BUSINESS INFORMATION SYSTEMS

(Cathy Hall, Ruby Loveless, Steve Pellican, Thelma Stephenson)
Potential Opportunities: Students who desire a career as a programmer trainee, computer operator, or microcomputer specialist may elect this curriculum. This program is designed so a student may choose to have an emphasis in the microcomputer environment or in the more traditional mainframe programmer/operator environment.

Logical reasoning, problem-solving ability, perseverance, and inquisitiveness are definite assets to students.

Courses to develop an understanding of business organizations, accounting, and communication skills are included.

Registration Requirement: All students taking a course or courses in a Business Division program must have an appropriate Business Division program advisor's signature on the course registration form before registering.

General Education Requirements: A minimum of 23 quarter credit hours of General Education Courses are required with advisor's approval. The General Education courses are identified by an asterisk (*).

DEGREE PROGRAM

## CREDITS

Degree Requirements:
ACC 101 Principles of Accounting I 5
ACC 102 Principles of Accounting II 5
ACC 197 Computerized Practicum I 1
*BIS 105 Introduction to Computer Applications I 5
*BIS 107 Problem Solving Using Numbers 5
*BIS 110 Introduction to Business Information Systems 5
BIS 111 Computer Concepts I 5
BIS 112 Computer Concepts II 5
BIS 116 Logic Using BASIC 5
BIS 117 Computer Operations 5
BIS 138 MS/DOS Overview 3
BIS 206 New Issues and Developments 5
BIS 211 Structured Systems Analysis 5
BIS 221 Structured COBOL Programming 5
BIS २२2 Advanced Structured COBOL 5
*BUS 142 Intermediate Communications 5
*BUS 143 Advanced Communications 3
Select one from the following courses: 5
BIS 106 RBase for DOS 5
BIS 115 Understanding dBASE 5
Select one from the following courses: 5
*BUS 100 Introduction to Business 5
*BUS 165 Human Relations at Work 5
MGT 208 Small Business Management 5
MGT 212 Marketing Decision Making 5

Select one from the following courses: 5
BIS 126 Report Program Generator II 5
BIS 201 C Programming Language 5
BIS 205 Assembly Language 5
BIS 215 Ventura 5
Select one from the following courses: 5
ACC 103 Principles of Accounting III 5
BIS 136 Unix for Business Applications 5
BIS 137 Writing Computer Documentation 5
BIS 145 Integrated Software 5
BIS 207 Program Maintenance and JCL 5
BIS 216 RBase Programming 5
BIS 235 dBase Programming 5
Electives (selected with advisor approval) 2
Total Credits for A.A.S. Degree 99
BUSINESS INFORMATION SYSTEMS
ADVISORY COMMITTEE

| Richard Boggs | Gary Parker <br> State Farm Insurance <br> Aims Community College |
| :--- | :--- |
| Company |  |
| Marilyn Jenkins | Donn Ruby |
| Hewlett Packard | Weld County |
| Duane Nelson | Vicki Sauer <br> School District Six |
| Monfort of Colorado |  |



## GENERAL BUSINESS

(Ann Aron, Bobbi Benesch, Lucille Eckhardt, Jerry Goddard, Gale Heiman, Judy Leusink, Maxine Marquez, Paul Martin, Trudi Montoya, Sue Musil, Linda Scott)

Potential Opportunities: The programs are designed for persons interested in gaining basic skills and knowledge for positions as a clerk bookkeeper; a secretary in a business, education, or government office; or a legal secretary in a law office, savings and loan, real estate, or insurance office with maintenance and custody of legal records.

Registration Requirement: All students taking a course or courses in a Business Division program must have an appropriate Business Division program advisor's signature on the course registration form before registering.

General Education Requirements: A minimum of 23 quarter credit hours of General Education Courses are required with advisor's approval. The General Education courses are identified by an asterisk (").

OFFICE OCCUPATIONS DEGREE PROGRAM
CREDITS
Degree Core Requirements:
*BIS 105 Introduction to Computer Applications I 5
"BUS 100 Introduction to Business 5
BUS 102 Keyboarding II 4
BUS 103 Keyboarding III 4
BUS 111 Word/nformation Processing I 4
BUS 121 College Bookkeeping I 5
BUS 125 Adding/Calculating Machines 2
BUS 129 Telephone Communications 1
*BUS 142 Intermediate Communications 5
*BUS 143 Advanced Communications 3
BUS 161 Shorthand I 5
BUS 162 Shorthand II 5
*BUS 165 Human Relations at Work 5
"MAT 110 Applied Business Mathematics 5
ADMINISTRATIVE SUPPORT OPTION
Additional Degree Requirements: CREDITS
BUS 104 Keyboarding IV 4
BUS 107 Basic Office Procedures 5
BUS 112 Word/Information Processing II 4
BUS 197 Combined Bookkeeping Practicum 3
BUS 241 Integrated Office Procedures 4
BUS 257 Office Systems Management 4
Electives (selected with advisor approval) 14
Total Credits for A.A.S. Degree 96
LEGAL OFFICE OPTION
Additional Degree Requirements:
BUS 112 Word Information Processing II 4
BUS 115 Legal Keyboarding 4


## MARKETING/MANAGEMENT

(Jim Adams, Claudia Stevens, Maxine Christenson, Elmer Kiekhaefer, Mary Webster)
Program Length: Usually six quarters for Associate of Applied Science degree program. The degree will be awarded in MarketingManagement, with curriculum options available, such as: Fashion Merchandising, Supervisory Management, Marketing, and Small Business Management. Usually two quarters are needed for courses offered in real estate toward completion of the Colorado Real Estate Agent license or the Colorado Real Estate Broker license. No degree is offered in real estate.

A student seeking an Associate of Applied Science degree in MarketingManagement must consult with a MarketingManagement faculty advisor in the Business Division at the earliest opportunity to plan a program that is appropriate to his or her needs. The individual program should be planned to strengthen and/or broaden the student's background in one or more areas relating to individual needs and to satisty the degree requirements.

While the programs described are designed to assist those management students who are interested in pursuing a particular major or in career preparation, these suggested programs should be used only as a guide. Course substitutions may be made when new courses are offered and when the Marketing/Management advisor agrees that alternate courses better fit the career goals and objectives of the student.

Real estate courses are offered for those students interested in taking courses toward preparation for the real estate agent's or broker's license and those interested in real estate for their personal information or investment purposes. Students who want to complete the real estate agent's or broker's license should consult with the real estate faculty advisor in the Business Division.

Aims Community College Marketing/Management Department supports Delta Epsilon Chi (DEC) as a student organization which provides the opportunity for leadership.

Registration Requirement: All students taking a course or courses in a Business Division program must have an appropriate Business Division program advisor's signature on the course registration form before registering.

Marketing/Management General Education Requirements: A minimum of 23 quarter credit hours of General Education Courses are required with advisor's approval. The General Education courses are identified by an asterisk (*).

## MARKETING/MANAGEMENT DEGREE PROGRAM

## Degree Core Requirements:

*BIS 105 Introduction to Computer Applications I 5
*BUS 142 Intermediate Communications 5
*BUS 143 Advanced Communications 3
*BUS 165 Human Relations at Work 5
*MAT 110 Applied Business Math 5
MGT 101 Sales 5
MGT 207 Human Resource Management 5
MGT 211 Principles of Marketing 5
MGT 215 Principles of Management 5
MGT 291 Personal Adjustment to Business 6
MGT 292 Personal Adjustment to Business 6
FASHION MERCHANDISING OPTION
Degree Option Requirements: ..... 40
CREDITS
MGT 105 Principles of Advertising ..... 5
MGT 120 Introduction to Fashion Merchandising
MGT 126 Fashion Buying ..... 4
MGT 127 Fashion Evolution ..... 3
MGT 208 Small Business Management ..... 5
MGT 225 Retail Merchandising ..... 5
MGT 226 Textiles ..... 5
MGT 237 Supervisory Management I ..... 5
MGT 245 Analysis of Fashion Concepts ..... 3
Electives (selected with advisor approval) ..... 4
Total Credits for A.A.S. Degree ..... 99
MARKETING OPTION
CREDTTS
Degree Option Requirements: ..... 20
MGT 102 Advanced Sales ..... 5
MGT 105 Principles of Advertising ..... 5
MGT 206 Sales Management ..... 5
MGT 235 Organizational Environment ..... 5
Select one from the following courses: ..... 5
*BUS 200 Business Law ..... 5
*BUS 208 Legal Environment of Business ..... 5
Select two from the following courses: ..... 9-11
MGT 106 Contemporary Retailing ..... 5
MGT 238 Marketing Research ..... 4
MGT 293 Personal Adjustment to Business ..... 6
Electives (selected with advisor approval) ..... 8-10
Total Credits for A.A.S. Degree ..... 99
SMALL BUSINESS MANAGEMENT OPTION
CREDITS
Degree Option Requirements: ..... 20
BUS 121 College Bookkeeping I ..... 5
MGT 105 Principles of Advertising ..... 5
MGT 208 Small Business Management ..... 5
MGT 212 Management Decision Making ..... 5
Select one from the following courses: ..... 5
*BUS 200 Business Law ..... 5
*BUS 208 Legal Environment of Business ..... 5
Select three from the following courses: ..... 12-15
MGT 106 Contemporary Retailing ..... 5
MGT 209 Entrepreneurship ..... 3
MGT 238 Marketing Research ..... 4
MGT 293 Personal Adjustment to Business ..... 6

Electives (selected with advisor approval) 4-7
Total Credits for A.A.S. Degree

## SUPERVISORY MANAGEMENT OPTION

Degree Option Requirements:
BUS 121 College Bookkeeping I
$-5$
MGT 235 Organizational Environment 5
MGT 236 Labor Law Relations 5
MGT 237 Supervisory Management I 5
MGT 247 Supervisory Management II 5
MGT 293 Personal Adjustment to Business 6
Select one from the following courses: 5
*BUS 200 Business Law 5
*BUS 208 Legal Environment of Business 5
Electives (selected with advisor approval) 8
Total Credits for A.A.S. Degree 99
REAL ESTATE
Courses offered toward completion of the Colorado Real Estate Agent License:
MGT 257 Real Estate Practice and Law 6
MGT 258 Colorado Real Estate Law and Colorado Real Estate Contracts
Elective/Support Courses
MGT 255 Real Estate License Preparation
3
MGT 256 Real Estate Closing and Trust Accounts

MGT 265 Real Estate Finance 2
MGT 266 Real Estate Appraisal 5
MGT 267 Advanced Real Estate Law 1
Courses offered toward completion of the Colorado Real Estate Broker License:

| MGT 256 | Real Estate Closing and Trust Accounts | 3 |
| :--- | :--- | :--- |
| MGT 257 | Real Estate Practice and Law |  |
| MGT 258 | Colorado Real Estate Law and |  |
|  | Colorado Real Estate Contracts | 6 |
| MGT 265 | Real Estate Finance | 3 |
| MGT 267 | Advanced Real Estate Law |  |
|  | 2 |  |
| Elective/Support Courses |  |  |
| MGT 255 | Real Estate License Preparation | 1 |
| MGT 259 | Real Estate Sales Training |  |
|  |  | 3 |

MARKETING/MANAGEMENT/REAL ESTATE ADVISORY COMMITTEE

| Sandra Bodie | Sharon Snyder <br> Conditioning Spa |
| :--- | :--- |
| New Horizons | Kent Turnbaugh |
| Rolland Higgins | JC Penney |
| Higgins Sentry <br> Hardware | Jack Weber <br> Case Realty |
|  |  |



# PUBLIC SERVICE DIVISION 

Dan Peck
Ed Beaty Hall, Room 567
Rose Herberlein, Ext. 269
ESA, Room 903
Betty Barnes, Ext. 239
Ed Beaty Hall, Room 567

The Public Service Division, in addition to the programs listed, has the capability to work individually or collectively with employers to offer Continuing Education, in-service or upgrading training.

Training or classes may be conducted on the job or on campus. Training time may vary from a number of hours or quarters to a one or two year Certificate in Occupational Education program, or to the Associate of Applied Science (A.A.S.) degree program. Some classes are subject to state approval.

Registration Requirement: All students taking a course or courses in a Public Service Division program must have an appropriate Public Service Division program advisor's signature on the course registration before registering.

The Public Service Division offers the following programs:
CRIMINAL JUSTICE
(minimum two-year A.A.S. degree)

CRIMINAL JUSTICE EMPHASIS

BASIC PEACE OFFICER ACADEMY
(nine-month certificate)
FIRE SERVICE TECHNOLOGY
(two-year A.A.S. degree)
OPTION: FIRE PROTECTION TECHNOLOGY FIRE SCIENCE TECHNOLOGY

FIRE SERVICE TRAINING ACADEMY (one-quarter certificate)
VOLUNTEER FIRE SERVICE TRAINING
(certificate)
EMERGENCY MEDICAL TECHNICIAN (certificate)
RADIOLOGIC TECHNOLOGY
(two-year A.A.S. degree)

## OTHER HEALTH SERVICES

GERIATRIC AIDE
(certificate)

## PUBLIC SERVICE SCHOLARSHIPS

AWARD:

Awarding Division:
Award Amount:
Application Deadline: Qualifications:

## AWARD:

Awarding Division: Award Amount:

Application Deadline: Qualifications:

GREELEY MEDICAL FOUNDATION SCHOLARSHIP
Public Service (Geriatric Aide) Reimbursement for books and supplies. Award given quarterly.
Pior to first day of class each quarter Contact awarding Division for criteria

WESTERN MEDICAL SERVICES SCHOLARSHIP<br>Public Service (Geriatric Aide) Tuition reimbursement atter satisfactory employment. Award given quarterly. Prior to first day of class each quarter. Contact awarding Division for criteria

FACULTY AND STAFF
Criminal Justice (Emergency Services Academy)

| Chad Myers | Ext. 451 |
| :--- | :--- |
| Donna Meier | Ext. 453 |
| Sue Beecher | Ext. 313 |

Fire Service (Trades \& Industry Building)

| Jay Franey | Ext. 263 |
| :--- | :--- |
| Don Owens | Ext. 452 |
| Darrel Schneider | Ext. 276 |
| Verne Einspahr | Ext. 461 |

Emergency Medical Service (Emergency Service Academy)
Diana Van Der Ploeg Ext. 449
Linnea Sidi
Ext. 421
Steve Hartwick
Ext. 536
Nancy Hills (CPR)
Ext. 407

Nurse Aide/Health Occupations (Emergency Services Academy) Ruth Lorenson Ext. 312

Radiologic Technology (Ed Beaty Hall)

| Diana Shatraw | Ext. 341 |
| :--- | :--- |
| Debi Knudson | Ext. 419 |
| Luci Evans | Ext. 420 |
| Jennifer Yates | Ext. 436 |



## PUBLIC SERVICE DIVISION, cont.

## CRIMINAL JUSTICE

(Chad Myers, Ext. 451; Donna Meier, Ext. 453; Sue Beecher, Ext. 313)

Program Length: At least two years for Associate of Applied Science degree.

Program Description: This program is structured for the individual seeking either pre-service or in-service education and training.

This program is vitally concerned with both practice and theory in the conviction that neither can stand alone. Sound practice demands sound theory, while advances in knowledge grow out of the realities of practice.

The criminal justice field cries out for compassionate, humane, enlightened, prejudice-free practitioners who fully understand and who believe in the service role that government plays in a free society that guarantees, through them, equity for all its citizens within a very precisely-defined constitutional framework. It is our job to provide the criminal justice field with such people.

This program is concerned with the concept of justice-its implications, its practice, and its demands in relation to the social, political, legal, and economic institutions that define our society. The emphasis is on the total environment in which the justice system operates.
Potential Opportunities: Although an in-depth study of career placement has not been completed, graduates may find positions with various state and local criminal justice agencies.
Registration Requirement: All students taking a course or courses in a Public Service Division program must have an appropriate Public Service Division program advisor's signature on the course registration before registering.
Students do not have to be Criminal Justice majors to enroll in Criminal Justice classes.
Assessment: Anyone taking a Criminal Justice course is expected to have scored a " 13 " in reading and a " 55 " in writing.

## DEGREE PROGRAM

Criminal Justice General Education Courses: A minimum of 23 quarter credit hours of General Education Courses are required with Advisor's approval. The General Education Courses are identified by an asterisk ( ${ }^{*}$ ) to demonstrate that human knowledge is not a disconnected series of specialized subjects but interrelated domains of thought.
NOTE: This program includes changes which are subject to approval by the Colorado Community College and Occupational Education System. Courses listed are subject to change. Students can verity the course offerings with the program director.

## Degree Requirements:

## FRESHMAN LEVEL COURSES

CRJ 110 Introduction to Criminal Justice 5
CRJ 111 The Police Function 5
CRJ 112 The Judicial Function 5
CRJ 113 The Correctional Function 5
CRJ 114 Community and the Justice System 5
CRJ 141 Legal Research/Writing I 3
CRJ 142 Legal Research/Writing II ..... 3
CRJ 143 Legal Research/Writing III ..... 2
SOPHOMORE LEVEL COURSES
CRJ 201 Criminal Law ..... 5
CRJ 202 Constitutional Law ..... 5
CRJ 203 Criminal Procedure ..... 5
CRJ 204 Juvenile Law/Procedure ..... 5
CRJ 205 Civil Law/Procedure ..... 5
CRJ 211 Seminar: Issues in Policing ..... 3
CRJ 212 Seminar: Issues in Criminal Courts ..... 3
CRJ 213 Seminar: Issues in Penology ..... 3
CRJ 248 Seminar: The Etiology of Crime ..... 3
CRJ 249 Seminar: Discretionary Justice/Ethics ..... 5
WRITTEN COMMUNICATIONS ..... 5
*ENG 121 English Composition I OR
*BUS 142 Intermediate Communications
ORAL COMMUNICATIONS ..... 5
*SPE 115 Principles of Speech Communication
MATH ..... 5
"MAT 111 Beginning Algebra OR
*MAT 135 Introduction to Statistics
COMPUTERS ..... 5
*BIS 105 Introduction to Computer Applications I OR
*BIS 110 Introduction to Business Information Systems OR
*CSC 100 The Computer and Society
SOCIAL SCIENCES
(select two (2) from the following courses.)10
*ANT 101 Cultural Anthropology
"MAS 106 Psychology of the Mexican American
*POS 118 State and Local Government
*PSY 101 General Psychology I
*PSY 120 Psychology of Leadership and Management
*PSY 221 Abnormal Psychology
*PSY 288 Basic Therapeutic Skills
*SOC 101 Introduction to Sociology I
*SOC 218 Sociology of Minorities
ELECTIVES10
Classes chosen must have a CRJ prefix and must be made with aCRJ Advisor's prior approval.

A student may select one of the following areas of study which will fulfill the Criminal Justice Elective requirement:
(1) Criminal Justice Generalist
(2) Law Enforcement
(3) Corrections/Detention
(4) Legal Assistant
(Certificated programs, certificated training, on-the-job training, in-sevice training, and worklife experience do not fulfill this Elective requirement)

| Support Courses (Fees may be required) |  |  |
| :---: | :---: | :---: |
|  |  |  |
| CRJ 196 | Seminar in Police Prac/Prob | 1 |
| CRJ 197 | Seminar in Police Prac/Prob | 2 |
| CRJ 198 | Seminar in Police Prac/Prob | 3 |
| CRJ 199 | Seminar in Police Prac/Prob | 4 |
| CRJ 250 | Advanced Officer Academy | 4 |
| CRJ 296 | Special Issues/CRJ | 1 |
| CRJ 297 | Special Issues/CRJ | 2 |
| CRJ 298 | Special Issues/CRJ | 3 |
| CRJ 299 | Special Issues/CRJ | 4 |

CRIMINAL JUSTICE ADVISORY COMMITTEE

Tom Wagoner, Chief
Loveland Police Department
John L. Davis, Investigator
District Attorney's Office
Larimer County

AI Dominguez, Jr.
District Attorney
Weld County
William E. West
District Court Judge
19th Judicial District


## BASIC PEACE OFFICER ACADEMY

## (Police Academy)

Program Length: Forty weeks (Fall, Winter, Spring Quarters) at night (Tuesday, Wednesday, Thursday nights and Saturdays).

Program Description: A unique aspect of Criminal Justice at Aims College is the Basic Peace Officer Academy certificate program. Success in the Academy leads to a "certificate of completion" and college credits. (NOTE: These credits DO NOT APPLY to the Criminal Justice A.A.S. or A.A. Degree programs.)

The Basic Peace Officer Academy offers an excellent opportunity for individuals desiring "certifiability" as peace officers. REMEMBER, only the State of Colorado Peace Officers Standards and Training (POST) Board may grant certification as a Peace Officer.

The Aims' Basic Peace Officer Academy follows the instructional goals or KSAs (knowledge, skills and abilities) established by the Colorado Peace Officers Standards and Training Board.

## NOTE: A state P.O.S.T. Exit exam may be required.

Program Objective: To produce a professional peace officer who will think clearly and act wisely. To this end, our Academy is oriented toward academic-stress and technical proficiency.
In other words, the goal of our training is to ensure that prospective peace officers have acquired the necessary academic knowledge and technical skills to perform effectively in their professional work assignments.
We divide the Academy into two basic areas: academic knowledge and technical skills. Without first-rate academic knowledge, law enforcement is apt to become prey to the technicians, who vie with each other in attempts to do the same thing, only better.

Therefore, this Academy is based on the assumption that students can only be self-motivated; that students cannot be motivated for reasons external to their own needs. Students will be expected to study a minimum of 20 hours per week outside of the classroom and to ferret out that knowledge necessary to successfully complete the academic portion of the Academy.
Potential Opportunities: Although an in-depth study of career placement has not been completed, career opportunities appear good since our Academy graduates have been found to be excellent peace officers who are worth employing.

Assessment: Academy students are expected to have scored a " 13 " in reading and a " 55 " in writing.

Registration Requirement: Must consult with the Associate Academy Director, (Sue Beecher, Ext. 313).

CERTIFICATE PROGRAM
Certificate Requirements:
CREDITS
40CRJ 261 Criminal Justice Practicum "Police Academy"Total Credits for Certificate40

## FIRE SERVICE TECHNOLOGY DEGREE PROGRAM

(Jay Franey, Ext. 263; Don Owens, Ext. 452; Darrel Schneider, Ext. 276; Verne Einspahr, Ext. 461)

Program Length: Usually two years for Associate of Applied Science degree per option.
Potential Opportunities: The protection of life and property from fire is the primary function of a fire fighter. With today's sophisticated techniques, training, and equipment, however, modern fire fighters must be well educated in physics, chemistry, other sciences, and state and city laws and codes applicable to fire science. A high school diploma or the equivalent is a prerequisite. Sound health, good physical condition, the ability to give and take orders, and common sense are helpful. Civil Service requirements for height, weight, and vision may be obtained from the appropriate fire protection agency.
The Public Service Division provides students with the option to specialize in Fire Science Technology (fire fighting) or in Fire Protection Technology (fire prevention). Job opportunities may be found in small or large municipal fire departments, special fire protection districts, or in industrial fire departments.
Registration Requirement: All students taking a course or courses in the Fire Science Technology Degree Program must have the appropriate advisor's signature on the course registration before registering, if so indicated in the particular quarter schedule of classes. However, students do not have to be Fire Service majors to enroll in Fire Service classes.
Fire Service Technology General Education Courses: A minimum of 23 quarter credit hours of General Education Courses are required with Advisor's approval. The General Education courses are identified by an asterisk (*).

## Core Degree Requirements:

CREDITS
FIS 100 Introduction to Fire Science \& Suppression 5
FIS 111 Fire Fighter Occupational Safety 5
FIS 115 Industrial Fire Safety Concepts 3
FIS 117 Effective Fire Service Presentations 5
FIS 207 Chemistry for Fire Protection 5
FIS 208 Hazardous Materials I 3
FIS 209 Hazardous Materials II 3
FIS $230 \quad$ Building Plans and Construction 5

## FIRE PROTECTION TECHNOLOGY OPTION

Option Requirements: 18
FIS 190 Fire Service and the Law 3
FIS 202 Fire Inspection Practices 3
FIS 204 Related Codes \& Ordinances I 3
FIS 205 Related Codes \& Ordinances II 3
FIS 212 Fixed Fire Protection Equipment \& Systems 3
FIS 218 Arson Investigation 3
*CSC 141 Microcomputer ApplicationsWord Processing 36
*ENG 121 English Composition I 5
*MAT 111 Beginning Algebra 5
*PHI 113 Logic ..... 5
*PHY 105 Conceptual Physics ..... 5
*POS 118 State and Local Governments ..... 5
Biofeedback and Stress Management ..... 4
*SOC 101 Introduction to Sociology ..... 5
Recommended Electives:(with advisor's approval) ..... 20
BUS 101 Keyboarding I ..... 4
*COM 112 Introduction to Mass Media ..... 5
*ENG 105 Fundamentals of Composition ..... 5
*ENG 225 Advanced Composition ..... 5
FIS 112 Fire Service Planning ..... 3
FIS 119 Fire Instructor I ..... 3
FIS 214 Fire Department Administration ..... 3
PED 112 Aerobics II ..... 1
*POS 111 American Government ..... 5
*PSY 107 Transactional Analysis ..... 3
PSY 177 Career and Life Planning ..... 5
Total Credits for A.A.S. Degree ..... 108

* Students that are Colorado State Certified as Fire fighter I or above will be granted four credit hours of elective credits toward the AAS Degree.
*"Students that are Colorado State Certified as an Emergency Medical Technician will be granted five credit hours of elective credits toward the AAS Degree.


## FIRE SCIENCE TECHNOLOGY OPTION

Core Degree Requirements ..... 34
Option Requirements: ..... 22
FIS 102 Fire Prevention Awareness ..... 3
FIS 104 Fire Company Organization \& Procedure ..... 3
FIS 106 Fire Fighting and Strategy Tactics ..... 5
FIS 110 Fire Apparatus and Procedures ..... 5
FIS 118 Fire Cause Determination ..... 3
FIS 213 Fire Service Supervision ..... 3
*CSC 141 Microcomputer Application/Word Processing36
*ENG 121 English Composition I ..... 5
'MAT 111 Beginning Algebra ..... 5
*PHI 113 Logic ..... 5
*PHY 105 Conceptual Physics ..... 5
*POS 118 State and Local Government ..... 5
*PSY 138 Biofeedback and Stress Management ..... 4
*SOC 101 Introduction to Sociology ..... 5
Recommended Electives (with advisor's approval) ..... 16
BUS 101 Keyboarding I ..... 4
*COM 112 Introduction to Mass Media ..... 5
*ENG 105 Fundamentals of Composition ..... 5
*ENG 225 Advanced Composition ..... 5
FIS 112 Fire Service Planning ..... 3

| FIS 119 | Fire Instructor I | 3 |
| :--- | :--- | :---: |
| FIS 214 | Fire Department Administration | 3 |
| PED 112 | Aerobics II | 1 |
| *POS 111 | American Government | 5 |
| PSY 107 | Transactional Analysis | 3 |
| PSY 177 | Career and Life Planning | 5 |
| TEM 105 | Emergency Medical Technician | 12 |
| Total Credits for A.A.S. Degree | 108 |  |

**Students that are Colorado State Certified as Fire fighter I or above will be granted four credit hours of elective credits toward the AAS Degree.
**Students that are Colorado State Certified as an Emergency Medical Technician will be granted five credit hours of elective credits toward the AAS Degree.

## VOLUNTEER FIRE FIGHTER TRAINING

Program Length: Will vary from four quarters to eight quarters or more.

The Volunteer Fire fighter Training Program is designed to provide theory and practical training for volunteer fire fighters and those who wish to become volunteer fire fighters.

Potential Opportunities: Opportunities to become volunteer fire fighters exist locally as well as nationwide. This training will also benefit those who wish to become career fire fighters.

Registration Requirement: Fire Service Department signature required as necessary - refer to current quarter schedule of classes

## Certificate Program <br> Credits <br> Certificate requirements:

A total of 24 credit hours from the following list of classes must be completed:
FIS 185 Volunteer Fire Seminar 6
FIS 186 Volunteer Fire Seminar 8
FIS 187 Volunteer Fire Seminar 12
FIS 188 Volunteer Fire Seminar 16
FIS 195 Volunteer Fire Seminar 5
FIS 196 Volunteer Fire Seminar 1
FIS 197 Volunteer Fire Seminar 2
FIS 198 Volunteer Fire Seminar 3
FIS 199 Volunteer Fire Seminar 4
TEM 106 First Responder 4
TEM 127 Cardiopulmonary Resuscitation 1
TEM 128 C.P.R. Instructor 1
TEM 196 Fire fighter First Aid
The above classes must include the following requirements:
BASIC FIRE FIGHTING TRAINING
Regular Department Training (Maximum 1 credit)
Fire fighter I Certification or
Fire fighter I Theory (Maximum 1 credit)
Fire fighter II Certification (Maximum 1 credit)
Fire Safety
Initial Fire Attack
Driver Training
Fire and Rescue Field Days
Other Basic Fire fighting topics approved by advisor

Student must also pass a Basic Fire fighting knowledge and skills competency exam.

EMERGENCY MEDICAL TRAINING 4
First Responder
Emergency Medical Technician 12
C.P.R. 1
C.P.R. Instructor 1

Other E.M.S. topics approved by advisor
FIRE COMMAND AND ADMINISTRATION TRAINING 2
Rural Fire fighting Tactics
On Scene Coordination
Fire Officer Training
Fire fighter III Certification (Maximum 1 credit)
Other Fire Command topics approved by advisor
HAZARDOUS MATERIALS TRAINING
Basic Hazardous Materials
Other Hazardous Materials Topics approved by advisor
SPECIALIZED FIRE FIGHTER TRAINING
Dive Rescue
$\quad$ Ice Rescue
Trench Rescue
$\quad$ Farm Accident Rescue
Extrication
Fire Prevention
Other Specialized Fire fighter Topics approved by
advisor

FIRE FIGHTER ELECTIVES
To be selected from any above topics

## FIRE SERVICE TRAINING ACADEMY

Program Length: Usually 10 weeks for Certificate in Occupational Education program. Thirty credit hours required ( 460 clock hours).

The Fire Service Training Academy is a training program which meets eight (8) hours per day, five (5) days per week.
It is designed for the recruits/cadets who are in need of basic job entry skills and knowledge, or the student who may be seeking a career in the fire service. The State of Colorado Fire Fighter I examinations are given prior to academy graduation. Students who are not E.M.T.s are encouraged to take the E.M.T. Course provided in conjunction with the Fire Academy. Required 3 additional weeks.
Potential Opportunities: Entry level employment in this field is frequently difficult to obtain. This course is designed to provide entry level knowledge and skills to fire fighter recruits/cadets, or the student who may be seeking a career in the fire service.

Registration Requirement: Students must consult with the Academy Director prior to receiving the necessary application packet.

## CERTIFICATE PROGRAM

CREDITS
Certificate Requirements: ..... 30
FIS 105 Fire Service Training Academy ..... 30
Total Credits for Certificate ..... 30
\(\left.\left.$$
\begin{array}{ll}\text { FIRE SERVICE ADVISORY COMMITTEE } \\
\text { Jill Carlson } \\
\text { Industrial Representative } & \text { Greg Thompson } \\
\text { National Cash Register } & \text { Greeley Fire Department } \\
\text { Student Representative }\end{array}
$$\right] \begin{array}{ll}Gene Chantler \& Gerald Ward <br>
Poudre Fire Authority \& Berthoud Fire Protection <br>

District\end{array}\right]\)| Paul Grant | Robert Starman |
| :--- | :--- |
| Longmont Rural Fire | Loveland Volunteer Fire |
| Protection District | Department |
| Willard (Bill) Martin <br> Greeley Fire Department | Ed Fagler |
|  | Windsor Volunteer Fire Dept. |



# EMERGENCY MEDICAL TECHNICIAN 

Emergency Medical Services (Emergency Service Academy) (Diana Van Der Ploeg, Ext. 449; Linnea Sidi, Ext. 421; Steve Hartwick, Ext. 536; Nancy Hills (CPR) Ext. 407; Dave Miller, Ext. 460)

Program Length: EMT is currently a week program within the occupational education program with a certificate awarded upon completion. Twelve credit hours required ( 160 clock hours). The students are required to be proficient in both the cognitive and practical skills to pass the program and become state certified by the Emergency Medical Services Division of the Colorado Department of Health. This certificate must be renewed every 3 years by taking an EMT-refresher class ( 40 hours, 4 credits) or Continuing Medical Education.

Potential Opportunities: This course is offered to the general public and to individuals from a variety of occupations such as: ambulance employees, fire department employees (paid or volunteer), police officers, military medical personnel, ski patrol, and search and rescue personnel. Entry level employment as an EMT-B is becoming easier with a wide variety of opportunities now available. With advanced training, there are also opportunities as EKG and IV technicians in the hospital setting, or as EMT-Intermediates in the rural areas.

Registration Requirement: All students taking a course or courses in a Public Service Division program must have an appropriate Public Service Division program advisor's signature on the course registration before registering. All EMT students are required to take the pre-assessment test.

## CERTIFICATE PROGRAM

|  | CREDITS |
| :--- | ---: |
| Certificate Requirements: | 12 |
| TEM 105 | Emergency Medical Technician Basic |
| Total Credits for Certificate | 12 |
|  | 12 |

## EMERGENCY MEDICAL TECHNICIAN INTERMEDIATE

CREDITS
Program Length: EMT-I is currently a two quarter program within the occupational education program with a certificate awarded upon completion. The student must have specific EMS field experience and a current physician advisor for entry into the program. Fourteen credit hours required. The students are required to be proficient in both the cognitive and practical skills to pass the program and become state certified by the Emergency Medical Services Division of the Colorado Department of Health. This certificate must be renewed every 3 years in order to work as an EMT-I.
Potential Opportunities: Entry level employment as an EMT-I is often easier in the rural areas, but opportunities do exist in the hospital setting or with several advanced life support ambulance services.

Registration Requirements: The student must meet with an EMS Dept. advisor prior to enrolling in the course. There are various pre-
requisites and certifications required prior to enrollment along with physician advisor approval. The program advisor's approval. The program advisor's signature is required prior to registration.

| CERTIFICATE PROGRAM |  |  |
| :---: | :---: | :---: |
|  |  | CREDITS |
| Certificate | Requirements | 14 |
| TEM 107 | Emergency Medical Technician-Intermediate | 14 |
| Total credi | its for Certificate | 14 |
| CERTIFICATE RENEWAL PROGRAM |  |  |
|  |  | CREDITS |
| Certificate | Renewal Requirements: | 4 |
| TEM 108 | EMT Refresher | 4 |
| Total Cred | its for Certificate Renewal | 4 |
| Supporting Classes |  |  |
| TEM 100 | Intro to Emergency Care (14 lecture, 9 lab) | 2 |
| TEM 106 | First Responder (27 lecture, 20 lab) | 4 |
| TEM 107 | EMT Intermediate <br> (90 lecture, 45 lab, 60 clinical) | 14 |
| TEM 108 | EMT Refresher (27 lecture, 20 lab | 4 |
| TEM 109 | EMT Refresher Seminar (10 lecture, 0 lab ) | 1 |
| TEM 115 | Emergency Med. Dispatcher ( 30 lecture, 0 lab) | 3 |
| TEM 116 | EMT IV-MAST <br> ( 15 lecture, 8 lab, 16 clinical) | 2 |
| TEM 126 | Intro to Advanced Life Support (20 lecture, 15 lab) | 3 |
| TEM 127 | Cardiopulmonary Resuscitation (10 lecture, 0 lab) | 1 |
| TEM 128 | CPR Instructor (14 lecture, 0 lab) | 1 |
| TEM 129 | CPR Instructor Trainer (10 Lecture) | 1 |
| TEM 131 | EKG-Basic (40 lecture, 0 lab) | 4 |
| TEM 132 | EMT/EKG-Defib (10 lecture, 0 lab) | 1 |
| TEM 135 | Advanced Cardiac Life Support ( 10 lecture, 15 lab ) | 2 |
| TEM 136 | Pre-Hospital Trauma Life Support (10 lecture, 5 lab) | 1 |
| TEM 137 | Emergency Response to Sports Injury (8 lecture, 4 lab) | 1 |
| TEM 138 | Heart saver CPR (4 lecture, 2 lab ) | . 5 |
| TEM 139 | Totsaver CPR (4 lecture, 2 lab) | 5 |
| TEM 145 | CPR Refresher (5 lecture) | 5 |


| TEM 146 | First Responder Refresher <br> (15 lecture, 8 lab) | 2 |
| ---: | :--- | :---: |
| TEM 147 | EMS Career Preparation |  |
|  | (30 lecture) |  |
| TEM 185 | EMS Seminars |  |
| 186 |  | .5 |
| 187 |  | 1 |
| 188 |  | 2 |
| 189 |  | 3 |
| TEM 195 | Fire fighter First Aid | 4 |
| 196 |  | .5 |
| 197 |  | 1 |
| 198 |  | 2 |
| 199 |  | 3 |

## EMERGENCY MEDICAL SERVICES

 ADVISORY COMMITTEEDave Bressler, EMT-P
Weld County Ambulance Service
Larry Richardson, EMT
Fort Lupton Fire Department
Debi Hunter, RN
Denver General Hospital
Gary McCabe, EMT-P
Weld County Ambulance Service

Gary Sandau, LaSalle Fire Department

Greg Thompson, EMT
Greeley Fire Department
Carol Vanetti, MD
North Colorado Medical Center

Ruth Varallo, RN
North Colorado Medical Center


## RADIOLOGIC TECHNOLOGY

(Diana Shatraw, Ext. 341; Debi Knudson, Ext. 419; Luci Evans, Ext. 420; Jennifer Yates, Ext.436)

Program Length: Requires minimum of eight quarters for Associate of Applied Science degree starting fall quarter only.

Entrance Requirements: This program starts in the fall quarter ONLY. Entry is highly competitive and early application is recommended. A special Radiologic Technology Program Application must be submitted to the department by the end of May. Prerequisites for program acceptance are necessary. Contact program faculty for entrance specifics as soon as possible before the application deadline.

Registration Requirement: XRT majors in the program or working toward the program must have radiography advisor's signature on all registration forms each quarter.
Potential Opportunities: The radiographer as part of the health care team is dedicated to the conservation of life and heath and the discovery of existing disease.
This program is designed to train individuals in the art and science of Radiologic Technology.
Students successfully completing the program are eligible to take a National Registry examination that upon successful completion will allow the graduate to hold the status of Registered Technologist (R.T.).

NOTE: This program includes changes which are subject to approval by the Colorado Community College and Occupational Education System. Courses listed are subject to change. Students can verity the course offerings from the program director.

## DEGREE PROGRAM

Radiologic Technology General Education Courses: A minimum of 23 quarter credit hours of General Education Courses are required with advisor's approval. The General Education courses are identified by an asterisk (*).

| Degree Requirements: | CREDITS |  |
| :--- | :--- | ---: |
| XRT 101 | Radiographic Positioning I | 4 |
| XRT 102 | Radiographic Positioning II | 4 |
| XRT 103 | Radiographic Positioning III | 4 |
| XRT 104 | Radiographic Positioning IV | 4 |
| XRT 105 | Procedures in Patient Care | 5 |
| XRT 111 | Clinical Experience I | 3 |
| XRT 112 | Clinical Experience II | 8 |
| XRT 113 | Clinical Experience III | 8 |
| XRT 114 | Clinical Experience IV | 14 |
| XRT 118 | Radiation Protection \& Biology | 3 |
| XRT 121 | Radiographic Exposure I | 4 |
| XRT 122 | Radiographic Exposure II | 3 |
| XRT 205 | Special Procedures | 3 |
| XRT 207 | Radiographic Equipment \& Imaging | 4 |
| XRT 208 | Radiographic Pathology | 3 |
| XRT 211 | Clinical Experience V | 8 |
| XRT 212 | Clinical Experience VI | 8 |
| XRT 213 | Clinical Experience VII | 8 |
| XRT 214 | Clinical Experience VIII | 10 |
|  |  | 10 |

XRT 218 Computers in Medicine ..... 2
XRT 221 X-ray Physics ..... 5
XRT 225 Radiographic Quality Assurance ..... 3
*HLH 131 Medical Terminology ..... 120
*BIO 120 Basic Human Anatomy \& Physiology ..... 3
*SPE 118 Interpersonal Communications ..... 5
*PSY 101 General Psychology ..... 5
*ENG 105 Fundamentals of Composition ..... 523
Total Credit hours for Radiologic Technology ..... 143
Related Courses
XRT 100 Introduction to Radiologic Technology ..... 2
XRT 215 Registry Review ..... 1
XRT 231 Radiologic Sciences ..... 3
XRT 235 Radiologic Computers ..... 1
XRT 236 Cross-sectional Anatomy of CT Images ..... 1
XRT 237 Why Ulitrasound? ..... 1
XRT 238 Mammography ..... 1
XRT 289 Clinical Activity ..... 1-10
to 298
RADIOLOGIC TECHNOLOGY
ADVISORY COMMITTEE

Samuel Potts, R.T. (R)
Diagnostic Imaging
Longmont United Hospital
Robert Hamm, M.D.
McKee Medical Center
Glenn Hewitt, M.D.
Department of Radiology
North Colorado Medical Center
Dennis Isaacson, R.T.
Administrative Technologist
Poudre Valley Hospital
Jon Lapp, R.T.
Administrative Technologist
North Colorado Medical
Center

Greg Messmer, R.T.(R)
McKee Medical Center
Sandra Pool, R.T.(R)
Department of Radiology
Poudre Valley Hospital
Beth Post, R.T.(R)
Department of Radiology North Colorado Medical Center

Elizabeth Fegley, R.T. Department of Radiology
Poudre Valley Hospital
Tammy Tripp, R.T.(R) Department of Radiology North Colorado Medical Center

## GERIATRIC AIDE

(Ruth Lorenson, Ext. 312)
Program Length: 130 clock hours usually scheduled over 7-10 weeks.

Program Description: Intended for the individual desiring to be a nursing assistant focusing on caring for the elderly patient/client/resident living at home or in a long term care facility. Methods of learning include classroom activities, skills practice and simulations, and clinical practice giving actual patient care. The program meets all relevant federal and state requirements. Upon successful completion, the program graduate is qualified to apply for the State of Colorado Nurse Aide Certificate examination.

Potential Opportunities: Plentiful employment opportunities exist for the state-certified nursing assistant in long term care, home, health care, residential care. Locally, hospital employment and medical office opportunities for nursing assistants is limited. Also useful for persons wanting wage-earning ability while preparing for nursing or medical careers. Most employment opportunities require a current State of Colorado Nurse Aide Certificate.

Registration Requirements: All students taking a course or courses in a Public Service Division program must have an appropriate Public Service Division program advisor's signature on the course registration before registering.

## CERTIFICATE PROGRAM

CREDITS
Certificate Requirements:
HLH 135 Geriatric Aide
Total Credits for Certificate:

## Support Courses

HLH 127 Residential Care Facility Medication Aide 3
HLH 128 Health Care Seminar 1-12
HLH 129 School Health Clerk 4
HLH 136 Medical Office Laboratory Techniques 4
HLH 205 I.V. Therapy for LPNs 4
GERIATRIC AIDE ADVISORY COMMITTEE
Scott Bell, RN
Administrator,
Kenton Manor Health Care
Center
Tresa Martinez, MSSW
Manager, Western Medical
Services Inc.
Beverly Peterson, RN
Director of Nursing,
Centennial Health Care Center

Eva Jewell, MA
Ombudsman,
Area Agency on Aging
Sue Morse, RN
Manager, Normedco Home
Care
Sue Ueland, CNA
Program Graduate
LaVern Weber
Administrator, Fairacres Manor Inc.


## TECHNICAL DIVISION

Division Director:
Secretary:
Location:
Telephone:

Art Giesick Maxine Culter Ed Beaty Hall, Room 540
330-8008, Ext. 286

The Technical Division, in addition to the programs listed, has the capability to work individually or collectively with employers to offer inservice or to upgrade training.

Training or classes may be conducted on-the-job or on campus and may vary from a few hours to several quarters in duration.

## General Program Requirements:

Students enrolling in Technical Division Programs should meet the following general qualifications if they wish to successfully complete the program:

1. A good general mathematics background. (Some programs require a math background through algebra see program requirements.)
2. Students should have high school level reading and communication skills.
3. Good eyesight (corrected or uncorrected) and good hand dexterity are helpful.
4. All students enrolling in Technical Division courses MUST be advised and have registration forms signed by a Technical Division program advisor.
5. Students enrolling in designated Technical Division programs SHOULD complete assessment examination (in College Assessment Center) prior to enrollment. Additional placement or diagnostic evaluations may be required before acceptance into a specific program.
6. Students lacking essential skills or background may obtain required knowledge through preparatory classes within the College. (See a program advisor.)

## General Education Requirements:

Each A.A.S. degree requires a minimum of 23 quarter credit hours of general education courses recommended by a program advisor.

The Technical Division offers the following programs:

## AGRICULTURE TECHNOLOGY

Farm and Ranch Business

Management Option
Farm and Ranch Business Management
Young Farmer Program Training Option Computer Users Option Marketing Option

## AVIATION TECHNOLOGY

Aviation Technology
General Aviation Pilot Option
Professional Pilot Program (PPP) Option
General Aviation Pilot

## ELECTRONIC TECHNOLOGY

General Electronics Technician Option
Automated Process Technician Option

## DRAFTING TECHNOLOGY

## ENGINEERING TECHNOLOGY

Architectural Option
Civil Option
Mechanical Option
Computer Aided Manufacturing Option
Registration Requirement: All students taking a course in a Technical Division program must have an appropriate Technical Division program advisor's signature on the course registration form before registering.


## AGRICULTURE TECHNOLOGY

Program Advisors: Merle Brockshus, Glen Sowder, Richard Dunn

Farm and Ranch Business Management is a systematic program built into a three-year course of study and training. The course is designed for farmers and ranchers who are actively engaged in farming/ranching and involves 30 hours of classroom instruction per year along with 10/12 farm/ranch visits per year. Individual instruction on the use of the personal computer using agriculture software is studied and used to maintain farm/ranch records during farm/ranch visits.

Students are enrolled as a farm/ranch unit (a unit consists of two (2) people). Students enrolled in this program may use the credits in either the degree or certificate program.

For additional information on program costs and enrollment periods please contact the Technical Division Office, extension 286.

## DEGREE PROGRAM FARM AND RANCH BUSINESS MANAGEMENT OPTION

Potential Opportunities: This program is designed to prepare the student as: (1) an Agriculture Accounting Technician, (2) Data Entry Technician for Farm or Ranch Accounting and/or Management firms, (3) Farm and Ranch Business Manager.

Registration Requirement: All students enrolling in classes in a Technical Division course or program MUST have an appropriate Technical Program advisor's signature on the course registration (enrollment) form before registering.

Agriculture Technology General Education Courses: A minimum of 23 quarter credit hours of General Education Courses are required with advisor's approval. The General Education courses are identified by an asterisk ( ${ }^{*}$ ).

## Degree Requirements:

CREDITS
FMT 101 Farm \& Ranch Business Management I 23
FMT 102 Farm and Ranch Business Management II 23
FMT 103 Farm and Ranch Business Management III 23
69
Upon completion of the 69 credit hours of core courses the student must complete a comprehensive examination of the material covered. If successful, the 69 credits will fulfill the core requirement for the AAS degree program.
Electives (Select 12 credit hours with Advisor approval) ..... 12
Suggested Electives
AGS 100 Introduction to Agribusiness ..... 3
AGS 101 Introduction to Agribusiness Management ..... 3
AGS 102 Agricultural Economics ..... 3
AGS 103 Personnel Management ..... 3
General Education Courses
*ENG 105 Fundamentals of Composition ..... 5
Select 8 credit hours from the following:
*CSC 100 The Computer and Society ..... 4
*CSC 101 Introduction to Programming in the Basic Language
*CSC 105 Introduction to Personal Computing ..... 3
*CSC 141 Microcomputer Managed Applications:Word Processing
*CSC 142 Microcomputer Managed Applications: Electronic Spread Sheets ..... 2Select 10 credit hours from the following:
*PSY 101 General Psychology I5
*SOC 101 Introduction to Sociology I ..... 5
*ECO 201 Principles of Macroeconomics ..... 5
*ECO 202 Principles of Microeconomics ..... 5
*PHI 113 Introduction to Logic ..... 510
Total Credits Required for Farm \& Ranch Business Management Option A.A.S. Degree ..... 104
CERTIFICATE PROGRAM
FARM AND RANCH BUSINESS MANAGEMENT
Certificate Requirements:
FMT 101 Farm and Ranch Business Management I 23
FMT 102 Farm and Ranch Business Management II ..... 23
FMT 103 Farm and Ranch Business Management III ..... 23
Farm and Ranch Business Management Certificate ..... 69


## AGRICULTURE HOME STUDY COURSES

The following courses are available as individual home study courses. The student MUST contact an agriculture advisor to enroll and obtain course materials.

## MANAGEMENT DEVELOPMENT

AGS 100 Introduction to Agribusiness 3
AGS 101 Introduction to Agribusiness Management 3
AGS 102 Agricultural Economics 3
AGS 103 Personnel Management 3
FERTILIZER AND AG CHEMICALS
AGS 142 Ag Chemicals 3
AGS 144 Corn Production 3
AGS 145 Anhydrous Ammonia Safety 3
FEED AND ANIMAL HEALTH
AGS 152 Animal Health 3
AGS 158 Advanced Animal Health 3

## AGRICULTURE ADVISORY COMMITTEE

| Richard Hergert | Rick Noel |
| :--- | :--- |
| Farmer | Farmer |
| Platteville, CO | LaSalle, CO |
|  |  |
| Ed Printz | Gary Herman |
| Farmer | Farmer |
| Platteville, CO | Ft. Lupton, CO |

## Marty Weber

Farmer
LaSalle, CO


## YOUNG FARMER PROGRAM

Young Farmer programs are designed to meet occupational needs of persons who are at least 16 years of age and are not regularly enrolled in secondary school, or who have completed their secondary (12th grade) education.

The major instructional objective is to develop the group and individual responsibility of young farmers through programs of instruction in Vocational Agriculture. These programs are designed to help the young farmers to meet their needs to become efficiently established in farming or an agricultural occupation.
No degree will be awarded to persons enrolled in this program since it is considered to be an upgrading of the profession in which they are presently employed. These programs will be ongoing in nature and will not be considered as separate classes or programs. College credit may be awarded on a yearly basis to individuals enrolled in this program.
These programs preferably will be started in July, but in many cases will start after the beginning of the school year as soon as they can be organized. Programs will have some flexibility as a minimum of 15 meetings is required, and the fiscal year runs from July 1 to June 30 of each year.
For additional information on Young Farmer programs, please contact Technical Division, extension 286.

## CERTIFICATE PROGRAMS

Three Young Farmer Programs are available through Aims Community College. Each program consists of two courses that are administered from 1 July through 30 June each academic year.

## Certificate

CREDITS
YOUNG FARMER TRAINING PROGRAM
AGR 170 Young Farmer Training 3
AGF 171 Young Farmer Training - Part II 1
Total Credit For Certificate 4
YOUNG FARMER TRAINING PROGRAM
AGF 180 Young Farmer Training/Computer Group 3
AGF 181 Young Farmer Training - Part II/Computer Group 1
Total Credit For Certificate
YOUNG FARMER TRAINING PROGRAM
AGF 190 Young Farmer Training/Marketing 3
AGF 191 Young Farmer Training - Part IIMarketing 1
Total Credit For Certificate 4

## AVIATION TECHNOLOGY

## Program Advisors: Marvin Bay, Walter Bjorneby, Gina Kline, Loyal Kelsey, Val Taylor

Program Length: Usually three quarters for the General Aviation Pilot Certificate program, six quarters for the General Aviation Pilot Option A.A.S. degree program, and seven quarters for the Professional Pilot Program (PPP) program. Times may be shorter if the student is eligible to receive credit for previous flying experience. Additional time may be required, depending on assessment scores.
Potential Opportunities:
General Aviation Programs: The program is designed to quality the student for immediate entry into employment as a pilot. Many enter the field as flight instructors. With additional experience, there may be opportunities available in corporate flying, charter work, and some airlines.

Professional Pilot Program (PPP): The Pilot Professional Program is designed to train pilots to be eligible for employment into CFI, commuter, regional, and major airline flying positions. It is anticipated that, after two years of successful commuter airline flying along with the experience and flying hours acquired, the student would be prepared to move to a major airline as flight positions become available. Completion of PPP DOES NOT GUARANTEE that the graduate will be employed by any airline. However, Aims Community College, including the Aviation Department and the Placement Office will assist the student in possible employment opportunities throughout the industry.

Program Requirements: Students pursuing a certificate or degree in Aviation Technology MUST complete the AIMS Assessment examinations prior to program enrollment. If qualifying scores are not attained, program advisors will determine preparatory courses that will be required to gain program or class admittance.

Students will be required to take the following tests:

1. Reading skills
2. Writing
3. Math
4. Algebra
5. Aviation Math Proficiency Test
6. FITPAC test (Physical fitness test)

Tests $1,2, \& 3$ are Aims college requirements; tests $4,5, \& 6$ are requirements of the Aviation Department. If you successfully pass the Aviation Math Proficiency test, you will not be required to take additional math classes. Otherwise, you will be required to take classes as needed in order to pass the math proficiency test. A FITPAC test is also required prior to graduation.
The student MUST also pass the required flight physical exam prior to the end of the first quarter of enrollment. The student MAY also be required to undergo drug testing at any time.

Many of the classes in the aviation program have prerequisites that MUST be met PRIOR to class admittance. (See course descriptions for specific requirements.)

General Information: Additional charges are made for rental of aircraft for flight labs. Aims Community College does not own aircraft but contracts for flight training. (See course descriptions for flight labs.)

The Aviation Department will have information detailing the fees and flight expenses-call extension 286.

Credit for previous flying experience may be awarded with the approval of the division/department. This will be determined on an individual basis.

Registration Requirement: All students enrolling in Technical Division courses MUST have an appropriate Technical Division program advisor's signature on the registration form BEFORE registering.

## GENERAL AVIATION PILOT OPTION

Aviation Technology General Education Courses: A minimum of 23 quarter credit hours of General Education Courses are required with Advisors approval. The General Education Courses are identified by an (*).
AVT 100
Aviation Seminar
AVT 101 Private Flight Lab I 3
AVT 102 Private Flight Lab II 3
AVT 103 Commercial Flight Lab I 5
AVT 104 Commercial Flight Lab II 5
AVT 105 Private Flight Simulator 3
AVT 108 Private Ground School 6
AVT 109 Instrument Ground School 6
AVT 111 Instrument Flight Simulator I 3
AVT 115 Aviation Management \& Economics 5
AVT 205 Flight Instructor Ground School 5
AVT 206 Commercial Ground School 5
AVT 211 Instrument Flight Simulator II-Part A 3
AVT 212 Instrument Flight Simulator II-Part B 3
AVT 216 Instrument Flight Lab 5
AVT 217 Commercial Flight Lab III 5
AVT 226 Multi-Engine Simulator I, Single Pilot 3
*EAS 106 Meteorology 4
*ENG 121 English Composition I 5
*CSC 100 The Computer \& Society 4
'PHY 105 Conceptual Physics 5
PEF 126 Aerospace Fitness Performance I 2
Take one of the following: 5
*SPE 110 Communication Concepts 5
*SPE 115 Principles of Speech Communication 5
Electives (Select 5 credits with Advisor Approval)
AVT $119 \quad$ Conventional Gear Transition Lab
AVT 207 Basic Ground Instructor 2
AVT 208 Advanced Ground Instructor 2
AVT 209 Instrument Ground Instructor 2
AVT 218 Certified Flight Instructor Flight Lab 5
AVT 219 Instrument Flight Instructor Flight Lab 3
AVT २25 Multi-Engine Transition Lab 4
AVT 227 Multi-Engine Simulator II, Single Pilot 3
AVT 228 Multi-Engine Simulator III, Single Pilot 2
Total credit hours for General Aviation Option 100

## PROFESSIONAL PILOT PROGRAM OPTION general information

The Professional Pilot Program requires additional testing prior to program completion. Additional training and fees will be required to complete PPP requirements. Any course for which a grade of " $D$ " is recorded must be repeated.
The Aviation Department will have additional information on applicable fees-Call Extension 286. REQUIREMENT AND FEES IN THIS PROGRAM MAY CHANGE WITHOUT NOTICE.

New students with Private or advanced certificates may be given credit only for AVT 101, AVT 102, AVT 105, and AVT 108. A minimum of 140 flight hours MUST be completed while enrolled in the program.
Any student not meeting program requirements may be placed on program probation. If the student makes satisfactory progress at the end of the probationary period the student will be allowed to continue in the program. This evaluation will be accomplished by an Aviation Evaluation Board.
NOTE: Peer evaluations MAY be used by the Evaluation Board and for Student Counseling. An Evaluation Board may also be convened to consider individual cases where a student displays performance and/or behavioral characteristics NOT consistent with those expected of a future Airline Transport Pilot.
A student entering this program MUST meet the qualification as noted for the Aviation program. Graduates who wish to earn the "Professional Pilot Associate Degree", which is a recommendation that the graduate has skill for immediate airline placement, must also meet the following requirements.

1. Average academic GPA of at least 3.0
2. Score of 85 or better on both parts (FEB and FEJ) of Flight Engineer written exam.
3. Satisfactory completion of industry observation ride.
4. Completion of all required training and testing which may include Cockpit Resource Management, Weather Avoidance Radar, FITPAC and required written testing.
5. Award of Aviation Technology degree PPP option.

## PROFESSIONAL PILOT OPTION

Professional Pilot Program Option General Education Courses: A minimum of 23 quarter credit hours of General Education Courses are required with Advisors approval. The General Education Courses are identified by an ( ${ }^{*}$ ).

| Degree Requirements: | CREDITS |  |
| :--- | :--- | ---: |
| AVT 100 | Aviation Seminar | 2 |
| AVT 101 | Private Flight Lab I | 3 |
| AVT 102 | Private Flight Lab II | 3 |
| AVT 103 | Commercial Flight Lab I | 5 |
| AVT 104 | Commercial Flight Lab II | 5 |
| AVT 105 | Private Flight Simulator | 3 |
| AVT 108 | Private Ground School | 6 |
| AVT 109 | Instrument Ground School | 6 |
| AVT 111 | Instrument Flight Simulator I | 3 |
| AVT 115 | Aviation Management \& Economics | 5 |
| AVT 206 | Commercial Ground School | 5 |
| AVT 211 | Instrument Flight Simulator II - Part A | 3 |
| AVT 212 | Instrument Flight Simulator II - Part B | 3 |
| AVT 213 | Advanced Instrument Simulator | (6) |
|  | AVT 213 may be taken in place of AVT 211, 212 |  |

AVT 214 Multi-Engine Simulator, Airline Transition ..... 5
AVT 216 Instrument Flight Lab ..... 5
AVT 217 Commercial Flight Lab III ..... 5
AVT 225 Multi-Engine Transition Lab ..... 4
AVT 226 Multi-Engine Simulator I, Single Pilot ..... 3
AVT 235 Flight Engineer: Systems ..... 6
AVT 236 Flight Engineer: Power Plant ..... 6
AVT 237 Professional Pilot Preparation ..... 2
*EAS 106 Meteorology ..... 4
*ENG 121 English Composition I ..... 5
*CSC 100 The Computer and Society ..... 4
*PHY 105 Conceptual Physics ..... 5
PHY 126 Aerospace Fitness and Performance I ..... 2
Take one of the following: ..... 5
*SPE 110 Communication Concepts ..... 5
*SPE 115 Principles of Speech Communication ..... 5
Total credit hours for Pilot Entry Program Option113
CERTIFICATE PROGRAM
Certificate Requirements: CREDITS
AVT 100 Aviation Seminar ..... 2
AVT 101 Private Flight Lab I ..... 3
AVT 102 Private Flight Lab II ..... 3
AVT 103 Commercial Flight Lab I ..... 5
AVT 104 Commercial Flight Lab II ..... 5
AVT 105 Private Flight Simulator ..... 3
AVT 108 Private Ground School ..... 6
AVT 109 Instrument Ground School ..... 6
AVT 111 Instrument Flight Simulator I ..... 3
AVT 206 Commercial Ground School ..... 5
AVT 213 Instrument Flight Simulator II ..... 6
AVT 216 Instrument Flight Lab ..... 5
AVT 217 Commercial Flight Lab III ..... 5
Total Credits For Certificate ..... 57
AVIATION TECHNOLOGY ADVISORY COMMITTEE

| Robert Anderson <br> Commercial Pilot | Ernest Kampe |
| :--- | :--- |
|  | Commercial Pilot |
| Jack Taylor | Flight Instructor |
| FAA Flight Examiner | Russ McKnair |
|  | Director of Flight Operations |
| David Droegemuller <br> Captain, Continental Express | Continental Express |
| George Hopper | Roy Shore, M.D. |
| Commercial Pilot | FAA Medical Examiner |
|  | Pilot |

Flight Instructor
John D. Warrender
Corporate Chief Pilot

## ELECTRONICS TECHNOLOGY

Program Advisors: Fred Bantin, Bob Beck, Gene Cross

Program Length: Usually six quarters for Associate in Applied Science degree program.
Potential Opportunities: Students can expect to secure entry level positions with progress toward jobs as research and development technicians, engineering aides, field service representatives, production test technicians, electronic tooling maintenance technicians, design and fabrication technicians, or system technicians for computers, controls, and communications.
Program Requirements: Students entering this program are required to complete AIMS assessment examinations in the areas of reading, writing, math and algebra. If qualifying scores are not attained, program advisors will determine the preparatory courses that will be required to gain admittance to the program. APPLIED TECH MATH (BET-116) MUST BE COMPLETED PRIOR TO ENTRY INTO PROGRAM

The A.A.S. degree in Electronics Technology requires a demonstrated proficiency in composition. This may be accomplished by SUCCESSFULLY completing (ENG 105) Fundamentals of Composition or QUALIFYING performance on the assessment examination. Completion of ENG 105 must be accomplished during first year in the Electronics Program.

Many of the Electronic Technology courses have prerequisites that MUST BE MET PRIOR TO CLASS ADMITTANCE. See ELT course descriptions for specific requirements.

General Information: Certain courses may be waived if applicant has 3-5 years of appropriate experience in electronics or a closely related industry. This assessment will be made on an individual basis. Advisor approved courses will be selected in lieu of waived courses. Advanced standing is possible if the applicant has had military or other adult eiectronic schooling.

Advanced standing will be determined on an individual basis.

## TESTING CENTER:

Aims Community College is an authorized testing center for NARTE and ETA.

NARTE (The National Association of Radio and Telecommunications Engineers, Inc.)

Students completing the degree program are eligible for a NARTE Third Class Technician Certificate without further examination upon payment of appropriate membership and certification fees. Additional work experience may establish eligibility for a second or first class certification as determined by the NARTE classification board.

## ETA (The Electronics Technician Association, International)

This organization is sanctioned by lowa State University. Students may obtain an associate membership certificate without work experience by examination and payment of appropriate membership fees.

Registration Requirement: All students taking a course or courses in a Technical Division program must have an appropriate Technical Division program advisor's signature on the course registration form before registering.
Electronics Technology General Education Courses: A minimum of 23 quarter credit hours of General Education Courses are required with Advisors approval. The General Education Courses are identified by an (*).
GENERAL ELECTRONIC TECHNICIAN OPTION
Degree Requirements: ..... CREDTS
85
BET 118 Intro to CAD ..... 3
BET 207 Technical Job Seeking ..... 1
BET 100 Intro to Engineering Technology ..... 1
*ELT 106 Applied Physics: Mechanical ..... 5
*ELT 107 Applied Physics: Heat/Light/Sound ..... 5
ELT 144 Digital Fundamentals I ..... 5
ELT 150 DC Fundamentals I ..... 5
ELT 151 DC Fundamentals II ..... 5
ELT 152 AC Fundamentals I ..... 5
ELT 153 AC Fundamentals II ..... 5
ELT 154 Solid Circuits I ..... 5
ELT 155 Solid State Circuits II ..... 5
ELT 201 Digital Fundamentals II ..... 5
ELT 202 Microprocessors I ..... 5
ELT 255 Linear ICs and Sensors ..... 5
ELT 266 Electronic Design and Fabrication ..... 5
ELT 268 Practical Solid State Troubleshooting ..... 5
ELT 271 Electronic Communications I ..... 5
ELT 272 Electronic Communications II ..... 5
Recommended Elective Credit Hours (select two courses with
Advisor's approval) ..... 10
ELT 203 Microprocessors II ..... 5
ELT 273 Electronic Communications III ..... 5
ELT 275 Integrated Circuit Fabrication Techniques ..... 5
ELT 277 Video Systems ..... 5
ELT 224 Industrial Electricity III ..... 5
ELT 276 Electronic Robotics ..... 5
Select a minimum of 13 credit hours with advisor approval Take one of the following: ..... 5
*SPE 115 Principles of Speech Communication ..... 5
*SPE 110 Communication Concepts ..... 5
*SPE 118 Interpersonal Communication ..... 5
Take one of the following: ..... 3-5
*CSC 101 Introduction to Programming in the BASIC Language ..... 4
*CSC 102 Advanced Basic Programming ..... 4
*CSC 111 Structured Program Design ..... 3
*CSC 121 Programming in Pascal ..... 5
Take one of the following: ..... 3-5
*ECO 201 Principles of Macroeconomics ..... 5
*ECO 202 Principles of Microeconomics ..... 5
*PSY 101 General Psychology I ..... 5
*PSY 111 Basic Human Potential Seminar ..... 3
Total Credit Hours for Electronic Technology
A.A.S. Degreeminimum 108

## AUTOMATED PROCESS TECHNICIAN OPTION

Degree Requirements:
BET 100 Intro to Technology 1
BET 118 Intro to CAD 3
BET 207 Technical Job Seeking 1
BET 215 Engineering Planning \& Control 4
CAM 205 Computer Aided Mig. 4
CAM 207 Intro To Robotics 4
CAM 208 Engineering Probs. \& Applications/MFG 4
*ELT 106 Applied Physics: Mechanical 5
*ELT 107 Applied Physics: Heat/Light/Sound 5
ELT 144 Digital Fundamentals I 5
ELT 150 DC Fundamentals I 5
ELT 151 DC Fundamentals II 5
ELT 152 AC Fundamentals I 5
ELT 153 AC Fundamentals II 5
ELT 154 Solid Circuits I 5
ELT 155 Solid State Circuits II 5
ELT 201 Digital Fund II 5
ELT 255 Linear ICs and Sensors 5
ELT 268 Practical Solid State Troubleshooting 5
ELT 276 Electronic Robotics 5
MET 101 Engineering Materials 4
MET 102 Manufacturing Processes 3
MET 202 Mech Design: Manufacturing 3
MET 216 Fluid Power 3
Select a minimum of 13 credit hours with advisor approval.
Take one of the following:
*SPE 115 Principles of Speech Communication 5
*SPE 110 Communication Concepts 5
*SPE 118 Interpersonal Communication 5
Take one of the following: ..... 4.5
*CSC 101 Introduction to Programming in the BASIC Language ..... 4
*CSC 102 Advanced Basic Programming ..... 4
*CSC 111 Structured Program Design ..... 5
*CSC 121 Programming in Pascal ..... 5
Take one of the following: ..... 3-5
*ECO 210 Principles of Macroeconomics ..... 5
*ECO 202 Principles of Macroeconomics ..... 5
"PSY 101 General Psychology I ..... 5
*PSY 111 Basic Human Potential Seminar ..... 3
Total Credit Hours for Automated Process Technician Option
A.A.S. Degreeminimum 112
ELECTRONICS TECHNOLOGY

Catherine Crim
Hewlett-Packard

Ft. Collins Division

Tom Henderson
Hewlett-Packard
Greeley Division
Lynn Johnson
Woodward Governor, Inc.
Ft. Collins
Clarence Laber
Hewlett-Packard
Loveland Division

Rick Peterson
Woodward Governor, Inc.
Ft. Collins
Lowell Shatraw
Greeley, Colorado
William Spicer
Hewlett-Packard
Ft. Collins Division
Ron Williams
NCR
Ft. Collins

Michael Longmore
Advance Energy
Ft. Collins


## DRAFTING

Manual and computer aided dratting courses are offered to meet the needs of students and industry within the college district.

A series of courses is offered as part of the Drafting Technology certificate and the Engineering Technology degree programs. A student who is interested in developing only dratting skills may enroll in these courses (for skill development) providing course prerequisites are met. (See course descriptions for individual course prerequisites.)

Upon written request, non-certificate or non-degree students will be awarded a "Certificate of Completion" for the classes that have been successfully completed.

Dratting courses are also available to students enrolled in the Area Vocational School. These courses are offered during regular college hours to all students of the Aims Junior College District. Students interested in these courses should contact their high school principal or counselors for details and the possibilities for enrollment.

ALL dratting students are ENCOURAGED to join the local Aims Community College Chapter of ADDA (American Design Drafting Association) to enhance their professional development.


## DRAFTING TECHNOLOGY

Program Advisor: Don Darling, Art Giesick
Program Length: Usually three quarters for completion of Certificate in Occupational Education program.

Potential Opportunities: The program is designed to qualify the student for entry level employment as a drafter. The student will develop an understanding of applied mathematics and drafting techniques utilized in the dratting field.

A student completing this certificate program could be an entry level employee in the following areas:

1. Architectural Drafting
2. Civil Drafting
3. Urban Plan Drafting
4. Solar Technology Planning and Drafting
5. Engineering and Architectural Related Technologies

Program Requirements: Good eyesight, hand dexterity, and a sense of size and proportion are helpful.

Many of the courses within this program have prerequisites that must be met prior to class admittance. See specific course descriptions for requirements.

General Information: All students in this program are encouraged to participate in the Aims Community College Chapter of ADDA (American Design Dratting Association).

The student may add electives to the certificate program with advisor approval.

Registration Requirement: All students taking a course or courses in a Technical Division program must have an appropriate Technical Division program advisor's signature on the course registration form before registering.

CERTIFICATE PROGRAM
Certificate Requirements:
CREDITS
Introduction to Technology
BET 101 Technical Drawing Concepts 6
BET 102 Dratting Fundamentals 4
BET 103 Engineering Graphics 4
BET 116 Applied Technical Mathematics 5
BET 118 Introduction to Computer Aided Dratting 3
BET 201 CAD Fundamentals I 4
BET 202 CAD Fundamentals II 4
BET 207 Technical Job Seeking 1
MET 101 Engineering Materials 4
Technical Electives (select with Advisor's approval) 12
Credit Hours Required for Drafting Technology Certificate 48

## ENGINEERING TECHNOLOGY

Program Advisors: Bill Cullins, Don Darling, Jay Freese, Art Glesick, Gary Hunt
Program Length: Usually six quarters for Associate in Applied Science degree program.

Potential Opportunities: The program is designed to prepare a student for activities of a technical nature, usually associated with architectural, civil, mechanical, and manufacturing engineering. These occupation entry level activities may include drafting, estimating, data gathering, technical reports, minor structural, topographic or mechanical design, surveying, laboratory testing and other engineering assistance skills. The student will develop work skills, an understanding of applied mathematics and physics, and materials and techniques relative to human relations, such as leadership, career planning, and obtaining a position.
Program Requirements: Students entering this program are required to complete AIMS assessment examinations in the areas of reading, writing, math, and algebra. If QUALIFYING SCORES are NOT attained, program advisors will determine the preparatory courses required to gain admittance to the program.

Many Engineering Technology courses have prerequisites that MUST be met prior to class admittance. See AET, BET, CAM, CET, and MET course descriptions for specific requirements.

Good eyesight, hand dexterity, and a sense of size and proportion are helpful in many of the technical courses.

General Information: The Engineering Technology student has the choice of completing a degree in the following option areas: Architectural, Civil, Computer Aided Manufacturing, or Mechanical Technology.
Registration Requirement: All students taking a course or courses in a Technical Division program must have an appropriate Technical Division program advisor's signature on the course registration form before registering.

## DEGREE PROGRAM

ARCHITECTURAL TECHNOLOGY (AET)
Engineering Technology General Education Courses: A minimum of 23 quarter credit hours of General Education Courses are required with Advisors approval. The General Education Courses are identified by an ( ${ }^{*}$ ).

CREDITS
Degree Requirements:
AET 100 Intro to Architectural History \& Technology 3
AET 103 Drafting III: Architecture 6
AET 105 Contract Drawing Interpretation 3
AET 201 Drafting IV: Architectural 4
AET 202 Dratting V: Architectural 4
AET 203 Drafting VI: Architectural 4
AET 208 Engineering Problems: Architecture 4
BET 100 Introduction to Technology 1
BET 101 Technical Drawing Concepts 6
BET 102 Drafting Fundamentals 4
BET 103 Engineering Graphics 4
*BET 106 Physics: Statics/Dynamics 5
*BET 107 Physics: Heat/Fluids ..... 5
*BET 116 Technical Mathematics ..... 5
BET 118 Introduction to Computer Aided Drafting ..... 3
BET 201 CAD Fundamentals I ..... 4
BET 204 Industrial Relations ..... 3
BET 206 Statics ..... 5
BET 207 Technical Job Seeking ..... 1
CET 201 Dratting IV: Structural ..... 18
4CET 202 Dratting V: Civil
5MET 101 Engineering Materials
MET 201 Strength of Materials ..... 5
*ENG 105 Fundamentals of Composition ..... 5
(Must be completed during FIRST year in program)
Take one of the following: ..... 5
*SPE 115 Principles of Speech Communication ..... 5
*SPE 110 Communication Concepts ..... 5
*SPE 118 Interpersonal Communication ..... 5
*SPE 200 Organizational Communication ..... 5
Take one of the following: ..... 2-6
*CSC 100 The Computer and Society ..... 4
*CSC 101 Intro to Programming in the BASIC Language ..... 4
*CSC 141 Microcomputer Managed Applications:
Word Processing ..... 2
*MAT 113 College Plane Geometry ..... 5
*MAT 121 College Algebra ..... 6
"MAT 122 College Trigonometry ..... 5
Take one of the following: ..... 3-5
*ECO 201 Principles of Macroeconomics ..... 5
*ECO 202 Principles of Microeconomics ..... 5
*PHI 113 Logic ..... 5
*PSY 101 General Psychology I ..... 5
*PSY 111 Basic Human Potential Seminar ..... 3
*SOC 101 Introduction to Sociology ..... 5
PSY 120 Psychology of Leadership \& Management ..... 5
Total Credit Hours for Architectural Technology Optionminimum 112
MECHANICAL TECHNOLOGY (MET)General Education Courses: A minimum of 23 quarter credithours of General Education Courses are required with Advisorsapproval. The General Education Courses are identified by an (*).
CREDITSDegree Requirements:58
BET 100 Introduction to Technology ..... 1
BET 101 Technical Drawing Concepts ..... 6
BET 102 Dratting Fundamentals ..... 4
BET 103 Engineering Graphics ..... 4
*BET 106 Physics: Statics/Dynamics ..... 5
*BET 107 Physics: Heat/Fluids ..... 5
*BET 116 Technical Mathematics ..... 5

| BET 118 | Introduction to Computer Aided Drafting | 3 |
| :--- | :--- | ---: |
| BET 201 | CAD Fundamentals I | 4 |
| BET 202 | CAD Fundamentals II | 4 |
| *BET 204 | Industrial Relations | 3 |
| BET 206 | Statics | 5 |
| BET 207 | Technical Job Seeking | 1 |
| BET 215 | Engineering Planning \& Control | 4 |
| CAM 105 | Industrial Electricity | 4 |
|  |  | 4 |
|  |  | 4 |
| CET 201 | Drafting IV: Structural | 4 |
|  |  | 4 |
| MET 101 | Engineering Materials | 4 |
| MET 102 | Manufacturing Processes | 5 |
| MET 201 | Strength of Materials I | 3 |
| MET 202 | Mechanical Design: Manufacturing | 3 |
| MET 203 | Mechanical Design: Facilities | 4 |
| MET 208 | Engineering Problems: Mechanical | 3 |
| MET 216 | Fluid Mechanics |  |
|  |  | 5 |
| *ENG 105 | Fundamentals of Composition |  |
|  | (Must be completed during FIRST year in program.) |  |

Take one of the following: 5
*SPE 115 Principles of Speech Communication 5
*SPE 110 Communication Concepts 5
*SPE 118 Interpersonal Communication 5
*SPE 200 Organizational Communication 5
Take one of the following: $\quad 2-6$
*CSC 100 The Computer and Society 4
*CSC 101 Intro to Programming in the BASIC Language 4
*CSC 141 Microcomputer Managed Applications:
Word Processing 2
*MAT 113 College Plane Geometry 5
*MAT 121 College Algebra 6
*MAT 122 College Trigonometry 5
Take one of the following: $3-5$
*ECO 201 Principles of Macroeconomics 5
*ECO 202 Principles of Microeconomics 5
*PHI 113 Logic 5
*PSY 101 General Psychology I 5
*PSY 111 Basic Human Potential Seminar 3
*SOC 101 Introduction to Sociology 5
*PSY 120 Psychology of Leadership \& Management 5
Elective Credit Hours (Select with Advisors approval) 5
Total Credit Hours for Mechanical Technology Option
AAS Degree
minimum 107

## COMPUTER AIDED MANUFACTURING TECHNOLOGY OPTION

General Education Courses: A minimum of 23 quarter credit hours of General Education Courses are required with Advisors approval. The General Education Courses are identified by an (*).

CREDITS
Degree Requirements: ..... 37
BET 100 Introduction to Technology ..... 1
BET 101 Technical Drawing Concepts ..... 6
"BET 106 Physics: Statics/Dynamics ..... 5
*BET 107 Physics: Heat/Fluids ..... 5
*BET 116 Technical Mathematics ..... 5
BET 118 Introduction to Computer Aided Drafting ..... 3
BET 201 CAD Fundamentals I ..... 4
*BET 204 Industrial Relations ..... 3
BET 207 Technical Job Seeking ..... 1
BET 215 Engineering Planning \& Control ..... 4
CAM 105 Industrial Electricity26
4CAM 106 Electricity for Engineering I
CAM 205 Computer Aided Manufacturing ..... 4
CAM 206 Electronics for Engineering II ..... 5
CAM 207 Introduction to Robotics ..... 4
CAM 208 Engineering Problems: Manufacturing ..... 4
13MET 101 Engineering Materials
MET 102 Manufacturing Processes4
MET 202 Mechanical Design: Manufacturing3
MET 216 Fluid Mechanics ..... 3
*ENG 105 Fundamental of Composition ..... 5
(Must be completed during FIRST year in program.)
Take one of the following: ..... 5
*SPE 115 Principles of Speech Communication ..... 5
'SPE 110 Communication Concepts ..... 5
*SPE 118 Interpersonal Communication ..... 5
*SPE 200 Organizational Communication ..... 5
Take one of the following: ..... 4.5
*CSC 101 Intro to Programming in the BASIC Language ..... 4
*CSC 102 Advanced Basic Programming ..... 4
*CSC 111 Structured Program Design ..... 5
*CSC 121 Programming in Pascal ..... 5
Take one of the following: ..... 3-5
*ECO 210 Principles of Macroeconomics ..... 5
*ECO 202 Principles of Microeconomics ..... 5
*PSY 101 General Psychology I ..... 5
*PSY 111 Basic Human Potential Seminar ..... 3
*PSY 120 Psychology of Leadership \& Management ..... 5
Elective Credit Hours (Select with Advisors approval) ..... 15
Total Credit Hours for Computer Aided Manufacturing Option AAS Degree ..... minimum 106

## CIVIL TECHNOLOGY OPTION

General Education Courses: A minimum of 23 quarter credit hours of General Education Courses are required with Advisors approval. The General Education Courses are identified by an (*).

*PSY 111 Basic Human Potential Seminar ..... 3
*SOC 101 Introduction to Sociology ..... 5
*PSY 120 Psychology of Leadership \& Management ..... 5

Total Credit Hours for Civil Technology Option AAS Degree minimum 108

## ARCHITECTURAL AND ENGINEERING ADVISORY COMMITTEE

| Steve Caldwell | John Lenz |
| :--- | :--- |
| Colorado Engineering |  |
| Experiment Station, Inc. | Kodak of Colorado |
|  | Windsor |
| Tom Cope | Dr. Bill Lee |
| Civil Engineer | Dept. Industrial Sciences |
|  | CSU, Ft. Collins, CO |
| Dan Correll | Hazel Stephens |
| Building Inspector <br> City of Greeley | Engineering Technician |
|  |  |
| Chuck Dayton <br> Hewlett-Packard <br> Greeley Division | Bill Friehauf |
|  | Woodward Governor, Inc. |
|  | Ft. Collins, CO |



| Division Director: | Jim Hein |
| :--- | :--- |
| Division Secretary: | Terri Peck |
| Location: | Trades \& Industry, Room 107 |
| Telephone: | $330-8008$, Ext. 284 |

The Trades and Industry Division is committed to helping students acquire job required skills through demonstration and hands-on practice. We also are committed to providing advanced training for students who already are working in a trade.

Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering.

The Trades and Industry Division offers the following programs:

## AUTO BODY REFINISHING

(Occupational Certificate)

## AUTO BODY REPAIR TECHNOLOGY

## AUTOMOTIVE MECHANICS TECHNOLOGY

EARLY CHILDHOOD EDUCATION

GRAPHIC TECHNOLOGY

WELDING TECHNOLOGY
(A.A.S degree or Occupational Certificate)
(A.A.S degree or Occupational Certificate)
(two-year A.A.S. degree or one-year Occupational Certificate)
(A.A.S. degree or Occupational Certificate)
(A.A.S. degree or Occupational Certificate)

## TRADES AND INDUSTRY

 SCHOLARSHIPS| AWARD: | ROY L. SMITH MEMORIAL <br> SCHOLARSHIP |
| :--- | :--- |
| Awarding Division | Trades and Industry (Auto Mechanics) <br> \$100 per quarter throughout the <br> recipient's program |
| Award Amount: | Eighth week of Fall quarter <br> Contact awarding Division for criteria |
| Application Deadline: |  |
| Qualifications: | WINOGRAD'S STEEL AND SUPPLY |
| SCHOLARSHIPS |  |
| AWARD | Trades and Industry (Welding) |
| Awarding Division: | Two \$300 awards <br> End of Fall and Winter Quarters <br> Award Amount: <br> Application Deadline: <br> Qualifications: |
| Contact awarding Division for criteria |  |

## AUTO BODY REFINISHING

Program Length: Usually three quarters for Certificate in Occupational Education program.
Potential Opportunities: This is a specialized, three quarter certificate program to help develop the knowledge and skills used by an automotive or truck refinisher. Students will learn about materials and equipment, including their uses, in order to qualify for entry level jobs.

Opportunities will be in the refinishing field as a painter or possibly paint shop foreman. The shop may repair cars or include large truck refinishing.
It is our purpose to meet the training needs of the community. In most cases we are able to offer special vocational classes or programs upon request from industry or a group of students.

Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering. The advisors for the Auto Body program are: Carl Guilliams, Pat Hergenreter, or Jim Hein, Division Chairman

## CERTIFICATE PROGRAM

Certificate Requirements: ..... CREDITS
Fall Quarter ..... 12
ABF 151 Auto Refinish I ..... 12
Winter Quarter ..... 12
ABF 152 Auto Refinish II ..... 12
Spring Quarter ..... 12
ABF 153 Auto Refinish III ..... 12
Sub Total ABF Courses ..... 36
General Ed. Certificate Requirements ..... 10
MAT 101 Applied Mathematics ..... 5
PHY 101 Applied Physics ..... 5
Total Credits for Certificate ..... 46


## AUTO BODY REPAIR

Program Length: 1000 clock hours ( 72 credits plus 10 credits in general education) for Certificate in Occupational Education, or 1140 clock hours ( 72 credits plus 23 credits in general education) for Associate in Applied Science degree program.

Potential Opportunities: Opportunities for the tradesman range from the actual repair of the damaged auto to being owner of the shop, shop foreman, shop estimator, or insurance adjustor. A constant manpower demand has existed for several years in this field. The demand exists in small local shops as well as large agency organizations.
The program will help develop the skill and knowledge needed to repair a damaged auto including glass removal and replacement, straightening of damaged panels and frames, checking of wheel alignment, panel alignment, filling dents, welding and brazing of torn panels, and preparing for the application of modern automotive finishes. The program is designed to give the student skill and knowledge for entry level employment.
At the beginning of winter quarter students will be required to provide some very basic hand tools for use in the body shop. These tools also will be needed to acquire a job in the trade after completion of the program.

It is our purpose to meet the training needs of the community. In most cases, we are able to offer special vocational classes or programs upon request from industry or a group of students.

Program Requirements: Completion of the eight certificate requirements will earn a Certificate in Occupational Education. When possible, courses will be scheduled so that the student may take one ABR prefix course per quarter for 12 credits or two ABR prefix courses per quarter for 24 credits.

To earn an Associate of Applied Science degree, the student must complete all ABR prefix certificate requirements and at least 23 credit hours of general education courses. Students in Trades and Industry are encouraged to take the recommended general education courses when possible. With the consent of the student's advisor, other courses may be selected to fulfill the general education requirements.

Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering. The advisors for the Auto Body area area: Carl Guilliams, Pat Hergenreter, or Jim Hein, Division Chairman.

## CERTIFICATE PROGRAM

Certificate Requirements:
CREDITS

## Fall Quarter

 24ABR 141 Auto Body Repair I ..... 12
ABR 241 Auto Body Repair IV ..... 12
Winter Quarter ..... 24
ABR 142 Auto Body Repair II ..... 12
ABR 242 Auto Body Repair V ..... 12
Spring Quarter ..... 24
ABR 143 Auto Body Repair III ..... 12
ABR 243 Auto Body Repair VI ..... 12
Sub Total ABR Courses ..... 72
General Ed. Certificate Requirements ..... 10
MAT 101 Applied Mathematics ..... 5
PHY 101 Applied Physics ..... 5
Total Credits for Certificate ..... 82
DEGREE PROGRAM
Degree Requirements:
Completion of all ABR prefix certificate requirements ( 72 credits) plusrecommended general education courses ( 23 credits).
CREDITS
Certificate Requirements: (ABR prefix courses) ..... 72
Recommended General Education Courses: ..... 23
COS 115 Applied Communications ..... 3
ECO 105 Organizations and Institutions ..... 3
HEN 106 Red Cross/Standard First Aid/CPR ..... 3
MAT 101 Applied Mathematics I ..... 5
PHY 101 Applied Physics I ..... 5
CSC 100 The Computer and Society ..... 4
Total Credits for A.A.S. Degree ..... 95
Support Courses
ABR 102 Basic Straightening ..... 4
ABR 103 Basic Refinishing ..... 4
ABR 111 Damage Repair ..... 4
ABR 112 Panel Replacement ..... 4
ABR 121 Electrical and Alignment ..... 4
ABR 122 Advanced Refinishing ..... 4
ABR 123 Damage Appraisal Estimating ..... 4
ABR 199 Special Needs/Auto Body Repair ..... 1
ABR 201 Quarter Panel Replacement ..... 4
ABR 202 Basic Sheet Metal Replacement ..... 4
ABR 203 Advanced Sheet Metal Replacement ..... 4
ABR 211 Basic Frame Repair ..... 4
ABR 212 Conventional Frame Repair ..... 4
ABR213 Unitized Frame Repair ..... 4
ABR २२1 Auto Body Rebuilding I ..... 4
ABR २22 Auto Body Rebuilding II ..... 4
ABR २२३ Auto Body Rebuilding III ..... 4
AUTO BODY REFINISHING AUTO BODY REPAIR ADVISORY COMMITTEE

| Mike Foster <br> Stevens Automotive | Rondo Sherman <br> Premer's |
| :--- | :--- |
| Dave Keiser  <br> Keiser Paint \& Body Don Wilson <br> Earl Nicks Precision Auto Body <br> Classic Chevrolet (Retired) Al Yago <br> Precision Auto Body  <br> Student Representative  <br> Auto Body Area  |  |

## AUTOMOTIVE MECHANIC TECHNOLOGY

Program Length: 1000 clock hours ( 72 credits plus 10 credits in general education) for Cerificate in Occupational Education, or 1140 clock hours ( 72 credits plus 23 credits of general education) for Associate in Applied Science degree program. Students have the option of completing the program in one year (six hours per day) or two years (three hours per day).

Potential Opportunities: The program will prepare the student for entry into the automotive field at the advance apprentice level. To achieve this, the student will receive instruction and practical experience with both mock-ups and live work. The student can prepare to enter the automotive service field as a general automobile mechanic or become a specialist in one or more of the following areas: automotive diagnostician, brake specialist, wheel alignment specialist, tune-up specialist, automotive transmission specialist, or air conditioning specialist.

The modern automobile is a complex piece of machinery that requires a technician who knows how to repair it, and who knows why and how it operates so that s/he can diagnose problems quickly and accurately.

We offer a course to help prepare a mechanic for the Colorado Emissions Certification tests. It is our purpose to meet the training needs of the community. In most cases we are able to offer special vocational classes or programs upon request from industry or a group of students.

Program Requirements: Completion of the eight certificate requirements will earn a Certificate in Occupational Education. When possible, courses will be scheduled so that the student may take one AMT prefix course per quarter for 12 credits or two AMT prefix courses per quarter for 24 credits.

To earn an Associate of Applied Science degree, the student must complete the AMT prefix certificate requirements and at least 23 credit hours of general education courses. Students in Trades and Industry are encouraged to take the recommended general education courses when possible. With the consent of the student's advisor, other courses may be selected to fulfill the general education requirements.

Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering. The advisors for the Auto Mechanics program are: Dennis Schossow, or Jim Hein, Division Chairman.

## CERTIFICATE PROGRAM

(This certificate program is subject to approval by the Colorado Community College and Occupational Education System.)

Certificate Reqürements: CREDITS
Core Courses
AMT 133 Engine Performance 12
AMT 232 Electrical 12
AMT 266 Automotive Electronics \& Computer Systems I 12
Core Credit Hours Required 36
General Automotive Technician Option
AMT 131 Brakes and Manual Power Trains ..... 12
AMT 132 Steering and Suspensions Systems ..... 12
AMT 231 Automotive Engines ..... 12
General Automotive Technician Option Credit Hours ..... 36
Sub Total for Core Plus Option Credits ..... 72
Electronics/Computerized Diagnostics Option
AMT 267 Advanced TechnologyNew Car Systems ..... 12
AMT 268 Automotive Electronics \& Computer Systems II ..... 12
AMT 269 Computerized Systems: Diagnosis \& Driveability ..... 12
Electronic/Computerized Diagnostics Option ..... 36
Sub Total for Core Plus Option Credits ..... 72
General Education Certificate Requirements ..... 10
MAT 101 Applied Mathematics ..... 5
PHY 101 Applied Physics ..... 5
Total Credits for Certificate (either option) ..... 82
DEGREE PROGRAM(This degree program is subject to approval by the ColoradoCommunity College and Occupational Education System.)Degree Requirements:
General Automotive Technician Option: Completion of all AMTprefix Certificate requirements for General Automotive TechnicianOption ( 72 credits) plus recommended general education courses ( 23credits).
Electronics/Computerized Diagnostics Option: Completion of all AMT prefix Certificate requirements for Electronics/Computerized Diagnostics Option ( 72 credits) plus recommended general education courses ( 23 credits).
CREDITS
Certificate Requirements: (AMT Prefix courses) ..... 72
Recommended General Education Courses ..... 23
COS 115 Applied Communications ..... 3
ECO 105 Organizations and Institutions ..... 3
HEN 106 Red Cross/Standard First Aid/CPR ..... 3
MAT 101 Applied Mathematics I ..... 5
PHY 101 Applied Physics I ..... 5
CSC 100 The Computer and Society ..... 4
Total Credits for A.A.S. Degree (either option) ..... 95
Support Courses
AMT 101 Auto Mechanics for Beginners ..... 4
AMT 104 Brake Repair ..... 4
AMT 105 Advanced Electrical ..... 4
AMT 106 Tune-up ..... 4
AMT 107 Advanced Engine Tune-up ..... 4

TRADES \& INDUSTRY DIVISION, cont.

| AMT 108 | Automatic Transmissions | 4 |
| :--- | :--- | ---: |
| AMT 115 | Foreign Car Tune-up | 4 |
| AMT 116 | Four Wheel Alignment | 4 |
| AMT 124 | Automotive Service Management | 3 |
| AMT 125 | Auto Certification Refresher | 2 |
| AMT 135 | Colorado Emission License | 2 |
| AMT 136 | Emission Control | 5 |
| AMT 199 | Special Needs/Auto Mechanics | 1 |
| AMT 233 | Air Conditioning and Comfort Controls | 5 |
| AMT 234 | Automotive Transmission \& Air Conditioning | 12 |
| AMT 261 | Computer Controlled Engine Systems | 4 |
| AMT 262 | Automotive Electronics | 6 |

## AUTOMOTIVE MECHANICS TECHNOLOGY ADVISORY COMMITTEE

Glen Morehead
U.S. West Communications

Art Heselius
Greeley Dodge

Lorraine Rasmussen
Denver Institute of Technology
Franz Rook
Spadley-Ghent

Charles Jacquinot
Pastor Mazda


## EARLY CHILDHOOD EDUCATION

## CERTIFICATE PROGRAM

Program Length: Usually three quarters for a Certification Occupational Education program.

Potential Opportunities: The rapid increase of services for young children provides a wide variety of positions available to the person trained in Early Childhood Education. The expansion of knowledge in child development methods, coupled with the economic need for parents to seek part or full-day child care outside their home, has created specialized fields for working with young children and their families. The demand for quality child care in centers which promote educational goals replaces the traditional role of baby-sitter with a number of career options in the exciting, growing field of Early Childhood Education.

The program is designed to prepare students for group leader entry level positions in private preschools, small and large day care centers, nursery schools, child development centers, Head Start and Follow Through programs and summer day camps. In most cases, work experience is required in addition to courses listed.

Prerequisites: A physical examination will be required of each student who initially enrolls in practice teaching courses. Any student working with children in a student teaching practicum will submit a dated report of physical examination, dated report of satisfactory tuberculin test or chest $x$-ray, criminal record check, and Central Registry for Child Protection check as required by the Colorado Department of Social Services. Forms and information will be provided by program advisors.
Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering. The advisors for the Early Childhood Education area are: Kathy Hamblin, Maurine Summers, or Jim Hein, Division Chairman.

CREDITS
Certificate Requirements:

| ECE 100 | Introduction to Early Childhood Education | 2 |
| :--- | :--- | :--- |
| ECE 131 | Practice Teaching I: Observations | 5 |
| ECE 132 | Practice Teaching II: Assistant Group Leader | 7 |
| ECE 133 | Practice Teaching III: Group Leader | 7 |
| ECE 141 | Designing Creative Activities | 3 |
| ECE 142 | Designing Learning Activities | 3 |
| ECE 161 | Child Growth and Development | 5 |
| ECE 162 | Guidance Techniques for Early |  |
|  | Childhood Educators | 2 |
| ENG 105 | Fundamentals of Composition | 5 |
| COS 115 | Applied Communication | 3 |
| HEN 106 | Red Cross/Standard First Aid/CPR | 3 |
| Elective |  | 2 |
|  |  |  |
| Total Credits for Certificate | 47 |  |

ECE 131 Practice Teaching I: Observations 5
ECE 132 Practice Teaching II: Assistant Group Leader 7
ECE 133 Practice Teaching III: Group Leader 7
ECE 141 Designing Creative Activities 3
ECE 142 Designing Learning Activities 3
ECE 161 Child Growth and Development 5
ECE 162 Guidance Techniques for Early Childhood Educators
ENG 105 Fundamentals of Composition 5
COS 115 Applied Communication
Elective 2
Total Credits for Certificate

## DEGREE PROGRAM

## EARLY CHILDHOOD EDUCATION

Program Length: 1130 clock hours ( 96 credits), usually six quarters for an Associate of Applied Science degree.

Potentlal Opportunities: The rapid increase of services for young children provides a wide variety of positions available to the person trained in early childhood education. The expansion of knowledge in child development methods, coupled with the economic need for parents to seek part or full-day child care outside their home, has created specialized fields for working with young children and their families. The demand for quality child care in centers which promote educational goals replaces the traditional role of baby-sitter with a number of career options in the exciting, growing field of Early Childhood Education.

The program is designed to academically prepare students for director positions in private preschools, small and large day care centers, nursery schools, child development centers, Head Start and Follow Through programs and summer day camps. In most cases, work experience is required in addition to courses listed.

Prerequisites: A physical examination will be required of each student who initially enrolls in practice teaching courses. Any student working with children in a student teaching practicum will submit a dated report of physical examination, dated report of satisfactory tuberculin test or chest $x$-ray, criminal record check and Central Registry for Child Protection check as required by the Colorado Department of Social Services. Forms and information will be provided by program advisors.

Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering. The advisors for the Early Childhood Education area are: Kathy Vasa, Maurine Summers, or Jim Hein, Division Chairman.

General Education Courses: A minimum of 23 quarter credit hours of General Education courses are required with advisors approval. The General Education courses are identified by an (").
Degree Requirements: CREDITS
First Year
ECE 100 Intro. to Early Childhood Education ..... 2
ECE 131 Practice Teaching I: Observations ..... 5
ECE 132 Practice Teaching II: Assistant Group Leader ..... 7
ECE 133 Practice Teaching III: Group Leader ..... 7
ECE 141 Designing Creative Activities ..... 3
ECE 142 Designing Learning Activities ..... 3
ECE 161 Child Growth and Development ..... 5
ECE 162 Guidance Techniques for Early Childhood Educators ..... 2
*ENG 105 Fundamentals of Composition ..... 5
*COS 115 Applied Communication ..... 3
*HEN 106 Red Cross/Standard First Aid/CPR ..... 3
Elective ..... 2
Total Credits for First Year ..... 47

## Second Year

ECE 202 Administration: Licensing \& Legislation 3
ECE 203 Administration: Working with Parents 3
ECE 231 Practice Teaching IV: Team Teacher 7
ECE 232 Practice Teaching V: Lead Teacher 7
ECE 233 Practice Teaching VI: Apprentice Director 7
ECE 204 Nutrition for Young Child 3
ECE 245 Non-discipline Discipline 2
*SOC 101 Introduction to Sociology I 5 OR
*SOC 105 Sociology of Marriage and Family 5
"MAT 110 Applied Business Mathematics 5
*PSY 101 General Psychology I 5
OR
*PSY 115 Humanistic Psychology 5 OR
*PSY 166 Developmental Psychology 5
OR
*PSY 248 Child Psychology 5
Elective 4
Total Credits for Second Year 51
Total Credits for A.A.S Degree 98
Program Electives
ECE 111 Early Childhood Leadership Development I 1
ECE 112 Early Childhood Leadership Development II 1
ECE 113 Early Childhood Leadership Development III 1
ECE 145 Creative Materials Workshop 2
ECE 146 Music/Movement Workshop 2
ECE 147 Outdoor Activities Workshop 2
ECE 148 Math and Science Workshop 2
ECE 155 Toddler Care Workshop 2
ECE 156 Safety Skills Workshop 2
ECE 157 Motor Skills Workshop 2
ECE 206 Literature and Language Workshop 2
ECE 207 Early Childhood Education Trends and Issues 2
ECE 241 Unit Planning Workshop 2

## COLORADO DEPARTMENT OF SOCIAL SERVICES REQUIREMENTS:

(Aims courses that meet Colorado Department of Social Services requirements for director qualifications for large day care centers (13 or more children.)

## CHILD DEVELOPMENT AND ECE METHODS:

(Total of 18 quarter credits with at least 6 credits in child development.)

CREDITS
ECE 100
Intro. to Early Childhood Education
ECE 131 Practice Teaching I: Observations 5
ECE 141 Designing Creative Activities 3
ECE 142 Designing Learning Activities 3
ECE 145 Creative Materials Workshop 2
ECE 146 Music/Movement Workshop 2
ECE 147 Outdoor Activities Workshop 2
ECE 148 Math and Science Workshop 2
ECE 155 Toddler Care Workshop ..... 2
ECE 156 Safety Skills Workshop ..... 2
ECE 157 Motor Skills Workshop ..... 2
ECE 161 Child Growth and Development ..... 5
ECE 206 Literature and Language Workshop ..... 2
ECE 207 Early Childhood Education Trends and Issues ..... 2
ECE 245 Non Discipline Discipline ..... 2
PSYCHOLOGY
(Total of 4.5 quarter hours required)
PSY 101 General Psychology I ..... 5
PSY 115 Humanistic Psychology ..... 5
PSY 166 Developmental Psychology ..... 5
PSY 248 Child Psychology ..... 5
SOCIOLOGY
(Total of 4.5 quarter hours required)
SOC 101 Introduction to Sociology I ..... 5
SOC 105 Sociology of Marriage and Family ..... 5
NUTRITION FOR PRESCHOOL CHILD ..... 3
(Total of 3 quarter hours required)
ECE 204 Nutrition For Young Children ..... 3
ADMINISTRATION OF A PRESCHOOL OR DAY CARE PROGRAM(Total of 4.5 quarter hours minimum)
ECE 202 Administration of Child Care Centers ..... 3
ECE 203 Administration: Working with Parents ..... 3
EARLY CHILDHOOD EDUCATIONADVISORY COMMITTEE

Mary Louise Widnaier
Trinity Episcopal Parent
Cooperative
Barbara McFerron
Children's World \&
Learning Center

Mary Moreno<br>Family Educational Network of Weld County

## GRAPHIC TECHNOLOGY

Program Length: 900 clock hours ( 74 credits) for the Certificate in Occupational Education or 1150 clock hours ( 98 credits) for the Prepress Option or 1120 clock hours ( 97 credits) for the Press Option within the Associate of Applied Science degree program.

Potential Opportunities: The program will prepare the student for entry into a number of career fields; opportunities are almost unlimited in Graphic Technology. Key occupations include: computer graphics, desk-top publishing, layout, paste-up, composition, process camera work, image positioning, presswork, platemaking, and bindery. With additional training, the student also can be employed in graphic design, photography, management, sales, service, and repair. If you are interested in high speed, high volume communication within the printing industry (the third largest industry in the United States), a position is available to those with the proper skills.
Program Requirements: Completion of the six certificate requirements will earn a Certificate in Occupational Education.
The Associate of Applied Science degree offers the student additional theory as it is related to the student's area of specialization. The degree is recommended for persons wishing to advance in the printing industry.
Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering. The advisors for the Graphic Technology program are: Deb King, Lori Ford, or Jim Hein, Division Chairman.

## CERTIFICATE PROGRAM

Certificate Requirements:
CREDITS

## Fall Quarter

BUS 101 Keyboarding I 4
GRT 101 Graphic Technology I 20
Winter Quarter 25
BUS 141 Intro to Communications 5
GRT 102 Graphic Technology II 20
Spring Quarter 25
GRT 103 Graphic Technology III 20
MAT 110 Applied Business Mathematics 5
Total Credits for Certificate 74
General Education Courses: A minimum of 23 quarter credit hours of General Education courses are required with advisors approval. The General Education courses are identified by an (*).

## DEGREE PROGRAM

Degree Requirements:
Completion of six core courses plus six to seven courses related to the student's specialization as listed below. (Total Degree Requirements range from 97 to 98 credits.)

TRADES \& INDUSTRY DIVISION, cont.

CREDITS
Core Courses
GRT 101 Graphic Technology I 20
GRT 102 Graphic Technology II 20
GRT 103 Graphic Technology III 20
*HEN 106 Red Cross/Standard First Aid/CPR 3
*BUS 141 Intro to Communications 5
*BUS 165 Human Relations at Work 5
Core Credit Hours Required 73
The above courses are required and constitute the basic graphic technology core.

## PRE-PRESS OPTION

## Required Courses:

| *MAT 110 | Applied Business Math | 5 |
| :---: | :---: | :---: |
| *BUS 142 | Intermediate Communications | 5 |
| You must choose 4 credits from the following electives |  |  |
| BUS 101 | Keyboarding I | 4 |
| BUS 131 | Typewriting Refresher I | 4 |
| Electives |  |  |
| You must choose 11 credits from the following electives |  |  |
| *AAD 101 | Fundamentals of Art and Design I | 5 |
| *AAD 128 | Computer Graphics I | 3 |
| *AAD 129 | Computer Graphics II | 3 |
| *AAD 131 | Drawing I | 3 |
| *AAD 132 | Drawing II | 3 |
| *AAD 221 | Graphic Design I | 3 |
| *AAD 2 २2 | Graphic Design II | 3 |
| *AAD 241 | Photography I | 3 |
| *AAD 242 | Photography II | 3 |
| BIS 105 | Introduction to Computer Applications I | 5 |
| BIS 215 | Ventura | 5 |
| BUS 128 | Keyboarding for Computers | 2 |
| BUS 256 | Desktop Publishing Page Maker Software | 2 |
| *CSC 100 | The Computer and Society | 4 |
| *CSC 101 | Intro to Programming in the Basic Language | 4 |
| *ENG 105 | Fundamentals of Composition | 5 |
| GRT 196 | Graphic Technology Independent Study | 3 |
| *MGT 208 | Small Business Management | 5 |
| Total Pre-Press Option Credits |  | 98 |

## PRESS OPTION

Required Courses
"MAT 101 Applied Mathematics I 5
*PHY 101 Applied Physics

## Electives

You must choose 14 credits from the following electives
BUS 100 Introduction to Business
BUS 101 Keyboarding I 4
BUS 131 Typewriting Refresher I 4
*BUS 142 Intermediate Communications 5
*CSC 100 The Computer and Society
*CSC 101 Intro to Programming in the Basic Language

GRT 196 Graphic Technology Independent Study 3
'MAT 111 Beginning Algebra 5
"MGT 208 Small Business Management 5
*PHY 105 Conceptual Physics 5
Total Press Option Credits 97
Support Courses:
GRT 104 Graphic Technology IV 10
GRT 107 Silk Screen Printing 2
GRT 199 Graphic Technology/Special Needs 1
GRT 295 Graphic Technology/Independent Study A 2
GRT 296 Graphic Technology/Independent Study B 3
GRT 297 Graphic Technology/Independent Study C 5
GRT 299 Graphic Technology/Practicum 1
The above supporting courses are for the purpose of enriching the Degree or Certificate programs, but are not required.

## GRAPHIC TECHNOLOGY

 ADVISORY COMMITTEE| Pat Donovan | Mark Simon |
| :--- | :--- |
| Monfort Inc. | United Printing Equipment/ |
| Equipment/Supplies | Supplies |
|  | Ken Eberly |
| Margaret Willoughby | Butler Paper Co. |

Chuck Rehmer
Copyworld


## WELDING TECHNOLOGY

Program Length: 1000 clock hours (82) credits for a Certificate in Occupational Education, Welding Technician Option. 940 clock hours (85) credits for a Certificate in Occupational Education, Welding Systems Management Option. 1140 clock hours ( 72 credits plus 23 credits in general education) for an Associate of Applied Science degree.

Potential Opportunities: The program is designed to develop the skills necessary to pass the welder qualification tests. Qualification tests may be given in one or more positions such as flat, horizontal, vertical, or overhead. After completion of this program, the student can find work on bridges, pipelines, power houses, refineries, railroads, automobiles, farm machinery, and earth-moving equipment. Wherever metal is to be joined, welding usually is chosen as the fastest and most economical process. The welder must be able to fabricate all or part of a structure from drawings or blueprints with accuracy and in a reasonable amount of time. Other opportunities exist for students in the welding field as a welding foreman, welding inspector, welding technician, job shop welder, welding supply salesman, welding instructor, or welding engineer. Good hand and eye coordination and the desire to work steadily and patiently to achieve high skills in the art of welding are prerequisites for this program.

Welder Certificate Information: Welder Certification Services are available to students and non-students alike. All tests are cerifified by an independent testing lab. For more information, contact a welding program advisor or call (303) 330-8008, ext. 203

Program Requirements: Completion of the certificate requirements for either option will earn a certificate in Occupational Education.

To earn an Associate of Applied Science degree, the student must complete the WLT prefix certificate requirements for the Welding Technician option and at least 23 credit hours of general education courses. Students in Trades and Industry are encouraged to take the recommended general education courses when possible. With the consent of the student's advisor, other courses may be selected to fulfill the general education requirements.

For the students' convenience, the Welding Technology program offers an alternate delivery method for certificate program courses. This will allow students to take WLT 151, 152, and 153 for 72 credits or WLT 141, 142, 143, 241, 242, and 243 for 72 credits.

Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering. The advisors for the Welding Technology program are: Bill Killebrew, John Hickman, Mike Spika, or Jim Hein, Division Chairman.

## CERTIFICATE PROGRAM

(Welding Technician Option)
Certificate Requirements: CREDITS
Fall Quarter 24
WLT 151 Welding Technology I 24
Winter Quarter ..... 24
WLT 152 Welding Technology II ..... 24
(Equivalent to WLT 143 and 241) ..... 24Spring Quarter
WLT 153 Welding Technology III ..... 24(Equivalent to WLT 242 and 243)Sub Total for WLT Courses72
General Ed. Certificate Requirements ..... 10
MAT 101 Applied Mathematics ..... 5
PHY 101 Applied Physics ..... 5
Total Credits for Certificate (Welding Technician Option) ..... 82
Alternate Delivery Method for Certificate Program
(Welding Technician Option)
WLT 141 Oxy-Acet Welding ..... 12
WLT 142 Shielded Metal Arc I ..... 12
WLT 143 Shielded Metal Arc II ..... 12
WLT 241 Shielded Metal Arc III ..... 12
WLT 242 Pipe Welding ..... 12
WLT 243 Gas Metal Arc Welding ..... 12
MAT 101 Applied Mathematics ..... 5
PHY 101 Applied Physics ..... 5
Total Alternate Credits for Certificate (Welding Technician Option) ..... 82
(Welding Systems Management Option) Certificate Requirements: ..... CREDITS
WLT 121 Basic Welding Layout ..... 3
WLT 122 Safety Awareness in Metal Joining Technology ..... 3
WLT 123 Modern Metal Joining Processes ..... 5
WLT 124 Fundamentals of Welding Metallurgy ..... 5
WLT 125 Industrial Blueprint Reading ..... 5
WLT 126 Welding Inspection and Quality Control ..... 5
WLT 127 Basic Weldment Design ..... 3
WLT 128 Basic Weld Estimating ..... 5
WLT 141 Oxy-Acet Welding ..... 12
WLT 142 Shielded Metal Arcl ..... 12
WLT 143 Shielded Metal Arc II ..... 12
Sub Total for WLT Courses ..... 70
General Ed. Certificate Requirements ..... 15
MGT 207 Human Resource Management ..... 5
MAT 101 Applied Mathematics ..... 5
PHY 101 Applied Physics ..... 5
Total Credits for Certificate (Welding Systems Management Option) ..... 85

TRADES \& INDUSTRY DIVISION, cont.

## DEGREE PROGRAM

## Degree Requirements:

Completion of all WLT prefix certificate requirements for Welding Technician Option ( 72 credits) plus recommended general education courses ( 23 credits).

## CREDITS

## Certificate Requirements:

72
Recommended General Education Courses: 23
COS 115 Applied Communications 3
ECO 105 Organizations and Institutions 3
HEN 106 Red Cross/Standard First Aid/CPR 3
PHY 101 Applied Physics I 5
MAT 101 Applied Mathematics 5
CSC 100 The Computer and Society 4
Total Credits for A.A.S. Degree 95
Support Courses
WLT 100 Beginning Welding 2
WLT 105 Basic Oxy/Acet Welding 4
WLT 106 Advanced Oxy/Acet Welding 4
WLT 107 Basic Shield Metal Arc Welding 4
WLT 108 Advanced Shielded Metal Arc Welding 4
WLT 109 Basic Gas Metal Arc Welding 4

| WLT 115 | Advanced G | 4 |
| :---: | :---: | :---: |
| WLT 116 | Farm and R | 3 |
| WLT 121 | Basic Weldin | 3 |
| WLT 144 | Specialized | 12 |
| WLT 199 | Welding Spe | 1 |
| WLT 204 | Welding Pro |  |
| WLT 205 | Welding Prob | 4 |
| WLT 206 | Welding Pro |  |
| WLT 236 | Special Prob | 24 |
| WLT 237 | Special Prob | 24 |
| WLT 244 | Specialized | 12 |
| WLT 251 | Welding Fab | 24 |
| WELDING TECHNOLOGY |  |  |
| ADVISORY COMMITTEE |  |  |
| Mike Emerick |  | Dale Majors |
| Hobart Brothers Welding |  | Majors Welding Supply |
| Roger Felker |  | Larry Sarchet |
| Felder \& Sons Welding |  | Certified Welding |
| Marty Hoium |  | Lee Benson |
| Buckeye Welding Supply |  | Monfort of Co., Inc. |




## COURSE DESCRIPTIONS

## ACC: ACCOUNTING

## ACC 101 PRINCIPLES OF ACCOUNTING I

Fundamentals of accounting theory and practice. Includes a study of the entire accounting cycle, accounting for a merchandising concern, special journals, control of cash, and accounts and notes receivable.
Five credits: 50 clock hours

## ACC 102 PRINCIPLES OF ACCOUNTING II

A continuation of ACC 101 emphasizing the study of inventories, plant and equipment, intangible assets, short-term and long-term liabilities, investments and bonds payable, and accounting for partnerships and corporations.
Prerequisite: ACC 101 (ACC 196 recommended to be taken concurrently)
Five credits: 50 clock hours

## ACC 103 PRINCIPLES OF ACCOUNTING III

A continuation of ACC 102 emphasizing departmental, manufacturing and cost accounting, flow of funds, standard cost and capital budgeting, and statement analysis.
Prerequisite: ACC 102 (ACC 197 recommended to be taken concurrently)
Five credits: 50 clock hours

## ACC 105 PAYROLL ACCOUNTING

An in-depth study of the need for payroll and personnel records, computing gross salary using different methods, determining taxes (Social Security, Federal and State withholding, and unemployment), and various accounting systems used to record payroll. A payroll project will be completed.
Prerequisite: ACC 101 or BUS 121 or permission of instructor
Three credits: 30 clock hours

## ACC 111 ACCOUNTING REVIEW I

To provide the opportunity for the student to review accounting materials that would up-date and refresh their knowledge of Accounting I.
Prerequisite: ACC 101 Principles of Accounting I
One credit: 15 clock hours

## ACC 112 ACCOUNTING REVIEW II

To provide the opportunity for the student to review accounting materials that would up-date and refresh their knowledge of Accounting II.
Prerequisite: ACC 102 Principles of Accounting II
One credit: 15 clock hours

## ACC 113 ACCOUNTING REVIEW III

To provide the opportunity for the student to review accounting materials that would up-date and refresh their knowledge of Accounting III.
Prerequisite: ACC 103 Principles of Accounting III One credit: 15 clock hours

## ACC 121 INCOME TAX ACCOUNTING I

A study of the important income tax code provisions primarily as they affect individuals. Topics include: filing requirements and status, inclusions/exclusions of gross income, itemized deductions, losses, depreciation, credits, and property transactions.
Prerequisite: ACC 102 or permission of instructor
Five credits: 50 clock hours
ACC 122 INCOME TAX ACCOUNTING II
A continuation of ACC 121 emphasizing the rules and regulations as they apply to corporations, S corporations, partnerships, and estates.
Prerequisite: ACC 121 or permission of instructor
Three credits: 30 clock hours

## ACC 125 INCOME TAX ACCOUNTING I AND II

Combined ACC 121 and ACC 122 into one class. Covers same topics. Prerequisite: ACC 102 or permission of instructor
Eight credits: 80 clock hours

## ACC 196 ACCOUNTING PRACTICUM

The completion of a merchandising practice set for a proprietorship. Prerequisite: ACC 101
One credit: 15 clock hours

## ACC 197 COMPUTERIZED PRACTICUMI

A practice set to be completed on a microcomputer using integrated accounting software.
Prerequisite: ACC 102 and ACC 196 or permission of instructor One credit: 15 clock hours

## ACC 198 COMPUTERIZED PRACTICUM II

A practice set to be completed on a microcomputer using integrated accounting software.
Prerequisite: ACC 196
One credit: 15 clock hours

## ACC 201 INTERMEDIATE ACCOUNTING I

An in-depth study of the accounting cycle, and the principles and concepts of accounting. Attention is given to cash and temporary investments, receivables, and costvaluation procedures for inventories.
Prerequisite: ACC 103 or permission of instructor
Five credits: 50 clock hours

## ACC 202 INTERMEDIATE ACCOUNTING II

Continuation of ACC 201 with emphasis on long-term assets and liabilities (long-term and shor-term), investments, and flow of funds.
Prerequisite: ACC 201 or permission of instructor
Five credits: 50 clock hours

## ACC 205 ACCOUNTING SYSTEMS

A study of the flow of accounting information within an organization, with emphasis on integration of accounting subsystems, designing a system for a business and viewing systems currently being used. An advanced accounting practice set will be completed.
Prerequisite: ACC 105, ACC 198 (may be taken concurrently) and ACC 201 or permission of instructor
Five credits: 50 clock hours

ACC 206 COST ACCOUNTING
A study of the fundamental elements of an organization's direct and indirect costs. Emphasis is on the preparation of cost data used by management for planning and controlling. It includes variable and fixed costs: cost-volume-profit relationships; job, process and operations systems; master and flexible budgeting; and standard and product costing. Prerequisite: ACC 103 or permission of instructor Five credits: 50 clock hours

## ACC 207 FINANCIAL MANAGEMENT

Deals with conceptual alternatives of financial management and emphasizes preparation and analysis of sources and uses of short-and long-term capital, and an in-depth analysis of financial statements.
Prerequisite: ACC 103 or permission of instructor
Five credits: 50 clock hours

## ACC 208 LOTUS 1-2-3 APPLICATIONS FOR BUSINESS

Provides students with an opportunity to apply accounting theory to spreadsheet software.
Three credits: 30 clock hours

## ACC 209 LOTUS 1-2-3 APPLICATIONS FOR COST

 ACCOUNTINGTo provide the student with the opportunity to use electronic spreadsheets to solve common cost accounting problems such as job order costing, budgeting, standard costing, and inventory control. Prerequisite: ACC 206 (may be taken concurrently) and ACC 208 Two credits: 30 clock hours

## ACC 215 LOTUS 1-2-3 APPLICATIONS FOR FINANCE

Provides the student with the opportunity to use electronic spreadsheets to solve common financial management problems such as ratio analysis, financial forecasting, and asset management. Prerequisite: ACC 207 (may be taken concurrently) and ACC 208 Two credits: 30 clock hours

## ACC 216 LOTUS 1-2-3 ADVANCED APPLICATIONS FOR

 BUSINESSTo provide the student with the opportunity to apply the more complex features of electronic spreadsheet software to the solution of accounting and finance problems.
Prerequisite: ACC 208 or permission of instructor
Three credits: 30 clock hours

## ACC 225 VOLUNTEER INCOME TAX ASSISTANCE-VITA

The student will learn to assist taxpayers with the preparation of Forms 1040 A. 1040 EZ, 1040, and selected related schedules. The student will gain technical proficiency in basic tax law.
Two credits: 30 clock hours

## ACC 297 ADVANCED COMPUTERIZED PRACTICUM

To provide the student with the opportunity to complete a computerized accounting simulation involving advanced accounting theory related to a corporation.
Prerequisite: ACC 103 and ACC 197 or permission of instructor
Two credits: 30 clock hours

## ACC 298 ACCOUNTING PRACTICUM II

The completion of a practice set commensurate with the level of accounting theory the student has taken. It could be a practice set for a corporate merchandising firm after ACC 102, job order or process cost practice set after ACC 206, or working from incomplete records after ACC 201. Prerequisite: ACC 102 or permission of instructor One credit: 15 clock hours

## AGRICULTURE TECHNOLOGY

## FMT: FARM AND RANCH BUSINESS MANAGEMENT

FMT 101 FARM AND RANCH BUSINESS MANAGEMENT I
The first in a series of courses one year in length. In this course the student will acquire basic knowledge of personal computers using agriculture software to develop an accurate and realistic set of farm/ranch records. Initial records will be used to locate problems, set goals and objectives, and evaluate resources available.
Twenty-Three credits: 30 hours lecture, 10-12 farm/ranch instructor visits

## FMT 102 FARM AND RANCH BUSINESS MANAGEMENT II

The second in a series of courses one year in length. This course will continue in the development of records and accounting procedures using the personal computer and agricultural software. The records developed through year one will be interpreted and analyzed to determine accuracy, strengths and weaknesses.
Twenty-Three credits: 30 hours lecture, 10-12 farm/ranch instructor visits
FMT 103 FARM AND RANCH BUSINESS MANAGEMENT III
The third and final course in a series of one year courses. This course continues with the development and analyzing of records with emphasis on reorganization of the agriculture business to meet the farm/ranch and family living goals using accurate records and sound economic principles to implement those goals. If desired, the student will be assisted in identifying and associating with an agriculture management service upon completion of the program.
Twenty-Three credits: 30 hours lecture, 10-12 farm/ranch instructor visits

## AGS: AGRICULTURE HOME STUDY COURSES

## MANAGEMENT DEVELOPMENT

AGS 100 INTRODUCTION TO AGRIBUSINESS
An overview of agribusiness including farming, farm supplies and service businesses, and marketing farm products.
Three credits: 30 clock hours

## AGS 101 INTRODUCTION TO AGRIBUSINESS

 MANAGEMENTBasic managerial principles, managing through people, financial strategies and planning.
Three credits: 30 clock hours

## AGS 102 AGRICULTURAL ECONOMICS

Agricultural resources and production, market-price determination and marketing, and the world agricultural situation.
Three credits: 30 clock hours

## AGS 103 PERSONNEL MANAGEMENT

Employee needs, selection and motivation, performance, appraisal, wage determination, and employee health and safety. Three credits: 30 clock hours

## AGS 104 COOPERATIVE MANAGEMENT BY OBJECTIVES

Setting objectives, writing performance standards, conducting effective performance appraisals.
Three credits: 30 clock hours

AGS 105 POSITIVE PERFORMANCE APPRAISAL
Designing appraisal systems, conducting appraisal sessions, developing employees.
Three credits: 30 clock hours

## FERTILIZER AND AG CHEMICALS

## AGS 142 AG CHEMICALS

Common insects and weeds, insecticides, herbicides, handling chemicals safely, stored grain chemicals, seed treatment.
Three credits: 30 clock hours

## AGS 145 ANHYDROUS AMMONIA SAFETY

To acquaint agriculture students, the farmer/user and the dealer with whom he does business, with the hazards, safety procedures and first aid involved in dealing with anhydrous ammonia. Three credits: 30 clock hours

## ANIMAL PRODUCTION

## AGS 152 ANIMAL HEALTH

Animal health term, diagnosing disease, wounds, poisonings, parasites, and CO-OP Animal Health products.
Three credits: 30 clock hours

## AGS 158 ADVANCED ANIMAL HEALTH

Presents products and their recommended use for common health problems. Also covers animal health terminology and health programs for beet, swine, dairy, and sheep.
Three credits: 30 clock hours

## ANT: ANTHROPOLOGY

## AMT 101 CULTURAL

Studies human cultural patterns and learned behavior. Includes linguistics, social and political organization, religion, culture and personality, culture change, and applied anthropology.
Five credits

## ANT 111 PHYSICAL ANTHROPOLOGY

(Formerly ANT 107) Studies human biology and its effects on behavior. Includes principles of genetics and evolution, vertebrates and primates, human origins, human variation, and ecology. Five credits

## ART: ART AND DESIGN

## ART: ART

ART 100 ART APPRECIATION
Introduction to art, architecture, and several fields of design. Through visual presentation, discussions, and studio exercises, students examine various ways in which people express themselves, and solve problems: e.g. painting, sculpture, crafts, housing and consumer goods.
Five credits

## ART 107 ARTS FOR HUMAN DEVELOPMENT

This course offers a variety of information and activities in the areas of drawing, design and color, crafts, music, poetry and prose to heighten the student's sensitivity to and awareness of the arts. One credit: 20 clock hours

## ART 111 ART HISTORY I

Provides the knowledge base to understand the visual arts, especially as related to Western Culture. Surveys the visual arts from the Ancient through Medieval periods. Course fulfills a humanities requirement.
Five credits

## ART 112 ART HISTORY II

Provides the knowledge base to understand the visual arts, especially as related to Western Culture. Surveys the visual arts from the Renaissance through the Modern periods. Course fulfills a humanities requirement.
Five credits

## ART 113 ART HISTORY III

Provides the knowledge base to understand the visual arts, especially as related to NON-WESTERN CULTURE.
Five credits

## ART 299 ARTS PRACTICUM

This learning structure facilitates the development of creative talents (an interrelation of motor, affective, and cognitive skills). The particular format and content of each practicum is determined by the art form the student is working in and his or her level of proficiency. May be repeated at different levels of proficiency.
One to Three credits: contact program coordinator

## ARS: ART STUDIO

| ARS | 125 | HAND BUILT CLAY I |
| :--- | :--- | :--- |
| ARS | 126 | HAND BUILT CLAY II |
| ARS | 127 | HAND BUILT CLAY III |

The study of functional and decorative design elements, designing hand built ceramics, and instruction in several methods of hand building.
Three credits each: 40 clock hours each

## ARS 135 FIGURE PAINTING I

Includes a survey of figure painting, instruction in basic techniques of painting the human figure and study of sensual and structural elements of the human anatomy.
Three credits: 40 clock hours

| ARS | 141 | CREATIVE PAINTING I |
| :--- | :--- | :--- |
| ARS | 142 | CREATIVE PAINTING II |
| ARS | 143 | CREATIVE PAINTING III |

These courses cover various painting techniques as a means for self-expression to discover individual painting styles.
One credit each: 20 clock hours each

## ARS 235 FIGURE PAINTING II

Includes a survey of figure painting, study of anatomy, advanced painting problems, additional instruction in figure painting techniques. Three credits: 40 clock hours

## ARS 241 PAINTING I <br> ARS 242 PAINTING II

These courses introduce students to the design principles, technical information, and skills necessary to express ideas and feelings through painting. Painting II emphasizes materials exploration in terms of painting, and further development of individual approaches to painting.
Three credits each: 40 clock hours each

## ARS 243 WATER MEDIA I <br> ARS 244 WATER MEDIA II

These courses include a survey of the various water media processes, instruction in the basic water media techniques, and work with the unique aspects of developing a painting. Water Media II includes the study of concepts, (forms for effective water media statements), and concentrates on individual patterns of expression. Three credits each: 40 clock hours each

## ARS 251 SCULPTUREI <br> ARS 252 SCULPTURE II

These courses include a survey of traditional and contemporary sculptural forms, the study of sculptural elements, organization and imagery; experience in designing for sculpture; instruction in the basic techniques of modeling, carving, and construction. Sculpture II emphasizes the figure, further work in designing for sculpture, and further instruction in the techniques of modeling, bronze casting and construction.
Three credits each: 40 clock hours each

## ARS 261 JEWELRY AND METALWORKI ARS 262 JEWELRY AND METALWORK II

Jewelry and Metalwork I includes a study and survey of jewelry and related metal forms; experience in designing for jewelry and metalwork; and instruction in the basic techniques of cutting, forming, soldering, finishing, and stone setting. Jewelry and Metalwork II emphasizes conceptual design development and specialized techniques (e.g. casting, raising, enameling, stone cutting).
Three credits each: 40 clock hours each

## ARS 263 JEWELRY \& METALWORK III ARS 264 JEWELRY \& METALWORK IV

Continuation of use of skills in casting, fabrication and stone setting to create more complicated jewelry pieces with emphasis on design and crattsmanship.

## ARS 271 POTTERY AND CERAMIC DESIGNI

ARS 272 POTTERY AND CERAMIC DESIGN II
Pottery and Ceramic Design I includes a survey of traditional and contemporary pottery and ceramic forms; the study of functional and decorative design elements and principles of organization; and experience in designing for ceramic objects. Pottery and Ceramic Design II includes a survey of wheel thrown pottery; continued instruction in the various aspects of throwing; the study of the essentials of glaze formulation; and work with creative design for wheel thrown forms.
Three credits each: 40 clock hours each

## ARS 273 POTTERY AND CERAMIC DESIGN III ARS 274 POTTERY AND CERAMIC DESIGN IV

Pottery and Ceramic Design III offers a survey of wheel thrown pottery, with emphasis on more advanced forms, refining technique, glaze techniques and kiln firing. Pottery and Ceramic Design IV presents a deeper involvement in all aspects of pottery making, glazing, and firing.
Three credits each: 40 clock hours each

## ARS 281 WEAVINGI

This course is the introduction to four harness loom weaving. It includes preparation of warp, dressing the loom and learning tapestry and rug techniques of weaving. A historical review of weaving with emphasis on design is studied prior to individual work. Design emphasis is in the area of tapestry and decorative weaving.
Three credits: 40 clock hours

## ARS 282 WEAVING II

This course continues four harness loom weaving of patterned fabric, teaches reading of pattern drafts and weaving sequences for woven yardage. It includes a more in-depth study of fibers with their wearability and care. The emphasis is on functional and wearable fabric.
Three credits: 40 clock hours each

## AAD: DESIGN

AAD 101 FUNDAMENTALS OF ART AND DESIGNI
AAD 102 FUNDAMENTALS OF ART AND DESIGN II
These courses include the study of light, space, and perception. Students study the process of creative thinking, fundamental visual elements, and principles of organization. Included are: techniques for idea development, executing "rough" proposals, choosing effective materials, and making successful presentations. The application of these fundamentals to problems in the visual arts and design fields is surveyed. First course concentrates on two-dimensional situations; and second course focuses on three-dimensional conditions.
Five credits each 50 clock hours

## AAD 128 COMPUTER GRAPHICS I

This course lets students use the TIME ARTS LUMENA Computer System, including a graphics tablet with stylus, and a color monitor.
Three credits: 40 clock hours - contact instructor

## AAD 129 COMPUTER GRAPHICS ॥

This course allows students to work on a WYSE Computer with a SONY TRINITRON color monitor with a stylus. The software is RIO and TIPS. Both are video compatible.
Three credits: 40 clock hours - contact instructor

## AAD 131 DRAWINGI <br> AAD 132 DRAWING II

These courses introduce students to drawing as a means of visual thinking and communication. Drawing I assignments cover visual perception, basic drawing techniques (e.g. line drawing, shading, perspective), and composition. Students may choose to emphasize "commercial" or personally expressive drawing approaches. Drawing II includes a survey of expressive drawing styles, design for drawing, further experience with developing and expressing concepts in terms of drawing, and an exploration of various drawing mediums.
Three credits each: 40 clock hours each

## AAD 221 GRAPHIC DESIGNI <br> AAD 222 GRAPHIC DESIGN II

These courses introduce students to graphic applications of drawing, painting and photographic techniques; and creative design with letter forms and composition (e.g. logos, letterheads, posters, brochures, advertising, and publications). Graphic Design I concentrates on basic concepts and working processes from idea development through the execution of the "rough" to the "complete." Graphic Design II covers additional design projects, such as calendars, other advertising, and publications such as newsletters, catalogs, or service manuals. Students will execute a project through camera ready art.
Three credits each: 40 clock hours each

## AAD 223 GRAPHIC DESIGN III

Includes a survey of graphic preparations for packaging, product design, signage, and interior and architectural planning; and the elements and principles relevant to their design.
Three credits: 40 clock hours

AAD 225 CALLIGRAPHY
AAD 226 CALLIGRAPHY II
AAD 227 CALLIGRAPHY III
This course introduces calligraphy as an art form and as a major design element in graphic design. It includes instruction in techniques, information regarding tools and materials, practice in various lettering styles, and practical applications.
Three credits: 40 clock hours

## AAD 231 FIGURE DRAWINGI

AAD 232 FIGURE DRAWING II
These courses include a survey of figure drawing, study of anatomy in terms of drawing, and instruction in the basic techniques of drawing the human figure. Figure Drawing II includes additional study of anatomy and complex drawing problems.
Three credits each: 40 clock hours each
AAD 241 PHOTOGRAPHYI
AAD 242 PHOTOGRAPHY II
AAD 243 PHOTOGRAPHY III
AAD 244 PHOTOGRAPHYIV
Photography I and II include a survey of historical and contemporary photographic styles, the study of relevant design elements and principles of organization, camera mechanics, and darkroom techniques. The planning and execution of photographs of expressive and creative visual content is emphasized. Photography III includes a survey of functional applications of photography (e.g. photo illustration, portraiture), and work with related design principles and photographic techniques. Photography IV emphasizes the aesthetics of contemporary photographic procedures and helps to prepare the serious student of photography to prepare an exhibition grade portfolio.
Three credits each: 40 clock hours each

| AAD | 251 | INTERIOR DESIGN I |
| :--- | :--- | :--- |
| AAD | 252 | INERIOR DESIGN II |
| AAD | 253 | INTERIOR DESIGN III |

Interior Design I and II cover visual and spatial elements, organizing principles, materials, and their relationships to architecture. Each emphasizes the process of studying and designing for interior spaces. Interior Design III gives students an opportunity to apply, within a structured course setting, interior design concepts to specific problems (e.g. residential interiors, display spaces).
Three credits each: 40 clock hours each

## AST: ASTRONOMY

## AST 105 INTRODUCTORY ASTRONOMY

(Formerly AST 101) Covers methods of observation and analysis used by astronomers: astronomic tools, the solar system, stars, galaxies, and constellations of 40 degrees N lat. Also includes observing with the telescope.
Three credits: three hours lecture

## AST 106 ASTRONOMY SEMINAR

(Formerly AST 102) An approach to more advanced topics in astronomy that allows students to explore an area of this subject in depth. Students will write a paper, determine the method of exposition, and present the special information to the class. Three credits: three hours lecture

## AST 185 SPECIAL TOPICS IN ASTRONOMY

Topics will reflect the special expertise of the faculty and/or the special needs of the students.
Prerequisite: Consent of Instructor
One to Six credits

## AST 295 INDEPENDENT STUDY IN ASTRONOMY

Provides an opportunity for the highly motivated student to engage in intensive study and research on a specified topic under the direction of a faculty member. The student will be limited as to the number of independent study credits taken per quarter. Prerequisite: previous academic study or experience in astronomy One to Three credits: contact division chairman

## ABF: AUTO BODY REFINISHING ABR: AUTO BODY REPAIR

## ABR 102 BASIC STRAIGHTENING

Students will be able to properly set up a gas welding unit; make lap and butt T -joints in the flat position, and lap and butt in the vertical position using oxyacetylene and MIG welding equipment. Students also will be able to identify types of damage, use the hand tools and power equipment necessary for repairing minor damage and major door damage, and use plastic filler on the large areas of repair.
Four credits: 60 clock hours

## ABR 103 BASIC REFINISHING

Students will become familiar with refinishing material and equipment, and their uses. They will prime, sand, and apply top coats using proper methods.
Four credits: 60 clock hours

## ABR 111 DAMAGE REPAIR

Students will be able to identify auto panels, use power tools and equipment necessary to repair the damage on an auto; and remove and replace interior and exterior trim as needed to complete the repair.
Prerequisite: ABR 102, ABR 141, or permission of instructor
Four credits: 60 clock hours
ABR 112 PANEL REPLACEMENT
Students will remove, replace, and align damaged panels using proper tools and equipment.
Prerequisite: ABR 111 or permission of instructor.
Four credits: 60 clock hours

## ABR 121 ELECTRICAL AND ALIGNMENT

Students will be able to diagnose minor electrical malfunctions resulting from collision damage, using a continuity light. They also will be familiar with the use of front end alignment equipment and methods of aligning a front end.
Four credits: 60 clock hours

## ABR 122 ADVANCED REFINISHING

Students will properly sand, prime, mask, and seal a car; and refinish the car with finishes currently used in industry.
Prerequisite: ABR 103 or permission of instructor
Four credits: 60 clock hours

ABR 123 DAMAGE APPRAISAL (ESTIMATING)
Students will become familiar with the manuals, forms, and procedures for writing damage estimates.
Prerequisite: ABR 121 or permission of instructor
Four credits: $\mathbf{4 0}$ clock hours

## ABR 141 AUTO BODY REPAIR I

Students will learn to weld lap, butt, and T-joints in the flat and vertical positions using oxyacetylene and MIG welding equipment. They will be able to remove small dents with the pick and file method without the use of fillers, and progress to severe or major door damage using power equipment and fillers to repair damage. They also will repair the damaged area using proper priming, sanding, and color application techniques.
Twelve credits: 150 clock hours

## ABR 142 AUTO BODY REPAIR II

Students will learn to identify the panels on an auto and to use power tools in the repair, replacement, and alignment of damaged panels. They will remove and replace interior and exterior trim as necessary for completion of the repair, and refinish partial and complete panels.
Prerequisite: ABR 141 or permission of instructor
Twelve credits: 150 clock hours

## ABR 143 AUTO REPAIR III

Students will learn to diagnose minor electrical malfunctions in circuits, using continuity lights; will properly sand, prime, mask, and seal a car; will refinish the car with finishes currently used in industry, and will become familiar with the use of the front end alignment equipment and methods used in aligning the front end. Students will learn to remove, install, and make adjustment to automotive glass. They also will become familiar with the manuals and procedures of writing estimates.
Prerequisite: ABR 141 or permission of instructor
Twelve credits: 150 clock hours

## ABF 151 AUTO REFINISH I

Students will become familiar with refinishing materials, solvents, primers, sandpapers, top coats, and the use of each. They will become familiar with tools, spray guns, sanders, transformers, air compressors, and accessories used in auto refinishing.
Twelve credits: 150 clock hours

## ABF 152 AUTO REFINISH II

Students will sand, prime, mask, seal and apply top coats to partial and complete panels. Proper color matching using acrylic enamels and acrylic lacquer paints is included.
Prerequisite: ABF 151 or permission of instructor
Twelve credits: 150 clock hours

## ABF 153 AUTO REFINISH III

Students will prep and apply top coats to the entire car using lacquers and enamels.
Prerequisite: ABF 151, or permission of instructor
Twelve credits: 150 clock hours

## ABR 199 SPECIAL NEEDS/AUTO BODY REPAIR

This course is designed to improve skills in any one of the various areas of auto body. Actual course content will be established as necessary upon agreement of the student, instructor, and advisor. The student must be enrolled in the Auto Body program.
One credit: 10 clock hours

## ABR 201 QUARTER PANEL REPLACEMENT

Students will learn to remove and replace a quarter panel, repair panels and reinforcements, align the sheet metal, and complete the job, including refinishing.
Prerequisite: ABR 123, ABR 143, or permission of instructor
Four credits: 60 clock hours

## ABR 202 BASIC SHEET METAL REPLACEMENT

Students will learn to remove and replace a door skin and front sheet metal. They also will do the alignment and refinishing.
Prerequisite: ABR 201 or permission of instructor
Four credits: 60 clock hours

## ABR 203 ADVANCED SHEET METAL REPLACEMENT

Continuation of ABR 201 and ABR 202. Students will learn to remove and replace the door skin and the front sheet metal, will do the alignment and refinishing, will remove and replace a quarter panel, repair inner panels and reinforcements, will align the sheet metal, and complete the job, including refinishing.
Prerequisite: ABR 201, ABR 202, or permission of instructor
Four credits: 60 clock hours

## ABR 211 BASIC FRAME REPAIR

Students will learn to identify and diagnose types of frames and damage. They will become familiar with reinforcement and replacement methods.
Prerequisite: ABR 203, ABR 242, or permission of instructor
Four credits: 60 clock hours

## ABR 212 CONVENTIONAL FRAME REPAIR

Students will learn to identify and diagnose types of frames and tools used to repair and align conventional frames.
Prerequisite: ABR 211 or permission of instructor
Four credits: 60 clock hours

## ABR 213 UNITIZED FRAME REPAIR

Students will become familiar with the equipment and repair methods used in the alignment of the unitized body.
Prerequisite: ABR 212 or permission of instructor
Four credits: 60 clock hours

## ABR 221 AUTO BODY REBUILDING I

Students will learn to repair an auto with severe damage (totaled) and do the operations required to make the auto road-worthy. Prerequisite: ABR 213 and ABR 242, or permission of instructor Four credits: 60 clock hours

## ABR 222 AUTO BODY REBUILDING II

Students will learn to repair an auto with severe damage (totaled) and do the operations required to make the auto road-worthy.
Prerequisite: ABR 221
Four credits: 60 clock hours

## ABR 223 AUTO BODY REBUILDING III

Continuation of ABR २२2. Students will learn to repair an auto with severe damage (totaled) and do the operations required to make the auto road-worthy.
Prerequisite: ABR २२1 and ABR २२२ or permission of instructor
Four credits: 60 clock hours

ABR 241 AUTO BODY REPAIR IV
Students will learn to remove, replace, and align weld on body panels such as quarter panels, door skins and rear body panels; and completely replace and align the front sheet metal. They will be able to straighten or repair damaged inner structures using power equipment and tools. The job, including refinish work, will be completed by the students.
Prerequisite: ABR 141 or permission of instructor
Twelve credits: 150 clock hours

## ABR 242 AUTO BODY REPAIR V

Students will learn to identify and diagnose types of frames and damages, will be familiar with the repair methods and equipment used in the alignment of conventional and unitized frames and bodies, and will be able to write an accurate estimate.
Prerequisite: ABR 141 or permission of instructor
Twelve credits: 150 clock hours

## ABR 243 AUTO BODY REPAIR VI

Students will learn to repair an auto with severe damage (totaled) and do the operations required to make the auto road-worthy. With instructor approval, qualified students may be given the opportunity to participate in an internship directly related to his/her program of study. Prerequisite: ABR 141 or permission of instructor Twelve credits: 150 clock hours

## AMT: AUTOMOTIVE MECHANICS TECHNOLOGY

## AMT 101 AUTO MECHANICS FOR BEGINNERS

Students should develop a basic knowledge of the major systems of the automobile. They will learn parts identification and basic theory of operation of automotive systems. Minor repair and diagnosing common problems will be taught. Good shop safety practices and accident prevention are included with each job in this course.
Four credits: 60 clock hours

## AMT 104 BRAKE REPAIR

Designed to prepare students for the specialty work of modern automobile brake repair service, and diagnosis. Emphasis will be placed on disc/drum systems with an introduction to anti-lock brake systems found on the modern vehicles. Good shop safety practices and accident prevention are included with each job in this course.
Four credits: 60 clock hours

## AMT 105 ADVANCED ELECTRICAL

Designed to give students the theoretical and practical knowledge necessary to test and repair electrical units on modern cars. Good shop safety practices and accident prevention are included.
Four credits: 60 clock hours

## AMT 106 TUNE-UP

Designed to give students the basic skills and knowledge in tuneup and service procedures as related to the automobile. Upon course completion students should be able to diagnose and service the components of the engine, ignition systems and perform minor fuel system service. Good shop safety practices and accident prevention are included.
Four credits: 60 clock hours

## AMT 107 ADVANCED ENGINE TUNE-UP

Designed to provide the student additional training in advanced analyzer operation, carburetor overhaul and adjustments, and fuel injection service. Upon course completion students should be able to use these skills to perform proper repair procedures related to these areas.
Prerequisite: AMT 106 or equivalent
Four credits: 60 clock hours

## AMT 108 AUTOMATIC TRANSMISSIONS

Designed to give students the basic skills and knowledge in automatic transmission services as related to the automobile. Upon course completion students will be able to diagnose and service automatic transmissions (minor repairs including seal replace-ment, band adjustment, linkage adjustment, and transmission removal). Good shop safety practices and accident prevention are included.
Four credits: 60 clock hours

## AMT 115 FOREIGN CAR TUNE-UP

Designed to develop the skills and knowledge necessary to correctly tune the engines on foreign cars. Good shop safety practices and accident prevention are included.
Four credits: 40 clock hours

## AMT 116 FOUR WHEEL ALIGNMENT

Designed for the experienced front end alignment mechanic that would like to learn how to align all four wheels on modern front wheel drive automobiles using the latest computer four wheel alignment machine.
Four credits: 60 clock hours

## AMT 124 AUTOMOTIVE SERVICE MANAGEMENT

Students develop basic management concepts relating to automotive service including theory, skills leadership, human relations, and failures. Students learn duties, problems, and methods of management.
Three credits: 30 clock hours

## AMT 125 AUTO CERTIFICATION REFRESHER

This course prepares professional auto mechanics for certification tests given by National Institute for Automotive Service Excellence. Two credits: 24 clock hours

## AMT 131 BRAKES \& MANUAL POWER TRAINS

This course begins with a study of disc and drum brake systems. The student will study the many terms plus the theory of operation of the entire brake system in the classroom, and will experience the actual job operations in the shop. Complete brake service work will be performed by the student. During the second half of the course students will perform service procedures on clutch assemblies, transaxles, and final drive components. The constant velocity joint will be introduced in this unit. Classroom work will involve learning the operations and vocabulary of each system. Safety awareness and accident prevention policies will remain a high priority throughout this course of instruction. Twelve credits: 150 clock hours

## AMT 132 STEERING AND SUSPENSION SYSTEMS

Students will develop necessary skills and knowledge to repair all parts of the suspension system, align front ends, perform four wheel alignment, balance wheels, overhaul and adjust rack and pinion, conventional and power steering units. Included is MacPherson strut service, transaxle overhaul, constant velocity joint service, and independent rear suspension service and adjustment. Good safety practices and accident prevention are included with each job in this course
Twelve credits: 150 clock hours

## AMT 133 ENGINE PERFORMANCE

Students will study the procedures to restore the engine and its related systems to obtain maximum performance, economy, and emission control. Part identification and theory learning will be done in the classroom, while hands-on activities will be accomplished in the shop. Recommended testing and service procedures will be done on the engine, ignition system, and fuel system which would include feedback carburetors and fuel injection. Emission control systems will be introduced. The student will learn to use equipment that ranges from will-known electrical meters or vacuum gauges to the more advanced computerized analyzers and testers. Manufacturer and trade manuals will be used to insure proper adjustments and service results. Troubleshooting and diagnostic techniques will be emphasized during each unit of instruction. Safety awareness and accident prevention are stressed throughout the course.
Twelve credits: 150 clock hours

## AMT 135 COLORADO EMISSION LICENSE PROGRAM

This course follows the recommended program outlined by the Colorado Department of Health to prepare automotive technicians for a Colorado Emission License. Study of the emissions rules and regulations and hands on use of the approved testing machines is covered.
Two credits: 20 clock hours

## AMT 136 EMISSION CONTROL

This course provides a basic knowledge and understanding of the various emission control systems and how they function on the automobile to aid in reducing emissions. Students will also cover the program recommended by the Colorado Department of Health for mechanics applying for an emission license. Use of the latest emission testing machines will be stressed. Students will perform mock emission inspections using the Colorado approved inspection machines. Upon completion of the course students may test for a Colorado Emission License with the Colorado Department of Health. Prerequisite: AMT 106, AMT 107, AMT 133, or permission of instructor Five credits: 50 clock hours

## AMT 199 SPECIAL NEEDS/AUTO MECHANICS

This course is designed to improve skills in any one of the various areas of auto mechanics. Actual course content will be established as necessary upon agreement of the student, instructor, and advisor. The student must be enrolled in the Automotive Mechanics program. One credit: 10 clock hours

## AMT 231 AUTOMOTIVE ENGINES

Students learn construction, operation, parts identification, and service procedures on all types of modern automotive engines. Study of cooling and lubricating systems included. Students begin on mockup units and progress to complete engine overhaul. Shop math including fractions, decimals, cubic measurements, formulas, and metric measurements will be covered. Good safety practices and accident prevention are included with each job in this course. Twelve credits: 150 clock hours

## AMT 232 ELECTRICAL

This course begins with the fundamentals of the electron and conventional theory of electrical energy. Students will study electrical terms, circuit designs, Ohm's law, and perform calculations to determine circuit values. The course will progress to the study of wiring diagram schematics and the logical approach to circuit troubleshooting. The testing, service and repair of electrical components such as alternators, starters, batteries, relays, solenoids, and switches will be practiced by the student using the correct up-todate equipment. The student will also become familiar with the semiconductive components of late model vehicles and their use in the computerized systems. Proper safety practices and accident prevention are stressed throughout each phase of this course.
Twelve credits: 150 clock hours

## AMT 233 AIR CONDITIONING AND COMFORT CONTROLS

Students learn basic theory of refrigeration systems components, evacuation, charging, and testing automobile air conditioners. They solve simulated problems on late model air conditioners. Heaters and defrosters are also covered.
Five credits: 50 clock hours

## AMT 234 AUTOMATIC TRANSMISSIONS AND AIR CONDITIONING

Students learn principles of hydraulics, planetary gear sets, and power flow through modern automatic transmissions. Students gain experience in disassembly, inspection, replacement or simulated replacement of defective parts and complete diagnosis of functions. Basic theory of refrigeration systems, components, evacuation, charging, and testing automotive air conditioners is included. Students will learn how to install after-market units, service factory installed air conditioners, and solve problems on late model units. Good safety practices and accident prevention are included with each job in this course.
Twelve credits: 150 clock hours

## AMT 261 COMPUTER CONTROLLED ENGINE SYSTEMS

This course provides a basic knowledge and understanding of computer command controlled engines. Feedback carburetors, all fuel injected systems including ported fuel injection systems will be covered. The input sensors and the electronic controls that change engine fuel, timing, and emission controls will also be covered. Students will learn how to test computer equipped engines using special test instruments and also with simple shop equipment such as an ohmmeter, voltmeter, and dwell meter. Design and service of turbochargers for these engines will be covered.
Prerequisite: AMT 133 or AMT 106 and AMT 107 or permission of instructor
Four credits: 60 clock hours

## AMT 262 AUTOMOTIVE ELECTRONICS

This course is designed to emphasize the ever increasing electronic systems of the modern automobile. Students are instructed in a thorough session of electricity fundamentals which include terms, circuits, laws, formulas, and calculations of various electrical circuits. Study will also include an in-depth look at the most common types of semiconductors that are currently used in the electronic circuitry. Students will be allowed to develop a high level of proficiency in using a multimeter through the use of bread-board assignments and actual on-the-car activities. Computer design and operation as it relates to automotive systems will be covered/
Six credits: 60 clock hours

AMT 266 AUTOMOTIVE ELECTRONICS AND COMPUTER SYSTEMS I
This course will introduce the student to automotive computer systems and their use in the management of emission control systems. Instruction will begin with concentrated study of each emission control system to include component identification and system operation. As the student becomes familiar with these features, the study will shift to incorporation of the computer, its sensors, and the process by which it provides optimum pollution control from the automobile. Lab activities will include testing emission control components, analyzing exhaust gases and learning about the computer system.
Prerequisite: AMT 133 and AMT 232 or permission of instructor Twelve credits: 150 clock hours

## AMT 267 ADVANCED TECHNOLOGYNEW CAR SYSTEMS

This course is designed to provide an in-depth study of various automotive computerized systems. Students will study specific models, both domestic and import. Training will focus on current year models. The instructional approach will involve a detailed examination of the systems that are controlled or operated by a computer. The student will become proficiently familiar with each component of the system, its individual function, and the interrelation that exists with other components in the system. Emphasis will be placed on thoroughly understanding the operation of specific computerized systems.
Prerequisite: AMT 266, or instructor permission
Twelve credits: 150 clock hours

## AMT 268 AUTOMOTIVE ELECTRONICS \& COMPUTER SYSTEMS II

This course is designed to allow the student to improve his/her knowledge and skills regarding the automotive computerized system. Instruction will review electrical concepts and extend into the area of automotive electronics. Concentrated study with electrical diagrams and schematics will be incorporated with proper troubleshooting and repair techniques. The student will gain knowledge about computers, their main components and functions, plus basic training in methods of operation. Shop experience will include working with the on-board computer to determine system problems, and activities that relate to diagnosis and repair procedures of such systems.
Prerequisite: AMT 266, or instructor permission
Twelve credits: 150 clock hours

## AMT 269 COMPUTERIZED SYSTEMS; DIAGNOSIS AND DRIVEABILITY

This course is designed to provide advanced training in the use of electronic equipment to diagnose driveability problems on the modern high-technology automobile. The list of equipment will range from the powerful computerized analyzers to the convenient hand-held scanners. There will be continued training on the all-important digital multimeter and logic probe. Performing automatic diagnostic tests following a computerized flow chart, or reading a dual trace scope are but a sample of the skills to be practiced. The student will also receive extended training in fuel injection as it interrelates with the electronic systems. Service and repair procedures will be practice.
Prerequisite: AMT 266, or instructor permission
Twelve credits: 150 clock hours

## AVT: AVIATION TECHNOLOGY

## AVT 100 AVIATION SEMINAR

A general study of the aviation field which includes theory of flight, history of aviation, radio communication, aviation in today's economy, and aviation careers. For students who wish to be commercial pilots. Two credits: 20 clock hours

## AVT 101 PRIVATE FLIGHT LAB I

Designed for completion of first solo flight and additional training before cross country flight.
Prerequisite: recommended concurrent enrollment in AVT 108 and AVT 105 Three credits: 30 clock hours

## AVT 102 PRIVATE FLIGHT LAB II

Designed for completion of private pilot license. Includes cross country, emergency procedures, and basic instrument flying.
Prerequisite: AVT 101 or previous solo flight
Three credits: 30 clock hours

## AVT 103 COMMERCIAL FLIGHT LAB I

The first of four phases in preparation for the FAA commercial license. Includes an introduction to the basic commercial flight maneuvers. Upon successful completion of the course, the student will pass a phase I flight check.
Prerequisite: AVT 102, or Private Certificate or instructor permission.
Five credits: 70 clock hours

## AVT 104 COMMERCIAL FLIGHT LAB II

Continuation of AVT 103 with a greater emphasis on cross country and night flying. Upon successful completion of the course, the student will pass a phase II flight check.
Prerequisite: AVT 103 or permission of instructor
Five credits: 70 clock hours

## AVT 105 PRIVATE FLIGHT SIMULATOR

Upon completion of the course, the student will be able to demonstrate a high level of skill in basic attitude instrument flying in a flight simulator. Students will be expected to complete the flight syllabus for this course. Prerequisite: recommended concurrent enrollment in AVT 108
Three credits: 30 clock hours

## AVT 107 AIRPLANE PINCH HITTER COURSE

This course is designed to provide training for non-pilots who wish to be able to assist a pilot of a small airplane and also to be prepared to handle the airplane in an emergency.
Two credits: 20 clock hours

## AVT 108 PRIVATE GROUND SCHOOL

By the end of the course, the student should be able to pass the FAA private pilot written test. Includes basic aerodynamics, airplane systems, air traffic control and communications, aircraft weight and balance, meteorology, Federal Aviation regulation, basic navigations and radio navigations, airman's information manual, medical factors of flight, and review for the FAA test.
Six credits: 60 clock hours

## AVT 109 INSTRUMENT GROUND SCHOOL

Includes advanced meteorology, IFR procedures, flight and navigation instruments, IFR regulations and procedures and other information necessary for passing FAA instrument test. Upon successful completion of the course, the student should be able to pass the FAA instrument test. Prerequisite: Private certificate, or permission of instructor Six credits: 60 clock hours

## AVT 111 INSTRUMENT FLIGHT SIMULATOR I

Designed to develop skills in VOR navigation and ADF procedures such as holding patterns and DME Arcs. Various instrument approaches will also be covered.
Prerequisite: AVT 105, concurrent enrollment in AVT 109 or permission of instructor
Three credits: 30 clock hours

## AVT 115 AIRLINE MANAGEMENT \& ECONOMICS

A general study of management, marketing and economic aspects of commercial aviation intended to impart an understanding of the requirements necessary for successful operation of an air transport business.
Five credits: 50 clock hours

## AVT 116 MATHEMATICS FOR AVIATORS

This course is designed for students in the aviation program and consists of a survey of topics from algebra, geometry, and trigonometry with relevant applications to aviation.
Prerequisite: Assessment exam required.
Five credits: Fifty clock hours

## AVT 119 CONVENTIONAL GEAR TRANSITION LAB

Includes orientation to tail wheel aircraft including principles of " $P$ " factor and torque.
Two credits: 20 clock hours

## AVT 202 INSTRUMENT SIMULATOR REFRESHER

Course is designed to assist the instrument rated pilot in maintaining current status for IFR flight.
Prerequisite: Instrument rating or permission of instructor One credit: 10 clock hours

## AVT 205 FLIGHT INSTRUCTOR GROUND SCHOOL

Theory and practice of instructional methods; fundamentals of instruction and preparing a lesson plan. The successful student should be able to pass the FAA Fundamentals of Instruction and Flight Instructor-Airplane written tests.
Prerequisites: Commercial and Instrument Ground Schools Five credits: 50 clock hours

## AVT 206 COMMERCIAL GROUND SCHOOL

Includes a review of material for commercial flying and FAR part 135. To successfully complete the course, the student should be able to pass the FAA commercial written test.
Prerequisite: Private certificate, or permission of instructor
Five credits: 50 clock hours

## AVT 207 BASIC GROUND INSTRUCTOR

The successful student will pass the FAA Basic Ground Instructor test and receive the Basic Ground Instructor Rating.
Prerequisite: permission of instructor
Two credits: 20 clock hours

## AVT 208 ADVANCED GROUND INSTRUCTOR

The successful student will be able to pass the FAA Advanced Ground Instructor test and receive the Advanced Ground Instructor rating.
Prerequisite: permission of instructor
Two credits: 20 clock hours

## AVT 209 INSTRUMENT GROUND INSTRUCTOR

The successful student will pass the FAA Instrument Ground Instructor test and receive the Instrument Ground Instructor rating.
Prerequisite: permission of instructor
Two credits: 20 clock hours

## AVT 211 INSTRUMENT FLIGHT SIMULATOR II - PART A

This course and AVT 212 meet the requirements for AVT 213.
Course designed to refine instrument flying skills.
Prerequisite: AVT 111 or permission of instructor
Three credits: 30 clock hours

## AVT 212 INSTRUMENT FLIGHT SIMULATOR II - PART B

This course and AVT 211 meet the requirements for AVT 213. Cross country flying and communication skills will be stressed. The student will fly an instrument proficiency check ride at the end of the course.
Prerequisite: AVT 211
Three credits: 30 clock hours

## AVT 213 INSTRUMENT FLIGHT SIMULATOR ॥

Course will develop skills in all phases of instrument flying. Includes review of skills learned in AVT 111 and cross country procedures. The student will fly an instrument proficiency check ride at the end of course.
Prerequisite: AVT 111 or permission of instructor
Six credits: 60 clock hours
AVT 214 MULTI-ENGINE SIMULATOR, AIRLINE TRANSITION Designed to bring instrument flying skills and procedures to the level of Airline Transport Pilot standards.
Prerequisite: AVT 226 Instrument rating and Commercial certificate or instructor permission.
Five credits: 50 clock hours

## AVT 216 INSTRUMENT FLIGHT LAB

Includes flight instruction to qualify the student to receive the FAA instrument rating. To successfully complete the course, the student will pass the FAA instrument check ride.
Prerequisite: AVT 104 or permission of instructor
Five credits: 70 clock hours

## AVT 217 COMMERCIAL FLIGHT LAB III

The final flight lab in preparation for the commercial license. To successfully complete of the course, the student will pass the FAA commercial flight check.
Prerequisite: concurrent enrollment in AVT 216 or permission of instructor
Five credits: 70 clock hours

## AVT 218 CERTIFIED FLIGHT INSTRUCTOR LAB

Theory and practice of instructional methods; fundamentals of instruction and preparing a lesson plan. A review of flight maneuvers. To successfully complete the course, the student will pass the FAA CFI check ride.
Prerequisite: AVT 205 or permission of instructor
Five credits: 50 clock hours

## AVT 219 INSTRUMENT FLIGHT INSTRUCTOR LAB

Theory and practice of teaching basic attitude instrument flying, instrument flight planning, and instructional techniques. To successfully complete the course, the student will pass the FAA IFI check ride.
Prerequisite: AVT 218 or permission of instructor Three credits: 30 clock hours

## AVT 221 SINGLE ENGINE INSTRUMENT PROFICIENCY CHECK

This course is designed as a refresher on IFR flight for the instrument rated pilot. A proficiency check is given by the instructor. Prerequisites: Instrument flight rating and permission of instructor One credit: 10 clock hours

## AVT 222 MULTI-ENGINE INSTRUMENT PROFICIENCY CHECK

This course is designed as a refresher on instrument procedures for the instrument rated pilot. A proficiency check is given by the instructor. Prerequisites: Instrument flight ratings and permission of instructor One credit: 10 clock hours

## AVT 225 MULTI-ENGINE TRANSITION LAB

Principles and procedures of light twin-aircraft, complicated systems, orientation and familiarization, emergency situations. To successfully complete the course, the student will pass the multiengine check ride.
Prerequisite: commercial pilot license or permission of instructor Four credits: 40 clock hours

## AVT 226 MULTI-ENGINE SIMULATOR I, SINGLE PILOT

To prepare the student for single pilot multi-engine operations in multi-engine aircraft.
Prerequisite: Private Pilot certificate \& instrument rating or permission of instructor
Three credits: 30 clock hours

## AVT 227 MULTI-ENGINE INSTRUMENT SIMULATOR III, SINGLE PILOT

Designed to give the student additional skill in instrument flight with a multi-engine airplane and to develop instrument and emergency skills to a high level.
Prerequisite: permission of instructor
Two credits: 20 clock hours

## AVT 228 MULTI-ENGINE SIMULATOR III, SINGLE PILOT

To prepare the student for single pilot, multi-engine aircraft and operations. Course also can provide a comprehensive review for multi-engine rated pilots.
Prerequisite: permission of instructor
One credit: 10 clock hours

## AVT 235 FLIGHT ENGINEER - SYSTEMS

Course covers background and theory necessary to impart understanding of aircraft systems. One of two courses preparing the student for the FAA Flight Engineer written examination.
Prerequisites: AVT 206 or permission of instructor Six credits: 60 clock hours

## AVT 236 FLIGHT ENGINEER - POWER PLANT

Course covers background and theory necessary to impart understanding of aircratt power plants. One of two courses preparing the student for the FAA Flight Engineer written examination.
Prerequisites: AVT 206, or permission of instructor,
Six credits: 60 clock hours.

## AVT 237 PROFESSIONAL PILOT PREPARATION

Designed to prepre Professional Pilot Program (PPP) students for entry into the job market as a professional pilot. Emphasis will be placed on professionalism in the cockpit.
Prerequisite: AVT 206, or permission of instructor
Two credits: 20 clock hours

## BIO: BIOLOGICAL SCIENCES

BIO 105 SCIENCE OF BIOLOGY
(Formerly BIO 101) Designed for non-science students. Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Biology as a science-a process of gaining new knowledge-is explored as is the impact of biological science on society. This course includes laboratory experiences.
Five credits: four hours lecture, two hours lab per week

## BIO 106 FIELD BOTANY

Studies methods of collecting, preserving, and identifying plants.
Three credits: two hours lecture, two hours lab per week

## BIO 107 INTRODUCTORY NUTRITION

Basic principles involved in human nutrition with the relationships between nutrient intake and health. Enables students to judge the scientific validity of nutritional claims.
Five credits: Five hours lecture per week
GENERAL COLLEGE BIOLOGY I, II, III
This sequence of courses is designed for students interested in the Life Sciences or Pre-Health Professions. It is recommended that students complete and transfer these courses as an aggregate.

## BIO 111 GENERAL COLLEGE BIOLOGYI

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function; energy, respiration and photosynthesis; mitosis and meiosis; developmental biology; heredity and evolution. This course includes laboratory experience.
Five credits: four hours lecture, two hours lab per week

## BIO 112 GENERAL COLLEGE BIOLOGY II

A continuation of Biology I. Includes classification of animals; structure and function in animals; and ecology of animals. This course includes laboratory experience.
Prerequisites: BIO 111
Five credits: three hours lecture, four hours lab per week

## BIO 113 GENERAL COLLEGE BIOLOGY III

A continuation of Biology II. Includes classification of plants; structure and function in plants; and plant ecology and evolution.
Prerequisite: BIO 112
Five credits: three hours lecture, four hours lab per week

## BIO 116 INTRODUCTION TO HUMAN HEREDITY

Introduction to the nature of inheritance with emphasis on humans. Includes autosomal dominants and recessives, $x$-linked inheritance, and chromosomal additions and deletions. Genetic screening and counseling, and facets of bioethics introduced by current genetic research will be considered.
Prerequisite: none
Four or Five credits: four or five hours lecture per week
BIO 120 BASIC HUMAN ANATOMY AND PHYSIOLOGY
An introductory course in human anatomy and physiology which emphasizes the relationship between body structure and function. The laboratory portion includes microscopic study of tissue and selected dissections. Credit will not be given for BIO 120 and BIO 211.

Prerequisite: none
Five credits: four hours lecture, three hours lab per week

## BIO 150 HUMAN SEXUALITY

A survey of the biological, psychosocial, behavioral, clinical and cultural perspectives of human sexuality with emphasis on anatomy, physiology, reproduction, contraception and developmental sexuality. Prerequisite: none
Three credits

## BIO 185 SPECIAL TOPICS IN BIOLOGY

Topics will reflect the special expertise of the faculty and/or the special needs of the students.
Prerequisite: Consent of instructor
One to Six credits

## BIO 211 HUMAN ANATOMY AND PHYSIOLOGYI

First in a sequence of three courses emphasizing broad principles of human biology, anatomical structure of the human organism and the relationship between structure and function at all levels of organization. Includes chemical composition, cellular and tissue organization, the integumentary system, the skeletal system and basic concepts concerning the blood, lymph, intracellular fluids and electrolytes.
Prerequisite: BIO 105 or permission of instructor Five credits: four hours lecture, three hours lab per week

## BIO 212 HUMAN ANATOMY AND PHYSIOLOGY II

Second course in the sequence emphasizing broad principles of human biology and the relationship of structure to body function. Includes the muscular system, the nervous system including the special senses, and the endocrine and digestive systems.
Prerequisite: BIO 211 or permission of the instructor
Five credits: four hours lecture, three hours lab per week

## BIO 213 HUMAN ANATOMY AND PHYSIOLOGY III

Third course in the sequence emphasizing broad principles of human biology and the relationship of structure to body function. Includes nutrition and metabolism, the respiratory system, the cardiovascular system, immunology and the lymphatic system, the urinary system, fluid and electrolyte balance, the reproductive system and human genetics.
Prerequisite: BIO 212 or permission of the instructor
Corequisite: Registration and completion of TEM 127
Cardiopulmonary Resuscitation (CPR)
Five credits: four hours lecture, three hours lab per week

## BIO 216 INTRODUCTION TO MICROBIOLOGY

Foundation course in microbiology emphasizing structure, function, development and classification of protists. Includes both protocaryotic and eucaryotic micro-organisms. Emphasizes organisms with medical and economic impact on human populations. Major laboratory emphasis is on staining techniques and laboratory safety.
Prerequisite: BIO 105 or one year high school biology and permission of the instructor
Five credits: three hours lecture, four hours lab per week

## BIO 217 INTRODUCTION TO ORNITHOLOGY

Introduction to the study of birds. Lecture includes classification and natural history, with field trips to different habitats for identification and observation of adaptations and behavior. Offered spring or summer quarters. Field trips required.
Prerequisite: BIO 105 or permission of instructor
Four credits: six clock hours per week

## BIO 295 INDEPENDENT STUDY IN BIOLOGY

Provides an opportunity for the highly-motivated student with previous academic experience or work in biology to engage in intensive study and research of a specified topic under the direction of a faculty member. The student will be limited as to the number of independent study credits taken per quarter.
Prerequisite: previous academic study or experience in biology
One to Three credits: contact division chairman

## BIS: BUSINESS INFORMATION SYSTEMS

BIS 105 INTRODUCTION TO COMPUTER APPLICATIONS I
The student will gain an understanding of how and why computers are used in business applications. This is a microcomputer activity course using word processing, spreadsheet and database software such as WordPerfect, Lotus and dBase. Attendance required first class to insure seat.
Five credits: 50 clock hours

## BIS 106 RBASE FOR DOS

The student will design and implement a database for realistic business applications using RBase. Attendance required first class to insure seat.
Prerequisite: BIS 105 with a grade of C or better on written proof of equivalent job experience.
Five credits: 50 clock hours

## BIS 107 PROBLEM SOLVING USING NUMBERS

The student will learn terms and concepts used in business computer programming calculations and will develop logic and problem solving skills using algebraic concepts. Numbering systems as related to computers will also be covered.
Prerequisite: Score of 28 or higher on Math Assessment test
Five credits: 50 clock hours

## BIS 110 INTRODUCTION TO BUSINESS INFORMATION SYSTEMS

A survey of information processing systems and computer technology. Topics include description of how a computer works, business uses of computers, business system design process, structured flow charting and an introduction to computer programming using the BASIC language.
Five credits: 50 clock hours

## BIS 111 COMPUTER CONCEPTS I

The student will study various file and database structures from the view point of efficiency, utility and practicality.
Prerequisite: BIS 105 or BIS 110 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 105 or BIS 110
Five credits: 50 clock hours

## BIS 112 COMPUTER CONCEPTS II

The student will work with JCL and be introduced to Assembly Language programming in an IBM mainframe environment. The student will learn to read memory dumps and develop debugging techniques.
Prerequisite: BIS 107, BIS 110, and BIS 111
Five credits: 50 clock hours

## BIS 115 UNDERSTANDING dBASE

The student will learn to use the advanced features of the dBase IV software package as it relates to business applications.
Prerequisite: BIS 105 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 105. Attendance required first class to insure seat.
Five credits: 50 clock hours

## BIS 116 LOGIC USING BASIC

The student will acquire the skills needed to write structured BASIC programs emphasizing structured flowcharts and pseudocode. The student will learn file processing techniques on a microcomputer. Prerequisite: BIS 110 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 110
Five credits: 50 clock hours

## BIS 117 COMPUTER OPERATIONS

The student will learn to operate a computer system with actual hands-on-experience. The student will become proficient with operator commands and have an understanding of all components that make up a computer environment.
Prerequisite: BIS 110 with a grade of $C$ or better or written proof of education equivalent to the topics covered in BIS 110
Five credits: 50 clock hours

## BIS 118 PLI PROGRAMMING LANGUAGE

Familiarizes the students with techniques for using PL/1 as a programming language and its application to business problems.
Prerequisite: BIS 116 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 116
Five credits: 50 clock hours

## BIS 126 REPORT PROGRAM GENERATOR II (RPG II)

The student will learn the syntax of RPG II and write programs that search tables, match files and have control break logic. The student will learn about RPG III enhancements.
Prerequisite: BIS 105 or 110 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 105 or 110. Five credits: 50 clock hours

## BIS 136 UNIX FOR BUSINESS APPLICATIONS

The student will learn the features of Unix including multi-tasking, directories, and file maintenance, and apply those features to business related applications.
Prerequisite: BIS 116 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 116
Five credits: 50 clock hours

## BIS 137 WRITING COMPUTER DOCUMENTATION

The student will learn to integrate the disciplines of computer programming and English by applying good writing standards when documenting a computer system.
Prerequisite: BUS 142 and BIS 221, both with a grade of C or better or written proof of education equivalent of the topics covered in BUS 142 and BIS 221
Five credits: 50 clock hours

## BIS 138 MS/DOS OVERVIEW

The student will become proficient with MS/DOS systems, including file maintenance, directory structure, and business application management. Attendance required first class to insure seat.
Prerequisite: BIS 105 or previous computer experience suggested. Three credits: 30 clock hours

## BIS 145 INTEGRATED SOFTWARE

The student will learn to utilize software vendor manuals. The student will convert business applications into automated applications. Attendance required first class to insure seat.
Prerequisite: BIS 105 with a grade of $C$ or better or written proof of equivalent experience or training.
Five credits: 50 clock hours

## BIS 146 dBASE IV

An overview of dBASE IV exploring the control center and menu structure.
Prerequisite: BIS 105 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 105.
Three credits: 30 clock hours

## BIS 199 CPROGRAMMING SEMINAR

The student will join the disciplines of structured programming and the syntax $C$ language. The student will learn C language structures, C language access to DOS facilities and lattice $\mathrm{C} /$ Oracle database interface.
Three credits: 30 clock hours.

## BIS 201 CPROGRAMMING LANGUAGE

The student will learn the syntax of $C$ which features the economy of expression, modern control flow and data structures, and specific operators.
Prerequisite: Advanced programming techniques with a grade of B or better or written proof of equivalent experience or training
Five credits: 50 clock hours

## BIS 202 ADVANCED C PROGRAMMING

A continuation of BIS 201. The student will learn advanced industry standards as they relate to the C Language and the UNIX computer environment.
Prerequisite: BIS 201
Five credits: 50 clock hours

## BIS 205 ASSEMBLY LANGUAGE

The student will learn to program using BAL in an IBM mainframe environment. The student will learn to read core dumps and will learn various debugging techniques.
Prerequisite: BIS 116
Five credits: 50 clock hours

## BIS 206 NEW ISSUES AND DEVELOPMENTS

The student will learn about current issues and developments in the computer industry. The student will learn to research industry topics and present their research in both an oral and written format.
Prerequisite: Successful completion of 45 credits of courses with a BIS prefix or instructor consent
Five credits: 50 clock hours

## BIS 207 PROGRAM MAINTENANCE AND JCL

The student will learn the effects of changes to a business computer system from the perspective of the user, operator, programmer, and customer. The student will learn program maintenance methodologies related to programs and JCL.
Prerequisite: Successful completion of 30 credit hours of courses with a BIS prefix
Five credits: 50 clock hours

BIS 208 MICROSOFT WINDOWS
The student will learn to navigate through windows, control the windows environment and management of files, disks, and printers. Three credits: 30 clock hours

## BIS 211 STRUCTURED SYSTEMS ANALYSIS

The student will learn to utilize structured tools (data flow diagrams, data dictionaries, data structure diagrams) to define structured specifications for a business system.
Prerequisite: BIS 111 and BIS 116, both with a grade of $C$ or better or written proof of education equivalent to the topics covered in BIS 111 and BIS 116
Five credits: 50 clock hours

## BIS 215 VENTURA

The student will learn a variety of complex concepts and procedures available using the Xerox Ventura Publisher software. Attendance required first class to insure seat.
Prerequisite: BIS 105 with a grade of C or better or written proof of equivalent job experience.
Five credits: 50 clock hours

## BIS 216 RBASE PROGRAMMING

A continuation of BIS 106. The student will learn advanced features of RBASE for DOS and application development.
Prerequisite: BIS 106 with grade of $C$ or better or written proof of education equivalent to the topics covered in BIS 106
Five credits: 50 clock hours

## BIS 221 STRUCTURED COBOL PROGRAMMING

The student will learn to apply structured techniques to the COBOL language. The student will write business related applications gaining skills in documentation, logic and debugging.
Prerequisite: BIS 116 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 116
Five credits: 50 clock hours

## BIS 222 ADVANCED STRUCTURED COBOL

A continuation of BIS 221. The student will learn industry programming standards and COBOL-85 features. The student will write programs that utilize complex table handling, internal sorts, report writer and complex file processing and maintenance.
Prerequisite: BIS 221 and BIS 111, both with a grade of C or better or written proof of education equivalent to the topics covered in BIS 221 and BIS 111 Five credits: 50 clock hours

## BIS 231 ADVANCED DOS TECHNIQUES

The student will learn to perform basic DOS functions. Topics include commands, file management, batch files, path commands, and how to backup and restore files.
One credit: 15 clock hours

## BIS 232 MICROCOMPUTER HARD DISK WORKSHOP II

The student will learn more advanced DOS functions such as how to merge letters and merge lists, do envelopes and labels, and do columns and footnotes.
One credit: 14 clock hours

## BIS 235 dBASE PROGRAMMING

A continuation of BIS 115. Students will learn advanced features of dBase (current version) concentrating on END-USER processing. Prerequisite: BIS 115 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 115.
Five credits: 50 clock hours

| BIS | 295 | COMPUTER INDEPENDENT STUDY |
| :--- | :--- | :--- |
| BIS | 296 | COMPUTER INDEPENDENT STUDY |
| BIS | 297 | COMPUTER INDEPENDENT STUDY |
| BIS | 298 | COMPUTER INDEPENDENT STUDY |
| BIS | 299 | COMPUTER INDEPENDENT STUDY |

A course providing the opportunity for the student to study a specific computer related area or skill under the direction of a qualified faculty member.
One to Five credits each: 10-50 clock hours each

## BUS: GENERAL BUSINESS

BUS 100 INTRODUCTION TO BUSINESS
A survey of principles, problems, institutions, practices, and private and governmental systems affecting the world of business.
Five credits: 50 clock hours

## BUS 101 KEYBOARDINGI

An introduction to typewriting. Emphasizes learning the keyboard and parts of the typewriter, proper technique, speed and control, and basic typewritten applications such as copy placement, business letters, tabulations, and simple reports. For students with no typing background. Replaces Typewriting I.
Four credits: 50 clock hours

## BUS 102 KEYBOARDING II

A skill-building class designed to help the student build speed and accuracy through the use of proper technique, proper position, and concentrated effort. Replaces Typewriting II. Continued basic typewritten applications.
Prerequisite: BUS 101 or one year high school typing or 25 wpm typing speed
Four credits: 50 clock hours

## BUS 103 KEYBOARDING III

Further development of typing techniques and use of electronic typewriters. Emphasis on production of mailable copy of business letters, tabulations, business communication forms, and special reports. Replaces Typewriting III.
Prerequisite: BUS 101 or 50 wpm typing speed. Additional lab hours will be needed.
Four credits: 50 clock hours

## BUS 104 KEYBOARDING IV

Further development of typing techniques in office-type situations. Emphasis will be placed on production of mailable copy. Additional lab hours will be needed.
Prerequisite: BUS 103, BUS 142, and 55 wpm typing speed
Four credits: 50 clock hours

## BUS 106 OFFICE SKILLSI

The basic objectives of this course include giving students fundamental skills, competencies, and confidence to enable them to succeed in a vocational setting. Whenever possible, the course will draw on available resource materials and/or persons available in the immediate vicinity of the Aims campus and its environs.
Three credits: 50 clock hours

## BUS 107 BASIC OFFICE PROCEDURES

A study of general business office duties and problems, job interviewing and application, business etiquette, reception and messenger work, mail handling, telephone technique, and filing.
Prerequisite: BUS 101 or equivalent
Five credits: 50 clock hours

BUS 108 COMPUTERIZED 10-KEY TOUCH CALCULATING
Students will become proficient in the touch method operation of the 10 -key pad. Students will be able to use the calculator efficiently in record keeping activities.
One credit: 15 clock hours

## BUS 109 SECRETARIAL SKILLS

Review of basic typing, filing procedures, communication, mailing procedures, human relations, personnel, and duplicating, as well as other similar duties.
Two credits: 30 clock hours

## BUS 111 WORD/INFORMATION PROCESSING I

Students learn functions and operations of word processing software using personal computers. At the completion of the course the student will be able to produce a variety of business correspondence.
Prerequisite: BUS 103 and BIS 105, both with a grade of C or better or permission of instructor
Four credits: 50 clock hours

## BUS 112 WORD/INFORMATION PROCESSING II

Students develop proficiency, speed and independence in using information processing software. Expand knowledge of office automation functions and procedures.
Prerequisite: BUS 104 and BUS 111, both with a grade of C or better, and 50 wpm typing speed or permission of instructor
Four credits: 50 clock hours

## BUS 115 LEGAL KEYBOARDING

Production practice in preparing legal documents and legal forms. Emphasizes typing and spelling accuracy of legal terminology. Prerequisite: BUS 103 and 60 wpm typing speed. To be taken concurrently with BUS 117. Successful completion of BUS 115 with a grade of C or better is a prerequisite to BUS 118 Legal Machine Transcription and BUS 211 Legal Office Procedures.
Four credits: 50 clock hours

## BUS 116 WORD PROCESSING: DEDICATED SYSTEMS

This course is designed to provide the student with production experience on a dedicated word processor using an individualized approach.
Prerequisite: BUS 110 and BUS 111 and permission of instructor Four credits: 60 clock hours

## BUS 117 LEGAL TERMINOLOGY

A study of the language of law. Basic preparation for secretaries training to work in a legal office. Emphasizes understanding terminology as well as being able to spell and use terms correctly. Successful completion of BUS 117 with a grade of C or better is a prerequisite to BUS 118 Legal Machine Transcription and BUS 211 Legal Office Procedures. Five credits: 50 clock hours

## BUS 118 LEGAL MACHINE TRANSCRIPTION

Student will review legal terminology and legal forms, transcribe legal material, and type legal forms commonly used in legal offices.
Prerequisite: BUS 115, BUS 117, and BUS 142
Four credits: 50 clock hours

## BUS 121 COLLEGE BOOKKEEPING I

To give the student an understanding of the fundamentals of bookkeeping and accounting as applied to practical situations in the business community. To prepare the student to do the duties of an entry-level bookkeeper.
Five credits: 50 clock hours

BUS 125 ADDING AND CALCULATING MACHINES
Student will acquire basic skills necessary to process data accurately and rapidly. They will learn to use electronic calculators properly and efficiently.
Prerequisite: MAT 110 or permission of instructor
Two credits: 30 clock hours

## BUS 126 PROOFREADING TECHNIQUES

This course will assist individuals in developing proofreading skills necessary to create error-free communications. Recommended for clerical majors.
One credit: 10 clock hours

## BUS 127 BUSINESS WORD USAGE

This course will assist individuals in developing business language skills necessary to produce error-free communications. Recommended for clerical majors.
Prerequisite: BUS 141 and permission of instructor
Three credits: 45 clock hours

## BUS 128 KEYBOARDING FOR COMPUTERS

This course offers the opportunity to learn or improve keyboarding skills on a computerized keyboard. This course is not intended to replace Keyboarding I or Keyboarding II. Intended for non-secretarial majors.
Two credits: 25 clock hours

## BUS 129 TELEPHONE COMMUNICATIONS

Orientation and hands-on training to develop effective telephone skills. This includes dealing with difficult callers and presenting a business-like manner.
One credit: 15 clock hours

## BUS 131 TYPEWRITING REFRESHER I

An individualized refresher typing class tailored for persons reentering the labor market who need to refresh their typing skills.
Prerequisite: BUS 101 or one year high school typewriting
Four credits: 60 clock hours

## BUS 136 COMPUTERIZED PROOFREADING APPLICATIONS

Practical hands-on-experience proofreading applications on the microcomputer. The student's proofreading skill will be improved through self-paced learning experiences delivered by computer software.
Prerequisite: BUS 126 or permission of instructor
One credit: 15 clock hours

## BUS 137 MICROCOMPUTER WORKSHOP

This is an introductory, hands-on workshop for the novice.
Emphasis is on fundamental usage of software including WordPerfect, Lotus 1-2-3, and MS/DOS.
Prerequisite: Keyboarding skills recommended
One credit: 15 clock hours

## BUS 139 YOU AND YOUR WORLD OF WORK

Students will be provided with the business skills necessary to select,critique, and evaluate position opening notices; to present themselves successfully in job interviews; to integrate themselves effectively into the world of work. As part of the course, students will learn office procedures commonly used in business, job interview skills, job maintenance skills, and communication skills necessary for success in the work environment.
One credit: 8 clock hours

BUS 140 WORD PROCESSING ON MICROCOMPUTERS I
To gain a basic understanding of the functions and mechanics of word processing software used on a microcomputer.
Prerequisite: BUS 101
Two credits: 30 clock hours

## BUS 141 INTRODUCTION TO COMMUNICATIONS

Fundamentals of communication theory and practice. Includes a study of vocabulary, spelling, mechanics, parts of speech, sentence analysis and dictionary usage as it applies to the business world. Written business communication will be introduced.
Five credits: 50 clock hours

## BUS 142 INTERMEDIATE COMMUNICATIONS

Students develop more extensive vocabularies and learn parts of speech, sentence structure, punctuation, spelling and word division as used in business communication. Practical application of principles learned will be demonstrated through the writing of business communications.
Prerequisite: BUS 141 or permission of instructor
Five credits: 50 clock hours

## BUS 143 ADVANCED COMMUNICATIONS

Students develop communication skills to write with clarity and confidence. Students work towards precise, powerful business writing. The basic principles and practices of business letters, reports, memos, and oral communication are studied and applied.
Prerequisite: BUS 142 or permission of instructor
Three credits: 30 clock hours

## BUS 145 WORD PROCESSING ON MICROCOMPUTERS ॥

To gain further experience using word processing sottware and personal computers.
Prerequisite: BUS 140 or permission of instructor
Two credits: 30 clock hours

## BUS 146 OFFICE INTERNSHIP

The office internship is a transition/capstone course which offers on-the-job experience in a business office.
Prerequisite: GPA of 2.75 and permission of instructor
Three credits: 90 clock hours

## BUS 150 INFORMATIONAL CONCEPTS FOR BANKERS

To introduce students to the basics of computer operation, and, in particular, the skills necessary for the banking industry.
Two credits: 20 clock hours

## BUS 151 INTRODUCTION TO WORDPERFECT

A beginner's level word processing class utilizing WordPerfect software and IBM compatible equipment. Students will learn to use basic commands and functions used in producing business documents such as business letters, memos, reports, and tables. Prerequisite: BUS 101 and/or BUS 102 or 35 wpm or permission of instructor
Two credits: 30 clock hours

## BUS 152 INTERMEDIATE WORDPERFECT

A continuation course to learn additional software functions and operations using WordPerfect software utilizing IBM compatible equipment. Functions covered include using merge features to generate form letters, labels, and envelopes; creating, saving, and editing macros; using decimal tabs to produce tables; creating styles; and utilizing outlining, indexing, and table of contents features. Prerequisite: BUS 151 or permission of instructor Two credits: 30 clock hours

## BUS 155 RECORDS MANAGEMENT

Students will learn the nature and purpose of records and the need to implement and use rules to maintain up-to-date records and to retrieve records.
Two credits: 20 clock hours

## BUS 161 SHORTHAND I

To develop reading speed from book plates and handwritten notes. Develop shorthand writing of familiar and unfamiliar material. Develop the ability to transcribe at the typewriter.
Prerequisite: BUS 101 or 30 wpm typing speed and BUS 141, or permission of instructor
Five credits: 50 clock hours

## BUS 162 SHORTHAND II

Develops ability to construct outlines for unfamiliar words and increases skill in transcription. Emphasizes production of mailable letters from office style dictation, reviews theory of shorthand, and increases shorthand reading speed.
Prerequisite: BUS 161 or previous shorthand
Five credits: 50 clock hours

## BUS 165 HUMAN RELATIONS AT WORK

A study of personal development and adjustment in business and industry, and attitudes and working relationships with co-workers and supervisors, in order that organizations can be run in greater harmony. Five credits: 50 clock hours

## BUS 171 BUSINESS LEADERSHIP ACTIVITIES <br> BUS 172 BUSINESS LEADERSHIP ACTIVITIES BUS 173 BUSINESS LEADERSHIP ACTIVITIES

These courses are designed to encourage growth and development through activities in a student organization with professional goals.
Two credits each

## BUS 185 OFFICE INDEPENDENT STUDY BUS 186 OFFICE INDEPENDENT STUDY BUS 187 OFFICE INDEPENDENT STUDY BUS 188 OFFICE INDEPENDENT STUDY

A course providing the opportunity for the student to study a specific area or skill under the direction of a qualified faculty member. One to four credits

## BUS 195 BOOKKEEPING PRACTICUM

Provides students with the opportunity to apply basic bookkeeping theory by working through the bookkeeping cycle through the completion of a merchandising proprietorship practice set.
Prerequisite: BUS 121 or permission of instructor One credit: 15 clock hours

## BUS 196 COMPUTERIZED BOOKKEEPING PRACTICUM

Provides students with the opportunity to apply basic bookkeeping principles by working through the bookkeeping cycle through the completion of a merchandising proprietorship computerized practice set. Prerequisite: BUS 121 and BUS 195 or permission of instructor One credit: 15 clock hours

## BUS 197 COMBINED BOOKKEEPING PRACTICUM

Provides students with the opportunity to review and apply basic bookkeeping theory by working through the completion of a merchandising proprietorship practice set manually and on the computer.
Prerequisite: BUS 121 or permission of instructor
Three credits: 45 clock hours

## BUS 200 BUSINESS LAW

The student should gain a foundation for the study of law as it pertains to the nature of law, social forces and the court system with certain aspects of tort and criminal law. Particular emphasis to be given to the law of contracts and sales law.
Five credits: 50 clock hours

## BUS 205 INTEGRATED SOFTWARE APPLICATIONS

Students will learn to utilize an integrated sottware package, which includes word processing, spreadsheet, database, and graphics applications.
One credit: 15 clock hours

## BUS 206 TELECOMMUNICATIONS

Course presents fundamental concepts of telecommunications which primarily involves transmission of data from one location to another by way of computers.
Prerequisite: BIS 105
Two credits: 30 clock hours

## BUS 208 LEGAL ENVIRONMENT OF BUSINESS

The student will gain an understanding of the nature of the legal system from the standpoint of sources, philosophy, and relationship to ethics with emphasis on its application to business relations through government regulation.
Five credits: 50 clock hours

## BUS 210 BUSINESS AND BANKING

An introductory course in finance with special emphasis on various types of financial institutions and roles they play in the economy and society.
Five credits: 50 clock hours

## BUS 211 LEGAL OFFICE PROCEDURES

To acquaint the student with the tasks performed in a legal office and to show how these tasks relate to the court system.
Prerequisite: BUS 115 and BUS 117 both with a grade of C or better Five credits: 50 clock hours

## BUS 212 CAREER LEGAL SECRETARY

A comprehensive course for advanced-level students who desire to become legal secretaries. Designed to meet the needs of a legal trainee by integrating previously acquired knowledge and applying it to a legal office.
Prerequisite: BUS 211
Four credits: 50 clock hours

## BUS 215 NALS OFFICIAL COURSE FOR LEGAL SECRETARIES - ADVANCED II

Continuation of BUS 225 .
Three credits: 33 clock hours

## BUS 221 CPS REVIEW I

A review course highlighting six areas of business: business law, economics and management, accounting, behavioral science, office administration and communication, and office technology. Designed to prepare the student for Certified Professional Secretary test. Two credits: 20 clock hours

## BUS 222 CPS REVIEW II

A continuation of CPS Review I.
Prerequisite: BUS २२1
Two credits: 20 clock hours

BUS 225 NALS OFFICIAL COURSE FOR

## LEGAL SECRETARIES - ADVANCED

Designed for the legal secretary who may perform the duties of a legal assistant and assumes some knowledge of the law.
Three credits: 33 clock hours

## BUS 231 WORD/INFORMATION PROCESSING II-LEGAL

Student will learn to use the word processor to prepare legal documents and legal correspondence from rough dratts and further develop problem solving and proofreading skills. Students will gain production experience on WP software.
Prerequisite: BUS 111 and BUS 115
Four credits: 50 clock hours

| BUS | 235 | BUSINESS SEMINAR |
| :--- | :--- | :--- |
| BUS | 236 | BUSINESS SEMINAR |
| BUS | 237 | BUSINESS SEMINAR |
| BUS | 238 | BUSINESS SEMINAR |
| BUS | 239 | BUSINESS SEMINAR |

This course provides students an opportunity to update knowledge and explore business applications in the world of work.
One to Five credits: 10 to 50 clock hours

## BUS 241 INTEGRATED OFFICE PROCEDURES

A capstone course designed to simulate a typical business office. This class provides culminating, integrating experience in typing, word processing, shorthand, communications, and interpersonal skills. Students will gain production experience on WP equipment.
Prerequisite: BUS 104, BUS 111, BUS 161, or consent of instructor Four credits: 50 clock hours

## BUS 255 ADVANCED WORDPERFECT

An advanced level WordPerfect curriculum for experienced users of WordPerfect software. Emphasis of the curriculum is on desktop publishing applications. This includes production of documents utilizing the line draw feature, graphics, shading, horizontal and vertical rules, and multiple-column layout.
Prerequisite: BUS 151 and BUS 152
Two credits: 30 clock hours

## BUS 256 DESKTOP PUBLISHING

Apply personal computers and desktop publishing software in a basic process of creating materials from flyers to brochures. Covers layout, design and integration of graphics to produce a professionally published document.
Prerequisite: BUS 101, BIS 105, and BIS 138, or permission of instructor Two credits: 30 clock hours

## BUS 257 OFFICE SYSTEMS MANAGEMENT

An advanced-level office automation course utilizing integrated software applications. Students will explore the concepts of the cooperative computing environment and how office productivity is affected by modern technology.
Prerequisite: BUS 112 Word Information Processing II or permission of instructor
Four credits: 40 clock hours

| BUS | 285 | SECRETARIAL INDEPENDENT STUDY |
| :--- | :--- | :--- |
| BUS | 286 | SECRETARIAL INDEPENDENT STUDY |
| BUS | 287 | SECRETARIAL INDEPENDENT STUDY |
| BUS | 288 | SECRETARIAL INDEPENDENT STUDY |

A course providing the opportunity for the student to study a specific knowledge or skill under the direction of a qualified faculty member. One to four credits

BUS 291 LEGAL INTERNSHIP
Provides legal secretarial students with work experience in the legal field preparing them to accept a position as a legal trainee. Prerequisite: BUS 211
Three credits: 90 clock hours

## CHE: CHEMISTRY

## CHE 100 FUNDAMENTALS OF CHEMISTRY

A preliminary college chemistry course designed to be the basis of a thorough preparation for the higher level college chemistry courses which are required of science and engineering majors (CHE 111, 112, 113). The basic principles of chemistry are studied and may include classroom and laboratory studies of measurements, nuclear chemistry compounds, energy, elements, conversions, mole concept, gases, atomic structure, periodic table, chemical bonding, formulas, nomenclature, chemical equations, chemical arithmetic, acids, bases, pH and organic compounds. The laboratory exercises are designed to complement and reinforce lecture topics.
Prerequisite: one year of high school algebra, MAT 111 or equivalent.
Five credits: three hours lecture, four hours lab per week

## CHE 110 INTRODUCTION TO INORGANIC CHEMISTRY

The first course in a three quarter chemistry sequence designed to meet the needs of allied health students. This course will introduce the student to the fundamental laws and theories of inorganic chemistry. Applications to health related areas will be stressed where appropriate.
Prerequisite: One year high school algebra or MAT 111 or the equivalent. High school chemistry or CHE 100 is recommended.
Five credits: four hours lecture, and three hours lab per week

## GENERAL COLLEGE CHEMISTRY I, II, III

Students majoring in chemistry, chemical technology, biology, preveterinary medicine, pre-medicine, pre-dental medicine and prechiropractic medicine should complete this series as fulfillment of a full year of general chemistry. Pre-engineering requires all or part of this series. Each course includes an integrated lecture and laboratory study.

## CHE 111 GENERAL COLLEGE CHEMISTRY I

(Formerly CHE 101) Includes the study of measurements, atomic theory, chemical bonding, stoichiometry and gases. Also includes the 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.
Prerequisite: One year of high school chemistry or CHE 100
Corequisite: Intermediate Algebra (MAT 112) or consent of the instructor
Five credits: three hours lecture, four hours lab per week

## CHE 112 GENERAL COLLEGE CHEMISTRY II

(Formerly CHE 102) A continuation of CHE 111. Includes condensed states, solutions, thermodynamics, chemical kinetics and chemical equilibrium. Also includes the problem solving skills and descriptive contents for these topics. The laboratory experiments will demonstrate both qualitative and quantitative analytical techniques.
Prerequisite: CHE 111
Corequisite: College Algebra (MAT 121) or equivalent
Five credits: three hours lecture, four hours lab per week

## CHE 113 GENERAL COLLEGE CHEMISTRY III

(Formerly CHE 103) A continuation of CHE 112. Includes acidbase equilibrium, ionic equilibrium, electrochemistry, nuclear chemistry and organic chemistry. Also includes the problem solving skills and descriptive contents for these topics. Organic chemistry may be included if time permits. The laboratory experiments will demonstrate both qualitative and quantitative analytical techniques.
Prerequisite: CHE 112
Five credits: three hours lecture, four hours lab per week

## CHE 115, 116 CHEMICAL TECHNOLOGYI

Consists of two modules: Gravimetric Analysis and Volumetric Analysis.

## CHE 115 GRAVIMETRIC ANALYSIS

Intensive laboratory oriented study of the methods and procedures of chemical analysis involving the use of a semi-micro analytical balance.
Prerequisite: CHE 111 or permission of instructor
One credit: two hours lecture, sixteen hours lab.

## CHE 116 VOLUMETRIC ANALYSIS

Laboratory oriented study of the methods of chemical analysis through the use of pipets, burets and other volume measuring devices.
Prerequisite: CHE 111 or permission of instructor
One credit: two hours lecture, sixteen hours lab.

## CHE 120 INTRODUCTORY ORGANIC CHEMISTRY

The second course in a three quarter sequence designed primarily for the allied health student. The course content includes structures, nomenclature, and chemical properties of alkanes, alkenes, alkynes, aromatic molecules, alcohols, organic halides, ethers, epoxides, acids, aldehydes, ketones, heterocyclic and nitrogen compounds. Selected topics in the chemistry of molecules of biological interest also will be presented.
Prerequisite: CHE 100 or CHE 110 or equivalent.
Five credits: four hours lecture, three hours lab per week

## CHE 185 SPECIAL TOPICS IN CHEMISTRY

Topics will reflect the special expertise of the faculty and/or the special needs of the students.
Prerequisite: Consent of instructor
One to Six credits

## ORGANIC CHEMISTRY I, II, III

Students majoring in chemistry, chemical technology, biology, preveterinary medicine, pre-medicine, pre-dental medicine and prechiropractic medicine should complete this series as fulfillment of a full year of organic chemistry. Each course integrates laboratory and lecture.

## CHE 201 ORGANIC CHEMISTRY I

Studies atomic and molecular structures, nomenclature, chemical bonding reactions, reaction mechanisms of hydrocarbons, aromatics, alcohols, and organic halides; structural and geometric isomers, electrophilic and neucleophilic reactions. Stereochemistry also is included with industrial and biological applications. Laboratory will cover fundamental operations of simple and fractional distillation, melting points, recrystalization, nitration of aromatic compounds, hydrocarbon reactions, Grignard and aklyl halide reactions.
Prerequisite: CHE 111 or equivalent
Five credits: three hours lecture, four hours lab per week

CHE 202 ORGANIC CHEMISTRY II
Examines the structure, nomenclature, reaction mechanisms, and applications of ethers, epoxides, carboxylic acids, aldehydes, and ketones, and organic nitrogen compounds. Identification of structure of organic compounds by classical and modern techniques will be covered. Laboratory will examine the Williamson ether synthesis, esterification and other carbonyl reactions; reactions of amines, infrared and nuclear magnetic resonance spectroscopy.
Prerequisite: CHE 201 or permission of instructor Five credits: three hours lecture, four hours lab per week

## CHE 203 ORGANIC CHEMISTRY III

The third quarter of the organic chemistry sequence which deals with the structure, nomenclature, and reaction mechanisms, and biological applications of the following: fats and other lipids, terpenes, carbohydrates, proteins, amino acids, and enzymes. The laboratory consists of the synthesis, qualitative analysis, and structural determination of the above compounds.
Prerequisite: CHE 202 or permission of instructor
Five credits: three hours lecture, four hours lab per week

## CHE 210 INTRODUCTION TO HUMAN BIOCHEMISTRY

The third course of a three quarter sequence designed primarily for the allied health student. This course will introduce the student to the chemistry of living systems with emphasis on biochemical structures and the reactions involved in metabolic pathways. Applications to human disease processes will be introduced where appropriate.
Prerequisite: CHE 120 or equivalent.
Five credits: four hours of lecture, three hours of lab per week

## CHE 215, 216 CHEMICAL TECHNOLOGY II

Consists of two modules: UV-Visible Spectroscopy and Atomic Absorption Spectroscopy.

## CHE 215 UV-VISIBLE SPECTROSCOPY

Concentrated study of instrumentation, applications, and analysis in ultra-violet and visible absorption spectra.
Prerequisite: CHE 112 or permission of instructor
One credit: two hours lecture, sixteen hours lab.

## CHE 216 ATOMIC ABSORPTION SPECTROSCOPY

Concentrated study of applications, theory, operation, and adjustment of instrumentation. Preparation of solutions and interpretations of analytical data.
Prerequisite: CHE 112 or permission of instructor
One credit: two hours lecture, sixteen hours lab.

## CHE 225, 226 CHEMICAL TECHNOLOGY III

Consists of two modules: pH Millivolt Titrations and Specific Ion Electrodes and Gas Chromotography.

## CHE 225 pH, MILLIVOLT TITRATIONS AND SPECIFIC ION ELECTRODES

Intensive investigation of the electrode construction of pH meters and their use of acid/base and redox titrimetry. Theory and application of specific ion electrodes will be investigated.
Prerequisite: CHE 112 or permission of instructor
One credit: two hours lecture, sixteen lab hours.

## CHE 226 GAS CHROMOTOGRAPHY

Instrument operation parameters, column selection and applications using internal and external standards will be investigated. Prerequisite: CHE 201 or permission of instructor One credit: two hours lecture, sixteen hours lab.

CHE 235, 236 CHEMICAL TECHNOLOGY IV
Consists of two modules: Infrared Spectroscopy and High Performance Liquid Chromatography.

## CHE 235 INFRARED SPECTROSCOPY

Concentrated study of instrumentation, sample preparation, applications and interpretation of infrared absorption spectra.
Prerequisite: CHE 202 or permission of instructor
One credit: two hours lecture, sixteen hours lab.

## CHE 236 HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

Instrument operation parameters and applications will be investigated using various mobil phases and detectors.
Prerequisite: CHE 112 or permission of instructor
One credit: two hours lecture, sixteen hours lab.

## CHE 295 INDEPENDENT STUDY IN CHEMISTRY

Provides the opportunity for the highly motivated student to engage in intensive study and research on a specified topic under the direction of a faculty member. The student will be limited to the number of independent study courses taken per quarter.
Prerequisite: previous academic study or experience in chemistry One to three credits: contact division chairman

## COM: COMMUNICATIONS MEDIA

## COM 112 INTRODUCTION TO MASS MEDIA

Student studies the history, ethics, current problems, and practices of the mass media within the social system. Emphasizes newspapers, radio and television broadcasting, and advertising.
Five credits

## COM 113 INTRODUCTION TO RADIO BROADCASTING I

Introduces basic radio principles and production techniques. Includes some laboratory experience in the studio.
Five credits: four hours lecture, two hours lab per week

## COM 114 INTRODUCTION TO TELEVISION BROADCASTINGI

Introduces the video production field, including equipment and processes. Students will operate TV cameras, microphones, audio mixes and video switchers, as well as facing the camera.
Five credits: four hours lecture, two hours lab per week

## COM 118 INTRODUCTION TO AUDIO PRODUCTION

Introduces the audio production field, including equipment and processes. Students will operate microphones, audio mixers, and other equipment, as well as write and produce various projects. Includes some voice work.
Five credits: four hours lecture, two hours lab per week

## COM 210 NEWSWRITINGI

Students will learn elements of writing style and judgment in reporting the news for the various media.
Five credits

## COM 211 NEWSWRITING II

Provides more variety and real-life experience in newswriting opportunities, including on-the-scene newsgathering, dealing with deadline pressures, developing checklists to strengthen newswriting skills, depth into ethics, and emphasis on broadcast journalism and the differences and similarities with print journalism.
Prerequisite: COM 210
Five credits

## COM 213 INTRODUCTION TO RADIO BROADCASTING II

The student will learn advanced concepts of radio broadcasting, such as copyrighting, advanced commercial production, newscasting, broadcast law and management.
Prerequisite: COM 113
Five credits: four hours lecture, two hours lab per week.

## COM 214 INTRODUCTION TO TELEVISION BROADCASTING II

Introduces students to the fundamentals of TV broadcasting, including the technical aspects of scripting, visualizing, producing and performing in original videotaped programs, and explores possible careers in this field.
Prerequisite: COM 114
Five credits: four hours lecture, two hours lab per week
COM 245 BROADCAST COPYWRITING AND PRODUCTION
Students will learn the skills and techniques required of copywriters employed in radio, television, cable TV and advertising agencies.
Prerequisite: COM 112
Five credits: four hours lecture, two hours lab per week

## COM 260 BROADCAST SALES/MANAGEMENT

This class will apply basic sales and management principles to radio, television, and cable operations; and address copyright law, promotion, research, broadcast ethics, and human relations in the workplace. Through guest speakers from the broadcast industry and individual student projects, the course emphasizes realistic work situations.
Prerequisite: COM 112
Five credits

## COM 291 TV FIELD PRODUCTION LAB I

Prepares students for production of professional-quality video programming. Students will have an opportunity to attain proficiency in single-camera remote videography, as well as post-production editing and engineering considerations.
Prerequisite: COM 214
Three credits: six hours

## COM 298 MASS MEDIA INTERNSHIP

This course allows students majoring in Liberal Arts with an emphasis in Mass Media an opportunity for hands-on learning experiences.
Prerequisite: COM 291 and permission of instructor
Five credits:

## COM 299 COMMUNICATIONS PRACTICUM

Provides an opportunity for the serious-minded student to develop his or her skills in writing and producing a broadcast program under the direction of a faculty member. May be repeated at different levels of proficiency.
Prerequisite: permission of instructor
One to three credits: two to six hours

## CSC: COMPUTER SCIENCE

## CSC 100 THE COMPUTER AND SOCIETY

An introduction to computers, their application and their impact on our lives. Included is an overview of the history, the components, the terminology and uses of the computer. The hands-on lab exposes the student to a sampling of software and programming.
Prerequisite: None
Three or Four credits: two or three lecture hours, two lab hours per week

## CSC 101 INTRODUCTION TO PROGRAMMING IN THE BASIC LANGUAGE

This is the first in the series of high level programming languages. The student will attain programming skills using the BASIC language. Topics include: design techniques, looping structures, compound conditionals, string manipulation and array processing.
Prerequisite: High school Algebra I or MAT 111 or the equivalent
Corequisite: CSC 111 - highly recommended
Four credits: three lecture hours, two lab hours per week

## CSC 102 ADVANCED BASIC PROGRAMMING

A continuation of CSC 101 that allows the student to learn advanced programming techniques such as: graphics, multiple control beaks, data editing, sequential and random file accessing and updating.
Prerequisite: CSC 101 or the equivalent
Three or Four credits: two or three lecture hours, two lab hours per week

## CSC 105 INTRODUCTION TO PERSONAL COMPUTING

Developing programs for home and educational use is emphasized. Microcomputer terminology and concepts of disk handling including initializing, loading, saving, and deleting-are covered. Students will also develop specific criteria for evaluating software. The hands-on lab introduces the student to creating and modifying programs using the programming languages of BASIC and LOGO. (Credit will not be allowed for both CSC 101 and CSC 105; Computer Science students should take CSC 101.)
Prerequisite: None
Two to Four credits: one to three lecture hours, two lab hours per week.

## CSC 110 INTRODUCTION TO DIGITAL PRINCIPLES

The objective of this course is to introduce the student to the concept of digital logic and design by using integrated circuits. The information and topics to be covered are: binary codes, error detection and correction, chips (IC's) and logic gates, exposure to boolean logic, Karnaugh Maps and their use, code conversions, flipflops, counters, registers, and binary arithmetic.
Prerequisite: None (An adequate arithmetic background is highly recommended.)
Four credits: three lecture hours, two lab hours per week

## CSC 111 STRUCTURED PROGRAM DESIGN

The objective of this course is to introduce the student to the concept of instruction sequence. Modern program design techniques such as Modular Flowcharts, Warnier/Orr diagrams and Pseudo-code will be taught as viable program design methods generic of specific programming languages.
Prerequisites: None
Three credits:

CSC 120 INSTRUCTIONAL COMPUTING IN THE CLASSROOM
Primarily designed for educators, this course will provide an introduction to computers and computerized teaching materials for a variety of fields. Use of the computer as an educational tool will be emphasized. Students will explore educational games, simulations, tutorials, and problem-solving programs and will learn to integrate these materials into their curricula. Computer managed instructional programs and word processing applications will also be presented.
Prerequisite: None
Three or Four credits

## CSC 121 PROGRAMMING IN PASCAL

Computer programming through the use of Pascal. Students will attain necessary computing techniques which can be applied to their work in science, mathematics, business, or engineering. Topics that will be included: problem solving, control structures, looping techniques, data types and structures, procedures and functions, arrays, string manipulation, records, sets, recursion and pointer variables. The student will be introduced to the UNIX operating system.
Prerequisite: Completion of one high-level language
Five credits

## CSC 130 APPLEWORKSI

This course is an introduction to the software product Appleworks. Students will gain proficiency with three components of this package: word processor, electronic spreadsheet, and data base; and learn how to integrate them into one application.
Prerequisite: None
Two to four credits

## CSC 131 APPLEWORKS II

A continuation of CSC-130. The student will explore in greater depth, the word processing, spreadsheet and data base capabilities of Appleworks.
Prerequisite: CSC 130 or permission of instructor
Two to four credits

## CSC 141 MICROCOMPUTER MANAGED APPLICATIONS: WORD PROCESSING

This course is one of three courses which are designed to introduce students to basic computer operations, printer options, and the most widely used application software: word processing, electronic spreadsheet, and data base management. Students will attain a working knowledge of computer and software fundamentals which can then be applied to their work in science, mathematics, behavioral science, humanities, business, or engineering. The three courses can be taken in any sequence or separately. In this course, word processing, mail-merge applications, printing printer options, and fundamentals of operating microcomputers will be emphasized.
Prerequisite: None
Two credits

## CSC 142 MICROCOMPUTER MANAGED APPLICATIONS: ELECTRONIC SPREADSHEETS

This course is designed to introduce students to basic computer operations and application software. (See CSC 141.) It can be taken in sequence with CSC 141 or separately. In this course, the creation and use of electronic spreadsheets and computer-generated graphs will be emphasized. Additional topics involving advanced functions and macros will also be covered.
Prerequisite: None
Three credits

## CSC 143 MICROCOMPUTER MANAGED APPLICATIONS:

 ELECTRONIC DATA BASESThis course is designed to introduce students to basic computer operations and application software. (See CSC 141.) It can be taken in sequence with CSC 141 and CSC 142 or separately. This course will provide a basic introduction to the creation and use of electronic data base files. Concepts will include sorting, indexing, searching, and updating data bases, as well as label and report generating. Programming in a data base language will be studied as time permits. Prerequisite: None
Two credits

## CSC 144 PROGRAMMING WITH DBASE

This course provides an introduction to programming concepts and common algorithms using the dBASE data base management system. Topics to be covered are creating and editing dBASE program files, program syntax, program logic, maintaining the integrity of database files, testing and debugging programs and maintaining and updating program files.
Prerequisite: CSC 143 and one high-level programming language or permission of instructor
Two-three credits

## CSC 185 SPECIAL TOPICS IN COMPUTER SCIENCE

Topics will reflect the special expertise of the faculty and/or the special needs of the students.
Prerequisite: Consent of instructor
One to Six credits

## CSC 201 PROGRAMMING IN FORTRAN 77

Students will attain skills using FORTRAN 77. Topics include: program design, data types, looping structures, arrays, matrix and character manipulations, functions and subroutines, file handling, and simulations. The student will be introduced to the UNIX operating system.
Prerequisites: One high-level programming language.
Five credits

## CSC 211 INFORMATION SYSTEMS I

This first course in the sequence will focus on the internal representa-tions of information within the computer. The student will be introduced to computer organization, data types, addressing and basic component operation. Binary arithmetic and assembler microcode will be used to illustrate internal information processing within the computer. Prerequisite: One high level programming language
Five credits

## CSC 212 INFORMATION SYSTEMS II

This course will focus on the storage, organization and retrieval of information on auxiliary devices. Topics will include:device overviews, serial and sequential files, direct files and hashing, keyed and indexed files, and database management systems.
Prerequisite: CSC 211
Five credits

## CSC 215 OPERATING SYSTEMS

This course emphasizes the organization and design of several operating systems such as single user systems on microcomputers using MS/DOS and multi-user systems using UNIX. Topics include the study of: control programs for memory, task, resource, and recovery management: and processing programs such as language translators and utilities.
Prerequisites: CSC 121 or CSC 201 or permission of the instructor Five credits

CSC 216 PROGRAMMING THE MICROPROCESSOR
The student will be introduced to a microprocessor by writing programs using the instruction set and developing macros. Topics include: binary and BCD arithmetic, logical operations, microprocessor organization, instruction sets, subroutines and macros, and addressing modes.
Prerequisite: CSC 121 or CSC 201 or permission of the instructor Five credits

## CSC 221 COMPUTER SCIENCE I

ACM recommended topics will include: binary systems, boolean algebra and logic circuits, simplification of boolean functions using mapping techniques, combinational logic, coding, number representation, and digital arithmetic.
Prerequisite: CSC 121 or CSC 201
Four credits: three lecture hours, two lab hours per week

## CSC 222 COMPUTER SCIENCE II

ACM recommended topics will include: flip-flops and sequential circuits, registers and counters, register transfer logic, processor logic design, control logic design, computer design, and assembly language on a micro-processor.
Prerequisite: CSC 221
Four credits: three lecture hours, two lab hours per week

## CSC 232 PROGRAMMING IN ADA

Lexical style, overloading (procedures and/or functions), the package concept, data types (enumeration, scaler and derived), scope and visibility concept, arrays (slices, constrained and unconstrained), parameters and binding modes, simple and variant records, discriminants, tree structures, linked lists, attributes, I/O exceptions, memory allocation (static and dynamic), and the tasking concept will be included. A final project will be required.
Prerequisite: CSC 121 or CSC 201
Five credits

## CSC 233 DATA STRUCTURES AND ALGORITHMS

Algorithms and algorithm design, arrays, vectors, matrices, lists, linked lists, pointer variables, stacks and queques, binary trees, nonbinary trees, searching techniques, sorting techniques, graphs, ADT, and hashing techniques will be presented. A special project may be required.
Prerequisite: CSC 121 or CSC 232 or consent of instructor
Five credits

## CSC 235 COMPUTER GRAPHICS

This programming course allows the student to experiment with graphic designs while learning proven techniques. Elementary figures, windows, clipping and shading will be covered.
Prerequisite: CSC 121 or permission of the instructor
Three credits: Two lecture hours, two lab hours per week.

## CSC 245 PROJECTS IN PROGRAMMING

This course is designed as an advanced computer science course. By working in small groups, the students will design, implement, document, and test software projects. The students will gain practical experience by working closely with other project members and project supervisors. Pascal will be the primary language used in the course.
Prerequisite(s): CSC 121 or CSC 232 or BIS 201 or permission of instructor.
Four credits

CSC 295 INDEPENDENT STUDY IN COMPUTER PROGRAMMING
Provides an opportunity for the experienced programming student to complete appropriate projects if interested. The student will be limited as to the number of independent study credits to be taken.
Prerequisite: Previous computer programming courses or programming experience
One to Three credits: contact Division Chairman

## CRJ: CRIMINAL JUSTICE

CRJ 110 INTRODUCTION TO CRIMINAL JUSTICE
A history and philosophy of the American criminal justice system; an overview of the crime phenomena; organization of federal, state, and local criminal justice agencies and their bureaucratic interaction. (Offered Fall Quarter.)
Five credits: 50 clock hours

## CRJ 111 THE POLICE FUNCTION

Police as agents of social control, the conflict generated by the demands of the "police subculture," the police role, function and organization, and the formal requirements of law. (Offered Winter Quarter.)
Five credits: 50 clock hours

## CRJ 112 THE JUDICIAL FUNCTION

This course examines the criminal court system and criminal process with an analysis of the major judicial decision-makers, i.e., prosecutors, defense attorneys, judges, and the discretionary aspects of adjudication. (Offered Winter Quarter.)
Five credits: 50 clock hours
CRJ 113 THE CORRECTIONAL FUNCTION
An examination of the history and philosophy of correctional theory and practice. (Offered Spring Quarter.)
Five credits: 50 clock hours
CRJ 114 COMMUNITY AND THE JUSTICE SYSTEM
A critical and interdisciplinary examination of the community influences on the justice system; special emphasis on the interrelationships and role expectations of various criminal justice agencies and the communities they serve. (Offered Fall Quarter.)
Five credits: 50 clock hours
CRJ 141 LEGAL RESEARCHWRITINGI
Materials and methods of legal research and writing. After intensive consideration of the types of law books and their functions, students prepare written material of various kinds designed to develop both research technique and criminal justice writing style. (Outside research required.) (Offered Fall Quarter.)
Three credits: 30 clock hours.

## CRJ 142 LEGAL RESEARCH/WRITING II

Materials and methods of legal research and writing. After intensive consideration of the types of law books and their functions, students prepare written material of various kinds designed to develop intermediate research technique and criminal justice writing style. (Outside research required.) (Offered Winter Quarter.)
Prerequisite: CRJ 141
Three credits: 30 clock hours.

CRJ 143 LEGAL RESEARCH/WRITING III
Materials and methods of legal research and writing. After intensive consideration of the types of law books and their functions, students prepare written material of various kinds designed to develop advanced research technique and criminal justice writing style. (Outside research required.) (Offered Spring Quarter.)
Prerequisite: CRJ 141, CRJ 142
Two credits: 20 clock hours

## CRJ 196 SEMINAR IN POLICE PRACTICES AND PROBLEMS

An examination of the changes and future trends regarding police procedures and practices; focus on critical issues and application of technology to the enforcement service.
One credit: 10 clock hours

## CRJ 197 SEMINAR IN POLICE PRACTICES AND PROBLEMS

An examination of the changes and future trends regarding police procedures and practices; focus on critical issues and application of technology to the enforcement service.
Two credits: 20 clock hours.

## CRJ 198 SEMINAR IN POLICE PRACTICES AND PROBLEMS

An examination of the changes and future trends regarding police procedures and practices; focus on critical issues and application of technology to the enforcement service.
Three credits: 30 clock hours
CRJ 199 SEMINAR IN POLICE PRACTICES AND PROBLEMS
An examination of the changes and future trends regarding police procedures and practices; focus on critical issues and application of technology to the enforcement service.
Four credits: 40 clock hours

## CRJ 201 CRIMINAL LAW

Development, implementation and sociology of criminal law. Examination of how and under what conditions behavior comes to be defined as criminal. (Offered Winter Quarter.)
Five credits: 50 clock hours

## CRJ 202 CONSTITUTIONAL LAW

A study of the powers of government as they are allocated and defined by the United States Constitution; intensive analysis of United States Supreme Court decisions. (Offered Fall Quarter.)
Five credits: 50 clock hours

## CRJ 203 CRIMINAL PROCEDURE

(Formerly Constitutional Law II) An intensive analysis of United States Supreme Court decisions interpreting the procedural and substantive protections of individual rights. (Offered Spring Quarter.) Five credits: 50 clock hours

## CRJ 204 JUVENILE LAW/PROCEDURE

A critical examination of the history and development of the juvenile court and the juvenile justice system. (Offered Winter Quarter.)
Five credits: 50 clock hours

## CRJ 205 CIVIL LAW/PROCEDURE

A survey of civil procedure and principles of evidence to familiarize students with the basic legal principles, constraints, and requirements for the conduct of civil litigation. (Offered Spring Quarter.) Five credits: 50 clock hours

CRJ 211 SEMINAR: ISSUES IN POLICING
An in-depth analysis of principles, programs, and techniques used by law enforcement to deal with crime and communities. (Offered Fall Quarter.)
Prerequisites: CRJ 111, or permission of instructor
Three credits: 30 clock hours

## CRJ 212 SEMINAR: ISSUES IN CRIMINAL COURTS

A critical examination of social, psychological, and political variables upon the discretionary judgments of police, prosecuting attorneys, defense attorneys, judges, and jurors during the judicial function. (Offered Winter Quarter.)
Prerequisites: CRJ 112, or permission of instructor
Three credits: 30 clock hours.

## CRJ 213 SEMINAR: ISSUES IN PENOLOGY

A review of the history and present conditions regarding treatment of law violators. The conflict among rehabilitation, vengeance, and deterrent principles. Analysis of civil rights, racial antagonism, and politicalization in the contemporary American correctional system. (Offered Winter Quarter.)
Prerequisites: CRJ 113, or permission of instructor.
Three credits: 30 clock hours

## CRJ 248 SEMINAR: THE ETIOLOGY OF CRIME

(Formerly Criminology) Examination of the question of crime causation from legal, social, political, psychological, and theoretical perspectives; history and development of criminology. (Offered Fall Quarter.)
Three credits: 30 clock hours

## CRJ 249 SEMINAR: DISCRETIONARY JUSTICE/ETHICS

(Formerly Discretionary Justice) The use of discretionary authority throughout all phases of the justice system and the influence of social, psychological and political variables upon justice actors discretionary judgments. (Offered Spring Quarter.)
Five credits: 50 clock hours

## CRJ 250 ADVANCED OFFICER ACADEMY

To provide updated and refresher training for sworn peace officers at all levels.
Four credits: 40 clock hours

## CRJ 261 CRIMINAL JUSTICE PRACTICUM ("POLICE ACADEMY")

An intensive theoretical/practical introduction to law enforcement. Courses include: administration of justice, basic law, human relations, patrol procedures, traffic management, criminal investigation, firearms, written communications, driving techniques, and arrest control techniques. (Aims Basic Peace Officer Academy)
Forty credits: 450 clock hours

## CRJ 296 SPECIAL ISSUES IN CRIMINAL JUSTICE

Forum for special course offerings focusing upon special issues in criminal justice by visiting instructors or regular faculty. Topics covered may change.
One credit: 10 clock hours

## CRJ 297 SPECIAL ISSUES IN CRIMINAL JUSTICE

Forum for special course offerings focusing upon special issues in criminal justice by visiting instructors or regular faculty. Topics covered may change.
Two credits: 20 clock hours

CRJ 298 SPECIAL ISSUES IN CRIMINAL JUSTICE
Forum for special course offerings focusing upon special issues in criminal justice by visiting instructors or regular faculty. Topics covered may change.
Three credits: 30 clock hours

## CRJ 299 SPECIAL ISSUES IN CRIMINAL JUSTICE

Forum for special course offerings focusing upon special issues in criminal justice by visiting instructors or regular faculty. Topics covered may change.
Four credits: 40 clock hours

## EAS: EARTH SCIENCE

EAS 100 FIELD STUDY OF ROCKS AND MINERALS
A study of the field characteristics of rocks and common rock forming minerals.
Two credits: one hour lecture per week, plus two field trips

## EAS 105 EARTH SCIENCE

Provides an understanding of the planet earth and its place in the universe. Includes general geology of the earth, weather and climate on the earth, and descriptive astronomy of the solar system.
Five credits: four hours lecture, two hours lab per week
EAS 106 INTRODUCTION TO METEOROLOGY
Basic course in meteorology. Studies the atmosphere, its composition, thermal structure, pressure, humidity, wind, precipitation, clouds, and storm fronts. Practical aspects such as weather for flying, measurements of atmospheric conditions for weather prediction, and weather map analysis will be emphasized. Prerequisite: PHY 105 or equivalent
Four credits: three hours lecture, two hours lab per week

## EAS 185 SPECIAL TOPICS IN EARTH SCIENCE

Topics will reflect the special expertise of the faculty and/or the special needs of the students.
Prerequisite: Consent of instructor
One to Six credits

## EAS 295 INDEPENDENT STUDY IN EARTH SCIENCE

Provides an opportunity for the highly-motivated student to engage in intensive study and research on a specified topic under the direction of a faculty member. The student will be limited as to the number of independent study credits taken per quarter.
Prerequisite: previous academic study or experience in earth science One to three credits: contact division chairman

## ECO: ECONOMICS

## ECO 100 INTRODUCTION TO ECONOMICS

Survey course offering an introduction to basic economics. Current economic issues receive considerable attention. Five credits

ECO 105 ORGANIZATIONS AND INSTITUTIONS
(This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree. Trades and Industry Division course.) Students will engage in study and activities which will enhance their ability to understand organizations that deal with such areas as financing; local, state and federal government; employee considerations, etc.; small business assistance; professional services; and management techniques.
Three credits: 30 clock hours

## ECO 201 PRINCIPLES OF MACROECONOMICS

Studies the American economy, stressing the interrelationships among the household, business, and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.
Five credits

## ECO 202 PRINCIPLES OF MICROECONOMICS

Studies the firm in-depth, the nature of cost, and how those relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly, and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.
Five credits

## ECE: EARLY CHILDHOOD EDUCATION

ECE $100 \quad$ INTRODUCTION TO EARLY CHILDHOOD EDUCATION
An orientation to the field of early childhood education. Students will investigate different types of programs available for young children in relation to their own career goals and individual potentials for teaching. Advocacy skills for Early Childhood Education will be practiced.
Two credits: 20 clock hours

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ECE 111 EARLY CHILDHOOD LEADERSHIP DEVELOPMENTI
ECE }112\mathrm{ EARLY CHILDHOOD LEADERSHIP
        DEVELOPMENTII
ECE 113 EARLY CHILDHOOD LEADERSHIP
        DEVELOPMENT III
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These courses are designed to encourage growth and development through activities in a student organization with professional goals.
One credit: 10 clock hours

## ECE 131 PRACTICE TEACHING I: OBSERVATION

An observation experience in the laboratory preschool. Techniques of child study are applied to a real life setting through written assignments of observations of children. Effective teaching strategies are discussed weekly in class. Observation time to be arranged.
Five credits: 50 clock hours

## ECE 132 PRACTICE TEACHING II: ASSISTANT GROUP

 LEADERA practical experience in a laboratory preschool designed to develop skills of an assistant group leader: planning activities for small groups of children; identifying and assessing appropriate techniques for guiding the activities and behaviors of young children. To be taken concurrently with ECE 141.
Prerequisite: ECE 131 or permission of instructor
Seven credits: 100 clock hours

## ECE 133 PRACTICE TEACHING III: GROUP LEADER

A continuation of Practice Teaching II. The student will plan, implement and evaluate activities for all areas of the preschool classroom. Strategies for classroom management will be discussed. To be taken concurrently with ECE 142.
Prerequisite: ECE 132 or permission of instructor
Seven credits: 100 clock hours

## ECE 141 DESIGNING CREATIVE ACTIVITIES

Introduction of theory and practical application of activities for young children in motor, sensory, outdoor and musid/movement experiences. Additional topics include: planning the play environment, writing and implementing behavioral objectives and developing specified curriculum content. To be taken concurrently with ECE 132 or ECE 133.
Three credits: 30 clock hours

## ECE 142 DESIGNING LEARNING ACTIVITIES

Practical application and theory of activities for young children in art, dramatic play, natural/physical science and block play experiences. Additional topics include: planning for group times, developing specified curriculum content and developing a unit plan of activities for a young child's classroom. To be taken concurrently with ECE 132 or ECE 133. Three credits: 30 clock hours

## ECE 145 CREATIVE MATERIALS WORKSHOP

Hands-on experience with a variety of materials suitable for use with young children. Special emphasis on self-directing open-ended materials students can create.
Two credits: 20 clock hours

## ECE 146 MUSIC AND MOVEMENT WORKSHOP

Students will develop and implement innovative plans using music and movement activities with young children. Emphasis is on creating selfconfidence with creative movement activities in the preschool classroom. Two credits: 20 clock hours

## ECE 147 OUTDOOR ACTIVITIES WORKSHOP

After visiting and evaluating various playgrounds, the student will design learning activities appropriate for young children's developing abilities.
Two credits: 20 clock hours

## ECE 148 MATH AND SCIENCE WORKSHOP

Students will develop concepts and determine effective ways to plan and implement activities which will foster the young child's cognitive processes through discovery processes, creative materials, divergent questions and practical activities.
Two credits: 20 clock hours

## ECE 155 TODDLER CARE WORKSHOP

Students will discuss toddler development and issues, evaluate play experiences, develop activities, and observe environments for children ages 12 months to 3 years.
Two credits: 20 clock hours

## ECE 156 SAFETY SKILLS WORKSHOP

How to teach young children basic survival skills for physical and psychological security in a non-threatening manner. Students will develop age-appropriate materials for classroom use and parent education.
Two credits: 20 clock hours

## ECE 157 MOTOR SKILLS WORKSHOP

Students will examine the progression of large and small motor skill development as experienced by the young child. Teaching techniques and motor skills activities will be designed and implemented.
Two credits: 20 clock hours

## ECE 161 CHILD GROWTH AND DEVELOPMENT

Designed for adults who work with children, this course examines the theories and sequence of growth and development of children from birth through the early elementary school years. Emphasis is on the concept of the whole child and how adults can provide a supportive environment for positive interactions with children in the early childhood classroom.
Five credits: 50 clock hours

## ECE 162 GUIDANCE TECHNIQUES FOR EARLY CHILDHOOD EDUCATORS

The student will study the components of the guidance system: the child, the adults and the physical environment. Theories will be explored to determine how to guide the child toward self-control and individual competence.
Two credits: 20 clock hours

## ECE 202 ADMINISTRATION: LICENSING AND LEGISLATION

To acquaint the student with the variables involved in organizing and managing a preschool program. Provides the technical information needed to open and operate a licensed child care facility. Strategies for advocating for early childhood education are practiced. Prerequisite: ECE 100 or instructor permission
Three credits: 30 clock hours

## ECE 203 ADMINISTRATION: WORKING WITH PARENTS

Students will examine family system relationships and how they affect the young child in a group care setting. Provides students with home-school communication skills, problem solving strategies, and referral information.
Prerequisite: ECE 100 or instructor permission
Three credits: 30 clock hours

## ECE 204 NUTRITION FOR YOUNG CHILDREN

Students will study the essential nutrients and their function for a healthy child; evaluate menus and snacks for necessary food requirements for the growing child; understand the value of nutrition education for children; understand the principles of food service management and how to facilitate good nutritional practices in an early childhood classroom.
Three credits: 30 clock hours

## ECE 206 LITERATURE AND LANGUAGE WORKSHOP

Students examine, design and implement curriculum which will foster receptive and expressive communication skills in young children. Children's literature, bibliotherapy, reading readiness and story reading and story telling techniques will be studied.
Two credits: 20 clock hours

ECE 207 EARLY CHILDHOOD EDUCATION TRENDS AND ISSUES
Students will examine critical issues and current trends pertinent to Early Childhood Education professionals through professional journals, current publications, and guest speakers.
Two credits: 20 clock hours
ECE 231 PRACTICE TEACHING IV: TEAM TEACHER
Students will develop team teaching skills in the laboratory preschool or in a supervised early childhood classroom. The student's responsibilities will include unit planning and organizing the classroom for effective learning. Emphasis will be on the teacher as a team member. To be taken concurrently with ECE 202, 203 or 245.
Prerequisite: ECE 133 or permission of instructor
Seven credits: 100 clock hours

## ECE 232 PRACTICE TEACHING V: LEAD TEACHER

A continuation of Practice Teaching IV. The emphasis of this course is the development of positive and constructive techniques for self appraisal and the appraisal of others as early childhood teachers. To be taken concurrently with ECE 202, 203 or 245.
Prerequisite: ECE 231 or permission of instructor
Seven credits: 100 clock hours

## ECE 233 PRACTICE TEACHING VI: APPRENTICE DIRECTOR

The student will examine the effects of family, class and ethnic value systems on the young child's personality growth in this teaching experience. The student will study the administrative policies and procedures of the program where assigned. Students will plan and implement parent conferences. To be taken concurrently with ECE 202, or ECE 203 or ECE 245.
Prerequisite: ECE 232 or permission of instructor
Seven credits: 100 clock hours

## ECE 241 UNIT PLANNING WORKSHOP

Students will plan activity schedules appropriate for implementation in an early childhood group setting. Educational play materials, individualized learning by young children and effective communication of activity plans to staff and parents will be discussed.
Two credits: 20 clock hours

## ECE 245 NON-DISCIPLINE DISCIPLINE

Students will examine behavior management styles and alternatives as they apply to young children in group settings with emphasis on individual needs.
Prerequisite: ECE 162 or instructor permission
Two credits: 20 clock hours

## COS: COMMUNICATIONS

COS 115 APPLIED COMMUNICATIONS
(This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree. Public Service and Trades \& Industry courses.) This course explores the communication process through a study of basic theory and principles of communication in man's social and working environment. Study will also include writing business letters, developing resumes', correctly filling out job applications, repair orders and other business forms and an introduction to oral communications.
Three credits

## EDU: EDUCATION

## BILINGUAL TEACHERS AIDE PROGRAM <br> EDU 106 INTRODUCTION TO TEACHER AIDE: BILINGUAL EDUCATION

To provide the student with information on various aspects of organization and planning for instruction in bilingual education. Four credits

## EDU 107 INTRODUCTION TO BILINGUAL EDUCATION

Students will develop an awareness of bilingual education; its history and current programs. Students will be required to review, select, and use materials applicable to the bilingual classroom. Also included will be development in the adoption of materials for use in a bilingual classroom. Three credits: 30 clock hours

EDU 108

## FIELD EXPERIENCE IN BILINGUAL TEACHER AIDE PROGRAM

Exposure to actual on-the-job experience in a classroom setting. Five credits

EDU 109 METHODS OF TEACHING THE BILINGUAL
Bilingual teaching techniques used in reading, writing, spelling, language arts, arithmetic, social studies, and science will be emphasized as they relate to the role of the bilingual teacher aide. Five credits: 50 clock hours

EDU 111 PARAPROFESSIONALS IN THE CLASSROOM
Participants will focus on the roles and responsibilities of the Paraprofessional in the classroom setting. Learn the skills needed by the paraprofessional in order to become an effective educator. One-Five credits

EDU 219 ENGLISH AS A SECOND LANGUAGE METHODS
Students will learn the most current research and methodologies for teaching English as a second language (ESL) to Limited English Proficient students (LEP).
Two credits
EDU 237 TEACHING READING TO THE BILINGUAL CHILD
To emphasize the teaching of reading to Limited English Proficient (LEP) students. Course will cover methods and techniques.
Three credits

## EDU 267 SELECTION AND EVALUATION OF BILINGUAL MATERIALS

Students develop an understanding of available resource materials for bilingual classroom and give them the skills necessary to evaluate the appropriateness of these resource materials.
Three credits

## EDU 276 LEARNERS WITH SPECIAL NEEDS

Provide students with background on various aspects of planning and teaching learners with special needs.
Four credits

## EDUCATION

EDU 119 CREATIVE JOURNAL WRITING IN THE CLASSROOM
Learn to use the journal writing process with children to enhance the powers of imagination, creativity, and self-direction.
One credit

## EDU 125 NEURO-LINGUISTIC PROGRAMMING

An overview of personal learning styles, body language cues and communication styles will be presented.

## One credit

EDU 126 DEVELOPING WELLNESS IN THE CLASSROOM
This class emphasizes the teacher's role in helping children develop healthy lifestyles in the area of nutrition, fitness and stress management.
One to Three credits

## EDU 127 THE SIX THINKING HATS: PROBLEM-SOLVING CANBE FUN!

Learn how to use six different methods of thinking for solving problems. This technique will enable participants to utilize new thinking patterns for creative and productive solutions to everyday problems.
One-half credit

## EDU 129 DEVELOPING CAPABLE PEOPLE

Using the curriculum of Stephen Glenn, this class emphasizes the importance of helping children develop positive perceptions of themselves.
One-four credits

## EDU 135 COMMUNITY ENVIRONMENTAL AWARENESS

Develop an understanding of the environment we live in so we can begin to act to protect it. Strategies and resources for the classroom and the community will be presented.
One credit

## EDU 138 CHILD SAFETY: SAFE KIDS ARE NO ACCIDENT

Provides participants with knowledge and strategies that can be used with children to reduce risks of unintentional injuries among children.
One credit

## EDU 139 GRANT AND PROPOSAL DEVELOPMENT

This class will prepare individuals with basic information regarding the grant and proposal development process.
One credit

## EDU 141 DYNAMICS IN STEP FAMILIES

Participants will increase their understanding of the dynamics of a blended family unit.
One-half to three credits

## EDU 145 CREATING EDUCATIONAL CHANGE

This class will provide information about restructuring environments to enable change including ideas about how to deal with resistance.
One credit

## EDU 146 RECRUITMENT AND CARE OF VOLUNTEERS IN THE SCHOOLS

Provides creative ways to recruit volunteers, train them quickly and help them to find a place where they can be effective.
One credit

## EDU 155 PERSONAL AND PROFESSIONAL ETHICS

To assist participants in identifying ethical dilemmas and issues. The class provides awareness of risks and rewards of ethical decision making and behavior.
One credit

## EDU 158 USING HUMOR IN THE CLASSROOM

Participants will learn the benefits of making humor a more important part of the classroom.
One-half credit

## EDU 159 CHANGING CHILDREN'S BEHAVIOR

This class will assist participants in identifying temperamental styles and designing a "goodness of fit" for managing behavior.
One-half to one credit.

## EDU 165 COPING WITH DIFFICULT PEOPLE

Participants will identify types of difficult people and develop effective strategies for coping with them.
One to three credits

## EDU 168 CARE WHEN THERE IS NO CURE: THE ROLE OF SCHOOL PERSONNEL IN SUPPORTING CHILDREN WITH ONGOING ILLNESS

This class is designed to assist teachers in supporting the student in the management of diabetes, asthma and epilepsy.
One to three credits

## EDU 175 THE TYPE E WOMAN

This class will help participants develop better balance in their lives and develop ways to reduce inner and outer pressures.
One-half to two credits
EDU 177 SETTING GOALS: ARE YOU THRIVING OR SURVIVING?
This motivational class will give participants the skills and tools needed to accomplish goals and manage time.
One to three credits

## EDU 179 TAKE CHARGE OF YOUR LIFE

Develop strategies to reduce the stressors at home and at work. One-half to three credits

## EDU 187 NEUROLINGUISTIC PROGRAMMING II

A further examination of NLP in communication skills, learning styles and positive exercises that lead to supportive classroom environments.
One to five credits

## EDU 188 SKILLS FOR GROWING

This class is designed to help teachers with information about teaching personal and social skills through classroom curriculum K-5. One to four credits

## EDU 189 SKILLS FOR ADOLESCENTS

This class is designed to help teachers with information about teaching personal and social skills through classroom curriculum 6-8. One to four credits

## EDU 208 TURNING POINTS: TEEN SEXUALITY \&

 RELATIONSHIPSTo assist parents and teachers in communicating effectively with teenagers on sexual issues confronting teens today.
One credit

## EDU 215 MOTIVATING YOUR STUDENTS

To develop and explore various motivational techniques in the classroom.
One credit

216 SUICIDE: TEACHER AWARENESS AND INTERVENTION
To develop an understanding of the incidence and impact of suicide, and how to implement an intervention program. (Second in a series of 3 classes on Suicide.)
One credit

## EDU 217 RELATING TO TEENS

Participants will learn the reasons for teen misbehavior and learn the appropriate responses. It will emphasize how to develop the teen's responsibility and enhance communication skills.
One to three credits

## EDU 218 CHILD ABUSE, NEGLECT AND PROTECTION

Become knowledgeable in signs, symptoms and patterns of child abuse and neglect; prevention strategies; and child advocacy in the system and community.
One credit

## EDU 225 CRISIS TEAM DEVELOPMENT FOR TEACHERS

Participants are encouraged to involve peers and administrators in their schools to develop a functioning crisis team within their own school. (Third in a series of 3 classes on Suicide.)
One credit

## EDU 226 SKILLS TO ENHANCE ADULT/TEEN RELATIONSHIPS

To develop better relationships with teens; ways to "teach" responsibility, develop self-discipline, enhance communication and encourage excellence in adolescent effort using the "You've Got To be Kidding" curriculum.
One to three credits

## EDU 229 CREATIVE CONFLICT MANAGEMENT

Designed to look at conflict as a dynamic that occurs within any family setting, and explore ways to deal meaningfully with it.
One credit
EDU $235 \begin{aligned} & \text { TURNING POINTS: TEEN ALCOHOL AND DRUG } \\ & \text { ABUSE }\end{aligned}$
To increase awareness of teenage drinking patterns and explore the role of families and community resources.
One credit

## EDU 236 TRANSITIONS: MAKING SENSE OF LIFE'S CHANGES

Designed to help participants view transition as a positive aspect of life and to increase awareness of personal resources as one copes with changes and transitions of life.
One credit

## EDU 238 CHILDREN OF DIVORCE

Explore the dynamics felt by children experiencing divorce, and look at ways for the adult world to deal with such dynamics.
One credit
EDU 239 TEACHER EXPECTATIONS AND STUDENT ACHIEVEMENT (T.E.S.A.)
Designed to identify 15 key aspects of classroom behavior which may affect student achievement.
One-two credits

EDU 245 POSITIVE RELATIONSHIPS BETWEEN MEN AND WOMEN IN THE WORKPLACE
Designed for women and men to reflect on their histories and look sensitively at their responses to one another, especially in the work setting.
One credit
EDU 246 HOW TO TALK SO KIDS WILL LISTEN
For parents of children age 3 years and older. Reviews developmental expectations of the preschool and school age child with a focus on communication skills, discipline techniques, and fostering self-confidence and responsibility.
One credit

## EDU 248 SELF-ESTEEM FOR CHILDREN

An overview of the origin and development of self worth in individuals within the family. Different parenting styles will be explored to determine the impact of each style on the child's self-esteem. Techniques and skills for fostering positive self-esteem will be presented.
One credit

## EDU 249 BASIC SKILLS FOR LIFE: THE ELEMENTARY YEARS

Designed to help professionals take a look at the essential elements of those "basic skills" for life using the "You've Got To Be Kidding" curriculum.
One to three credits
EDU 257 TURNING POINTS: TEENS AND STRESS
To assist parents and teachers in understanding teen stress and how to relate effectively to a teen under stress.
One credit

## EDU 269 THE ASSERTIVE LIFESTYLE

To learn and practice how to stand up for one's rights without infringing upon the rights of others, through direct, honest and appropriate behavior.
One credit
EDU 279 COUNSELING TECHNIQUES IN THE CLASSROOM
Participants will learn methods of dealing constructively with children's emotional problems in the classroom.
One-three credits

## EDU 286 BUILDING HEALTHY FAMILIES: THE WORLD ACCORDING TO JOHN BRADSHAW

After viewing the John Bradshaw videos on the family, participants will identify the major problems that families face today and learn how to become healthy functioning systems.
One credit

## EDU 288 USING NEWSPAPERS IN THE CLASSROOM

This class will feature the newspaper as a teaching tool in the classroom with activities tailored to individual teaching situations. One credit

## ELT: ELECTRONICS TECHNOLOGY

## ELT 100 SURVEY OF ELECTRONICS

(This course will not satisfy minimum or elective credit for the AAS degree.) Introduce the wide range of opportunities in electronics. Provides hands on experience in the areas of test equipment operation, circuit fabrication and testing, troubleshooting, and computer programming
Two credits: 32 clock hours

## ELT 106 PHYSICS: Mechanical

Provides the technical student with an understanding of the basic principles of mechanics and properties of matter through problem solving and the practical applications of the basic physics laws in an industrial environment.
Prerequisite: BET 116 or permission of instructor
Five credits: 60 clock hours

## ELT 107 PHYSICS: Heat-Light-Sound

Provides the technical student with an understanding of the physical properties of heat, light (optics) and sound through problem solving, and practical applications of the applicable physical laws and their relation to the industrial environment.
Prerequisite: ELT 106 or permission of instructor
Five credits: 60 clock hours

## ELT 144 DIGITAL FUNDAMENTALSI

Study of digital fundamentals beginning with the block diagram of a general purpose digital computer. Includes number systems, IC gates, Boolean algebra, flip-flops and applications including arithmetic circuits. Some software attention. Reference is made to systems (a microprocessor) at appropriate points.
Prerequisite: ELT 153 or permission of instructor
Five credits: 60 clock hours

## ELT 150 DC FUNDAMENTALS

Analysis, construction and measurement procedures for series and parallel DC circuits. Theory and practice of interconnection methods. Prerequisite: BET 100, and BET 116 (or may be taken concurrently) and qualifying assessment scores
Five credits: 60 clock hours

## ELT 151 DC FUNDAMENTALS II

Continuation of ELT 150. The application of basic fundamentals and the study of their functional characteristics, DC complex circuits and circuit theorems.
Prerequisite: ELT 150 or permission of instructor
Five credits: 60 clock hours

## ELT 152 AC FUNDAMENTALSI

A study of passive circuits emphasizing analysis of $A C$ and time varying conditions. Students develop practical measurement and analysis skills and become more aware of systems applications.
Prerequisite: ELT 151 or permission of instructor
Five credits: 60 clock hours

## ELT 153 AC FUNDAMENTALS II

Continuation of ELT 152. The study of reactive component analysis, $A C$ power circuits and resonance. Prerequisite: ELT 152 or permission of instructor Five credits: 60 clock hours

ELT 154 SOLID STATE CIRCUITS I
Introduction to active circuits. Development of analytical and graphic tools for practical applications to commonly encountered solid state circuits. Attention to measurements and troubleshooting.
Prerequisite: ELT 153 or permission of instructor
Five credits: 60 clock hours

## ELT 155 SOLID STATE CIRCUITS II

Continuation of ELT 154. Extends development of analytical tools to increasingly complex solid state circuits including a variety of integrated circuits and solid state devices.
Prerequisite: ELT 154 or permission of instructor
Five credits: 60 clock hours

## ELT 201 DIGITAL FUNDAMENTALS II

Continuation of hardware and software elements of digital machines. Counters, registers, ROM, RAM and reference to systems (microprocessor) continues.
Prerequisite: ELT 144 or permission of instructor
Five credits: 60 clock hours

## ELT 202 MICROPROCESSORSI

Microprocessors are employed to obtain systems experience and application of fundamentals. Involves hardware and software studies and trade-offs between hardware/software. Organization of a microprocessor; clock, CPU, I/O, bus concepts, EPROM, RAM, programming and peripherals.
Prerequisite: ELT 201 or permission of instructor
Five credits: 60 clock hours

## ELT 203 MICROPROCESSORS II

Review of microprocessor fundamentals and special studies in computer systems DIG and analog interfacing, data communications and network systems.
Prerequisite: ELT 202 or permission of instructor
Five credits: 60 clock hours

## ELT 223 INDUSTRIAL ELECTRICTTY II

To provide a working knowledge of motors, generators, industrial wiring, and production line electricity maintenance.
Prerequisite: CAM 105 or permission of instructor
Five credits: 60 clock hours

## ELT 224 INDUSTRIAL ELECTRICITY III

A study of programmable logic controllers (PLC's) and associated I/O devices, design logic diagrams and program controllers.
Prerequisite: ELT २२३ or permission of instructor
Five credits: 60 clock hours

## ELT 255 LINEAR ICs AND SENSORS

Studies linear integrated circuits (especially operational amplifiers). Stresses analysis of commonly encountered applications. Some attention given to sensors and actuators.
Prerequisite: ELT 155 or permission of instructor
Five credits: 60 clock hours

## ELT 266 ELECTRONIC DESIGN AND FABRICATION

Provides a working knowledge of electronics layout, design, and fabrication technique along with print reading and documentation encountered in the industry.
Prerequisite: ELT 255, ELT 271, and ELT 201
Five credits: 60 clock hours

A logical approach to troubleshooting modern, solid-state equipment. Lab and industrial systems are stressed. Also covers some electronics used in homes.
Prerequisites: ELT 202, ELT 255, and ELT 272 or permission of instructor
Five credits: 60 clock hours

## ELT 271 ELECTRONIC COMMUNICATIONS I

Detailed analysis of fundamental circuits of communication systems. Emphasizes mathematical understanding of circuit action and theoretical concepts. Laboratory experiments complement lecture/demonstration.
Prerequisite: ELT 155 or permission of instructor
Five credits: 60 clock hours

## ELT 272 ELECTRONIC COMMUNICATIONS II

Systems approach will be major emphasis as individual circuits studied previously will be combined in complete systems. Modulation modes, transmission lines, and antennas are studied along with methods that enhance information transmission from point to point. Laboratory experiments are included.
Prerequisite: ELT 271 or permission of instructor
Five credits: 60 clock hours

## ELT 273 ELECTRONIC COMMUNICATIONS III

Advanced topics in Electronic Communications are studied. This includes data transmission techniques, video monitors and TV systems, and microwave systems.
Prerequisite: ELT 272 or permission of instructor
Five credits: 60 clock hours

## ELT 275 INTEGRATED CIRCUIT FABRICATION TECHNIQUES

Provides students with a general view of manufacturing processes. Topics include physics of semiconductors, materials used, processes including photolithography, diffusion/vacuum systems, device recognition, and data acquisition. Field trips are included.
Prerequisites: ELT 255, CSC 101, and ELT 201 or permission of instructor
Five credits: 60 clock hours

## ELT 276 ELECTRONIC ROBOTICS

Provides the student with general terminology, mechanical and electronic operating procedures, microcomputer control, and industrial applications of robots.
Prerequisites: ELT 255, ELT 106, ELT 107, or permission of instructor Five credits: 60 clock hours

## ELT 277 VIDEO SYSTEMS

Video and sweep sections of video monitors and televisions will be studied. Included will be cathode ray tubes, high and low voltage power supplies, color circuits and the NTSC color system.
Prerequisites: ELT 155 or permission of instructor
Five credits: 60 clock hours

## ELT 278 CET EXAM PREPARATION

Introduction and preparation for the Certified Electronics Technician exam with emphasis on the Associate level exam.
Prerequisite: permission of instructor
Five credits: 60 clock hours

## ELT 209 INDEPENDENT STUDY IN ELECTRONIC

219 TECHNOLOGY
229
Provides the opportunity to engage in intensive study in areas of electronic technology that are not covered in scheduled classes or in greater depth than covered in class activities. Studies are under the direction of a faculty member and are limited as to the credits taken per quarter.
Prerequisite: Previous academic study or experience in Electronic Technology and instructor permission
ELT 209: One credit: 10 clock hours
ELT 219: Two credits: 20 clock hours
ELT 229: Three credits: 30 clock hours

## TEM: EMERGENCY MEDICAL SERVICES

## TEM 100 INTRODUCTION TO EMERGENCY CARE

Provides the student with certification in CPR by the AHA along with instruction on common medical and trauma emergencies. The student will learn how to access the EMS system, recognize medical and trauma emergencies, and give basic treatment, until advanced medical help arrives.
Two credits: 23 clock hours

## TEM 105 EMERGENCY MEDICAL TECHNICIAN

Instruction in recognition and treatment for patients of medical and trauma emergencies. Included is anatomy/physiology, terminology, control of accident scene, safe and efficient transport, reporting and record keeping, medical equipment and its use, legal aspects of emergency care, and cardiopulmonary resuscitation (CPR). Strong emphasis on practical application of skills.
Prerequisite: First Responder advised as prerequisite:, but not required
Twelve credits: 160 clock hours

## TEM 106 FIRST RESPONDER

Designed to teach skills to those who will be first on the scene of an accident or medical illness. Recognition and treatment of medical and trauma patients along with use of pertinent equipment for stabilization until advanced help arrives. Certification in CPR. Strongly recommended before taking an EMT course.
Four credits: 47 clock hours
TEM 107 EMERGENCY MEDICAL TECHNICIAN INTERMEDIATE
Instruction in recognition and treatment in advanced procedures for patients of medical and trauma emergencies. Includes shockfluid therapy, cardiology/defibrillation, pharmacology/drug therapy, advanced respiratory assessment and management, ACLS, megacode, and a variety of other topics.
Prerequisite: Current Colorado EMT-B certification, physician advisor, contact EMS department for additional requirements.
Fourteen credits: 195 clock hours

## TEM 108 EMT REFRESHER

Updating and renewing skills for recertifying as an EMT-B. Condensed EMT-Basic class with strong emphasis on cognitive application and skills performance.
Four credits: 47 clock hours

## TEM 109 EMT REFRESHER SEMINAR

This class is geared for EMT-B's interested in continuing medical education applied toward recertification of the EMT-B certificate. Hours can be accumulated to recertify without taking entire EMT Refresher course.
One credit: 10 clock hours

## TEM 115 EMERGENCY MEDICAL DISPATCH

Specifically designed for dispatchers and includes information on medical dispatch to rescuers, medical information dissemination to the public, and communication skills.
Three credits: 30 clock hours

## TEM 116 EMT IV-MAST

Cognitive and practical information on indications for, use of, and precautions of IV-MAST use. Anatomy and physiology background suggested. This class is only for current state certified medical personnel. Continued medical education and skills use required.
Prerequisites: Physician advisor's signature, current state certification EMT-B level or above
Two credits: 39 clock hours

## TEM 126 INTRO TO ADVANCED LIFE SUPPORT

Designed to enhance patient management skills by exploring the pathophysiology of common medical and trauma problems. The student will be able to take a more active role with existing ALS agencies. This class offers advanced skills in assessment, trauma and medical problems, "hands on" experience, pharmacological and cardiac intervention, and much more.
Prerequisites: Current EMT - B certificate
Three credits: 35 clock hours

## TEM 127 CARDIOPULMONARY RESUSCITATION (CPR)

Designed to qualify the student for basic rescuer certification by the AHA. Covers basic CPR and emergency cardiac care in both theory and practice. Includes one and two rescuer CPR, infant and child CPR, and choking.
One credit: 10 clock hours

## TEM 128 CPR INSTRUCTOR

Designed to qualify the student for Basic Life Support instructor certificate issued by the AHA. Covers basic life support techniques and teaching methods necessary to instruct CPR. Also includes manikin maintenance and cleaning.
Prerequisites: Current AHA CPR 'Course C' certificate
One credit: 14 clock hours

## TEM 129 CPR INSTRUCTOR TRAINER

Qualifies the student to train and certify CPR instructors for the American Heart Association. Strong emphasis on teaching methods and teaching aids.
Prerequisites: Current AHA CPR instructor card
One credit: 10 clock hours

## TEM 131 EKG-BASIC

A very basic class designed for the student who has a desire to learn how to read and interpret EKG's.
Prerequisite: Current EMT-B certification
Four credits: 40 clock hours

TEM 132 EKG•DEFIB
Designed for the student who needs to learn cardiac defibrillation. Strong emphasis on indications for, use of, and precautions of defibrillation.
Prerequisites: Current EMT-B certification, TEM 131, Physician advisor signature
One credit: 10 clock hours

## TEM 135 ADVANCED CARDIAC LIFE SUPPORT (ACLS)

Theory and skills for those needing to provide advanced cardiac care. Topics include: acid base balance, drug therapy, airway management, rhythm recognition, defibrillation and general cardiac care.
Prerequisites: EMT-P level certification or above, current CPR card. Others may attend class but will be unable to gain state ACLS certification.
Two credits: 25 clock hours

## TEM 136 PRE-HOSPITAL TRAUMA LIFE SUPPORT (PHTLS)

A class designed to teach rescuers the most updated information in trauma assessment along with skills to enhance patient care. Rapid assessment and treatment emphasized.
Two credits: 15 clock hours

## TEM 137 EMERGENCY RESPONSE TO SPORTS INJURIES

Designed primarily for coaches but open to all. Includes recognition, assessment and treatment of most emergent sports injuries, common medical emergencies, accessing EMS, and rehabilitation.
One credit: 12 clock hours

## TEM 138 HEART SAVER CPR

American Heart Association certification in one rescuer CPR and choking. For those who want a quick CPR class with strong emphasis on skills performance.
One-half credit: 6 clock hours

## TEM 139 TOT SAVER CPR

American Heart Association certification specializing in CPR and choking maneuver for the infant and child. This class is skills and practice oriented.
One half credit: 6 clock hours

## TEM 147 CAREER PREP

Provides students with general and specific skills needed for employment in the EMS field. Class includes: work ethics, application procedures, resume writing, interview skills, stress management, interpersonal skills and EMS employers panel.

## TEM 145 CPR REFRESHER

Designed to recertify students in basic CPR by the AHA.
Prerequisites: Current CPR card
One-half credit: 5 clock hours

## TEM 146 FIRST RESPONDER REFRESHER

Updating and renewing skills for recertifying as a First Responder. Two credits: 23 clock hours.

## TEM 151 BASIC TRAUMA LIFE SUPPORT BTLS

This course is designed to teach the skills and knowledge needed to recognize, assess and treat^ransport victims of trauma. This class helps build on the EMT-B skills and focuses primarily on trauma.
Prerequisites: EMT-B Certification
One and one half credits: 19 clock hours

TEM 152 BASIC TRAUMA LIFE SUPPORT ADVANCED
This course is designed to teach advanced knowledge and skills to recognize, assess, and perform critical advanced life support skills for the victim of trauma.
Prerequisites: EMT-P, R.N., or M.D.
One and one half credits: 19 clock hours

## TEM 185 EMS SEMINARS

This class covers a variety of EMS topics structured for the First Responder, EMT, and Paramedic. Can be used for continuing medical education credit.
One-half credit: 5 clock hours
TEM 186 EMS SEMINARS
Class includes the same type of information as TEM 185. One credit: 10 clock hours

## TEM 187 EMS SEMINARS

Class includes the same type of information as TEM 185.
Two credits: 20 clock hours
TEM 188 EMS SEMINARS
Class includes the same type of information as TEM 185. Three credits: 30 clock hours

## TEM 189 EMS SEMINARS

Class includes the same type of information as TEM 185.
Four credits: 40 clock hours

## TEM 196 FIRE FIGHTER FIRST AID

Geared specifically for fire departments or special groups, this class includes continuing medical education which can be used for state recertification at various levels, from CPR to EMT. This class emphasizes both theory and skills.
One credit: 10 clock hours

## TEM 197 FIRE FIGHTER FIRST AID

Class includes the same type of information as TEM 196. Two credits: 20 clock hours

## TEM 198 FIRE FIGHTER FIRST AID

Class includes the same type of information as TEM 196.
Three credits: 30 clock hours

## TEM 199 FIRE FIGHTER FIRST AID

Class includes same type of information as TEM 196.
Four credits: $\mathbf{4 0}$ clock hours

## ENG: ENGLISH COMMUNICATIONS

*Indicates instruction is administered by Developmental Studies Division.

## *ENG 012 DEVELOPMENTAL WRITING II

The purpose of this course is to improve the student's ability to communicate well in writing. This course emphasizes (a) using and spelling words correctly and (b) writing sentences correctly in regard to sentence structure and punctuation.
Prerequisite: placement
Two to five credits

## *ENG 013 DEVELOPMENTAL WRITING III

The purpose of this course is to improve the student's ability to communicate well in writing. This course emphasizes (a) writing sentences correctly in regard to sentence structure and punctuation and(b) writing effective paragraphs.
Prerequisite: placement
Two to five credits

## *ENG 014 DEVELOPMENTAL WRITING IV

The purpose of this course is to improve the student's ability to communicate well in writing. This course emphasizes (a) writing effective paragraphs and (b) writing effective essays.
Prerequisite: placement
Two to five credits

## *ENG 092 BASIC WRITING SKILLS

The purpose of this course is to improve the student's ability to communicate well in writing. This course emphasizes (a) writing effective essays and (b) preparing for the GED Writing Test and college level writing tasks.
Prerequisite: placement
Two to five credits

## *ENG 095 BASIC COMMUNICATION SKILLS

This is a transition course for students who have a high school diploma or its equivalent but who have a limited background in basic language skills. The course is a survey of basic grammar, punctuation, sentence structure, and beginning paragraph development.
Prerequisite: placement
Five credits

## ENG: ENGLISH (COMPOSITION)

ENG 105 FUNDAMENTALS OF COMPOSITION
(Formerly CON 101) This course helps prepare students for ENG 121 by emphasizing sentence building and paragraph development. Individual needs will be met within the classroom and in the Writing Center. Proficiency in paragraph writing and competency in language skills are required for a passing grade.
Prerequisite: placement test
Five credits

ENG 115 HANDWRITING ANALYSIS (GRAPHOANALYSIS)
Aid in self-understanding, understanding families and associates, aid teachers and people involved in helping others, and acquaint people with scientific handwriting analysis.
Two credits

## ENG 121 ENGLISH COMPOSITIONI

(Formerly CON 102) This course emphasizes the planning, writing, and revising of compositions and develops critical and logical thinking skills. This course will include a minimum of five (5) compositions, which may include expressive, informative, analytical, evaluative, and persuasive/argumentative writing. Proficiency in essay writing is required for a passing grade, and students must have $\mathrm{a}^{\prime}$ 'C' or better in ENG 121 before they will be admitted to ENG 122. Prerequisite: ENG 105 or placement test
Five credits

ENG 122 ENGLISH COMPOSITION II
(Formerly CON 103) This course expands and refines the objectives of English Composition I. Emphasizes critical and logical thinking, problem definition, research strategies, and writing analytical, evaluative, and/or persuasive papers that incorporate research.
NOTE: This course requires that papers be written with the aid of a computer.
Prerequisite: ENG 121
Five credits

## ENG 225 ADVANCED COMPOSITION

(Formerly CON 202) This course offers students the opportunity to study the styles of professional writers in order to refine students' writing skills. Students will study advanced techniques in essay and article writing. Prerequisite: ENG 121
Five credits

## ENG 226 CREATIVE WRITING

(Formerly CON 109) This course offers instruction in the techniques of short story and poetry writing reinforced by an informal study of professional writing in these areas. Students will receive practice in the type of writing best suited to their individual interest and talent. Students will receive positive criticism for improvement and practical information on publication. Three-Five credits

## ENG 227 CREATIVE WRITING PROJECTS I

(Formerly CON 211) This course provides the student with instruction on how to write creatively by working on individual writing projects in the development of some poetry, short stories, or a novel.
Prerequisite: ENG 226 or permission of instructor.
Three-Five credits

## ENG 228 CREATIVE WRITING PROJECTS ॥

A continuation of ENG 227.
Prerequisite: ENG 227 or permission of instructor
Three credits

## ENG 229 CREATIVE WRITING PROJECTS III

A continuation of Creative Writing Projects II, with the addition of more advanced goals.
Prerequisite: ENG $2 २ 8$ or permission of instructor
Three credits
ENG 295 INDEPENDENT STUDY IN COMMUNICATION
(Formerly CON 295) Independent study provides an opportunity for the serious minded student to engage in intensive study and research on a specified topic under the direction of a faculty member. Prerequisite: ENG 121, permission of an instructor required One to three credits

## ENGINEERING TECHNOLOGY

## AET: ARCHITECTURAL ENGINEERING TECHNOLOGY

AET 100 ARCHITECTURAL HISTORY AND TECHNOLOGY
This course introduces the student to the world of architecture: the practice, drawing format, work environment, and history of land description as well as history and philosophy of architecture from Stone-henge to modern times.
Prerequisite: None
Three credits: 40 clock hours

## AET 103 DRAFTING III: ARCHITECTURAL

An introduction to the field of architectural drafting through development of basic skills and knowledge in planning, layout, and drawing of residential architecture. Guides students through a series of exercises starting with the basic idea and culminating with a full set of working construction drawings.
Prerequisite: AET 105, BET 102, BET 115 or instructor permission Six credits: 80 clock hours

## AET 105 CONTRACT DRAWING INTERPRETATION

Provides students with an opportunity to continue the study and interpretation of construction documents. Drawings, forms, schedules, reference sources and code requirements encountered in the day-to-day operation of an architectural design office are reviewed.
Prerequisite: AET 100, BET 115, and BET 101 or permission of instructor
Three credits: 40 clock hours

## AET 151 INTRODUCTION TO BUILDING CODES AND STANDARDS

Upon completion of this course the student will have a fundamental understanding of the basic codes and standards as set forth by the International Conference of Building Officials (Uniform Building Code). Basic areas of study include: engineering regulations, public property and street regulations, requirements based on occupancy and construction types as well as fire resistive standards for fire protection. The student will also be introduced to related codes and standards, i.e., Uniform Housing Code, Uniform Sign Code, Uniform Solar Code, and Uniform Plumbing Code.
Prerequisite: None
Three credits: 30 clock hours

## AET 201 DRAFTING IV: ARCHITECTURAL

The student will study multi-family, multi-level frame and timber construction techniques and review modular and component applications.
Prerequisite: AET 103 and AET 105 or permission of instructor
Four credits: 60 clock hours

## AET 202 DRAFTING V: ARCHITECTURAL

Provides students with an opportunity to study concrete and masonry as building materials. Applications and techniques related to structure as well as decor will be explored.
Prerequisite: AET 103 and CET 201 or permission of instructor
Four credits: 60 clock hours

## AET 203 DRAFTING VI: ARCHITECTURAL

Provides students the opportunity to study steel building applications and techniques. Structural and decorative applications in relation to building construction will be explored.
Prerequisite: AET 103, AET 202 and CET 201 or permission of instructor
Four credits: 60 clock hours

## AET 208 APPLIED ENGINEERING PROBLEMS

## \& APPLICATIONS/ARCHITECTURAL

Provides practical and realistic application of engineering technology skills. The student will encounter various situations similar to those found in industry and will be required to apply engineering tech skills individually and as a project team member.
Prerequisite: ALL required program classes for quarters one through five
Four credits: 60 clock hours.

## BET: BASIC ENGINEERING TECHNOLOGY (CORE COURSES)

BET 100 INTRODUCTIONTO TECHNOLOGY

Provides introductory information concerning technologies (architectural, civil, computer aided manufacturing, electronic and mechanical) and how to plan for success in a technical environment.
Prerequisite: None, however, SHOULD BE TAKEN FIRST QUARTER
ENROLLED IN ENGINEERING OR ELECTRONIC TECHNOLOGY PROGRAMS MUST BE COMPLETED BY END OF SECOND QUARTER OF PROGRAM ENROLLMENT.
One credit: 15 clock hours

## BET 101 TECHNICAL DRAWING CONCEPTS

A freehand sketch approach to technical drawing intended to familiarize the student with the basic concepts and techniques of the engineering language. Covered will be basic introductory knowledge of engineering lettering, scaling, geometric construction, orthographic projection, sections, auxiliary views, threaded fasteners, pictorials, dimensioning procedures, and assembly drawings.
Prerequisite: BET 100 and BET 115 or concurrent with BET 100 and BET 115 Six credits: 80 clock hours

## BET 102 DRAFTING FUNDAMENTALS

Initial development of manual drafting skills in the areas of dratting tool usage, freehand lettering, understanding and applying ANSI standards and concepts to detail drawings. Application of dimensioning and tolerancing, threads and fasteners, section views and auxiliary views will be made to detail, assembly and pictorial drawings.
Prerequisite: BET 101 and BET 116
Four credits: 60 clock hours

## BET 103 ENGINEERING GRAPHICS

Introduction to engineering graphics and applications. Areas studied include descriptive geometry, auxiliary views, intersections and developments, and charts and graphs.
Prerequisite: BET 102 or permission of instructor
Four credits: 60 clock hours

## BET 106 PHYSICS: STATICS/DYNAMICS

Provides the technical student with an understanding of the basic principles of mechanics and properties of matter through problem solving and practical applications of the basic laws of physics in an industrial environment.
Prerequisite: BET 116 or equivalent, or permission of instructor
Five credits: 60 clock hours

## BET 107 PHYSICS: HEAT/FLUIDS

Provides the student with an understanding of the physical properties of heat and fluids through problem solving and the application of applicable physical laws and their relation to the industrial environment. Prerequisite: BET 116 or equivalent, or permission of instructor Five credits: 60 clock hours

## BET 115 INTRODUCTION TO TECHNICAL MATHEMATICS

The student will review basic mathematics operations and learn to apply them to practical problems. Emphasizes word problem solutions. Includes fractions, percentages, ratios and proportions, weights and measures, unit conversions, roots and powers, and an introduction to basic algebra and practical applications.
Prerequisite: Qualifying assessment scores. COURSE WILL NOT FULFILL PROGRAM REQUIREMENTS FOR GRADUATION Five credits: 60 clock hours

## BET 116 TECHNICAL MATHEMATICS

The student will become proficient in the solution of practical problems through the use of linear equations in one and multiple unknowns, simultaneous and quadratic equations and graphic algebra. The student will also study right and oblique triangle trigonometry problems as applied to land surveying, physics, statics, and related engineering technology courses.
Prerequisite: Qualifying pre-assessment scores in mathematics and algebra skills. If acquired score is less than required, a Technical Division advisor will assist in placement in the proper skill development course.
Five credits: 60 clock hours

## BET 118 INTRODUCTION TO COMPUTER AIDED DRAFTING

This course will provide a review of dratting procedures along with a short history and outlook of $\mathrm{CAD} / \mathrm{CAM} / \mathrm{CIM}$. The student will also become acquainted with the computer keyboard, the disk operating system, and CAD files management. The student will gain practical hands-on experience through the use of the computer and AutoSketch software.
Prerequisite: BET 100 or concurrent with BET 100, or permission of instructor.
Three credits: 40 clock hours
BET 201 COMPUTER AIDED DRAFTING FUNDAMENTALS I
A continuation of BET 118 with emphasis on engineering computer graphics. The student will use AutoCAD software in the extended study of size and shape description, note and dimension generation, and editing and facilitation of engineering drawings. The student will be introduced to drawing attributes and CAD/CAM linkage.
Prerequisite: BET 101, BET 116 and BET 118
Four credits: 60 clock hours

## BET 202 COMPUTER AIDED DRAFTING FUNDAMENTALS II

A continuation of BET 201 with emphasis on advanced sized shape description, editing and attribute applications. The student is also introduced to tablet usage and software customization.
Prerequisite: BET 201
Four credits: 60 clock hours

## BET 203 ADVANCED COMPUTER AIDED DRAFTING III

The student will become more proficient in the production of CAD drawings with an emphasis on proficiency in the area of the student's program option, i.e., architectural, computer aided manufacturing, civil, or mechanical.
Prerequisite: BET 202
Four credits: 60 clock hours

## BET 204 INDUSTRIAL RELATIONS

Person-to-person relationships are studied from the perspective of the first line supervisor and his/her development and responsibilities relative to management expectations. Emphasizes the employee and his/her development, employee evaluation, and leadership development. Job safety relative to government standards is also discussed.
Prerequisite: none
Three credits: 30 clock hours

BET 206 STATICS
A study of analytical mechanics and the comprehension of the underlying principles and their application in the design of mechanisms and static structures. The successful student will be able to apply the principles to the design and/or analysis of static structures.
Prerequisite: BET 106 and BET 116
Five credits: 60 clock hours

## BET 207 TECHNICAL JOB SEEKING

The students will develop a better understanding of their skills, interests and job (employment) search procedures. Preparation of resumes, visas, and applications is studied along with how to prepare and present oneself for an interview.
Prerequisite: None
One credit: 10 clock hours

## BET 215 ENGINEERING PLANNING AND CONTROL

An introduction to concepts and applications in the areas of scheduling, estimating, engineering economy, and quality assurance. Prerequisite: BET 100, BET 106, BET 107, and BET 116 Four credits: 60 clock hours

## BET 209 INDEPENDENT STUDY IN ENGINEERING

 219 TECHNOLOGY 229Provides the opportunity to engage in intensive study in areas of engineering technology that are not covered in scheduled classes or in greater depth than covered in class activities. Studies are under the direction of a faculty member and are limited as to the credits taken per quarter.
Prerequisite: Previous academic study or experience in Engineering Technology and instructor permission.
BET 209: One credit: 10 clock hours
BET 219: Two credits: 20 clock hours
BET 229: Three credits: 30 clock hours

## CET: CIVIL ENGINEERING TECHNOLOGY

CET 105 BASIC FIELD SURVEY
Acquaints the student with basic surveying equipment, calculations, and note forms derived during survey operations. The student will become proficient in fundamental survey techniques and in the care and daily maintenance of survey equipment and in computer computations used in surveying.
Prerequisite: BET 102 and BET 116 or permission of instructor Eight credits: 100 clock hours

## CET 201 DRAFTING IV: STRUCTURAL

This course acquaints the student with structural dratting practices, enabling completion of structural plans and details in steel, and concrete for commercial, and industrial structural systems.
Prerequisite: BET 103
Four credits: 60 clock hours

## CET 202 DRAFTING V: CIVIL I

Topographic drafting principles, interpretation, plotting, and detailing are studied to assist the student in the areas of open and closed traverses relating land descriptions and aspects of tract, plat, plot, and site maps.
Prerequisite: BET 101 through BET 116 and CET 105
Five credits: 60 clock hours

CET 203 APPLIED CIVIL DESIGN
A consolidation of the major aspects of the Civil Engineering Technology program with principle emphasis on design.
Prerequisite: CET 201 and CET 202
Six credits: 80 clock hours

## CET 208 ENGINEERING PROBLEMS \&

 APPLICATIONS/CIVILProvides practical and realistic application of engineering technology skills. The student will encounter various situations similar to those found in industry and will be required to apply engineering tech skills individually and as a project team member.
Prerequisite: ALL required program classes for quarters one through five.
Four credits: 60 clock hours

## CET 216 CIVIL HYDRAULICS

A study of open channel flow and hydrology. The student will gain an understanding of urban drainage requirements and the solution of urban drainage problems through the use of design manuals. Design of small drainage structures will also be studied.
Prerequisite: BET 116, BET 106, and BET 107
Three credits: 40 clock hours

## MET: MECHANICAL ENGINEERING TECHNOLOGY

## MET 101 ENGINEERING MATERIAL

Materials of industry are studied from the properties and applications viewpoints with emphasis on woods, metals, plastics, and concrete.
Prerequisite: BET 115 or concurrent with BET 116
Four credits: 60 clock hours

## MET 102 MANUFACTURING AND PROCESSES

Continuation of MET 101 with an emphasis on manufacturing processes that use metals, woods and other common materials. Prerequisite: MET 101
Three credits: 40 clock hours

## MET 201 STRENGTH OF MATERIALS

The study of properties and their effects relevant to material stress and strain, tension, compression, and shear. Design of beams, columns, thin walled pressure vessels, and rivetted and welded joints are studied. Centroids, moments of inertia, shear and moment diagrams and stresses in beams are included.
Prerequisite: BET 106 and BET 116
Five credits: 60 clock hours

## MET 202 MECHANICAL DESIGN: MANUFACTURING

This course will acquaint the student with mechanical design practices for manufacturing using sketching and problem solving techniques.
Prerequisite: BET 100, BET 106, BET 107, BET 116, and BET 118, or permission of instructor
Three credits: 40 clock hours

## MET 203 MECHANICAL DESIGN: FACILITIES

This course will acquaint the student with mechanical design practices for facilities using sketching and problem solving techniques. Prerequisite: BET 101, BET 106, BET 107, BET 116 and BET 118 or permission of instructor
Three credits: 40 clock hours

## MET 205 ELECTRO/MECHANICAL DESIGN

This course will acquaint the student with electronic design dratting practices. Introduces the student to basic diagrams and packaging systems.
Prerequisite: BET 100 through BET 116 and BET 201 or permission of instructor
Three credits: 40 clock hours

## MET 208 ENGINEERING PROBLEMS AND APPLICATIONS/MECHANICAL

Provides practical and realistic application of engineering technology skills. The student will encounter various situations similar to those found in industry and will be required to apply engineering tech skills individually and as a project team member.
Prerequisite: ALL required program classes for quarters one through five Four credits: 60 clock hours

## MET 216 FLUID POWER

A study of fluid power systems (hydraulic and pneumatic) and the applications of these systems in the engineering fields.
Prerequisite: BET 106
Three credits: 40 clock hours

## CAM: COMPUTER AIDED MANUFACTURING

CAM 105 INDUSTRIAL ELECTRICTY
The student will study the basic concepts of electrical circuits, equipment, and applications. Safety, troubleshooting, and National Electric Codes (NEC) will also be studied.
Prerequisite: None
Four credits: 60 clock hours

## CAM 106 ELECTRONICS FOR ENGINEERING TECHNICIANS I

This course will cover the basic concepts of industrial electronics with an emphasis on circuits and components.
Prerequisite: BET 116 or permission of instructor
Five credits: 60 clock hours

## CAM 205 COMPUTER AIDED MANUFACTURING

An introduction to the concepts of Computer Aided Manufacturing, including CNC programming and CIM.
Prerequisite: BET 116, BET 201, and MET 102
Four credits: 60 clock hours

## CAM 206 ELECTRONICS FOR ENGINEERING TECHNICIANS II

A continuation of CAM 106. The student will become familiar with microprocessor interfacing, troubleshooting, and typical robotics/CNC electronic systems.
Prerequisite: CAM 106
Five credits: 60 clock hours

## CAM 207 INTRODUCTION TO ROBOTICS

A basic course emphasizing the components, systems, and applications of industrial robots.
Prerequisite: CAM 205 \& CAM 206 or instructor permission
Four credits: 60 clock hours

CAM 208 ENGINEERING PROBLEMS AND APPLICATIONS/MFG
Provides practical and realistic application of engineering technology skills. The student will encounter various situations similar to those found in industry and will be required to apply engineering tech skills individually and as a project team member.
Prerequisite: ALL required program classes for quarters one through five Four credits: 60 clock hours

## ESL: ENGLISH AS A SECOND LANGUAGE <br> ESL 009 CONVERSATIONAL ENGLISH AS A SECOND LANGUAGE

This course is designed for adult students with no educational background in spoken English. It is designed for the student to develop listening, speaking, and basic vocabulary skills.
Prerequisite: Placement

## ESL 010 CONVERSATIONAL ENGLISH AS A SECOND LANGUAGE

Continuation of the course designed for adult students with no educational background in spoken English (ESL 009)
Prerequisite: Placement or ESL 009

## ESL 011 SURVIVAL ENGLISH AS A SECOND LANGUAGE I

This course begins a sequence which provides the non-English speaking individual with functional English language skills in listening, speaking, reading, and writing. The present continuous tense is introduced. Prerequisite: Placement

## ESL 012 SURVIVAL ENGLISH AS A <br> SECOND LANGUAGE II

This course will continue to expand the objectives of ESL 011. The simple present tense is introduced.
Prerequisite: ESL 011 or placement

## ESL 013 SURVIVAL ENGLISH AS A SECOND LANGUAGE III

This course will continue to expand the objectives of ESL 012. The simple future and the simple past tenses are introduced.
Prerequisite: ESL 012 or placement

## ESL 014 SURVIVAL ENGLISH AS A SECOND LANGUAGE IV

This course will continue to expand the objectives of ESL 013. This course offers the student a basic review of the simple present, past, and future tenses.
Prerequisite: ESL 013 or placement

## ESL 015 SURVIVAL ENGLISH AS A SECOND LANGUAGE V

This course will continue to expand the objectives of ESL 014. The past and future continuous tenses are introduced.
Prerequisite: ESL 014 or placement

## ESL 016 SURVIVAL ENGLISH AS A SECOND LANGUAGE VI

This course will continue to expand the objectives of ESL 015. The present perfect tense is introduced.
Prerequisite: ESL 015 or placement

## ESL 017 SURVIVAL ENGLISH AS A <br> SECOND LANGUAGE VII

This course will continue to expand the objectives of ESL 016. The past perfect, the present perfect continuous, and the past perfect continuous tenses are introduced.
Prerequisite: ESL 016 or placement

## ESL 018 SURVIVAL ENGLISH AS A SECOND LANGUAGE VIII

This course will continue to expand the objectives of ESL 017. The passive voice and the subjunctive mood will be introduced.
Prerequisite: ESL 017 or placement

## ESL 019 SURVIVAL ENGLISH AS A SECOND LANGUAGE IX

This course requires the most advanced level of English proficiency. The student will be introduced to the fundamentals of public speaking, reading in the content areas and writing compositions using appropriate grammar and style.
Prerequisite: ESL 018 or placement

## FAMILY AND LIFE EDUCATION

Expectant Families and Positive Parenting and Personal Growth are cosponsored with North Colorado Medical Center.

## FLE: EXPECTANT FAMILIES

## FLE 115 PREPARED CHILDBIRTH

Prepare for the birth of your baby. Group discussions focus on the physical and emotional changes of pregnancy, the labor and birth process, postpartum period, family relationships, the unique role of the father, basic nutrition, and initial newborn care. Time will be spent each class learning and practicing relaxation and breathing techniques including the Lamaze method. Also included is a tour of North Colorado Medical Center's family birth center.
Two credits

## FLE 117 CHILDBIRTH REFRESHER

For parents who previously have completed a comprehensive childbirth education course. Review and practice relaxation and breathing techniques for labor and birth. Discuss choices for childbirth and sibling rivalry. Family birth center tour is included.
Prerequisite: childbirth education course
One credit

## FLE 121 YOUR AMAZING INFANT

Acquaints parents with growth, development, and the normal characteristics of early infancy. Safety and common illnesses will be discussed. Helps parents relax and enjoy the experience of parenting.
One-half - one credit

## FLE 129 FOR DADS ONLY

For expectant or new fathers who want to evaluate their parenting styles and prepare for the changes to come. Such topics as disciplining, communications, stress and becoming more involved in their childrens lives are included.
One-half credit

## FLE 131 EXERCISE FOR PREGNANCYI

Helps women prepare physically for the birth of their baby. Includes stretching, body conditioning, and aerobic exercises designed specifically for pregnant women and new mothers.

## One credit

## FLE 132 EXERCISE FOR PREGNANCY II

Helps women prepare physically for the birth of their baby. Includes stretching, body conditioning, and aerobic exercises designed specifically for pregnant women and new mothers.
One credit

## FLE 141 SHAPE UP WITH BABYI

Helps women get back into shape after the birth of their baby and enjoy exercising with their baby at the same time.
One credit

## FLE 145 BREASTFEEDING: OFF TO A GOOD START

Designed to prepare women for the experience of breastfeeding. Basics of breastfeeding, pumping and mother-infant relationships will be discussed.
One-half to one credit

## FLF: POSITIVE PARENTING AND PERSONAL GROWTH

FLE 118 HEALTHY COUPLESHIP
To increase the participant's awareness of the dynamics of healthy relationships and to provide tools for strengthening and enriching the coupleship.
One credit

## FLF 119 HEALTHY COUPLESHIP II

This class will increase participant's knowledge of good communication skills, identify issues in the relationship and provide skills of resolving conflict.
One credit

## FLF 127 COPING WITH YOUR ACTIVE TODDLER

For parents of one to two and one-half year olds. Discussions concern parental stress and alternatives in discipline; developing a child's self-esteem, language, and motor skills; snacks and finger foods, accidents and poisonings, toilet training, and dependence versus independence. Child care provided for daytime classes.
One to two credits

## FLF 168 DANCE OF ANGER: WOMEN IN INTIMATE RELATIONSHIPS

Participants will become aware of the dynamics of anger in intimate relationships and learn tools for handling anger in appropriate ways to enhance relationships.
One to three credits

## FLF 204 YOU AND YOUR AGING PARENTS

Supplies adult children and professionals working with families insight into the medical, psychological and social aspects of aging. Discusses options and resources for the aging parent or relative and how to make decisions based on these alternatives.
One credit

## FLF 205 SUCCESS THROUGH SELF-TALK

Develop use of affirmations, imagery and positive self-talk to change or improve self-concept and wellness level.
One credit

## FLF 208 CHILDREN'S LITERATURE: DEVELOPING A LOVE OF READING THROUGH LTTERATURE

This course will serve as a general introduction to literature form the major genres for children and young adults. Ideas and ways to use literature with children at home and at school to develop a love of reading will be explored.
One credit

## FLF 215 SUICIDE: CHILDREN AND TEENS IN CRISIS

A class for parents and professionals that focuses on the systems designed to address the prevention and intervention in the phenomenon of suicide in children. (First in a series of three classes on suicide.)
One credit

## FLF 216 ACTIVE PARENTING: RAISING A RESPONSIBLE CHILD

To increase parent awareness of effective parent-child communication and to provide problem solving skills and methods of achieving enhanced family relationships. Class discussions will center around video tape vignettes of parent-child interactions.
One credit

## FLF 228 WOMEN'S SELF-ESTEEM

Provides an overview of the issues that promote or inhibit positive self esteem for women.
One credit

## FLF 238 CREATIVE JOURNALING:THE ART OF FINDING OURSELVES

To help students become familiar with the tool of creative journal keeping. One credit

## FLF 248 PARENT SURVIVAL

This class will provide information on family dynamics, parent/child communication, development of values and skills for personal boundary setting.
One to three credits
Parents and students, please look under Education (EDU) for classes on The Family also.

## FLC/FLS: SENIOR

$\begin{array}{lll}\text { FLC } & 125 & \text { UNDERSTANDING MEDICARE AND } \\ \text { SUPPLEMENTAL INSURANCE }\end{array}$
To inform consumers about how the medicare system functions and how to choose supplemental health insurance.
One-half credit

## FLS 111 SENIOR SHAPE UP I

Introduces body conditioning to raise fitness levels of older adults. One credit

## FLS 112 SENIOR SHAPE UP II

A continuation of Senior Shape Up I to better improve fitness levels.
One credit

FLS 113 SENIOR SHAPE UP III
Allows the student to continue improvement of body fitness. One credit

## FLS 115 MANAGING STRESS FOR HEALTHY AGING

Identify age-related stress situations and learn techniques to cope. One credit

## FLS 117 MEDICINE:LET'S TALK ABOUT IT

Provides consumer information on medications.
One-half credit

## FLS 118 MENTAL JOGGING

Turn on your brain and improve your mental "fitness" with games and thinking exercises.
One credit
FLS 121 ADVANCED SENIOR SHAPE UP I
A more active, exercise class with moderate aerobic activity for older adults. One credit

FLS 122 ADVANCED SENIOR SHAPE UP II
Further develops fitness levels.
One credit
FLS 123 ADVANCED SENIOR SHAPE UP III
Allows continued improvement of total body fitness. One credit

FLS 131 MOVING TOGETHER FOR FITNESS I
An exercise program for older adults with special needs.
One credit
FLS 132 MOVING TOGETHER FOR FITNESS II
A continuation of exercise to improve strength and flexibility. One credit

## FLS 133 MOVING TOGETHER FOR FITNESS III

Allows for continued improvement in strength and flexibility for older adults.
One credit

FLS 151 SENIOR WALK 'N SHAPE UP I
Includes the "Shape Up" exercise, floor work and a 30 -minute walk. One and one-half credits

## FLS 152 SENIOR WALK 'N SHAPE UP II

A continuation of the "Shape Up" exercise, floor work and a 30 minute walk.
One and one-half credits

## FLS 153 SENIOR WALK 'N SHAPE UP III

Allows for continued "Shape Up" exercise, floor work and a 30 minute walk.
One and one-half credits
FLS 165 SURVIVING THE SUPERMARKET
Discover the secrets of the supermarket and clear up the confusion about food shopping.
One-half credit

## FLS 179 SELF-ESTEEM:THE MATURE YEARS

Examines how to restore and maintain feelings of self-worth in later years. One credit

## FLS 181 HEALTH AWARENESS FOR SENIORS I

Provides information about health and aging and taking an active role in maintaining health. Topics include back care, the heart, arthritis, medications, digestion and circulation.
One credit

## FIS: FIRE SCIENCE

## FIS 100 INTRODUCTION TO FIRE SCIENCE AND SUPPRESSION

Philosophy and history of fire protection; history of loss of life and property by fire; review of municipal fire defenses; study of the organization and function of federal, state, county, and private fire protection agencies; survey of professional fire protection career opportunities. Introduces fire suppression organization; fire suppression equipment; characteristics and behavior of fire; fire hazard properties of ordinary materials; building design and construction; extinguishing agents; basic fire-fighting tactics; public relations. Students will also receive the skills and knowledge necessary for entry level written examinations and oral interview procedures.
Five credits: 50 clock hours

## FIS 102 INTRODUCTION TO FIRE PREVENTION AWARENESS

Students will acquire the ability to inspect buildings for the compliance of adopted codes in their respective service area, as well as understanding the functions for the fire prevention organization. The importance of prefire planning as well as good public relations will be emphasized.
Three credits: 30 clock hours

## FIS

104 FIRE COMPANY ORGANIZATION AND PROCEDURE
Review of fire department organization, fire company organization, the company officer, personnel administration, communications, fire equipment, maintenance, training, fire prevention, fire fighting, company fire fighting capability, records and reports.
Three credits: 30 clock hours

## FIS 105 FIRE SERVICE TRAINING ACADEMY

The student will demonstrate the knowledge and skill necessary to perform as a recruit in a paid or volunteer fire department as well as the knowledge and skill necessary for Fire Fighter I certification. Thirty credits: 460 clock hours

## FIS 106 FIRE FIGHTING STRATEGY \& TACTICS

Review of fire chemistry, equipment, and manpower; basic fire fighting tactics and strategy; methods of attack, preplanning fire problems.
Five credits: 50 clock hours

## FIS 110 FIRE APPARATUS AND PROCEDURES

Driving laws, driving techniques; construction and operation of pumping engines, ladder trucks, aerial platforms, and specialized equipment; apparatus maintenance.
Five credits: 50 clock hours

## FIS 111 FIRE FIGHTER OCCUPATIONAL SAFETY

Students will learn to recognize those areas of the fire service where accidents frequently occur and how to recognize safety measures which will assist to decrease the hazards associated with operational areas. NFPA 1500 will be covered in depth.
Five credits: 50 clock hours

## FIS 112 FIRE SERVICE PLANNING

Students will acquire ability to develop and coordinate plans between various agencies for utilization of manpower, equipment, facilities, and water for fire suppression and prevention.
Three credits: 30 clock hours

## FIS 115 INDUSTRIAL FIRE SAFETY CONCEPTS

Familiarization with the various trades in which specific hazards may present complicated and unique fire suppression or rescue problems for the fire fighter. The safety of fire fighters will be stressed at all times.
Three credits: 30 clock hours

## FIS 117 EFFECTIVE FIRE SERVICE PRESENTATIONS

A public speaking course designed to provide students with skills in public speaking, listening skills, and fundamentals in presenting public fire safety education programs.
Five credits: 50 clock hours

## FIS 118 FIRE CAUSE DETERMINATION

Students will acquire the ability to determine the cause of fire (accidental, suspicious and incendiary); types of fire, area and point of origin, method and cause of fire spread, recognition and preservation of possible evidence.
Three credits: 30 clock hours

## FIS 119 FIRE INSTRUCTOR I

Students will learn the role of the fire service instructor in today's fire service. Topics will include: The Instructor and the Job, Concepts of Learning, Planning Instruction, Presenting Instruction, Audio-Visual use, and Testing and Evaluation.
Three credits: 30 clock hours

## FIS 185 VOLUNTEER FIRE SEMINAR

Provides Fire Service Training on a supplementary and upgrading basis to fire fighters who are members of volunteer fire departments, fire protection districts, or paid members of smaller fire departments. The objective is to orient the training toward the equipment available in the department or district and to stress fire fighting methods appropriate to the equipment and to the district.
Six credits: 60 clock hours

## FIS 186 VOLUNTEER FIRE SEMINAR

Class includes the same type of information as FIS 185. Eight credits: 80 clock hours

## FIS 187 VOLUNTEER FIRE SEMINAR

Class includes the same type of information as FIS 185.
Twelve credits: 120 clock hours

## FIS 188 VOLUNTEER FIRE SEMINAR

Class includes the same type of information as FIS 185. Sixteen credits: 160 clock hours

## FIS 190 FIRE SERVICE AND THE LAW

This course is to inform fire departments, fire boards, and fire fighters of civil and criminal liabilities under the law. This course will also cover pensions, Workmen's Compensation, drug testing, union bargaining agreements and more. Colorado laws and revised statutes will be covered.
Three credits: 30 clock hours

## FIS 196 VOLUNTEER FIRE SEMINAR

Provides Fire Service Training on a supplementary and upgrading basis to fire fighters who are members of volunteer fire departments, fire protection districts, or paid members of smaller fire departments. The objective is to orient the training toward the equipment available in the department or district and to stress fire fighting methods appropriate to the equipment and to the district.
One credit: 10 clock hours

## FIS 197 VOLUNTEER FIRE SEMINAR

Class includes the same type of information as FIS 196.
Two credits: 20 clock hours

## FIS 198 VOLUNTEER FIRE SEMINAR

Class includes the same type of information as FIS 196.
Three credits: 30 clock hours

## FIS 199 VOLUNTEER FIRE SEMINAR

Class includes the same type of information as FIS 196.
Four credits: $\mathbf{4 0}$ clock hours

## FIS 202 FIRE INSPECTION PRACTICES

Organization and function of the fire prevention organization; inspections, surveying and mapping procedures; recognition of fire hazards, engineering a solution to the hazard, enforcement of the solution, and public relations as affected by fire prevention.
Prerequisite: FIS 100
Three credits: 30 clock hours

## FIS 204 RELATED CODES AND ORDINANCES I

Familiarization and interpretation of national, state and local codes; ordinances and the laws which influence the field of fire prevention. The Uniform Fire Code, Uniform Building Code and Life Safety Code will be reviewed and referred to throughout this course.
Three credits: 30 clock hours

## FIS 205 RELATED CODES AND ORDINANCES II

Continuation of FIS 204, emphasizing life safety and fire codes. Three credits: 30 clock hours

## FIS 207 CHEMISTRY FOR FIRE PROTECTION

A basic, practical course in chemistry designed specifically for fire fighters. Various materials which fire fighters encounter will be reviewed in open classroom discussion.
Five credits: 50 clock hours

## FIS 208 HAZARDOUS MATERIALSI

A review of basic chemistry, storage, and fire-fighting practices pertaining to hazardous materials. Includes basic laws and standards for handling various hazardous materials.
Prerequisite: FIS 207 or equivalent
Three credits: 30 clock hours

## FIS 209 HAZARDOUS MATERIALS II

Continuation of FIS 208. Emphasizes fire-fighting and control at the company officer level.
Prerequisite: FIS 208 or equivalent
Three credits: 30 clock hours

## FIS 212 FIXED FIRE PROTECTION EQUIPMENT

 AND SYSTEMSPortable fire extinguishing equipment requirements. Sprinkler systems: types, installation, and maintenance. Special protection systems for various occupancies, including residential sprinklers.
Three credits: 30 clock hours

## FIS 213 FIRE SERVICE SUPERVISION

Studies fire department organization. Includes personnel relations, leadership, motivation, training, hiring, and disciplinary action.
Three credits: 30 clock hours

## FIS 214 FIRE DEPARTMENT ADMINISTRATION

Consideration of basic administrative concepts and principles applicable to the organization and administration of an efficient fire department.
Three credits: 30 clock hours

## FIS 218 ARSON INVESTIGATION

The student will acquire information on the national arson problem- fire investigation responsibilities and the conduct of the investigator. Student will acquire the ability to recognize and preserve evidence of arson, understanding of the law as it applies to arson, the process of interviewing witnesses and suspects, arrest and detention procedures, court procedures and proper presentation of testimony will be stressed.
Three credits: 30 clock hours

## FIS 230 BUILDING PLANS \& CONSTRUCTION

Students will study various types of building construction, principles of fire resistance, flame spread, and fire and smoke containment. Students will also acquire the knowledge to read and understand blueprints, specifications and schedules.
Five credits: 50 clock hours

## FOREIGN LANGUAGE

NOTE: Students wishing to satisfy a five-semester hour language requirement at the university level need to take a minimum of two quarters of the same foreign language at Aims College.

## FRE: FRENCH

FRE 101 BASIC APPLIED FRENCH I
Basics of spoken French are presented. Emphasizes vocabulary and sentence patterns that a traveler might need to order meals, get a room in a hotel, shop, exchange money, or travel.
Three credits

## FRE 102 BASIC APPLIED FRENCH II

This course introduces the student to the basic forms, vocabulary and phrases of the spoken language. It is an advancement of FRE 101.

Prerequisite: FRE 101 or instructor's permission
Three credits

## FRE 103 BASIC APPLIED FRENCH III

This course introduces the student to the basic forms, vocabulary and phrases of the spoken language. It is an advancement of FRE 102.

Prerequisite: FRE 102 or instructor's permission
Three credits

## FRE 111 FRENCH LANGUAGE I

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading, and writing the language. (Course fulfills Humanities requirement.)
Five credits

## FRE 112 FRENCH LANGUAGE II, PART 1

Continues French Language I in the development of functional proficiency in listening, speaking, reading, and writing the language. (Course fulfills Humanities requirement.)
Prerequisite: FRE111 or instructor's permission
Five credits

## FRE 113 FRENCH LANGUAGE II, PART 2

Continues French Language II in the development of functional proficiency in listening, speaking, reading, and writing the language. (Course fulfills Humanities requirement.) Prerequisite: FRE 112 or instructor's permission Five credits

## JPN: JAPANESE

JPN 101 BASIC APPLIED JAPANESEI
An introduction to the basic forms, vocabulary, and phrases of spoken Japanese designed to facilitate oral communication and heighten cultural awareness of Japan.
Three credits

## JPN 102 BASIC APPLIED JAPANESE II

Introduces the student to the basic forms, vocabulary, and phrases of the language. This course is an advancement of JPN 101. Encourages an understanding of the culture.
Prerequisite: JPN 101 or instructor's permission
Three credits

## JPN 111 JAPANESE LANGUAGEI

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading, and writing the language. (Course fulfills Humanities requirement.)
Five credits

## JPN 112 JAPANESE LANGUAGE II, PART 1

Continues Japanese Language I in the development of functional proficiency in listening, speaking, reading, and writing the language. (Course fulfills Humanities requirement.)
Prerequisite: JPN 111 or instructor's permission
Five credits

## JPN 113 JAPANESE LANGUAGE II, PART 2

Continues Japanese Language II in the development of functional proficiency in listening, speaking, reading, and writing the language.
(Course fulfills Humanities requirement.)
Prerequisite: JPN 112 or instructor's permission
Five credits

## SPA: SPANISH

## SPA 101 BASIC APPLIED SPANISH I

Introduces the student to basic Spanish conversation, including basic forms, vocabulary, and spoken phrases. This course is designed to give the student a prompt ability to communicate orally in the language. One to Three credits

## SPA 102 BASIC APPLIED SPANISH II

This course introduces the student to the basic forms, vocabulary and phrases of the spoken language. It is an advancement of SPA 101.

Prerequisite: SPA 101 or instructor's permission
Two to Three credits

## SPA 103 BASIC APPLIED SPANISH III

This course introduces the student to the basic forms, vocabulary and phrases of the spoken language. It is an advancement of SPA 102.

Prerequisite: SPA 102 or instructor's permission
Two to Three credits

## SPA 111 SPANISH LANGUAGE I

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading, and writing the language. (Course fulfills Humanities requirement.)
Five credits

## SPA 112 SPANISH LANGUAGE II, PART 1

Continues Spanish Language I in the development of functional proficiency in listening, speaking, reading, and writing the language. (Course fulfills Humanities requirement.)
Prerequisite: SPA 111 or instructor's permission
Five credits

## SPA 113 SPANISH LANGUAGE II, PART 2

Continues Spanish Language II in the development of functional proficiency in listening, speaking, reading, and writing the language.
(Course fulfills Humanities requirement.)
Prerequisite: SPA 112 or instructor's permission
Five credits

## SPA 201 ADVANCED SPANISH CONVERSATION

Gives Spanish students the opportunity to continue their study of the language and to practice their speaking of the language.
Prerequisite: SPA 103, SPA 113 or permission of instructor
Three credits

## SPA 295 SPANISH INDEPENDENT STUDIES

Designed to meet the needs of those students who already have a background in Spanish and who desire to improve their language skills and whose needs are not met by our regular first year Spanish offerings.
Prerequisite: permission of instructor
One to Three credits

## GEO: GEOGRAPHY

## GEO 105 GEOGRAPHY

An introductory course designed to facilitate an understanding of spatial relationships between and among the geographic regions of the world. Included are demographic and cultural (political, economic, and historic) forces related to the physical environments of selected regions. Methods of study include analysis of/and interrelationships between developed and developing regions.
Five credits

## GEY: GEOLOGY

GEY 100 SURVEY OF GEOLOGY
A general study of the characteristics of the past and present physical environment and the geologic forces at work to sculpture the landscape. Credit will not be given for both GEY 100 and GEY 111. Three credits: two hours lecture, two hours lab per week

## GEY 105 GEOLOGY OF NATIONAL PARKS

Empirical study of the basic geology of the national parks. National parks are used as examples to develop an appreciation for the basic principles of physical science and basic concepts of physical and historical geology. A short term paper on a park or monument required.
Four credits: four hours lecture per week
GEY 111, 112, 121
For programs that require two semesters (1 year) of geology, students should complete all three courses. This sequence will transfer to other academic institutions as an aggregate.

## GEY 111 PHYSICAL GEOLOGY

Studies the materials of the earth, its structure, surface features and the geologic processes involved in its development. This course includes laboratory experience. Field trips required.
Five credits: three hours lecture, four hours lab per week

## GEY 112 INTRODUCTION TO FIELD GEOLOGY AND MAPPING

Introduces the skills and techniques used by the field geologist to obtain information from topographic maps, aerial photographs, geological maps, and field observations to identify major physical landforms and make interpretations of geologic structures. Field trips required.
Prerequisite: GEY 111 or permission of instructor
Three credits: two hours lecture, two hours lab per week

## GEY 121 HISTORICAL GEOLOGY

(Formerly GEY 113) Studies the physical and biological development of the earth through the vast span of geologic time. Emphasizes the investigation and interpretation of sedimentary rocks, the record of ancient environment, fossil life forms, and physical events, all within the framework of shitting crustal plates.
Prerequisite: Physical Geology (GEY 111) or permission of instructor Five credits: three hours lecture, four hours lab per week

## GEY 185 SPECIAL TOPICS IN GEOLOGY

Topics will reflect the special expertise of the faculty and/or the special needs of the students.
Prerequisite: Consent of instructor
One to Six credits

## GOV: DEVELOPMENTAL GOVERNMENT

## GOV 014 DEVELOPMENTAL GOVERNMENT IV

The purpose of the course is to increase student knowledge of community, state, and federal government. Emphasis is given to the relationship between individual citizens and the selection and maintenance of government.
Prerequisite: placement
Three to five credits

## GRT: GRAPHIC TECHNOLOGY

## GRT 101 GRAPHIC TECHNOLOGYI

Students will be given the opportunity to acquire basic knowledge and skills in computer graphics, computer typesetting and page layout, desk-top publishing, layout and paste-up, process camera photography, film stripping, plate-making, and duplicator-sized presswork. The student will perform the above fundamental activities at production quality level.
Twenty credits: 250 clock hours

## GRT 102 GRAPHIC TECHNOLOGY II

Students will be given the opportunity to acquire advanced knowledge and skills in one of two options; press or pre-press. Students in the press option will develop skills in ink and water balance, multi-color printing, press registration techniques, trouble shooting, and job estimating. Students in the pre-press option will develop skills in advanced computer page layout and graphic design, learn more darkroom and stripping techniques. The students will perform these activities listed above at a production quality level. The student will also acquire knowledge and skills in job placement.
Prerequisite: GRT 101 or permission of instructor
Twenty credits: 250 clock hours

## GRT 103 GRAPHIC TECHNOLOGY III

Students will be given the opportunity to further develop the skill acquired in GRT 101 and GRT 102. The student will perfect the quality of their work and increase their production of work. The student will also be given the opportunity to participate in an internship directly related to his/her specialization. Prerequisite: GRT 102 or permission of instructor
Twenty credits: 250 clock hours

## GRT 104 GRAPHIC TECHNOLOGY IV

Students will be given the opportunity to choose an additional specialization from the Pre-Press option or Press option.
Prerequisite: GRT 103 or permission of instructor
Ten credits: 125 clock hours

## GRT 107 SILK SCREEN PRINTING

Students will be given the opportunity to acquire basic knowledge in silk mounting, paper stencil, film stencil, photo stencil, two-color printing, blocking, textile printing, and clean-up. Students are encouraged to work on projects of their choice within the time constraints of the class.
Two credits: 30 clock hours

## GRT 199 GRAPHIC TECHNOLOGY/SPECIAL NEEDS

Allows the student to work on a few specific objectives in conjunction with the Graphic Technology certificate requirements. The student and the instructor may develop an individual program which is agreeable to both parties. The student must be enrolled in the Graphic Technology program. This course may be repeated.
One credits: 10 clock hours

## GRT 295 GRAPHIC TECHNOLOGY/ INDEPENDENT STUDY A

This course provides an opportunity for the student to engage in intensive study and research on a specific topic under the direction of a faculty member.
Prerequisite: permission of instructor only
Two credits: 20 clock hours

GRT 296 GRAPHIC TECHNOLOGY/ INDEPENDENT STUDY B
This course provides an opportunity for the student to engage in intensive study and research on a specific topic under the direction of a faculty member.
Prerequisite: permission of instructor only
Three credits: 30 clock hours
GRT 297 GRAPHIC TECHNOLOGY/ INDEPENDENT STUDY C
This course provides an opportunity for the student to engage in intensive study and research on a specific topic under the direction of a faculty member.
Prerequisite: permission of instructor only
Five credits: 50 clock hours

## GRT 299 GRAPHIC TECHNOLOGY PRACTICUM

This course content will be dependent upon the current needs of the students and determined at the time of the course offering. The practicum could involve introduction of, and experience with, the offset printing trade and the new products related to process camera work, press work, etc. This course may be repeated.
One credit: 10 clock hours

## HEN: HEALTH EDUCATION

HEN 106 RED CROSS STANDARD FIRST AID/CPR
Principles and practices of first aid to give immediate, temporary treatment in case of accident or sudden illness before the service of a physician can be secured. Students will also learn the proper techniques for adult, child and infant CPR. (The students who satisfactorily pass the American Red Cross examination will receive their; Standard First Aid, Adult CPR and Infant CPR cards.)
Three credits: 30 clock hours

## HEN 107 ADVANCED SAFETY AND FIRST AID

This Red Cross Advanced First Aid and Emergency Care course is designed for persons who are responsible for giving emergency care to the sick and injured. It provides the essential information for developing functional first aid capabilities required by policemen, fire fighters, ski patrol, and other special interest groups. Includes cardiopulmonary resuscitation. Students completing course and testing will be certified by the American Red Cross in advanced first aid and cardiopulmonary resuscitation.
Five credits: 50 clock hours

## HEN 117 BEHAVIORAL WEIGHT CONTROLI

This course utilizes a behavioral/nutritional approach that will enable overweight individuals to lose excess body weight. Permanent weight control will be the main objective of this course.
Nutritional counseling will include:1) Proper nutrition 2) Exchange system of food charting 3) Shopping and reading labels 4) Keeping a nutritional diary 5) Integrating a nutritional food plan into one's daily life.

Behavioral education will include: 1) What to do to lose weight 2) Keeping weight off permanently 3) Controlling overeating practices 4) Learning about feelings and how moods affect eating behavior 5) Eating on special occasions/restaurants 6) Stress Management/relaxation training 7) Assertiveness training 8) Eating Disorders.
One credit: 10 clock hours

## HEN 118 BEHAVIORAL WEIGHT CONTROL II

Continuation of HEN 117. Further emphasis on nutritional counseling and behavioral education.
One credit: 10 clock hours

## HEN 119 BEHAVIORAL WEIGHT CONTROL II

Continuation of HEN 118. Further emphasis on nutrition counseling and behavioral education.
One credit: 10 clock hours

## HEN 126 FIRST AID

This course is designed to give students basic First Aid Skills and the ability to perform adult CPR.
One credit: 10 clock hours

## HLH: HEALTH OCCUPATIONS

The following classes are offered upon the request of twelve students or more. (Additional courses could be designed to meet continuing education needs of the community.)

## HLH 127 RESIDENTIAL CARE FACILITY MEDICATION AIDE

Designed to qualify the learner to administer medications to residents of residential care facilities in accordance with the provisions of Colorado House Bill No. 1065 of 1988. Meets training requirements of the Colorado Department of Health.

Upon successful completion of this course the learner should be able to : 1) identify basic concepts of medications and pharmacology pertinent to the residential care facility setting 2) determine principles in the care and proper storage of medications 3 ) demonstrate basic principles and procedures in medication administration 4) demonstrate proper recording and reporting of medication administration.
Prerequisite: none
Three credits: 30 clock hours

## HLH 128 HEALTH CARE SEMINAR

Designed to provide health care providers with current information on health consumer trends and issues and/or on current health care issues and practices and/or on advances in health care and related disciplines. A series of seminar topics will be selected; each topic will meet one or more of the objectives.
Prerequisite: none
Variable credit: 1 to 12 clock hours

## HLH 129 SCHOOL HEALTH CLERK

Intended to prepare the learner to assist the school nurse in managing the Health Office and in performing selected duties as framed by Weld County School District 6 policies. Includes American Red Cross Standard First Aid.
Upon successful completion of this course the learner should be able to demonstrate the knowledge, attitudes, and skills necessary to perform as a school health clerk in District 6 schools. Content includes management and maintenance duties within the Health Office, maintenance of health records, determination of ill or injured persons and appropriate actions to be taken, performance of initial health screening tests, appraisal of immunization needs, legal parameters, reports, records, ethical concepts, infection control.
Prerequisite: H.S. diploma or G.E.D.
Four credits: 40 clock hours

## HLH 131 MEDICAL TERMINOLOGY

Builds skills in verbal and written communication of medical terms. A basic study of medical words. Includes defining, spelling, pronouncing, and analysis of component parts. Practical use of words developed through audiovisual aids and discussion.
Three credits: 30 clock hours

## HLH 135 GERIATRIC AIDE

Intended to prepare the learner for entry-level employment as an aide in providing nursing care to elderly patients/clients/residents such as might commonly be found in skilled or intermediate care facilities within this community.

Upon completion of this course the learner should be able to demonstrate basic competencies in the 1) performance of personal care skills 2)performance of selected basic nursing skills, 3) provision of privacy, safety, and comfort, 4) structuring of care to provide health maintenance while promoting patient/client/resident independence.
Prerequisite: Read at or above 10th grade level. Be in good health and without medical restrictions on lifting activities.
Ten credits: 130 clock hours
HLH 136 MEDICAL OFFICE LABORATORY TECHNIQUES
Upon completion, the successful student will be able to: (1) aseptically perform venipuncture; (2) aseptically perform capillary stick; (3) accurately perform the manual laboratory tests that are taught; (4) correctly use and clean instruments and glassware that are used to perform the tests.

Specimen collection, routine urinalysis, plating of cultures, complete blood count, slide testing for mononucleosis and pregnancy (kit) are included.
Prerequisite: current employment as a medical assistant, office nurse, or with instructor's permission
Four credits: 40 clock hours

## HLH 205 I.V. THERAPY FOR LPNs

Expected to prepare the LPN for involvement in administration of I.V. therapy. Content includes related anatomy and physiology, basics of fluid and electrolyte balance, specialized nursing care, regulations, policies, procedures pertinent to I.V. therapy. Also computation, regulation, and maintenance of an infusion rate, techniques for venipuncture, and collection of venous blood specimens. Successful clinical experience required to complete course. Approved by Colorado State Board of Nursing.
Prerequisite: current Colorado nursing license, personal professional liability insurance
Four credits: 40 clock hours

## HIS: HISTORY

## HIS 101 WESTERN CIVILIZATION I

Explores the major political, economic, social, diplomatic/military, cultural, and intellectual events and the roles of key personalities that shaped Western civilization from the prehistoric era to 1000 A.D. Five credits

## HIS 102 WESTERN CIVILIZATION II

Explores the major political, economic, social, diplomatic/military, cultural, and intellectual events and the roles of key personalities that shaped Western civilization from 1000 A.D. to 1800 A.D.
Five credits

## HIS 103 WESTERN CIVILIZATION III

Explores the major political, economic, social, diplomatic/military, cultural, and intellectual events and the roles of key personalities that shaped Western civilization from 1800 A.D. to the present day. Five credits

## HIS 108 MODERN RUSSIAN CIVILIZATION

A contemporary study of the Soviet Union. Contrasts life of today with the past by focusing on societal and cultural traits.
Five credits

## HIS 115 OCCULT SCIENCES

An historical examination of the beliefs and practices of voodoo, vampirism, witchcratt, hunting magic, snake handling cults,palmistry, tarot cards, I Ching, demonic possession and ESP.
Five credits

## HIS 157 ANCIENT EGYPTIAN HISTORY

Provides an overview of our current knowledge concerning the geneses of the fabulous culture and examines the Age of the Great Pyramids, the predynastic culture, unification of Egypt, development of Egyptian mortuary architecture during the first six dynasties and the decline of Pharaonic power.
Five credits

## HIS 201 U.S. HISTORYI

(Formerly HIS 105) Examines the major political, economic, social, diplomatic/military, cultural, and intellectual events in American History from the first inhabitants through the Civil War/Reconstruction.
Five credits

## HIS 202 U.S. HISTORY II

(Formerly HIS 106) Examines the major political, economic, social, diplomatic/military, cultural, and intellectual events in American History from Reconstruction to 1945.
Five credits

## HIS 203 U.S. HISTORY III

(Formerly HIS 107) Examines the major political, economic, social, diplomatic/military, cultural, and intellectual events in American History since 1945.
Five credits
HIS 209 HISTORY OF COLORADO AND THE ROCKY MOUNTAIN WEST
A topical study of the Rocky Mountain West emphasizing study and development of Spanish and Indian influences and explorers, fur trading, mining, railroad, farming, and ranching frontiers. Field trips included.
Five credits

## HIS 215 HISTORY OF CHRISTIANITY

A survey of the history of Christianity from its beginning to the present, including ecclesiastical and doctrinal developments. Emphasizes the interaction of Christianity with the world and the influence each has had on the other.
Five credits

## HIS 235 MODERN GERMAN HISTORY

A survey of German history from unification under Bismarck to reunification in 1990 and beyond, including political, economic, social, intellectual, and religious developments. Emphasis is given to the Weimar and Nazi periods.
Five credits

## HIS 295 INDEPENDENT STUDY IN HISTORY

Provides an opportunity for the serious-minded student to engage in intensive study and research on a specified topic under the direction of a faculty member.
Two credits: contact instructor

## MAS 161 EARLY HISTORY OF MEXICO

Studies the important aspects of Indian history and culture in Mexico. Emphasizes the Aztec empire and its cultural contributions. Examines the Spanish conquest and its effects on the Mexican Indian. Five credits

## MAS 162 INTRODUCTION TO MODERN MEXICO

Studies the cultural and historical events that have shaped Mexico into what it is today. Topics include Mexican - U.S. relations, the Mexican Revolution, contemporary issues such as immigration, industrialization, and population.
Five credits

## HUM: HUMANITIES

## HUM 105 WORLD MYTHOLOGY

Students are acquainted with myths and legends from many areas of world culture.
Two to Five credits

## HUM 106 INTRODUCTION TO WORLD RELIGIONS

A comparative study of the developing ideas and doctrines of the world's major religions.
Three to Five credits

## HUM 108 EASTERN PHILOSOPHY

A study of the major thought systems of India, China, and Japan. Five credits

## HUM 109 MODERN AMERICAN CULTURE

A study of American thought and the problems of modern culture since the 1920s as reflected in the arts of America.
Five credits

## HUM 121 SURVEY OF HUMANITIES I

(Formerly HUM 101) Introduces students to the history of ideas in Western cultures through a study of the visual arts, literature, drama, music, and philosophy of early civilizations, Greek and Roman antiquity and Christian eras. Emphasizes connections among the arts, values, and diverse cultures. (This course fulfills a Humanities requirement for all A.A. and A.S. degrees.)
Five credits

## HUM 122 SURVEY OF HUMANITIES II

(Formerly HUM 102) 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. (Course fulfils a Humanities requirement.) Five credits

## HUM 123 SURVEY OF HUMANITIES III

(Formerly HUM 103) 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. (Course fulfills a Humanities requirement.)
Five credits

HUM 151 INTRODUCTION TO THE ART OF FILM
This course promotes an appreciation of film as an art form by exploring relationships between a film's visual and narrative components. Students view, discuss, and critically analyze a variety of motion pictures from technical, historical, and aesthetic perspectives. The course incorporates the vocabulary of film's mechanics (e.g. cinematography, editing, sound, art direction) as well as film's literary strategies (plot structure, character motivation, conflict, closure).
Five credits

## MAS 120 CULTURE OF MEXICO AND SOUTH AMERICA

Examines the social and cultural institutions, as well as the history of Mexico and South America from pre-Colombian time to the present. Emphasis will be placed on the Folkloric aspects of Hispanic culture.
Five credits

## LIT: LITERATURE

## LIT 115 INTRODUCTION TO LITERATURE

(Formerly LIT 105) Introduces students to fiction, poetry, and drama. Emphasizes active and responsive reading. (Course fulfills a Humanities requirement.)
Five credits

## LIT 116 THE AMERICAN WEST

(Formerly LIT 205) Introduces students to literature of American West as it reveals both the particularity and universality of the region's experience. Continues the study of literary elements in poetry, drama, and fiction.
Five credits

## LIT 201 MASTERPIECES OF LITERATURE I

Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful reading and understanding of the works and their cultural backgrounds. (Course fulfills a Humanities requirement.)
Five credits

## LIT 202 MASTERPIECES OF LITERATURE II

Examines significant writings in world literature from the seventeenth century to the present. Emphasizes careful reading and understanding of the works and their cultural backgrounds. (Course fulfills a Humanities requirement.)
Five credits

## LIT 206 SHAKESPEARE: REPRESENTATIVE PLAYS

Introductory class in Shakespearean drama covering a cross section of plays drawing from comedies, histories, and/or tragedies. Background coverage of Elizabethan England will be included.
Five credits

## LIT 215 SCIENCE FICTION

Students examine the genre of science fiction as it reflects social, political, psychological, and moral views of a variety of writers through the ages. Five credits

## LIT 216 HORROR FICTION

Introduces students to the genre of horror fiction. Explores the psychological and cultural dimensions of horror reflected in significant works in the field, particularly the short story.
Five credits

## LIT 217 WOMEN IN LITERATURE AND MEDIA

Uses literature and media to study the variety of experiences encountered by modern women. Helps women to understand not only the difficulties, but also the possibilities of attaining fulfillment beyond coping with life.
Five credits

## LIT 286 STUDIES IN LITERATURE

The study of various themes, topics, or genres in literature such as Fiction, Nonfiction, Famous Lovers, etc. Courses may be repeated under various subtitles.
Five credits

## LIT 295 INDEPENDENT STUDY IN LITERATURE

Provides an opportunity for the serious-minded student to engage in intensive study and research on a specified topic under the direction of a faculty member.
Prerequisite: ENG 121 and a course in literature or humanities
One to three credits: contact instructor

## MAT: MATHEMATICS

*Indicates instruction is administered by Developmental Studies Division. *MAT 012 DEVELOPMENTAL MATHEMATICS ॥

Provides students, who lack computational skills, with instruction in whole numbers in the arithmetic operations of addition, subtraction, multiplication, and division. The major objectives are to develop computational and arithmetic operational skills in whole numbers to enable the student to enter MAT 013.
Prerequisite: placement
Two to five credits

## *MAT 013 DEVELOPMENTAL MATHEMATICS III

Provides students, who lack computational skills, with instruction in the operations dealing with fractions. The major objective is to develop computational skills in fractions to enable the student to enter MAT 014
Prerequisite: MAT 012 or placement
Two to five credits

## 'MAT 014 DEVELOPMENTAL MATHEMATICS IV

Provides students, who lack computational skills, with instruction in decimals, ratios, proportions, and percents. The major objective is to develop computational skills in decimals, ratios, proportions, and percents to enable the student to enter MAT 015.
Prerequisite: MAT 013 or placement
Two to five credits

## *MAT 015 DEVELOPMENTAL MATH V

Provides students, who lack computational skills, with instruction in graphs, measurement, and introductory algebra. Prepares the student to pass the mathematics portion of the GED test.
Prerequisite: MAT 014 or placement
Two to five credits

## *MAT 095 INTRODUCTION TO MATHEMATICS

This is a course for students who have a high school diploma or its equivalent but need to review basic computational skills. The topics include order of operations, fractions, decimals, ratios, proportions, percents and an introduction to algebra. The major objective of the course is to provide students with the necessary computational skills to enter business math or beginning algebra.
Prerequisite: placement
Five credits
*MAT 097 INTRODUCTION TO BEGINNING ALGEBRA
This course allows the student to review concepts in preparation for beginning algebra. The topics include fractions, decimals, percents, integers, order of operations, exponential expression, algebraic expressions and formulas, linear equations, polynomials and basic geometric concepts.
Prerequisite: placement
Three credits

## MAT 101 APPLIED MATHEMATICS I

(This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree. Trades \& Industry Division course)
Reviews many of the basic fundamentals of math as used in everyday life, on the job, at home, in business, and for leisure. Includes fractions, decimals, percentages, measurement, ratio and proportion, equation fundamentals, right angle trigonometry, and metric conversions. The mathematical concepts and problems can be applied by the student to his or her special area of interest.
Five credits:

## MAT 110 APPLIED BUSINESS MATHEMATICS

(This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree. Business Division course)
The objectives of this course are to: (1) provide the student with math skills to enter a job in business; (2) to provide the student with a broad introduction into the math and terminology used in different areas of business; and (3) provide the student with the basic math procedures in order to make better use of calculators.
Five credits: 50 clock hours

## MAT 111 BEGINNING ALGEBRA

(This course will not satisfy minimum nor elective requirements for the A.A., A.S. or A.G.S. degree.)
(Formerly MAT 121) The student will be introduced to integer arithmetic, linear equations with applications, and linear inequalities. Also taught will be the arithmetic of polynomials and fractions along with the techniques of factoring. Graphing of linear equations of two variables and linear inequalities of two variables will be covered as well as graphing to solve systems of linear equations and systems of inequalities. Systems of linear equations in two variables will be solved by algebraic techniques. Quadratic equations and radicals will be studied as time permits.
Prerequisite: MAT 095; or MAT 097; or entrance exam is required Five credits

## MAT 112 INTERMEDIATE ALGEBRA

(This course will not satisfy minimum nor elective requirements for the A.A., A.S. or A.G.S. degree.)
(Formerly MAT 122) The system of real numbers is developed through use of axioms and sets. The mechanics of factoring, fractions, exponents, and radicals will be emphasized. Solutions of equalities and inequalities (linear, quadratic, radical, absolute value, and fractional) will be included. If time allows, functions and systems of equations with graphing will be included.
Prerequisite: MAT 111, or equivalent high school course; an entrance exam is required
Five credits

## MAT 113 COLLEGE PLANE GEOMETRY

(This course will not satisfy minimum nor elective requirements for the A.A., A.S. or A.G.S. degree.)
(Formerly MAT 123) For students with little or no background in plane geometry. The student will study some logic and deductive reasoning. Emphasis will be placed on congruent triangles, parallel and perpendicular lines, parallelograms, properties of circles, and similarity of triangles. An introduction to inequalities will be made. If time permits, some constructions and loci will be presented.
Prerequisite: MAT 111 or equivalent
Five credits

## MAT 115 MATHEMATICS FOR DECISION MAKING

(Formerly MAT 130) Topics to include equations, inequalities, exponential and logarithmic functions, matrices, systems of equations, combinatorics, probability and statistics.
Prerequisite: MAT 112 or equivalent
Five credits

## MAT 121 COLLEGE ALGEBRA

(Formerly MAT 131) Includes a brief review of intermediate algebra, equations and inequalities, functions and their graphs, exponential and logarithmic functions, linear and non-linear systems, graphing of the conic sections, introduction to sequences and series, permutations and combinations, the binomial theorem, theory of equations and an introduction to matrices and determinants.
Prerequisite: High school Algebra I and II and a year of high school Geometry or MAT 112 and MAT 113, or any equivalent combination of the above; an entrance exam is required
Six credits

## MAT 122 COLLEGE TRIGONOMETRY

(Formerly MAT 132) The wrapping function is used to develop the trigonometric functions and identities with applications to both right and oblique triangles. Covers trigonometric applications, complex numbers, topics in analytic geometry and an introduction to vectors.
Prerequisite: MAT 121 or permission of instructor; an entrance exam is required
Five credits

## MAT 125 SURVEY OF CALCULUS

(Formerly MAT 160) For business, life science and social science majors. Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential and logarithmic functions.
Prerequisite: MAT 115 or MAT 121 or permission of instructor
Five credits

## MAT 135 INTRODUCTION TO STATISTICS

(Formerly STA 200) Includes data presentation and summarization, introduction to probability concepts and distributions, statistical inference-estimation, hypothesis testing, comparison of populations, correlation and regression.
Prerequisite: Two years high school algebra or Intermediate Algebra (MAT 112)
Five credits

## MAT 185 SPECIAL TOPICS IN MATHEMATICS

Topics will reflect the special expertise of the faculty and/or the special needs of the students.
Prerequisite: Consent of instructor
One to six credits

MAT 201 CALCULUS I
(Formerly MAT 161) Introduces single variable calculus and analytic geometry. Includes limits, continuity, derivatives, and applications of derivatives as well as indefinite and definite integrals.
Prerequisite: MAT 121 and MAT 122 or permission of instructor; an entrance exam may be requested.
Five credits

## MAT 202 CALCULUS II

(Formerly MAT 162) Continuation of single variable calculus which will include applications of integrals, exponential and logarithmic functions, trigonometric and hyperbolic functions, and techniques of integration.
Prerequisite: MAT 201
Five credits
MAT 203 CALCULUS III
(Formerly MAT 163) Continuation of single variable calculus which will include polar coordinates, analytic geometry, improper integrals, infinite series and vectors in two and three dimensions.
Prerequisite: MAT 202
Five credits

## MAT 215 DISCRETE MATHEMATICS

Designed for computer science students. Includes algorithms, counting, graph theory, logic and finite-state machines.
Prerequisite: MAT 125 or MAT 201, and one high-level programming language.
Five credits

## MAT 261 LINEAR ALGEBRA

Includes an introduction to matrices and determinants with solutions to systems of equations by matrix methods. Emphasizes vector spaces and linear transformations. Eigenvalues, eigenvectors, quadratic forms and some numerical methods of linear algebra are included as time permits.
Prerequisite: MAT 203 or permission of instructor
Five credits

## MAT 262 CALCULUS IV

Vector functions, functions of several variables, partial derivatives, double and triple integrals and line integrals are presented. Applications of all of the above topics are included.
Prerequisite: MAT 203; MAT 261 is highly recommended.
Five credits

## MAT 263 ELEMENTARY DIFFERENTIAL EQUATIONS

Those ordinary differential equations which fall into the categories of variable separable, homogeneous coefficients, exact equations and those to be made exact with simple integration factors are treated along with some applications. The solutions of linear equations by the methods of undetermined coefficients, variation of parameters, differential and inverse differential operators, and Laplace transforms are studied. Systems of equations and nonlinear equations are included if time permits.
Prerequisite: MAT 262
Five credits

## MAT 295 INDEPENDENT STUDY IN MATHEMATICS

Provides an opportunity for the highly-motivated student to engage in intensive study and research on a specified topic under the direction of a faculty member. The student will be limited as to the number of independent study credits taken per quarter.
Prerequisite: previous academic study or experience in mathematics One to Three credits: contact division chairman

## MAS: MEXICAN AMERICAN STUDIES

MAS 106 PSYCHOLOGY OF THE MEXICAN AMERICAN
Identifies and examines the various psychological traits which make up the unique, and seldom understood, world view of the Mexican American. Includes the psychology of the Mexican American male and female, and related social problems.
Five credits

## MAS 120 CULTURE OF MEXICO AND SOUTH AMERICA

Examines the social and cultural institutions, as well as the history of Mexico and South America from pre-Columbian times to the present. Emphasis will be placed on the Folkloric aspects of Hispanic culture.
Five credits
MAS 161 EARLY HISTORY OF MEXICO
Studies the important aspects of Indian history and culture in Mexico. Emphasizes the Aztec empire and its cultural contributions. Examines the Spanish conquest and its effects on the Mexican Indian.
Five credits

## MAS 162 INTRODUCTION TO MODERN MEXICO

Studies the cultural and historical events that have shaped Mexico into what it is today. Topics include Mexican-U.S. relations, the Mexican Revolution, contemporary issues such as immigration, industrialization, and population.
Five credits

## MCM: SPECIALIZED MANUAL COMMUNICATION

## MCM 221 INTRODUCTION TO AMERICAN SIGN LANGUAGE

This course acquaints students with American Sign Language as a language in its own right.
Three credits

## MCM 222 AMERICAN SIGN LANGUAGE I

This course further develops the student's skills in the use of American Sign Language and signed English.
Prerequisite: MCM 221 or instructors' permission
Three credits

## MCM 223 AMERICAN SIGN LANGUAGE II

This course continues development of the student's skills in the vocabulary and structure of American Sign Language.
Prerequisite: MCM २२२ or instructor's permission
Three credits

## MCM 224 AMERICAN SIGN LANGUAGE III

Continued development of student's skills in the use of American Sign Language and signed English.
Prerequisite: MCM २२३ or instructor's permission
Three credits

## MGT: MARKETING/ MANAGEMENT

MGT 101 SALES
The student will learn to develop and deliver effective sales techniques. Topics include product knowledge, consumer buying behavior, and the progression from prospecting to closing the sale. Five credits: 50 clock hours

MGT 102 ADVANCED SALES
Develop skills of the professional salesperson through role playing situations and studies of advanced closing techniques.
Prerequisite: MGT
Five credits: 50 clock hours

## MGT 105 PRINCIPLES OF ADVERTISING

An introduction to functions of advertising as a merchandising tool. Includes study of copy, media, art work, and production.
Five credits: 50 clock hours

## MGT 106 CONTEMPORARY RETAILING

This course is an introductory course which will examine strategies for retail store management. The content will include retail organization, management, merchandising, promotion, control, and customer service.
Five credits: 50 clock hours
MGT 109 INTRODUCTION TO THE HOSPITALITY INDUSTRY
An exploratory course designed to acquaint the student with the restaurant/bar, hotel/motel and resort business, and the employment opportunities available in the growing area of hospitality management.
Three credits: 30 clock hours

## MGT 115 INTRODUCTION TO FOOD SERVICE MANAGEMENT

To familiarize the student with the principles of food service management, including organization and functions; design, layout and equipment; cost controls; laws and regulations; and marketing.
Five credits: 50 clock hours
MGT 116 INTRODUCTION TO FOOD SERVICE MANAGEMENT II
Students learn specific management practices being utilized in the food service industry. Emphasis is on management control functions such as purchasing, inventory, and budgeting. Students learn marketing and financing techniques.
Three credits: 30 clock hours

## MGT 120 INTRODUCTION TO FASHION MERCHANDISING

The fundamentals of fashion and the basic principles that control fashion movement are studied. The student will also learn how fashion originated and how it is produced and merchandised. Also covered are the interrelationships of the various levels of the fashion industry and careers in the fashion industry.
Five credits: 50 clock hours

## MGT 126 FASHION BUYING

This course examines the buyer's role in retail merchandising, including the concepts and principles of fashion merchandising, operations, the buyer's responsibility, and buying practices and techniques.
Four credits: 40 clock hours

## MGT 127 FASHION EVOLUTION

This course is a study of male and female costumes from Egyptians to present day. This includes understanding the contribution of an important era and its influence upon today's fashion.
Three credits: 30 clock hours

## MGT 171 MANAGEMENT ACTIVITYI

This course is designed to encourage growth and development through activities in a student or business organization with professional goals. Delta Epsilon Chi is the student organization for Marketing/Management majors.
Two credits: 20 clock hours

## MGT 185 INDIVIDUAL STUDIES IN MARKETING <br> MGT 186 INDIVIDUAL STUDIES IN MARKETING <br> MGT 187 INDIVIDUAL STUDIES IN MARKETING

These courses provide an opportunity for students to engage in intensive study and research beyond the stated prerequisites.
Prerequisite: MGT 211 and Marketing/Management major or advisor approval
One to Three credits each: contact instructor

## MGT 205 MARKETING/MANAGEMENT SEMINAR

Students will explore contemporary marketing or management problems as they relate to their goals and aspirations.
.5 credit hours: 5 clock hours

## MGT 206 SALES MANAGEMENT

A study of the organizational framework for sales strategy formulation, the administration of sales manpower, and evaluation and control of the sales program.
Prerequisite: MGT 101, MGT 211, MAT 110, or permission of instructor Five credits: 50 clock hours

## MGT 207 HUMAN RESOURCES MANAGEMENT

This course will present the methods, functions, and techniques of personnel administration. Emphasis is placed on legal and social contexts of personnel issues, job analysis and design, training and evolution, compensation, and benefit administration, labor/ management issues, and safety, health, and employee assistance programs.
Five credits: 50 clock hours

## MGT 208 SMALL BUSINESS MANAGEMENT

A study of the environment, management policies, marketing and control problems in small business. Emphasizes solving problems, recognizing and evaluating business opportunities. Includes practice in making decisions under conditions of uncertainty and incomplete knowledge.
Prerequisite: MarketingManagement core requirements or advisor approval
Five credits: 50 clock hours

## MGT 209 ENTREPRENEURSHIP

This course will cover strategies in starting your own business. The course will require the student to develop a business plan. Concepts the student will develop are getting into small business, start-up capital, management, marketing, inventory control, and current issues. This course is recommended for persons considering starting their own businesses.
Prerequisite: MGT 208 recommended
Three credits: 30 clock hours

## MGT 211 PRINCIPLES OF MARKETING

A study of fundamental organization of distribution systems from manufacturer to consumer. Special emphasis at retail level.
Five credits: 50 clock hours

## MGT 212 MANAGEMENT DECISION MAKING

The study of making management decisions with the aid of computer simulations. Illustrates how various combinations of the "marketing mix" change the business outcome.
Prerequisite: MGT 208
Five credits: 50 clock hours

## MGT 215 PRINCIPLES OF MANAGEMENT

A study of the management process, the decision making process, and the science and art of management. The functions of management (planning, coordinating, organizing, testing, and controlling) are studied in formulating and carrying out the objectives, policies, methods, and procedures in managing a successful business enterprise.
Five credits: 50 clock hours

## MGT 225 RETAIL MERCHANDISING

This course examines in detail each of the merchandising activities a buyer of fashion goods might be expected to perform at the retail level.
Prerequisite: MAT 110 and MGT 126 or permission of instructor
Five credits: 50 clock hours

## MGT 226 TEXTILES

This course is directed toward the student who may one day make his/her career in an area where a knowledge of textiles would be important. The concepts, principles, and facts about fibers, yarns, fabrics, finishes and fabric construction are presented.
Five credits: 50 clock hours

## MGT 235 ORGANIZATIONAL BEHAVIOR

Provides an understanding of human behavior, management theory, and leadership as they relate to the student's success in the work environment.
Prerequisite: MGT 237
Five credits: 50 clock hours

## MGT 236 LABOR LAW RELATIONS

Gives students an understanding of the various laws that govern employer/employee relationships, unfair labor practices, strikes, boycotts, bargaining units, antitrust, anti-injunction, etc.
Five credits: 50 clock hours

## MGT 237 SUPERVISORY MANAGEMENT I

Assists the potential or newly appointed supervisor in becoming acquainted with the many problems which will confront him or her and offers practical advice for their solution. The experienced supervisor should benefit by a reexamination of his or her position and how it relates to other levels in the organization.
Five credits: 50 clock hours

## MGT 238 MARKETING RESEARCH

This course will introduce the principles and practices of marketing research, including research instruments and data collection and interpretation.
Prerequisite: MGT 211
Four credits: 40 clock hours

## MGT 245 ANALYSIS OF FASHION CONCEPTS

This course will introduce the student to the principles of fashion design and the implications for marketing. The history and development of fashion through evolution will also be studied.
Three credits: 30 clock hours

## MGT 246 BUSINESS ETHICS

Students will examine current problems, practices, and trends of business ethics, including truth in advertising and professional codes of conduct.
Three credits: 30 clock hours

## MGT 247 SUPERVISORY MANAGEMENT II

This course is a continuation of Supervisory Management I. It assists the potential or newly appointed supervisor in becoming acquainted with the many problems which will confront him/her and offers practical advice for their solution. The experienced supervisor should benefit by a reexamination of his/her position and how it relates to other levels in the organization.
Prerequisite: MGT 237
Five credits: 50 clock hours

## MGT 255 REAL ESTATE LICENSE PREPARATION

The student will review information which will be covered by the Colorado Real Estate license examination. This is a review course for students who have completed MGT 257 and MGT 258 but have not completed the state exam.
Prerequisite: MGT 257 and MGT 258
Three credits: 30 clock hours

## MGT 256 REAL ESTATE CLOSING AND TRUST ACCOUNTS

The student will analyze the legal requirements; record keeping responsibilities; establishment and maintenance of trust accounts; and the brokers responsibilities related to closing.
Three credits: 30 clock hours

## MGT 257 REAL ESTATE PRACTICE AND LAW

The student should be able to identify the language of real estate, identify the essential elements of real estate law and principles, and be able to practice real estate under the supervision and training of a manager broker. This course is required for the Colorado Real Estate license exam.
Six credits: 60 clock hours

## MGT 258 COLORADO REAL ESTATE LAW \& COLORADO REAL ESTATE CONTRACTS

Students will categorize and develop a comprehension of Colorado Real Estate laws and Colorado Real Estate contracts. This course is required for the Colorado Real Estate license exam.
Three credit: 30 clock hours

## MGT 259 REAL ESTATE SALES TRAINING

Students will identify and consider skills needed to list and sell real estate and arrange financing for the buyer.
Prerequisite: MGT 257 and MGT 258
Three credits: 30 clock hours

## MGT 265 REAL ESTATE FINANCE

The student will formulate how to counsel buyers and sellers in financing techniques, including sellers financing, the importance of calculations, and disclosures required for the various methods of financing, and do an analysis of necessary documents for financing. Prerequisite: MGT 257
Two credit: 20 clock hours

MGT 266 REAL ESTATE APPRAISAL
This course will prepare the student to develop the competencies needed to obtain a Real Estate Appraisal license
Five credits: 50 clock hours

## MGT 267 ADVANCED REAL ESTATE LAW

Students shall examine the sources of law and the legal system, the law of agency, licensing concerns, limitations of ownerships, evidence of title, notes and security instruments, and current legal concerns.
Prerequisite: MGT 257
One credit: 10 clock hours

## MGT 275 MARKETING/MANAGEMENT SEMINAR <br> MGT 276 MARKETING/MANAGEMENT SEMINAR <br> MGT 277 MARKETING/MANAGEMENT SEMINAR

Contemporary problems are explored as they relate to students' goals and aspirations.
Prerequisite: MarketingManagement major or advisor approval
One to Three credits each: 10 to 30 clock hours

## MGT 285 INDIVIDUAL STUDIES IN MANAGEMENT <br> MGT 286 INDIVIDUAL STUDIES IN MANAGEMENT <br> MGT 287 INDIVIDUAL STUDIES IN MANAGEMENT

These courses provide an opportunity for students to engage in extensive study and research beyond the stated prerequisites.
Prerequisite: MGT 215 and MarketingManagement major or advisor approval
One to Three credits each: contact instructor

## MGT 291 PERSONAL ADJUSTMENT TO BUSINESS <br> MGT 292 PERSONAL ADJUSTMENT TO BUSINESS <br> MGT 293 PERSONAL ADJUSTMENT TO BUSINESS

Bridges the gap between classroom instruction and work experience for the management-oriented student. Attention is given to specific on-the-job problems encountered by the student. Student will formulate work objectives and attend a weekly one-hour seminar. Employer involved in student evaluation. Other courses may be substituted with the consent of the advisor.
Prerequisite: Declared Marketing/Management major, consent of a Marketing/Management advisor, enrolled in one or more of the Marketing/Management program courses each quarter, employed in an area which is complimentary to degree option.
Six credits: 160 clock hours each

## MUS: MUSIC

MUS 105 FUNDAMENTALS OF MUSIC
Introduction to basic terminology, scales, key signatures, intervals, and ear-training. For students with little or no previous background in music theory.
Five credits

## MUS 106 MUSIC THEORYI

This course is designed to provide the mechanics of musical practice (e.g. keys, scales, chords, part-writing, sight-singing, and ear-training). It is intended for potential music majors or minors, and others with serious interest in developing their knowledge.
Four credits

## MUS 107 MUSIC THEORY II

Designed to provide further advancement in the mechanics of musical practice as begun in Music Theory I. Study theoretical concepts of music with emphasis on primary and secondary chord structure, analysis of stylistic periods, experience in melody and accompaniment writing, and four-part choral writing with performance of compositions.
Four credits

## MUS 111 MUSIC EXPRESSIONSI <br> MUS 112 MUSIC EXPRESSIONS II MUS 113 MUSIC EXPRESSIONS III

Provides a variety of musical experiences to stimulate senses, encourages participation and self-expression; provides information on composers, musical styles and history of music and songs.
One credit

## MUS 115 FUNDAMENTALS OF MUSIC II

Continuation of the materials in MUS 105 but in greater depth and detail. Includes study at the dominant seventh chord and nonharmonic tones.
Five credits

## MUS 120 MUSIC APPRECIATION

(Formerly MUS 100) Covers the basic materials of music, musical forms, media, genres, and musical periods. Emphasizes the development of tools for intelligent listening and appreciation. The course fulfills a humanities requirement.
Five credits

## MUS 121 INTRODUCTION TO MUSIC HISTORY I

Introduction to Music History I studies the various periods of music history with regard to the composers, aesthetics, forms, and genres of each period. Considers music from the Middle Ages through the Classical Period. This course fulfills a humanities requirement.
Five credits

## MUS 122 INTRODUCTION TO MUSIC HISTORY II

Continues Introduction to Music History I with a review of the elements of music and a study of music from Early Romantic Period to the present. This course fulfills a humanities requirement.
Five credits

## MUS 220 TEACHING MUSIC TO CHILDREN

Surveys musical materials appropriate for preschool and elementary school age children. Includes studying and working with listening, rhythm, and creative activities; experiences in singing and playing instruments are involved. Students will develop a repertoire of songs and guided listening for children.
Three credits

## MUS 299 MUSIC PRACTICUM

This learning structure facilitates the development of creative talents (an interrelation of motor, affective, and cognitive skills). The particular format and content of each practicum is determined by the musical form the student is working in and the student's level of proficiency. May be repeated at different levels of proficiency. One to Three credits: contact program coordinator

## MUP: MUSIC PERFORMANCE

MUP 101 KEYBOARD EXPRESSIONSI
MUP 102 KEYBOARD EXPRESSIONS II
MUP 103 KEYBOARD EXPRESSIONS III
Individual lessons at all level, beginning to advanced, for those seeking more skills and expressions at the piano. not for music emphasis students. Increase pianistic skills and enjoy playing different musical styles in an atmosphere that promotes growth and acceptance. Required one-half hour lesson and one hour lecture per week.
Two credits each

## MUP 104 VOICE EXPRESSIONS I <br> MUP 105 VOICE EXPRESSIONS II <br> MUP 106 VOICE EXPRESSIONS III

Individual instruction in fundamental principles of voice production.
Development of new skills and a review of basic vocal expressions for personal growth and enjoyment. Not for music emphasis students. Required one-half hour lesson and one hour lecture per week. Two credits each

## MUP 107 GUITAR EXPRESSIONS I <br> MUP 108 GUITAR EXPRESSIONS II <br> MUP 109 GUITAR EXPRESSIONS III

Individual lessons on fundamental principles of the guitar, such as proper technique, reading, and development of rhythmic and melodic accuracy. Not for music emphasis students. Learn various styles of music like jazz, folk, country, classical, blue, and rock.
Required one-half hour lesson and one hour lecture per week.
Two credits each

| MUP | 131 | PIANO I |
| :--- | :--- | :--- |
| MUP | 132 | PIANO II |
| MUP | 133 | PIANO III |
| MUP | 134 | PIANO IV |
| MUP | 135 | PIANO V |
| MUP | 136 | PIANO VI |

These courses are for the student beginning to study piano. Reading skills and techniques necessary to play simple songs and accompaniments are included. Selected piano works are surveyed.
Two credits each: eight practice hours each

| MUP | 141 | APPLIED PIANO I |
| :--- | :--- | :--- |
| MUP | 142 | APPLIED PIANO II |
| MUP | 143 | APPLIED PIANO III |
| MUP | 144 | APPLIED PIANO IV |
| MUP | 145 | APPLIED PIANO V |
| MUP | 146 | APPLIED PIANO VI |

Individual private instruction in piano performance designed for the serious piano student.
Prerequisite: Instructor permission and audition required. Unlimited repeatability.
Required one-half hour lesson and one hour lecture per week.
Two credits each: 35 clock hours

| MUP | 151 | VOICE I |
| :--- | :--- | :--- |
| MUP | 152 | VOICE II |
| MUP | 153 | VOICE III |
| MUP | 154 | VOICE IV |
| MUP | 155 | VOICE V |
| MUP | 156 | VOICE VI |
| Vocal techniques for beginners or more advanced students; survey |  |  |
| of selected vocal works included. |  |  |
| Two credits each: eight practice hours each |  |  |


| MUP | 161 | APPLIED VOICE I |
| :--- | :--- | :--- |
| MUP | 162 | APPLIED VOICE II |
| MUP | 163 | APPLIED VOICE III |
| MUP | 164 | APPLIED VOICE IV |
| MUP | 165 | APPLIED VOICE V |
| MUP | 166 | APPLIED VOICE VI |

Individual private instruction in voice performance. This course is designed for the serious voice student.
Required one-half hour lesson and one hour lecture per week.
Two credits each: 35 clock hours - instructor permission and audition required.
Unlimited repeatability.

| MUP | 171 | GUITAR I |
| :--- | :--- | :--- |
| MUP | 172 | GUITAR II |
| MUP | 173 | GUITAR III |

These courses develop a basic technical and musical foundation for playing guitar. Sight reading, technical exercises, and selected guitar literature are studied.
Two credits each: eight practice hours each

| MUP | 181 | APPLIED GUITAR I |
| :--- | :--- | :--- |
| MUP | 182 | APPLIED GUITAR II |
| MUP | 183 | APPLIED GUITAR III |
| MUP | 184 | APPLIED GUITAR IV |
| MUP | 185 | APPLIED GUITAR V |
| MUP | 186 | APPLIED GUITAR VI |

Individual private instruction in guitar for the serious guitar student. Required one-half hour lesson and one hour lecture per week.
Two credits each: 35 clock hours - instructor permission and audition required.
Unlimited repeatability.

## PHI: PHILOSOPHY

PHI 111 INTRODUCTION TO PHILOSOPHY
(Formerly PHI 105) Introduces significant human questions and emphasizes understanding the meaning and methods of philosophy. Includes the human condition, knowledge, freedom, history, ethics, the future, and religion. (Course fulfills a Humanities requirement.) Five credits

## PHI 112 ETHICS

(Formerly PHI 108) Examines human life, experience, and thought in order to discover and develop the principles and values of pursuing a more fulfilled existence. Theories designed to justify ethical judgements are applied to a selection of contemporary and social issues. (Course fulfills a Humanities requirement.)
Five credits

## PHI 113 LOGIC

(Formerly PHI 107) Studies effective thinking using languageoriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problem-solving skills. (Course fulfills a Humanities requirement.) Five credits

## PHI 205 TOPICS IN PHILOSOPHY

Encourages students who have special interests in philosophy to pursue them in depth. Readings will be selected by instructors as appropriate to the topic. Course may be taken more than once for elective credit provided topics are not repeated.
Five credits

## PEA: PHYSICAL EDUCATION ACTIVITIES

PEA 101 ARCHERYI
Teaches the techniques and fundamentals of archery. One credit: 20 clock hours

## PEA 102 ARCHERY II

Improves knowledge of the basic skills learned in PEA 101. More time will be spent on correction of errors and accuracy in shooting.
One credit: 20 clock hours

## PEA 103 ARCHERY III

For those who want to continue improving the skills and techniques of archery.
One credit: 20 clock hours
PEA 131 BOWLINGI
Rules, skills, strategy, and courtesies of individual and team bowling are covered.
One credit: 20 clock hours

## PEA 132 BOWLING II

Improves the basic skills of bowling and introduces techniques of tournament bowling.
One credit: 20 clock hours

## PEA 133 BOWLING III

For bowlers who wish to improve skills while working on rules, strategy, and techniques of team bowling.
One credit: 20 clock hours

## PEA 151 AQUASIZE

This unique form of exercise tones and trims with minimal effort and also has therapeutic value. Class is performed in swimming pool. Basic water safety tips are taught.
One credit: 20 clock hours

## PEA 161 SWIMMINGI

Instructs non-swimmers, using the American Red Cross swimming program. Teaches basic strokes of swimming.
One credit: 20 clock hours

## PEA 162 SWIMMING II

Incorporates the basic sequence of skills taught in the American Red Cross intermediate and advanced swimmer classifications. One credit: 20 clock hours

PEA 163 SWIMMING III
For the advanced swimmer to maintain and increase his/her endurance level.
One credit: 20 clock hours

## PEB: PHYSICAL EDUCATION BALL SPORTS

## PEB 100 RECREATIONAL BASKETBALL

An activity class designed to allow participation and additional training in the skills, fundamentals and the team play of basketball. One credit: 20 clock hours

## PEB 101 BASKETBALLI

An activity class which allows the student maximum participation on an intra-class team organizational basis.
One credit: 20 clock hours

## PEB 102 BASKETBALL II

Gives students additional training in basketball skills,fundamentals, and team play.
One credit: 20 clock hours

## PEB 104 FLAG FOOTBALLI

Allows students to participate on a team level. Participants are divided into teams and records are maintained throughout the season.
One credit: 20 clock hours

## PEB 105 FLAG FOOTBALL II

Allows students to participate on a team level and provides additional opportunities in leadership experience.
One credit: 20 clock hours
PEB 107 GOLFI
Develops knowledge of the rules, courtesies, and skills of golf and instills an appreciation of the game.
One credit: 20 clock hours

## PEB 108 GOLF II

Improves the techniques of grip, stance, swing, and follow-through. Individual play and putting will be stressed.
One credit: 20 clock hours

## PEB 109 GOLF III

Develops advanced techniques of golf.
One credit: 20 clock hours

## PEB 115 WALLYBALLI

Combination of Volleyball and Racquetball skills to play an off-thewall volleyball game.
One credit: 20 clock hours

## PEB 116 WALLYBALL II

Players will experience a higher level of skill and strategies.
One credit: 20 clock hours

## PEB 117 WALLYBALL III

The purpose of this class is to further the skills and strategies of Wallyball II.
One credit: 20 clock hours

## PEB 141 RACQUETBALLI

Teaches the basic movements, skills and rules of racquetball.
One credit: 20 clock hours

## PEB 142 RACQUETBALL II

Improves player skills and strategies of PEB 141. More individual play will be stressed.
One credit: 20 clock hours

## PEB 143 RACQUETBALL III

For students who want to improve skills and knowledge of racquetball.
One credit: 20 clock hours

## PEB 144 ADVANCED RACQUETBALL

An advanced course that will emphasize more strategy and a variety of difficult shots.
One credit: 20 clock hours

## PEB 151 SOFTBALLI

Teaches various skills, techniques, rules, and regulations of sottball.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEB 152 SOFTBALL II

Improves knowledge of the fundamentals, skills, rules, and regulations of softball.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEB 161 TENNISI

Introduces theory and practice of tennis. Skills taught include serve, forehand and backhand drives, volleying, footwork, scoring, rules.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEB 162 TENNIS II

Improves the player's skills and strategies. More individual play will be stressed.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

PEB 163 TENNIS III
For improvement and advancement of skills in tennis.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEB 170 VOLLEYBALL SKILLS

To develop the basic skills and strategies of Volleyball.
One credit: 20 clock hours

## PEB 171 VOLLEYBALLI

Teaches basic skills of volleyball. Team play is stressed and some intra-squad compettion is provided.
One credit: 20 clock hours
One and one-half credits: 30 clock hours
PEB 172 VOLLEYBALL II
Teaches the finer skills and strategies of PEB 171. More time will be devoted to team play and intra-squad competition.
One credit: 20 clock hours
One and one-half credits: 30 clock hours
PEB 173 VOLLEYBALL III
Improvement of skills, strategies, and knowledge of volleyball stressed.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEB 181 COMPETITIVE VOLLEYBALLI

Provides the students with the opportunity to develop skills and strategies for competitive volleyball.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

PEB 182 COMPETTIVE VOLLEYBALL II
Provides the students the opportunity to continue improvement of skills and strategies of competitive volleyball.
One credit: 20 clock hours
One and one-half credits: 30 clock hours
PEB 183 COMPETITIVE VOLLEYBALL III
The course gives the student the opportunity to maintain the high level of skills used in competitive volleyball.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED: PHYSICAL EDUCATION DANCE

## PED 101 CLASSICAL BALLET I

Develops poise, grace, agility, and rhythm by learning the classical Cecchette form of ballet.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 102 CLASSICAL BALLET II

Increases the poise, grace, agility, and rhythm achieved in PED 101. Develops an appreciation of ballet as an art form.

One credit: 20 clock hours
One and one-half credits: 30 clock hours
PED 103 CLASSICAL BALLET III
Improves the student's poise, grace, agility, and rhythm, and increases the student's personal enjoyment of ballet.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 111 AEROBICS I

Helps students gain cardiovascular efficiency through a variety of dance routines.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 112 AEROBICS II

Involves the student in more strenuous and difficult dance routines. Develops better cardiovascular efficiency and proficiency.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 113 AEROBICS III

Continues to aid the student in maintaining greater cardiovascular efficiency. Routines will be more difficult.
One credit: 20 clock hours
One and one-half credits: 30 clock hours
PED 107 ADVANCED AEROBICS
Provides the student with advanced conditioning through accelerated aerobic training.
One credit: 20 clock hours

## PED 117 BENCH AEROBICS I

Step training class using individual benches to step on and off of while simultaneously performing upper body movements. This low impact/high intensity cardiovascular workout is an excellent fat burning class which also works the legs and gluts.

PED 118 BENCH AEROBICS ॥
This step class is for the intermediate participant. The intensity and duration is increased for a higher level workout.

## PED 119 BENCH AEROBICS III

An advanced student will enjoy a higher level of intensity and a thorough workout. Choreography and upper body movements will be more advanced.

## PED 121 JAZZ DANCEI

Introduces students to this indigenous dance form of the United States. Teaches basic jazz techniques, terminology, jazz movement, and routines.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 122 JAZZ DANCE II

Continued instruction in jazz dance. Provides a rewarding, satisfying jazz dance experience.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 123 JAZZ DANCE III

Advanced instruction in jazz dance: develops a greater knowledge and proficiency in jazz as a form of dance.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 126 LOW IMPACT AEROBICS I

This class is designed to help the student obtain a better understanding of Health \& Fitness through cardiovascular exercise without the normal impact of aerobic activity.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 127 LOW IMPACT AEROBICS II

Continued instruction in Health and Fitness through cardiovascular exercise without the normal impact of aerobic activity.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 128 LOW IMPACT AEROBICS III

Advanced instruction in cardiovascular exercise.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 131 MID-EASTERN DANCE

Provides the students with an understanding of Mid east Dance, its purpose, history and form, traditional and American interpretation. It allows the students to get in touch with themselves through exercise, dance and breathing.
One credit: 20 clock hours

## PED 165 BALLROOM DANCING I

Students will learn a variety of social dances and various steps and the rhythmical aspects of ballroom dance.
One credit: 20 clock hours

## PED 166 BALLROOM DANCING II

For students who desire to further their skills in ballroom dancing. One credit: 20 clock hours

PED 171 COUNTRY SWING I
Introduces the many styles and various combinations of steps suitable for Western dance music. Includes instruction in converting combinations of other traditional and fad dance steps to country swing as they become popular.
One credit: 20 clock hours

## PED 172 COUNTRY SWING II

Advanced steps and dancing skills are taught, enabling students to enjoy the art of dancing for leisure time activity.
One credit: 20 clock hours

## PED 173 COUNTRY SWING III

For those who want to improve their skills and abilities in country swing dancing.
One credit: 20 clock hours

## PEF: PHYSICAL EDUCATION FITNESS

PEF 107 SELF-DEFENSEI
Teaches various skills and techniques of self defense. One credit: 20 clock hours

## PEF 108 SELF-DEFENSE II

To further the skills and techniques of more advanced self-defense. One credit: 20 clock hours

## PEF 111 PHYSICAL FTTNESS I

A variety of exercises are taught to improve students' physical fitness. Students also will have the opportunity to jog a few miles each week.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 112 PHYSICAL FITNESS II

A continuation of PEF 111. Uses a variety of exercises to develop endurance and a higher level of physical fitness.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 113 PHYSICAL FITNESS III

An activity course which continues to improve the endurance and overall condition of the individual.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 117 ELASTIC BAND WORKOUT

The purpose and objectives of this course is to enable the student to tone, strengthen and reapportion all body parts with the use of rubber band resistance.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 118 FAT BURNERS

This course is designed for overweight individuals who wish to tone and burn fat from the body frame. Students will learn to isolate and tone various muscle groups through continuous activity. One credit: 20 clock hours

PEF 119 FAT BURNERS II
This class is a continuation of the Fat Burner course focused on fat burning exercise and low impact aerobics activity. Designed for overweight individuals.
One credit: 20 clock hours

## PEF 120 FAT BURNERS III

A continuation of Fat Burners II concentrating on burning fat through low to moderate exercise. Designed for overweight individuals.
One credit: 20 clock hours

## PEF 121 SLIMNASTICS I

Designed to develop a better figure, firm up the body, increase circulation, and improve coordination.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 122 SLIMNASTICS II

Designed to improve the individual's figure, posture, and coordination.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 123 SLIMNASTICS III

For those students who want to continue in an advanced slimnastics course. Emphasizes the development of the total body.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 126 AEROSPACE FITNESS \& PERFORMANCE I

This class will provide an individualized program of exercise, nutrition, and health enrichment for increased performance and prolonged career in aviation. Physiological evaluation in FITPAC lab available at cost of $\$ 15.00$.
Two credits: 30 clock hours
PEF 136 NU SHAPEI
This class provides low impact aerobics and muscle strengthening exercises for persons not able to participate in a higher level class due to health or overweight problems.
One credit: 20 clock hours

## PEF 137 NU SHAPE II

A continuation of Nu-Shape I. Provides low impact aerobics and muscle strengthening exercises.
One credit: 20 clock hours

## PEF 138 NU SHAPE III

A continuation of Nu-Shape II provides low impact aerobics and muscle strengthening exercises.
One credit: 20 clock hours
PEF 141 YOGAI
Helps students attain physical health, clarity of mind, and spiritual awareness through various exercises. Studies a person's entire being, consisting of body, mind, and spirit.
One credit: 20 clock hours
One and one-half credit: 30 clock hours

## PEF 142 YOGA II

Improves the student's appreciation of physical health and clarity of mind through various exercises.
One credit: 20 clock hours
One and one-half credit: 30 clock hours

## PEF 144 NON-IMPACT AEROBICS

A gentle to moderate exercise class, designed to burn fat slowly, build strength, endurance, flexibility, balance and coordination. One credit: 20 clock hours

## PEF 151 EXERCISE \& HEALTH I

This class provides the student with an individualized exercise program of health and fitness.Periodic lecture sessions will be held which involve health topics. Exercise programs include choices of aerobics, walking, jogging, exercise bicycles, treadmill, rope jumping and strength building equipment.An optional fitness test analysis is offered for a $\$ 15.00$ fee. The test includes a sub-maximal exercise test performed by the student on the treadmill or stationary bicycle. The instructor monitors the heart rate and blood pressure and at the termination of the test, provides the student with a computerized read-out. The read-out gives specifics as to the individual's current health status, and focuses on required weight of individual, body fat percentages, caloric intake, and an exercise prescription.
Two credits: 30 clock hours

## PEF 152 EXERCISE \& HEALTH II

Continuation of PEF 151 with further emphasis in health and fitness.
Two credits: 30 clock hours

## PEF 153 EXERCISE \& HEALTH III

Further instruction in health and fitness based on PEF 151 and PEF 152.
Two credits: 30 clock hours

## PEF 161 BODYBUILDINGI

To attain maximum potential in muscular and overall body definition and size through progressive resistant training and diet. One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 162 BODYBUILDING II

To allow the student to continue improvement in bodybuilding techniques and improve physical condition.
One credit: 20 clock hours
One and one-half credit: 30 clock hours

## PEF 163 BODYBUILDING III

To improve liftting and bodybuilding techniques to maintain and improve physical conditioning.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 175 MARTIAL ARTS I

To promote physical fitness through various methods of martial arts conditioning and to provide students with a basic understanding of weaponless self-defense methods.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 176 MARTIAL ARTS II

Students will learn the advanced form of kicking, punching and blocking, and self-defense techniques of martial arts.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 177 MARTIAL ARTS III

A continuation of Martial Arts II. Students will develop a deeper understanding of the principles of martial arts through the study of advanced techniques.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 181 ADULT FTNESS I

The student will be instructed in activities which are in fulfillment with hisher individual exercise prescription. A variety of activities will be introduced as an appropriate means of attaining physical fitness. Periodic evaluations will be necessary for prescription purposes.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 182 ADULT FITNESS II

Continuation of Adult Fitness I. The student will continue activities which are in accordance with hisher individual exercise prescription.
Periodic reevaluations will be necessary for prescription purposes.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 183 ADULT FITNESS III

Continuation of Adult Fitness I \& II, reevaluations of individual exercise prescriptions.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 185 WOGGING/RACE WALKING

This class will introduce the student to Walking/Jogging/Race walking as a lifetime sport, and to provide knowledge of fitness components.
One credit: 20 clock hours
One and one-half credit: 30 clock hours

## PHY: PHYSICS

PHY 101 APPLIED PHYSICSI
(This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree, Trades and Industry course)
Introduces the student to the principles of technology as it applies to the scientific concepts and laws of mechanics. Practical applications of these concepts and laws are stressed. Involves lecture and discussion on theory. No lab time is required.
Five credits

## PHY 105 CONCEPTUAL PHYSICS

(Formerly PHY 120) Studies mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. This course includes laboratory experience.
Prerequisite: MAT 111 or equivalent
Five credits: four hours lecture, two hours lab per week

## PHY 106 LABORATORY TECHNIQUES IN PHYSICS

An experiential study of selected laws of physics using standard laboratory equipment. Emphasis will be placed on solving problems using the scientific approach.
One - Three credits

## PHYSICS: ALGEBRA BASED I, II, III

An introductory sequence of courses for students in preprofessional disciplines. It is recommended that this sequence be transferred to other academic institutions as an aggregate.

PHY 111 PHYSICS: ALGEBRA-BASED I
(Formerly PHY 151) Studies mechanics including the concepts of statics, kinematics, momentum, work and energy. This course includes laboratory experience.
Corequisite: College Trigonometry (MAT 122) or permission of instructor Five credits: four hours lecture, two hours lab per week

PHY 112 PHYSICS: ALGEBRA-BASED II
(Formerly PHY 152) A continuation of PHY 111. Studies the concepts of heat, light, waves, optics and energy transformations. This course includes laboratory experience.
Prerequisite: PHY 111
Five credits: four hours lecture, two hours lab per week

## PHY 113 PHYSICS: ALGEBRA-BASED III

(Formerly PHY 153) A continuation of PHY 112. Studies the concepts of electricity, magnetism, modern physics, special relativity, quantum phenomena and radioactivity. This course includes laboratory experience.
Prerequisite: PHY 112
Five credits: four hours lecture, two hours lab per week

## PHY 185 SPECIAL TOPICS IN PHYSICS

Topics will reflect the special expertise of the faculty and/or the special needs of the students.
Prerequisite: Consent of instructor
One to Six credits

## PHYSICS: CALCULUS BASED I, II, III

This sequence of courses provides a thorough understanding of basic physics for students majoring in engineering, physical science, or related disciplines. The student will acquire a working knowledge of fundamental laws and principles in preparation for advanced study. It is recommended that this sequence be transferred to other academic institutions as an aggregate.

## PHY 211 PHYSICS: CALCULUS-BASED I

(Formerly PHY 201) An analytical and comprehensive treatment of mechanics and mechanical waves, including basics of relativistic mechanics. This course includes laboratory experience.
Prerequisite: MAT 122, MAT 201 and MAT 202 (or MAT 202 may be taken concurrently)
Five credits: four hours lecture, three hours lab per week

## PHY 212 PHYSICS: CALCULUS-BASED II

(Formerly PHY 202) A continuation of PHY 211. An analytical and comprehensive treatment of wave motion, sound light and energy transformations. This course includes laboratory experience.
Prerequisite: MAT 203 (or MAT 203 may be taken concurrently), and PHY 211
Five credits: four hours lecture, three hours lab per week

## PHY 213 PHYSICS: CALCULUS-BASED III

(Formerly PHY 203) A continuation of PHY 212. An analytical and comprehensive treatment of thermodynamics, electricity and magnetism. A research paper or project may be required. This course includes laboratory experience.
Prerequisite: MAT 203 and PHY 212
Five credits: four hours lecture, three hours lab per week

PHY 295 INDEPENDENT STUDY IN PHYSICS
Provides an opportunity for the highly-motivated student to engage in intensive study and research on a specified topic under the direction of a faculty member. The student will be limited as to the number of independent study credits taken per quarter.
Prerequisite: previous academic study or experience in physics
One to three credits: contact division chairman

## POS: POLITICAL SCIENCE

POS 101 INTRODUCTION TO POLTIICAL SCIENCE
(Formerly POS 100) Introduces the student to the field of political science by examining the state, elements of government, the political process, political ideologies, and international relations.
Five credits

## POS 111 AMERICAN GOVERNMENT

(Formerly POS 101) Includes the background of the U.S. Constitution; the philosophy of American government; general principles of the Constitution; federalism; civil liberties; public opinion and citizen participation; political parties, interest groups, and the electoral process; and the structure and functions of the national government.
Five credits

## POS 118 STATE AND LOCAL GOVERNMENTS

Study of structure and function of municipal, state, and county governments in the United States.
Five credits

## POS 205 INTERNATIONAL RELATIONS

An examination of the underlying principles of international relations with a view toward understanding current international problems.
Five credits

## POS 208 COMPARATIVE FOREIGN GOVERNMENT

The governmental systems and political cultures of several representative countries outside the United States are surveyed.
Five credits

## PSY: PSYCHOLOGY

## PSY 101 GENERAL PSYCHOLOGYI

Scientific study of behavior including motivation, emotion, sexuality, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning, and memory.
Five credits

## PSY 102 GENERAL PSYCHOLOGY II

Scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, life span development and social psychology.
Five credits

## PSY 111 BASIC HUMAN POTENTIAL SEMINAR

A personal growth workshop based on the self-actualization principles of psychologists Abraham Maslow and Herbert Otto. The activities of this course are designed to help people tap their potential for becoming more self-determining, self-motivating, self-affirming, and understanding of others.
Three credits

## PSY 112 ADVANCED HUMAN POTENTIAL SEMINAR

The advanced seminar is designed to further the participant's identification of his or her personal resources and potentialities and to explore their use in setting and meeting life goals. Methods for resolving personal conflict, setting long-range goals, and life-style planning are developed.
Prerequisite: PSY 111
Three credits

## PSY 117 INTRODUCTION TO CAREER PLANNING

A course designed to help clarity abilities, interests, and values; and to help with job information, vocational planning, and decision making.
One or three credits

## PSY 118 PSYCHOLOGY OF ADULTHOOD

Explores the psychological, social, and physiological issues of adulthood and aging, from a life span perspective and as a framework for viewing the adult years.
Three credits

## PDY 119 PSYCHOLOGY OF SUCCESS

A course designed to help students learn what resources are available for success in college and life. Topics include: study skills, decision making, goal setting, motivation and planning.

## PSY 120 PSYCHOLOGY OF LEADERSHIP AND MANAGEMENT

This course is designed to provide students with an overview of organizational leadership and management from a psychological perspective. Students will be introduced to such concepts as: the relationship between leadership and management, the psychology of individual and group change, the leading-learning styles of leadership, the use of conflict resolution and problem solving in organizations and the situational management style.
Five credits
PSY 121 DEATH \& DYING: A HOLISTIC PERSPECTIVE
To acquaint participants with new research, alternate approaches, psychological literature on death and dying.
Three credits

## PSY 131 THEORY AND PRACTICE OF COUNSELING

Students are introduced to basic concepts and techniques of behavior, gestalt, cognitive, Adlerian, client centered, transactional analysis, and psychoanalytic therapies.
Five credits

## PSY 138 BIOFEEDBACK AND STRESS MANAGEMENT

A survey of coping and preventive skills and techniques for dealing with the effects of stress and anxiety. The successful transfer of these skills and techniques to real-life situations is enhanced by supplementing classroom presentations with regular lab work utilizing biofeedback. Four credits: three hours lecture, two hours lab

## PSY 166 DEVELOPMENTAL PSYCHOLOGY

A survey of the entire human life span from conception through senescence. A study of the major themes in human development; cognitive, physical, social, perceptual, emotional, personality, language, and moral development. Also covers adult developmental tasks and crisis periods.
Five credits

## PSY 177 CAREER AND LIFE PLANNING

A study of personal awareness, career exploration/research, skills identification, decision making, time management, and stress management as it relates to careers and long term life decisions. Time is divided between classroom instruction and lab activities. Five credits

## PSY 205 PSYCHOLOGY OF ADOLESCENCE

An investigation of the psychological, social, physiological development of individuals between puberty and young adulthood. Special problems and deviation from normal development will also be treated.
Three credits

## PSY 206 PSYCHOLOGY OF WOMEN

An examination of new roles and identities for women with emphasis on changes of traditional attitudes toward women, both personal and societal.
Three credits

## PSY 209 PSYCHOLOGY OF PREJUDICE

A study of the underlying causes of prejudice and how prejudicial behavior is learned, continued, and diminished.
Three credits

## PSY 221 ABNORMAL PSYCHOLOGY

A study of abnormal behavior found in humans. Such disorders as organic mental, schizophrenic, paranoid, anxiety, dissociative, and psychosexual disorders will be considered for causes, symptoms, characteristics, treatment, and prevention.
Prerequisite: PSY 101
Five credits

## PSY 225 ADVANCED COUNSELING

The emphasis of the course is on a multimodal approach to the development of counseling skills such as attending, assessment, lifestyle analysis, pacing, empathy, reframing, and problem solving skills. Prerequisite: PSY 131
Four credits

## PSY 229 ALCOHOL \& SUBSTANCE ABUSE

This course provides the student with current information concerning the physiological, psychological, and sociological aspects of drug use, misuses, and abuse.
Three credits

## PSY 232 PSYCHOLOGY OF DREAMS

An exploration of the literature in the field. Coverage will include theory and technique and current sleep research with a major goal of understanding the process of dreaming.
Three credits

## PSY 237 ASSERTIVENESS TRAINING

Study and practice in asserting individual needs and feelings.
Three credits

## PSY 241 BIOFEEDBACK I: BIOFEEDBACK AND THE PSYCHOLOGY OF HEALTH (PRINCIPLES)

An introduction to the principles and applications of biofeedback in health, education, and psychology. There will be utilization and demonstration of temperature training, EMG, EEG, and GSR.
Five credits

PSY 242 BIOFEEDBACK AND STRESS MANAGEMENT II
Continuation of Biofeedback and Stress Management. Concrete applications of biofeedback training as well as the use of adjunctive techniques of covert sensitization, covert reinforcement, imagery, desensitization, implosion, flooding and cognitive restructuring.
Prerequisite: PSY 138, PSY 241 or PSY 244
Four credits: three hours lecture, two hours lab

## PSY 244 BIOFEEDBACK AND HEALTH

Focuses on the biofeedback procedure for blood pressure reduction developed at the Biofeedback and Psychophysiology Center of the Menninger Foundation, Topeka, Kansas. Class topics include the principles and techniques of biofeedback training, the physiology of hypertension and its causes, the role of stress management, diet, exercise, life style and medications in blood pressure management.
Five credits: four hours lecture, two lab sessions each week

## PSY 248 CHILD PSYCHOLOGY

A study of the normal child's emotional, physical, cognitive, social, and moral development from infancy through adolescence.
Five credits

## PSY 267 FIELD EXPERIENCE A

Students learn basic counseling skills for working with addictive persons by helping professional therapists in various alcohol and substance abuse treatment centers.
Ten credits

## PSY 268 FIELD EXPERIENCE B

Continuation of PSY 267
Ten credits

## PSY 269 FIELD EXPERIENCE C

Continuation of PSY 268.
Ten credits

## PSY 271 GROUP COUNSELING

Introduction to theory and practice of group dynamics.
Five credits

## PSY 276 HUMAN SEXUALITY

A survey of human sexual functioning with emphasis on psychological, cultural, and biological components. Topics covered include; sexual variation, sexual identity, personal development and fulfillment, and social and ethical aspects of sex.
Three credits

## PSY 278 PSYCHOLOGY OF CRIMINAL BEHAVIOR

Analysis of the personality structure of criminals and the study of effective rehabilitation techniques.
Three credits

## PSY 279 PSYCHOLOGICAL ASPECTS OF ABUSE IN RELATIONSHIPS

This course introduces the issues of abuse in relationships from the perspective of the victim, the perpetrator and society. Three credits

## PSY 287 CLIENT RECORDS MANAGEMENT

Students interested in chemical/alcohol counselor I certification will learn Colorado state laws, counter methods and client records documentation in this course.
Two credits: see instructor

## PSY 288 BASIC THERAPEUTIC SKILLS

Experimental clinical skill practice, crisis intervention techniques and an overview of substance abuse are presented in this course. This course is for persons seeking chemical/alcohol counselor certification.
Four credits: see instructor

## PSY $289 \quad$ INTRODUCTION TO ADDICTIVE BEHAVIORS

This course presents the subject of addictive behavior and its effect on individuals, families and society.
Five credits

## PSY 295 INDEPENDENT STUDY IN PSYCHOLOGY

Provides an opportunity for the serious-minded student to engage in intensive study and research on a specified topic under the direction of a faculty member.
One to three credits: contact instructor

## MAS 106 PSYCHOLOGY OF THE MEXICAN AMERICAN

Identifies and examines the various psychological traits which make up the unique, and seldom understood, world view of the Mexican American. Topics will include the psychology of the Mexican American male and female and social related problems.
Three credits

## XRT: RADIOLOGIC TECHNOLOGY

## XRT $100 \quad$ INTRODUCTION TO RADIOLOGIC TECHNOLOGY

Designed to provide the student with an overview of radiography and its role in health care delivery. Emphasis is on radiology department organization, accreditation and credentialing, medical ethics and law, and professional growth.
Prerequisite: none
Two credits: 20 hours lecture

## XRT 101 RADIOGRAPHIC POSITIONING I

Designed to ensure that students gain the ability and confidence they need to perform the radiographic examinations they will be expected to handle in the clinical setting; fundamentals of positioning, positioning nomenclature, positioning of the thoracic contents, abdomen and contents, and distal upper and lower extremities.
Prerequisite: Majors only
Four credits: 20 hours lecture, 30 hours lab

## XRT 102 RADIOGRAPHIC POSITIONING II

A continuation of XRT 101. Consideration will be given to the structure and positioning of the upper and lower extremities, shoulder and pelvic girdles, lumbar and thoracic spines.
Prerequisite: XRT 101, majors only
Four credits: 20 hours lecture, 30 hours lab

## XRT 103 RADIOGRAPHIC POSITIONING III

A continuation of XRT 101 and XRT 102. Emphasis on the structure and positioning of cranium, cervical spine, distal spine, special views of the spine and pelvis, bony thorax, sinuses, facial bones and cranium.
Prerequisite: XRT 101, XRT 102, majors only
Four credits: 20 hours lecture, 30 hours lab

XRT 104 RADIOGRAPHIC POSITIONING IV
A continuation of XRT 101, XRT 102, and XRT 103. Emphasis on sinuses, facial bones, and special positions of the cranium.
Prerequisite: XRT 101, XRT 102, and XRT 103, majors only
Four credits: 20 hours lecture, 30 hours lab

## XRT 105 PROCEDURES IN PATIENT CARE

Designed to ensure that students gain the ability and confidence to perform proper body mechanics, universal precaution techniques, vital signs assessment, CPR, contrast media and drug preparation and administration, venipuncture, and routine and emergency patient care. Aspects of medico-legal issues, professional ethics, communication methods, professionalism, and death and dying will be discussed.
Prerequisite: None
Five credits: 30 hours lecture, 30 hours lab

## XRT 111 CLINICAL EXPERIENCE I

The student in the clinical setting will perform radiographic procedures under the direct supervision of a qualified radiologic technologist or radiologist. Unsatisfactory clinical performance will result in the student being terminated from the curriculum. Only full time radiologic technology students are permitted to participate in this course.
Prerequisite: Majors only
Three credits: Approximately 60 contact hours

## XRT 112 CLINICAL EXPERIENCE II

Continuation of supervised clinical education under the direct supervision of a qualified radiologic technologist. Correlates skills from academic courses.
Prerequisite: XRT 111, majors only
Eight credits: Approximately 160 contact hours

## XRT 113 CLINICAL EXPERIENCE III

Continuation of supervised clinical education under the direct supervision of a qualified radiologic technologist. Correlates skills from academic courses.
Prerequisite: XRT 112, majors only
Eight credits: Approximately 160 contact hours

## XRT 114 CLINICAL EXPERIENCE IV

Continuation of supervised clinical education under the direct supervision of a qualified radiologic technologist. Correlates skills from academic courses.
Prerequisite: XRT 113, majors only
Fourteen credits: Approximately 240 clinical hours and 20 lecture hours

## XRT 118 RADIATION PROTECTION \& BIOLOGY

Designed to ensure that the student has an understanding of the effects of ionizing radiation in biologic systems, and the public right to minimal radiation exposure.
Prerequisite: permission of instructor
Three credits: 30 hours lecture

## XRT 121 RADIOGRAPHIC EXPOSURE I

Introduces the student to the theory of radiographic prime factors, factors influencing exposure values, attenuating and restricting devices, technique charts and their application. Provides the student with guided experiences in the laboratory setting to reinforce the theory material.
Prerequisite: majors only
Four credits: 30 hours lecture, 15 hours lab

## XRT 122 RADIOGRAPHIC EXPOSURE II

Continuation of XRT 121 with emphasis on application of theory.
Prerequisite: XRT 121, XRT majors only
Three credits: 20 hours lecture, 15 hours lab

## XRT 205 RADIOGRAPHIC SPECIAL PROCEDURES

Acquaints the student with the theory, equipment, and methodology of selected special procedures.
Prerequisite: permission of instructor
Three credits: 30 hours lecture

## XRT 207 RADIOGRAPHIC IMAGING

A study of image intensification, recording media, special imaging techniques, $x$-ray circuit and $x$-ray tubes.
Prerequisite: permission of instructor
Four credits: $\mathbf{4 0}$ hours lecture

## XRT 208 RADIOGRAPHIC PATHOLOGY

Gives the student a basic understanding of the definition and types of selected diseases common to radiography. Consideration will be given to common illnesses of the body systems and their effects on the production of a diagnostic radiograph.
Prerequisite: permission of instructor
Three credits: 30 hours lecture

## XRT 211 CLINICAL EXPERIENCE V

The student in the clinical setting will perform radiographic procedures under the direct supervision of a technologist or radiologist. Unsatisfactory clinical performance will result in the student being terminated from the curriculum. Only full-time radiologic technology students are permitted to participate in the course.
Prerequisite: XRT 114, majors only
Eight credits: Approximately 240 contact hours

## XRT 212 CLINICAL EXPERIENCE VI

Continuation of XRT 211. Correlates skills from previous classes. Prerequisite: XRT 211, majors only
Eight credits: Approximately 240 contact hours

## XRT 213 CLINICAL EXPERIENCE VII

Continuation of XRT 212.
Prerequisite: XRT 212, majors only
Ten credits: Approximately 240 clinical hours and 20 lecture hours

## XRT 214 CLINICAL EXPERIENCE VIII

Continuation of XRT 213.
Prerequisite: XRT 213, majors only
Ten credits: Approximately 240 clinical hours and 20 lecture hours

## XRT 215 REGISTRY REVIEW

Designed to consolidate the basic fundamental technical information recommended for student radiographers preparing to sit for National Registry Examination.
Prerequisite: 2nd year radiography student or graduate
One credit: 10 hours lecture

## XRT 218 COMPUTERS IN MEDICINE

Designed to make the student aware of the various uses of computers in imaging.
Prerequisite: permission of instructor
Two credits: 20 hours lecture

XRT 221 X-RAY PHYSICS
Imparts an understanding of basic $x$-ray physics, includes: unit of measurement, mechanics, structure of matter, electrostatics, magnetism, electrodynamics, and electromagnetism.
Prerequisite: permission of instructor
Five credits: 50 hours lecture

## XRT 225 RADIOGRAPHIC QUALITY ASSURANCE

Designed to provide the student with an introduction to the evaluation of radiographic systems to assure consistency in the production of quality images. The components involved in the radiography system will be identified. Tests and procedures to evaluate these components will be discussed. State and federal impacts will be described.
Prerequisite: XRT majors only or permission of instructor Three credits: 30 hours lecture

## XRT 231 RADIOLOGICAL SCIENCES

Designed to give students an over-all review of courses and clinical work in the Radiography Program.
Prerequisite: 8th Quarter radiography student or graduate
Three credits: 30 hours lecture

## XRT 235 RADIOGRAPHIC COMPUTERS

Designed to address basic computer terminology with orientation to computerized imaging.
Prerequisite: none
One credit: 10 hours lecture

## XRT 236 CROSS SECTIONAL ANATOMY OF CT IMAGES

Designed to orient the student to the aspects of cross-sectional anatomy in relation to conventional radiographic anatomy
Prerequisite: none
One credit: 10 hours lecture

## XRT 237 WHY ULTRASOUND?

Introduces sonographic cross-sectional anatomy vs. flat AP or PA $x$-tay anatomy. Comparison of $x$-ray to ultrasound appearances of similar studies. Prerequisite: none
One credit: 10 hours lecture

## XRT 238 MAMMOGRAPHY

Introduces the concepts of mammography imaging to include positioning and technique.
Prerequisite: none
One credit: 10 hours lecture

## XRT 289 to <br> XRT 298 CLINICAL ACTIVITY

Designed to provide radiographic clinical experience for students with prior clinical involvement.
Prerequisite: previous radiographic clinical experience
One to Ten credits: approximately $30-300$ contact hours

## REA: READING

*This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree.

## *REA 012 DEVELOPMENTAL READING II

To provide the student with instruction in word attack, skills, vocabulary development and comprehension. Primary purposes are to give the student a basic introduction to general reading skills and to prepare the student for REA 013.
Prerequisite: placement
Two to five credits

## *REA 013 DEVELOPMENTAL READING III

To provide the student with instruction in structural analysis, vocabulary development, and comprehension, through practice in general and content area reading materials. Primary purposes are to improve the student's reading level, to expand the variety of reading skills a student uses, and to prepare the student for REA 014.
Prerequisite: REA 012 or placement
Two to five credits

## *REA 014 DEVELOPMENTAL READING IV

To provide the student with additional instruction in vocabulary development, structural analysis, comprehension, through practice in general and content area reading materials. Primary purposes are to improve the student's reading level, and to expand the variety of reading skills the student uses.
Prerequisite: REA 013 or placement
Two to five credits

## *REA 015 DEVELOPMENTAL READING V

This course provides an additional opportunity for the student who has completed the work at the REA 014 level, but who is not quite ready to advance to GED or College Skills classes, to receive additional instruction in vocabulary development, structural analysis, and comprehension. Includes instruction in general and content area reading materials. Primary purposes are to improve the students' reading level and to expand the variety of reading skills the student uses.
Prerequisite: REA 014 or placement
Two to five credits

## *REA 092 VOCABULARY EXPLORATION

 (INDEPENDENT STUDY)This course helps the student improve understanding in reading by mastering the recognition, meanings, proper uses and spellings of words that are commonly used in college-level materials.
Prerequisite: Placement
One to three credits

## *REA 094 LITERATURE READING

To provide a basic introduction to reading in the content field of literature. Major objectives are to familiarize students with the content vocabulary in literature, and to prepare students to pass the literature reading section of the GED test.
Prerequisite: Placement
Two to five credits

## *REA 095 INTRODUCTION TO STUDY SKILLS

To introduce the student to the various study skills strategies necessary to succeed in a college setting. Emphasis will be placed on applying skills to beginning college-level content area courses.
Prerequisite: Placement
Three credits

## *REA 099 SPELLING MINI-COURSE

To improve spelling skills of students who do not master spelling by traditional methods.
Prerequisite: Placement
One to three credits

## REA 100 INTRODUCTION TO COLLEGE READING

To provide instruction in literal, inferential, and critical reading skills that are necessary for success in college-level reading.
Prerequisite: Placement
Five credits

## REA 101 MASTERING COLLEGE READING

To provide advanced instruction to increase the student's ability to comprehend college-level texts. Emphasis will be placed on critical and inferential reading skills through longer passages.
Prerequisite: Placement
Five credits

## REA 102 COLLEGE STUDY SKILLS

To increase the student's ability to study effectively for college level courses. Emphasis will be placed on personal preparation, memory, note-taking, test taking and reading strategies.
Prerequisite: Placement
Five credits

## REA 103 VOCABULARY SKILLS

To provide students an opportunity to learn the strategies for improving vocabulary as well as mastering given words.
Prerequisite: Placement
Three credits

## REA 104 SPELLING SKILLS

To provide the opportunity to learn and improve the basic spelling skills necessary for academic success.
Prerequisite: Placement
Two credits

## REA 105 READING, WRITING, AND THINKING SKILLS

To provide students with an opportunity to apply analytical reading, writing and reasoning skills to a variety of curriculum areas.
Prerequisite: REA 100 or placement
Five credits

## REA 111 BECOMING A MASTER STUDENT

This course helps the student who has college-level reading ability become a more effective student.
Prerequisite: Placement
Five credits

REA 197 READING SPEED AND EFFICIENCY (INDEPENDENT STUDY)
This course helps the student increase his/her knowledge of literal, critical, and affective comprehension skills while learning the use of several reading speeds.
Prerequisite: Placement
Three to five credits

## SCI: SCIENCE

*Indicates instruction is administered by Developmental Studies Division.

## *SCI 014 DEVELOPMENTAL SCIENCE IV

The primary purposes of the course are: to teach basic scientific facts and ideas; to develop reading comprehension and vocabulary mastery in the content area of science; to introduce students to earth science and life science; and to provide a systematic survey of basic science.
Prerequisite: placement
Three to five credits

## *SCI 015 DEVELOPMENTAL SCIENCE V

The primary purposes of the course are: to teach basic facts and ideas; to continue the development of reading comprehension and vocabulary mastery through the study of basic sciences; to introduce students to the study of physical science, and to continue to provide a systematic survey of basic science.
Prerequisite: placement
Three to five credits

## SCI 095 NATURAL SCIENCE READING

Provides a basic introduction in the content field of the natural sciences. Major objectives are to familiarize students with the content vocabulary in this area and to prepare them to apply comprehension skills of reading appropriate to the area of the natural science adequate to allow them to pass the reading comprehension section of the GED test.
Prerequisite: placement
Two to five credits

## SCI 105 INTRODUCTION TO PRINCIPLES OF SOLAR ENERGY

Topics include solar geometry, heat transfer; active, passive and hybrid systems; general structural heat loss, transfer mediums, cost, and legislation. A presentation of several systems and collectors will be available through field trips.
Three credits

## SCI 106 SOLAR SYSTEM SIZING

Theory and calculations will be presented regarding heat loss, collector efficiency, heat gain, distribution, and sizing. Heat storage systems and solar systems also will be analyzed.
Prerequisite: SCl 105 or permission of instructor
Three credits

## SCI 115 PASSIVE SOLAR DESIGN

The following topics will be included in this course: elementary thermodynamics, fundamentals of solar heating, factors determining effectiveness and efficiency, design characteristics, a selection of applications and aesthetic realities.
Three credits

## SCI 185 SPECIAL TOPICS IN SCIENCE

Topics will reflect the special expertise of the faculty and/or the special needs of the students.
Prerequisite: Consent of instructor
One to six credits

## SCI 230 SCIENTIFIC WRITING

Topics include use of scientificic literature and library resources, the general aspect of a scientific paper, the title, preparation of tables and illustrations and procedures regarding materials and methods. A section covering results, discussion and acknowledgments also will be included.
Prerequisite: ENG 121or equivalent
Three credits

## SOC: SOCIOLOGY

*Indicates instruction is administered by Developmental Studies Division.

## *SSS 095 SOCIAL SCIENCE READING

Provides a basic introduction to reading in the content field of social science. Major objectives are to familiarize students with the content vocabulary in this area, and to prepare them to apply comprehension skills of reading appropriate to the area of social science adequate to allow them to pass the reading comprehension sections of the GED test.
Prerequisite: Placement
Two to five credits

## SOC 101 INTRODUCTION TO SOCIOLOGYI

Examines the basic concepts, theories, and principles of sociology, as well as human cultures, social groups, and the social issues of age, gender, class and race.
Five credits

## SOC 102 INTRODUCTION TO SOCIOLOGY II

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.
Five credits

## SOC 105 SOCIOLOGY OF MARRIAGE AND FAMILY

A study of marriage and family relationships, focusing on social institutions, value systems, communication, mate selection, and other social/cultural factors. The course will emphasize courtship, marriage, and conjugal life in contemporary America, and discuss the changes in these areas.
Five credits

## SOC 106 CONTEMPORARY SOCIAL PROBLEMS

A study of both specific and general problems of our time. Some of the social problem studies include poverty, civil liberties, social change, crime and delinquency in the context of contemporary American society.
Three credits

## SOC 205 SOCIOLOGY OF EDUCATION

A study of the relationship of social and educational systems in American society. We will explore the performance of the American educational system in fulfilling the promise of opportunity and in providing access for upward mobility.
Three credits

## SOC 207 SOCIOLOGY OF WORK AND LEISURE

Analysis of the changing relationship between work and leisure (non-work). As we enter the post-industrial/high tech society, our quest for quality of life may be affected by new occupations, new opportunities, and non-work patterns of behavior.
Three credits

## SOC 218 SOCIOLOGY OF MINORITIES

This course explores the variety of intergroup relations-race, income, minority and urban/rural, and offers methods of teaching and measuring these intergroup relations.
Five credits

## SOC 219 GENERIC SOCIAL WORK

Basic elements of social work will be presented in this class, including the various tasks of Social Workers, including short-term focused brief therapy, mental health, aging and community organizations.
Five credits

## SOC 295 INDEPENDENT STUDY IN SOCIOLOGY

Provides an opportunity for the serious-minded student to engage in intensive study and research on a specified topic under the direction of a qualified faculty member.
One to Three credits: contact instructor

## SPP: SPECIAL PROGRAMS

DST 025 BILINGUAL CITIZENSHIP
Designed to prepare students to successfully pass the test to obtain United States citizenship. Local, state, and national government functions and procedures will be emphasized. When the student is ready, an application packet issued by the Immigration and Naturalization Department will be given to the student to apply for citizenship. Spanish instruction will be provided for those who need it.

## DST 065 BILINGUAL DRIVER'S EDUCATION

Designed to prepare students to understand and pass the driver's license oral or written examination. If the student cannot read or write, emphasis is given to the verbal understanding of signs, rules, and state laws. Spanish instruction will be provided for those who need it.

## DST 092 ORIENTATION TO GED

Includes orientation for students in the content areas that are tested in the GED exam. Informs students of the eligibility and requirements pertaining to the GED test, and introduces the students to test taking techniques.
Prerequisite: Placement

## SPE: SPEECH

SPE 110 COMMUNICATION CONCEPTS
(Formerly SPE 115) Provides students with practical experience in everyday, oral communication such as interpersonal communication, group discussion, listening skills, and certain fundamentals of public speaking. Three to Five credits

SPE 115 PRINCIPLES OF SPEECH COMMUNICATION
(Formerly SPE 116) A course combining the basic theory of speech communication with public speech performance skills. Emphasizes speech delivery, preparation, organization, support, and audience analysis.
Five credits

## SPE 118 INTERPERSONAL COMMUNICATIONS

Focuses on learning communication skills used in listening and sending messages. Students develop problem solving skills as well as selfconfidence and self-awareness while working in pairs and small groups.
Five credits

## SPE 119 INTRODUCTION TO SEMANTICS

Introductory study of how persons respond to word functions in the English language and other symbols. Students not only look at words and things, but also at the human behavior that results from using various types of symbols in different ways.
Five credits

SPE 200 ORGANIZATIONAL COMMUNICATION
Students will investigate the nature of communication systems within an organization, with special emphasis on strategies and practice in effective organizational communication.
Five credits

## SPE 216 ADVANCED PUBLIC SPEAKING

Continuation of SPE 115 with emphasis on longer in-depth speeches using informative and persuasive techniques. Class includes extemporaneous, impromptu, manuscript, special occasion speeches and group decision making.
Five credits

## SPE 299 SPEECH PRACTICUM

Provides an opportunity for the serious-minded student to develop speaking skills under the direction of a faculty member. May be repeated at different levels of proficiency.
Prerequisite: SPE 115 and permission of instructor One to three credits

## STA: STATISTICS

## STA 185 SPECIAL TOPICS IN STATISTICS

Topics will reflect the special expertise of the faculty and/or the special needs of the students.
Prerequisite: Consent of instructor
One to six credits

## STA 201 STATISTICS FOR BUSINESS, SCIENCE, AND SOCIAL SCIENCE I

Emphasizes concepts and applications of selected topics from descriptive and inferential statistics. Includes organization of data, computation and interpretation of descriptive measures, linear correlation and regression, simple aspects of probability, the normal and binomial distributions, and sampling distributions. Students will be introduced to the use of computers in organizing and analyzing data for statistical analysis.
Prerequisite: two years high school algebra or MAT 112 or permission of the instructor
Five credits

## STA 202 STATISTICS FOR BUSINESS, SCIENCE, AND

 SOCIAL SCIENCE IIEmphasizes concepts and applications of inferential statistics including hypothesis testing and estimation using $\mathrm{z}, \mathrm{t}$, chi-square and F distributions. Tests and estimates for means, proportions, variance and standard deviation will be used. Analysis of variance, multiple regression, and selected nonparametric statistics will also be covered. Computers will be used as an aid in organizing and analyzing data.
Prerequisite: STA 201 or permission of instructor
Five credits

## STA 203 STATISTICS FOR BUSINESS, SCIENCE, AND SOCIAL SCIENCE III

A treatment of statistical topics and techniques to include: single and two factor analysis of variance, multiple regression and correlation, forecasting models and time series analysis, nonlinear regression and statistical quality control.
Prerequisite: STA 202 or permission of instructor
Five credits

## STA 205 STATISTICAL ANALYSIS USING COMPUTERS

This course provides an introduction to computer packages which can be used for statistical analysis. Applications in statistics will include selected topics in probability, descriptive, and inferential statistics, such as, simulation of probability experiments, organization and analysis of data, hypothesis testing, correlation, and estimation. Prerequisite: MAT 135 or STA 201 or permission of the instructor Two-three credits

## THE: THEATRE

| THE | 116 | SCREEN ACTING I |
| :--- | :--- | :--- |
| THE | 117 | SCREEN ACTING II |
| THE | 118 | SCREEN ACTING III |

118 SCREEN ACTING III
These courses teach the differences between stage acting, and screen (video) acting, and all the how to's involved in that area. Development of characterization skills, increased understanding of human behavior and relationships, and imaginative encounters with one's self, build confidence and improve audition/interview abilities.
Three credits each

## THE 211 DEVELOPMENT OF THEATRE I

Surveys the history and evolution of the theatre from Ancient Greece to the Renaissance, emphasizing all aspects of the art form from period values to analysis of dramatic literature and performance. (This course fulfills a Humanities requirement.)
Five credits

## THE 212 DEVELOPMENT OF THEATRE II

Surveys the history and evolution of drama from the Renaissance to the present, emphasizing all aspects of the art form from period values to the analysis of dramatic literature and performance. (This course fulfills a Humanities requirement.)
Five credits

## THE 299 THEATRE PRACTICUM

This learning structure facilitates the development of creative talents (an interrelation of motor, affective, and cognitive skills). The particular format and content of each practicum is determined by the theatrical form in which the student is working and the student's level of proficiency. May be repeated at different levels of proficiency. One to Three credits: contact program coordinator

## WLT: WELDING TECHNOLOGY

## WLT 100 BEGINNING WELDING

This course will introduce the student to the basic welding processes. It will have an emphasis on safety and a knowledge of the welding processes. Upon completion of this course, the student will have a basic understanding of oxy-acetylene and arc welding.
Two credits: 30 clock hours

## WLT 105 BASIC OXY/ACET WELDING

Students will receive training in the safe and correct procedure for using oxy-acetylene equipment. Students also will receive instruction on welding mild steel material using fillet and butt welds.
Four credits: 60 clock hours

## WLT 106 ADVANCED OXY/ACET WELDING

Training will be given in out-of-position welding of mild steel and instruction on brazing and oxy-acetylene cutting.
Four credits: 60 clock hours

WLT 107 BASIC SHIELDED METAL ARC WELDING
Students will receive training in safe and correct procedures for using arc welding equipment. Instruction will be given using common types of electrodes on various types of joints in all positions.
Four credits: 60 clock hours

## WLT 108 ADVANCED SHIELDED METAL ARC WELDING

Training will be given using E-7018 electrodes on various types of fillet welds on heavy plate. These welds will be made in the horizontal, vertical, and overhead positions.
Four credits: 60 clock hours

## WLT 109 BASIC GAS METAL ARC WELDING

Students will receive training in the correct and safe way to operate gas metal arc welding equipment. They will weld common fillet welds on various gauges of material using .035 diameter solid wire.
Four credits: 60 clock hours

## WLT 115 ADVANCED GAS METAL ARC WELDING

Students will weld beveled butt joints in all positions using . 035 solid wire. They also will receive training using flux cored wire.
Four credits: 60 clock hours

## WLT 116 FARM AND RANCH WELDING

To introduce farmers and ranchers to the repair welding field. Demonstrations of Hardfacing, Cast Iron welding, Oxy-acet Safety, Oxy-Acet welding, Oxy-Acet cutting, Brazing, Soldering, Electric Arc welding with stick and continuous feed electrodes, and new equipment.
Two credits: 20 clock hours

## WLT 121 BASIC WELDING LAYOUT

To introduce the participant to the basic layout tools and techniques, including the use of a calculator to compute angles and lengths.
Three credits: 30 clock hours

## WLT 122 SAFETY AWARENESS IN METAL JOINING TECHNOLOGY

This course will introduce the student to safety concerns in the metal joining trade and impart the skills that are necessary to implement a safety awareness program.
Three credits: 30 clock hours

## WLT 123 MODERN METAL JOINING PROCESSES

This course will introduce the student to the theory and application of current welding processes. The student will learn how to apply this knowledge to increase the percent of certainty when trying to choose the correct welding process for a specific application.
Five credits: 50 clock hours

## WLT 124 FUNDAMENTALS OF WELDING METALLURGY

This course is designed to give the student a basic understanding of the metallurgy involved in welding and the skill to apply this knowledge to the development of sound welding techniques.
Five credits: 50 clock hours

## WLT 125 INDUSTRIAL BLUEPRINT READING

This course is designed to give the student a fundamental understanding of AWS Welding Symbols and Blueprint reading. The ability to apply these fundamentals to the interpretation of actual prints used in Industry is stressed.
Five credits: 50 clock hours

WLT 126 WELDING INSPECTION AND QUALITY CONTROL
This course is designed to give the student a working knowledge of the codes, requirements and procedures used in the inspection of welds and the control of quality. This course is also an excellent starting point for individuals interested in becoming Certified Welding Inspectors.
Five credits: 50 clock hours

## WLT 127 BASIC WELDMENT DESIGN

This course is designed to give the student a basic knowledge of the theory used to design welded components and structures and the skill necessary to distinguish between good and bad designs.
Five credits: 50 clock hours

## WLT 128 BASIC WELD ESTIMATING

This course will give the student a basic knowledge of the elements and formulas used in estimating welding costs. The student will demonstrate his skills by estimating costs on simulated projects.
Three credits: 30 clock hours

## WLT 141 OXY/ACET WELDING

Students will be given training and skill development in the use of oxy-acet welding equipment including fusion welding, brazing and cutting.
Twelve credits: 150 clock hours

## WLT 142 SHIELDED METAL ARC I

Students will be given training and skill development in shielded metal arc welding. Welding will be in all positions on $3 / 16^{\prime \prime}$ mild steel using various electrodes.
Twelve credits: 150 clock hours

## WLT 143 SHIELDED METAL ARC II

Students will be given training on multiple pass fillet welds in all positions using E-6010 and E-7018 electrodes.
Twelve credits: 150 clock hours

## WLT 144 SPECIALIZED WELDINGI

This course is designed to meet the needs of students who would benefit from a specialized program. Objectives will be agreed upon by the instructor, program supervisor and the student.
Twelve credits: 150 clock hours

## WLT 151 WELDING TECHNOLOGYI

Students will be given training and skill development in the use of oxy-acetylene welding, basic shielded metal arc welding, shop safety, and basic metal and electrode identification. Oxy-acetylene will include fusion welding, brazing, and cutting. Arc welding will include work in all positions of welding using various electrodes and common joints.
Twenty-Four credits: 300 clock hours

## WLT 152 WELDING TECHNOLOGY II

Students will be working with the shielded metal arc process on fillet and beveled butt welds using E-6010 and E-7018 electrodes on heavy plate in all positions. Instruction also will be given in basic blueprint reading and welding symbols.
Prerequisite: WLT 151 or instructor permission
Twenty-Four credits: 300 clock hours

## WLT 153 WELDING TECHNOLOGY III

Training will be given on uphill pipe welding using the SMAW process. Pipe will be welded in 5 and 6 G positions. Instruction also will be given in the GMAW process. Students will work on light and heavy material using both solid and cored wire in a variety of positions. Students will learn basic layout tools and techniques for their use.
Prerequisite: WLT 152 or instructor permission
Twenty-Four credits: 300 clock hours

## WLT 199 WELDING SPECIALTIES

This course is designed for in-service students. It will provide upgrading skills to persons who are actually involved in the field of welding. Objectives will be agreed upon by the instructor, program supervisor and the student.
One credit: 10 clock hours

## WLT 204 WELDING PROBLEMS I

Designed to meet the needs of students who would benefit from a specialized program. Objectives will be agreed upon by the instructor, program supervisor, and the student.
Four credits: 60 clock hours

## WLT 205 WELDING PROBLEMS ॥

This course is designed to meet the needs of students who would benefit from a specialized program. Objectives will be agreed upon by the instructor, program supervisor and the student. Normally used as advanced study beyond WLT 204.
Four credits: 60 clock hours

## WLT 206 WELDING PROBLEMS III

This course is designed to meet the needs of students who would benefit from a specialized program. Objectives will be agreed upon by the instructor, program supervisor and the student. Normally used as advanced study beyond WLT 205.
Four credits: 60 clock hours

## WLT 236 SPECIAL WELDING PROBLEMS I

This course is designed to meet the needs of students who would benefit from a specialized program. Objectives will be agreed upon by the instructor, program supervisor, and student.
Twenty-Four credits: 300 clock hours

## WLT 237 SPECIAL WELDING PROBLEMS II

This course is designed to meet the needs of students who would benefit from a specialized program. Objectives will be agreed upon by the instructor, program supervisor and the student. Normally used as advanced study for WLT 236.
Twenty-Four credits: 300 clock hours

## WLT 241 SHIELDED METAL ARC III

Students will be given instruction in the welding of beveled butt joints with an open root using E-6010 and E7018. Basic blueprint reading and weld symbols will also be covered.
Twelve credits: 150 clock hours

## WLT 242 PIPE WELDING

Instruction will be given on uphill pipe welding using the SMAW process. Pipe will be welded in the 5 and 6G positions using E-6010 and E -7018 electrodes.
Twelve credits: 150 clock hours

## WLT 243 GAS METAL ARC WELDING

Students will learn to operate and perform basic trouble shooting on GMAW equipment. Welding will be done on a variety of metal thicknesses with solid and flux core wire.
Twelve credits: 150 clock hours

## WLT 244 SPECIALIZED WELDING II

This course is designed to meet the needs of students who would benefit from a specialized program. Objectives will be agreed upon by the instructor, program supervisor and the student. Normally used as advanced study beyond WLT 144.
Twelve credits: 150 clock hours

## WLT 251 WELDING FABRICATION

This course is designed to provide basic knowledge in the areas of layout, fabrication tools and equipment, and assembly of welding structures. Actual hands-on work will be provided.
Prerequisite: WLT 151 and WLT 152, or permission of instructor. Twenty-Four credits: 300 clock hours


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CHRISTA ADAMS (Communications \& Humanities) ..... 1984
DR. WALTER RICHTER (Mathematics \& Science) ..... 1980
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JIM B. HEIN (Trades \& Industry) ..... 1969
*Indicates the year individual joined the College.

## AIMS COMMUNITY COLLEGE FACULTY

ABBOTT, JANE
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B.A., Pierce College; M.A., University of Denver; Advanced Graduate Study, University of Denver. 1989
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## ADAMS, CHRISTA

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(Chair, Mathematics)
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## BENAVIDEZ, E. C. "VERA"

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B.A., Metropolitan State College; M.A., University of Northern

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## BENESCH, BARBARA

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## BESS, ROBERT

(Developmental Studies)
B.S., University of Illinois, Champaign, Illinois; M.S., Illinois State University, Normal, Illinois.

## BJORNEBY, WALTER J.

(Aviation Technology)
B.A., University of Maryland. 34 years military and industrial experience

## BROCKSHUS, MERLE

(Agriculture Technology)
(Farm and Ranch Business Management)
B.S. Iowa State University; M.S. Iowa State University; Graduate study, University of Wisconsin, University of Northern lowa, and Colorado State University.

BRODA, ALYSAN
(Department Chari, Speech, Communications \& Humanities)
B.A., William Paterson College, New Jersey; M.A., William Paterson College, New Jersey; Advanced graduate study, Colorado State University.

## BUTLER, DONALD E.

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## BUXMAN, BETTY J.

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## CAMERON, ROY E.

(Assistant Division Director, Science; Biology) B.S., University of Illinois; M.S., University of Illinois; Advanced graduate study, Purdue University, Illinois Institute of Technology, Eastern Illinois University, Northern Illinois University, University of California Berkeley, University of Northern Colorado, University of Denver, Colorado State University. Aims Foundation Fellow, 1984.

## CHRISTENSON, MAXINE GROSS

(Marketing/Management)
B.S., University of Wisconsin, M.S., University of Wisconsin;

Advanced graduate study, University of Northern Colorado 1986

## CLAY, DOUGLAS G.

(Chair, Computer Science)
B.S., Purdue University, Indiana; M.A., Lesley College, Massachusetts; Advanced Graduate Study, Florida International University, University of Northern Colorado. 1985

## COLTON, KERRY L.

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## COOPER, SAM

## (Physics and Computer Science)

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Advanced graduate study, Colorado State University.

## CRIBELLI, SUSAN

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## CROSS, EUGENE (GENE)

## (Electronics Technology)

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## CULLINS, BILL

## (Engineering Technology)

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## DARLING, DONALD W.

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B.A., University of Northern Colorado; M.A., University of Northern Colorado

## DRISKILL, MARSHA J.

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## ECKHARDT, LUCILLE

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## EDWARDS, MARTHANNE

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## EVANS, LUCILE

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## FISHER, CHUCK

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## FREESE, JASPER (Jay)

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## GOMEZ, RUTH

## (Developmental Studies)

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## GORDON, FRANK J.

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B.A., University of Colorado; M.A., University of Colorado; Ph.D., University of Colorado-Boulder; Postdoctoral research at Harvard University, West Berlin, Hannover, Goettingen, Marburg University-West Germany.

## GOSCH, PHYLLIS

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B.A., State University College of New York at Fredonia; M.A., State University College of New York at Buffalo1990

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## HALL, CATHERINE

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## JOKERST, JAMES C.

(Psychology)
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## JOHNSON, MARYJANE

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KILLEBREW, WILLIAM A. (Welding)
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(Radiologic Technology)
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```

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M.S. Exercise Physiology, Colorado State University, 19861991

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\section*{SOUTAR, KAREN H.}
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\section*{TAYLOR, VAL W.}
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B.A., University of Northern Colorado; M.A., Troy State University. 28 years military and industrial experience.

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(Developmental Studies)
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\section*{TURNER, JOHN T.}
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\section*{VAN-NIX, BARBARA}
(Communications \& Humanities)
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\section*{VANTINE, DIANE L.}
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B.A., University of Wyoming; M.A., University of Wyoming;

Ph. D., University of Denver. Aims Foundation Fellow, 1984;
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\section*{VELASQUEZ, MARIA B.}
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VIGIL, MARY L.
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B.A., University of Colorado.

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B.A., University of Montana; M.A., University of Montana;
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\section*{YATES, JENNIFER L.}
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1989

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}
A
Academic Budgets, Estimated ..... 18
Academic Calendar .....  3
Academic Standards .....  .28
Accounting (ACC) Course Descriptions ..... 101
Accounting Program .....  .65
Accreditation .....  7
Activities, Student ..... 30
Adding Classes ..... 14
Add/Drop Withdraw .....  14
Adjunct Faculty ..... 175
Administrative Staff ..... 168
Admissions, Application for ..... 13, back of catalog
Admission Requirements for International Students .....  13
Admissions .....  13
Advising .....  25
Affirmative Action .....  8
Agriculture Technology Program ..... 81
Agriculture Home Study Courses (AGS) ..... 82, 102
Aims Junior College District Board of Trustees ..... 168
Alcohol \& Drug Abuse Prevention .....  8
Alcohol \& Drug Free .....  8
Anthropology (ANT) Course Descriptions ..... 103
Application for Admission to Aims Community College ..... back of catalog
Application Procedures (Student Financial Aid) ..... 18
Approval (Aims Community College Operation) .....  7
Architectural Emphasis, Engineering Technology Program .....  88
Architectural Engineering Technology (AET) Course Descriptions ..... 133
Areas of Emphasis .....  43
Art Studio (ARS) Course Descriptions ..... 103
Art (ART) Course Descriptions ..... 103
Arts and Sciences, School of ..... 37
Assessment .....  13
Assessment Center ..... 34
Associate Degrees ..... 31, 37
Associate of Applied Science: Requirements .....  31
Associate of Arts Degree: Requirements ..... 31, 38
Associate of Science Degree: Requirements ..... 31, 40
Associate of General Studies Degree: Requirements ..... 31, 37, 42
Astronomy (AST) Course Descriptions ..... 105
Attendance .....  .26
Audio-Visual Equipment Center .....  35
Auditing of Courses .....  26
Auto Body Refinishing (ABF) Course Descriptions ..... 105
Auto Body Refinishing Program .....  .91
Auto Body Repair (ABR) Course Descriptions ..... 105
Auto Body Repair Program ..... 92
Automated Progress Technician Option ..... 86
Automotive Mechanics Technology (AMT) Course Descriptions ..... 107
Automotive Mechanics Technology Program ..... 93
Aviation Technology (AVT) Course Descriptions ..... 109
Aviation Technology Program ..... 83

\section*{B}

Basic Peace Officer Academy .................................................. 73
Basic Engineering Technology (BET) Course Descriptions ......... 134
Behavioral and Social Science Division: Areas of Emphasis ........ 43
Biofeedback Emphasis ...................................................................... 45
Biological Sciences (BIO) Course Descriptions .......................... 111
Board of Trustees, Aims Junior College District ......................... 168
Bookstore .......................................................................................... 33
Budgets, Estimated Academic Year (Student) ............................... 18
Bus Service ................................................................................... 33
Business (BUS) Course Descriptions ....................................... 114
Business Division Programs ..................................................... 65
Business Information Systems (BIS) Course Descriptions .......... 112
Business Information Systems Program .................................... 66
Business Transfer Emphasis...................................................... 49

\section*{C}

Campus Map, Greeley ........................................................................... 2
Catalog Changes .................................................................... 9
Catalog, Effective ................................................................... 32
Certificates Awarded, ............................................................... 31
Certificate of Occupational Education: Total Minimum
Requirements, ............................................................................ 32
Challenging, Course ................................................................ 25
Cheating................................................................................. 28
Chemical Testing Technology Emphasis ..................................... 57
Chemistry (CHE) Course Descriptions ..................................... 118
Chemistry Emphasis ............................................................... 57
Child Care Services (See Early Childhood Education) ............33, 94
Civil Emphasis, Engineering Technology Program ........................ 90
Civil Engineering Technology (CET) Course Descriptions .......... 135
"College for Kids" .................................................................... 29
College Skills Program............................................................. 62
Colorado National Guard Tuition Assistance Program ................. 20
Communications (COS) Course Descriptions ............................. 126
Communications and Humanities Division: Areas of
Communications Media (COM) Course Descriptions .................. 119
Communications Media Emphasis ............................................ 50
Community Interest Programs .................................................. 29
Computer Aided Manufacturing (CAM) Course Descriptions....... 136
Computer Aided Manufacturing Emphasis, Engineering
Technology Program.
. 89
Computer Science (CSC) Course Descriptions ......................... 120
Computer Information Systems Emphasis .................................. 54
Computer Programming Emphasis ............................................ 56
Computer Science Emphasis .................................................... 56
Conduct, Standards of ............................................................. 28
Continuing Education ................................................................ 29
Cooperative Registration Agreements ......................................... 15
Counseling/Information Center ................................................ 34
Course, Auditing ...................................................................... 26
Course Cancellation ............................................................... 25
Course Challenging ................................................................. 25
Course Descriptions ............................................................... 101
AAD (Design) .................................................................. 104
ABF (Auto Body Refinishing) .............................................. 105
ABR (Auto Body Repair) ..................................................... 105105
ACC (Accounting) ..... 101
AET (Architectural Engineering Technology) ..... 133
AGS (Agriculture Home Study Courses) ..... 102
AMT (Automotive Mechanics Technology) ..... 107
ANT (Anthropology) ..... 103
ARS (Fine Arts - Art Studio) ..... 103
ART (Art and Design) ..... 103
AST (Astronomy) ..... 105
AVT (Aviation Technology) ..... 109
BET (Basic Engineering Technology) ..... 134
BIO (Biological Sciences) ..... 11
BIS (Business Information Systems) ..... 112
BUS (General Business) ..... 114
CAM (Computer Aided Manufacturing) ..... 136
CET (Civil Engineering Technology) ..... 135
CHE (Chemistry) ..... 118
COM (Communications Media) ..... 119
COS (Communications) ..... 126
CRJ (Criminal Justice) ..... 122
CSC (Computer Science) ..... 120
EAS (Earth Science) ..... 124
ECE (Early Childhood Education) ..... 124
ECO (Economics) ..... 124
EDU (Education) ..... 126
ELT (Electronics Technology) ..... 129
ENG (English Communications) and (English Composition) ..... 132
ESL (English as a Second Language) ..... 136
FIS (Fire Science) ..... 139
FLC (Changing Individuals) ..... 138
FLE (Expectant Families) ..... 137
FLF (Active Families) ..... 137
FLS (Changing Individuals: Seniors) ..... 138
FMT (Farm \& Ranch Business Managment) ..... 102
FRE (French) ..... 140
GEO (Geography) ..... 141
GEY (Geology) ..... 142
GOV (Developmental Government) ..... 142
GRT (Graphic Technology) ..... 142
HEN (Health Education) ..... 143
HIS (History) ..... 144
HLH (Health Occupations) ..... 143
HUM (Humanities) ..... 145
JPN (Japanese) ..... 141
LIT (Literature) ..... 145
MAS (Mexican American Studies) ..... 148
MAT (Mathematics) ..... 146
MCM (Specialized Manual Communication) ..... 148
MET (Mechanical Engineering Technology) ..... 135
MGT (MarketingManagement) ..... 148
MUP (Music Performance) ..... 151
MUS (Music) ..... 150
PEA (Physical Education Activities) ..... 152
PEB (Physical Education Ball Sports) ..... 152
PED (Physical Education Dance) ..... 154
PEF (Physical Education Fitness) ..... 155
PHI (Philosophy) ..... 152
PHY (Physics) ..... 156
POS (Political Science) ..... 157
PSY (Psychology) ..... 157
REA (Reading) ..... 161
SCI (Science) ..... 162
SOC (Sociology) ..... 163
SPA (Spanish) ..... 141
SPE (Speech) ..... 163
SPP (Special Programs) ..... 163
STA (Statistics) ..... 164
TEM (Emergency Medical Service) ..... 130
THE (Theatre) ..... 164
XRT (Radiologic Technology) ..... 159
WLT (Welding Technology) ..... 164
Course Load .....  26
Course Numbering .....  26
Course, Repeating .....  26
Criminal Justice (CRJ) Course Descriptions ..... 122
Criminal Justice Emphasis (A.A.) .....  45
Criminal Justice Program (A.A.S.) .....  .72
D
Degrees and Certificates Awarded ..... 5,31
Degree Programs
Associate of Applied Science Degree .....  31
Associate of Arts Degree ..... 31, 38
Associate of Science Degree ..... 31, 40
Associate of General Studies Degree ..... 31
Design and Creative Studies: Areas of Emphasis .....  51
Design (AAD) Course Descriptions ..... 104
Design Emphasis ..... 51
Developmental Government (GOV) Course Description ..... 142
Developmental Studies Division ..... 29, 62
Dismissal ..... 28
Division Directors ..... 168
Drafting ..... 87
Dratting Technology ..... 87
Dropping Classes ..... 14
Drug/Alcohol Counselor Program ..... 47
Drug Free Workplace .....  8
E
Early Childhood Education Center ..... 33
Early Childhood Education (ECE) Course Discription ..... 124
Early Childhood Education Program ..... 94
Earth Science (EAS) Course Descriptions ..... 124
Economics (ECO) Course Descriptions ..... 124
Education (EDU) Course Descriptions ..... 126
Educational Rights and Privacy Act .....  7
Effective Catalog ..... 32
Electronics Technology (ELT) Course Descriptions ..... 129
Electronics Technology Program ..... 85
Elementary Education Emphasis ..... 43
Eligibility (Student Financial Aid) ..... 18
Emergency Medical Service (TEM) Course Descriptions ..... 130
Emergency Medical Technician Program ..... 76
Emeritus Status ..... 175
Emphasis, Areas of ..... 43
Employment: Part-Time, Student ..... 19
Engineering Curriculum ..... 88
Engineering Technology (AET, BET, CET, MET) Course Descriptions ..... 133, 134, 135
Engineering Technology Program ..... 88
English Communications (ENG) Course Descriptions ..... 132
English as a Second Language ..... 62
English as a Second Language (ESL) Course Descriptions ..... 136
Enrollment Process ..... 13Faculty
169
Faculty
29, 48
Family and Life Education
137, 138
Family and Life Education (FLE, FLF, FLC, FLS) Course Descriptions
Farm \& Ranch Business Management (FMT) Course Descriptions ..... 102
Farm \& Ranch Business Management Option ..... 81
Fashion Merchandising Option,
MarketingManagement Program ..... 69
Fees, Laboratory ..... 16
Fees, Student Insurance ..... 16
Financial Aid, Application Procedures ..... 18
Financial Aid, Eligibility ..... 18
Financial Aid, Student ..... 18
Financial Aid, VA Satisfactory Progress ..... 20
Financial Assistance Programs, Student .....  .19
Financial Obligations of Students .....  .16
Fine Arts (ARS) Course Descriptions ..... 103
Fine Arts Emphasis ..... 52
Fire Protection Technology Program .....  74
Fire Service Training Academy .....  .71
Fire Science (FIS) Course Descriptions ..... 139
Fire Science Technology Program ..... 74
Food Service ..... 33
Foreign Languages (FRE, JPN, SPA) Course Descriptions ..... 140
Foundation, The (Aims Community College) .....  8
French (FRE) Course Descriptions ..... 140

\section*{G}
General Aviation Pilot Option ..... 83
General Business Program ..... 67
General Business (BUS) Course Descriptions ..... 114
General Education Core Transfer Program ..... 37
General Education Development (GED) .....  .62
General Electronic Technician Option ..... 85
General Psychology Emphasis .....  .44
Geography (GEO) Course Descriptions ..... 141
Geology (GEY) Course Descriptions ..... 142
Geriatric Aide Program ..... 79
Gifts \& Bequests .....  22
Government, Student (ASACC) .....  30
Grade Point Average .....  27
Grading System .....  27
Graduation Requirements .....  32
Grants ..... 19
Grants, Senior Citizen Tuition ..... 20
Grants, Tuition (Student) .....  20
Graphic Technology (GRT) Course Descriptions ..... 142
Graphic Technology Program ..... 96
Guidance Services ..... 34
H
Handicapped Parking Permits (See Health Services) ..... 33
Heath Education (HEN) Course Descriptions ..... 143
Heath Occupations (HLH) Course Descriptions ..... 143
Health Services ..... 33
History, Aims Community College .....  7
History (HIS) Course Descriptions ..... 144
Honors ..... 28
Housing ..... 33
Humanities (HUM) Course Descriptions ..... 145
I
Independent Study Courses .....  37
Individualized Courses .....  37
Insurance Fees, Student .....  16
International Students, Admission Requirements for .....  13
\(J\)
Japanese (JPN) Course Description ..... 141
Job Placement .....  64
L
Law Enforcement ..... 72, 73
Legal Secretary Program .....  67
Library .....  33
Life Sciences Emphasis .....  59
Literature (LIT) Course Descriptions ..... 145
Literature Emphasis .....  50
Load, Course .....  26
Loans .....  .19
Loveland Center ..... 12
M
Main Campus, Greeley ..... 10
Map, Greeley Campus .....  2
Marketing/Management (MGT) Course Descriptions ..... 148
Marketing/Management Program .....  69
Marketing Option, MarketingManagement Program .....  .69
Mathematics and Science Division: Areas of Emphasis .....  54
Mathematics (MAT) Course Descriptions ..... 146
Mathematics Emphasis .....  58
Mechanical Emphasis, Engineering Technology Program .....  88
Mechanical Engineering Technology (MET) Course Descriptions. ..... 135
Media/Telecommunication Services .....  34
Mexican American Studies (MAS) Course Descriptions ..... 148
Music (MUS) Course Descriptions ..... 150
Music Emphasis .....  .53
Music Performance (MUP) Course Descriptions ..... 151
N
Nurse Aide, see Geriatric Aide ..... 79
Nurse Assistant, see Geriatric Aide .....  79
Nursing, see Pre-Nursing Emphasis .....  .60
0
Occupational Education, School of .....  64
Office Occupations .....  .67
Administrative Support Option .....  67
Legal Office Option ..... 67
Office Clerical Certificate Program ..... 68
Official Add/Drop Period .....  14
Organizations, Student .....  30
Orientation ..... 14
Overview .....  7
P
Paraprofessional Counseling Emphasis ..... 44
Parking ..... 33
Part-Time Employment Student .....  .19
Peace Officer Academy .....  73
Philosophy, Aims Community College .....  7
Philosophy (PHI) Course Descriptions ..... 152
Photography (AAD) Course Descriptions ..... 104
Physical Education Activities (PEA) Course Descriptions ..... 152
Physical Education Ball Sports (PEB) Course Descriptions ..... 152
Physical Education Dance (PED) Course Descriptions ..... 154
Physical Education Fitness (PEF) Course Descriptions ..... 155
Physics (PHY) Course Descriptions ..... 156
Placement Services ..... 33, 64
Police Academy (see Peace Officer Academy) .....  73
Political Science (POS) Course Descriptions ..... 157
Political Science Emphasis ..... 46
Press Option, Graphic Technology Program .....  .97
Pre-Engineering Emphasis .....  .58
Pre-Health Profession Emphasis .....  .59
Pre-Law Emphasis ..... 46
Pre-Nursing Emphasis .....  60
Pre-Press Option, Graphic Technology Program ..... 97
Privacy Act, Education Rights and .....  7
Professional Pilot Program Option ..... 84
Psychology (PSY) Course Descriptions ..... 157
Public Information .....  7
Public Service Division Programs .....  71
Purpose, Aims Community College .....  7
R
Radiologic Technology (XRT) Course Descriptions ..... 159
Radiologic Technology Programs ..... 78
Reading (REA) Course Descriptions ..... 161
Real Estate for Colorado Licensing .....  70
Real Estate (MOT) Course Descriptions ..... 148
Records .....  17
Refund Regulations ..... 14
Registration .....  .14
Repeating Courses ..... 26
Requests for Information ..... 17
Rights and Privacy Act, Educational .....  7
S
Satisfactory Progress, Financial Aid and VA ..... 20
Scholarships ..... 23
School of Arts and Sciences ..... 37
School of Occupational Education ..... 64
Science (SCl) Course Descriptions ..... 162
Senior Citizens Tuition Grant ..... 20
Senior Education Program .....  29
Secretarial (BUS) Course Descriptions ..... 114
Self-Supporting Classes, Refund Regulation ..... 14
Small Business Management, Marketing/Management Program .....  .69
Smoking Policy .....  8
Social Science Emphasis .....  .47
Sociology (SOC) Course Descriptions ..... 163
South Campus ..... 11
Spanish (SPA) Course Descriptions ..... 141
Special Instructional Programs .....  29
Special Programs (SPP) Course Descriptions ..... 163
Specialized Manual Communication (MCM) Course Descriptions ..... 148
Speech (SPE) Course Descriptions ..... 163
Standards of Conduct ..... 28
Statistics (STA) Course Descriptions ..... 164
Student Activities ..... 30
Student Employment ..... 19
Student Financial Aid ..... 18
Student Financial Assistance Programs ..... 19
Student Advisory Board (ASACC) ..... 30
Student Insurance Fees ..... 16
Student Organizations ..... 30
Student Services ..... 33
Student Records .....  7
Student Rights .....  .7
Student, Financial Obligations of ..... 16
Student Services ..... 33
Supervisory Management Option, MarketingManagement Program ..... 70
Supplemental Services ..... 33
T
Table of Contents .....  1
Technical Division Programs ..... 80
Telecommunication Services ..... 34
Telecourses ..... 34
Theatre (THE) Course Descriptions ..... 164
Trades and Industry Division Programs ..... 91
Transcript Evaluation ..... 17
Transcripts ..... 17
Transcripts, Requests for ..... 17
Transfer Credit ..... 25
Tuition ..... 16
Tuition Assistance, Veterans ..... 20
Tuition Assistance, National Guard ..... 20
Tuition Grants, Senior Citizens ..... 20
Tuition Grants, Student ..... 20
Tuition and Fees ..... 16
V
VA Satisfactory Progress ..... 20
Veterans' Benefits ..... 20
Volunteer Firefighter Training ..... 75
W
Welding Technology (WLT) Course Descriptions ..... 164
Welding Technology Program ..... 98
West Campus, Loveland ..... 12
Withdrawal from Classes. ..... 14
Work-Study Program ..... 19
Y
Young Farmer Program ..... 82

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