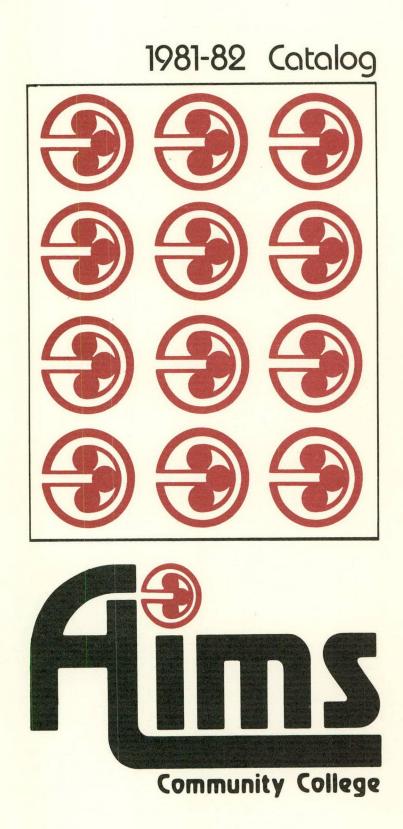
**MSI Separator Sheet** 



1981-1982

Archive Copy



# AIMS COMMUNITY COLLEGE

**Established 1967** 



# 1981-1982 CATALOG

A COLLEGE SERVING NORTH-CENTRAL COLORADO

P. O. Box 69 GREELEY, COLORADO 80632 Telephone (303) 330-8008

MAY 1981

Vol. XV

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# ACADEMIC CALENDAR

1981-82

# SUMMER SESSION, 1981 (Four Day Week)

June 22	Registration
Julie 22	Classes Begin
June 23	
July 2	Last Day to Drop Classes with Refund
July 2	Midtorm Week
July 20-23	
August 27	End of Quarter and Graduation
August 27	

# FALL QUARTER, 1981

September 21	Returning Student Orientation,
	Advising and Registration
September 22	New Student Orientation,
	Advising and Registration
September 24	Classes Begin
October 5	Last Day to Drop Classes with Refund
October 26-30	Midterm Week
October 30	Last Day for Graduation Applications
	Last Day to Add Classes
November 6	Staff Development Day (No Classes)
November 6	Thanksgiving Holiday (College Closed)
December 1	Breregistration for Winter Quarter
December 1	(No Classes)
December 10-11	End of Ouertor
December 11	End of Quarter
December 11	Graduation
December 21-27	Christmas Holiday (College Closed)

# WINTER QUARTER, 1982

January 1	New Year's Holiday (College Closed)
January 4	Registration
January 6	Classes Begin
January 15	Last Day to Drop Classes with Refund
January 29	Staff Development Day (No Classes)
February 8-12	Midterm Week
February 12	Last Day for Graduation Applications
	Last Day to Add Classes
March 10	
March 18-19	Examination Days
March 19	End of Quarter
March 19	Graduation
March 19	Graduation

# SPRING QUARTER, 1982

March 29	Registration
March 31	Classes Begin
April 9	Last Day to Drop Classes with Refund-
May 3-7	Midterm Week
May 31	
June 2	Preregistration for Summer Quarter (No Classes)
June 10-11	Examination Days
June 11	End of Quarter
June 11	Graduation

# **GENERAL INFORMATION**

# HISTORY

In the summer of 1966, after several months of study, a citizen's committee representing all Weld County school districts recommended the formation of a junior college district. In January 1967, voters of the district overwhelmingly approved the establishment of Aims Community College. Two months later a governing committee was elected and they selected Dr. Ed Beaty as the college's initial president. In September 1967, Aims Community College opened its doors to 900 students enrolled in day and evening classes.

Enrollment has expanded over the past twelve years to the point where the college served in excess of 5,000 students during its fall quarter of 1980. Diverse needs of these students have resulted in an increased number of classes and programs.

The college currently offers three associate degrees: the Associate of Arts degree (A.A.) and the Associate of Science degree (A.S.), designed for those who plan to transfer to another college or university to pursue a baccalaureate degree, and the Associate of Applied Science degree (A.A.S.) that prepares students in eighteen program areas for direct job entry at a technical or managerial level.

The college also awards the Certificate in Occupational Education in twelve occupational areas and issues certificates to those who complete a variety of developmental, adult special interest, and occupationally related programs of less than one year in duration. The college also trains area high school students in a limited number of career fields in its role as the Area Vocational School for the district.

The college's initial 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 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 the Office Occupations building which opened in 1973. In 1975 the Center for the Arts and Crafts/Skill Center was completed. The Physical Education building was constructed in time for the opening of the winter quarter in 1976.

In 1969 Aims Community College completed an Educational Master Plan, which was updated in 1975, and in 1970 the Aims Community College Campus Plan. The Master Plan for Campus Development was completed in 1976 and preceded the building of Ed Beaty Hall which was named for our founding president who had died in 1975. This structure was opened in the fall of 1978. This distinctive facility is the newest building on campus. It provides over 60,000 square feet of laboratory and classroom space devoted to preparing students for both associate degrees, several certificate programs as well as numerous community service programs. The Office of the President also is located in Ed Beaty Hall.

Dr. Richad A. Laughlin succeeded Dr. Ed Beaty as president of the college in 1976. He served the college in this post until 1979 when Dr. George R. Conger assumed the position.

## 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;
- 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
- 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 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 prpearing students to transfer to four-year colleges or universities;
- Occupational education to help prepare students for initial employment or for advancement in specific vocational fields;
- 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;
- 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.

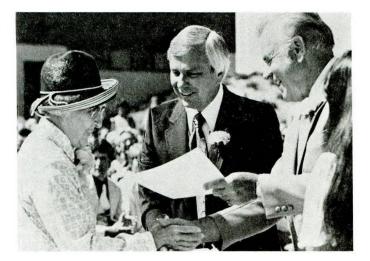
# THE FOUNDATION

The Aims Community College Foundation was established during the 1979-80 academic year to provide financial and other support for the college and its activities beyond those which can be obtained 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: Mrs. Margaret Houtchens (Chairperson), Mr. George Bush, Mr. Tom Cowan, Mrs. Bonnie Dean, Mr. Conrad Greicar, Mr. Edwin C. Boos, Mr. Alan Lord, Mr. Floyd Oliver, Jr., Mr. John Dugan, Mr. Louis Rieker, Mr. Jack Wells, Mr. Stow Witwer, and Mr. Darwin Schwartz.

## 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 Committee elected by the voters of the Aims Junior College District. All programs are approved by the Colorado State Board for Community Colleges and Occupational Education. In addition the Colorado Commission on Higher Education reviews and approves all programs leading to the Associate degree.



# ACCREDITATION

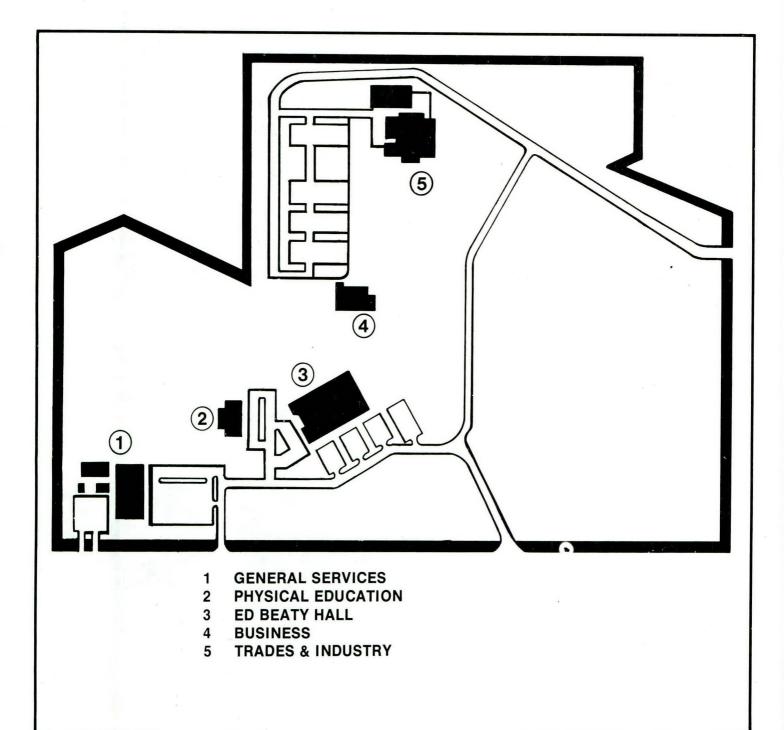
Aims Community College has been granted full accreditation and membership in the North Central Association of Colleges and Schools.

# EDUCATIONAL RIGHTS AND PRIVACY ACT

Aims Community College is complying with the Federal Family Education Rights and Privacy Act of 1974, which specifies that a student has the right to inspect and reviewcertain specified official records, files, and data directly related to the student. Students desiring to inspect and/or review their official records should contact the Dean of Student Personnel Services, 5401 W. 20th Street, Greeley, Colorado 80631.

## **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 Personnel/Payroll officer.



# STUDENT SERVICES

# ADMISSIONS

NO AIMS JUNIOR COLLEGE DISTRICT RESIDENT WILL BE DENIED ADMISSION TO THE COLLEGE BECAUSE OF FINANCIAL NEED AS DETERMINED BY THE STUDENT FINANCIAL AID OFFICE.

In keeping with the belief in the worth of universal education, Aims Community College has adopted an "open door" admissions policy.

The college will admit high school graduates, nongraduates of high school who are 18 years of age or older, and any other person who can profit from the instruction for which he or she enrolls. Students who are 16 and 17 years of age may be admitted as special students and they should contact the Admissions office well in advance of anticipated enrollment.

Admission to the college, however, does not assure acceptance of an individual student in a particular course or program. Some students may be requested to enroll in special courses for correction of scholastic or other deficiencies.

Students may enroll in Aims Community College any time during the quarter. It may be necessary for students to enroll in preparation or skills building courses until the end of a given quarter. In most cases it is to the student's advantage to enroll at the beginning of the quarter.

# APPLICATION FOR ADMISSION TO AIMS COMMUNITY COLLEGE

Anyone interested in attending Aims Community College should submit an application form which is available in Colorado high schools or in the Aims Admissions office. In addition to the completed application form, students should submit one of the following to the Admissions office:

- A high school transcript showing graduation.
- GED test scores if the student earned a high school Equivalency Certificate.
- College transcripts are required for transfer students pursuing a degree program.

# TRANSCRIPTS

Official transcripts covering a students's previous secondary and college education, submitted to the college as part of the admissions procedure, 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.

Transcripts, documented military experience, and testing scores of approved programs are evaluated in accordance with college policy, and 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.

# ADMISSION REQUIREMENTS FOR FOREIGN STUDENTS

- 1. Submit application for admission. A \$50.00 application/processing fee must accompany the application for admission before the application can be considered. (Half of this fee will be applied to tuition at initial registration.)
- Submit English proficiency results from the Test of English as a Foreign Language (TOEFL), or English Language School (ELS). To be considered for admission to Aims Community College, foreign students must have a minimum score of 500 on the TOEFL or level 109 at a certified ELS center.
- 3. Completed application and supporting credentials must be in the Admissions office one full quarter before the date of anticipated enrollment.
- Foreign 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 (I-20).
- 5. Foreign students are required to maintain satisfactory progress to be eligible for reenrollment in a subsequent quarter.

If a foreign student is admissible, he or she will be issued the U.S. Immigration Form I-20. Questions regarding the admission of foreign students should be forwarded to the Admissions office.

# STUDENT RECORDS AND STUDENT RIGHTS

The Records office, under the direction of the director of Records, keeps the following student records:

- 1. Personal data -- e.g., name, address, phone number, sex, Social Security number
- 2. Educational background information -- e.g., previous high school and/or college attended, degrees earned
- 3. College major and degree expectations
- 4. Degrees and honors received
- 5. College transcripts containing hours attempted, grades earned, credits earned, and dates of enrollment
- 6. Courses, hours, and credits presently enrolled in

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 inactive for two years. If the student does not reenroll during this two-year period, the record is microfilmed, 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 Educational 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 on request in the Records office. In the event students feel their records are in error, they may initiate the following appeal procedure:

1. Appeal to the director of Records to review the records.

2. If needed, appeal to the dean of Student Personnel Services The college will not permit access to or the release of student educational records, or personally identifiable information contained therein, **other than Public Information**, without the written consent of the student.

# **PUBLIC 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

Addresses are considered personally indentifiable information **except** for the following:

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

Consent for release of educational 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
- 4. In connection with a student's application for financial aid
- 5. State and local officials requiring reporting data
- 6. Organizations conducting studies for educational institutions or agencies
- 7. Accrediting organizations
- 8. Parent of a dependent student
- 9. In compliance with judicial order
- 10. In case of emergency to protect the health, safety, or welfare of the student or other persons.

# REGISTRATION

After the student has completed the admissions process, he or she must complete the following registration process at the beginning of each quarter. A schedule of both day and evening classes is published each quarter, and is available in the Admissions office prior to preregistration and registration. Consult the calendar in the front of this catalog for registration dates.

- 1. Obtain registration pass
- 2. Academic advising
- 3. Course registration
- 4. Financial aid (only those students having applied)
- 5. Pay tuition\*

\*NOTE: A student is not registered until his or her assessed tuition is paid. Students must have all financial obligations to Aims Community College paid before they will be permitted to register for subsequent course work.



# CHANGE OF REGISTRATION

## COURSE CANCELLATIONS

The college must retain the customary right to cancel course offerings where enrollments are insufficient to permit them on a educationally sound and economically efficient basis.

## WITHDRAWAL

A course status designation of WITHDRAWAL can be initiated by a student, a faculty member, or an administrator if a student's best interest so warrants when he or she is unable to attend class regularly.

## ADDING CLASSES

Adding of classes may be done on a continuing basis provided there is space available and the instructor has given permission to enroll. No adding of classes, however, may be made 30 days prior to the end of the quarter.

# DROPPING CLASSES

Dropping of classes with full refund of fees must be done within the first eight (8) days of the class term. This is the registration adjustment period and no academic record will be generated.

## HOW TO ADD AND/OR DROP COURSES:

- 1. Obtain an Add/Drop form from the Admissions office, room 202, General Services building.
- 2. Fill out form indicating complete information on course to be added or dropped and resubmit the form to Admissions. It is the responsibility of the student to contact the Admissions office in order to be officially added or dropped from the records. Faculty members or administrators may initiate the withdrawal of a student from their class rolls for failure to meet established course requirements.

In cases of emergency the student should write to the Admissions office, Aims Community College, P.O. Box 69, Greeley, Colorado 80632, indicating the reasons necessitating the withdrawal and request that the withdrawal be completed by mail. Telephone requests will not be honored.

## **REFUND POLICY**

During the first eight days of each quarter the student will receive a 100 percent refund for a complete withdrawal from school or for classes dropped or cancelled. After the first eight days of classes, the student will not receive a refund for complete withdrawals or dropping of classes. Any requests for refunds beyond the eighth day must be submitted, in writing, to the director of Admissions.

# TUITION AND FEES

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

Full-Time Students:	12-18 credit hours	s, nonoccupational educ.
	student	
	12-22 credit hou	rs, occupational educ.
	student	
In-State, In-District re	sidents:	\$108.00 per quarter
(greater Weld Cou	inty area)	
In-State, Out-of-Distri	ct residents:	\$180.00 per quarter
Out-of-State resident	S:	\$780.00 per quarter
Surcharge: over 18 d	credit hours, nonoc	cupational educ. student
		ational educ. student
In-State, In-District re		\$7.00 per credit hour
(greater Weld Cou	inty area)	
In-State, Out-of-Distri	ct residents:	\$11.00 per credit hour
Out-of-State resident:	S:	\$45.00 per credit hour
Part-time Students: 1	-11 credit hours	
In-State, In-District re	sidents:	\$9.00 per credit hour
(greater Weld Cou	inty area)	
In-State, Out-of-Dist	rict residents:	\$15.00 per credit hour
Out-of-State residents	S:	\$65.00 per credit hour

Occasionally, some classes may require payment of a lab fee. Classes requiring this fee will be designated in the quarterly registration materials.

ALL TUITION AND FEE CHARGES ARE SUBJECT TO CHANGES BY THE AIMS JUNIOR COLLEGE DISTRICT COMMITTEE AS CIRCUMSTANCES MAY REQUIRE, WITHOUT NOTICE.

If a student classified as out-of-state believes he or she is eligible for in-state classification, the student may obtain a Change of Residency petition from the director of Admissions. The final decision regarding residence classification rests with the college. All questions concerning residency should be directed to the director of Admissions.

## **TUITION DEFERMENTS**

Under certain extenuating circumstances, Aims Community College will defer a student's tuition payment. This deferment privilege will be extended only to students who are residents of the state of Colorado and who are enrolled for 12 or more credit hours. A down payment of one-third of the total tuition cost, plus an insurance fee of \$1.75, must be made at the time an eligible student assumes this obligation. A student who requests a tuition deferment must demonstrate the ability to pay the deferred balance of his or her tuition during that same quarter. Application for deferment must be made at the Financial Aid office.

# STUDENT INSURANCE FEE

Each full time student (12 credit hours or more) is assessed a mandatory fee of \$1.75 per quarter for accident insurance coverage. This insurance is nonmandatory for part-time students (11 credit hours or less) and is \$2.25 per quarter.

# FINANCIAL OBLIGATIONS OF STUDENTS

The financial obligations of students to the college, such as payments for books and fees, are due and payable on specific dates or at the time the obligations are incurred. The student registration process is not complete until fees are paid. Students will not be allowed to register, graduate, or receive transcripts of courses completed unless all financial obligations to the college have been met.

# STUDENT FINANCIAL AIDS

Aims Community College participates in a wide variety of federal, state, and local programs designed to assist students in meeting the costs of education. Applications and information concerning all the programs described below are available in the Financial Aid office, General Services building, room 201.

## ELIGIBILITY

Most financial aid is awarded to students on the basis of NEED. In determing 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 Iowa City, Iowa. The ACT Family Financial Statement and information about financial aid may be obtained from the high school guidance counselors. Students currently enrolled at Aims can obtain the ACT Family Financial Statement from the Financial Aid office.

# **APPLICATION PROCEDURES**

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

- 1. Student Data Form.
- 2. Family Financial Statement (FFS) of the American College Testing program (ACT)
- 3. Financial Aid Transcript (only for students who have attended another college)
- 4. Copy of previous year's Income Tax 1040 Form
- 5. Verification of Non-taxable Income

These forms may be obtained from the Financial Aid office and/or local high schools.

Applicants for financial assistance are considered **after** they have complied with the admissions procedures listed in this catalog and have been issued an official notice of admission to the college. The following dates will be the deadlines for submitting applications for guaranteed processing:

Fall quarter	June 15
Winter quarter	October 31
Spring quarter	January 31
Summer quarter	March 1

Students are advised that the availability of aid funds is limited. Consequently, students who are seeking financial assistance are urged to submit their completed application well in advance of the deadline date before the anticipated quarter of registration. (The Financial Aid office will accept applications after the deadline dates, but processing will depend on the availability of funds at the time.)

# ESTIMATED ACADEMIC YEAR BUDGETS (9 Mo.)\*

SINGLE RESIDENT		SINGLE NONRESID	ENT
Tuition & Fees	\$ 330.00	Tuition & Fees	\$2345.00
Room & Board	2025.00	Room & Board	2025.00
<b>Books &amp; Supplies</b>	225.00	<b>Books &amp; Supplies</b>	225.00
Personal Expenses	540.00	Personal Expenses	540.00
Transportation	372.00	Transportation	372.00
Health Insurance	180.00	Health Insurance	180.00
	\$3672.00		\$5687.00

#### MARRIED RESIDENT

Tuition & Fees	\$ 330.00
Room & Board	2925.00
<b>Books &amp; Supplies</b>	225.00
Personal Expenses	810.00
Transportation	462.00
Health Insurance	450.00
	\$5202.00

### MARRIED NONRESIDENT

<b>Tuition &amp; Fees</b>	\$2345.00
Room & Board	2925.00
<b>Books &amp; Supplies</b>	225.00
Personal Expenses	810.00
Transportation	462.00
Health Insurance	450.00
	\$7217.00

\*These budgets are current as of the publication date. Check with the Financial Aid office for most recent estimates.

# STUDENT FINANCIAL ASSISTANCE PROGRAMS LOANS

## NATIONAL DIRECT STUDENT LOAN (NDSL):

Undergraduate students may borrow up to \$5,000 during their undergraduate career. Total loans for the first two years of school may not exceed \$3,000. Repayment of the NDSL begins six months after the student ceases to be a half-time (6 hours) student. NDSL funds are to be repaid at a minimum of \$30 per month. The period of repayment cannot exceed ten years. The NDSL has cancellation provisions. Information regarding cancellation may be obtained from the Financial Aid office. Interest rate is 4%

Principal and interest payments are deferrable during periods of at least part-time study.

## COLORADO GUARANTEED STUDENT LOANS (CGSL)

Undergraduate, dependent students may borrow up to \$2,500 per year, but not more than \$12,500 during their undergraduate career. Undergraduate, independent students may borrow up to \$3,000 per year, but not more than \$15,000 during their undergraduate career. The interest on a CGSL is 9% simple interest. The federal government pays the interest while the individual is enrolled as a full-time student and up to six months after graduation or withdrawal. The federal government also will pay the interest on CGSLs if a student is enrolled at the college on a part-time basis.

Students who are interested in applying for a CGSL should contact their local lending institutions. If local tending institutions do not participate, the student should contact the student Financial Aid office or the: Colorado Guaranteed Student Loan program; ABS building, suite 100; 7000 Broadway; Denver, Colorado, 80221; (303) 427-0259.

# GRANTS

#### PELL GRANT (BASIC GRANT):

Available to **all eligible undergraduate** students. All Pell Grant (BEOG) awards are preliminary and may be adjusted, depending upon place of residence while attending the college, number of class hours carried, and the final payment schedule developed by the Office of Education. The Financial Aid office **must** have two copies of the Eligibility Report Forms (not just one copy or a photo copy) on hand before payment can be made. All financial aid applicants must establish their eligibility for this program before other aid can be awarded.

# SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (SEOG):

Available to demonstrated needy **undergraduate** students. Allocated after all other sources of aid are awarded and the applicant still has unmet need.

## COLORADO STATE GRANT (CSG):

State funds made available to resident students with financial need. Awards vary from \$100 to \$1,000, depending upon the financial need of individual students and the amount of funds allocated to the college by the state of Colorado.

## COLORADO STUDENT INCENTIVE GRANT (CSIG):

Grants of up to \$1,500 are made to exceptionally, financially needy students. Recipients must be residents of Colorado. The actual amount of each award is dependent upon the individual student's need and available funds.

## STUDENT EMPLOYMENT FEDERAL COLLEGE WORK-STUDY PROGRAM:

Allocations from college work-study programs are made to demonstrated needy students. Wages are paid on the basis of an hour's pay for an hour's work. Students may not earn over the maximum authorized earning figure, as allocated from the Financial Aid office.

#### COLORADO WORK-STUDY PROGRAM:

Allocations from college work-.study programs are made to financially needy students. Wages are paid on the basis of an hour's pay for an hour's work. Students may not earn over the maximum authorized earning figure, as allocated from the Financial Aid office.

# **TUITION WAIVERS**

Tuition waivers are available to in-district students whose financial status is defined as low income under Department of Labor guidelines. Waivers are made to cover the costs of tuition. Students approved for tuition waivers are required to apply for a basic grant if they are enrolled as at least half-time students.

On a space available basis and only in credit courses, a senior citizen's tuition waiver is available for Weld County residents who are 60 years of age or older.

# SCHOLARSHIPS

## AIMS PROGRAM OF SCHOLARS:

Two year tuition scholarships are available for at least one graduating senior from each high school within the Aims Junior College District (greater Weld County). Local high school counselors or the Aims Financial Aid office will furnish further information.

#### COLORADO SCHOLARSHIP PROGRAM:

Awards are made to recognize outstanding achievements of Colorado resident students in both academic and talent areas. Maximum award: \$300/year. Applications are made to the Financial Aid office; award recipients are selected by the Financial Aid director only if two letters of recommendation accompany regular financial aid application. In-district, high school students should contact their school counselors regarding these\_scholarships.

#### **ROY L. SMITH MEMORIAL FUND AWARD:**

Annually, two \$300 scholarships from a \$8,000 bequest from Mrs. Roy L. Smith are awarded to one freshman and one sophomore auto mechanics major. The auto mechanics staff selects the recipients.

#### DR. EDWARD BEATY MEMORIAL FUND:

The Beaty family and friends dedicated the fund to the memory of Dr. Edward Beaty, the first president of Aims Community College. Further information may be obtained from the Financial Aid office.

#### EASTMAN KODAK SCHOLARSHIP:

Monies for this program are forthcoming if graduates from Aims Community College join Kodak within five years of completion of their degree and complete five years of employment at Kodak. Funds received for the scholarships are designated for use within the department indicated by the Kodak employee's degree. Monies from Kodak for this program have ranged from \$250.00 to \$1,500.00 per year. Recipients are selected by academic departments.

## FACULTY ASSOCIATION SCHOLARSHIP:

Two scholarships are awarded annually from the Aims Community College Faculty Association. Preference is given to students who demonstrate high scholarship and intend to pursue the A.A., A.S., or A.A.S. degree. Applications are due by May 15 in the Financial Aid office. The Scholarships Committee of the Aims Faculty Association will determine the recipients of the scholarships by June 1 of each year.

# VETERANS' BENEFITS

The Veterans Affairs office helps the Veterans Administration administer the provisions of the various programs of benefit to veterans or eligible relatives of veterans, namely Public Laws 91-219 (Cold War GI Bill), 634 (War Widows and War Orphans), and 815 (Disabled Veterans).

Veterans who are eligible for Veterans Benefits should contact the Admissions office, preferably six 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 Affairs office during registration for each quarter they are enrolled. Failure to do so will result in termination of enrollment certification to the VA.

MONTHLY RATES — GI BILL						
COURSE LOAD	NO DEPS.	1 DEP.	2 DEPS.	EA. ADD. DEP.		
Full Time (12 credit hrs.) Three Quarter	342	407	464	29		
(9-11 credit hrs.)	257	305	349	21		
Half Time (6-8 credit hrs.)	171	204	232	14		

Students who are receiving VA benefits must report immediately to the Veterans Affairs office any change in their study program or training status. Failure to do so may result in overpayments which the student must pay back to the Veterans Administration.

If a veteran student has previously attended an institution of higher learning, the VA requires that the student provide the Admissions office with a copy of the transcript or transcripts reflecting any post-secondary educational course work.

# COLORADO VETERANS TUITION ASSISTANCE PROGRAM

The Colorado Veterans Tuition Assistance Program represents a commitment by the state of Colorado to provide assistance to qualified students who have served on active military duty during the Vietnam era, August 5, 1964, to May 12, 975. The program's intent is to give 'tuition assistance to Colorado veterans enrolled for post-secondary education in specified institutions. Aims students who are eligible for tuition assistance are those who are veterans of the military services, are currently Colorado residents, and were Colorado residents prior to entry into active military service. Student veterans who apply for tuition assistance and are eligible, may receive up to ninety-nine dollars (\$99) per quarter. Both full-and part-time students will be eligible for assistance. Veterans will accrue eligibility for assistance at a rate of 11 quarter credit hours or its equivalent (7.33 semester) for each month of active duty between August 5, 1964, and May 12, 1975.

Applications for this program may be obtained at the Veterans Affairs office and returned along with a copy of DD-214 before awards are made.

# AIMS VETERANS TUITION WAIVER

In addition to the Colorado Veterans Tuition Assistance Program, Aims Community College shall give in-district tuition waivers for the amount not paid by the Colorado Vietnam Era Veterans Tuition Assistance Program if the veteran meets the following criteria:

- 1. Is a veteran of the Vietnam era (Aug. 5, 1964 May 12, 1975):
- 2. Was discharged and certified eligible for veterans educational benefits;
- 3. Was a legal resident of Aims Junior College District at the time of entering the armed services;
- 4. Enrolled at Aims Community College within five (5) years of separation from service;
- 5. Maintains satisfactory progress: 2.0 Grade Point Average (GPA)

# SATISFACTORY PROGRESS

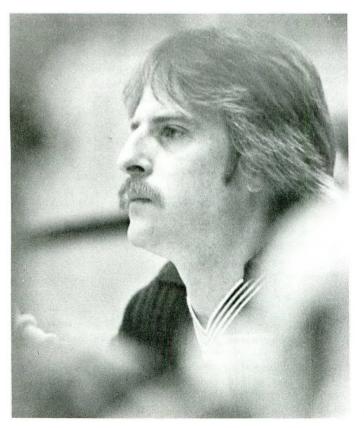
All Aims Community College students who receive financial aid and/or VA benefits are required to meet the following standards of satisfactory progress to remain eligible for financial assistance. These guidelines are the minimum criteria for eligibility and may be higher for some scholarship programs.

- Each quarter, students must complete a specified number of credit hours based upon the following schedule:
  - a. Full-time students (those enrolled in 12 credit hours or more) must complete at least 75% of all classes attempted during the present quarter.
  - b. Three-quarter-time students (those enrolled in 9-11 credit hours) must complete at least 8 credit hours during the present quarter.
  - c. Half-time students (those enrolled in 6-8 credit hours) must complete all classes enrolled in during the present quarter.
- Freshmen (those students who have earned between 1 and 44 credit hours) must maintain a 1.75 grade point average (A equals 4.0) in ALL courses they have attempted.
- 3. Sophomores (those students who have earned more than 44 credit hours) must maintain a 2.00 grade point average in ALL courses they have attempted.
- 4. No student will be eligible to receive financial aid for more than a total of two academic years, or eight quarters.

If a student fails to meet these standards for one quarter, he or she will be placed on probation for the next quarter. If during any following quarter a student on probation again fails to meet these standards, financial aid to the student will be terminated. If the student continues in school paying his or her own expenses, and during a subsequent quarter meets the standards of progress, he or she can be reinstated on financial aid upon request.

If a student whose financial aid has been terminated believes that there have been unusual circumstances affecting his or her progress, the student has the right to appeal this decision to the Financial Aid Appeals Committee. The student interested in appealing such a decision should return the completed appeal form to the Financial Aid office one week after being notified that his or her financial aid has been terminated.

Students reinstated through the appeal procedure will be placed on probation once, must complete all classes attempted during the quarter of reinstatement, and maintain an appropriate GPA as stated in items 2 and 3 above.



# ACADEMIC INFORMATION

# DEGREES AND CERTIFICATES AWARDED

### ASSOCIATE OF ARTS ASSOCIATE OF SCIENCE ASSOCIATE OF APPLIED SCIENCE CERTIFICATE IN OCCUPATIONAL EDUCATION

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 for 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 fulfilling the core requirements toward the Associate of Arts and Associate of Science 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.

Although Aims Community College has identified the general education curriculum within each of its degree programs, this curriculum is under state level review at the time of publication of this catalog, and is, therefore, subject to change. ASSOCIATE OF ARTS AND

# ASSOCIATE OF SCIENCE DEGREES

The Associate of Arts (A.A.) degree or the Associate of Science (A.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 two degrees are similar, the Associate of Science degree program includes more science and mathematics. The student who is pursuing a particular major at a four-year institution may wish to select a particular area of emphasis within thse degrees.

Since all courses include within an Associate of Arts or an Associate of Science 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. or an A.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. and the A.S. degrees:

- 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 "C" average).
- 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. Only courses numbered 100 or 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.

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## ASSOCIATE OF APPLIED SCIENCE 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:

- 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).
- 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.

# 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 the general requirements for the Certificate in Occupational Education:

- 1. A minimum cumulative grade point average of 2.0 (a 'C' average).
- 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.

# **GRADES AND COURSE STATUS DESIGNATION**

Aims Community College, in keeping with its announced philosophy of placing top priority on the welfare of its students, has adopted a grading system which emphasizes achievement rather than failure. This system permits the permanent recording of those grades indicating successful completion of courses and recording of a course status designation when, for whatever reason, a student is unable to fulfill the minimum requirements of the course. Such an approach provides students an opportunity to redirect their efforts into areas more suitable to their aptitudes and interests without the stigma of failure. Grades and course status designations and the associated grade points are awarded on the following basis:

## GRADES

- A Superior work -- 4 grade points per credit hour
- B Above average work -- 3 grade points per credit hour
- C Average work -- 2 grade points per credit hour
- D Minimum passing work -- 1 grade point per credit hour
- P Passing -- used for those students who have successfully challenged a course
- S Satisfactory -- used for students who achive at a level of C or above in designated courses

### **COURSE STATUS DESIGNATIONS**

- W Withdrawal -- no grade points (administrator, faculty member, or student intiated)
- I Incomplete work -- no grade points
- NC No Credit -- no grade points -- student must reenroll if credit is desired
- AU Audit -- (noncredit courses only)

An instructor may choose not to record a grade when the student has, for good reason, been delayed in completing the required work. In such cases the instructor may record a course status designation reflective of the student's status in the course at the end of the quarter.

INCOMPLETES are to be made up according to an agreement between the instructor and the student which is to be filed with the registrar who will place the agreement in the student's permanent file. An INCOMPLETE designation will be charged to a NO CREDIT designation if the student fails to complete the course requirements within the subsequent four academic quarters.

NO CREDIT means that the student has not adequately mastered the objectives of the course. (Veterans receiving benefits should be aware that reenrollment in a course for which they initially received a NC does not normally qualify for benefits.)

Learning accomplishment at a level judged to be inadequate receives no credit, but is made a part of the permanent record. Additionally, all courses which receive course status designations of I, AU, or NC are not calculated in a student's cumulative grade point average.

# **CREDIT RATIOS**

Academic credit is a measure of the total time commitment required of a typical student in a particular course of study. Total time consists of three components: (1) time spent in class; (2) time spent in laboratory, studio, fieldwork, or other scheduled activity; (3) time devoted to reading, studying, problem solving, writing, or preparation. One quarter hour is assigned in the following ratio of component hours per week devoted to the course of study: (1) lecture courses -- one contact hour for each credit hour, two hours of outside work implied); (2) laboratory or studio course -- at least two contact hours for each credit hour, (one hour of outside preparation implied); (3) independent study -- at least three hours of work per week for each credit hour.

## 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 listed on the Dean's List. The President's List and the Dean's List will be published at the end of each quarter.

## TRANSFER CREDIT

Aims Community College gives college credit, according to its policy, for College Level Examination Program (CLEP), specific educational experience in the armed forces, and courses completed at other collegiate institutions. 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 institution. Students who wish to take advantage of this service must formally request a review of their individual files by contacting the Aims Admissions office.

## 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.

Students listed on the class roster during the first eight class days of the quarter who are identified by the instructor as no-shows during that time, are subject to disenrollment from the class without prior notice.

# COURSE CHALLENGING

A student may challenge a course for which he or she believes his or her training and study are adequate to meet the instructor's requirements for successful completion. The student is not required to attend class, but must gain approval of the instructor, obtain a challenge form from the Admissions office and pay in advance the challenge fee of \$5.00 per challenged course at the Business office. Whether or not credit is allowable for challenged courses will be determined by the instructor. A student who successfully completes the challenge will receive a letter grade "P" and credit for the course, and appropriate entries will be made on his or her permanent academic record. Course work attempted through the challenge procedure is not eligible for Financial Aid or V.A. benefits.

## COURSE LOAD

The normal course load for a full-time student is from 12 to 18 credit hours. An employed student should vary his or her course load according to the number of hours he or she works. It is recommended that such a student consult with a counselor or faculty advisor about his or her schedule. Written permission must be obtained from the appropriate instructional dean if a student's course load exceeds twenty-four credit hours of vocational training courses or twenty credit hours of general education courses.

## **COURSE NUMBERING**

- 0- 99 Precollege level courses not designed for transfer to other institutions
- 100-199 Courses normally taken by freshmen
- 200-299 Courses normally taken by sophomores

## **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 tuition assessed for courses taken under this option. Those enrolled in noncredit courses need not take examinations.

## **GRADUATION REQUIREMENTS**

The general requirements for receipt of an Associate of Applied Science degree, (A.A.S.), an Associate of Arts degree (A.A.), an Associate of Science degree (A.S.), or Certificates in Occupational Education programs are outlined in the curricula section of this catalog. A minimum cumulative grade point average of 2.00 is required for receipt of either type of degree or certificate, and only courses numbered 100 or above are applicable toward the degree or certificate. Specific requirements for individual programs may be secured from either the Records office or the Counseling Center.

The student's last 24 quarter hours of course work prior to graduation must be taken in residence at Aims Community College.

Students must make application for graduation by midterm week of the quarter preceding the anticipated quarter of graduation. Graduation applications are available from the Records office. Completed graduation applicatons must be returned to the Records office with the faculty advisor's signature. Graduate evaluations will be made and the student will be notified by mail of the conditions required for graduation prior to his or her last quarter.

## 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. A student may elect, however, to meet the requirements of any subsequent catalog which is not more than five years old (including the current year). This election must be made when the student files a declaration of intent to graduate.

In the case of a specific program, a student who has a break in enrollment of three quarters or more, excluding summer sessions, must meet the program requirements of the catalog in use at the time of readmission. If the program in which the student was previously enrolled has been discontinued, or if a notice of program discontinuance has been given, the student cannot reenroll 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.

## ADVISING

Each student is assigned a faculty advisor who becomes conversant with his or her background, aptitudes, and educational objectives, and who 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 preregistration; and
- 3. Make an appointment with an advisor when problems arise in his or her program or if class changes are necessary.

# LEARNING DEVELOPMENT CENTER

The Aims Community College Learning Development Center (LDC) is located in the General Services building. Instructional Centers, which are extensions of the LDC, are located within each classroom building on the campus. Communications and math labs also are located in the General Services building. The LDC personnel work with instructors as well as with students in order to help students achieve their educational, career, and personal goals.

# **INSTRUCTIONAL CENTERS**

The Instructional Centers incorporate the concept of individualized learning as a possible means to achieve educational success in all areas of learning. The centers provide tutorial services for the basic skills of reading, writing, grammar, spelling, and arithmetic, as well as for enrichment of subject matter courses. Some mini-courses and complete individualized courses in academic subjects also are available through the centers. A variety of learning experiences for the students are offered through the use of print materials, filmstrips, tapes, slides, and television programming.

# INSTRUCTIONAL SYSTEMS DEVELOPMENT CENTER

The Instructional Systems Development component of the LDC supports, through its services, the total instructional system at Aims Community College. This includes the development of instructional management systems, curricular development assistance, and the design and production of instructional materials, utilizing all graphic, photographic, audio, and television media. The production unit includes a work lab, duplication of audio and video media, color television studio, 4 track audio studio, and extensive photographic systems. The ISD Center is designed to support Aims in meeting the needs of the adult learner.

# AUDIO-VISUAL EQUIPMENT CENTER

The Audio-Visual Equipment Center provides preventive 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. Equipment is made available for both day and evening classes through a centralized distribution program. Through an efficient checkout system users have easy access to a variety of equipment in order to review audio tapes, video tapes, films, filmstrips, slides, and other instructional media. Instruction is given to any person who requires assistance in the operation of audio-visual equipment with which he or she is not familiar. The Audio-Visual Equipment Center functions in close harmony with the Instructional Systems Development Center to ensure the availability of compatible equipment in sufficient quantity.



## LIBRARY

The library houses a collection of both print and non-print materials, which complement the curricula of Aims Community College; it also houses the Career Information Center. The collection contains about 35,000 print and nonprint items, 325 current periodicals, and a pamphlet file. Non-print materials include cassette tapes, records, 16mm films, filmstrips, and slides. Microfilm and microfiche with accompanying reader/printers, and a self-service copier are available. Materials are checked out on a computerized circulation system, using student identification numbers. Two trained counselors staff the Career Information Center to advise students on career choices and appropriate reading materials.

# **ASSESSMENT CENTER**

The Assessment Center provides the following services:

- Pre-Assessment: Upon application for admission to the college, new students are pre-assessed in reading, writing, 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. Diagnostic Assessment: Upon identified need, the student is provided with diagnostic assessment, and evaluation in the cognitive, affective, and perceptual-motor domains to determine his or her learning characteristics. This information is utilized by the student, the advisor, and the instructors to assist the student in the course of his or her studies at Aims Community College.

# COUNSELING AND WOMEN'S RESOURCE CENTER

Counseling provides students with the opportunity for assistance in making more objective and adequate decisions relative to vocational and educational plans, including personal-social concerns related to these decisions. The Aims Community College Counseling Center, located in the General Services Building, 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 Center is an entirely confidential service and operates under ethical codes established by the American Personnel and Guidance Association. Confidential information is never given to anyone without consent from the student. Any student enrolled at Aims Community College may use these services.

The Women's Resource Center, which is a part of the Counseling Center, provides active, wide-ranging, and unique services and programs for both women and men of the college and community. The Center also welcomes all people into an informal, comfortable atmosphere for discussion or relaxation.

Emphasis in both Centers is placed on 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. Students seeking assistance may contact the Counseling Center and/or the Women's Resource Center.

- The staff of the Centers assist students in the following areas:
- 1. Educational/Vocational planning.
- 2. Career planning.
- 3. Diagnostic evaluation (interest, aptitude and personality).
- 4. Referral services about school and community resources.
- 5. Workshops and seminars.
- 6. On-going women's and men's problem-solving and support groups.

## DEVELOPMENTAL/REMEDIAL EDUCATION

Developmental/Remedial Education exists to provide educational options for students. An initial assessment of academic skills is required in order to provide the student with courses that are best suited to his or her educational goals. Students have an opportunity to acquire or raise their level of skills in the areas of math, reading, writing, and basic oral language development to the required level necessary to pass the General Education Development (GED) examination and/or to benefit from occupational or degree programs. Students may enroll in a class, or attend a supervised laboratory setting.

# SKILL CENTER

The Skill Center Program offers several courses for students who wish to acquire fundamental skills in one or more occupational areas or who are uncertain of pursuing an occupational program.

Students successfully completing these classes will acquire basic entry level skills.

Some students take the introductory courses to improve their fundamental skills and/or for personal satisfaction. In general, introductory classes are small so that students can be given individualized instruction. Additional assistance is provided through individualized materials. Tutorial services are available for individuals and small groups of students. This combination of classroom and laboratory instruction helps students achieve success in developing fundamental skills.

# STUDENT GOVERNMENT

The student body of Aims Community College is represented by student government officers drawn from its members during each academic year. This government will supervise and coordinate the various student activities as established by the student government constitution adopted by the student body. Some of the general functions of the Associated Students of Aims Community College include:

- Participating in the decision making of the college community by providing student input into the areas of classroom education, student needs, school policies, and community services
- 2. Chartering student organizations which members of the Aims Community College student body organize to further develop a particular interest

## STUDENT ACTIVITIES

A diversified activities program is being developed by the student government and the administrative staff of Aims Community College. This program will include a variety of cultural, intellectual, and career related programs. Lectures, films, seminars, and displays are all an integral part of the general activities program. Each student of the college is encouraged to develop interest in a particular activity. Student-initiated activities are an important aspect of the college experience.

## STUDENT ORGANIZATIONS

Student organizations may be chartered after interested students complete the procedures set up by the student government for establishing organizations. Each organization must be rechartered annually to assure continuing interest on the part of the students and to provide for reevaluation of objectives and performance.

# MISCELLANEOUS INFORMATION STUDENT CODE 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 the 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 invited guests, and does not cause injury to persons or damage to property. Any such interferences, damage, or threat to persons or property will not be tolerated. In situations which he or she 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. Peaceful assembly is defined as the purposeful gathering on campus, either within or outside campus buildings, of two or more persons who conduct is peaceful. Students are encouraged to hold informal discussion groups anywhere on campus and are obligated to live up to the standard of conduct adopted by the college.

Student groups planning organized meetings or demonstrations are to give notice to the college administration at least 24 hours in advance of the activity.

# 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.

## PLACEMENT SERVICE

Aims Community College maintains a placement service for students who wish to secure part-time or full-time employment while attending college, during vacactions, or after graduation. Contact the Job Development Specialist in Ed Beaty Hall.

# PART-TIME EMPLOYMENT

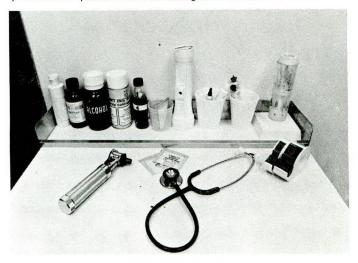
Aims Community College cooperates with local businesses to assist students in securing part-time employment. An effort is made to place students in fields which relate to their college programs. Placement information may be secured from the Job Development Specialist in the Trades and Industry building.

## BOOKSTORE

Students may purchase textbooks and supplies in the Aims Community College Bookstore during posted hours.

## **HEALTH SERVICES**

Aims Community College provides a Student Health Service in the Trades and Industry building, room 106. All services are free. The facility is staffed and directed by a registered nurse. Services available include first aid and emergency care; health education and counseling; referral services. The testing program includes hearing, vision, pregnancy, and tuburculosis. All students with health problems or questions are encouraged to contact the nurse.



## CHILD DEVELOPMENT CENTER

Aims Community College's Child Care program offers to students, for a nominal fee, a Child Development Center. The purposes of the center are to:

- 1. Provide children the opportunity to gain social relationships with other children.
- 2. Provide play experiences that contribute to the physical, social, and emotional needs of the child.
- 3. Provide an environment where each child's learning experiences may be enriched.

The center is staffed by a qualified Child Care Center director, as well as serving as a laboratory for Aims students enrolled in the Child Care program.

## 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 arranagements be made prior to the beginning of the quarter for which the student intends to enroll. It should be pointed out 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.

# **REQUESTS FOR TRANSCRIPTS**

A student requesting that a transcript (record of grades) be sent to an educational institution or to a prospective employer must complete the appropriate form in the Admissions office. The first transcript for an Aims Community College student is supplied free of charge. A charge of \$1.00 is made for each additional transcript. All accounts with the college must be settled before a transcript may be issued.

# SCHOOL OF ARTS AND SCIENCES

Arts and Sciences offerings are intended to serve a variety of student needs. Students may find support for their Occupational Education programs in these offerings, they may be enrolled in order to earn a two-year arts or science degree, or a student may be preparing for a baccalaureate program at a four-year institution to which he or she plans to transfer. In addition, these offerings may serve the special education interests of the community.

Students in Occupational Education programs may enroll in Arts and Sciences courses in order to meet the specific requirement of a particular occupational curriculum and to select desired elective courses.

Students who earn the Associate of Arts degree or the Associate of Science degree will meet most general requirements for transfer to a four-year institution. These students are encouraged to fulfill elective requirements by taking courses which relate directly to a career or academic major at another school.

For the student who desires to begin work towards a particular major while at Aims Community College, the Arts and Sciences instructional divisions have developed "areas of emphasis." Some of these are described within this section of the catalog.

The Arts and Sciences program provides adult and evening courses as part of its regular instruction. The curriculum consists of arts and sciences course work, vocational-technical and related instruction, and self-interest courses. The wide variety of instruction allows people of all ages to complete college work, acquire new skills, improve existing skills, and pursue special interests.

# ASSOCIATE DEGREES

Included within the Arts and Sciences program are two degree options, the Associate of Arts degree (A.A.) and the Associate of Science degree (A.S.).

# ALTERNATIVE ASSOCIATE DEGREE PROGRAM

Students who plan to transfer to a particular four-year college or university need not follow the degree requirements listed below. They may instead substitute the first two-years' requirements of the four-year institution to which they will transfer. The Associate of Arts degree or the Associate of Science degree will be granted by Aims Community College if the student has earned 96 quarter hours of credit and has met, as nearly as possible, the requirements of the four-year institution by taking equivalent courses at Aims.

Students interested in this alternative plan should contact their faculty advisors for help in developing a "transfer degree contract."

# **AEROSPACE STUDIES**

In cooperation with UNC, Aims Community College offers students the opportunity to enroll in the first two years of the Air Force Reserve Officer Training Corps (AFROTC) program. Students enroll through Aims and attend classes at UNC.

Candidates are educated to assume duties as Air Force Second Lieutenants upon graduation from the university. AFROTC graduates normally go on active duty with the United States Air Force soon after completion of AFROTC. Initial assignments may include flying training for pilots and navigators, missile training, or other technical or management training depending on the individual's assignment.

For additional information, contact the AFROTC chairperson, University of Northern Colorado.

# **MEXICAN AMERICAN STUDIES**

A Mexican American Studies (MAS) curriculum exists within the School of Arts and Sciences. MAS courses are listed in the course descriptions section of the catalog. Contact the assistant chairman for specific information regarding MAS course offerings.

# ADULT 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. These courses usually will not serve as transfer courses to another college. Major emphasis is on personal improvement and interest. Courses are offered if the need or demand arises, an appropriate number of students are 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.

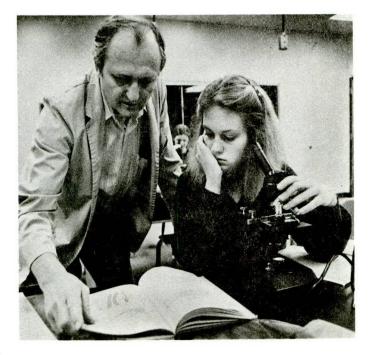
Examples of classes which may be offered are conversational Spanish, conversational German, community pottery, community guitar, social dance, and community photography.

# 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 to practicums listed in the Design and Creative Studies course descriptions.

# INDIVIDUALIZED COURSES

Some courses are offered on an individualized 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 to register for the individualized course.



# ASSOCIATE OF ARTS DEGREE

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

	CREDITS
Communications	15
Humanities	15
Behavioral and Social Science	15
Mathematics and Science	15
Physical Education	5
Electives	31
TOTAL	96

# ASSOCIATE OF ARTS DEGREE(A.A.) TOTAL MINIMUM REQUIREMENTS

#### COMMUNICATIONS

CON 102 Introduction to Writing As the result of a placement test, the student may be required to take Fundamentals of Composition, CON 101, for elective credit (five

> credit. Students are encouraged to take the above courses within the first two quarters of their degree program.

> credits) or a remedial course for no college

CREDITS

5

5

5

15

5

10

CREDITS

Select from the following courses:

SPE	115	Speech Communications	(5)
SPE	116	Public Speaking	(3-5)
SPE	118	Interpersonal Communications	(5)
Selec	t from	the following courses:	
CON	109	Creative Writing	(5)
CON	202	Advanced Composition	(5)
LIT	105	Introduction to Literature: Types and Ther	nes(5)
LIT	205	The American West	(5)
LIT	206	Shakespeare: Representative Plays	(5)
LIT	217	Women in Literature and Media	(5)
SPE	112	Introduction to Mass Media	(5)
SPE	113	Introduction to Radio Broadcasting	(5)
SPE	114	Introduction to Television Broadcasting	(5)
SPE	119	Introduction to Semantics	(3)
SPE	125	Word Power: Advanced Vocabulary	(2)

## Total Credits for A.A. Degree

#### HUMANITIES

HUM	100	Introduction to the Humanities		
Selec	t from	the following courses:		
HUM	101	Introduction to the Greek and	(E)	
ним	102	Roman period Introduction to the Middle Ages and	(5)	
		Renaissance Period	(5)	
HUM	103	Introduction to the Modern Period to		
		World War II	(5)	
HUM	104	Contemporary Culture	(5)	
HUM	105	Myth, Legend, and Folk Tales	(3-5)	
HUM	106	Introduction to World Religions	(3-5)	
HUM	109	Modern American Culture	(5)	
ART	100	Art Appreciation	(5)	
LIT	206	Shakespeare: Representative Plays	(5)	
MAS	120	Culture of Mexico and		
		South America	(5)	
MUS	100	Music Appreciation	(5)	
PHI	105	Introduction to Philosophy	(5)	
PHI	106	Introduction to Modern Philosophy	(5)	
PHI	107	Introduction to Logic	(5)	
PHI	205	Topics in Philosophy	(5)	
THE	100	Introduction to Theatre Arts	(5)	
Total	Credit	s for A.A. Degree		

#### BEHAVIORAL AND SOCIAL SCIENCE Select from the following courses: 5 PSY 101 General Psychology I (5)SOC 101 Introduction to Sociology (5) Select from two of the following five areas: 10 ANTHROPOLOGY ANT 101 Introduction to Anthropology (5)ANT 205 Environment and Culture Behavior (5)**ECONOMICS** ECO 100 Introduction to Economics (5)ECO 201 Principles of Economics: Macroeconomics (5)ECO 202 Principles of Economics: Microeconomics (5)HISTORY HIS 101 Introduction to History: Ancient Civilization (5)HIS 102 Introduction to History: Medieval Civilization (5)HIS 103 Introduction to History: Modern Civilization (5)HIS 105 History of the United States to 1877 (Myth and Reality in America's Past) (5)HIS 106 History of the United States 1865 - 1945 (Myth and Reality in America's Past) (5) HIS 107 History of the United States Since 1945 (Hiroshima to Watergate) (5)HIS 108 Modern Russian Civilization (5)HIS 205 History of England (5)History of Colorado and the HIS 209 **Rocky Mountain West** (5)MAS 161 **Aztec Civilization** (5)MAS 162 Introduction to Modern Mexico (5) POLITICAL SCIENCE POS 100 Introduction to Political Science (5)POS 101 American Government (5)POS 102 **Comparative Foreign Government** (5) POS 107 State Government (2-5)POS 108 The American Presidency (5)POS 109 **Contemporary Political Issues** (5)POS 116 International Politics Since 1945 (5)POS 118 State and Local Governments (5) POS 205 International Relations (5)POS 206 American Foreign Policy (5) GEOGRAPHY **GEO 105** World Geography (5)**GEO 205** Geography of North America (3)**GEO 206** Geography of Colorado (3)Total Credits for A.A. Degree 15 CREDITS

#### PHYSICAL EDUCATION

#### CREDITS

CREDITS

A minimum of five, separate credits 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 who have fulfilled their physical education requirements or students with a doctor's excuse may have their physcial education requirement waived. They must still meet the 96 credit requirement for the A.A. degree. Students who desire a physical education waiver must contact the director of Admissions. **Total Credits for A.A. Degree** 5

### CREDITS

#### MATHEMATICS AND SCIENCE

While planning their academic programs, advisors and students should give maximum attention to prerequisites and corequisites as stated in this catalog.

Note: A single course may be used to meet only one requirement.

Select from the following courses: minimum of 4

Any course having the prefix CSC, MAT, or STA. (Exclude the following: MAT 100, MAT 101, MAT 102, MAT 110, MAT 111, MAT 112, MAT 120, and any course numbered below 100.)

Select from the following courses: minimum of 3

Any course having the prefix AST, BIO, CHE, EAS, GEY, PHY, or SCI. (Exclude the following: PHY 101 and any course numbered below 100.)

Select from the following courses: minimum of 8

Any course having the prefix: AST, BIO, CHE, CSC, EAS, GEY, MAT, PHY, SCI, or STA. (Exclude the following: MAT 100, MAT 101, MAT 102, PHY 101, and any course numbered below 100.)

The student planning to transfer to a specific four-year school should work carefully with an advisor and the catalog of the school of transfer.

The University of Northern Colorado (UNC) Computational Skills requirement can be met by completing: STA 201 or STA 202, and MAT 121 or a higher numbered course with the MAT prefix.

Students transferring to Colorado State University (CSU) should be aware of the requirements of the institution.

Total Credits for A.A. Degree

minimum of 15

# **AREAS OF EMPHASIS**

The curricula which are described below are designed to assist those students who are pursuing particular majors at a four-year institution or particular careers. The A.A. degree requirements must be met for each area of emphasis. It may be necessay, however, to enroll in specific courses to fulfill those degree requirements for a particular area of emphasis.

# BEHAVIORAL AND SOCIAL SCIENCE DIVISION

## **BILINGUAL TEACHER AIDE EMPHASIS**

This program is designed to provide students with the basic tools which are necessary to function as a bilingual teacher aid in preschool, elementary, secondary, and adult programs. Students completing the program must be fluent in the Spanish language.

Recommended degree requirements for area of emphasis:

COMMUNI	CATIONS	CREDITS 15
	See A.A. degree requirements	
HUMANITI	ES	15
HUM 100 MAS 120	Introduction to the Humanities Culture of Mexico and	(5)
	South America	(5)
	See A.A. dgree requirement	(5)
BEHAVIOR	AL AND SOCIAL SCIENCE	15
	See A.A. degree requirements	

#### PHYSICAL EDUCATION

See A.A. degree requirements

# MATHEMATICS AND SCIENCE CHE 105 Introductory Nutrition

MAT	121	Survey of Mathematics	(5)	
		See A.A. degree requirement	(5)	
Electi	ves			24
CHE	105	Introductory Nutrition	(3)	
EDU	105	Introduction to Teacher Aide Training	(-)	
		Program	(3)	
EDU	106	Introduction to Bilingual Education	(3)	
EDU	107	Field Experience in Teacher Aide	(-)	
		Education	(5)	
EDU	108	Methods for Teaching the Billingual	(5)	
SPA	111	Elementary Spanish I (if not	. /	
		proficient in Spanish)	(5)	
Reco	mmen	ded Electives		7
Selec	t from	the following courses:		
MAS	105	Mexican Music	(3)	
MAS	116	Bilingual Skills	(3)	
MAS	155	Mexican Dance	(1)	
MAS	165	Chicano History	(3)	
PSY	118	Psychology of Adulthood		
		(for students wanting to aid		
		in adult programs)	(3)	
SPA	112	Elementary Spanish II	(5)	

15

96

(5)

**Total Credits for Area of Emphasis** 



## BEHAVIORAL AND SOCIAL SCIENCE DIVISION

# HUMANISTIC PSYCHOLOGY EMPHASIS

Recommended degree requirements for area of emphasis:

COMMUNI	CATIONS	CREDITS 15
	See A.A. degree requirements	
HUMANITI	ES	15
	See A.A. degree requirements	
BEHAVIOR	AL AND SOCIAL SCIENCE	15
PSY 101	General Psychology I See A.A. degree requirements	(5) (10)
PHYSICAL	EDUCATION	5
	See A.A. degree requirements	
MATHEMA	TICS AND SCIENCE	15

See A.A. degree requirements

Elec	tives			24
PSY	115	Humanistic Psychology	(5)	
PSY	207	Principles of Meditation and		
		Consciousness Alteration	(3)	
PSY	211	Parapsychology I	(3)	
PSY	241	Biofeedback I: Biofeedback and the		
		Psychology of Health (Principles)	(3)	
PSY		Child Psychology	(5)	
SOC	105	Sociology of Marriage and		
		the Family	(4)	
Sele	ct from	the following courses:		3
PSY	107	I'm OK, You're OK: Psychology of		
		Personal Relations	(3)	
PSY	111	Basic Human Potential Seminar	(3)	
Sele	ct from	the following courses:		3-4
PSY		Biofeedback II: EEG & EMG (Practicum)	(4)	
SOC		Contemporary Social Problems	(3)	
	115	Sociology of Education	(3)	
SOC	117	Sociology of Leisure	(3)	
Rem	aining	hours selected as desired		0-1
Tota	I Credi	ts for Area of Emphasis		96

# PARAPROFESSIONAL COUNSELING EMPHASIS

Reco	mmen	ided degree requirements for area of empl		
COM	MUNI	CATIONS	CRE	DITS 15
		See A.A. degree requirements		
HUM	ANITI	ES		15
		See A.A. degree requirements		
BEH/	VIOR	AL AND SOCIAL SCIENCE		15
PSY	101	General Psychology I See A.A. degree requirements	(5) (10)	
PHYS	SICAL	EDUCATION		5
		See A.A. degree requirements		
MAT	HEMA	TICS AND SCIENCE		15
Elect	ives			28
PSY	107	I'm OK, You're OK: Psychology of		
DOV	404	Personal Relations	(3)	
PSY	131	Beginning Counseling	(5)	
PSY	138	Biofeedback and Learning:		
PSY	001	Stress Management	(4)	
	221 241	Abnormal Psychology	(5)	
PSY	241	Biofeedback I: Biofeedback and	(0)	
PSY	248	the Psychology of Health (Principles)	(3)	
PSY	240	Child Psychology Crisis Counseling	(5) (3)	
			(3)	3-4
		of the following courses:		3-4
PSY		Basic Human Potential Seminar	(3)	
PSY		Psychology of Dreams	(3)	
PSY		Assertiveness Training	(3)	
PSY	242	Biofeedback II: EEG & EMG		
		(Practicum)	(4)	
Total	Credit	ts for Area of Emphasis	ę	96-97

# BIOFEEDBACK EMPHASIS

Recommended degree requirements for area of emphasis: CREDITS					
СОМ	MUNI	CATIONS	CRE	15	
ним	ANITI	See A.A. degree requirements ES		15	
		See A.A. degree requirements		10	
		AL AND SOCIAL SCIENCE		15	
PSY	101	General Psychology I	(5)		
		See A.A. degree requirements	(10)		
10.000000		EDUCATION		5	
PEF		Yoga I	(1)		
PEF	142	Yoga II	(1)		
		See A.A. degree requirements	(3)		
	EMA	TICS AND SCIENCE		15	
BIO	101	Biology Concepts	(5)		
BIO	211	Human Anatomy: Physiology I	(4)		
BIO	212	Human Anatomh: Physiology II	(4)		
Electi	ves		31-	(33)*	
PSY	107	I'm OK, You're OK: Psychology of			
		Personal Relations	(3)		
PSY	207	Principles of Meditation &			
		Consciousness Alteration	(3)		
PSY	212	Holistic Health	(3)		
PSY	221	Abnormal Psychology	(5)		
PSY	231	Psychology of Dreams	(3)		
		*(Or may substitute Psy 232,			
		Psychology of Dreams, 5 credits)			
PSY	241	Biofeedback I: Biofeedback and the			
		Psychology of Health (Principles)	(3)		
PSY	242	Biofeedback II: EEG & EMG	. /		
		(Practicum)	(4)		
PSY	243	Biofedback III: Internship	(4)		
PSY	249	Crisis Counseling	(3)		
Total	Total Credits for Area of Emphasis 96-(98)*				

# **GOVERNMENTAL CAREER EMPHASIS**

Designed for those students interested in city, county, state, or federal civil service or political careers immediately upon graduation from Aims or following further study at a four-year institution in such major areas as political science, public administration, and related fields. For further information on career or transfer possibilities, contact Bill Shell, 330-8008, ext. 213.

Students preparing for an emphasis in this field should insure proper preparation in writing and composition skills. Students lacking such skills, which are essential to careers in this area, can expect to be required to successfully complete remedial programs in grammar, punctuation, spelling and essay writing before receiving approval to pursue an emphasis in the Governmental Career field.

Reco	nmen	ded degree requirements for area of empha	sis:	
			CREDI	TS
COM	NUNIC	ATIONS		15
		See A.A. degree requirements		
ними	NITIE	S		15
		See A.A. degree rquirements		
BEHA	VIOR	AL AND SOCIAL SCIENCE		15
POS	101	American Government	(5)	
POS	118	State and Local Governments	(5)	
Selec	t one o	of the following courses:		
PSY	101	General Psychology I	(5)	
SOC	101	Introduction to Sociology	(5)	

PHYSICAL EDUCATION			5	
		See A.A. degree requirements		
MATH		ICS AND SCIENCE		15
		See A.A. degree requirements		
	ollowir an advi	ng courses are suggested after consultation sor:		25
ACC	101	Principles of Accounting I	(5)	
ACC	102	Principles of Accounting II	(5)	
ECO	201	Principles of Economics: Macroeconomics	(5)	
EDP	101	Introduction to Data Processing	(5)	
MGT	215	Personnel Management	(5)	
Electi	ives (a	s appropriate)		6
Total Credits for Area of Emphasis				96
JUD	ICIA	L-LEGAL ADMINISTRATION		

EMPHASIS

This flexible dual emphasis is designed for students interested in careers as court managers or as legal administrators in law firms or governmental agencies. The judicial administrator is responsible for scheduling cases, managing some court personnel and court reporting systems, and supervision of routine legal procedures related to cases.

The legal administrator prepares legal papers, performs legal research, and counsels clients under the direction of a law firm's legal staff. The legal administrator may perform similar sevices for governmental agencies heavily involved in legal matters.

Students completing a Judicial-Legal Administration (J-LA) emphasis may choose to move directly into jobs in these fields upon receipt of the A.A. degree, or may wish to transfer into similar programs in four-year institutions, such as the Judicial-Legal Administration Concentration at CSU. Further information on careers and study in this area may be obtained from Bill Shell, Political Science, 330-8008, ext. 213.

Students preparing for an emphasis in this field should insure proper preparation in writing and composition skills. Students lacking such skills, which are essential to career in this area, can expect to be required to successfully complete remedial programs in grammar, punctuation, spelling, and essay writing before receiving approval to pursue an emphasis in J-LA.

#### Recommended degree requirements for area of emphasis:

			CRED	ITS
COM	NUNIC	CATIONS		15
SPE	116	Public Speaking	(3-5)	
		See A.A. degree requirements (	10-12)	
ними	NITIE	ES		15
		See A.A. degree requirements		
BEHA	VIOR	AL AND SOCIAL SCIENCE		15
ECO POS		Principles of Economics: Macroeconomic American Government	cs (5) (5)	
Selec	t one	of the following courses:		
PSY	101	General Psychology I	(5)	
SOC	101	Introduction to Sociology	(5)	
PHYS	ICAL	EDUCATION		5
		See A.A. degree requirements		
MATH	EMA	TICS AND SCIENCE		15
MAT	131	College Algebra	(5)	
		(Preceded by MAT 122, Intermediate Algebra, if necessary)		
STA	201	Statistics for Business, Science, and		
074	000	Social Science I	(5)	
STA	202	Statistics for Business, Science, and Social Science II	(5)	

Electives			30	
ACC	101	Principles of Accounting I	(5)	
ACC	102	Principles of Accounting II	(5)	
BUS	255	Business Law	(5)	
ECO	202	Principles of Economics: Microeconomics	(5)	
EDP	101	Introduction to Data Processing	(5)	
POS	118	State and Local Governments	(5)	
Rema	aining	hours selected as desired		1

96

**Total Credits for Area of Emphasis** 

# 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 insure 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. The Political Science department will be pleased to assist prelaw students. See Bill Shell, room 207, General Services building, ext. 213.

Addition information may be obtained through the current **Prelaw Handbook**. Write Educational Testing Service, Princeton, New Jersey, 08540, for this guide to preparation, application, and study of law, along with information on most U.S. law schools.

# POLITICAL SCIENCE EMPHASIS

17

This emphasis leads graduates directly or 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 Bill Shell, 330-8008, ext. 213.

Students preparing for an emphasis in this field should insure proper preparation in writing and composition skills. Students lacking such skills, which are essential to careers in this area, can expect to be required to successfully complete remedial programs in grammar, punctuation, spelling, and essay writing before receiving approval to pursue an emphasis in Political Science.

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CREDITS					
COMM	CREDI	15			
		See A.A. degree requirements			
HUMA	NITIE	S		15	
		See A.A. degree requirements			
BEHA	VIOR	AL AND SOCIAL SCIENCE		15	
HIS	103	Introduction to History: Modern Civilization	(5)		
Select	one	of the following courses:			
PSY SOC	101 101	General Psychology I Introduction to Sociology	(5) (5)		
Select	one	of the following courses:			
ECO ECO		Introduction to Economics Principles of Economics: Macroeconomics	(5) (5)		
PHYSICAL EDUCATION					
		See A.A. degree requirements			
MATHEMATICS AND SCIENCE					
		See A.A. degree requirements			

Elect	lives			25
HIS	105	History of the United States from 1877 (Myth and Reality in America's Past)	(5)	
HIS	106	History of the United States 1865 - 1945 (Myth and Reality	(5)	
-	100	in America's Past)	(5)	
POS	100	Introduction to Political Science	(5)	
POS	101	American Government	(5)	
POS	118	State and Local Governments	(5)	
Selec	t one	of the following courses:		2-5
HIS	107	History of the United States		
		Since 1945 (Hiroshima to Watergate)	(5)	
POS	102	Comparative Foreign Government	(5)	
POS	107	State Government	(2-5)	
POS	108	The American Presidency	(5)	
POS	109	Contemporary Political Issues	(5)	
POS	116	International Politics Since 1945	(5)	
POS	205	International Relations	(5)	
POS	206	American Foreign Policy	(5)	
Rema	ining	hours elected as desired		1-4
Total Credits for Area of Emphasis				

# 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:

			CRED	115
COMMUNICATIONS				15
		See A.A. degree requirements		
HUM	ANITIE	ES		15
		See A.A. degree requirements		
BEHA	VIOR	AL AND SOCIAL SCIENCE		41
ECO	210	Principles of Economics: Macroeconomics	(5)	
GEO	105	World Geography	(5)	
GEO	206	Geography of Colorado	(3)	
HIS	107	History of the United States		
		Since 1945 (Hiroshima to Watergate)	(5)	
PSY		General Psychology I	(5)	
POS		American Government	(5)	
POS	118	State and Local Government	(5)	
	101	Introduction to Sociology	(5)	
SOC	111	Social Services I	(3)	
		Consult with an advisor to determine which these courses will apply to the A.A. deg "area" requirements and which will apply "elective" requirements. All of the above cour are required to complete this emphasis.	ree to	
PHYS		EDUCATION		5
		See A.A. degree requirements		
MATH	MATHEMATICS AND SCIENCE			
		See A.A. degree requirements		

Electives

**Total Credits for Area of Emphasis** 

## SOCIAL WORK EMPHASIS

The term "social services" is used to denote a goal of orienting students to possibilities for employment in social organizations concerned with meeting direct human needs. In its broadest sense, social services include concern for health, among other areas. A fundamental principle in the provision of social services is to stimulate people to utilize their capabilities and resources so that they are able to deal with their life situations.

The primary objectives of this program are (1) to complete the requirements for the Associate of Arts degree (A.A. degree) and (2) to prepare students for entry into a junior year, baccalaureate degree program in social work, occupational therapy, probation/parole work, or other social service areas.

# Recommended degree requirements for area of emphasis:

CREDITS

CON	MUNI	CATIONS		15
CON		Introduction to Writing	(5)	
CON		Advanced Composition	(5)	
SPE	115	Speech Communications	(5)	
HUN	ANITI	ES		15
HUM	1 100	Introduction to the Humanities	(5)	
Sele	ct two	of the following courses:		
ART	100	Art Appreciation	(5)	
HUN	1 101	Introduction to the Greek and		
ним	1 102	Roman Period	(5)	
11010	1 102	Introduction to the Middle Ages and Renaissance Period	(5)	
MUS	100	Music Appreciation	(5)	
PHI	105	Introduction to Philosophy	(5)	
DEU		AL AND SOCIAL SCIENCE		
				15
ANT POS	101	Introduction to Anthropology	(5)	
SOC	101	American Government Introduction to Sociology	(5) (5)	
			(0)	
PHYS	SICAL	EDUCATION		5
		See A.A. degree requirements		
MATH	IEMAT	TICS AND SCIENCE		15
BIO	101	Biology Concepts	(5)	
MAT	131	College Algebra	(5)	
Selec	t one o	of the following courses:		
CHE	105	Introduction to Nutrition	(5)	
STA	201	Statistics for Business, Science, and		
		Social Science I	(5)	
Electi	ves			27
	100	Introduction to Economics	(5)	
MAS		Psychology of the Mexican American	(3)	
PSY	101	General Psychology I	(5)	
SOC	106	Contemporary Social Problems	(3)	
SOC SOC	111 112	Social Services I Social Services II	(3)	
SOC	113	Social Services II	(3) (5)	
		of the following courses:	(0)	3-5
PSY	118	Psychology of Adulthood	(3)	
PSY	248	Child Psychology	(5)	
		nours selected as desired	(-)	0-1
		s for Area of Emphasis		6-97
			-	

5

96

# FAMILY AND LIFE EDUCATION EXPECTANT PARENT AND ACTIVE FAMILIES ADVISORY COMMITTEE

Gayle Bohrer, R.N. Parenting Coordinator Aims Community College

Charles C. Chesley, M.D. Weld County General Hospital

Jayleen Gilkey Consumer Representative

Joan Gillespie Certified Psychologist Weld Mental Health Center, Inc.

Phyllis Gleason, R.N. Weld County Department of Public Health

Robert Hartley, M.D. Weld County General Hospital

Enita Kearns Weld County Department of Social Services

Stephen R. Kozloff, M.D. Weld County General Hospital

Kathleen Ley, R.N. School Age Parent Coordinator Weld County School District 6

Jean Mallett, R.N. Weld County School District 6

Sara Mariott Child Abuse Intervention, Inc.

Catherine Orosz, R.N. Obstetrics Weld County General Hospital

Carol Shropshire, R.N. Program Coordinator Aims Community College Weld County General Hospital

Doreen Stenner, R.N. Instructor Representative Aims Community College Weld County General Hospital

Kathleen Stevens, R.N. Expectant Parents Coordinator Aims Community College Weld County General Hospital

John Turner Behavioral & Social Science Division Chairperson Aims Community College

# FAMILY AND LIFE EDUCATION WELLNESS AND HEALTH PROMOTION ADVISORY COMMITTEE

Brian Allen, M.D. Weld County General Hospital

Gilbert Anderson, M.D. Weld County General Hospital

Shirley Broderius, R.N. Instructor Representative Aims Community College Weld County General Hospital

Robert Cash, M.D. Weld County General Hospital

Roberta Miller Weld County General Hospital

Carol Shropshire, R.N. Program Coordinator Aims Community College Weld County General Hospital

Mary D. Snider Body Shoppe Coordinator Aims Community College Weld County General Hospital

Gordon Tomasi Consumer Representative

John Turner Behavioral & Social Science Division Chairperson Aims Community College

# **DESIGN AND CREATIVE STUDIES**

# (Design, Visual Arts, Music, Theatre and Movement, Textiles and Clothing)

The curriculum for each area of emphasis is developed on the basis of requirements and needs of the university level programs to which students may transfer, and firms in Northern Colorado involved in work related to the offerings. Those students who have specific plans for transfer should consult with faculty in Design and Creative Studies to choose the combination of courses most appropriate for them. These emphases are intended as guides and should not be viewed as designating major requirements in a specific four year program.

In a college curriculum the study of design and the visual and performing arts is an exciting venture with several facets. Students may work in these courses to deepen their understanding of the history of human expression and invention, to extend or strengthen their sensory skills, to develop creative thinking abilities, or to learn the process of creating their own unique expressions, images, or objects.

The transfer level courses may be taken as rewarding electives within a program of general education, or as work toward a four year program in design, visual arts, music, theatre and dance, or textiles and clothing. Prospective university majors (or minors) meet with the program coordinator to plan course requirements appropriate to their educational goals.

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



# DESIGN AND VISUAL COMMUNICATION EMPHASIS

Reco	mmen	ded degree requirements for area of emph	asis:	
			CREE	ITS
COM	MUNI	CATIONS		15
		See A.A. degree requirements		
HUM		ES		15
Art	100	Art Appreciation See A.A. degree requirements	(5)	
BEHA	VIOR	AL AND SOCIAL SCIENCE		15
		See A.A. degree requirements		
PHYS	ICAL	EDUCATION		5
		See A.A. degree requirements		
MATI	HEMA	TICS AND SCIENCE		15
		See A.A. degree requirements		
Elect	ives			31
Select		the following fundamental courses, with adv	isor	
		required prerequisites in most college art grams.)	and	
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)	
Select		the following studio design courses, with adv	isor	
AAD	221	Graphic Design I	(3)	
			101	

AAD	221	Graphic Design I	(3)				
AAD	222	Graphic Design II	(3)				
AAD	223	Graphic Design III	(3)				
AAD	231	Figure Drawing	(3)				
AAD	235	Graphic Illustration	(3)				
AAD	241	Photography I	(3)				
AAD	242	Photography II	(3)				
AAD	243	Photography III	(3)				
AAD	245	Photojournalism	(3)				
AAD	250	Introduction to Architecture					
		and Interior Design	(3)				
AAD	251	Interior Design I	(3)				
AAD	252	Interior Design II	(3)				
AAD	253	Interior Design III	(3)				
ARS	243	Water Media I	(3)				
FTC	100	Survey of Fashion Design	(3)				
Total	Total Credits for Area of Emphasis						

# DESIGN AND CREATIVE STUDIES ADVISORY COMMITTEE

Architecture	Robert Shreve Architect and Vice President ARIX — Architects, Engineers, Planners
Fashion Design	Sami Demitt Sami's Unique Apparel
Graphic Design	Deborah Dalton Advertising Manager Joslins Department Stores
	Bill Van Eron Graphic Designer Hewlett-Packard Ft. Collins
	Marty Van Loan Graphic Designer ARIX — Architects, Engineers, Planners
Interior Design	Kay Carithers Owner Decor Ltd.
Photography	John Buffington Photo Technician Colorado State University Ft. Collins
	Paul Moloney Photo Editor The Greeley Daily Tribune

\*The courses in the Design segment of the program are also used by many adults to develop or expand a variety of working skills. The advisory committee assures that these courses contain information and techniques that are practical and applicable to the working needs of the region.

# FINE ARTS EMPHASIS

The Fine Arts Emphasis may be directed toward teacher preparation. It should be noted that two options are available to the student: Art, or Music and 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), students select form either the Art electives listed, or from the Music and Theatre electives listed.

#### Recommended degree requirements for area of emphasis:

COMMUNIC	CATIONS		15
	See A.A. degree requirements		
HUMANITI	ES		15
HUM 100	Introduction to the Humanities	(5)	
Select two	of the following courses:		
ART 100 MUS 100 THE 100	Art Appreciation Music Appreciation Introduction to Theatre Arts	(5) (5) (5)	
BEHAVIOR	AL 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			

96

Select from with advisor	the following fundamental courses, approval:			
(These are n	required prerequisites in most college art			
and design	programs.)			
<ul> <li>AAD 101</li> <li>AAD 102</li> <li>AAD 131</li> <li>AAD 132</li> <li>ART 111</li> <li>ART 112</li> </ul>	Fundamentals of Art & Design II Drawing I	(5) (5) (3) (3) (5) (5)		
Select from advisor app	the following studio art courses, with roval:			
ARS 251	Painting I Water Media I Sculpture I Jewelry and Metalwork I	<ul> <li>(3)</li> <li>(3)</li> <li>(3)</li> <li>(3)</li> <li>(3)</li> <li>(3)</li> <li>(3)</li> </ul>		
	ts for Area of Emphasis	(0)	96	
			31	
Electives	- MUSIC AND THEATRE		51	
Select from	the following courses, with advisor appro	val:		
MUP 131	Piano I	(3)		
MUP 132	Piano II	(3)		
MUS 105	Fundamentals of Music Music Theory	(5) (4)		
	Children's Music	(3)		
THE 100	Introduction to Theatre Arts	(5)		
THE 105	Acting I	(3)		
THE 106	Acting II	(3)		
THE 255	Directing	(3)		
THE 275	Art of Dance & Movement	(3)		
THE 299	Theatre Practicum (Prospective theatre majors should take p	(1-3) art in a		
	minimum of 4 productions in which cr			
	given through the theatre "practicum.")			
Total Credits for Area of Emphasis				

Electives - ART

# ASSOCIATE OF SCIENCE DEGREE

Students seeking the Associate of Science degree must earn minimum credits in the following subject areas. These credits may vary under the Alternative Associate degree program. CREDITS

15
15
15
5
35
11
96

# **ASSOCIATE OF SCIENCE DEGEE (A.S.)**

## **Total Minimum Requirements**

## COMMUNICATIONS

CON 102 Introduction to Writing

5

CREDITS

As a result of a placement test, the student my be required to take Fundamentals of Composition, CON 101, for elective credit (five credits) or a remedial course for no college credit.

Students are encouraged to take the above courses within the first two quarters of their degree program.

Selec	t from	the following courses:		5
SPE SPE SPE	115 116 118	Speech Communications Public Speaking Interpersonal Communications	(5) (3-5) (5)	
Selec	t from	the following courses:		5
	109 202	Creative Writing Advanced Composition Introduction to Literature:	(5) (5)	
LIT	105	Types and Themes	(5)	
LIT	205	The American West	(5)	
LIT	206	Shakespeare: Representative Plays	(5)	
LIT	217	Women in Literature and Media	(5)	
SPE	112	Introduction to Mass Media	(5)	
SPE	113	Introduction to Radio Broadcasting	(5)	
SPE	114	Introduction to Television Broadcasting	(5)	
SPE	119	Introduction to Semantics	(3)	
SPE	125	Word Power: Advanced Vocabulary	(2)	

## Total Credits for A.S. Degree

15

## HUMANITIES

31

CREDITS

HUM 100	Introduction to the Humanities		5
Select from	the following courses:		10
HUM 101	Introduction to the Greek and Roman Period	(5)	
HUM 102	Introduction to the Middle Ages and Renaissance Period	(5)	
HUM 103	Introduction to the Modern Period to World War II	(5)	
HUM 104	Contemporary Culture	(5)	
HUM 105	Myth, Legend and Folk Tales	(3-5)	
HUM 106	Introduction to World Religions	(3-5)	
HUM 109	Modern American Culture	(5)	
ART 100	Art Appreciation	(5)	
LIT 206	Shakespeare: Representative Plays	(5)	
MAS 120	Culture of Mexico and		
	South America	(5)	
MUS 100	Music Appreciation	(5)	
PHI 105	Introduction to Philosophy	(5)	
PHI 106	Introduction to Modern Philosophy	(5)	
PHI 107	Introduction to Logic	(5)	
PHI 205	Topics in Philosophy	(5)	
THE 100	Introduction to Theatre Arts	(5)	
Total Cred	lits for A.S. Degree		15

#### CREDITS **BEHAVIORAL AND SOCIAL SCIENCE** 5 Select from the following courses: PSY 101 General Psychology I (5) (5) SOC 101 Introduction to Sociology 10 Select from two of the following five areas:

# ANTHROPOLOGY

ANT	101	Introduction to Anthropology	(5)
ANT	205	Environment and Culture Behavior	(5)

## ECONOMICS

ECC	100	Introduction to Economics	(5)
ECC	201	Principles of Economics: Macroeconomics	(5)
ECC	202	Principles of Economics: Microeconomics	(5)
HIST	ORY		
HIS	101	Introduction to History:	
		Ancient Civilization	(5)
HIS	102	Introduction to History:	. ,
		Medieval Civilization	(5)
HIS	103	Introduction to History:	1-7
		Modern Civilization	(5)
HIS	105	History of the United States	(-)
		to 1877 (Myth and Reality	
		in America's Past)	(5)
HIS	106	History of the United States	(-)
		1865 - 1945 (Myth and Reality	
		in America's Past)	(5)
HIS	107	History of the United States	
		Since 1945 (Hiroshima to Watergate)	(5)
HIS	108	Modern Russian Civilization	(5)
HIS	205	History of England	(5)
HIS	209	History of Colorado and the	(-)
		Rocky Mountain West	(5)
MAS	161	Aztec Civilization	(5)
MAS	162	Introduction to Modern Mexico	(5)
DOL	TICAL	OOIENOE	

## POLITICAL SCIENCE

POS	100	Introduction to Political Science	(5)	
POS	101	American Government	(5)	
POS	102	Comparative Foreign Government	(5)	
POS	107	State Government	(2-5)	
POS	108	The American Presidency	(5)	
POS	109	Contemporary Political Issues	(5)	
POS	116	International Politics Since 1945	(5)	
POS	118	State and Local Governments	(5)	
POS	205	International Relations	(5)	
POS	206	American Foreign Policy	(5)	
GEOG	GRAPH	łY		
GEO	105	World Geography	(5)	
GEO	205	Geography of North America	(3)	
GEO	206	Geography of Colorado	(3)	
Total Credits for A.S. Degree				

#### PHYSICAL EDUCATION

A minimum of five, separate credits 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 who have fulfilled their physical education requirements or students with a doctor's excuse may have their physical education requirement waived. They must still meet the 96 credit requirement for the A.S. degree. Students who desire a physical education waiver must contact the director of Admissions.

### Total Credits for A.S. Degree

MATHEMATICS AND SCIENCE

#### CREDITS

5

15

CREDITS

(Note: All Associate of Science degree plans must be approved by the Division Chairman of Mathematics and Science.)

A minimum of 35 credits is required for the Associate of Science degree. Students should give maximum attention to prerequisites and corequistes as stated in this catalog. The degree requirements may be met by completing:

- 1. Any area of emphasis in the Mathematics and Science Division as listed in this catalog.
- 2. An alternative plan for the Associate of Science degree. This series of courses must be **approved** by an appropriate advisor.
- 3. A minimum of 45 credits selected from **approved** courses with the following prefixes: AST, BIO, CHE, CSC, EAS, GEY, MAT, PHY, SCI, STA.
- 4. A minimum of 35 credits selected from **approved** courses with the following prefixes: AST, BIO, CHE, EAS, GEY, PHY, SCI. Competency in mathematics must be demonstrated.
- 5. A block of course work which includes a minimum of 32 credits from **approved** courses with the following prefixes: CSC, MAT, STA, and at least 3 credits selected from **approved** courses with the following prefixes: AST, BIO, CHE, EAS, GEY, PHY, SCI.

Total Credits for A.S. Degree

## 35

# AREAS OF EMPHASIS

The Mathematics and Science Division is committed to making available quality offerings for the nonscience 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. Students may enjoy opportunities to conduct experiments in an open laboratory environment with paraprofessional faculty and tutors available for supplemental and reinforcement modes of instruction.

Areas of Emphasis: The Mathematics and Science Division offers students the option of an area of emphasis in life science, chemistry, chemical testing technology, computer science, mathematics, pre-health profession, or science and mathematics. An area of emphasis requires divisional approval and a minimum of 35 quarter hours (45 quarter hours in the case of a science and mathematics area of emphasis) of courses selected from the appropriate discipline(s).

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. or Alternative A.A. degree
- 3. Satisfy the specific requirements for the A.S. or Alternative A.S. degree
- 4. Satisfy the specific requirements for an area of emphasis in the Mathematics and Science Division. This is in conjunction with the A.S. degree

If option 4 is selected, it should be noted that the general 96 hour requirement for the A.S. degree is not altered; therefore, several additional credit hours of course work may be necessary.

Enrollees who choose to complete the general requirements for the A.A. degree or want to investigate certain disciplines may select studies of a more general nature. Appropriate courses are offered in biology, physics, chemistry, earth sciences, computer programming, and mathematics.

Typical areas of study: These are typical course offerings which may be followed by students wishing to transfer to a four-year college, complete an area of emphasis in the division, or strengthen and broaden their academic background. Many variations are possible within each pattern.

# CHEMISTRY EMPHASIS

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.

#### **Initial Course Block:**

#### CREDITS

CHE	101, 102, 103	General Chemistry I, II, III	(each) §	5
MAT	131, 132	College Algebra, Trigonometry	(each) §	5
MAT	161	Calculus with Analytic Geometry I	:	5
		Electives (as appropriate)		

**Terminal Course Block:** 

CHE	201, 202, 203	Organic Chemistry I, II, III	(each) 5	
MAT	162, 163, 262	Calculus with Analytic		
		Geometry II, III, IV	(each) 5	
PHY	201, 202, 203	General Physics I, II, III	(each) 5	
CSC	201	Introduction to Computer Prog	gramming	
		and the FORTRAN IV Lang	guage 4	
		Electives (as appropriate)		

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

Potential opportunities: 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 laboratory testing involving physical and chemical analysis. If desired, students may transfer to four-year colleges including the University of Wyoming to obtain a Bachelor of Science degree in Chemical Technology.

Initial Course Block	: CREDITS
CHE 101, 102, 103	General Chemistry I, II, III (each) 5
CHE 205	Glassware Construction and Repair 2
GEY 111	Physical Geology 5
PHY 120	Fundamentals of Physics 5
MAT 122	Intermediate Algebra 5
HEN 106	Safety and First Aid 3
	Electives (as appropriate)

#### **Terminal Course Block:**

CHE	201, 202, 203	Organic Chemistry I, II, III	(each) 5
CHE	215, 216, 217	Instrumental Analysis I	(each) 1
CHE	225, 226, 227	Instrumental Analysis II	(each) 1
CHE	235, 236, 237	Instrumental Analysis III	(each) 1

STA 201	Statistics for Business, Science, and	
	Social Science I	5
CSC 201	Introduction to Computer Programming	
	and the FORTRAN IV Language	4
*MAT 161	Calculus with Analytic Geometry I	5
	Electives (as appropriate)	

\*For students transferring to the University of Wyoming

# CHEMICAL TESTING TECHNOLOGY **ADVISORY COMMITTEE**

Ed Lee Monfort of Colorado John Yule Ideal Cement Research Larry Mounce Colorado State University Ft. Collins

Larry Scott Triple S. Labs, Inc.

**Bob Steener** Eastman Kodak Company Colorado Division Windsor



# COMPUTER SCIENCE EMPHASIS

Students who desire a career in computer science or a broad background in this area may receive training in various essential courses. This area of emphasis allows for substantial flexibility.

Initial Course Block:			CREDITS
MAT	131, 132	College Algebra, Trigonometry	(each) 5
CSC	101	Introduction to Computers and t	he
		BASIC Language	4
CSC	201	Introduction to Computer Progra	amming
		and the FORTRAN IV Langu	age 4
CSC	231	Advanced Topics in	
		Computer Programming	4
EDP	102, 103	Computer Concepts I, II	(each) 5
		Electives (as appropriate)	

### **Terminal Course Block:**

MAT	161, 162, 163	Calculus with Analytic Geometry I, II, III	(each) 5
MAT	261	Linear Algebra	5
STA	201, 202	Statistics for Business, Science, an	nd
		Social Science I, II	(each) 5
EDP	201	Assembler Language Programming I	5
		Electives (as appropriate)	

# ENGINEERING

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, but not an area of emphasis in engineering.

Initial Cou	irse Block:		CREDITS
		ollege Algebra, Trigonome alculus with Analytic	try (each) 5
	, 102, 100 00	Geometry I, II, III	(each) 5
CSC 201	Int	troduction to Computer Pr	ogramming
		and the FORTRAN IV La	0 0
CSC 231	Ac	dvanced Topics in Comput	er
		Programming	4
CHE 101,	, 102, 103 Ge	eneral Chemistry I, II, III	(each) 5
	El	ectives (as appropriate)	

## **Terminal Course Block:**

STA	201, 202	Statistics for Business, Science, and		
		Social Science I, II	(each) 5	
PHY	201, 202, 203	General Physics I, II, III	(each) 5	
MAT	261	Linear Algebra	5	
MAT	262	Calculus with Analytic Geometry	IV 5	
MAT	263	Elementary Differential Equations		
		Electives (as appropriate)		

**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

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

Initial Course Blo	ck:	CREDITS
BIO 101	Biology Concepts	5
BIO 102	Animal Biology	5
BIO 103	Plant Biology	5
BIO 207	Vertebrate Biology	5
CHE 101, 102, 10	General Chemistry I, II, III	(each) 5
CHE 201	Organic Chemistry I	5
MAT 131	College Algebra	5
	Electives (as appropriate)	
Terminal Course	Block:	CREDITS

BIO	211, 212, 213	Human Anatomy: Physiology I, II	, III (each) 4
BIO	202	Cell Biology	5
BIO	203	Developmental Biology	5
STA	201, 202	Statistics for Business, Science,	and
		Social Science I, II	(each) 5

Electives (as appropriate)

# MATHEMATICS EMPHASIS

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

Initia	I Course Block:		CREDITS
CSC	101	Introduction to Computers and th	е
		BASIC Language	4
CSC	201	Introduction to Computer Program	mming
		and the FORTRAN IV Langua	ge 4
MAT	131, 132	College Àlgebra, Trigonometry	(each) 5
MAT	161, 162, 163	Calculus with Analytic	
		Geometry I, II, III	(each) 5
STA	201, 202	Statistics for Business, Science, a	ind
		Social Science I, II	(each) 5
		Electives (as appropriate)	

## Terminal Course Block:

MAT	261	Linear Algebra	5
MAT	262	Calculus with Analytic Geometry IV	5
MAT	263	Elementary Differential Equations	5
PHY	201, 202, 203	General Physics I, II, III (each	) 5
		Electives (as appropriate)	

**Note:** This emphasis contains College Albegra and College Trigonometry which may transfer as electives only. Consequently, students may require a longer period of time to complete the baccalaureate degree.

# PRE-HEALTH PROFESSION EMPHASIS

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

Initia	I Course Block:		CREDITS
BIO	101	Biology Concepts	5
BIO	102	Animal Biology	5
BIO	103	Plant Biology	5
BIO	207	Vertebrate Biology	5
CHE	101, 102, 103	General Chemistry I, II, III	(each) 5
PHY	151, 152, 153	Introductory College	
		Physics I, II, III	(each) 5
STA	201	Statistics for Business, Science,	and
		Social Science I	5
		Electives (as appropriate)	

#### **Terminal Course Block:**

BIO	202	Cell Biology	5
BIO	203	Developmental Biology	5
BIO	211, 212, 213	Human Anatomy:	
		Physiology I, II, III	(each) 4
BIO	216	Introduction to Microbiology	5
CHE	201, 202, 203	Organic Chemistry I, II, III	(each) 5
		Electives (as appropriate)	

# SCHOOL OF OCCUPATIONAL EDUCATION

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, are employed but desire to improve their skills, or 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.

# OCCUPATIONAL EDUCATION ADVISORY COUNCIL

Roberta Miller, chairman Assistant Administrator Weld County General Hospital

Rod Robertson, vice-chairman Certified Industrial Developer Manager Economic Development Greeley Chamber of Commerce

Linda Kadlecek Certified Public Accountant Kosmicki, Premer & Kurtz

Judy Griego Administrator Weld County Human Resources

Russ Dieterle Supervisor Vocational Training Eastman Kodak Company Colorado Division

Dale Majors President Majors' Welding Supply

Paul Gaiser, ex-officio Dean Occupational Education Aims Community College

# 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. The 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 Ed Beaty Hall. Students interested in full- and part-time jobs should contact the Placement office and complete an application for employment. This free service is available to all past and present students of Aims Community College.



# **BUSINESS DIVISION PROGRAMS**

Desirable characteristics for students in all business programs are the ability to take responsibility, average Enlgish and mathematical skills, and spelling ability. Neatness in work and appearance is necessary for the successful job applicant.

The Business Division is flexible in order to meet specific training needs of the business community; members of the Business Division will work individually or collectively with employers to offer on-the-job or upgrading training. 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.

Students entering Aims Community College with high school credit in typewriting, bookkeeping, and/or shorthand may substitute other courses or challenge equivalent courses for BUS 101, 102, 141, and SEC 151, 152, 161, 162.

Those programs which require MAT 110 and CON 104 will require students to take a pretest. The student may be required to take MAT 015 prior to enrollment in MAT 110. The student also may be required to take CON 095 prior to CON 104.

The Business Division offers the following programs:

ACCOUNTING ACCOUNTING

(two year A.A.S. degree)

## ELECTRONIC DATA PROCESSING ELECTRONIC DATA PROCESSING (two year A.A.S. degree)

GENERAL BUSINESS CLERK-BOOKKEEPER CLERK TYPIST OFFICE SUPERVISION

MID-MANAGEMENT

MID-MANAGEMENT INDUSTRIAL/INSTITUTIONAL MANAGEMENT OPTION

SALES OPTION SMALL BUSINESS MANAGEMENT OPTION REAL ESTATE FOR COLORADO

LICENSING

# SECRETARIAL

BUSINESS SECRETARY CLERK-STENO JUDICIAL/LEGAL SECRETARY MEDICAL CLERK-TYPIST (one year certificate) (one year certificate) (two year A.A.S. degree)

(two year A.A.S. degree)

(two year A.A.S. degree) (one year certificate) (two year A.A.S. degree)

(one year certificate)

(no degree awarded)

# ACCOUNTING

(Betty Buxman, Kerry Colton, Marilyn Mathews -- 330-8008)

**Program Length:** Usually six quarters for Associate of Applied Science degree program.

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.

It is desirable that students in the Accounting program have a basic math background, with problem solving analytical ability.

Accounting students may take BUS 281 and 282 as recommended electives instead of taking them as part of degree requirements. With advisor approval, students who have previous work experience may substitute other courses in programs requiring BUS 281 and 282.

## DEGREE PROGRAM

## **Degree Requirements:**

		CRE	DITS		
			55		
	Principles of Accounting I	(5)			
	Principles of Accounting II	(5)			
	Principles of Accounting III	(5)			
	Payroll Accounting	(3)			
	ntermediate Accounting I	(5)			
	ntermediate Accounting II	(5)			
	Accounting Systems	(4)			
	Cost Accounting I	(5)			
	Financial Management	(5)			
	Adding and Calculating Machines	(2)			
	Business Communications II	(3)			
	Business Communications III	(3)			
BUS 255 E	Business Law	(5)			
Required Ger	neral Education Courses		15		
CON 104 E	Basic Communications	(5)			
EDP 101 Ir	ntroduction to Data Processing	(5)			
MAT 110 B	Business Mathematics	(5)			
Select from th	ne following courses:		5		
BUS 100 Ir	ntroduction to Business	(5)			
PSY 145 H	luman Relations at Work	(5)			
Electives (sele	Electives (selected with advisor approval)				
Total credits	for A.A.S. Degree		96		

# ACCOUNTING ADVISORY COMMITTEE

Arlin Disselkoen Greeley National Bank

Jon Ewert Agland, Incorporated

Larry Heinze Stao Dynamics

Linda Kadlecek Kosmicki, Premer & Kurtz

Allen McConnell University of Northern Colorado

Bill Sleigh Eastman Kodak Company Colorado Division

Paul Thompson Thompson & Hoover, CPA's Incorporated

Ken Whitney Anderson & Whitney

# **ELECTRONIC DATA PROCESSING**

(Sandra Neary, Thelma Stephenson -- 330-8008)

**Program Length:** Usually six quarters for Associate of Applied Science degree program.

**Potential Opportunities:** The program is designed to prepare students for employment in three major areas: computer operations, computer programming, and systems analysis and design.

Logical reasoning, problem-solving ability, perserverance, and inquisitiveness are definite assets for students to possess. Jobs which relate to these areas would include: computer programmer, program coder, computer operator, machines operator, console operator, systems analyst, operations manager, programming manager, and data processing manager.

Electronic data processing students may take EDP 281 and 282 as recommeneded electives instead of taking them as part of degree requirements. With advisor approval, students who have previous work experience may substitute other courses in programs requiring EDP 281 and 282.

CREDITS

## DEGREE PROGRAM

#### Degree Requirement

	•		
	68		
ACC 101 Principles of Accounting			
ACC 102 Principles of Accounting	(-)		
ACC 103 Principles of Accounting			
BUS 156 Business Communication	(-)		
EDP 101 Introduction to Data Proc	cessing (5)		
EDP 102 Computer Concepts I	(5)		
EDP 103 Computer Concepts II	(5)		
EDP 105 Computer Operations	(5)		
EDP 121 Cobol Programming	(5)		
EDP 122 Advanced Cobol Program	nming (5)		
EDP 126 Report Program Generate			
EDP 201 Assembler Language Pro			
EDP 211 New Issues and Developr	nents in		
Data Processing	(5)		
EDP 237 Systems Analysis and Da	ta		
Management	(5)		
<b>Required General Education Courses</b>	10		
CON 104 Basic Communications	(5)		
MAT 110 Business Mathematics	(5)		
Select from the following courses:	8-10		
BUS 125 Money Management	(3)		
BUS 100 Introduction to Business	(5)		
PSY 145 Human Relations at Work			
Electives (selected with advisor approval)			
Total Credits for A.A.S. Degree	99		

## ELECTRONIC DATA PROCESSING ADVISORY COMMITTEE

Leon Overbeck State Farm Insurance Company Gordon Sheets

City of Greeley

William Stitt Hensel Phelps Construction Company

Marcus N. Valerio Diversified Computer Systems of Colorado

Rick Ayers District Six

Bob Rhinesmith Weld County

## GENERAL BUSINESS

(Lucille Eckhardt, Jerry Goddard, Melba Kriegel, Judy Leusink, Miriam Peterson -- 330-8008)

**Program Length:** Usually three quarters for Clerk-Bookkeeper Certificate in Occupational Education program: usually three quarters for Clerk-Typist Certificate in Occupational Education program; usually six quarters for Office Supervision Associate of Applied Science degree program.

#### CLERK-BOOKKEEPER CERTIFICATE PROGRAM

#### **Certificate Requirements:**

		CREDITS	
		51	
105	Payroll Accounting	(3)	
101	Beginning Typewriting	(4)	
102	Intermediate Typewriting	(4)	
116	Adding and Calculating Machines	(2)	
141	College Bookkeeping I	(5)	
142	College Bookkeeping II	(5)	
165	Filing	(3)	
175	Office Procedures	(5)	
104	Basic Communications	(5)	
101	Introduction to Data Processing	(5)	
110	Business Mathematics	(5)	
145	Human Relations at Work	(5)	
ives (s	selected with advisor approval)	3	
Total Credits for Certificate			
	101 102 116 141 142 165 175 104 101 110 145 <b>ives</b> (s	<ul> <li>101 Beginning Typewriting</li> <li>102 Intermediate Typewriting</li> <li>116 Adding and Calculating Machines</li> <li>141 College Bookkeeping I</li> <li>142 College Bookkeeping II</li> <li>145 Filing</li> <li>175 Office Procedures</li> <li>104 Basic Communications</li> <li>101 Introduction to Data Processing</li> <li>110 Business Mathematics</li> <li>145 Human Relations at Work</li> <li>ives (selected with advisor approval)</li> </ul>	51105Payroll Accounting101Beginning Typewriting102Intermediate Typewriting103Intermediate Typewriting104Adding and Calculating Machines116Adding and Calculating Machines121College Bookkeeping I142College Bookkeeping II165Filing175Office Procedures104Basic Communications105Introduction to Data Processing105Ids110Business Mathematics145Human Relations at Workives (selected with advisor approval)3

# CLERK-TYPIST

# CERTIFICATE PROGRAM

## **Cerificate Requirements:**

				4/
BUS	101	Beginning Typewriting	(4)	
BUS	102	Intermediate Typewriting	(4)	
BUS	103	Advanced Typewriting	(4)	
BUS	116	Adding and Calculating Machines	(2)	
BUS	156	<b>Business Communications II</b>	(3)	
BUS	157	<b>Business Communications III</b>	(3)	
BUS	165	Filing	(3)	
BUS	175	Office Procedures	(5)	
CON	104	Basic Communications	(5)	
MAT	110	Business Mathematics	(5)	
PSY	145	Human Relations at Work	(5)	
SEC	105	Machine Transcription	(4)	
Elect	Electives (selected with advisor approval)			

## Total Credits for Certificate OFFICE SUPERVISION DEGREE PROGRAM

#### **Degree Requirements:**

				64
ACC	101	Principles of Accounting I	(5)	
ACC	102	Principles of Accounting II	(5)	
ACC	105	Payroll Accounting	(3)	
BUS	101	Beginning Typewriting	(4)	
BUS	102	Intermediate Typewriting	(4)	
BUS	116	Adding and Calculating Machines	(2)	
BUS	156	Business Communications II	(3)	
BUS	157	<b>Business Communications III</b>	(3)	
BUS	165	Filing	(3)	
BUS	175	Office Procedures	(5)	
BUS	255	Business Law	(5)	
BUS	281	Cooperative Office Occupations I	(6)	
BUS	282	Cooperative Office Occupations II	(6)	
MGT	205	Credit Management	(5)	
MGT	215	Personnel Management	(5)	

Selec	Select from the following courses:			5
ACC BUS		Financial Management Business and Banking	(5) (5)	
Requ	Required General Education Courses			25
BUS	100	Introduction to Business	(5)	
CON	104	Basic Communications	(5)	
EDP	101	Introduction to Data Processing	(5)	
MAT	110	<b>Business Mathematics</b>	(5)	
PSY	145	Human Relations at Work	(5)	
Elect	Electives (selected with advisor approval)			5

Total Credits for A.A.S. Degree

# 99

## GENERAL BUSINESS ADVISORY COMMITTEE

Reva Bond Aims Community College Gene Brauer ARIX Charles Henderson West Greeley National Bank Pat McCloskey University of Northern Colorado Larry Neuschwanger Kersey State Bank

Joanne Weinmeister University of Northern Colorado

## MID-MANAGEMENT

CREDITS

52

CREDITS

(Jim Adams, Elmer Kiekhaefer, Cal McKibbin, Mary Webster -- 330-8008)

**Program Length:** Usually six quarters for Associate of Applied Science degree program. The degree will be awarded in Mid-Management, with curriculum options available, such as: Industrial/Institutional Management, Sales, 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 mid-management must consult with a mid-management 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 satisfy the degree requirements.

While the programs described below 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 mid-management advisor agrees that alternate courses better fit the career goals and objectives of the student.

Real state courses are offered for those students interested in taking courses toward receipt of 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; testing for both licenses is held off campus.

## INDUSTRIAL/INSTITUTIONAL MANAGEMENT OPTION

ODEDITO

CREDITS

CREDITS

### **Degree Requirements:**

			CRED	DITS
				66
ACC	101	Principles of Accounting I	(5)	
BUS	156	<b>Business Communications II</b>	(3)	
BUS	255	Business Law	(5)	
MGT	101	Salesmanship	(5)	
MGT	215	Personnel Management	(5)	
MGT	235	Principles of Management	(5)	
MGT	255	Labor Law/Relations	(5)	
MGT	256	Supervisory Management	(5)	
MGT	258	Production Management	(5)	
MGT	259	Purchasing	(5)	
MGT	281	Personal Adjustment to Business	(6)	
MGT	282	Personal Adjustment to Business	(6)	
MGT	283	Personal Adjustment to Business	(6)	
Requ	ired C	General Education Courses		20
CON	104	Basic Communications	(5)	
EDP	101	Introduction to Data Processing	(5)	
MAT	110	Business Mathematics	(5)	
PSY	145	Human Relations at Work	(5)	
Electives (selected with advisor approval)				13
Total	Total Credits for A.A.S. Degree			99

## SALES OPTION

### **Degree Requirements:**

			12
BUS	156	Business Communications II (3)	
BUS	255	Business Law (5)	
MGT	101	Salesmanship (5)	
MGT	102	Advanced Salesmanship (5)	
MGT	107	Principles of Advertising (5)	
MGT	116	Management Activity I (2)	
MGT	117	Management Activity II (2)	
MGT	118	Management Acitivity III (2)	
MGT	201	Sales Management (5)	
MGT	215	Personnel Management (5)	
MGT	221	Principles of Marketing (5)	
MGT	235	Principles of Management (5)	
MGT	245	Organizational Environment (5)	
MGT	281	Personal Adjustment to Business (6)	
MGT	282	Personal Adjustment to Business (6)	
MGT	283	Personal Adjustment to Business (6)	
Requ	ired G	eneral Education Courses	20
CON	104	Basic Communications (5)	
EDP	101	Introduction to Data Processing (5)	
MAT	110	Business Mathematics (5)	
PSY	145	Human Relations at Work (5)	
Electi	ves (s	elected with advisor approval)	7
	and the	s for A.A.S. Degree	99

### SMALL BUSINESS MANAGEMENT OPTION

## **Degree Requirements:**

				11
ACC	101	Principles of Accounting I	(5)	
ACC	107	Managerial Use of Accounting	(5)	
BUS	156	Business Communications II	(3)	
BUS	255	Business Law	(5)	
MGT	101	Salesmanship	(5)	
MGT	107	Principles of Advertising	(5)	
MGT	108	Small Business Management	(5)	
MGT	116	Management Activity I	(2)	
MGT	117	Management Activity II	(2)	
MGT	118	Management Activity III	(2)	
MGT	205	Credit Management	(5)	
MGT	215	Personnel Management	(5)	

MGT MGT MGT MGT	235 281	Principles of Marketing Principles of Management Personal Adjustment to Business Personal Adjustment to Business	(5) (5) (6) (6)	
MGT	283	Personal Adjustment to Business	(6)	
Requi	red G	eneral Education Courses		20
EDP MAT		Basic Communications Introduction to Data Processing Business Mathematics Human Relations at Work	(5) (5) (5) (5)	
Electi	ves (s	elected with advisor approval)		5
Total	Credit	ts for A.A.S. Degree		102
REAL	ESTA	TE		
		fered toward completion of the Colorado nt license:	Real	
RES	105	Real Estate Practice	(3)	
RES	106	Real Estate Law	(3)	
		Elective Courses		
RES	108		(3)	
RES RES		Real Estate Closings Real Estate Finance	(3)	
RES	States and a state of the	Real Estate Appraisal	(3) (3)	
Cours	ses of	fered toward completion of the Colorado er license:		
RES	105	Real Estate Practice	(3)	
RES	106	Real Estate Law	(3)	
	205	Real Estate Finance	(3)	
RES	206	Real Estate Appraisal	(3)	
Supp	ortive/	Elective Courses		
RES	108	Real Estate License Preparation	(3)	
RES	109	Real Estate Closings	(3)	

# MID-MANAGEMENT ADVISORY COMMITTEE

Richard Erwin Denver Dry Goods Company George Evans Northwestern Mutual Life Rolland Higgins Higgins Sentry Hardware Jack Weber Woolco Department Store Robert Muller Eastman Kodak Company Colorado Division

# REAL ESTATE ADVISORY COMMITTEE

Carol Campbell Time Realty
Edwin Dyer Wheeler Realty
Richard Gazlay Realty World Clif-McComb Realty
Paul Haugen Scott Realty Company
Roland McKinley

Scott Realty Company

# SECRETARIAL

(Judy Leusink, Maxine Marquez, Trulene Page -- 330-8008)

**Program Length:** Usually six quarters for Business Secretary Associate of Applied Sciece degree program; usually four quarters for Clerk-Steno Certificate in Occupational Education program; usually six quarters for Judicial/Legal Secretary Associate of Applied Science degree program; usually three to four quarters for Medical Clerk-Typist Certificate in Occupational Education program.

**Potential Opportunities:** The Business Secretary program is designed for persons interested in learning basic knowledge and skills necessary for a secretarial position in business, education, or government. The Judicial/Legal Secretary program is designed for persons interested in learning basic skills of judicial/legal secretarial personnel who work with maintenance and custody of legal records in law, savings and loan, real estate, and insurance offices.

It is desirable that students in the Business Secretary, Clerk-Steno, and Judicial/Legal Secretary programs possess above average English skills.

#### BUSINESS SECRETARY DEGREE PROGRAM

#### **Degree Requirements:**

#### BUS 101 **Beginning Typewriting** (4)(4)Intermediate Typewriting BUS 102 Advanced Typewriting (4)BUS 103 Adding and Calculating Machines (2)BUS 116 (5) (5) College Bookkeeping I BUS 141 College Bookkeeping II 142 BUS (3) **Business Communications II** BUS 156 (3)**Business Communications III** BUS 157 Filing (3)BUS 165 (5) BUS 175 **Office Procedures** (4) 105 Machine Transcription SEC (5)Intermediate Shorthand SEC 153 (5)SEC 154 Advanced Shorthand Cooperative Office Occupations I (6)281 SEC (6)SEC 282 Cooperative Office Occupations II Select from the following courses: SEC 151 Gregg Shorthand Theory I (5)(5)Alphabet Shorthand Theory I SEC 161 Select from the following courses: Gregg Shorthand Theory II (5)SEC 152 Alphabet Shorthand Theory II (5) SEC 162 **Required General Education Courses** Introduction to Business BUS 100 (5) CON 104 Pagia Communication 151

Total Credits for A.A.S. Degree			102	
Electives (selected with advisor approval)			3	
	PSY	145	Human Relations at Work	(5)
	MAT	110	Business Mathematics	(5)
	EDP	101	Introduction to Data Processing	(5)
	CON	104	Basic Communications	(5)

### CLERK-STENO CERTIFICATE PROGRAM

## **Certificate Requirements:**

		51
BUS 102	Intermediate Typewriting	(4)
BUS 103	Advanced Typewriting	(4)
BUS 156	<b>Business Communications II</b>	(3)
BUS 157	<b>Business Communications III</b>	(3)
BUS 165	Filing	(3)
BUS 175	Office Procedures	(5)
CON 104	Basic Communications	(5)
MAT 110	Business Mathematics	(5)

PSY	145	Human Relations at Work	(5)	
SEC	105	Machine Transcription	(4)	
SEC	153	Intermediate Shorthand	(5)	
SEC	154	Advanced Shorthand	(5)	
Select from the following courses:				5
SEC	152	Gregg Shorthand Theory II	(5)	
SEC	162	Alphabet Shorthand Theory II	(5)	
Total Credits for Certificate				56

## JUDICIAL/LEGAL SECRETARY DEGREE PROGRAM

## **Degree Requirements:**

CREDITS 64

5

5

25

CREDITS

CREDITS

(3)

(3)

(5) (3)

(5)

(4)

(4)

(5)

5

57

50

				58
BUS	102	Intermediate Typewriting	(4)	
BUS	113	Legal Typewriting	(4)	
BUS	116	Adding and Calculating Machines	(2)	
BUS	141	College Bookkeeping I	(5)	
BUS	156	Business Communications II	(3)	
BUS	157	Business Communications III	(3) (3)	
BUS SEC	165 106	Filing Legal Terminology	(3)	
SEC	141	Legal Machine Transcription	(4)	
SEC	153	Intermediate Shorthand	(5)	
SEC	215	Legal Shorthand	(5)	
SEC	277	Legal Office Procedures	(5)	
SEC	281	Cooperative Office Occupations I	(6)	
SEC	282	Cooperative Office Occupations II	(6)	
		the following courses:		5
SEC	151	Gregg Shorthand Theory I	(5)	
SEC	161	Alphabet Shorthand Theory I	(5)	
			(0)	-
		the following courses:		5
SEC	152	Gregg Shorthand Theory II	(5)	
SEC	162	Alphabet Shorthand Theory II	(5)	
Requ	ired G	eneral Education Courses		20
BUS	100	Introduction to Business	(5)	
CON	104	Basic Communications	(5)	
MAT	110	Business Communications	(5)	
PSY	145	Human Relations at Work	(5)	
Elect	ives (s	selected with advisor approval)		11
Total	Credi	ts for A.A.S. Degree		99
MEDI		LERK-TYPIST		
		TE PROGRAM		
CENT				
Certif	icate	requirements:		
			CRED	
				52
BUS	101	Beginning Typewriting	(4)	
BUS	102	Intermediate Typewriting	(4)	
BUS	114	Medical Typewriting	(4)	
BUS	141	College Bookkeeping I	(5)	
BUS	156	Business Communications II	(3)	

# Electives (selected with advisor approval) Total Credits for Certificate

Filing

**Business Communications III** 

**Basic Communications** 

Human Relations at Work

Medical Office Procedures

Applied Medical Terminology

Medical Machine Transcription

Medical Terminology

BUS

BUS

HLH

PSY

SEC

SEC SEC

CON 104

157

165

131

145

136

143

276

# SECRETARIAL ADVISORY COMMITTEE

Paula Barber Western Temporary Services, Inc.

Kathy Curtis Flood & Peterson Insurance Agency

Jennie Gibson Wheeler Realty Company

Pat Kinson Colorado Rural Legal Services

Pat Morimoto University of Northern Colorado

Fred Otis Attorney-at-Law

# PUBLIC SERVICE DIVISION PROGRAMS

The Public Service Division, in addition to the programs listed below, has the capability to work individually or collectively with employers to offer 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.

The Public Service Division offers the following programs:

01 0
(two year A.A.S. degree)
(two year A.A.S. degree)
(two year A.A.S. degree)
(16 week certificate)
(one quarter certificate) (one quarter certificate)
(two year A.A.S. degree)
(one year certificate)

# **CRIMINAL JUSTICE**

Program Length: Usually two years for Associate of Applied Science degree program.

Potential Opportunities: The program is designed to prepare qualified persons to work in the law enforcement field and to perform duties and tasks in the areas of public safety, human relations. crime prevention, and criminal investigation. Officers may find employment in city police departments, sheriff's offices, as highway patrolmen, U.S. Marshalls, or border patrolmen. A high school diploma or equivalent is a prerequisite. Civil Service requirements for height, weight, and vision may be obtained from the appropriate law enforcement agency.

The Criminal Justic program consists of courses totaling 102 hours. Fifty-seven credit hours will be taught by vocationally certified instructors from the sheriff's office and police departments, district attorney's office, Nineteenth Judicial District Court, and other agencies. The remaining 45 credits are general courses.

## **DEGREE PROGRAM**

### Degree requirements:

			CREDIT	S
			5	57
CRJ	101	Introduction to Criminal Justice	(2)	
CRJ	115	Traffic Control and Accident Investigation	(4)	
CRJ	130	Community Relations	(3)	

CRJ CRJ CRJ	135 140 150	Report Writing Juvenile Procedures Law Enforcement Basic Certification indicating of the Basic Recruit Semin Law Enforcement Train (CLETA) may be substit 150.	completion of nar, Colorado ing Academy	(3) (3) (20)	
CRJ CRJ CRJ CRJ CRJ CRJ	200 210 215 225 231 240	Criminal Law and Proce Criminal Investigation Evidence I Evidence II Court Procedures Constitutional Law Semi		<ul> <li>(5)</li> <li>(3)</li> <li>(3)</li> <li>(5)</li> <li>(3)</li> </ul>	
COM	MUNI	CATIONS			10
CON SPE	102 115	Introduction to Writing Speech Communications As a result of a placement student may be require Fundamentals of Com CON 101, for elective of credits).	nt test, the ed to take position,	(5) (5)	
BEH	AVIOR	AL AND SOCIAL SCIENC	E		15
POS PSY	118 101	State and Local Governn General Psychology I	nent	(5) (5)	
		of the following courses:			
ECO HIS	100 105	Introduction to Economi History of the United Sta (Myth and Reality in Ar	tes to 1877	(5)	
HIS	209	History of Colorado and Mountain West	the Rocky	(5) (5)	
SOC	101	Introduction to Sociology	4	(5)	
MATH	HEMA	TICS AND SCIENCE			10
BIO	101	<b>Biology Concepts</b>		(5)	
Selec	t one	of the following courses:			
CHE PHY	100 120	Fundamentals of Chemis Fundamentals of Physics		(5) (5)	
Reco	mmen	ded Electives			10
CRJ CRJ CRJ CRJ CRJ CRJ	158 251 252 253 254 255	Forensic Photography Police Cadet Cooperative Police Cadet Cooperative Police Cadet Cooperative Police Cadet Cooperative Police Cadet Cooperative Courses having the pr MAT, and PHY in the Ma and Science Divison. Other advisor-approved may be used to meet thi ment.	efix BIO, thematics courses	<ul> <li>(3)</li> <li>(1)</li> <li>(2)</li> <li>(3)</li> <li>(4)</li> <li>(5)</li> </ul>	
Total	Credi	ts for A.A.S. Degree			102
ADV Sheri	<b>ISOR</b> ff Hard	L JUSTICE TY COMMITTEE old Andrews ty Sheriff's Department	Gary Leonard Greeley Police	Departm	ient
	Bottom Ier Cou	ns unty Sheriff's Department	Robert N. Mille District Attorne		
Donal Greel		penter	Chief Walter Te Windsor Police		nent

Windsor Police Department Tom Yates University of Northern Colorado.

30

Dave Davidson

Dave Feldman

Loveland Police Department

Ft. Collins Police Department

# FIRE PROTECTION TECHNOLOGY FIRE SCIENCE TECHNOLOGY

Program Length: Usually two years for Associate of Applied Science degree per program.

Potential Opportunities: The protection of life and property from fire is the primary function of a firefighter. With today's sophisticated techniques, training, and equipment, however, modern firefighters 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 or in industrial fire departments.

## FIRE PROTECTION TECHNOLOGY **DEGREE PROGRAM**

#### Degree requirements:

CREDITS 81

		81
CON 101 Fundamentals of Composition	(5)	
CON 105 Elements of Technical Writing	(3)	
FS 100 Introduction to Fire Science and Suppression	on(3)	
FS 104 Fire Company Organization and Procedure	e (3)	
FS 108 Fire Hydraulics	(3)	
FS 190 Administration of Justice and Court		
Procedures	(3)	
FS 202 Fundamentals of Fire Prevention	(3)	
FS 204 Related Codes and Ordinances I	(3)	
FS 205 Related Codes and Ordinances II	(3)	
FS 207 Applied Chemistry for Firefighters	(5)	
FS 208 Hazardous Materials I	(3)	
FS 209 Hazardous Materials II	(3)	
FS 212 Fire Protection Equipment and Systems	(3)	
FS 216 Private Fire Protection Alarm Systems	(3)	
FS 218 Fire Investigation	(3)	
FS 220 Fire Insurance	(3)	
FS 230 Building Construction/Blueprint Reading		
for Firefighters	(3)	
MAT 101 Applied Math I	(5)	
PHY 120 Fundamentals of Physics	(5)	
PSY 111 Basic Human Potential Seminar	(3)	
SOC 101 Introduction to Sociology	(5)	
SPE 115 Speech Communications	(5)	
WLT 100 Introduction to Welding	(3)	
Recommended Electives		24
		24
BUS 101 Beginning Typewriting	(4)	
ECO 104 Applied Economics	(3)	
FS 111 Fire Safety	(3)	
FS 112 Fire Service Planning	(3)	
FS 113 Building Fire Inspections	(3)	
FS 232 Fire Service Supervision	(3)	
HEN 106 Safety and First Aid	(3)	
HLH 105 Emergency Medical Technician	(9)	
POS 101 American Government	(5)	
POS 118 State and Local Government	(5)	
PSY 107 I'm OK, You're OK: Psychology	(0)	
of Personal Relations	(3)	
Total Credits for A.A.S. Degree		105

## FIRE SCIENCE TECHNOLOGY **DEGREE PROGRAM**

#### **Degree requirements:**

CREDITS

				CRED	80
	CON	101	Fundamentals of Composition	(5)	00
	CON	105	Elements of Technical Writing	(3)	
	FS	100	Introduction to Fire Science and Suppression		
	FS	104	Fire Company Organization and Procedure	(3)	
	FS	106	Fire Fighting Tactics and Strategy	(5)	
	FS	108	Fire Hydraulics	(3)	
	FS	110	Fire Apparatus and Equipment	(3)	
	FS	202	Fundamentals of Fire Prevention	(3)	
	FS	206	Rescue Practices	(3)	
	FS FS	207 208	Applied Chemistry for Firefighters Hazardous Materials I	(5) (3)	
	FS	200	Hazardous Materials I	(3)	
	FS	214	Fire Department Administration	(3)	
	FS	218	Fire Investigation	(3)	
	FS	220	Fire Insurance	(3)	
	FS	230	<b>Building Construction/Blueprint</b>		
			Reading for Firefighters	(3)	
	MAT	101	Applied Math I	(5)	
	PHY	120	Fundamentals of Physics	(5)	
	PSY	111 101	Basic Human Potential Seminar	(3)	
	SOC SPE	115	Introduction to Sociology Speech Communications	(5) (5)	
	WLT	100	Introduction to Welding	(3)	
				(0)	~
	несо	mmen	ded Electives		24
	BUS	101	Beginning Typewriting	(4)	
	ECO	104	Applied Economics	(3)	
	FS	111	Fire Safety	(3)	
	FS	112	Fire Service Planning	(3)	
	FS FS	113 232	Building Fire Inspections	(3)	
	HEN	106	Fire Service Supervision Safety and First Aid	(3) (3)	
	HLH	105	Emergency Medical Technician	(9)	
	POS	101	American Government	(5)	
	POS	118	State and Local Government	(5)	
	PSY	107	I'm OK, You're OK: Psychology	( )	
			of Personal Relations	(3)	
	Total	Credi	ts for A.A.S. Degree		104
FIRE SCIENCE TECHNOLOGY					
		m Bai	ley Is Fire Protection District		
Jack Cockran, Jr.					
Civil Service Commission					
Larry Donner					
Ft. Collins Fire Department James Edwards					
	Love		ards		
		e Eins			
Greeley Fire Department					
Bruce Forbes					
Greeley Fire Department					
Tom Hauss					
Eastman Kodak Company					
Colorado Division					
Donna King					
Community Representative					
Student Representative					
Gerald Ward					
Berthoud Fire Department					
	Chuck Willis				
			llev Bural Fire Department		

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Poudre Valley Rural Fire Department

# **HEALTH OCCUPATIONS: EMERGENCY MEDICAL TECHNICIAN**

Program Length: Usually 16 weeks for Certificate in Occupational Education program. Nine credits hours required (93 clock hours). In addition, the student must pass practical examinations and obtain 16 hours of supervised emergency experience:

Designed to qualify the successful student for the Emergency Medical Technician (EMT) certificate issued by the Emergency Medical Services Division of the Colorado Department of Health. The certificate must be renewed every three years. EMT refresher certificate length usually is eight weeks. Four credit hours required (40 clock hours).

Potential Opportuniues. Entry level employment in this field is frequently difficult to obtain. The course is designed to serve those who, in an official capacity, may be first responders to an accident scene. This will commonly include but not necessarily be limited to: ambulance crew members, highway patrolmen, fire rescue teams (both paid and volunteer), police department rescue teams, ski patrol or mountain rescue groups, etc.

#### **CERTIFICATE PROGRAM**

#### Certificate requirements:

		CREDITS
HLH 105 Em	ergency Medical Technician	(9)
Total Credits fo	r Certificate	9
CERTIFICATE F	ENEWAL PROGRAM	
Certificate rene	wal requirements:	
		CREDITS
		4
HLH 108 EM	T Refresher	(4)
Total Credits fo	r Certificate Renewal	4

# **EMERGENCY MEDICAL TECHNICIAN**

Cathy Caster, R.N. Weld County General Hospital

**ADVISORY COMMITTEE** 

John Cullen, M.D. Family Practice Medical Center

Verne Einspahr Greeley Fire Department

John G. Hurst, M.D. Weld County General Hospital

Greg Miller Western Hills Fire Department

Marian Montova **Tri-Area Ambulance Service** 

Gary Sandau LaSalle Fire Department

James Seery Eastman Kodak Company Colorado Division

Pat Walden Grover-Hereford-Carpenter Ambulance

Gerald J. Ward Berthoud Fire Department

Jerry Wones Weld County Ambulance Service

# HEALTH OCCUPATIONS: GERIATRIC AIDE AND NURSE ASSISTING

Program Length: Usually one quarter for Certificate in Occupational Education program. Geriatric Aide requires seven credit hours (80 clock hours). Nurse Assisting requires 15 credit hours (180 clock hours).

Formal classroom teaching correlated with clinical experience in nursing homes and hospitals.

Potential Opportunities: Entry level employment as nurse aide in public hospitals, private hospitals, nursing homes, veterans hospitals, private homes, and home health agencies. Additionally, program offers opportunity for nursing career exploration, self-improvement, and satisfaction. A high school diploma is not required; previous education will be evaluated. Tenth grade reading level is recommended. Minimum age is 16 years. Good health and physical examination are required. Interest in working with people and reliable transportation are necessary.

Additional student costs consist of uniform, white shoes, wrist watch with sweep second hand.

CERTIFICATE PROGRAM	
Certificate requirements:	CREDITS
HLH 135 Geriatric Aide	7 (7)
Total Credits for Certificate	7
NURSE ASSISTING CERTIFICATE PROGRAM	
Certificate requirements:	
	CREDITS
	15
NA 100 Nurse Aide	(15)
Total Credits for Certificate	15

# GERIATRIC AIDE NURSE ASSISTING ADVISORY COMMITTEE

Margaret Clemons, R.N. Nurse Placement Service

CEDIATRIC AIDE

Michael Doyle, R.N. Weld County General Hospital

Mrs. Gloria Green, R.N. Kenton Manor Health Care Facility

Mrs. Jean Kidd, R.N. Memorial Hospital

Margin McGill, R.N. New Life Center

Doreen McMahon, R.N. Windsor Health Care

**Program Graduate** 

Mr. La Vern Weber Fairacres Manor

Mrs. Laural Worsham, R.N. **Eventide of Greeley** 

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# RADIOLOGIC TECHNOLOGY

**Program Length:** Usually eight quarters for Associate of Applied Science degree program.

**Potential Opportunities:** The radiographer as part of the health care team is dedicated to the conservation of life and health 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.).



# DEGREE PROGRAM Degree requirements:

CREDITS **First Year** 20 Summer Quarter Medical Terminology (3)HLH 131 XRT 100 Introduction to Radiologic Technology/ (3) Patient Care (6) Radiographic Positioning/Laboratory I XRT 101 (8) Clinical Experience I (12 weeks) XRT 111 Fall Quarter 20 BIO 211 (4) Human Anatomy: Physiology I Radiographic Positioning/Laboratory II (6) 102 XRT 112 Clinical Experience II (11 weeks) (6) XRT XRT 121 Radiographic Exposure: Lecture (4) 19 Winter Quarter BIO 212 Human Anatomy: Physiology II (4) Radiographic Positioning/Laboratory III XRT 103 (6) **Radiation Protection** (2) XRT 105 XRT 113 Clinical Experience III (5) XRT 122 Radiographic Exposure: Lab (2) 19 Spring Quarter 213 BIO Human Anatomy: Physiology III (4) XRT 104 Radiographic Positioning/Laboratory IV (6) XRT 114 Clinical Experience IV (5) **Film Evaluation** (2)XRT 115 (2)XRT 116 Radiographic Processing **Total Credits for First Year** 78

#### Second Year

Summer Quarter 15						
XRT XRT XRT	209 211 221	Special Procedures(3)Clinical Experience V (11 weeks)(9)X-Ray Physics I(3)				
Fall C	uarter		13			
XRT XRT XRT	205 212 222	Pathology(2)Clinical Experience VI(8)X-Ray Physics II(3)				
Winte	er Qua	rter	15			
XRT XRT XRT	206 207 213	Radiation Biology(3)Imaging(2)Clinical Experience VII(10)				
Sprin	g Qua	rter	16			
XRT XRT XRT	208 214 231	Ultrasound, Nuclear Medicine, and Radiation Therapy(3)Clinical Experience VIII(10)Radiological Sciences(3)				
Total	Credi	ts for Second Year	59			
Gene	eral Ed	ucation Additional Courses	1			
MAT	111	Metric System (1)				
Elect	lives		5			
Cala		the fellowing courses with advisor approval.				

Select from the following courses, with advisor approval:

#### COMMUNICATIONS

CON	101	Fundamentals of Composition	(5)	
SPE	115	Speech Communications	(5)	
SPE	116	Public Speaking	(3-5)	
	VIOR	AL AND SOCIAL SCIENCE		
DENA	VIONA	AL AND SUCIAL SCIENCE		
PSY	101	General Psychology I	(5)	
PSY	107	I'm OK, You're OK: Psychology		
		of Personal Relations	(3)	
SPY	111	Basic Human Potential Seminar	(3)	
PSY	121	Death and Dying: A Holistic Perspective	(3)	
PSY	241	Biofeedback I: Biofeedback and the		
		Psychology of Health	(3)	
MATH	IEMAT	ICS AND SCIENCE		
BIO	101	Biology Concepts	(5)	
MAT	100	Introduction to Beginning Algebra	(3)	
MAT		Beginning Algebra	(5)	
MAT		College Algebra	(5)	
PHYS	ICAL	EDUCATION		
		Maximum	(1-2)	
Total	Credit	s for A.A.S. Degree		143
RAD		GIC TECHNOLOGY		
		Y COMMITTEE		
Ron (	Cisnero	DS .		
Stude	ent Rep	presentative		

Student Representative John Guy Weld County General Hospital Glenn Hewitt, M.D. Neld County General Hospital Dennis Keithly Weld County General Hospital Barbara Schneider Weld County General Hospital

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# **RESPIRATORY CARE TECHNICIAN**

**Program Length:** A minimum of fifteen months (five quarters) for a high school graduate or the equivalent; twelve months for a college transfer student who has satisfied summer prerequisite classes or their equivalent for Certificate in Occupational Education program.

**Potential Opportunities:** The program is designed to provide arts and sciences training for individuals who will use this training to treat patients' respiratory abnormalities. Upon successful completion of the Respiratory Care program, the graduate is eligible to sit for the National Board of Respiratory Therapy Certification examination.

Respiratory Care is an allied health specialty that deals with the treatment, control, and care of patients with problems associated with the breathing process. The growth of this specialty is prompted by a high incidence of respiratory ailments associated with air pollution, cigarette smoking, and hazardous work environments. The respiratory therapy technician uses therapeutic medical gases, air, oxygen administration equipment, environmental control systems, humidification, aerosol, medicines, ventilatory assistance and control, postural drainage and physical therapy of the chest, breathing exercises, respiratory rehabilitation, cardiopulmonary resuscitation, and maintenance of patient airways in an attempt to restore deficiencies and offset abnormalties. Specific testing techniques assist in patient diagnosis and treatment.

The growth, development, and responsibilities or respiratory care practitioners have exceeded the capacities of community colleges throughout the state to provide qualified personnel. There exists a continuing need within the professional community for competent and safe Respiratory Care Technicians to fill positions in large and small hospitals as practitioners of respiratory care modalities. There also are increasing employment opportunities as home care consultants.

A student entering the Respiratory Care Technician program must be a high school graduate (or the equivalent). Students should consult with the program director as early as possible to determine the course of study needed to prepare them for entry into the program.

A complete description of minimum, necessary competencies (physical qualifications, aptitudes, and capabilities) will be available upon request and handed out in the first class meetings.

#### **CERTIFICATE PROGRAM**

#### Certificate requirements:

RSC 211

Fall (	Quarte	r		15
BIO	211	Human Anatomy: Physiology I	(4)	
RSC	111	Respiratory Science I	(3)	
RSC	121	Respiratory Equipment Application I	(4)	
RSC	131	Respiratory Practicum I	(3)	
RSC	227	Pulmonary Rehabilitation	(1)	
Winte	er Qua	rter		20
BIO	212	Human Anatomy: Physiology II	(4)	
RSC	112	Respiratory Science II	(4)	
RSC	122	Respiratory Equipment Application II	(4)	
RSC	132	Respiratory Practicum II	(8)	
Sprin	g Qua	rter		18
BIO	213	Human Anatomy: Physiology III	(4)	

**Respiratory Science III** 

HSC	221	Respiratory Equipment Application III	(2)	
RSC	231	Respiratory Practicum III	(8)	
RSC	241	Clinical Conference I	(2)	
Sumr	ner Qu	larter		16
RSC	212	Respiratory Science IV	(2)	
RSC	222	Respiratory Equipment Application IV	(2)	
RSC	228	<b>Respiratory Neonatal and Pediatrics</b>	(2)	
RSC	232	Respiratory Practicum IV	(8)	
RSC	242	Clinical Conference II	(2)	

Poopiratory Equipment Application

DCC 001

The following courses are required of all students entering the program. The student may choose, with the assistance of his or her advisor, to substitute equivalent transfer courses. These classes may be waived by the advisor upon substantiation of equivalent experience or course work.

#### **Supporting Courses** 8 HLH 127 Cardiopulmonary Resuscitation (CPR) (1) HLH 131 Medical Terminology (3)**OHC 100** Orientation to Health Care (4) Select one of the following courses: 2-5 BIO 101 **Biology Concepts** (5) **RSC 101** Applied Science I (2)Select one of the following courses: 2-5 CHE 101 General Chemistry I (5) **RSC 102 Applied Science II** (2)Select one of the following courses: 2-5 MAT 121 Beginning Algebra (5) **RSC 103 Applied Science III** (2) **Total Credits for Certificate** 85-94

# RESPIRATORY CARE TECHNICIAN ADVISORY COMMITTEE

Robert Cash, M.D., A.C.C.P. Pulmonary and Internal Medicines **Greeley Clinic** Harold Chadwick **Consumer Representative** Jim Fitts **Brighton Community Hospital** Sally Heiser, C.R.R.T. McKee Medical Center Charles Hoenig, B.S., R.R.T. Weld County General Hospital **Roberta Miller** Weld County General Hospital Janie Nestor **Brighton Community Hospital** Charles Rybar, B.S., R.R.T. Weld County General Hospital Irene Schanz, R.R.T. Longmont United Hospital Walter Stewart, R.R.T. McKee Medical Center Student Representative

(2)

CREDITS

# **TECHNICAL DIVISION PROGRAMS**

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

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

- 1. Previous experience in math is helpful, but may be obtained through preparatory courses within the college.
- 2. Students should have high school reading skills; remedial reading classes, however, are available within the college.
- 3. Students should have good eyesight (corrected or uncorrected) and good hand dexterity.

Students enrolling in Technical Division programs may be required to complete placement and diagnostic evaluations.

The Technical Division offers the following programs:

AGRICULTURE	(two year A.A.S degree o
COOPERATIVE	four quarter certifticate)
SALES AND SERVICE	

# SALES AND SERVICE TECHNOLOGY

4

(two year A.A.S. degree or three quarter certificate)

degree or

# COOPERATIVE SERVICE CENTER MANAGEMENT

\_\_\_\_

AGRICULTURE

YOUNG FARMER PROGRAM (no degree awarded)

or three quarter certificate)
(two year A.A.S. degree)

ARCHITECTURAL DRAFTING (two year A.A.S. degree or TECHNOLOGY four quarter certificate)

# MECHANICAL AND CIVIL ENGINEERING TECHNOLOGY

(two year A.A.S. degree)

# AGRICULTURE COOPERATIVE SALES AND SERVICE TECHNOLOGY

Program Length: Usually four quarters for Certificate in Occupational Education program or seven quarters for Associate of Applied Science degree program.

Potential Opportunities: Upon completion of the program, the student will have an employable background in the following:

- a. Farm Cooperative Occupations
- b. Co-op Service Center Sales and Service
- c. Agriculture Chemical Service
- d. Management Trainee
- e. Farm Business

# **DEGREE PROGRAM**

Degree requirements:

			CRED	93
AGR	111	Agriculture Careers I	(3)	30
AGR	112	Agriculture Sales and		
		Customer Relations	(5)	
AGR	116	Introduction to Cooperative Organizations		
		and Agri-Business	(5)	
AGR	117	Feeds and Feeding	(5)	
AGR	118	Soils and Fertilizer	(5)	
AGR	125	Farm Chemicals	(5)	
AGR		5	(10) (10)	
AGR AGR	136 137	Agriculture On-the-Job Training Agriculture Chemicals	(10)	
AGR		Anhydrous Ammonia	(3)	
AGR		Corn Production	(3)	
AGR		Basic Management	(2)	
AGR		Animal Health	(2)	
AGR		Agriculture On-The Job Training	(10)	
	104	Applied Economics	(3)	
MAT	101	Applied Math I	(5)	
MGT	101	Salesmanship	(5)	
MGT	215	Personnel Management	(5)	
MGT	235	Principles of Management	(5)	
Selec	t from	the following courses:		8
BUS	156	<b>Business Communications II</b>	(3)	
BUS	157	<b>Business Communications III</b>	(3)	
CON	101	Fundamentals of Composition	(5)	
CON	102	Introduction to Writing	(5)	
CON		Basic Communications	(5)	
SPE	105	Elements of Oral Communications	(3)	
		nded Electives		10
		h the following courses:	(5)	12
ACC AGR		Principles of Accounting I Petroleum	(2)	
AGR		Tires, Batteries, and Accessories	(2)	
AGR		LP Gas	(2)	
AGR		Paint	(2)	
AGR		Fertilizer	(3)	
AGR		Fertilizer Bulk Blending	(3)	
AGR		Feed	(2)	
AGR		Profitable Pork Production	(2)	
AGR		Modern Salesmanship	(2)	
BUS	141	College Bookkeeping I	(5)	
MGT	102	Advanced Salesmanship	(5)	
MGT	108	Small Business Management	(5)	
MGT	116	Management Activity I	(2)	
MGT	117	Management Activity II	(2)	
MGT	118	Management Activity III	(2)	
MGT		Sales Management	(5)	
MGT		Principles of Marketing	(5)	
		lits for A.A.S. Degree		113
Cert	ificate	requirements:	CRE	DITS
				58
AGF	116	Introduction to Cooperative Organizations		
		and Agri-Business	(5)	
AGF	118	Fertilization and Soil	(5)	
AGF	135	Agriculture On-the-Job Training	(10)	
AGF	136	Agriculture On-the-Job Training	(10)	

#### Agriculture On-the-Job Training (10)AGR 136 Anhydrous Ammonia (3)AGR 146 (2) AGR 156 **Basic Management Basic Communications** (5) CON 104 (3)ECO 105 Applied Economics MAT 104 Applied Math I (5) MGT 101 (5) Salesmanship (5) **MGT 235** Principles of Management

# **Total Credits for Certificate**

3

CREDITS

TS. 58

58

# AGRICULTURE COOPERATIVE SALES AND SERVICE TECHNOLOGY ADVISORY COMMITTEE

Clarence Carlson Director Adams County Co-op

Don Dreyer Director Adams County Co-op

P.K. Mahanti Agland, Inc.

Gerald Mueller Farmland Industries

# AGRICULTURE COOPERATIVE SERVICE CENTER MANAGEMENT

**Program Length:** Usually three quarters for Certificate Occupational Education program or seven quarters for Associate of Applied Science degree program.

**Potential Opportunities:** Upon completion of the program, the student will have an employable background in the following:

- a. Farm Cooperative Occupations
- b. Co-op Service Center Sales and Service
- c. Agriculture Chemical Service
- d. Management Trainee
- e. Farm Business

# DEGREE PROGRAM

#### Degree requirements:

AGR	112	Agriculture Sales and Customer Relations	(5)
AGR	116		(0)
AGH	110	Introduction to Cooperative Organizations	(5)
		and Agri-Business	(5)
AGR	126	Petroleum	(2)
AGR	127	Tires, Batteries, and Accessories	(2)
AGR	128	LP Gas	(2)
AGR	135	Agriculture On-the-Job Training	(10)
AGR	136	Agriculture On-the-Job Training	(10)
AGR	156	Basic Management	(2)
ECO	104	Applied Economics	(3)
MAT	101	Applied Math I	(5)
MGT	101	Salesmanship	(5)
MGT	108	Small Business Management	(5)
MGT	205	Credit Management	(5)
MGT	235	Principles of Management	(5)
SPE	105	Elements of Oral Communications	(3)
Selec	t from	the following courses: (with advisor approv	al)
AMT	104	Brake Repair	(4)

			( )
AMT	106	Tune-up	(4)
AMT	107	Advanced Engine Tune-up	(4)
AMT	125	Auto Certification Refresher	(2)
AMT	131	Brakes, Transmissions, and	
		Final Drives A	(12)
AMT	132	Steering and Suspension Systems A	(12)
AMT	133	Fuel Systems and Tune-up A	(12)
AMT	136	Emission Control	(5)
AMT	233	Air Conditioning and Comfort Controls	(5)

#### **Recommended Electives**

- ACC 101 Principles of Accounting I (5) AGR 138 Paint (2) AGR 157 Modern Salesmanship (2) AGR 235 Agriculture On-the-Job Training (10)BUS 141 College Bookkeeping I (5) MGT 102 Advanced Salesmanship (5) MGT 116 Management Activity I (2) MGT 117 Management Activity II (2)MGT 118 Management Activity III (2) MGT 201 Sales Management (5) (5) MGT 221 Principles of Marketing MGT 245 Organizational Environment (5)
- Total Credits for A.A.S. Degree

#### CERTIFICATE PROGRAM

#### Certificate requirements:

CREDITS

43

111

AGR	112	Agriculture Sales and Customer Relations	(5)	
AGR	116	Introduction to Cooperative Organizations		
		and Agri-Business	(5)	
AGR	126	Petroleum	(2)	
AGR	127	Tires, Batteris, and Accessories	(2)	
AGR	135	Agriculture On-the-Job Training	(10)	
AGR	156	Basic Management	(2)	
AMT	125	Auto Certification Refresher	(2)	
MAT	101	Applied Math I	(5)	
MGT	108	Small Business Management	(5)	
MGT	235	Principles of Management	(5)	

Select from the following courses:

AMT	104	Brake Repair	(4)	
AMT	106	Tune-up	(4)	
AMT	107	Advanced Engine Tune-up	(4)	
AMT	131	Brakes, Transmissions, and		
		Final Drives A	(12)	
AMT	132	Steering and Suspension Systems A	(12)	
AMT	133	Fuel Systems and Tune-up A	(12)	
AMT	136	Emission Control	(5)	
AMT	233	Air Conditioning and Comfort Controls	(5)	
Total Credits for Certificate				

# AGRICULTURE COOPERATIVE SERVICE CENTER MANAGEMENT ADVISORY COMMITTEE

Clarence Carlson Director Adams County Co-op Don Dreyer Director Adams County Co-op P.K. Mahanti Agland, Inc. Gerald Mueller Farmland Industries

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CREDITS 69

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# 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 (12 grade) education.

The major instructional objective is to develop the group and individual responsibility of young farmers through programs of instruction in Vocational Agriculture designed 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 they can be organized. Programs will have some flexibility because a minimum of 15 meetings is required, and the fiscal year is from July 1 to June 30 of each year.

For additional information on Young Farmer programs, please contact the Technical Division at 330-8008, ext. 340.

# AVIATION TECHNOLOGY

**Program Length:** Usually three quarters for completion of Certificate in Occupational Education program or six quarters for Associate of Applied Science degree program. May be shorter if student is eligible to receive credit for previous flying experience.

**Potential Opportunities:** The program is designed to qualify the student for immediate entry into employment as a pilot. Many enter the field as flight instructors. With additional experience, there are opportunities available in corporation flying, charter work, and the airlines.

Additional charges are made for rental of aircraft for flight labs. Aims Community College does not own airplanes but makes arrangements for flight experience at Weld County Airport. (See course descriptions for the various flight labs.) The Aviation department will have information detailing the flying expense of the courses.

With the approval of the Aviation department, credit for previous flying experience may be awarded as listed below.

FAA License Private Pilot License:	Aims Courses AVT 105 Aviation Seminar AVT 108 Private Ground School AVT 115 Private Flight Simulator AVT 116 Private Flight Lab
Instrument Rating:	AVT 117 Commercial Flight Lab I AVT 118 Commercial Flight Lab II AVT 205 Instrument Ground School
	AVT 215 Instrument Flight Simulator AVT 216 Instrument Flight Lab
Commercial Pilot License:	AVT 206 Commercial Ground School AVT 217 Commercial Flight Lab III
Certified Flight Instructor:	AVT 218 Certified Flight Instructor
Instrument Flight Instructor:	AVT 219 Instrument Flight Instructor
Multi-Engine Rating:	AVT 225 Multi-Engine Transition Lab
Basic Ground Instructor:	AVT 207 Basic Ground Instructor
Advanced Ground Instructor:	AVT 208 Advanced Ground Instructor
Instrument Ground Instructor:	AVT 209 Instrument Ground Instructor

# DEGREE PROGRAM

#### Degree requirements:

		CRE	DITS
Classroom			17
AVT 105 AVT 108 AVT 205 AVT 206	Aviation Seminar Private Ground School Instrument Ground School Commercial Ground School	(2) (6) (6) (3)	
Flight (cond	lucted at airport)		25
AVT 116 AVT 117 AVT 118 AVT 216 AVT 217	Private Flight Lab Commercial Flight Lab I Commercial Flight Lab II Instrument Flight Lab Commercial Flight Lab III	(5) (5) (5) (5) (5)	
Flight Simu	lator		10
AVT 115 AVT 215	Private Flight Simulator Instrument Flight Simulator	(5) (5)	
General Ed	ucation		10
CON 102 PSY 101	Introduction to Writing General Psychology I	(5) (5)	
Select one	of the following courses:		3-5
REA 106 SPE 115 SPE 116	Speed Reading Speech Communications Public Speaking	(3) (5) (3-5)	
Select two	of the following courses:		10-12
MAT 102 MAT 103 MAT 121 MAT 122 MAT 131 MAT 132	Applied Math II Applied Math III Beginning Algebra Intermediate Algebra College Algebra College Trigonometry	(6) (6) (5) (5) (5) (5)	
Select one	of the following courses:		5
PHY 102 PHY 120 PHY 151	Applied Physics II Fundamentals of Physics Introductory College Physics: Mechanics	(5) (5) (5)	
Select one	of the following courses:		4-5
EAS 105 EAS 106	Earth Science Introduction to Meteorology	(5) (4)	
Electives			12-16

Select from the following courses, with advisor approval:

AVT	119	Conventional Gear Transition Lab (2)	
AVT	207	Basic Ground Instructor (2)	
AVT	208	Advanced Ground Instructor	(2)
AVT	209	Instrument Ground Instructor	(2)
AVT	218	Certified Flight Instructor (5)	
AVT	219	Instrument Flight Instructor (3)	
AVT	225	Multi-engine Transition Lab (4)	
		Other advisor-approved courses ma	ay be

used to meet this requirement.

#### Total Credits for A.A.S. Degree

96-105

CREDITS

CREDITS

#### **CERTIFICATE PROGRAM**

#### Certificate requirements:

			ONEDITO
Classroom			17
AVT	105	Aviation Seminar	(2)
AVT	108	Private Ground School	(6)
AVT	205	Instrument Ground School	(6)
AVT	206	Commercial Ground School	(3)

Fligh	t (con	ducted at airport)		25
AVT	116	Private Flight Lab	(5)	
AVT	117	Commercial Flight Lab I	(5)	
AVT	118	Commercial Flight Lab II	(5)	
AVT	216	Instrument Flight Lab	(5)	
AVT	217	Commercial Flight Lab III	(5)	
Fligh	t Simu	ulator		10
AVT	115	Private Flight Simulator	(5)	
AVT	215	Instrument Flight Simulator	(5)	
Total	Cred	its for Certificate		52

# **Total Credits for Certificate**

# AVIATION TECHNOLOGY ADVISORY COMMITTEE

**Robert Anderson** Greeley National Bank

**Edward Beegles Beegles Aircraft** 

George Hopper FAA Designated Pilot Examiner

**Bud Johnson United Airlines** 

Ernest Kampe Kampe Aviation

Neal Keddington Manager Weld County Airport

Roy Shore, M.D. FAA Medical Examiner

# ELECTRONICS TECHNOLOGY



Program Length: Usually six quarters for Associate of 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, metrology laboratory technicians, or systems technicians for computers, controls, and communications. A good mathematics background through algebra is recommended. Advanced standing is possible if the applicant has had high school electronics, adult school electronics, or military electronics schooling. Advanced standing is determined on an individual basis.

First year electronic courses are normally offered every quarter to accommodate students who are out of phase with a normal academic year.

Certain courses may be waived if applicant has 3-5 years appropriate experience in electronics or closely related industry. Assessed on an individual basis. Advisor approved courses are selected in lieu of waived courses. Advanced standing is possible if the applicant has had high school electronics, adult school electronics, or military electronics schooling. Advanced standing is determined on an individual basis.

#### Degree requirements: CREDITS **First Year** Fall Quarter 18 ELT 141 Introduction to Electronics (10)PHY 102 **Applied Physics II** (5) (Generally recommended; other advisor-approved courses having the prefix CHE, EDP, ELT, MAT, MCE, and PHY may be substituted for PHY 102.) SPE 105 **Elements of Oral Communications** (3)Winter Quarter 18 CON 105 **Elements of Technical Writing** (3) ELT 142 AC/DC Circuit Analysis (10)PHY 103 **Applied Physics III** (5) (Generally recommended; other advisor-approved courses having the the prefix CHE, EDP, ELT, MAT, MCE, and PHY may be substituted for PHY 103.) Spring Quarter 17 CSC 101 Introduction to Computers and the BASIC Language (4) ELT 143 **Circuits and Applications** (10)ELT 146 **Electronics Print Reading** (3)and Sketching **Total Credits for First Year** 53 Second Year Fall Quarter 18 ECO 104 **Applied Economics** (3) Linear ICs and Sensors ELT 255 (5) ELT 271 Communications I (5) ELT 281 Computers I (5)Winter Quarter 16 ELT 266 **Electronic Design and Fabrication** (3)ELT 272 **Communications II** (5) 282 Computers II ELT (5)**PSY 104 Applied Industrial Relations** (3)Spring Quarter 16 ELT 267 Introduction to New Electronic Industry Development (3)ELT 268 Practical Solid-State Troubleshooting (3)Electives (10)Advisor-approved courses having the prefix CHE, EDP, ELT, MAT, MCE, and PHY. **Total Credits for Second Year** 50 103 Total Credits for A.A.S. Degree

# ELECTRONICS TECHNOLOGY ADVISORY COMMITTEE

**Clarence** Laber Hewlett-Packard Loveland

**DEGREE PROGRAM** 

Steve March Hach Chemical Loveland

John Martin Woodward Governor Inc. Fort Collins

**Rick Petersen** Woodward Governor Inc. Fort Collins

Debra Savage NCR Microelectronics Fort Collins

Lowell Shatraw Eastman Kodak Company **Colorado Division** Windsor

**Terry Smith** Hewlett-Packard Fort Collins

# DRAFTING

Drafting courses at Aims Community College are offered to meet the various needs of students within the college district.

A series of six courses are offered as part of the two year Mechanical and Civil Engineering Technology (MCE) degree program. A student who is interested in developing drafting skills may enroll in these courses for skill development. It is emphasized that the student should consider his or her basic skills and subject matter objectives before selecting a spedific course. These particular courses have counterparts in evening course offerings. Descriptions of these courses may be found in the MCE program section of the catalog.

Upon request, nondegree students will be awarded certificates of completion for the various drafting courses which have been completed.

Courses in the Aims Drafting program also are available to the secondary students enrolled in the Area Vocational School. These courses are offered during the regular college hours to all students in the Aims Junior College District. Students interested in these courses should contact their school principals or counselors for details and about the possibilities for enrollment.

All drafting students are encouraged to join the local Aims Community College Chapter of AIDD (American Institute of Design and Drafting).

# ARCHITECTURAL DRAFTING TECHNOLOGY

**Program Length:** Usually four quarters for completion of Certificate in Occupational Education program or six quarters for Associate of Applied Science degree program.

**Potential Opportunities:** The program is designed to qualify the student for entry level employment as an architectural drafting technician. The student will develop an understanding of mathematics, materials, and techniques utilized in the architectural drafting field.

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

- a. Architectural Drafting
- b. Civil Drafting
- c. Urban Plan Drafting
- d. Solar Technology Planning and Drafting
- e. Engineering Related Technology

As a postsecondary program, students are encouraged to join the local Aims Community College chapter of AIDD (American Institute of Design and Drafting).

The block of evening courses ARC 113 and 114 (six credits) is equivalent to ARC 103 (six credits).

#### **DEGREE PROGRAM**

(At the time of catalog publication, the approval process for this degree program had not been completed at the state level.)

#### Degree requirements:

CREDITS

First Year Fall Quarter			19
AAD 131 ARC 100 MAT 102 MCE 101	Drawing I Introduction to Architectural Technology Applied Math II Drafting I Elective	(3) (2) (6) (5) (3)	
Winter Quarter			19
AAD 132 MAT 103 MCE 102 PHY 102	Drawing II Applied Math III Drafting II Applied Physics II	(3) (6) (5) (5)	

# ARC 103 Drafting III: Architectural PHY 103 Applied Physics III SCI 105 Introduction to Principles of Solar Energy Elective In Psychology Total Credits for First Year Second Year Fall Quarter ARC 201 Drafting IV: Architectural

17

55

19

108

CREDITS

(6)

(5)

(3)

(3)

(6)

/11/0	201	Branning recentered	• •	
ARC	204	Contract Drawing Interpretation	(5)	
MCE	201	Drafting IV (Structural)	(5)	
SPE	105	Elements of Oral Communications	(3)	
Winte	r Quar	ter		17
ARC	202	Drafting V: Architectural	(6)	
MCE	202	Drafting V (Topographic)	(5)	
MCE	211	Basic Field Surveying I	(3)	
MCE		Cost and Material Estimating	(3)	
Spring Quarter				
ARC	203	Drafting VI: Architectural	(6)	
ARC	205	Construction Supervision and Inspection	(3)	
ARC	206	Architectural Project Drafting	(5)	
		Elective	(3)	
Total Credits for Second Year				

Total Credits for A.A.S. Degree

# CERTIFICATE PROGRAM

Spring Quarter

Certificate requirements:

Fall Q	uarter			19
AAD ARC MAT MCE		Drawing I Introduction to Architectural Techology Applied Math II Drafting I Elective Advisor-approved; usually with AAD, ARC, or MCE prefix.	(3) (2) (6) (5) (3)	
Minto	- 01101			19
	r Quai		(0)	15
AAD MAT MCE PHY	102	Drawing II Applied Math III Drafting II Applied Physics II	(3) (6) (5) (5)	
Sprin	g Qua	rter		14
ARC PHY SCI	103 103 105	Drafting III: Architectural Applied Physics III Introduction to Principles of Solar Energy	(6) (5) (3)	
Fall C	Quarter	r		16
ARC ARC MCE	204	Drafting IV: Architectural Contract Drawing Interpretation Drafting IV (Structural)	(6) (5) (5)	
Total	Credi	ts for Certificate		68
		ded Electives (for additional and knowledge)		
AAD AAD AAD		Fundamentals of Art and Design I Photography I Introduction to Architecture and	(5) (3)	
		Interior Design	(3)	
ART		Art Appreciation	(5)	
BUS MAT		Beginning Typewriting College Plane Geometry	(3) (5)	
MCE		Drafting IV	(5)	
MCE		Strength of Materials	(4)	
	211	Basic Field Surveying I	(2)	
PSY	107	I'm OK, You're OK: Psychology of Personal Relations	(3)	

39

# ARCHITECTURAL DRAFTING TECHNOLOGY ADVISORY COMMITTEE

**Registered Architects:** 

Loren Bley Bley Associates Greeley

Peter J. Boer, Peter J. Boer Architect Greeley

Jim Cox Cox, Park & Associates Fort Collins

Pat Dwyer ARIX Greeley

Howard Johnson Architect Greeley

Charles Mayhugh CRM Architecture Fort Collins

Bruce F. Meyer The Vernacular Greeley

Wayne Roberts Architect Greeley

Michael Robnett Larry Steel and Associates

Eric Smith Eric Smith Associates Boulder

# MECHANICAL AND CIVIL ENGINEERING TECHNOLOGY

**Program Length:** Usually six quarters for Associate of Applied Science degree program.

**Potential Opportunities:** The program is designed to prepare a student for activities of a technical nature, usually associated with civil and mechancal engineering. These activities may include drafting, estimating, data gathering, technical reports, structural systems design, surveying, laboratory testing, and other engineering assistance skills. The student will develop design skills, an understanding of mathematics and materials, and techniques relative to human relations, leadership, and obtaining a position. Good eyesight, hand dexterity, and a sense of size is helpful.

Students enrolled in this program are eligible to apply for Federal Cooperative Education opportunities with the United States Forest Service. For additional information, contact the Technical Division office.

The block of evening courses MCE 111, 112, 113, and 114 (16 credits) is equivalent to the block MCE 101, 102, and 103 (15 credits). MCE 221, 222, 223, and 224 (16 credits) is equivalent to the block MCE 201, 202, and 203 (15 credits).

#### DEGREE PROGRAM Degree requirements:

First	Year		
Fall C	Quarte	r	17
ECO	104	Applied Economics	(3)
MAT	102	Applied Math II	(6)
MCE	101	Drafting I	(5)
SPE	104	Elements of Oral Communications	(3)

# Winter Quarter

trantor dad			15
CON 105 MAT 103 MCE 102 PHY 102	Elements of Technical Writing Applied Math III Drafting II Applied Physics II	(3) (6) (5) (5)	
Spring Qua	rter		18
MCE 103 MCE 105 MCE 115 PHY 103	Drafting III Statics and Mechanics Basic Quality Control I Applied Physics III	(5) (5) (3) (5)	
<b>Total Credi</b>	ts for First Year		54
Second Ye Fall Quarte			17
MCE 201 MCE 205 MCE 206 MCE 207	Drafting IV Industrial Electricity Hydraulics and Pneumatics Materials and Processes	(5) (3) (5) (4)	
Winter Qua	rter		17
MCE 202 MCE 208 MCE 211 MCE 215 PSY 104	Drafting V Strength of Materials Basic Field Surveying I Cost and Material Estimating Applied Industrial Relations	(5) (4) (2) (3) (3)	
Spring Qua	rter		18
MCE 203 MCE 209 MCE 212 MCE 218	Drafting VI Engineering Problems Basic Field Surveying II Computer Systems and Applications	(5) (5) (4) (4)	
Total Credits for Second Year			52
Total Credits for A.A.S. Degree			106

19

# MECHANICAL AND CIVIL ENGINEERING TECHNOLOGY ADVISORY COMMITTEE

Herb Davidson Project Manager Zoyiopoulos & Associates Greeley Denny Graham Engineer Colorado Department of Highways Greeley James Moore Supervisor Eastman Kodak Company Colorado Division Windsor Herb Peralez **Chief Drafter** Miner & Miner Consulting Engineers, Inc. Greelev Bob Thomas Registered Land Surveyor ARIX Greeley Art Uhrich Subdivision Supervisor ARIX Greeley Sharon Wake Drafter McRae and Short, Inc. Greeley

CREDITS

# TRADES AND INDUSTRY DIVISION PROGRAMS

The Trades and Industry Divison 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. The Trades and Industry Skill Center provides the student who falls behind the class with the opportunity to catch up, and provides introductory classes for the student who needs training prior to enrollment in regular programs.

The Trades and Industry Division offers the following programs:

AUTO BODY REFINISHING	(Occupational certificate)
AUTO BODY REPAIR	(A.A.S. degree or Occupational certificate)
AUTOMOTIVE MECHANICS TECHNOLOGY	(A.A.S. degree or (Occupational certificate)
BUILDING CONSTRUCTION	(A.A.S. degree or Occupational certificate)
CHILD CARE SERVICES	(two year A.A.S. degree or one year Occupational certificate)
GRAPHIC TECHNOLOGY	(A.A.S. degree or Occupational certificate)
WELDING TECHNOLOGY	(A.A.S. degree or Occupational certificate)

# 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 skill 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.



# **CERTIFICATE PROGRAM**

**Certificate requirements:** 

continuato	requiremente.	CREDITS		
Fall Quarte	r	12		
ABR 151	Auto Refinish I	(12)		
Winter Quarter		12		
ABR 152	Auto Refinish II	(12)		

Total Credits for Certificate			36	
ABR	153	Auto Refinish III	(12)	
Spring Quarter				12

# AUTO BODY REPAIR

Program Length: 900 clock hours (72 credits) for Certificate in Occupational Education program or 1080 clock hours (72 credits plus 18 credits for general education) for Associate of Applied Science degree program.

Potential Opportunities: Opportunities for the tradesman range from the actual repair of the damaged auto to 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 guarter 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 six certificate requirements will earn a Certificate in Occupational Education. When possible, courses will be scheduled so that the student may take one course per guarter for 12 credits or two courses per guarter for 24 credits.

To earn an Associate of Applied Science degree, the student must complete the certificate requirements and at least 18 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.

# **CERTIFICATE PROGRAM**

#### **Certificate Requirements**

	CREDI					
Fall C	Fall Quarter					
ABR	141	Auto Body Repair I	(12)			
ABR	241	Auto Body Repair IV	(12)			
Winte	r Quai	rter		24		
ABR	142	Auto Body Repair II	(12)			
ABR	242	Auto Body Repair V	(12)			
Sprin	g Qua	rter		24		
ABR	143	Auto Body Repair III	(12)			
ABR	243	Auto Body Repair VI	(12)			
Total	Total Credits for Certificate 72					
DEGF	REE PR	ROGRAM				
Degre	ee req	uirements:				
			CRED	ITS		
Certif	icate I	requirements:		72		
Reco	Recommended General Education Courses 19					
COS	115	Applied Communications	(3)			
ECO	105	Organizations and Institutions	(3)			
HEN		Safety and First Aid	(3)			
MAT	101	Applied Math I	(5)			

(5) (5)

91

Total Credits for A.A.S. Degree

Applied Physics I

PHY 101

#### **Supporting Courses**

ABR	100	Introduction to Auto Body	(3)
ABR	102	Basic Straightening	(4)
ABR	103	Basic Refnishing	(4)
ABR	111	Damage Repair	(4)
ABR	112	Panel Replacement	(4)
ABR	121	Electrical and Alignment	(4)
ABR	122	Advanced Refnishing	(4)
ABR	123	Damage Appraisal: Estimating	(4)
ABR	199	Special Needs/Auto Body	(1-3)
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)
ABR	213	Unitized Frame Repair	(4)
ABR	221	Auto Body Rebuilding I	(4)
ABR	222	Auto Body Rebuilding II	(4)
ABR	223	Auto Body Rebuilding III	(4)

# AUTO BODY REFNISHING AUTO BODY REPAIR ADVISORY COMMITTEE

Kermit Bailey	Earl Nicks
Clark Olds-Cadillac	Edwards Chevrolet
Mike Foster Stevens Automotive	Bill Peil Auto Alignment & Frame Service
Jon Lind Artistic Auto Body	Mike White Aims Auto Body Student
Ft. Collins	

Dave Markley Bob Markley Motors

# AUTOMOTIVE MECHANICS TECHNOLOGY

**Program Length:** 900 clock hours (72 credits) for Certificate in Occupational Education program or 1080 clock hours (72 credits plus 18 credits of general education) for Associate of 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 in both mock-ups and live work. The student can prepare to enter the automotive service field as a general automobile mechanic or can 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 why and how it operates so that he or she can diagnose problems quickly and accurately.

We are designated as a national testing center for auto mechanic certification by the National Institute for Automotive Service Excellence.

We also offer a refresher course to help prepare a mechanic for the 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.

For those already employed as an automotive apprentice on a full time basis, Aims offers the Auto Mechanics Work Experience program in the evening. This program requires six quarters for completion. **Program requirements:** Completion of the six certificate requirements will earn a Certificate in Occupational Education. When possible, courses will be scheduled so that the student may take one course per quarter for 12 credits or two courses per quarter for 24 credits.

To earn an Associate of Applied Science degree, the student must complete the certificate requirements and at least 18 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 slected to fulfill the general education requirements.

# CERTIFICATE PROGRAM

Certificate requirements:

	Vierter		CRED	
Fall C	Quarter			24
AMT AMT	131 231	Brakes, Transmissions, and Final Drives A Automotive Engines A	(12) (12)	
Winte	er Qua	rter		24
AMT	133	Fuel Systems and Tune-up A	(12)	
AMT	232	Electrical A	(12)	
Sprin	g Qua	rter		24
AMT AMT	132 234	Steering and Suspension Systems A Automotive Transmissions and Air Conditioning A	(12) (12)	
Total	Credit	ts for Certificate	. ,	72
DEGR		ROGRAM		
Degr	ee req	uirements:	CRED	ITS
Cortif	icato	Requirements		72
Reco	mmen	ded General Education Courses		19
COS	115	Applied Communications	(3)	
ECO	105	Organizations and Institutions	(3)	
HEN		Safety and First Aid	(3)	
MAT PHY	101 101	Applied Math I	(5)	
		Applied Physics I	(5)	91
		ts for A.A.S. Degree Courses		91
	-		1.01	
AMT	100	Introduction to Auto Mechanics	(3)	
AMT AMT	104 105	Brake Repair Advanced Electtrical	(4)	
AMT	105	Tune-up	(4) (4)	
AMT	108	Automatic Transmissions	(4)	
	115	Foreign Car Tune-up	(4)	
AMT	124	Automotive Service Management	(3)	
AMT	125	Auto Certification Refresher	(2)	
	136	Emission Control	(5)	
	199		(1-3)	
AMT	207	Introduction to Diesel Engine	(6)	
AMT	233	Air Conditioning and Comfort Controls	(5)	
On-Th	ne-Job	Training Courses		
AMT	141	Brakes, Transmissions, and Final Drives B (Equivalent to AMT 131)	(12)	
AMT	142	Steering and Suspension Systems B Equivalent to AMT 132)	(12)	
AMT	143	Fuel Systems and Tune-up B Equivalent to AMT 133)	(12)	
AMT	241	Automotive Engines B Equivalent to AMT 231)	(12)	
AMT	242	Electrical B	(12)	
AMT	244	(Equivalent to AMT 232) Automotive Transmissions and Air Conditioning B (Equivalent to AMT 234)	(12)	

# AUTOMOTIVE MECHANICS TECHNOLOGY ADVISORY COMMITTEE

**Claude Harvey** Ehrlich Datsun

Walt Loftus Eaton Ford

Jerry Park Silver Star Service

George Richards **Edwards Chevrolet** 

**Dale Rowe** Dale's Texaco

William Waller 16th Street Conoco

Student representative as appointed

# **BUILDING CONSTRUCTION**

Program Length: 1050 clock hours (84 credits) for Certificate in Occupational Education program or 1230 clock hours (84 credits plus 18 credits of general education) for Associate of Applied Science degree program.

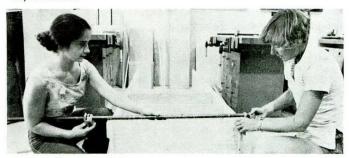
Potential Opportunities: This program is designed for students in all areas of residential construction. These include framing, exterior and interior finish, and cabinet construction; concrete and masonry also are major areas of training. Experience in dry wall, paint, and stain is provided.

The program is designed to provide the skills and knowledge needed to enter the construction field at an advanced level.

A few basic tools will be required for the program, such as a 16 oz. hammer, combination square, 16' tape measure, tool pouch, utility knife, and 1/32 and 3/32 nail sets.

Program Requirements: Completion of the six certificate requirements will earn a Certificate in Occupational Education. When possible courses will be scheduled so that the student may take one course per quarter for 14 credits or two courses per quarter for 28 credits.

To earn an Associate of Applied Science degree, the student must complete the certificate requirements and at least 18 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.



#### **CERTIFICATE PROGRAM** Certificate requirements:

	CREDITS
Fall Quarter	28
BCS 105 Building Construction I	(14)
BCS 205 Building Construction II	(14)
Winter Quarter	28
BCS 106 Building Construction III	(14)
BCS 206 Building Construction IV	(14)
Spring Quarter	28
BCS 107 Building Construction V	(14)
BCS 207 Building Construction VI	(14)
Total Credits for Certificate	84

#### **DEGREE PROGRAM** De

Degre	ee rec	uirements:				
			CREDITS			
Certi	ficate	84				
Reco	mmer	nded General Education Courses	19			
COS	115	Applied Communications	(3)			
ECO	105	Organizations and Institutions	(3)			
HEN	106	Safety and First Aid	(3)			
MAT	101	Applied Math I	(5)			
PHY	101	Applied Physics I	(5)			
Total	Cred	103				
Supp	Supporting Courses					

BCS	100	Introduction to Building Construction	(3)
BCS	102	Basic Cabinetry	(4)
BCS	104	Cabinetry II	(4)
BCS	199	Building Construction Special Needs Class	ss (1-3)

# BUILDING CONSTRUCTION **ADVISORY COMMITTEE**

Jack Cov Coy Realty Dennis Gibson **Gibson Construction** 

Garv Martin R & R Custom Woodworking

Pat Ormsby **Ormack Construction** 

Pat Roche **Roche Construction** 

# CHILD CARE SERVICES

#### (Early Childhood)

Program Length: Usually three quarters for Certificate in Occupational Education program or six quarters for Associate of Applied Science degree program.

Potential Opportunities: Group leader or director in private preschools, small and large day care centers, nursery schools, child development centers, Head Start and Follow Through programs, preschool centers for the handicapped, and summer fun day camps.

Prerequisites: A physical examination will be required of each student who initially enrolls in a student participation class. Any student working with children in a child care facility will submit a dated report of a satisfactory tuberculin test or chest x-ray to the director of the center.

CREDITS

#### **CERTIFICATE PROGRAM** (Preschool Group Leader)

#### Certificate requirements:

			OHLED	
Fall C	uarter			14
CCS	100	Introduction to Early Childhood Education	(2)	
CCS	101	Written Communication for the		
		Preschool Teacher	(2)	
CCS	106	Children's Literature	(3)	
CCS	131	Practice Teaching I	(4)	
CCS	161	Child Growth and Development I	(3)	
Winte	r Quai	rter		16
CCS	132	Practice Teaching II	(6)	
CCS	141	Activities for Young Children	(4)	
CCS	162	Child Growth and Development II	(3)	
cos	115	Applied Communications	(3)	
Sprin	g Qua	rter		17
CCS	105	First Aid	(2)	
CCS	133	Vocational Teaching Experience	(4)	
CCS	151	Nutrition for Young Children	(4)	
PSY	101	General Psychology I	(5)	
Total	Credit	ts for Certificate		47

ODEDITO

# DEGREE PROGRAM

#### **Degree requirements:**

Degree rec	Degree requirements:				
First Year		CREDI			
Preschool Requiren	Group Leader Certificate nents	,	<mark>4</mark> 7		
Second Ye	ar				
Fall Quarte	r		17		
CCS 231 CCS 241 SOC 101	Practice Teaching III Methods of Teaching the Young Child Introduction to Sociology Elective	(7) (4) (5) (1)			
Winter Qua	rter		18		
CCS 201	Business Management for Child Care Centers	(3)			
CCS 232 CCS 255	Human Relations in the Classroom Science for Preschool Teachers Elective	(7) (5) (3)			
Spring Qua	rter		17		
CCS 202 CCS 233 CCS 251 CCS 261	Administration of Child Care Centers Family and Community Relations Advanced Foods and Nutrition New Concepts and Practices in Child Development	(4) (7) (3) (3)			
<b>Total Credi</b>	ts for A.A.S. Degree		99		
Recommen	ded Electives				
CCS 265 HEN 105 PSY 107	Playground Development Personal Health I'm OK, You're OK: Psychology of Personal Relations	(4) (6) (3)			
SOC 105	Sociology of Marriage and Family Physical Education Elective	(4) (1)			
STATE SOCIAL SERVICES CERTIFICATION					

(Educational courses acceptable for state services certification for director of a child care center.)

CCS	100	Introduction to Early Childhood Education	(2)		
CCS	105	First Aid	(2)		
CCS	106	Children's Literature	(3)		
CCS	141	Activities for Young Children	(4)		
CCS	161	Child Growth and Development I	(3)		
CCS	162	Child Growth and Development II	(3)		
CCS	241	Methods of Teaching the Young Child	(4)		
CCS	255	Science for Preschool Teachers	(5)		
CCS	261	New Concepts and Practices in			
		Child Development	(3)		
Supp	Supporting Courses				

or Young Children (4)	151	CCS
anagement for Child Care Centers(3)	201	CCS
tion of Child Care Centers (4)	202	CCS
ods and Nutrition (3)	251	CCS
ychology I (5)	101	PSY
n to Sociology (5)	101	SOC
tion of Child Care Centers ods and Nutrition ychology I	202 251 101	CCS CCS PSY

# CHILD CARE SERVICES ADVISORY COMMITTEE

Mrs. Lyn Danielson	Mrs. Barbara McFerron
Parent Cooperatives	Rainbow Path Preschool
Mrs. Sandra Bright	Keith McNeil
ABC Child Development Center	Director
Mrs. Caroline Garrison	Head Start
16th Street Child Development Center	Mrs. Jeannine Truswell
Ann Heiman	Director
Greeley Parent-Child Center	Partners, Inc.

# **GRAPHIC TECHNOLOGY**

**Program Length:** 900 clock hours (73 credits) for Certificate in Occupational Education program or 1080 clock hours (73 credits plus 18 credits of general education) for Associate of Applied Science degree program.

Potential Opportunities: The program is designed to prepare the student for entry into a number of career fields; opportunities are almost unlimited in Graphic Techology. Key occupations include: 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 requirement courses will earn a Certificate in Occupational Education.

To earn an Associate of Applied Science degree, the student must complete the certificate requirement courses and at least 18 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.

Graphic Technology I, II, and III (GRT 101, 102, 103) are offered every quarter.

CREDITS

CREDITO

# **CERTIFICATE PROGRAM**

#### Certificate requirements:

		CREDITS	
Fall Quarte	er	23	3
BUS 101 GRT 101	Beginning Typewriting Graphic Technology I	(3) (20)	
Winter Qua	arter	25	5
CON 104 GRT 102	Basic Communications Graphic Technology II	(5) (20)	
Spring Qua	arter	25	5
GRT 103 MAT 110	Graphic Technology III Business Mathematics	(20) (5)	
Total Cred	its for Certificate	73	3

#### **DEGREE PROGRAM**

(At the time of catalog publication, the approval process for this degree program had not been completed at the state level.)

#### Degree requirements:

			CREDITS
Certi	licate	requirements:	73
Addit	ional	General Education Requirements:	
HEN	106	Safety and First Aid	3
Two	course	es from the following:	6-8
PSY	107	I'm OK, You're OK: Psychology	
		of Personal Relations	(3)
PSY	111	Basic Human Potential Seminar	(3)
PSY	112	Advanced Human Potential Seminar	(3)
PSY	145	Human Relations at Work	(5)
PSY	212	Holistic Health	(3)
PSY	241	Biofeedback I: Biofeedback and	
		the Psychology of Health	(3)

#### Additional Degree Requirements:

Two cou	rses from the following:		6-10
AAD 10	1 Fundamentals of Art & Design I	(5)	
AAD 10	2 Fundamentals of Art & Design II	(5)	
AAD 13	1 Drawing I	(3)	
AAD 13	2 Drawing II	(3)	
AAD 13	1 Drawing II	(3)	
AAD 22	1 Graphic Design I	(3)	
<b>MAT 12</b>	1 Beginning Algebra	(5)	
(At least	three credit hours from		
the follo	wing courses:)		3-10
GRT 10	0 Introduction to Graphic Technology	(2)	
GRT 10	4 Graphic Technology IV	(10)	
GRT 10	7 Silk Screen Printing	(2)	
GRT 19	9 Graphic Technology/Special Needs	(2)	
GRT 29	5 Graphic Technology/Independent Study	(2)	
GRT 29	9 Graphic Technology/Practicum	(1)	
Total cre	edits for A.A.S. Degree	9	1-104



# GRAPHIC TECHNOLOGY ADVISORY COMMITTEE

Don Best	Annette Ferguson
Pawnee Press	<b>Rocky Mountain Creations</b>
Steve Bojanowski	Mark Kendall
Nelson's Office Supply	Sheff Enterprises
Richard K. Brown	Norman Nash
City of Greeley	Pawnee Press

# WELDING TECHNOLOGY

**Program Length:** 900 clock hours (72 credits) for Certificate in Occupational Education program or 1080 clock hours (72 credits plus 18 credits of general education) for Associate of Applied Science degree program.

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 resonable amount of time. Other opportunities also 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.

It is our prupose 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 three certificate requirements will earn a Certificate in Occupational Education.

To earn an Associate of Applied Science degree, the student must complete the certificate requirements and at least 18 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.

Welding Technology I, II, and III (WLT 151, 152, 153) are offered every quarter. These courses are equivalent to former offerings: WLT 151 is equivalent to WLT 141 and 142; WLT 152 is equivalent to WLT 143 and 241; WLT 153 is equivalent to WLT 242 and 243.

#### **CERTIFICATE PROGRAM**

#### Certificate requirements:

Fall Quarter24WLT151Welding Technology I(24)Winter Quarter24WLT152Welding Technology II(24)Spring Quarter24WLT153Welding Technology III(24)Total Credits for Certificate73DEGREE PROGRAMCREDITSCertificate Requirements:CREDITSCertificate Requirements72Recommended General Education Courses19COS115Applied Communications(3)ECO105Organizations and Institutions(3)HEN106Safety and Fist Aid(3)MAT101Applied Math I(5)PHY101Applied Physics I(5)Total Credits for A.A.S. Degree91Supporting CoursesWLT100Introduction to Welding(3)WLT105Basic Oxy/Acet Welding(4)WLT106Advanced Oxy/Acet Welding(4)WLT107Basic Shielded Metal Arc Welding(4)	Certin	icate	equirements.	CREE	DITS
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5	WLT	105	Basic Oxy/Acet Welding	(4)	
WLT 107 Basic Shielded Metal Arc Welding (4)	WLT	106	Advanced Oxy/Acet Welding	(4)	
	WLT	107	Basic Shielded Metal Arc Welding	(4)	
WLT 108 Advanced Shielded Metal Arc Welding (4)	WLT	108	Advanced Shielded Metal Arc Welding	(4)	

WLT109Basic Gas Metal Arc Welding(4)WLT115Advanced Gas Metal Arc Welding(4)WLT204Welding Problems(4)WLT236Special Problems in Welding(24)

# WELDING TECHNOLOGY ADVISORY COMMITTEE

Kurt Burrel Eastman Kodak Company Colorado Division Windsor Dwight Giles Hydraulics Unlimited Dr. Joe Goddard Self-employed

Murray Hill Lundvall Manufacturing

Gene Johnson Self-employed

Dale Majors Majors Welding Supply

# DEVELOPMENTAL/ REMEDIAL EDUCATION

Developmental/Remedial Education exists to provide educational options for students. An initial assessment of academic skills is required in order to provide the student with courses that are best suited to her/his educational goals. Students have an opportunity to acquire or raise their level of skills in the areas of math, reading, writing, and basic oral language development to the required level necessary to pass the General Education Development (GED) examination and/or to benefit from occupational or degree programs. Students may enroll in a class, or attend a supervised laboratory setting.

The college offers its developmental/remedial education through four programs:

# ENGLISH AS A SECOND LANGUAGE (ESL)

This program is for students who wish to improve or gain English speaking skills. The courses will 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. Foreign students wishing to take this curriculum must have their visa cleared by the office of Admissions and Records.

# APRENDER INGLES COMO SEGUNDA LENGUA

Estas clases son principalmente para estudiantes que quieren aprender o mejorar su habilidad en ingles. Enfasis en la enseñanza de las clases sera en desarollar habilidades orales (de conversación) que son relacionadas al estudiante, tal como educación al consumidor, el empleo, la escuela, y la comunidad.

La matriculacion de estudiantes del extranjero que desean tomar estas clases debe de ser aprobada por la oficina de admisión.

Aunque el enfasis de estas clases será en que el estudiante obtenga habilidad oral (de conversación) lectura y escritura principante sera ensenada junto con la enseñanza oral. Como parte de las clases, los estudiantes participaran en excurciones cuando el instructor vea la necesidad.

# **DEVELOPMENTAL EDUCATION**

Developmental courses include a sequence of skill development classes in reading, language, and/or mathematics. They are content-oriented courses designed to prepare students for the GED or for remedial-level 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 arithmetic, language, reading comprehension, social science, and science. The program contains group activities, instructor presentations, and individualized activities. Students will be encourage 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.

These courses also are designed to give students who have a GED, high school diploma, or their equivalency preparation in reading, language arts, math, and social science sufficient for them to meet their personal, vocational, and/or academic needs on a college level.

# REMEDIAL EDUCATION

Remedial courses are designed for the college student who needs to improve basic skills in reading, language, and/or mathematics before attempting entry-level college courses.

# DEVELOPMENTAL/REMEDIAL-READING/LANGUAGE ading/LANGUAGE LAB

Students needing additional assistance with basic reading or language skills may use the Developmental/Remedial-Reading/Language Lab. The reading skill development provided ranges from beginning reading, phonics, and vocabulary development to advanced comprehension and study skills for college coursework. In language, the skill development ranges from oral English communication, beginning writing, and spelling to written composition for college communications courses. Services available through the lab include tutoring, small-group instruction, writing, help sessions, and GED Independent Studies.

The lab is located in the northeast corner of the LDC Library and is designated as a quiet study area. It is open from 8:00 a.m. to 9:00 p.m. Monday through Thursday and from 8:00 a.m. to 4:30 p.m. on Friday. The lab is closed on weekends.

# DEVELOPMENTAL/REMEDIAL EDUCATION CURRICULUM

A student will be placed into the courses indicated by preassessment in language, reading, and/or mathematics. The student will continue through the sequence of courses in one or more of the skill areas until such time as the student has met his or her self-improvement goals, passed the GED examination, or acquired the skill competencies to do entry-level college work.

Language:	<b>Possible Course Hours</b>
English as a Second Language (ESL)	30-75
Developmental Language	19
Remedial Language	10-16
Mathematics:	
<b>Developmental Mathematics</b>	21
Remedial Mathematics	5-20
Reading:	
Developmental Reading	21
Remedial Reading	9-24

SEQUENCE OF COURSES

# COURSE DESCRIPTIONS

# ACC: ACCOUNTING

# ACC 101 PRINCIPLES OF ACCOUNTING I

Fundamentals of accounting theory and practice. Includes a study of the entire accounting cycle and the use of accounting in management decisions.

Five credits: 50 clock hours.

# ACC 102 PRINCIPLES OF ACCOUNTING II

A continuation of ACC 101 emphasizing the study of assets and their valuation. Introduces accounting for partnerships and corporations.

Prerequisite: ACC 101. Five credits: 50 clock hours.

#### ACC 103 PRINCIPLES OF ACCOUNTING III

A continuation of ACC 102 emphasizing long-term liabilities, investments; departmental, manufacturing, and cost accounting; flow of funds, standard cost and capital budgeting, and statement analysis.

Prerequisite: ACC 102. Five credits: 50 clock hours.

## ACC 105 PAYROLL ACCOUNTING

An in-depth study of various payroll systems using government requirements. Includes projects in actual payroll preparation. Prerequisite: ACC 101 or permission of instructor. Three credits: 30 clock hours.

#### ACC 106 CAREERS IN ACCOUNTING

An exploratory class for accounting students who wish to learn the specific job opportunities, entry level skills needed, and possibilities for advancement in accounting. Prerequisite: ACC 101 or permission of instructor. One credit: 10 clock hours.

#### ACC 107 MANAGERIAL USE OF ACCOUNTING

Uses financial statements to develop ratios and comparisons in order to train the student in the use of accounting information for making managerial decisions.

Prerequisite: ACC 101 or permission of instructor. Five credits: 50 clock hours.

#### ACC 109 CREDIT COLLECTING

Presents guidelines for extension of credit, rules that enhance or limit collections, and methods used to collect accounts for small businesses.

One credit: 10 clock hours.

# ACC 115 FARM RECORDS AND TAX

Presents guidelines for keeping farm records and using them for filing tax forms. Provides information on determining the need for increasing capital assets and methods of financing them. Depreciation and investment credit will be discussed. Five credits: 50 clock hours.

#### ACC 121 INCOME TAX ACCOUNTING I

A study of the important income tax code provisions as they affect individuals and business enterprises; code preparations for tax planning and minimization for individuals and business enterprise.

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 pension funds, annuities, IRS, Keogh plans; partnerships and corporations; net operating losses; investment credit carryovers, carrybacks and recapture; installment sales on personal residence; and minimum, maximum, and alternative taxes. Prerequisite: ACC 121 or permission of instructor. Three credits: 30 clock hours.

#### ACC 201 INTERMEDIATE ACCOUNTING I

An in-depth study of the basic principles and concepts of accounting. Special attention is given to how these apply to cash and temporary investments, receivables, and cost and valuation 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.

Prerequisite: ACC 201 or permission of instructor. Five credits: 50 clock hours.

#### ACC 205 ACCOUNTING SYSTEMS

A study of flow accounting information within an organization; special emphasis on integration of accounting sub-systems. Prerequisite(s): ACC 105 and ACC 201, or permission of instructor. Four credits: 40 clock hours.

#### ACC 211 COST ACCOUNTING I

Studies the fundamental elements of an organization's direct and indirect costs. Emphasizes preparation of cost data for management use.

Prerequisite: ACC 103 or permission of instructor. Five credits: 50 clock hours.

#### ACC 246 FINANCIAL MANAGEMENT

Deals with conceptual alternatives of financial management. Emphasizes preparation and analysis of source 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 299 ACCOUNTING PRACTICUM

Students complete a practice set commensurate with the level of accounting theory to which they have been exposed. Course may be repeated at different levels for additional credit. Principles of Accounting I, sole proprietor-merchandising set; Principles of Accounting II, corporate merchandising set; Principles of Accounting III, corporate manufacturing set; Cost Accounting I, corporate manufacturing set using either job or process cost; Intermediate Accounting, practice set, working papers from incomplete records.

Minimum Prerequisite: ACC 101. One credit: contact instructor.

# AGR: AGRICULTURE COOPERATIVE SALES AND SERVICE TECHNOLOGY

# AGR 111 AGRICULTURE CAREERS I

Gives students basic knowledge about various areas in cooperative business; helps students decide in which area they wish to concentrate. Fertilizer and agriculture credit will be covered. Field trips included.

Three credits: 30 clock hours.

#### AGR 112 AGRICULTURE SALES AND CUSTOMER RELATIONS

Continuation of AGR 111. Feeds, tires, batteries, and accessories will be covered briefly. The major emphasis will be sales procedure and management styles needed by a co-op employee. **Prerequisite:** AGR 111. **Five credits:** 50 clock hours.

The creats. So clock hours.

# AGR 116 INTRODUCTION TO COOPERATIVE ORGANIZATIONS AND AGRI-BUSINESS

Topics include orientation to prospective employment, organization and structure of cooperatives and corporations, history, impact on American business, and opportunities in cooperatives. Field trips included. **Five credits:** 50 clock hours.

AGR 117 FEEDS AND FEEDING

General introduction to basic feeds and their properties, and basic livestock and feeding methods. Evaluation of animals relative to weight gain, health, etc.

Five credits: 50 clock hours.

#### AGR 118 FERTILIZATION AND SOIL

General overview of soil and nutrients and their makeup. Soil testing and analyzing included. **Five credits:** 50 clock hours.

# AGR 119 FEED PROCESSING AND GRAIN HANDLING

Basic feed mill operation, feed and grain storage and handling, delivery, and safety procedures. Five credits: 50 clock hours.

#### AGR 125 FARM CHEMICALS

Overview of more common chemicals used in agriculture; their makeup and uses. Includes sprayer calibrations, spray compounds, and medications.

Five credits: 50 clock hours.

#### AGR 126 PETROLEUM

Covers petroleum products sold by most co-ops. Defines the role and job responsibility of a co-op petroleum sales specialist. The four stroke cycle of a spark ignition engine and four cycle diesel engine are briefly covered. Emphasizes product information, storage, care and operation of equipment and plant, warranties, and selling. **Two credits:** 20 clock hours.

#### AGR 127 TIRES, BATTERIES, AND ACCESSORIES

Product knowledge is a very important part of a good employee's training. Teaches product knowledge of tires, batteries, belts, hoses, and shocks needed by a service center or station operator. Replacement warranties and customer relations also are covered. **Two credits:** 20 clock hours.

#### AGR 128 LP GAS

Contains basic LP gas information pertaining to bulk plant operations, transportation, and product transfer; includes safety procedures.

Two credits 20 clock hours.

#### AGR 129 LP CARBURATION

Provides an overview of the nature, origin, and uses of LP gas. Teaches the carburation system beginning with engine operation; covers fuel and combustion. Carburation system parts covered are: air cleaner, ventilation, governors, ignition circuit, adjustments, tests, and trouble shooting.

Two credits: 20 clock hours.

#### AGR 135 AGRICULTURE ON-THE-JOB TRAINING AGR 136 AGRICULTURE ON-THE-JOB TRAINING

AGR 235 AGRICULTURE ON-THE-JOB TRAINING

Students work a minimum of 325 hours in an approved work program.

Prerequisite: advisor approval.

Ten credits each.

# AGR 137 AGRICULTURE CHEMICALS

Gives students a basic understanding of farm chemical terminology, contents of a chemical label, safety rules, and factors which influence the performance of some chemicals. Three credits: 30 clock hours.

#### AGR 138 PAINT

Designed to enable the student to correctly assist the customer in selecting paint, wallcoverings, and tools to complete a finishing job. Teaches methods of estimating material required and how to diagnose common paint problems. **Two credits:** 20 clock hours.

AGR 139 FERTILIZER

Designed to lead the student to a basic understanding of soil and soil nutrients. Using this knowledge, combined with soil test results, a proper combination of fertilizer nutrients can be recommended. Course utilizes filmstrips, cassettes, and student manual. **Three credits:** 30 clock hours.

# AGR 145 FERTILIZER BULK BLENDING

Covers the blending of fertilizer to use on a per acre basis, consolidating plant equipment, inventory, and mathematics used in formulating blends. For a usable understanding, students should spend lab time observing the actual process at a fertilizer plant. This time can be arranged with instructor.

Prerequisite: AGR 139.

Three credits: 30 clock hours.

#### AGR 146 ANHYDROUS AMMONIA

Begins with the history of ammonia and progresses through the chemistry, production, and application of the most widely used nitrogen fertilizer today. Consideration is given to use of ammonia in growing the following crops: corn, wheat, and sugar beets. Safety in handling and preventive maintenance of equipment also are covered.

Prerequisite: AGR 118 or AGR 139. Three credits: 30 clock hours.

#### AGR 147 CORN PRODUCTION

Gives the student an understanding of how the corn plant grows and how it fits into the farm system. Seed selection and seedbed preparation also are covered. Application of fertilizer on maximum yields, coupled with water and soil fertility management, gives the student a basic understanding of corn production for profit. Using corn as a feed, and protection from insects and diseases also are covered.

Three credits: 20 clock hours.

#### AGR 148 FEED

Utilizes cassettes and filmstrips to cover basic feed use. Feed utilization and basic rations for livestock are figured using the Pearson Square Method. The correct uses of minerals and additives marketed by most co-ops are covered. **Two credits:** 20 clock hours.

#### AGR 149 PROFITABLE PORK PRODUCTION

Covers the overall swine program. Special emphasis is given to economics, facilities, and herd management. The capital needed to conduct a swine enterprise is figured by the student. **Two credits:** 20 clock hours.

#### AGR 155 COOPERATIVE ORGANIZATION

A beginning course to study the operation of co-ops. The stuructre, organization, and operation of co-ops are explained. Questions concerning taxation, board operation, management, and patronage refunds are adequately explained. Text, and completion of ten unit tests and a final are required. Two credits: 20 clock hours.

#### AGR 156 BASIC MANAGEMENT

The use of a manager's time is the core of this course. Decisions by the student as to priorities and employee management are briefly covered.

Two credits: 20 clock hours.

#### AGR 157 MODERN SALESMANSHIP

Includes price book use, product information, and sales procedures recommended for use by agriculture cooperatives. Two credits: 20 clock hours.

#### AGR 159 ANIMAL HEALTH

Covers basic animal care practices, common livestock diseases, and how these diseases are normally treated. The co-op line of animal health products is covered. Common animal health terms, internal and external parasites control, wounds and wound treatment, poisons, and veterinary products are a few of the areas covered.

Two credits: 20 clock hours.

# ANT: ANTHROPOLOGY

#### ANT 101 INTRODUCTION TO ANTHROPOLOGY

Introduces the nature and scope of anthropology, organic man, race, and the nature of culture. Five credits.

#### ANT 106 INTRODUCTION TO ARCHAEOLOGY

Surveys the prehistory of man, his technology, and contributions to the modern world. Examines major archaeological groups and sites, methods of excavation, dating of artifacts, and analysis of data. Five credits.

#### ANT 205 ENVIRONMENT AND CULTURE BEHAVIOR

Examines possible interrelationships between environmental phenomena and cultural behavior.

Five credits.

# ARC: ARCHITECTURAL DRAFTING TECHNOLOGY

#### DRA 100 INTRODUCTION TO DRAFTING

Introduces the student to the drafting profession. Emphasizes safety and introduces drafting tools, equipment, methods, and procedures. Upon satisfactory completion, the student will have a fundamental understanding, knowledge, and skills of the drafting industry.

Three credits: 35 clock hours.

#### ARC 100 INTRODUCTION TO ARCHITECTURAL TECHNOLOGY

A survey course to provide students with fundamental knowledge needed to work with an architect. The student that successfully completes this course will have a good understanding of architectural practice and be able to graphically assemble the necessary construction elements to meet a client's needs. Prerequisite: none.

Two credits: 20 clock hours.

#### ARC 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 a basic idea and culminating with a full set of working construction drawings.

Prerequisite: MCE 102, equivalent, or permission of instructor. Six credits: 80 clock hours.

#### ARC 113 DRAFTING IIIA: ARCHITECTURAL (Evening)

The first of two, evening sequence classes. ARC 113 and ARC 114 are equivalent to ARC 103. See ARC 103 for course description. Prerequisite: MCE 112, equivalent, or permission of instructor. Three credits: 40 clock hours.

# ARC 114 DRAFTING IIIB: ARCHITECTURAL (Evening)

The second of two, evening sequence classes. ARC 113 and ARC-114 are equivalent to ARC 103. See ARC 103 for course description. Prerequisite: ARC 113 or permission of instructor. Three credits: 40 clock hours.

#### ARC 201 DRAFTING IV: ARCHITECTURAL

Provides students with an opportunity to study wood frame and timber construction techniques, including modular and component selection and applications.

Prerequisite: ARC 103, equivalent, or permission of instructor. Six credits: 80 clock hours.

#### ARC 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: ARC 201, equivalent, or permission of instructor. Six credits: 80 clock hours.

#### ARC 203 DRAFTING VI: ARCHITECTURAL

Provides students with an opportunity to study steel applications and techniques. Structural and decorative applications in relation to building construction will be explored.

Prerequisite: ARC 202, equivalent, or permission of instructor. Six credits: 80 clock hours.

#### ARC 204 CONTRACT DRAWING INTERPRETATION

Provides students with an opportunity to study and evaluate typical documents, drawings, forms, and code requirements encountered in the day-to-day operation of an architectural design office

Prerequisite: architectural program major or permission of instructor/advisor.

Five credits: 50 clock hours.

#### ARC 205 CONSTRUCTION SUPERVISION AND INSPECTION

Provides students with an opportunity to study construction supervision coordination and inspection techniques and, then, to apply those skills in an on-site situation: first, through on-site visitations (field trips) and limited assignment to a building construction project; second, through limited assignment to a local building inspection department.

Prerequisite: ARC 204 or permission of instructor. Three credits: 40 clock hours.

#### ARC 206 ARCHITECTURAL PROJECT DRAFTING

Provides students with an opportunity to work in an actual or simulated project atmosphere. The student may spend part of the quarter assigned to an architect's office or may be assigned to a project team (simulated school project) for further work in a specific area of interest. Building systems and components will be emphasized.

Corequisite: ARC 203 or permission of instructor. Five credits: 70 clock hours.

ART

# ART

# ART 100 ART APPRECIATION

Introduction to art, architecture, and the several fields of design. Through visual presentations, discussions, and studio exercises, students examine various ways in which people express themselves through manipulations of materials, including painting, sculpture, crafts, housing, and consumer goods. Course fulfills a humanities requirement. Five credits.

#### ART 111 ART HISTORY I ART 112 ART HISTORY II

These courses provide students with a basic historical understanding of western art forms, architecture, and relevant crafts. Art History I covers prehistoric through Medieval periods and Art History II covers the Renaissance through contemporary movements.

#### Five credits each.

#### 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.

# ARTS FOR HUMAN DEVELOPMENT

#### HUD 111-116 SENSORY INTEGRATION: MOTOR HUD 121-126 SENSORY INTEGRATION: VISUAL HUD 131-136 SENSORY INTEGRATION: AUDITORY

These courses develop or extend learning capabilities through individually designed motor, visual, auditory, and dramatic sensory exercises. This learning structure is developmental in nature. Each sensory area is composed of six proficiency levels or courses. Only S grade available.

One credit each: two clock hours per week each.

# DESIGN

# AAD 101 FUNDAMENTALS OF ART & DESIGN I AAD 102 FUNDAMENTALS OF ART & DESIGN II

Courses include the study of light, space, and perception. Students study and work with the process of creative thinking and expression, fundamental visual elements, and principles of organization. The application of these fundamentals to problems in the visual arts and design fields is surveyed. First course concentrates on two-dimensional situations; second course focuses on three-dimensional conditions.

# Five credits each.

#### AAD 125 PRACTICAL GRAPHIC DESIGN

Explores a variety of ways in which reports, graphs, charts, maps, and posters can be graphically designed to enhance their communicative effectiveness. Not required for majors in graphic design.

Three credits: six studio hours.

#### AAD 131 DRAWING I AAD 132 DRAWING II

These courses introduce students to drawing as a means of visual thinking and expression. Drawing I assignments cover development of visual perception, basic drawing techniques, and composition. Students may choose to emphasize descriptive or personally expressive drawing approaches. Drawing II includes a survey of expressive drawing styles, a study of formulating ideas for drawing, further experience with developing and expressing concepts in terms of drawing, and an exploration of a variety of drawing mediums.

Three credits each: six studio hours each.

#### AAD 221 GRAPHIC DESIGN I AAD 222 GRAPHIC DESIGN II

These courses introduce students to graphic applications of drawing, painting, photographic techniques, and creative design with letter forms and composition. Graphic Design I surveys the application of visual arts techniques to several practical or applied situations (e.g. illustration, architectural rendering, advertising and product design, interior design, and crafts). Three credits each: six studio hours each.

#### AAD 223 GRAPHIC DESIGN III

Includes a survey of graphic preparations for packaging, product design, and interior and architectural planning; studies elements and principles relevant to the visual design of functional objects; provides experiences with the processes of planning for and execution of quality packaging, product, and interior or architectural concepts.

Three credits: six studio hours.

# AAD 225 LETTERING

Introduces lettering (calligraphy) as an art form and as a major design element in graphic design. Includes instruction in techniques, information regarding tools and materials, and practice in various lettering styles.

Three credits: six studio hours.

# AAD 231 FIGURE DRAWING

Includes a survey of figure drawing, study of anatomy in terms of drawing, and instruction in the basic techniques of drawing the human figure.

Three credits: six studio hours.

#### AAD 235 GRAPHIC ILLUSTRATION

Course structure allows students with previous drawing experience to explore applications of drawing to illustration, rendering, or selected printmaking media. Prerequisites: AAD 131 and AAD 132. Three credits: six studio hours.

#### AAD 241 PHOTOGRAPHY I AAD 242 PHOTOGRAPHY II AAD 243 PHOTOGRAPHY III

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 illustraton, portraiture), and work with relevant design principles and photographic techniques. Three credits each: six studio hours each.

AAD 245 PHOTOJOURNALISM

A study of photography used for telling a picture story. Includes composition and use of the camera for publications.

Prerequisite: AAD 241.

Three credits: six studio hours.

#### AAD 250 INTRODUCTION TO ARCHITECTURE AND INTERIOR DESIGN

Includes a historical survey of architectural and interior styles. Introduces architectural vocabulary forms and materials and methods of construction. Provides a fuller understanding of the architectural design and planning fields. **Three credits.** 

#### AAD 251 INTERIOR DESIGN I AAD 252 INTERIOR DESIGN II AAD 253 INTERIOR DESIGN III

Interior Design I and II cover interior visual and spatial elements, organizaing principles, materials, and their relationship 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: six studio hours each.

#### FTC 100 SURVEY OF FASHION DESIGN

Studies the physical, cultural, psychological, and aesthetic factors involved in the design, selection, and use of clothing. **Three credits:** four clock hours.

# **FINE ARTS**

#### ARS 241 PAINTING I 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 the study of the figure in terms of painting, and further development of individual approaches to painting.

Three credits each: six studio hours each.

# ARS 243 WATER MEDIA I 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:** six studio hours each.

#### ARS 251 SCULPTURE I 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, and 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: six studio hours each.

#### ARS 261 JEWELRY AND METALWORK I 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: six studio hours each.

#### ARS 271 POTTERY AND CERAMIC DESIGN I 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, experience in designing for ceramic objects, and instruction in the several techniques of handbuilding. 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:** six studio hours each.

# ARS 281 WEAVING AND TEXTILE DESIGN I ARS 282 WEAVING AND TEXTILE DESIGN II

These courses include a basic study of selected textile design processes. Weaving and Textile Design I includes instruction in weaving and the related processes of stitchery, hooking, batik, and silk screen; experience with creative design processes for textiles. Weaving and Textile Design II continues instruction on the four harness loom, emphasizing basic weaves and experimental and creative design within the weaving process.

Three credits each: six studio hours each.

# AST: ASTRONOMY

#### AST 101 INTRODUCTORY ASTRONOMY

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 102 ASTRONOMY SEMINAR

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 methods of exposition, and present the special information to the class.

Three credits: three hours lecture.

#### AST 109 SELECTED ASTRONOMY TOPICS

Provides the opportunity to become familiar with the constellations, brighter stars, planets, lunar features, and conspicuous deep space objects visible during the course of the class. Discussions and lecturers will focus on the solar system, extraterrestrial life, astronomical instruments, spectroscopy, and space exploration.

Two credits: two hours lecture.

#### 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.

# ABR: AUTO BODY REFINISHING ABR: AUTO BODY REPAIR

#### ABR 100 INTRODUCTION TO AUTO BODY

Introduces the student to the auto body profession. Emphasizes safety and introduces auto body tools, equipment, methods, and procedures. Upon satisfactory completion, the student will have a fundamental understanding, knowledge, and skills of the auto body industry.

Three credits: 35 clock hours.

#### 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. 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 refinish 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. Four credits: 40 clock hours.

#### ABR 141 AUTO BODY REPAIR I

Students will learn to weld lap, butt, and tee joints in the flat and vertical positions. 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.

Twelve credits: 150 clock hours.

### ABR 143 AUTO BODY 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 refnish the car with finishes currrently 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 adjustments to automotive glass. They also will become familiar with the manuals and procedures of writing estimates.

Twelve credits: 150 clock hours.

#### ABR 151 AUTO REFINISH I

Students will become familiar with refinish materials, solvents, primers, sandpapers, top coats, and the uses of each. They will become familiar with tools, spray gun, sanders, transformers, air compressors, and accessories used in auto refinishing. Twelve credits: 150 clock hours.

#### ABR 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. Twelve credits: 150 clock hours.

#### ABR 153 AUTO REFINISH III

Students will prep and apply top coats to the entire car using lacquers and enamels.

Twelve credits: 150 clock hours.

# ABR 199 SPECIAL NEEDS/AUTO BODY

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 to three credits: 10 to 30 clock hours.

#### ABR 201 QUARTER PANEL REPLACEMENT

Students will learn to remove and replace a guarter 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 guarter 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 be 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 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 "total" and do the operations required to make the auto road worthy. Prerequisite(s): 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 "total" 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 222. Students will learn to repair an auto with severe damage "total" and do the operations required to make the auto road worthy.

Prereguisites: ABR 221 and ABR 222. 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.

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. Twelve credits: 150 clock hours.

#### ABR 243 AUTO BODY REPAIR VI

Students will learn to repair an auto with severe damage "total" and do the operations required to make the auto road worthy. Twelve credits: 150 clock hours.

# AMT: AUTOMOTIVE MECHANICS TECHNOLOGY

#### AMT 100 INTRODUCTION TO AUTO MECHANICS

Introduces the student to the auto mechanics profession. Emphasizes safety and introduces automobile mechanic tools, equipment, methods, and procedures. Upon satisfactory completion, the student will have a fundamental understanding, knowledge, and skills of the automobile mechanics industry. Three credits: 35 clock hours.

#### AMT 104 BRAKE REPAIR

Designed to prepare students for the specialty work of modern automobile brake repair and adjustment. Conventional as well as disc systems are studied and worked on. 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.

Four credits: 60 clock hours.

#### AMT 106 TUNE-UP

Designed to give students the basic skills and knowledge in tune-up and service procedures as related to the automobile. Upon course completion, students will be able to diagnose and service the components of the conventional point and electronic ignition systems.

Four credits: 60 clock hours.

#### AMT 107 ADVANCED ENGINE TUNE-UP

Designed to give students the basic skills and knowledge in fuel systems and service procedures as related to the automobile. Upon course completion, students will be able to diagnose and repair or overhaul the various types of carburetors found in American and most foreign cars.

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 replacement, band adjustment, linkage adjustment, and transmission removal). 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. 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

Prepares professional auto mechanics for certification tests given by National Institute for Automobile Service Excellence. Two credits: 24 clock hours.

#### AMT 131 BRAKES, TRANSMISSIONS, AND FINAL DRIVES A

Students will learn various shop procedures that are common to all types of automotive repair shops; use and care of basic hand tools, and service reference materials will be covered. The repair and diagnosis of drum, disc, and power brakes will be covered during the first half of the course. During the second half, students will overhaul standard transmissions, clutches, driveshafts, and differentials. Good safety practices and accident prevention are included with each job in this course.

Twelve credits: 150 clock hours.

#### AMT 132 STEERING AND SUSPENSION SYSTEMS A

Students will develop necessary skills and knowledge to repair all parts of the suspension system, align front ends, balance wheels; overhaul and adjust both conventional and power steering units. Colorado State Safety Inspection rules and procedures are covered. Includes how to perform complete chassis lubrication and make car body service adjustments (such as doors, hoods, and trunk lids) normally performed by automotive mechanics. Good safety practices and accident prevention are included with each job in this course.

Twelve credits: 150 clock hours.

#### AMT 133 FUEL SYSTEMS AND TUNE-UP A

Students develop necessary skills and knowledge to perform complete major engine tune-ups and carburetor overhaul. Theory and overhaul of single, two, and four barrel carburetors; fuel pumps, exhaust emission controls, and ignition systems are covered. Modern test equipment is used to diagnose performance problems such as infra-red exhaust analyzers, oscilloscopes, tachometer, dwell meter, ohmmeter, vacuum gage, distributor stroboscope, and all types of engine testers. Students study the various emission control systems, how they work, and what pollutants each system controls. Procedures for emission testing are covered. Good safety practices and accident prevention are included with each job in this course.

Twelve credits: 150 clock hours.

#### AMT 136 EMISSION CONTROL

Provides a basic knowledge and understanding of the various emission control systems and how they function on the automobile to aid in reducing emissions. Pollutants such as carbon monoxide, hydrocarbons, and nitrogen oxides will be tested in the shop on the latest test equipment available.

Prerequisite(s): AMT 106 and AMT 107, AMT 133, AMT 143, or permission of instructor.

Five credits: five clock hours.

#### AMT 141 BRAKES, TRANSMISSIONS, AND FINAL DRIVES B

Students develop necessary skills and knowledge to accurately diagnose and repair various brake systems (conventional power, self-adjusting, and disc type) during the first half of the course. In the second half students will overhaul standard transmissions, clutches, drive shafts, and differentials. Work experience credit will be given for approved full-time current work as an auto mechanic. (AMT 141 is equivalent to AMT 131.)

Twelve credits: six clock hours per week.

# AMT 142 STEERING AND SUSPENSION SYSTEMS B

Students develop necessary skills and knowledge to repair all parts of the suspension system, align front ends, balance wheels, overhaul and adjust both conventional and power steering units; perform complete chassis lubrication and make car body service adjustments, such as doors, hood, and trunk lids, normally performed by automotive mechanics. Work experience credit will be given for approved full-time current work as an auto mechanic. (AMT 142 is equivalent to AMT 132.)

Twelve credits: six clock hours per week.

#### AMT 143 FUEL SYSTEMS AND TUNE-UP B

Students develop necessary skills and knowledge to perform complete major engine tune-ups and carburetor overhauls. Theory and overhaul of single, two-and four-barrel carburetors, fuel pumps, exhaust emission systems, and ignition systems are covered. Stresses using modern scientific test equipment in diagnosis of performance problems. Equipment such as a vacuum gauge, tachometer, dwell meter, ohmmeter, distributor strobscope, oscilloscope, exhaust analyzer, and all types of engine testers are used. Work experience credit will be given for approved full-time current work as an auto mechanic. (AMT 143 is equivalent to AMT 133.)

Twelve credits: six clock hours per week.

#### AMT 199 SPECIAL NEEDS/AUTO MECHANICS

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 to three credits:** 10 to 30 clock hours.

#### AMT 207 INTRODUCTION TO DIESEL ENGINE

Students will learn the basic theory of the diesel engine. Comparison is made between the gasoline and diesel engine on the basis of block design, fuel systems, and electrical units. Emphasizes components, such as the turbocharger, blower, injector, fuel pumps, and their function in the diesel engine. **Six credits:** 60 clock hours.

#### AMT 231 AUTOMOTIVE ENGINES A

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 mock-up units and progress to complete engine overhaul. Shop math including fractions, decimals, cubic measurement, formulas, and metric measurement 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 A

Students learn theory, diagnosis, and repair of all automotive electrical units including batteries, starters, generators, alternators, regulators, and electrical testing equipment to diagnose problems in automotive electrical units. Good safety practices and accident prevention are included with each job in 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 also are covered. **Five credits:** 50 clock hours.

# AMT 234 AUTOMATIC TRANSMISSIONS AND AIR CONDITIONING A

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; complete diagnosis of functions are covered. Basic theory of refrigeration systems, components, evacuation, charging, and testing automotive air conditioners are included. Students will learn how to install after-market units, service factory installed air conditioners, and solve problems on late model air conditioners. Good safety practices and accident prevention are included with each job in this course. **Twelve credits:** 150 clock hours.

#### AMT 241 AUTOMOTIVE ENGINES B

Students learn construction, operation, parts identification, and service procedures on all types of modern automotive engines. Studies cooling and lubricating systems. Students begin on mock-up units and progress to actual automobiles, beginning with minor jobs like valve adjustment or gasket replacement and progressing to a complete engine overhaul. Work experience credit will be given for approved full-time current work as an auto mechanic. (AMT 241 is equivalent to AMT 231.) **Twelve credits:** six clock hours per week.

# AMT 242 ADVANCED ELECTRICAL B

Students learn theory, diagnosis, and repair of all automotive electrical units including batteries, starters, generators, alternators, regulators, and electrical testing equipment used to diagnose problems in automotive electrical units and circuits. Work experience credit will be given for approved full-time current work as an auto mechanic. (AMT 242 is equivalent to AMT 232.) **Twelve credits:** six clock hours per week.

#### AMT 244 AUTOMATIC TRANSMISSIONS AND SERVICE PRACTICE B

Students learn principles of hydraulics, planetary gear sets, and power flow through modern automatic transmissions; gain experience in disassembly, inspection, replacement of defective parts; and complete diagnosis of functions are covered. Covers basic theory of refrigeration systems, components, evacuation, charging, and testing automotive air conditioners. Students will learn how to install after-market units, service factory installed air conditioners, and solve problems on late model air conditioners. Good safety practices and accident prevention are included with each job in this course. Work experience credit will be given for approved full-time current work as an auto mechanic. (AMT 244 is equivalent to AMT 234.)

Twelve credits: six clock hours per week.

# **AVT: AVIATION TECHNOLOGY**

#### AVT 105 AVIATION SEMINAR

A general study of the aviation field which includes theory of flight, history of aviation, radio communication, avaiation in today's economy, and aviation careers. For students who wish to be commercial pilots.

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 Regulations, 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 115 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 the flight simulator. Students will be expected to complete the flight syllabus for this course.

Five credits: 50 clock hours.

#### AVT 116 PRIVATE FLIGHT LAB

Designed for completion of private pilot license. Includes: presolo and supervised solo, cross country, emergency procedures and basic instrument flying. Upon successful completion of the course, the student will have necessary skill and knowledge to pass a phase I flight check.

**Prerequisite:** Recommend concurrent enrollment in AVT 108. **Five credits:** 50 clock hours.

#### AVT 117 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 have necessary skill and knowledge to pass a phase I flight check.

Prerequisite: AVT 116 or private license. Five credits: 50 clock hours.

#### AVT 118 COMMERCIAL FLIGHT LAB II

Continuation of AVT 117 with a greater emphasis on cross country flying. The student must complete the solo, night, and cross country requirements for the FAA instrument rating during this lab. Upon successful completion of the course, the student will have the necessary skill and knowledge to pass a phase II flight check. **Prerequisite:** AVT 117 or permission of instructor. **Five credits:** 50 clock hours.

#### AVT 119 CONVENTIONAL GEAR TRANSITION LAB

Includes orientation to tail wheel aircraft including principles of "P" factor and torque. Upon successful completion of the course, the student will be able to solo a tail wheel aircraft. **Two credits:** 20 clock hours.

#### AVT 205 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:** AVT 108, private license, or permission of instructor. **Six credits:** 60 clock hours.

#### AVT 206 COMMERCIAL GROUND SCHOOL

Includes a review of material for commercial flying and FAR part 135. Upon successful completion of the course, the student should be able to pass the FAA commercial written test.

**Prerequisite:** AVT 108, private license, or permission of instructor. **Three credits:** 30 clock hours.

#### AVT 207 BASIC GROUND INSTRUCTOR

Fundamentals of instruction and theory. Students practice classroom presentations which study all flight subjects. **Prerequisite:** permission of instructor. **Two credits:** 20 clock hours.

#### AVT 208 ADVANCED GROUND INSTRUCTOR

Students practice classroom presentations of advanced theory, advanced meterology, weight balance, and transport-type aircraft. **Prerequisite:** permission of instructor. **Two credits:** 20 clock hours.

#### AVT 209 INSTRUMENT GROUND INSTRUCTOR

Instruments and systems, instrument flight charts, IFR regulations, instrument instructing techniques. **Prerequisite:** permission of instructor. **Two credits:** 20 clock hours.

#### AVT 215 INSTRUMENT FLIGHT SIMULATOR

All phases of advanced instrument flying, including: IFR procedures, use of transponder, IFR approaches, and radio communications will be covered. The student will be able to demonstrate that he or she can successfully complete the above maneuvers.

**Prerequisite:** AVT 115 or permission of instructor. **Five credits:** 50 clock hours.

# AVT 216 INSTRUMENT FLIGHT LAB

Includes necessary flight instruction to qualify the student to receive the FAA instrument rating. Upon successful completion of the course, the student will have the necessary skill and knowledge to pass the FAA instrument check ride.

**Prerequisite:** AVT 118 or permission of instructor. **Five credits:** 50 clock hours.

### AVT 217 COMMERCIAL FLIGHT LAB III

The final flight lab in preparation for the commercial license. Upon successful completion of the course, the student will have the necessary knowledge to pass the FAA commercial flight check. **Prerequisite:** concurrent enrollment in AVT 216 oer permission of instructor.

Five credits: 50 clock hours.

#### AVT 218 CERTIFIED FLIGHT INSTRUCTOR

Theory and practice of instructional methods; fundamentals of instruction and preparing a lesson plan. A review of flight maneuvers. Upon successful completion of the course, the student will be able to pass the FAA CFI check ride.

Prerequisite: commercial pilot license or permission of instructor. Five credits: 50 clock hours.

#### AVT 219 INSTRUMENT FLIGHT INSTRUCTOR

Theory and practice of teaching basic attitude instrument flying, instrument flight planning, and instructional techniques. Upon successful completion of the course, the student will be able to take the FAA IFI check.

Prerequisite: commercial pilot license or permission of instructor. Three credits: 30 clock hours.

#### AVT 225 MULTI-ENGINE TRANSITION LAB

Principles and procedures of light twin-aircraft, complicated systems, orientation and familiarization, emergency situations. Upon successful completion of the course, the student will have the necessary skill and knowledge to pass the multi-engine check ride. Prerequisite: commercial pilot license or permission of instructor. Four credits: 40 clock hours.

# **BIO: BIOLOGICAL SCIENCES**

# **BIO 101 BIOLOGY CONCEPTS**

General survey of the characteristics of life emphasizing basic concepts and theories in the fields of biology and related disciplines. Attention is given to levels of organization, energy flow, and changes within living organisms. Offered each quarter. Five credits: four hours lecture, two hours lab.

#### **BIO 102 ANIMAL BIOLOGY**

Phylogenetic approach to the animal kingdom emphasizing invertebrate phyla. Role of these organisms in ecological, economic, and medical relationships to humans is emphasized. Prerequisite: BIO 101 or permission of instructor. Five credits: three hours lecture, four hours lab.

#### **BIO 103 PLANT BIOLOGY**

Studies the structure of plants as related to the function of each part to the whole organism, and the interactions of the organism to its environment.

Prerequisite: BIO 101 or permission of instructor. Five credits: three hours lecture, four hours lab.

#### **BIO 105 THE HUMAN ENVIRONMENT**

Comprehensive examination of effects of humans on the environment. Emphasizes developing ecological awareness by learning about population, land us, effects of increased productivity, and energy flow through the food chain. Three credits: three hours lecture.

# **BIO 106 FIELD BOTANY**

Studies methods of collecting, preserving, and identifying plants. Three credits: two hours lecture, two hours lab.

#### **BIO 107 BIOLOGY OF THE HUMAN RACES**

Biological aspects of race formation will be considered, including genetic foundations, range of human variability and race mixtures, and usefulness of biological factors in understanding racial problems.

Three credits: three hours lecture.

#### **BIO 115 ECOLOGY OF THE NATIONAL PARKS**

Basic concepts of ecology are studied using examples found in the national parks. Consideration is given to mountain ecology, arid areas, deserts, and caves. Films, videotapes, and slides are used as appropriate. A short, term paper on one of the national parks or monuments is required.

Four credits: four hours lecture.

# **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 credits: four hours lecture.

#### **BIO 202 CELL BIOLOGY**

Comprehensive examination of the cell, its components and their functions. Includes studies of physiochemical properties of living systems, organelies and their bioenergetics, macromolecular synthesis, code transcription, and structure and function of specialized cells. Offered winter quarter only.

Prerequisites: BIO 101 and CHE 101.

Five credits: three hours lecture, four hours lab.

#### **BIO 203 DEVELOPMENTAL BIOLOGY**

Introduction to changes occurring during higher plant and animal development and differentiation. Gene action, biochemical regulation, and environmental factors stressed. Offered spring quarter only.

Prerequisites: BIO 101 and BIO 102.

Five credits: three hours lecture, four hours lab.

#### **BIO 207 VERTEBRATE BIOLOGY**

Emphasizes the comparative morphology, ecology, and economic importance of the vertebrate classes. Morphology of lampreys through mammals is considered for laboratory study. Prerequisite: BIO 101 or permission of instructor. Five credits: three hours lecture, four hours lab.

# **BIO 208 INTRODUCTION TO ENTOMOLOGY**

Introduction to the study of insects. Insect morphology, classification, life cycles, economic importance, and controls are discussed. Laboratory emphasis is on the use of taxonomic keys in the identification of insects. An insect collection, field trips, and a term paper are required.

Prerequisites: BIO 101 and BIO 102.

Five credits: three hours lecture, four hours lab.

#### BIO 211 HUMAN ANATOMY: PHYSIOLOGY I

Beginning class in human physiology emphasizing broad, general biological principles; anatomical structures of the human body, and the relationship of structure to body functions. Includes chemical composition, cellular and tissue organization, the skeletal system, and blood.

Prerequisite: BIO 101 or equivalent.

Four credits: three hours lecture, three hours lab.

#### **BIO 212 HUMAN ANATOMY: PHYSIOLOGY II**

Second in a sequence of classes in human physiology emphasizing broad, general biological principles; anatomical structures of the human body, and the relationship of structure of body functions. Includes the cardiovascular, respiratory, nervous, muscular, and digestive systems.

Prerequisite: BIO 211 or permission of instructor.

Four credits: three hours lecture, three hours lab.

#### **BIO 213 HUMAN ANATOMY: PHYSIOLOGY III**

Third in a sequence of classes in human physiology emphasizing broad, general biological principles, anatomical structures of the human body, and the relationship of structure to body functions. Includes nutrition and the urinary, endocrine, reproductive, and integumentary systems.

Prerequisite: BIO 212 or permission of instructor. Four credits: three hours lecture, three hours lab.

#### **BIO 216 INTRODUCTION TO MICROBIOLOGY**

Foundation course in microbiology emphasizing structure, function, development, and classification of protists. Includes both protocaryotic and eucaryotic microorganisms. Emphasizes organisms with medical and economic impact on human populations. Major laboratory emphasis is on staining techniques and laboratory safety.

Prerequisites: BIO 101 and BIO 102.

Five credits: three hours lecture, four hours lab.

# **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 101 or permission of instructor.

Four credits: six clock hours.

# **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.

# **BCS: BUILDING CONSTRUCTION**

# BCS 100 INTRODUCTION TO BUILDING CONSTRUCTION

Introduces the student to the building construction profession. Emphasizes safety and introduces building construction tools, equipment, methods, and procedures. Upon satisfactory completion, the student will have a fundamental understanding, knowledge, and skills of the building construction industry. Three credits: 35 clock hours.

#### BSC 102 BASIC CABINETRY

Provides students with necessary instruction for skill development and understanding in the area of basic cabinet construction.

Four credits: 60 clock hours.

#### BCS 104 CABINETRY II

Students will learn to construct detailed cabinets using intermediate techniques in machine and hand tool joining, and will be able to analyze and design cabinets for home, office, and shop USe

Four credits: 60 clock hours.

#### **BCS 105 BUILDING CONSTRUCTION I**

Upon completion of this course, students will be able to read and understand a set of blueprints, and identify the various framing and cornice members. The student should be able to cut and assemble a floor, wall, and roof system; install the cornice, closures, and siding for a given set of prints.

Fourteen credits: 175 clock hours.

#### BCS 106 BUILDING CONSTRUCTION III

Upon completion of this course, students should be able to install the required insulation; hand, tape, and texture the dry wall; assist in setting cabinets, hanging doors and installing base and case; and do the required paint and stain. Fourteen credits: 175 clock hours.

#### **BCS 107 BUILDING CONSTRUCTION V**

Upon completion of this course, students will be able to assist in setting forms, assist in placing and finishing concrete, and lay masonry units to the line.

Fourteen credits: 175 clock hours.

#### BCS 199 BUILDING CONSTRUCTION SPECIAL NEEDS CLASS

If the student is in need of special assistance, he or she will develop a step-by-step procedure which can be used in a specific area of housing construction. These procedures will be directly related to the methods and techniques set forth by the instructor of the building trades program.

One to three credits: 10 to 30 clock hours.

#### BCS 205 BUILDING CONSTRUCTION II

Upon completion of this course, students will be able to do a materials take-off for a given set of prints in the areas of framing and exterior finish, do the basic layout, and cut and assemble a structure in accordance with all state and local codes. Fourteen credits: 175 clock hours.

#### BCS 206 BUILDING CONSTRUCTION IV

Upon completion of this course, students should be able to do a materials take-off in the areas of insulation, dry wall, cabinets, interior trim, and paint and stain; lay out and build a set of cabinets, hang doors, and install the required interior trim in a house. Fourteen credits: 175 clock hours.

#### **BCS 207 BUILDING CONSTRUCTION VI**

Upon completion of this course, students should be able to locate a structure on a building site, estimate the excavation and concrete costs for a given structure, do a material breakdown on the masonry needed (including fireplaces), lay out and set forms as required, and lay out the bond and bed joints for the masonry construction.

Fourteen credits: 175 clock hours.

# **BUS: BUSINESS**

#### **BUS 100 INTRODUCTION TO BUSINESS**

A survey of principles, problems, institutions, practices, private and governmental systems affecting the world of business. Five credits: 50 clock hours.

#### **BUS 101 BEGINNING TYPEWRITING**

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.

Four credits: 50 clock hours.

#### **BUS 102 INTERMEDIATE TYPEWRITING**

Further development of typing techniques for building speed and control. Production emphasis on basic business letters, business letters with special features, communications forms, tabulated reports, business forms, and special reports.

Prerequisite: BUS 101, one year high school typewriting, or speed of at least 30 wpm. Additional lab hours may be needed. Four credits: 50 clock hours.

## **BUS 103 ADVANCED TYPEWRITING**

Further development of typing speed and accuracy; production problems on business letters and forms, tabulations, reports, legal papers, and problems related to accounting, medical, and technical offices. Additional lab hours may be needed.

Prerequisite: BUS 102, two years high school typewriting, or speed of at least 40 wpm.

Four credits: 50 clock hours.

#### BUS 105 SPEED AND ACCURACY DEVELOPMENT IN TYPEWRITING

A skill-building class designed to help students build speed and accuracy through the use of proper techniques, proper position, and concentrated effort.

Prerequisite: BUS 101, one year of high school typewriting, or 25 wpm typing speed.

Three credits: 50 clock hours.

#### **BUS 107 MEMORY TYPEWRITING**

An independent study in basic operations of some word processing equipment. Upon completion, the student will be able to produce one page letters, memos, and reports. Prerequisite: BUS 102 or equivalent.

Two credits: 30 clock hours.

#### **BUS 108 ELECTRONIC TYPEWRITING**

An independent study in the basic operations of the electronic typewriter. Upon completion, the student will be able to produce letters, memos, and reports.

Prerequisite: BUS 102. Two credits: 30 clock hours.

# **BUS 113 LEGAL TYPEWRITING**

Production practice in preparing legal documents. Emphasizes typewriting and spelling accuracy of legal terminology. Prerequisite: BUS 102 and 60 wpm. Four credits: 50 clock hours.

#### BUS 114 MEDICAL TYPEWRITING

Production practice in preparing medical reports, articles, case histories, etc. Medical spelling and medical terminology are emphasized.

Prerequisites: BUS 102 and 50 wpm. Four credits: 50 clock hours.

# BUS 116 ADDING AND CALCULATING MACHINES

Instruction in operating procedures for printing and electronic calculators. Emphasizes machine application of mathematical problem solving in business. Lab hours are required. Prerequisite: MAT 110.

Two credits: 30 clock hours.

#### BUS 117 BUSINESS LEADERSHIP ACTIVITY **BUS 118 BUSINESS LEADERSHIP ACTIVITY** BUS 119 BUSINESS LEADERSHIP ACTIVITY

These courses are designed to encourage growth and development through activities in a student organization with professional goals. Two credits each.

#### BUS 121 WORD PROCESSING CONCEPTS

Introduction to the usage and concepts of Word Processing. An orientation course for Secretarial, Management, Accounting, and Data Processing students who wish to remain abreast of the latest state of the art in office efficiency and productivity. Three credits: 30 clock hours.

#### **BUS 125 MONEY MANAGEMENT**

A basic economics course covering personal finance, problems of consumer credit, taxes, insurance, mortgages, social security, Medicare, and related topics.

Three credits: 30 clock hours.

# BUS 127 PERSONAL DEVELOPMENT FOR CAREER WOMEN

Assists women in realizing their potential in both career and personal life by developing poise, confidence, and an attractive appearance.

Two credits: 20 clock hours.

# BUS 141 COLLEGE BOOKKEEPING I

Fundamentals of bookkeeping. Includes basic concepts of double entry bookkeeping, journals, ledgers, payroll, accounting for personal enterprises on a cash basis, and mercantile enterprises on an accrual basis with special emphasis on single proprietorship form of business ownership.

Five credits: 50 clock hours.

#### BUS 142 COLLEGE BOOKKEEPING II

Continuation of BUS 141 with further development of special journals; emphasizes partnership form of ownership. Studies inventory valuation, prepaid expenses, long-lived assets; owner's equity for single proprietorships, partnerships and corporations, annual reports, and interim financial statements.

Prerequisite: BUS 141 or permission of instructor.

Five credits: 50 clock hours.

#### BUS 156 BUSINESS COMMUNICATIONS II

Students develop communication skills to write with clarity and confidence. Each student's ability to communicate facts, ideas and opinions is improved. Students work toward precise, powerful business writing.

# Prerequisite: CON 104.

Three credits: 30 clock hours.

#### **BUS 157 BUSINESS COMMUNICATIONS III**

Students prepare to transmit and receive information orally in business situations. Particular areas of oral communication skill improvement include one-to-one conversation, telephone technique, dictation expertise, group leadership, and listening. Prerequisite: CON 104.

Three credits: 30 clock hours.

#### **BUS 165 FILING**

Acquaints students with the rules, procedures, techniques, and control of filing.

Three credits: 30 clock hours.

#### **BUS 175 OFFICE PROCEDURES**

A study of general business office duties and problems, job interviewing and application, purchasing office supplies, payroll and financial procedures, reception and messenger work, mail handling, pulling together previously acquired office knowledge and skills. Prequisites: BUS 102 and ability to type 40 wpm.

Five credits: 50 clock hours.

#### BUS 247 BUSINESS AND BANKING

An introductory course in finance with special emphasis on various types of financial institutions and roles they play in economy and society.

Five credits: 50 clock hours.

#### **BUS 255 BUSINESS LAW**

An introduction to law. Analyzes its origin, development, and interaction with business. Five credits: 50 clock hours.

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#### **BUS 281 COOPERATIVE OFFICE OCCUPATIONS I** BUS 282 COOPERATIVE OFFICE OCCUPATIONS II

Supervised employment in an office occupations position. Intended to provide practical experience for students preparing for careers in a business office. It is the responsibility of the student to secure employment in approved work station for minimum of 15 hours per week during the two quarters of enrollment.

Prerequisites: Student must be in fifth and sixth quarters of an Office Occupations program, have salable office skills, and be approved for admission by his or her advisor and supervising instructor in the quarter prior to enrollment.

Six credits each: 160 clock hours each.

# BUS 295 OFFICE INDEPENDENT STUDY

Provides an opportunity for the student to study a specific area or skill under the direction of a faculty member. One to three credits: contact instructor.

# CHE: CHEMISTRY

#### CHE 100 FUNDAMENTALS OF CHEMISTRY

Preliminary college chemistry course designed to be the basis of a thorough preparation for the higher level college chemistry courses required of science and engineering majors (CHE 101, 102, 103). Basic principles of chemistry are studied, including measurements, matter, compounds, energy, elements, conversion, mole concept, behavior of gases, atomic structure, periodic table, chemical bonds, formulas, nomenclature, chemical equations, chemical arithmetic, and nuclear chemistry.

Prerequisite: one year of high school algebra or MAT 121. Five credits: three hours lecture, four hours lab.

#### CHE 101 GENERAL CHEMISTRY I

Students planning to major in chemistry, engineering, veterinary medicine, premed, and related disciplines should complete CHE 101, 102, and 103 as a minimum requirement in these areas. Course includes a study of the chemical principles and mathematical operations involving chemical stochiometry, the atom, the molecule, chemical formulas, chemical equations, thermochemistry, gases, gas laws, kinetic theory, electronic structure of atoms, solutions, water, and chemical bonding.

Prerequisite: one year of high school chemistry, one year of college chemistry, CHE 100, or written permission of instructor.

Corequisite: MAT 122, MAT 131, or written permission of instructor. Five credits: three hours lecture, four hours lab.

#### CHE 102 GENERAL CHEMISTRY II

Continuation of CHE 101 which includes a study of the chemical principles and mathematical operations involving chemical equilibrium, properties of covalent species (organic chemistry), ionic solutions, oxidation and reduction, water pollution problems, thermodynamics, ionic equilibrium, rates of reaction, the atmosphere, air pollution problems, and acids and bases. Prerequisite: CHE 101 or written permission of instructor.

Five credits: three hours lecture, four hours lab.

# CHE 103 GENERAL CHEMISTRY III

Continuation of CHE 102 which includes a study of the chemical principles and mathematical operations involving precipitation reactions, complex ions (coordination compounds), electrochemistry, transition metals, nonmetallic elements, nuclear reactions, polymers and proteins, and instrumental analysis. Laboratory is predominantly semi-micro qualitative analysis and instrumental analysis.

Prerequisite: CHE 102.

Five credits: three hours lecture, four hours lab.

# CHE 105 INTRODUCTORY NUTRITION

Basic principles and necessary food requirements involved in human nutrition and the treatment of disease through diet. Enables students to discriminate the scientific from pseudo scientific and fact from fallacy in vast literature of both lay and scientific press. Five credits: five hours lecture.

# CHE 120 INTRODUCTORY ORGANIC CHEMISTRY

An introductory course for students in nursing, home economics, and other prehealth sciences. Content includes structure. 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 102 or written permission of instructor. Five credits: four hours lecture, three hours lab.

# CHE 201 ORGANIC CHEMISTRY I

Studies atomic and molecular structures, nomenclature, chemical bonding reactions, reaction mechanisms of hydrocarbons, aromatics, alcohols, phenois, and organic reactions; 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, recrystallization, nitration of aromatic compounds, hydrocarbon reactions, Grignard and alkyl halide reactions.

Prerequisite: CHE 102 or CHE 100 with written permission of instructor after successful completion of a pretest.

Five credits: three hours lecture, four hours lab.

# CHE 202 ORGANIC CHEMISTRY II

Examines the structure, nomenclature, reaction mechanisms, and applications of ethers, epoxides, carboxylic acids, aldehydes, 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, and infrared and nuclear magnetic resonance spectroscopy.

Prerequisite: CHE 201 or written permission of instructor after successful completion of a lecture and a laboratory pretest. Five credits: three hours lecture, four hours lab.

#### CHE 203 ORGANIC CHEMISTRY III

The third quarter of the organic chemistry sequence which deals with the structure, nomenclature, 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, gualitative analysis, and structural determination of the above compounds.

Prerequisite: CHE 202 or written permission of instructor after successful completion of a pretest.

Five credits: three hours lecture, four hours lab.

#### CHE 205 GLASSWARE CONSTRUCTION AND REPAIR

Instruction and practice in methods of repair and construction of laboratory apparatus.

Prerequisite: permission of instructor is required. Two credits: four hours lab.

# CHE 215, 216, 217 INSTRUMENTAL ANALYSIS I

Consists of three modules.

#### CHE 215 UV-VISIBLE SPECTROSCOPY

Concentrated study of instrumentation. applications, and analysis in ultra violet and visible absorption spectra.

### Prerequisite: CHE 102.

One credit: five hours lecture, ten hours lab.

#### CHE 216 ATOMIC ABSORPTION SPECTROSCOPY

Concentrated study of applications, theory, operation, and adjustment of instrumentation. Preparation of solutions and interpretation of analytical data. Prerequisite: CHE 102.

One credit: five hours lecture, ten hours lab.

#### CHE 217 PH, MILLIVOLT TITRATIONS AND SPECIFIC ION ELECTRODES

Intensive investigation of the electrode construction of pH meters and their use for acid/base and redox titrimetry. Theory and application of specific ion electrodes will be investigated. Prerequisite: CHE 102.

One credit: five hours lecture, ten hours lab.

#### INSTRUMENTAL ANALYSIS II: CHE 225, 226, 227

#### CHE 225 VISCOMETRY

Laboratory course in the use of calibration and applications of viscosity measuring devices. Prerequisite: CHE 201.

One credit: five hours lecture, ten hours lab.

#### CHE 226 GAS CHROMOTOGRAPHY

Column preparation, instrumentation, and applications will be investigated using thermoconductivity detection on single and multicolumn instruments.

Prerequisite: CHE 201.

One credit: five hours lecture, ten hours lab.

#### CHE 227 REFRACTOMETRY, RADIOACTIVITY MEASUREMENT

Laboratory course concentrating on scaler and scintillater monitoring: refractive indices of liquid, solid, and molten substances; applications, analysis, and interpretation of analytical data.

Prerequisite: CHE 103.

One credit: five hours lecture, ten hours lab.

# INSTRUMENTAL ANALYSIS III: CHE 235, 236, 237

Consists of three modules.

#### CHE 235 INFRARED SPECTROSCOPY

Concentrated study of instrumentation, sample preparation, applications, and interpretation of infrared absorption spectra. Prerequisite: CHE 202.

One credit: five hours lecture, ten hours lab.

#### CHE 236 OPTICAL ACTIVITY AND ELECTROPHORESIS

Electrophoretic separations will be studied. Includes the use of a polarimeter in the study of optically active compounds. Prerequisite: CHE 201.

One credit: five hours lecture, ten hours lab.

#### CHE 237 NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY

Concentrated study of instrumentation, theory, instrument operation and adjustment, sample preparation, application and interpretation of analytical data.

Prerequisite: CHE 202.

One credit: five hours lecture, ten 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 as to the number of independent study credits taken per quarter. Prerequisite: previous academic study or experience in chemistry. One to three credits: contact division chairman.

# CCS: CHILD CARE SERVICES

#### CCS 100 INTRODUCTION TO EARLY CHILDHOOD EDUCATION

An orientation to the field of early childhood education. Students will investigate different types of centers available for young children in relation to their own career goals.

Two credits: 20 clock hours.

#### CCS 101 WRITTEN COMMUNICATION FOR THE PRESCHOOL TEACHER

Develops vocational applications of written communication skills basic to the early childhood education field. The student will be able to relate a concept in simple terms, and interpret and relate specific statements and ideas. Two credits: 20 clock hours.

# CCS 105 FIRST AID

Follows the standard American Red Cross First Aid course. Emphasizes health and safety procedures with young children. Two credits: 20 clock hours.

# CCS 106 CHILDREN'S LITERATURE

Studies various forms of literature available for young children. Emphasizes skills used in presenting stories to children. Three credits: 30 clock hours.

# CCS 131 PRACTICE TEACHING I

A practical experience in a child care center. Techniques of child study are applied to a real life setting through observations and written assignments. Four credits: 50 clock hours.

# CCS 132 PRACTICE TEACHING II

Continuation of CCS 131. Students will be responsible for making plans and working with small groups of young children. Prerequisite: CCS 131. Six credits: 80 clock hours.

# CCS 133 VOCATIONAL TEACHING EXPERIENCE

The student will work as a teacher's aide under the direction of a qualified teacher usually in an off-campus setting for young children.

Prerequisite: CCS 132.

Six credits: 80 clock hours.

#### CCS 141 ACTIVITIES FOR YOUNG CHILDREN

Laboratory experiences in science, music, art, creative movement, prereading, and math skills for young children. Studies practical materials which will enhance a child's potential through satisfying, sensory-type activities. Four credits: 40 clock hours.

# CCS 151 NUTRITION FOR YOUNG CHILDREN

Studies essential nutrients and their function for a growing child. Student will be able to evaluate menus and snacks for the home and institutional food services, and apply nutrition education in the preschool classroom.

Four credits: 40 clock hours.

#### CCS 161 CHILD GROWTH AND DEVELOPMENT I

Human growth patterns are studied from prenatal influence and conception to eight years of age. Emphasizes physical, social, emotional, and psychological growth. Three credits: 30 clock hours.

#### CCS 162 CHILD GROWTH AND DEVELOPMENT II

Continuation of CCS 161. Child growth patterns are studied, emphasizing the child's learning environment and language skills. Behavior management techniques are studied.

Prerequisite: CCS 161 or permission of instructor. Three credits: 30 clock hours.

#### CCS 201 BUSINESS MANAGEMENT FOR CHILD CARE CENTERS

Record-keeping procedures necessary for the successful business operation of a child care center will be studied. Includes practice with financial report forms and analysis of a small service business.

Prerequisites: CCS 101 and COS 115. Three credits: 30 clock hours.

#### CCS 202 ADMINISTRATION OF CHILD CARE CENTERS

Studies the organization and management of various child care programs. Goals, staffing, planning, and administrative procedures necessary for directing an early childhood program will be examined.

Four credits: 40 clock hours.

#### CCS 231 PRACTICE TEACHING III

Continuation of CCS 132. Students will develop individual teaching skills in a guided classroom teaching experience. Unit planning for the young child's classroom will be practiced. Prerequisite: CCS 133.

Seven credits: 100 clock hours.

#### CCS 232 HUMAN RELATIONS IN THE CLASSROOM

An assessment of the teacher's role in the classroom. This team teaching experience emphasizes the development of a positive and constructive attitude towards self-appraisal and appraisals by others.

Prerequisite: CCS 231.

Seven credits: 100 clock hours.

# CCS 233 FAMILY AND COMMUNITY RELATIONS

A team teaching experience emphasizing the effects of family, class, and ethnic value systems on the young child's personality. Prerequisite: CCS 232.

Seven credits: 100 clock hours.

# CCS 241 METHODS OF TEACHING THE YOUNG CHILD

Students learn to prepare daily schedules and unit plans. Includes advanced techniques of teaching in a living-learning environment.

Prerequisite: CCT 141 or permission of instructor. Four credits: 40 clock hours.

#### CCS 251 ADVANCED FOODS AND NUTRITION

A practical course in planning, preparing, and evaluating foods served to young children. Laboratory experiences will include quantity cooking, preserving nutrients, and exploring foods with children.

Three credits: 40 clock hours.

# CCS 255 SCIENCE FOR PRESCHOOL TEACHERS

A practical course to assist teachers in extending children's experiences in both natural and applied science. Five credits: 50 clock hours.

#### CCS 261 NEW CONCEPTS AND PRACTICES IN CHILD DEVELOPMENT

A review of recent research in child growth and development. Practical applications of current child management theories and techniques will be studied. Students will plan appropriate ways to carry out parent involvement in an early childhood classroom. Three credits: 30 clock hours.

#### CCS 265 PLAYGROUND DEVELOPMENT

After visiting and evaluating various playgrounds, the student will plan and construct playground equipment suitable for a particular site and appropriate for young children's developing abilities. Four credits: 80 clock hours.

# **COS: COMMUNICATIONS**

#### COS 011 LANGUAGE DEVELOPMENT I

Students will be introduced to oral patterns in English and provided with verbal experiences sufficient to allow the students to express themselves verbally in a series of assigned tasks. Prerequisite: placement.

#### COS 012 LANGUAGE DEVELOPMENT II

Provides students who have readiness for beginning language skills a basic orientation to capitalization, punctuation, basic spelling, and basic sentence types. Students will learn how to apply these skills in short writing tasks. Prerequisite: COS 011 or placement.

#### COS 013 LANGUAGE DEVELOPMENT III

Students will learn to apply grammar, spelling and capitalization rules, outlining, and paragraph writing in short writing tasks. Prerequisite: COS 012 or placement.

#### COS 014 LANGUAGE DEVELOPMENT IV

Students will learn to apply basic grammar, usage, and punctuation rules in short writing assignments leading to the writing of an original paragraph.

Prerequisite: COS 013 or placement.

#### COS 115 APPLIED COMMUNICATIONS

Stresses the value and importance of communications throughout man's social and working life. Provides instruction and skill development practice in both oral and written communications. Includes developing listening skills, giving and receiving oral instructions, taking job interviews, making group presentations, correct telephone procedures, giving and following written instructions, and writing common business letters, such as: letters of request, reference, complaint and information, filling out job applications and other business forms, and developing resumes. Five credits.

# **CNC: COMMUNITY NONCREDIT**

The following classes in art, music, and theatre provide a nonacademic experience for citizens of the community. They are noncredit and are not applicable to the degree programs of the college.

#### CNC 011 COMMUNITY POTTERY

Includes instruction in various hand building techniques and throwing on the potter's wheel.

#### CNC 016 COMMUNITY JEWELRY & SCULPTURE

Covers selected techniques of jewelry and stained glass design, and small sculpture.

#### CNC 017 COMMUNITY FABRIC CRAFTS

Covers selected techniques of fabric design (e.g. batik, macrame, hooking, silk screen, hand weaving, stitchery, and applique).

#### CNC 019 COMMUNITY HOME DECORATING

Covers the visual design and aesthetic aspects of remodeling and interior decorating.

#### CNC 022 COMMUNITY UPHOLSTERY

Includes instruction in the fundamentals of choosing fabrics, measuring, cutting, fitting, and sewing fabric involved in the process of upholstery.

#### CNC 024 COMMUNITY CLOTHING AND TEXTILES

Includes clothing design and selection. Studies various textiles, their properties, and uses.

#### CNC 025 COMMUNITY SEWING

For those persons learning to sew and also for those needing more advanced instruction

#### CNC 051 COMMUNITY GUITAR

A nonacademic experience with guitar.

#### CNC 083 COMMUNITY PHOTOGRAPHY (CAMERA TECHNIQUES)

Includes black and white photography, cameras, lenses, films, and papers.

#### CNC 084 COMMUNITY PHOTOGRAPHY (DARKROOM TECHNIQUES)

Includes black and white photographic developing techniques, enlarging, and mounting of prints.

# CON: COMPOSITION

#### CON 093 LANGUAGE

Provides students who have fairly high reading abilities with a content-oriented course in which they can study to pass the GED as a goal and, at the same time, acquire basic grammar and writing skills. Prerequisite: placement.

#### CON 095 BASIC COMMUNICATIONS SKILLS

Offers a survey of basic communication skills, which involves a study of grammar, the writing of different types of sentences, beginning paragraph development, a reading for main ideas, and how to listen effectively.

# Five credits.

# CON 101 FUNDAMENTALS OF COMPOSITION

Prepares the student for CON 102. Emphasizes sentence building and paragraph development, culminating in short theme writing. Individual needs will be met not only within the classroom but also in the writing lab. Five credits.

#### CON 102 INTRODUCTION TO WRITING

Develops communication skills and college essay writing. Emphasizes the writing of various types of essays. Individualized attention may be given in the classroom. Prerequisite: CON 101 or placement test.

Five credits.

#### CON 104 BASIC COMMUNICATIONS

Students develop more extensive vocabularies and learn parts of speech, sentence structure, punctuation, spelling, and word division as used in business communication. Pretest is required. Five credits.

# CON 105 ELEMENTS OF TECHNICAL WRITING

The student will be made aware of the difference between literary and technical writing styles. Emphasizes written business and industrial communication in topical areas of engineering reports, notebooks, experimental reports, specifications, and formal technical reports. Writing effective resumes and employment applications are studied and practiced. Prereguisite: none.

Three credits: 30 clock hours.

# CON 109 CREATIVE WRITING

Structured instruction in the techniques of short story and poetry writing reinforced by an informal study of professional writing in these areas. Student will receive practice in the type of writing best suited to his or her individual interest and talent. Student will receive positive criticism for improvement and practical information on publication.

#### Five credits.

#### CON 202 ADVANCED COMPOSITION

Student will have the opportunity to study styles of professional writers in order to help refine his or her own writing skills. Student will be given practice in persuasive writing, analytical or critical reviews, and advanced expository writing. In addition, the student will learn research skills and the techniques of writing a research paper.

Prerequisite: CON 102. Five credits.

# CON 295 INDEPENDENT STUDY IN COMMUNICATION

Provides an opportunity for the serious-minded student to engage in intensive study and research on a specified to pic under the direction of a faculty member. Prerequisite: CON 102.

One to three credits: contact instructor.

#### MAS 116 BILINGUAL SKILLS

Primarily meets the linguistic needs of Chicanos. Orthography, phonetics, vocabulary, and the psychology of the language will be discussed. Comparative elements between Spanish and English, such as cognates, roots, suffixes, and prefixes, will be emphasized. Three credits.

# CSC: COMPUTER SCIENCE

#### CSC 101 INTRODUCTION TO COMPUTERS AND THE BASIC LANGUAGE

Introduction to computer programming by using the BASIC language. Various concepts relating to computer hardware and software are presented. Students will attain necessary computing techniques which can be applied to their work in physical science, mathematics, business, biological sciences, social sciences, and engineering. Topics include subscript operations, arrays, and string manipulation.

Four credits: four clock hours per week.

#### CSC 111 INTRODUCTION TO COMPUTER PROGRAMMING AND THE PASCAL LANGUAGE

Introduction to computer programming through the use of PASCAL. Various concepts relating to computer hardware and software will be presented. Students will attain necessary computing techniques which can be applied to their work in physical science, mathematics, business, biological science, social science, and engineering. Topics include subscript operations, arrays, and string manipulation.

Four credits: four clock hours per week.

# CSC 121 INTRODUCTION TO COMPUTER PROGRAMMING AND THE HPL LANGUAGE

Introduction to computer programming through the use of HPL. Various concepts relating to computer hardware and software will be presented. Students will attain necessary computing techniques which can be applied to their work in physical science, mathematics, business, biological science, social science, and engineering. Topics include subscript operations, arrays, and string manipulation.

Four credits: four clock hours per week.

#### CSC 201 INTRODUCTION TO COMPUTER PROGRAMMING AND THE FORTRAN IV LANGUAGE

Introduction to computer programming through the use of FORTRAN IV. Various concepts relating to computer hardware and software will be presented. Students will attain necessary computing techniques which can be applied to their work in physical science, mathematics, business, biological science, social science, and subscript engineering. Topics include operations. arrays, subroutines, and function subprograms.

Four credits: four clock hours per week.

# CSC 231 ADVANCED TOPICS IN COMPUTER PROGRAMMING

Continuation of BASIC and FORTRAN IV as they apply to more sophisticated and extensive problems. Concepts of permanent files, magnetic tape, data structures, and other selected topics also will be presented.

Prerequisite: CSC 101, CSC 201, or permission of instructor. Four credits: four clock hours per week.

#### CSC 295 INDEPENDENT STUDY IN COMPUTER PROGRAMMING

Provides an opportunity for the experienced programming student to complete appropriate projects of interest. 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 101 INTRODUCTION TO CRIMINAL JUSTICE

An overview of functions and jurisdictions of law enforcement agencies, career opportunities and requirements, curriculum and requirements of program; study and practice in application for employment process.

Two credits: 20 clock hours.

#### CRJ 115 TRAFFIC CONTROL AND ACCIDENT INVESTIGATION

Model traffic ordinances, enforcement of state laws, selective enforcement, parking problems, types of traffic accidents, injuries, first aid, facts, measurements, citations, court procedures, control, pedestrians, etc.

Prerequisite(s): CRJ 135 and CRJ 150, or permission of instructor. Four credits: 50 clock hours.

#### **CRJ 130 COMMUNITY RELATIONS**

Public relations, minority groups, rumors, prejudice, public support, problem areas, meetings, parades, marches, gatherings. Three credits: 30 clock hours.

#### CRJ 135 REPORT WRITING

Importance of note taking, accurate typewritten reports, forms; use of sketches, diagrams, charts, photos; modus operandi, basic essentials of notes, labeling. Three credits: 30 clock hours.

#### **CRJ 140 JUVENILE PROCEDURES**

A study of organization, functions, and jurisdiction of juvenile agencies; juvenile statutes, detention court procedure, case dispositions, and Colorado Children's Code; methods to combat juvenile crime.

Three credits: 30 clock hours.

# CRJ 150 LAW ENFORCEMENT BASIC TRAINING

An intensive introduction to law enforcement: history and orientation, basic law, police procedure, skill training, community relations. A certificate of completion is awarded to successful candidates requesting one. The requirement for this course also can be met by certification of successful completion of the basic recruit seminar taught at the Colorado Law Enforcement Training Academy (CLETA).

Twenty credits: 246 clock hours (29 additional hours are provided to sworn peace officers).

#### **CRJ 158 FORENSIC PHOTOGRAPHY**

Studies basic principles of photography and their application to traffic accidents, fire, crimes against persons, crimes against property. Infrared and videotape techniques and preparation of photographic evidence for court testimony are included. Three credits: 40 clock hours.

# CRJ 200 CRIMINAL LAW AND PROCEDURES

An analysis of origin and structure of common law crimes; federal, state, and local laws and ordinances; recognition and elements of criminal acts, Colorado criminal statutes, interrogation, arrest, search, and seizure. Five credits: 60 clock hours.

#### **CRJ 210 CRIMINAL INVESTIGATION**

A study of investigation from receipt of complaint through approach to scene, search, collection, and preservation of evidence; recording of data, preparation of reports, and case follow-up. Includes surveillance, sources of information, methods of tracing and locating alleged fugitives, and case investigations. Prerequisite: CRJ 225.

Three credits: 40 clock hours.

#### CRJ 215 EVIDENCE I

A study of law evidence; matters of opinion, fact, expert opinion, physical and oral evidence; rules of evidence including relevancy, competency, direct and circumstantial evidence; hearsay. Prerequisite(s): CRJ 150 and CRJ 200, or permission of instructor. Three credits: 40 clock hours.

#### CRJ 225 EVIDENCE II

Continuation of CRJ 215. Collection, identification, and preservation of evidence; submissions of evidence for lab examination and presentation in court.

Prerequisite: CRJ 215 or permission of instructor.

Three credits: 40 clock hours.

#### CRJ 231 COURT PROCEDURES

Procedural aspects of courts, particularly as law enforcement office is involved. A courtroom setting is employed for presentation of evidence. Includes testifying in court, court practices, cross-examination by defense attorneys, court rulings on admission of evidence, testimony; execution of search warrants; affidavits, etc. Prerequisite: CRJ 225 or permission of instructor. Five credits: 50 clock hours.

# CRJ 240 CONSTITUTIONAL LAW SEMINAR

A review of recent Supreme Court rulings relating to performance and responsibilities of law enforcement functions. Three credits: 30 clock hours

# CRJ 251 POLICE CADET COOPERATIVE

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- CRJ 253 POLICE CADET COOPERATIVE
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- CRJ 255 POLICE CADET COOPERATIVE

Recommended elective for candidates. Credit is obtained on the basis of one credit for each 30 hours work experience at a recognized law enforcement agency. One to five credits.

### EAS: EARTH SCIENCE

#### 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.

# 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. Four credits: three hours lecture, two hours lab.

#### 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 104 APPLIED ECONOMICS

Emphasizes fundamental principles of American capitalism. Topics related to practical application include economic forces and indicators, natural resources, factors of cost, price, and competition; money and banking, and government involvement in business and industrial enterprise. **Three credits.** 

#### ECO 105 ORGANIZATIONS AND INSTITUTIONS

The student will participate in activities which will enhance his or her ability to be a part of or deal with organizations such as companies, governmental agencies, banks, loan companies, service organizations/unions. The history of these organizations and the relationship between them will be discussed. **Three credits:** 30 clock hours.

#### ECO 201 PRINCIPLES OF ECONOMICS: MACROECONOMICS

Introduction to American capitalism, national policy, economic stability, economic growth, and economic problems. **Five credits.** 

#### ECO 202 PRINCIPLES OF ECONOMICS: MICROECONOMICS

Emphasizes the firm: production, management decisions, and marginal decisions. Knowledge of algebra not required. **Five credits.** 

# EDU: EDUCATION

#### EDU 105 INTRODUCTION TO TEACHER AID TRAINING PROGRAM

Designed to help teacher aides understand the role of paraprofessionals in the classroom. Class discussion topics will include: educational procedures, responsibility, classroom operations, the development of the paraprofessional's self concept, learning concepts, and the paraprofessional's learning style. **Three credits:** 30 clock hours.

#### EDU 106 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 and adoption of materials for use in a bilingual classroom.

Three credits: 30 clock hours.

# EDU 107 FIELD EXPERIENCE IN TEACHER AIDE EDUCATION

Provides an opportunity for teacher aide trainees to receive practical, on-site experience in the classroom under the direction of professional teachers. **Five credits:** 50 clock hours.

# EDU 108 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 billingual teacher aide. **Five credits:** 50 clock hours.

# EDP: ELECTRONIC DATA PROCESSING

#### EDP 101 INTRODUCTION TO DATA PROCESSING

A survey of information processing systems and computer technology. Topics include a nontechnical description of "how a computer works," business uses of computers, business system design process, and introduction to computer programming. **Five credits:** 50 clock hours.

#### EDP 102 COMPUTER CONCEPTS I

Studies the basic computer concepts to provide the proper framework for the advanced study of computer systems, and programming languages. Topics include internal storage, "computer math" operating systems, and program flowcharting. **Prerequisite:** EDP 101 or permission of instructor. **Five credits:** 50 clock hours.

#### EDP 103 COMPUTER CONCEPTS II

A study of advanced computer concepts emphasizing how components relate to an integrated data processing system. Topics will include software components and their functions, computer design, and virtual computing systems.

Prerequisite: EDP 102 or permission of instructor.

Five credits: 50 clock hours.

#### EDP 105 COMPUTER OPERATIONS

A study of the hardware and software components of a computing system relative to the actual operations of the system. Both conceptual and hands-on exposure to topics are included. **Prerequisite:** EDP 101 or permission of instructor. **Five credits:** 50 clock hours.

#### EDP 121 COBOL PROGRAMMING

Fundamentals of business-oriented programming language. Topics parallel those covered in EDP 201 with addition of debugging routines.

**Prerequisite:** EDP 102 or permission of instructor. **Five credits:** 50 clock hours.

#### EDP 122 ADVANCED COBOL PROGRAMMING

Continuation of EDP 121. Students will learn advanced COBOL techniques and efficiencies, and will utilize magnetic tape and disk storage media.

Prerequisite: EDP 121.

Five credits: 50 clock hours.

#### EDP 126 REPORT PROGRAM GENERATOR II (RPG II)

RPG programming language. Topics include printed report generation, file matching, control breaks, and table search. Prior knowledge of fundamental programming logic required. **Prerequisite:** EDP 102 or permission of instructor. **Five credits:** 50 clock hours.

#### EDP 127 PL/I (PROGRAMMING LANGUAGE I)

An elective course in PL/I programming language and its application to business and scientific problems. Topics parallel EDP 102.

Prerequisite: EDP 102 or permission of instructor. Five credits: 50 clock hours.

#### EDP 201 ASSEMBLER LANGUAGE PROGRAMMING

Programming concepts learned in EDP 103 are implemented using IBM 370 Assembler Language. Documentation techniques and programming standards stressed. College computer will be used to test programs written by students.

**Prerequisite(s):** EDP 103 and EDP 121, or permission of instructor. **Five credits:** 50 clock hours.

# EDP 211 NEW ISSUES AND DEVELOPMENTS IN DATA PROCESSING

Familiarizes students with new hardware and software developments in all types of systems. Gives students the opportunity to research some of these new developments. **Prerequisite:** EDP 201 or permission of instructor. **Five credits:** 50 clock hours.

# EDP 237 SYSTEMS ANALYSIS AND DATA MANAGEMENT

Familiarizes students with the organization of data files utilized in business data processing, the physical characteristics of the storage media, and information flows. These topics will be incorporated into practical student projects in the area of systems analysis and design. **Prerequisite:** EDP 122 or permission of instructor. **Five credits:** 50 clock hours.

#### EDP 281 COOPERATIVE WORK EXPERIENCE I EDP 282 COOPERATIVE WORK EXPERIENCE II

Supervised employment in a data processing position. Intended to provide practical experience for students preparing for a career in electronic data processing. It is the responsibility of the student to secure employment in an approved work station for a minimum of 15 hours per week during the two quarters of enrollment.

**Prerequisites:** Student must be in the fifth and sixth quarters of a Data Processing Program, must have salable skills, and in the quarter prior to enrollment to approved for admission by his or her advisor and the supervising instructor.

Six credits each: 160 clock hours each.

# ELT: ELECTRONICS TECHNOLOGY

\*Electronics electives: additional courses may be designed or permitted in the elective area.

# ELT 100 INTRODUCTION TO BASIC ELECTRONICS

Introduces the student to the electronics profession. Emphasizes safety and introduces electronic tools, equipment, methods, and procedures. Upon satisfactory completion, the student will have a fundamental understanding, knowledge, and skills of the electronic industry.

Three credits: 35 clock hours.

#### ELT 120 SURVEY OF ELECTRONICS (Evening)

A broad introduction for the beginning student stressing fundamentals but also examining systems in block diagram form. An overview of the penetration of electronics in commercial, industrial, medical, and military applications. **Prerequisite:** none.

Five credits: 60 clock hours.

#### ELT 121 DC FUNDAMENTALS (Evening)

Direct current applications in passive linear networks. Network laws and theorems, mathematical analysis, and laboratory experiments including attention to measurements and troubleshooting. (ELT 120 and 121 are equivalent to ELT 141.) **Prerequisite:** ELT 120 or permission of instructor. **Five credits:** 60 clock hours.

#### ELT 122 ELECTRONICS MATH (Evening)

An applied math course designed to build proficiency in solving electronic problems. Algebraic operations, equations, quadratic equations, determinants, graphic relationships, exponentials, logarithms, right angle trigonometry, vectors, phasors, J-operator. Math exercises emphasize typical electronic applications. **Prerequisite:** ELT 120 or concurrent with ELT 120, or permission of instructor.

Five credits: 60 clock hours.

# ELT 123 AC/DC CIRCUIT ANALYSIS (Evening)

A continuation of the study of passive circuits emphasizing analysis of AC and time-varying conditions, practice in measurement, analysis, and troubleshooting. (ELT 122 and 123 are equivalent to ELT 142.)

Prerequisite: ELT 121 or permission of instructor. Five credits: 60 clock hours.

# ELT 124 SOLID STATE CIRCUITS I (Evening)

Introduction to active circuits. Development of analytical and graphic tools for practical application to commonly encountered solid state circuits. Attention to measurements and troubleshooting. **Prerequisite:** ELT 123 or permission of instructor. **Five credits:** 60 clock hours.

#### ELT 125 SOLID STATE CIRCUITS II (Evening)

Continuation of ELT 124. Extends development of analytical tools to increasingly complex solid state circuits including some integrated circuits. (ELT 124 and 125 are equivalent to ELT 143.) **Prerequisite:** ELT 124 or permission of instructor. **Five credits:** 60 clock hours.

#### ELT 141 INTRODUCTION TO ELECTRONICS

Physics of electricity, basic circuits, and systems are studied. Using mathematics and laboratory experiments, students discover fundamental concepts governing currents in passive circuits and the systems in which they will be functioning. (ELT 120 and 121 are equivalent to ELT 141.)

Prerequisite: none.

Ten credits: 120 clock hours.

#### ELT 142 AC/DC CIRCUIT ANALYSIS

A continuation of the study of passive circuits emphasizing analysis of AC and time varying conditions. Similar to ELT 141; students develop practical measurement and analysis skills and become more aware of systems applications. (ELT 122 and 123 are equivalent to ELT 142.)

**Prerequisite(s):** ELT 141, ELT 120 and 121, or permission of instructor.

Ten credits: 120 clock hours.

# ELT 143 CIRCUITS AND APPLICATIONS

Emphasizes active electronic devices and the systems where they are employed. Students study a variety of integrated circuits and solid state devices where further emphasis is given to measurement considerations and fault isolation methods as well as the basic analysis of operation. (ELT 124 and ELT 125 are equivalent to ELT 143.)

Prerequisite(s): ELT 142, ELT 122 and 123, or permission of instructor.

Ten credits: 120 clock hours.

#### ELT 146 ELECTRONICS PRINT READING AND SKETCHING

Familiarizes the student with drafting documentation encountered in the electronics industry. Presents terms and techniques employed in industry. Involves practice in sketching, reading/interpreting industry prints. Includes circuit board layout. **Prerequisite:** ELT 120, ELT 141, or permission of instructor. **Three credits:** 40 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 143 or permission of instructor. **Five credits:** 60 clock hours.

# ELT 266 ELECTRONIC DESIGN AND FABRICATION

Emphasizes proper chassis layout and equipment arrangements (packaging), soldering and other assembly or re-work techniques. Building a functional unit of an approved type is undertaken. Prerequisite(s): ELT 143 and ELT 255, or permission of instructor. Three credits: 40 clock hours.

#### ELT 267 INTRODUCTION TO NEW ELECTRONIC INDUSTRY DEVELOPMENTS

Introduces new devices, including new developments in general. Students assist in current literature search and presentation of findings. Current hiring practices and conditions, desirable employee attitudes, proper conduct during an interview, and typical entrance exam questions are discussed.

Prerequisite(s): ELT 272 and ELT 282, or permission of instructor. Three credits: 30 clock hours.

#### ELT 268 PRACTICAL SOLID-STATE TROUBLESHOOTING

A logical approach to troubleshooting modern, solid-state equipment. Lab and industrial systems stressed. Also covers some electronics used in homes.

Prerequisite(s): ELT 272 and ELT 282, or permission of instructor. Three credits: 40 clock hours.

#### **ELT 271 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 143 or permission of instructor. Five credits: 60 clock hours.

#### **ELT 272 COMMUNICATIONS II**

Systems approach will be major emphasis as individual circuits studied in the previous course will be combined into complete systems. Transmission methods, transmission lines, antennas and introduction to microwave techniques are studied. Some special methods will be included 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 COMMUNICATIONS III

Assists students in obtaining the FCC second class radio telephone license. Based on typical FCC license examination questions, study of FCC regulations, and review of electronic circuit theory.

Prerequisite: ELT 272 or permission of instructor. Five credits: 60 clock hours.

#### ELT 281 COMPUTERS I

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 143 or permission of instructor. Five credits: 60 clock hours.

#### \*ELT 282 COMPUTERS II

Continuation of hardware and software elements of digital machines. Counters, registers, ROM, RAM and reference to systems (microprocessor) continues.

Prerequisite: ELT 281 or permission of instructor. Five credits: 60 clock hours.

# \*ELT 283 COMPUTERS III

Microprocessors are employed to obtain systems experience and application of fundamentals. Involves hardware and software studies and tradeoffs between hardware/software. Includes organization of a microprocessor: clock, CPU, I/O, bus concepts, EPROM, RAM, programming and peripherals. Prerequisite: ELT 282 or permission of instructor. Five credits: 60 clock hours.

\*ELT 284 COMPUTERS IV

Special studies in computer systems. Studies can include new microprocessor types, interfacing, hardware/software development. Projects can be instructor assigned or student proposed (and approved). May be taken concurrently with ELT 283. Prerequisite: ELT 282 or permission of instructor. Five credits: 60 clock hours.

# ESL: ENGLISH AS A SECOND LANGUAGE

#### ESL 011 ENGLISH AS A SECOND LANGUAGE I

Designed to provide the non-English speaking individual with basic language survival skills which will be integrated with pattern usage of the English language. About 75 percent of class time will be devoted to oral and listening development, and about 25 percent devoted to writing simple statements and building vocabulary.

#### ESL 012 ENGLISH AS A SECOND LANGUAGE II

Designed to provide the very limited English speaking individual with basic, language survival skills which will be integrated with pattern usage of the English language. These skills will be a continuation of those acquired in ESL I. Great emphasis will be placed on oral and listening development. Writing and reading skills also will be emphasized to build vocabulary skills.

Prerequisite: Completion of ESL 011, or score of 80 percent or better on test used to assess English skills learned in ESL 011.

#### ESL 013 ENGLISH AS A SECOND LANGUAGE III

Designed to provide the limited English speaking individual with basic, language survival skills which will be integrated with pattern usage of the English language. These skills will be a continuation of those acquired in ESLI and II. Great emphasis will be placed on oral and listening development. Writing and reading skills also will be emphasized to build vocabulary skills.

Prerequisite: Completion of ESL 012, or score of 80 percent or better on test used to assess English skills learned in ESL 012.

#### ESL 014 ENGLISH AS A SECOND LANGUAGE IV

Deisgned to provide the limited English spekaing individual with basic language survival skills which will be integrated with pattern usage of the English language. These skills will be a continuation of those acquired in ESL I. Great emphasis will be placed on oral and listening development. Writing and reading skills also will be emphasized to build vocabulary skills.

Prerequisite: Completion of ESL 013, or score of 80 percent or better on test used to assess English skills used in ESL 013.

#### ESL 015 ENGLISH AS A SECOND LANGUAGE V

Designed to provide the limited English speaking individual with basic, language survival skills which will be integrated with pattern usage of the English language. These skills will be a continuation of those acquired in ESL I, II, III, and IV. Great emphasis will be placed on oral and listening development. Writing and reading also will be emphasized to build vocabulary skills.

Prerequisite: Completion of ESL 014, or score of 80 percent or better on test used to assess English skills learned in ESL 014.

# ESL 011 CLASE DE INGLÉS - NIVEL I

Esta clase está diseñada para darle al estudiante que no habla inglés una habilidad básica en inglés que será integrada con formas de como se usa el inglés correctamente. Como un 75 por cientode la enseñanza de la clase pondra enfasis en el desarollo oral (de conversación) y de escuchar el inglés. Como un 25 por ciento de la clase será dedicado a el desarollo de la escritura de oraciones simples.

# ESL 012 CLASE DE INGLES - NIVEL II

Esta clase está diseñada para darle al estudiante quien está muy limitado en la habilidad de comunicarse en inglés una habilidad básica en inglés que será integrada con formas de como se usa el inglés correctamente. Estas habilidades serán una continuación de esas habilidades introducidas en el Nivel I. Se dará mucha atención al desarollo de la escritura y lectura del inglés.

**Requisito:** Completar el Nivel 011 de Inglés. El estudiante debe de tener un grado de 80 por ciento o mejor en el examen del Nivel 011 de Inglés.

# ESL 013 CLASE DE INGLÉS - NIVEL III

Esta clase esta diseñada para darle al estudiante quien esta limitado en la habilidad de comunicarse en inglés una habilidad básica en inglés que sera integrada con formas de como se use el inglés correctamente. Estas habilidades seran una continuación de esas habilidades introducidas en los Niveles I y II. Se dará mucha atención al desarollo oral (de conversación) y de escuchar inglés. Tambien se dará mucha atención al desarollo de la escrituras y lectura.

**Requisito:** Completar el Nivel 012 de Ingles. El estudiante debe de tener un grado de 80 por ciento o mejor an el examen del Nivel 012 de Ingles.

# ESL 014 CLASE DE INGLES - NIVEL IV

Esta clase está diseñada para darle al estudiante quien está limitado en la habilidad de comunicarse en inglés una habilidad básica en inglés que será integrada con formas de como se use el inglés correctamente. Estas habilidades serán una continuación de esas habilidades introducidas en los Niveles I, II, y III. Se dará mucha atención al desarollo oral (de conversación), y de escuchar inglés. Tambien se dará mucha atención al desarol·lo de la lectura y escritura.

**Requisito:** Completar el Nivel 013 de Inglés. El estudiante debe de tener un grado de 80 por ciento o mejor en el examen del Nivel 013 de Inglés.

#### ESL 015 CLASE DE INGLES - NIVEL V

Esta clase está diseñada para darle al estudiante quien está limitado en la habilidad de comunicarse en inglés una habilidad básica en inglés correctamente. Estas habilidades serán una continuación de esas habilidades introducidas en los Niveles I, II, III, y IV. Se dará mucha atención al desarollo oral (de conversación) y de escuchar inglés. Tambien se dará mucha atención al desarollo de la lectura y escritura.

**Requisito:** Completar el Nivel 014 de Ingles. El estudiante debe de tener un grado de 80 por ciento o mejor en el examen del Nivel 014 de Inglés.

# FLE: FAMILY AND LIFE EDUCATION

Expectant Parents, and Wellness and Health Promotion Courses are Cosponsored With Weld County General Hospital.

#### **EXPECTANT PARENTS**

#### FLE 114 EARLY PREGNANCY

Take class as soon as pregnancy is confirmed. Discussions concern physical changes, emotional adjustments, basic nutrition, and fetal development. Body conditioning, proper body mechanics, and relaxation are taught. **One credit.** 

# FLE 115 PREPARED CHILDBIRTH I

For those having their first child. Group discussions concern the physical and emotional aspects of pregnancy and the postpartum period, including new family relationships, the unique role of the father, basic nutrition, and initial newborn care. Promotes better preparation for labor and delivery processes by teaching and practicing related exercises and breathing techniques including the Lamaze method. Labor and delivery film is shown and tour of the hospital obstetrical facilities is included.

#### FLE 116 PREPARED CHILDBIRTH II

For those who have had one or more children. Discussions concern putting past experiences into proper perspective. Provides additional information to enable couples to cope with present pregnancy positively, explores demand of new family relationships (sibling rivalry), and includes sharing ideas related to infant care. Promotes better preparation for labor and delivery processes by practicing conscios relaxation, related execises, and types of breathing techniques including the Lamaze method. Labor and delivery film is shown and tour of the hospital obstetrical facilities is included.

#### Two credits.

#### FLE 117 REFRESHER EXERCISES

For parents who previously have completed a comprehensive childbirth education course. Review and practice of relaxation and breathing techniques for labor and delivery. Labor and delivery film is shown and tour of the hospital obstetrical facilities is included. **Prerequisite:** Childbirth Education course. **One credit.** 

#### FLE 119 CESAREAN BIRTH

For those anticipating a Cesarean birth to put past experiences into proper perspective. Family centered birthing information and other related childbirth preparation topics are included. Relaxation exercises are taught. **One credit.** 

#### FLE 121 NOW I'M A PARENT

Acquaints parents with growth, development, and the normal characteristics of early infancy. Helps parents understand and cope with their feelings. **One credit.** 

# **ACTIVE FAMILIES**

#### FLE 127 COPING WITH YOUR ACTIVE TODDLER

For parents of 1-2½ 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. **Two credits.** 

#### FLE 128 GROWING WITH YOUR PRESCHOOLER

For parents of 3-5 year olds. Topics include different family styles and values, including alternatives in communication and discipline, getting ready for school, fostering responsibility, safety education, and parent-child food preparation. **Two credits.** 

#### FLE 145 FAMILY COMMUNICATIONS

For parents and teachers of preschoolers, elementary school age children, and adolescents. Group exercises and discussions center on developing a child's self-esteem, resolving conflicts, dealing with feelings, communicating effectively, and fostering responsibility. **Three credits.** 

#### FLE 149 HOW TO SURVIVE WITH TEENAGERS

Increases parents' and teachers' awareness and understanding of teen attitudes, concepts, and needs in this crucial stage of maturing. One credit.

#### FLE 151 PARENTING ALONE

For those who deal with the challenges of children in single parent homes. Parents explore feelings, define roles, practice resolving problems, and discuss finding personal support and community resources. Three credits.

#### FLE 155 PARENTING THE GIFTED CHILD

Considers the special needs and rewards of parenting gifted and talented children.

Three credits.

#### FLE 156 FOSTER AND ADOPTIVE PARENTING

Provides foster and adoptive parents with a working knowledge of general child development by age group and the special needs of these children. Includes alternatives in communication and discipline, and skills in building a child's self-esteem. Three credits.

#### FLE 157 PARENTING THE CHILD WITH SPECIAL NEEDS

Gain support and information in coping with your child's handicapping condition. Two credits.

#### FLE 205 MOTHERS ARE PEOPLE TOO

Identify and begin meeting personal needs which are sometimes swallowed up in the role of motherhood. Two credits.

#### FLE 206 PARENTS ARE FOREVER

Find ways to resolve the conflicts and draw upon the strengths within all generations of your family. One credit.

#### WELLNESS AND HEALTH PROMOTION

#### FLE 166 BODY SHOPPE

Helps individuals to develop a clearer understanding of good health habits and incorporate these habits into their lives. Subjects covered are nutrition and weight control, the cardiovascular system and exercise, and stress management. Includes exercise tolerance and respiratory pretesting and postesting. Supervised exercise sessions take place twice weekly. Three credits.

FLE 167 HEALTHY HEART: NUTRITION Evaluate your present diet, assess your health, set goals, and learn new eating habits. Includes activities, discussions, and instructional materials based on the most accurate and recent heart

#### disease research. One credit.

#### FLE 167 PERSONAL WEIGHT MANAGEMENT: A COMPREHENSIVE APPROACH

A realistic approach to weight control. In addition to meal planning, special attention is focused on the psychology of weight control and long-term maintenance of ideal weight. Two credits.

#### FLE 178 STOP SMOKING PROGRAM

Provides a positive experience in helping people to stop smoking. Emphasis is on education, insight into smoking habits, and group support. In cooperation with the Weld County Unit of the Colorado Division of the American Cancer Society. Two credits.

#### FLE 179 FOOD, FACTS, FADS AND YOUR HEALTH

A practical application of good nutrition for the consumer. Includes discussions on the function of food and how it works for the body, facts about vitamins, nutrition labeling, health foods, planning well balanced meals, and safe food storage. Two credits.

#### FLE 181 HEALTH AWARENESS I

Increases awareness of the importance of taking an active role in maintaining health and provides knowledge about the body and health. Back care, the circulatory system (heart and blood pressure), arthritis, medications, foot care, and family relationships are heasusaib One credit.

#### FLE 182 HEALTH AWARENESS II

Motivates consumers to increase their knowledge and personal responsibility for healthful living. Blood clots, hearing and vision, diabetes, hypothermia, chronic diseases, coping with physical and psychological changes, and community resources are discussed. One credit.

#### FLE 183 HEALTH AWARENESS III

Motivates senior citizens to incorporate activity and exercise into their daily living. A review of the relationship of exercise to body function is included, along with participation in exercise activities. Basic cardiopulmonary resuscitation (CPR) is introduced. One credit.

#### FLE 184 HEALTH AWARENESS IV

A basic cardiopulmonary resuscitation (CPR) course for senior citizens.

One credit.

#### FLE 186 HEALTH FOR SENIORS

Provides information about the body and increases awareness of how to take an active role in maintaining health. Two credits.

#### FLE 207 PRERETIREMENT-RETIREMENT PLANNING

Consider the practical aspects of retirement and ways to make your later years more enjoyable and fulfilling. Two credits.

#### FS: FIRE SCIENCE

#### FS 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.

Three credits: 30 clock hours.

#### FS 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.

#### FS 106 FIRE FIGHTING TACTICS AND STRATEGY

Review of fire chemistry, equipment, and manpower; basic fire-fighting tactics and strategy, methods of attack, and preplanning fire problems. Five credits: 50 clock hours.

#### FS 108 FIRE HYDRAULICS

Review of basic mathematics; hydraulic laws and formulas as applied to fire service; application of formulas and mental calculation to hydraulic problems, water supply problems, and underwriters' requirements for pumps. Three credits: 30 clock hours.

#### FS 110 FIRE APPARATUS AND EQUIPMENT

Driving laws, driving techniques; construction and operation of pumping engines, ladder trucks, aerial platforms, and specialized equipment; apparatus maintenance. Three credits: 30 clock hours.

#### FS 111 FIRE SAFETY

Students will gain individual fire-fighting safety knowledge. Includes learning OSHA requirements, and how to plan and organize citizen fire safety programs. Three credits: 30 clock hours.

#### FS 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.

#### FS 113 BUILDING FIRE INSPECTIONS

Students will acquire ability to inspect buildings for the elimination of fire related hazards. Three credits: 30 clock hours.

#### FS 190 ADMINISTRATION OF JUSTICE AND COURT PROCEDURES

Study of processes of criminal justice; procedures of local, state, and federal courts; organization of jurisdiction. Criminal justice in Colorado, conduct of trails, right of accused, motions, and appeals also included.

Three credits: 30 clock hours.

#### FS 202 FUNDAMENTALS OF FIRE PREVENTION

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: FS 100.

Three credits: 30 clock hours.

#### FS 204 RELATED CODES AND ORDINANCES I

Familiarization with national, state, and local laws and ordinances which influence the field of fire prevention; emphasizes building codes.

Three credits: 30 clock hours.

#### FS 205 RELATED CODES AND ORDINANCES II

Continuation of FS 204, emphasizing life safety and fire prevention codes.

#### Prerequisite: FS 204.

Three credits: 30 clock hours.

#### FS 206 RESCUE PRACTICES

Rescue practices, rescue skills and techniques; rescue tools and equipment, emphasizing auto accident extraction; building collapse, cave-in and landslide, and other rescue problem procedures.

Three credits: 30 clock hours.

#### FS 207 APPLIED CHEMISTRY FOR FIREFIGHTERS

A basic, practical course in chemistry designed specifically for firefighters. Various materials which firefighters encounter will be discussed.

Five credits: 50 clock hours.

#### FS 208 HAZARDOUS MATERIALS I

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: FS 207.

Three credits: 30 clock hours.

#### FS 209 HAZARDOUS MATERIALS II

Continuation of FS 208. Emphasizes fire-fighting and control at the company officer level. Prerequisite: FS 208.

Three credits: 30 clock hours.

#### FS 212 FIRE PROTECTION EQUIPMENT AND SYSTEMS

Portable fire extinguishing equipment requirements. Sprinkler systems: types, installation, and maintenance. Special protection systems for various hazards. Three credits: 30 clock hours.

#### FS 214 FIRE DEPARTMENT ADMINISTRATION

Consideration of basic administrative concepts and principles applicable to the organization and administration of an efficient fire department.

#### Prerequisite: FS 104. Three credits: 30 clock hours.

#### FS 216 PRIVATE FIRE PROTECTION ALARM SYSTEMS

An analysis of private protection and alarm systems. Covers organization and operation of private fire brigades and complete water system layouts. Fire detection, alarm, and supervisory systems are studied and evaluated. Prerequisite: FS 212.

Three credits: 30 clock hours.

#### FS 218 FIRE INVESTIGATION

Introduction to arson, incendiarism, and types of incendiary fires. Methods of determining fire cause, recognizing and preserving evidence, interviewing and detaining witnesses. Procedures in handling juveniles, court procedures, and giving court testimony. Three credits: 30 clock hours.

#### FS 220 FIRE INSURANCE

An analysis of the fire insurance rating structure. Elements involved in establishing insurance rates, including the grading system for and classification of cities and towns. Hazard factors in occupancy, construction, and exposure. Three credits: 30 clock hours.

#### FS 230 BUILDING CONSTRUCTION/BLUEPRINT READING FOR FIREFIGHTERS

Gives students a working knowledge of blueprint reading and sketching as applied to the construction industry. Building terms and abbreviations are taught as well as symbols and conventions of other major trades. Includes construction features, beginning with details of component parts and advancing to a complete set of working drawings. Load principles, shear forces, stress, and weakening due to fires are discussed. Three credits: 30 clock hours.

#### FS 232 FIRE SERVICE SUPERVISION

Studies fire department organization. Includes personnel relations, leadership, motivation, training, hiring, and disciplinary action

Three credits: 30 clock hours.

#### FOREIGN LANGUAGES

#### FRE 101 BASIC APPLIED FRENCH

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.** 

#### GER 101 BASIC APPLIED GERMAN

Course in conversational German designed to help the person who may be traveling in Germany. **Three credits.** 

#### GER 111 ELEMENTARY GERMAN I

Develops the ability to learn standard or High German through listening, reading, writing, and speaking the language. Primary aim is to give students an elementary, conversational, and grammatical knowledge of the language and an exposure to German culture and habits.

#### Five credits.

#### GER 112 ELEMENTARY GERMAN II

Continuation of GER III. Prerequisite: GER III or equivalent knowledge. Five credits.

#### GER 113 ELEMENTARY GERMAN III

Continuation of GER 112.

Prerequisite: GER 112 or equivalent knowledge. Five credits.

#### SPA 101 BASIC APPLIED SPANISH

Course in conversational Spanish concerned with developing the ability to understand and speak regional Spanish. Three credits.

#### SPA 102 BASIC APPLIED SPANISH

Continuation of SPA 101. Three credits.

#### SPA 103 BASIC APPLIED SPANISH

Continuation of SPA 102. Three credits.

#### SPA 105 BASIC SPANISH GRAMMAR

Provides prospective Spanish teachers with a fundamental knowledge of Spanish grammar and syntax. Introduces future elementary Spanish students to grammatical aspects of the language.

Two credits.

#### SPA 106 MEXICAN FOLK SONG

Improves students knowledge of Spanish through folk songs. Contains substantial cultural content. Three credits.

#### SPA 111 ELEMENTARY SPANISH I

Develops ability to understand, speak, read, and write Spanish within the limits of the vocabulary learned. Especially designed for the nonnative speaker of Spanish. Emphasizes the language and culture of the Southwest. **Five credits.** 

#### SPA 112 ELEMENTARY SPANISH II

Continuation of SPA 111 Five credits.

#### SPA 113 ELEMENTARY SPANISH III

Continuation of SPA 112. Five credits.

#### SPA 211 INTERMEDIATE SPANISH

Gives those students who have taken their first year of elementary Spanish or those with an adequate background, either from high school or the home, an opportunity to continue their study of the language. Deals principally with developing oral or audible skills as well as improving grammatical and written abilities.

**Prerequisite:** one year of college Spanish, two years of high school Spanish, or permission of instructor. **Three credits.** 

#### SPA 212 THE SPANISH SUBJUNCTIVE

Gives serious students of Spanish an in-depth study of the very difficult Spanish subjunctive mood. All tenses of this form will be covered.

Two credits.

#### SPA 213 SPANISH CONVERSATION AND COMPOSITION

Deals principally with expanding the written and oral skills of advanced Spanish students. Includes expository and creative writing, and formal speech. **Three credits.** 

#### SPA 221 SURVEY OF HISPANIC LITERATURE

Covers various literary genres and styles of Hispanic writers. The student will be required to learn methods of literary analysis. Three credits.

#### GEO: GEOGRAPHY

#### GEO 105 WORLD GEOGRAPHY

A study of the world's regions, emphasizing culture. Regions and factors such as landform, climate, vegetation, and soils are examined. How these factors influence economic activities is discussed.

#### Five credits.

#### **GEO 205 GEOGRAPHY OF NORTH AMERICA**

Survey of physical, cultural, and economic features of the United States and Cacada. Dyanamic processes (as opposed to static) are studied and analyzed. **Three credits.** 

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#### GEO 206 GEOGRAPHY OF COLORADO

Cultural groups and economy are examined and analyzed. Urban and rural geography also are discussed. Population and economic trends are examined.

Three credits.

#### GEO 295 INDEPENDENT STUDY IN GEOGRAPHY

Provides an opprtunity for the serious-minded student to engage in intensive research and study on a specified topic under the direction of a faculty member.

Prerequisite: five guarter hours in geography.

Three credits: contact instructor.

#### GEY: GEOLOGY

#### 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. Offered winter quarter only. **Four credits:** four hours lecture.

#### GEY 111 PHYSICAL GEOLOGY

Promotes the physical awareness and observations of the student by a study of our physical surroundings, including rocks, minerals, and landforms. Emphasizes the processes that shape our everchanging landscape. Field trips required. Offered fall quarter only.

Five credits: three hours lecture, four hours lab.

#### 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, geologic 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.

#### GEY 113 HISTORICAL GEOLOGY

Studies the prehistorical earth and prehistoric life, using influences from the physical geology of the earth to determine the paleogeography, paleoclimate, and paleontology of past ages. Field trips required. Offered spring guarter only.

Prerequisite: GEY 101 or permission of instructor. Five credits: three hours lecture, four hours lab.

#### **GRT: GRAPHIC TECHNOLOGY**

#### GRT 100 INTRODUCTION TO GRAPHIC TECHNOLOGY

Introduces the student to the graphic arts profession. Emphasizes safety and introduces graphic tools, equipment, methods, and procedures. Upon satisfactory completion, the student will have a fundamental understanding, knowledge, and skills of the graphics industry. Three credits: 35 clock hours.

#### GRT 101 GRAPHIC TECHNOLOGY I

Students will be given the opportunity to acquire basic knowledge and skills in photocomposition, 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 photocomposition, layout and paste-up, process camera and contact photography, film stripping, printing press operation and maintenance, bindery, and materials and personal activities. The student will perform the above advanced activities at production quality level.

Prerequisite: GRT 101.

Twenty credits: 250 clock hours.

#### GRT 103 GRAPHIC TECHNOLOGY III

Students will be given the opportunity to acquire advanced skills acquired in GRT 101 and GRT 102 in order to perform those skills at no more than double the average production time and at no less than production quality. The student also will be given the opportunity to acquire knowledge and skills in layout, designing forms, and job placement.

Prerequisite: GRT 102.

Twenty credits: 250 clock hours.

#### GRT 104 GRAPHIC TECHNOLOGY IV

Introduces the student to large, sheet fed offset press and automated bindery equipment operation. Upon completion of this course, the student will have been given the opportunity to acquire a basic knowledge of the principles and fundamental practices in preparing and running a large offset press and automated bindery equipment including book stitcher, folder and collator. 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 to three credits: 10 to 30 clock hours.

#### GRT 295 GRAPHIC TECHNOLOGY INDEPENDENT STUDY A

Provides an opportunity for the student to engage in intensive study and research on a specific topic under the direction of a faculty member.

Five credits: 50 clock hours: contact instructor.

#### GRT 295 GRAPHIC TECHNOLOGY INDEPENDENT STUDY B

Provides an opportunity for the student to engage in intensive study and research on a specific topic under the direction of a faculty member

Two credits: 20 clock hours; contact instructor.

#### GRT 295 GRAPHIC TECHNOLOGY INDEPENDENT STUDY C

Provides an opportunity for the student to engage in intensive study and research on a specific topic under the direction of a faculty member

Three credits: 30 clock hours; contact instructor.

#### GRT 299 GRAPHIC TECHNOLOGY PRACTICUM A

#### GRT 299 GRAPHIC TECHNOLOGY PRACTICUM B GRT 299 GRAPHIC TECHNOLOGY PRACTICUM C

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 the trade. This course may be repeated.

One credit each: 10 clock hours each.

#### HEN: HEALTH EDUCATION

#### HEN 105 PERSONAL HEALTH

Studies problems involved in personal and community health. Emphasizes actions an individual can take to maintain the highest degree of mental and physical health. Three credits: three clock hours per week.

#### HEN 106 SAFETY AND FIRST AID

Principles and practices of first aid to give immediate, temporary treatment in case of accident or sudden illness before the services of a physician can be secured. (The official First Aid Standard Senior Certificate is granted to students who satisfactorily pass the American Red Cross examination.)

Three credits: three clock hours per week.

#### HEN 107 ADVANCED SAFETY 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, firefighters, ski patrol, and other special interest groups. Includes cardiopulmonary resuscitation. Students completing course and testing will be certifited by American Red Cross in advanced first aid and cardiopulmonary resuscitation.

Five credits: five clock hours per week.

#### HEN 117 WILDERNESS FIRST AID

Enables the student to obtain a standard first aid card (A.R.C. certification) and knowledge of first aid treatment in regions beyond the trailhead. Includes preventive and support techniques for accidents frequent to remote regions.

Three credits: three clock hours per week.

#### **HLH: HEALTH OCCUPATIONS**

#### HLH 105 EMERGENCY MEDICAL TECHNICIAN

Instruction in prompt and efficient care of victim, control of accident scene, safe and efficient transport, orderly transfer of patient and information to hospital's emergency department, reporting and record keeping, vehicle and equipment care, legal aspects of emergency care, the ambulance and its equipment, and cardiopulmonary resuscitation. Nine credits: 93 clock hours.

HLH 108 EMT REFRESHER

An eight-week course for refreshing and recertifying holders of Colorado Basic EMT certificates. Four credits: 40 clock hours.

#### HLH 127 CARDIOPULMONARY RESUSCITATION (CPR)

Designed to qualify the successful student for the Basic Rescuer certificate issued by the American Heart Association. Covers basic cardiopulmonary rescuscitation and emergency cardiac care from the theory and practice standpoints. Includes one-man CPR, two-man CPR, infant resuscitation, and choking. One credit: 10 clock hours.

#### **HLH 128 CPR INSTRUCTOR**

Designed to qualify the successful student for the Basic Life Support Instructor certificate issued by the American Heart Association. Covers basic life support techniques and teaching aids necessary to instruct CPR. Also includes manikin care and cleaning. One credit: 14 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 audio-visual aids and discussion. Three credits: 30 clock hours.

#### HLH 135 GERIATRIC AIDE

Upon completion, the successful student will, in the classroom and/or in the clinical setting and to the instructor's satisfaction, be able to: (1) perform basic, personal care skills, (2) judiciously apply the safety principles taught, (3) observe and report changes in patient condition, (4) demonstrate tender, loving care, (5) perform assignments in both an ethical and legal manner. Additionally, the successful student will, upon verbal or written examination and with 70-100% accuracy, demonstrate knowledge of the course content. Seven credits: 80 clock hours.

The following classes are offered upon the request of 12 students or more: (Additional courses could be designed to meet continuing education needs of the community.)

#### HLH 106 PHARMACOLOGY REVIEW FOR NURSES

Offers a review of the therapeutic uses, actions, side effects, dosages, and routes of administration of selected drugs. Reinforces competent research technique for drug administration information, knowledge of nursing implications, and desired patient teaching. Prerequisite: licensed nurse.

Four credits: 40 clock hours.

#### HLH 115 DEALING WITH BEHAVIORAL PROBLEMS IN THE AGED

Designed to promote an understanding of the social-emotional needs of the aged, and the ability to differentiate between normal and abnormal behavior. Provides opportunity to discuss particular behavioral problems seen in the aged in health care settings. Designed particularly for nursing home staff; approved for educational credit toward license renewal for nursing home administrators.

Two credits: 20 clock hours.

#### HLH 116 NURSES AND THE LABORATORY

Defines the nurse's role in laboratory tests, emphasizing the most commonly ordered tests in each laboratory department. Methodology is not taught.

Prerequisite: licensed nurse or permission of instructor.

Two credits: 20 clock hours.

#### HLH 117 TEAM LEADING IN THE NURSING HOME

Designed especially for the Licensed Practical Nurse (LPN) with team leading responsibilities in the nursing home. Instruction given in the planning, supervision, and evaluation of patient care using principles of problem solving, leadership, and group dynamics. Prerequisite: licensed nurse. Two credits: 20 clock hours.

#### HLH 125 SURGICAL ASEPSIS I

Basic techniques are taught, such as might be used in a physician's office, to prevent contamination of dressings, solutions, and instruments. Laboratory practice in surgical scrub, gown, mask techniques, and handling of sterile packs, instruments, etc. One credit: 10 clock hours.

#### HLH 126 INTRODUCTION TO AUDIOLOGY

Provides a basic understanding of the anatomy, physiology, and pathology of the hearing mechanism; teaches basic audiometric testing skills.

Three credits: 35 clock hours (includes 5 laboratory practice hours).

#### HLH 136 MEDICAL OFFICE LABORATORY TECHNIQUES I

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. Three credits: 30 clock hours.

#### HLH 137 MEDICAL OFFICE LABORATORY TECHNIQUES II

Upon completion, the successful student will be able to: (1) accurately perform the manual laboratory tests that are taught, (2) correctly use and clean instruments and glassware that are used to perform the tests.

Three credits: 30 clock hours.

#### HIS: HISTORY

#### HIS 101 INTRODUCTION TO HISTORY: ANCIENT CIVILIZATION

Introductory study of the political, social, and cultural development of the Western world and its relationship to the contemporary world. Includes Middle Eastern, Greek, and Roman civilizations. Study methods, historical research, and interpretations are integrated throughout. Five credits.

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#### HIS 102 INTRODUCTION TO HISTORY: MEDIEVAL CIVILIZATION

Continuation of HIS 101 emphasizing the Middle Ages, Renaissance, and Reformation. Includes absolutism and revolution in politics, society, and economics and their relationship to the world today.

Five credits.

#### HIS 103 INTRODUCTION TO HISTORY: MODERN CIVILIZATION

Begins with the period after 1815, and focuses on the theory and practice of modern political, economic, and social events and their effect on today's world. **Five credits.** 

#### HIS 105 HISTORY OF THE UNITED STATES TO 1877 (MYTH & REALITY IN AMERICA'S PAST)

American history from the colonial period through the Civil War and Reconstruction, emphasizing economic, political, and constitutional development of the United States. Classroom and individualized format available. Consult a quarterly schedule and/or the staff member at G.S. 210 for further details. **Five credits.** 

#### HIS 106 HISTORY OF THE UNITED STATES 1865-1945 (MYTH & REALITY IN AMERICA'S PAST)

Myth and reality in America's past is the theme of this social, economic, and political survey. Examines America's historical myths and their causes. **Five credits.** 

#### HIS 107 HISTORY OF THE UNITED STATES SINCE 1945 (HIROSHIMA TO WATERGATE)

A survey of events in the United States since 1945 emphasizing the background of current social, cultural, and political changes. **Five credits.** 

#### HIS 108 MODERN RUSSIAN CIVILIZATION

An individualized course which studies contemporary Russian society as presented in Hedrick Smith's award winning book **The Russians.** The difference between the official Soviet Union and real Russia is emphasized. These differences include those between the ruling class and the people, Soviet and Russian institutions, the "new Soviet man" and the ordinary Russian citizen. Taped lectures and historic background illustrate close ties between Russian masses and the past. Materials include text, student guide, tapes, and filmstrip. Consult with the staff member at G.S. 210 for further details.

Five credits.

#### HIS 109 NUGGETS FROM THE PAST (RE-CREATING COLORADO HISTORY)

An elective class primarily for community interest in which each participant researches some particular incident from the region's past. Utilizes pictures, slides and artifacts. Winter quarter evening class only.

Four credits.

#### HIS 115 OCCULT SCIENCES

A historical examination of the beliefs and practices of voodoo, vampirism, witchcraft, magic, snake handling cults, palmistry, tarot cards, I Ching, hysterical possession, demonic possession, and ESP. **Five credits.** 

#### HIS 205 HISTORY OF ENGLAND

General survey of English history and England's role in European and world history. **Five credits.** 

#### HIS 208 COLORADO HISTORY TRIP

History and camping high in the Colorado rockies are offered in this biyearly course. The three day weekend excursion includes bus touring with accompanying lecture, an afternoon in historic Leadville, and a day hike along a ghost railway. Prior to the trip two evening classroom sessions are held. The late July trip explores the famous Hagerman Loop above Leadville. When the aspen turn in September, students hike along the South Park line to the mysterious Alpine Tunnel southwest of Buena Vista. **Three 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, minimg, railroad, farming and ranching frontiers. Field trips included.

#### Five credits.

#### HIS 210 REVOLUTIONARY RUSSIA (1900-PRESENT)

Surverys Russian history leading to the revolutionary period and examines the changes in the Soviet state since the revolution. Special emphases will be on modern cultural, economic, and political heories and institutions as they pertain to the Soviet Union. **Three 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.

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#### MAS 161 AZTEC CIVILIZATION

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.** 

#### MAS 165 CHICANO HISTORY

Examines historical events in the American Southwest from the indigenous origins, through the Spanish conquest and colonization and later Anglo invasion. Emphasizes the circumstances which transformed the Mexican from a majority to a minority status. **Three credits.** 

#### HUM: HUMANITIES

#### HUM 100 INTRODUCTION TO THE HUMANITIES

Introduces students to the creative and speculative nature of man. Methods of instruction include reading, viewing, hearing, and discussing works of art, drama, literature, music, and philosophy and the critical and ethnical approaches to these areas as reflected in various cultures. **Five credits.** 

#### HUM 101 INTRODUCTION TO THE GREEK AND ROMAN PERIOD

Introduces students to the classical origins of Western culture through the study of the architecture, art, literature, music, and philosophy of the ancient Greeks and Romans. **Five credits.** 

#### HUM 102 INTRODUCTION TO THE MIDDLE AGES AND RENAISSANCE PERIOD

Introduces students to the architecture, art, literature, music, and philosophy of Europe during the Middle Ages and Renaissance and shows the relevance to the development of our own culture. **Five credits.** 

#### HUM 103 INTRODUCTION TO THE MODERN PERIOD TO WORLD WAR II

Introduces students to the architecture, art, literature, music, and philosophy of Europe and the United States from the seventeenth century to World War II. **Five credits.** 

#### HUM 104 CONTEMPORARY CULTURE

Studies twentieth century ideas, both Eastern and Western, by viewing contemporary drama, live concert performances, local films, and painting and sculpture. **Five credits.** 

#### HUM 105 MYTH, LEGEND, AND FOLK TALES

Students are acquainted with myth, legend, and folk tales from many areas of world culture.

Three to five credits.

#### HUM 106 INTRODUCTION TO WORLD RELIGIONS

A comparative study of the ideas, doctrines, and concepts of the world's major religions (Eastern, Western, or both) through their historical and geographical evolution. Three to 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.** 

#### MAS 120 CULTURE OF MEXICO AND SOUTH AMERICA

Examines the art, music, literature, and philosophy of Mexico and South America from pre-Columbian civilizations to the present time as they relate to the Chicano culture. Course fulfills a humanities requirement.

Five credits.

#### MAS 126 INTRODUCTION TO MEXICAN MYSTICISM

An analysis of Carlos Castaneda's books on Don Juan. The various concepts of Indian magic and mysticism and their relative worth in modern society are presented. **Five credits.** 

#### LIT: LITERATURE

#### LIT 095 LITERATURE READING

Provides a basic introduction to reading in the content field of literature and general or practical reading. Major objectives are to familiarize students with the content vocabulary in literature and to prepare students to apply comprehension skills of reading appropriate to the area of literature adequate to allow students to pass the literature or reading section of the GED test. **Prerequisite:** placement.

#### LIT 105 INTRODUCTION TO LITERATURE: TYPES AND THEMES

Increasing the student's ability to understand others and himself (or herself). Also will help the student learn to evaluate literature based on its total structure rather than only on his or her threshold interest. Particular course titles will be offered based on student interest.These may be Introduction to Fiction, Introduction to Poetry, Introduction to Drama, Introduction to Writers of the British Isles, and current themes such as Religion in Literature, Death in Literature, Detective and Science Fiction, and others. Course may be taken more than once for elective credit provided titles are not repeated.

Five credits.

#### LIT 205 THE AMERICAN WEST

Studies American short stories, plays, poems, and novels with settings west of the Mississippi River, from after the Civil War to the present. Includes not only such themes as the settling of the frontier, but also more recent concerns, such as white-minority relations, ecology, the Beat Generation, and Hollywood. **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. Course fulfills a communications or humanities requirement. **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 a fulfillment beyond coping with life. **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.

**Prerequisites:** CON 102 and a course in literature or humanities. **One to three credits:** contact instructor.

#### MCM: MANUAL COMMUNICATION

#### MCM 211 INTRODUCTION TO SEEING ESSENTIAL ENGLISH (SEE)

Beginning class designed to introduce to and encourage in the student a basic competency in SEE — a simple but effective means of communicating with the hearing impaired; not a "sign language," but a "sign system of English." **Three credits.** 

#### MCM 212 RECEPTIVE SEEING ESSENTIAL ENGLISH (SEE)

A continuation of MCM 211. Emphasizes enhancing the student's ability to read signs.

Prerequisite: MCM 211 or permission of instructor. Three credits.

#### MCM 215 INTRODUCTION TO AMERICAN SIGN LANGUAGE (ASL)

Acquaints the student with ASL — a language in its own right, with its own syntax and structure — and compares and contrasts Ameslan (ASL) with English (SEE).

Prerequisite: MCM 211 or permission of instructor. Three credits.

#### MAT: MATHEMATICS

#### MAT 012 DEVELOPMENTAL MATHEMATICS II

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 with whole numbers to enable the student to enter MAT 013. **Prerequisite:** placement.

#### MAT 013 DEVELOPMENTAL MATHEMATICS III

Provides students, who lack computational skills, with instruction in fractions and decimals. Provides GED students with the necessary skills to pass the part of the GED test dealing with fractions and decimals. The major objective is to develop computational arithmetic operational skills with fractions and decimals to enable the student to enter MAT 014. **Prerequisite:** MAT 012 or placement.

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#### MAT 014 DEVELOPMENTAL MATHEMATICS IV

Provides students with instruction in computational skills in percents, graphs, and measurements. Provides the GED student with the necessary skills to pass that part of the GED test dealing with percents, graphs and measurements. The major objective is to develop computational and arithmetic operational skills in percents, graphs, and measurements to enable the student to enter MAT 025. **Prerequisite:** MAT 013 or placement.

#### MAT 095 INTRODUCTORY MATHEMATICS

The primary purpose is to provide the student with enough arithmetic skills to enter business math or beginning algebra. **Prerequisite:** placement.

#### MAT 096 PREPARATORY MATHEMATICS

Provides students with the skills necessary to pass the algebra section of the GED math subtest. The major objective is to provide problem solving skills in basic algebra. **Prerequisite:** placement.

#### MAT 097 PREPARATORY MATHEMATICS

Provides the student with the skills necessary to pass the geometry section of the GED math subtest. The major objective is to provide problem solving skills in basic geometry. **Prerequisite:** placement.

#### MAT 098 MATHEMATICS

Provides the student with the skills necessary to pass the algebra and geometry sections of the GED math subtest. In addition, the student will be introduced to problem solving in the areas of percent and graphs.

Prerequisite: placement.

#### MAT 100 INTRODUCTION TO BEGINNING ALGEBRA

# (This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree.)

Topics include fractions, decimals, percents, ratios, finding lowest common multiples and highest common factors, arithmetic in the set of integers (negative and positive numbers), and factoring composite numbers into prime numbers. As time allows the following will be discussed: variables, order of operations, symbols of grouping, distributive law, multiplication of binomials, factoring, algebraic fractions, complex fractions, and linear equations. **Prerequisite:** competency in the arithmetic of whole numbers. **Three credits.** 

#### MAT 101 APPLIED MATH I

# (This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree.)

Reviews many of the basic fundamentals of math as used in everyday life, on the job, at home, in business, and for leisure. Includes whole numbers, fractions, decimals, percentage, measurement, ratio and proportion, simple algebraic equations, and an introduction to the metric system. The mathematical concepts and problems can be applied by the student to his or her special area of interest.

Prerequisite: none. Five credits.

#### MAT 102 APPLIED MATH II

# (This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree.)

The student will review basic mathematic 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 algebra and its practical application. Algebraic topics include linear equations in one and multiple unknowns. **Prerequisite:** high school mathematics, MAT 101, or permission of instructor.

Six credits.

#### MAT 103 APPLIED MATH III

Continues the study of applied algebra emphasizing quadratic equations and graphical solutions of linear equations. Trigonometry is introduced to solve right and oblique triangle problems, such as those used in land surveying and industrial manufacturing. **Prerequisite:** MAT 102 or permission of instructor. **Six credits.** 

#### MAT 110 BUSINESS MATHEMATICS

Studies mathematical procedures in business and aspects of personal activities (percent, checkbook records, payroll, discounts, markup, interest, depreciation, overhead, taxes, insurance, etc.). Pretest is required. Student may be required to take MAT 101 prior to enrollment in MAT 110. **Five credits.** 

#### MAT 111 METRIC SYSTEM

For the student who desires a working knowledge of metric measurements of length, area, volume, mass, and temperature. An individualized course to be completed in an average of 10-15 hours; help is provided on request.

One credit.

#### MAT 112 CALCULATOR

An individualized course on scientific calculator operation, with assistance available in the Aims Community College Math Laboratory. Students will be tested on multiplication and division, roots, mixed multiplication and division by decimals, powers, and roots; and trigonometric operations. **One credit.** 

#### MAT 120 SURVEY OF MATHEMATICS

For students not majoring in science or mathematics. The student will study sets and application of sets as well as logic. Further study will include an introduction to algebra with emphasis on linear equations and inequalities in one and two variables, and an introduction to linear programming. Consumer mathematics also is studied as well as an introduction to geometry covering points, lines, planes, angles, polygons, and an exposure to networks. If time permits, some basic concepts of probability and statistics will be covered.

Prerequisite: a good knowledge of basic arithmetic or MAT 100. An entrance exam may be requested.

#### Five credits.

#### MAT 121 BEGINNING ALGEBRA

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:** a good knowledge of basic arithmetic or MAT 100. An entrance exam may be requested.

#### Five credits.

#### MAT 122 INTERMEDIATE ALGEBRA

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.

Prerequisites: MAT 122 and MAT 123, or equivalent high school courses. An entrance exam may be requested. Five credits.

#### MAT 123 COLLEGE PLANE GEOMETRY

For students with little or no background in plane geometry. The student will study some logic and deductive reasoning as well as congruent triangles, parallel and perpendicular lines, and parallelograms. Emphasizes the properties of circles, similarity of triangles, and areas and volumes. Introduces inequalities, constructions, and loci.

Prerequisite: MAT 121 or equivalent. Five credits.

MAT 131 COLLEGE ALGEBRA

Introduces relations, functions, inequalities in one and two variables, absolute value and progressions - both arithmetic and geometric. Second degree functions, relations, graphing, inequalities, variation, and conic sections are covered in depth. The remainder of the time is spent studying systems of equations and inequalities permutations, combinations, binomial theorem, mathematical induction, complex numbers, polynomial functions of degree n, exponential functions and logarithmic functions. If time permits, an introduction to matrix theory is presented.

Prerequisites: MAT 122 and MAT 123, or equivalent high school courses. An entrance exam may be requested. Five credits.

#### MAT 132 COLLEGE TRIGONOMETRY

The wrapping function is used to develop the trigonometric functions and identities with applications to both right and oblique triangles. Covers trigonometric applications to complex numbers and topics in analytic geometry.

Prerequisite: MAT 131 or permission of instructor. An entrance exam may be requested.

#### Five credits.

#### MAT 161 CALCULUS WITH ANALYTIC GEOMETRY I

Begins with a review of functions and functional notation. Limits, continuity, and the derivative are studied including the mean value theorem and applications of the derivative to curve sketching, maxima-minima problems, etc. Course finishes with an introduction to integration, the fundamental theorem of integral calculus, and integration by change of variable and areas.

Prerequisite: MAT 131 or permission of instructor. An entrance exam may be requested. MAT 132 is highly recommended. Five credits.

#### MAT 162 CALCULUS WITH ANALYTIC GEOMETRY II

A continuation of MAT 161: logarithmic, exponential, trigonometric, and hyperbolic functions; techniques of integration, conic sections, and applications of the definite integral to work, volume, pressure, etc.

Prerequisites: MAT 132 and MAT 161. Five credits.

#### MAT 163 CALCULUS WITH ANALYTIC GEOMETRY III

A continuation of MAT 162: polar coordinates, sequences, improper integrals, infinite series, and vector calculus. **Prerequisite:** MAT 162. **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 163 or permission of instructor. Five credits.

#### MAT 262 CALCULUS WITH ANALYTIC GEOMETRY IV

Functions of several variables, partial derivatives, double and triple integrals, and line integrals are presented. **Prerequisites:** MAT 163 and MAT 261.

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.** 

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#### 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.

#### MCE: MECHANICAL AND CIVIL ENGINEERING TECHNOLOGY

#### MCE 101 DRAFTING I

Development of basic drafting skills. Emphasizes elementary care and use of instruments and equipment. Principles of descriptive geometry emphasizing accepted industrial practices and applications in orthographic multi-view engineering drawings and basic dimensioning practices are studied.

Prerequisite: none.

Five credits: 80 clock hours.

#### MCE 102 DRAFTING II

Continuation of basic skill development emphasizing pictorial and multi-view drawing. Technical sketching, auxiliary views, shadow and shading, revolution and detail working drawings are studied.

Prerequisite: MCE 101 or permission of instructor.

Five credits: 80 clock hours.

#### MCE 103 DRAFTING III

Continuation of basic skill development emphasizing sectioning, mechanical fasteners, intersections and developments, charts and graphs, and applications of these in working and production drawing.

Prerequisite: MCE 102 or permission of instructor. Five credits: 80 clock hours.

#### MCE 105 STATICS AND MECHANICS

Basic principles of analytic mechanics. Simple stresses analyzed with reference to design criteria. Structures and joining members studied relative to available strength.

Prerequisite: MAT 103 or permission of instructor.

Five credits: 60 clock hours.

#### MCE 111 DRAFTING IA (Evening)

Initial development of basic drafting skills, such as lettering; understanding and display of line symbols in pencil and ink; use of scales and conventional instruments. **Four credits:** 60 clock hours.

#### MCE 112 DRAFTING IB (Evening)

Continuation of basic skill development, including line symbols, lettering, etc. Emphasizes introduction and practice of pictorial drawing when combined with auxiliaries and associated dimensioning and detailing. Shadow and shading are introduced. **Prerequisite:** MCE 111 or permission of instructor. **Four credits:** 60 clock hours.

#### MCE 113 DRAFTING IC (Evening)

Continuation of basic skill development within the following areas of concentration: sectioning, auxiliary views, revolution and rotation, working drawings.

Prerequisite: MCE 112 or permission of instructor. Four credits: 60 clock hours.

#### MCE 114 DRAFTING ID (Evening)

Continuation of basic skill development within the following areas of concentration: mechanical posture, intersection and development, charts and graphs.

Prerequisite: MCE 113 or permission of instructor.

Four credits: 60 clock hours.

#### MCE 115 BASIC QUALITY CONTROL I

Studies the application of statistical methods in the control of processes and product. The student will examine and design methods to facilitate maintenance of production quality and improvement of product quality.

Prerequisite(s): MAT 103, PHY 102, and PHY 103, or permission of instructor.

Three credits: 30 clock hours.

#### MCE 201 DRAFTING IV

Designed to acquaint students with structural drafting practices. The student shall be able to complete structural details in wood. steel, and concrete for residential, commercial, and industrial structural systems.

Prerequisite: MCE 103, MCE 114, or permission of instructor. Five credits: 80 clock hours.

#### MCE 202 DRAFTING V

Topographic drawing interpretation, plotting, and detailing are studied to assist the student in understanding and developing topographic drawings.

Prerequisite: MCE 103, MCE 114, or permission of instructor. Five credits: 80 clock hours.

#### MCE 203 DRAFTING VI

Mathematics and the sciences are used to solve practical problems in machine component and mechanical equipment design and drafting. Main topics are fastenings, shafts, bearings, gears, cams, clutches, and brakes. Design theory and principles are studied.

Prerequisite(s): MAT 103, PHY 102, PHY 103, and MCE 103, or permission of instructor.

Five credits: 80 clock hours.

#### MCE 205 INDUSTRIAL ELECTRICITY

Studies the basics of electricity as applied to industrial motors, generators, and power distribution.

Prerequisite(s): MAT 103, PHY 102, and PHY 103, or permission of instructor.

Three credits: 40 clock hours.

#### MCE 206 HYDRAULICS AND PNEUMATICS

Basic study of components of hydraulic and pneumatic systems. Emphasizes application of power transmission and control. Subject areas are treated scientifically and emphasize mathematics analysis required for practical application.

Prerequisite: MCE 105 or permission of instructor. Five credits: 60 clock hours.

#### MCE 207 MATERIALS AND PROCESSES

Ferrous and nonferrous materials in industry studied from manufacturing and application standpoints. Processing and manufacturing backgrounds developed. Prerequisite: none.

Four credits: 60 clock hours.

#### MCE 208 STRENGTH OF MATERIALS

Studies physical properties and their effects relevant to material stress and strain, tension, compression and shear. Prerequisite: MCE 105 or permission of instructor. Four credits: 50 clock hours.

#### MCE 209 ENGINEERING PROBLEMS

Practical solutions to various manufacturing and construction problems developed. Investigate techniques determinant in problem solutions developed. Multi-industry concern emphasized with applicable engineering approaches developed.

Prerequisite(s): MCE 206, MCE 207, and MCE 208, or permission of instructor.

Five credits: 50 clock hours.

#### MCE 211 BASIC FIELD SURVEYING I

Presents basic surveying equipment and its uses. Comparable data gathering and presentation skills developed. Computations relative to surveying studied and practiced.

Prerequisite(s): MAT 103 and MCE 101, or permission of instructor. Two credits: 30 clock hours.

#### MCE 212 BASIC FIELD SURVEYING II

The student will become proficient in fundamental surveying techniques and in the care and maintenance of surveying equipment.

Prerequisite: MCE 211 or permission of instructor. Four credits: 60 clock hours.

#### MCE 215 COST AND MATERIAL ESTIMATING

Techniques and procedures are studied and applied relative to technical projects for construction and manufacturing.

Prerequisite(s): MAT 103 and MCE 103 or MCE 114, or permission of instructor

Three credits: 40 clock hours.

#### MCE 218 COMPUTER SYSTEMS AND APPLICATIONS

Studies business and industrial applications of fundamental computer systems and associated hardware and software. The student will become proficient in the basic techniques of planning a computer program associated with engineering calculations. Prerequisite: MCE 105 or permission of instructor. Four credits: 50 clock hours.

#### MCE 221 DRAFTING 2A (Evening)

Acquaints students with structural drafting practices. The student shall be able to complete structural details in wood and steel for residential, commercial, and industrial structural systems. Prerequisite(s): MAT 103 and MCE 101, or permission of instructor. Four credits: 60 clock hours.

#### MCE 222 DRAFTING 2B (Evening)

Completion of structural drafting practices for concrete in residential, commercial, and industrial structural systems. Introduces topographic drawing interpretation, plotting, and detailing.

Prerequisite: MCE 221 or permission of instructor. Four credits: 60 clock hours.

#### MCE 224 DRAFTING 2D (Evening)

Completion of machine component and mechanical equipment design drafting emphasizing solving practical problems. Main topics: bearings, gears, cambs, clutches, and brakes. Design theory and principles are studied.

Prerequisite: MCE 223. Four credits: 60 clock hours.

#### MCE 223 DRAFTING 2C (Evening)

Completion of topographic drawing emphasizing understanding and developing topographic drawings. Introduces machine component and mechanical equipment design drafting. Mathematics and the sciences are used to solve practical problems of fastenings and shafts.

Prerequisite(s): MAT 103, PHY 102, PHY 103, and MCE 222, or permission of instructor.

Four credits: 60 clock hours.

#### MAS: MEXICAN AMERICAN STUDIES

#### MAS 100 INTRODUCTION TO MEXICAN AMERICAN STUDIES

Provides a general understanding of the Mexican American Studies department; its background, philosophy, and courses. Also analyzes the Mexican American community and the general American society; their differences, commonalities and relative position to one another. Emphasizes the relationship of the Chicano to the American educational system.

Three credits.

#### MAS 105 MEXICAN MUSIC

Examines selected works in Mexican and Mexican American music from pre-Columbian time to the present. Concentrates on regional works and on twentieth century composers and their relationship to Chicano and Anglo American society. **Three credits.** 

#### 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. **Three credits.** 

#### MAS 116 BILINGUAL SKILLS

Primarily meets the linguistic needs of Chicanos. Orthography, phonetics, vocabulary, and the psychology of the language will be discussed. Comparative elements between Spanish and English, such as cognates, roots, suffixes, and prefixes, will be emphasized. **Three credits.** 

#### MAS 120 CULTURE OF MEXICO AND SOUTH AMERICA

Examines the art, music, literature, and philosophy of Mexico and South America from pre-Columbian civilizations to the present time as they relate to the Chicano culture. Course fulfills a humanities requirement. **Five credits.** 

#### MAS 125 THE AMERICAN SYSTEM

Presents vital information dealing with citizenship. Special emphasis will be placed on current legislation dealing with Chicanos.

Three credits.

#### MAS 126 INTRODUCTION TO MEXICAN MYSTICISM

An analysis of Carlos Castaneda's books on Don Juan. The various concepts of Indian magic and mysticism and their relative worth in modern society are presented. **Five credits.** 

#### MAS 155 MEXICAN DANCE

Teaches Mexican dances and provides background on their origins.

One credit: two clock hours per week.

#### MAS 161 AZTEC CIVILIZATION

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.** 

#### MAS 165 CHICANO HISTORY

Examines historical events in the American Southwest from the indigenous origins, through the Spanish conquest and colonization and later Anglo invasion. Emphasizes the circumstances which transformed the Mexican from a majority to a minority status. **Three credits.** 

#### MAS 205 COUNSELING MINORITIES

Builds awareness and understanding in the area of counseling minorities. Emphasizes the Mexican American and the development of conceptual models applicable to other minorities in terms of values and cultural conflict. Three credits.

#### **MGT: MID-MANAGEMENT**

#### MGT 101 SALESMANSHIP

An interpretation of the psychological development of people. Emphasizes the art of making friends and the development of a successful relationship between customer and salesman. **Five credits:** 50 clock hours.

#### MGT 102 ADVANCED SALESMANSHIP

Develops skills of the professional salesperson through role playing situations and studies of advanced closing techniques. **Prerequisites:** MGT 101 and employment in a sales position. **Five credits:** 50 clock hours.

#### MGT 107 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 108 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.

Five credits: 50 clock hours.

#### MGT 116 MANAGEMENT ACTIVITY I

#### MGT 117 MANAGEMENT ACTIVITY II MGT 118 MANAGEMENT ACTIVITY III

Encourages growth and development through activities in a professional organization.

Two credits each: 20 clock hours each.

#### MGT 201 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. **Prerequisites:** MGT 102 and MGT 221. **Five credits:** 50 clock hours.

#### MGT 205 CREDIT MANAGEMENT

A study of principles in credit extension, investigation, charge counts, and collections in selling organizations. **Five credits:** 50 clock hours.

#### MGT 215 PERSONNEL MANAGEMENT

A survey of principles of personnel management and industrial relations policies. Emphasizes theories of work, organization, administration, manpower, management, staffing, and working incentives. Special emphasis on art of supervision. **Five credits:** 50 clock hours.

#### MGT 216 MID-MANAGEMENT SEMINAR

#### MGT 217 MID-MANAGEMENT SEMINAR

#### MGT 218 MID-MANAGEMENT SEMINAR

Contemporary problems are explored as they relate to students' goals and aspirations.

One credit each: 10 clock hours each.

#### MGT 221 PRINCIPLES OF MARKETING

A study of fundamental organization of distribution systems from manufacturer to consumer. Special emphasis at retail level. **Prerequisite:** sophomore standing. **Five credits:** 50 clock hours.

#### MGT 222 MARKETING MANAGEMENT

The study of marketing decision making by computer simulation using various combinations of the "marketing mix." **Prerequisite:** MGT 221.

Five credits: 50 clock hours.

#### MGT 226 INDIVIDUAL STUDIES IN MARKETING MGT 227 INDIVIDUAL STUDIES IN MARKETING

MGT 227 INDIVIDUAL STUDIES IN MARKETING

#### MGT 228 INDIVIDUAL STUDIES IN MARKETING

These courses provide an opportunity for students to engage in intensive study and research beyond the stated prerequisites. **Prerequisite:** MGT 221.

One to three credits each: contact instructor.

#### MGT 235 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.

# MGT236INDIVIDUAL STUDIES IN MANAGEMENTMGT237INDIVIDUAL STUDIES IN MANAGEMENTMGT238INDIVIDUAL STUDIES IN MANAGEMENT

These courses provide an opportunity for students to engage in intensive study and research beyond the stated prerequisites. **Prerequisite:** MGT 235.

One to three credits each: contact instructor.

#### MGT 245 ORGANIZATIONAL ENVIRONMENT

Provides an understanding of human behavior, management theory, and leadership as they relate to the student's success in the work environment.

Prerequisites: MGT 215 and MGT 235. Five credits: 50 clock hours.

#### MGT 255 LABOR LAW/RELATIONS

Gives students an understanding of the various laws that govern employer/employee relationships, unfair labor practices, strikes, boycotts, bargaining units, anti-trust, anti-injunction, etc. **Five credits:** 50 clock hours.

#### MGT 256 SUPERVISORY MANAGEMENT

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 re-examination of his or her position and how it relates to other levels in the organization. **Five credits:** 50 clock hours.

#### MGT 258 PRODUCTION MANAGEMENT

Shows the relationship of the production function to the fundamental business functions. Helps students gain experience in solving production problems. Gives students an understanding of some of the problems in industry management. Gives students exposure to the theory of industrial management as a "systems concept."

Five credits: 50 clock hours.

#### MGT 259 PURCHASING

A study of the many parts of the purchasing job: costs, vendor selection, quality determination, bids versus negotiated contracts, ethics, and inventory control methods. Follows the recommendations of the National Association of Purchasing Management, and will stress the significance of purchasing as a management function.

Prerequisite: permission of instructor. Five credits: 50 clock hours.

# MGT 281PERSONAL ADJUSTMENT TO BUSINESSMGT 282PERSONAL ADJUSTMENT TO BUSINESSMGT 283PERSONAL 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.

**Prerequisites:** (1) declared Mid-Management major, (2) consent of a Mid-Management advisor, (3) enrolled in one or more of the Mid-Management program courses each quarter, (4) enrollment permitted only after successful completion of all freshman level courses in Mid-Management program, (5) employed part-time or seeking part-time employment in an acceptable job, (6) application for enrollment in this course must be made to the Mid-Management advisor the quarter before actual enrollment. **Six credits:** 160 clock hours each.

#### MUS: MUSIC

#### MUS 100 MUSIC APPRECIATION

Emphasizes listening and discussion for enjoyment and appreciation of music. Course fulfills a humanities requirement. **Five credits.** 

#### 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.** 

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#### MUS 106 MUSIC THEORY

Analysis of musical composition, sight singing, and ear training for potential university music majors or minors, or students with musical background. Four credits.

#### MUS 220 CHILDREN'S MUSIC

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 repertory 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 his or her level of proficiency. May be repeated at different levels of proficiency. **One to three credits:** contact program coordinator.

#### MAS 105 MEXICAN MUSIC

Examines selected works in Mexican and Mexican American music from pre-Columbian time to the present. Concentrates on regional works and on twentieth century composers and their relationship to Chicano and Anglo American society. **Three credits.** 

#### **MUP: MUSIC PERFORMANCE**

### MUP 131 PIANO I

### MUP 132 PIANO II

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. **Three credits each:** eight practice hours each.

### MUP 151 VOICE I

#### MUP 152 VOICE II

Vocal techniques for beginners or more advanced students, survey of selected vocal works included.

Three credits each: eight practice hours each.

#### MUP 171 CLASSICAL GUITAR I MUP 172 CLASSICAL GUITAR II MUP 173 CLASSICAL GUITAR III

These courses develop a basic technical and musical foundation for playing classical guitar. Sight reading, technical exercises, and selected guitar literature are studied.

Three credits each: eight practice hours each.

#### NA: NURSE AIDE

#### NA 100 NURSE AIDE

Designed to cover a basic core of knowledge and skills to prepare students for hospital, nursing home, and private home employment. Basic personal care stressed emphasizing meeting physical and emotional needs of patients; orientation to advanced patient care, and home health aide duties; supervised clinical practice included. **Fifteen credits:** 180 clock hours.

#### OHC: ORIENTATION TO HEALTH CARE

#### OHC 100 ORIENTATION TO HEALTH CARE

Introduces students to the health care delivery programs available to them; provides an opportunity to develop an understanding of health careers associated with direct patient care areas. Each student will assist/observe in the basic techniques and procedures of each health career covered in a simulated laboratory situation. Provides discussion on the five natural sciences: anatomy, physiology, chemistry, physics, and biology, as applied to health fields. Students will simulate basic patient care common to all health careers, compare and examine procedures both similar and separate to each health career, and role-play as patients, physicians, and health care professionals. A minimum of 16 hours will be spent in the hospital for direct contact with health care workers and work environments.

#### Prerequisite: none.

Four credits: 40 hours lecture, 20 hours lab.

#### PHI: PHILOSOPHY

#### PHI 105 INTRODUCTION TO PHILOSOPHY

A study of the fundamental questions concerning man and the universe that recur in the history of human thought: the nature of reality, the possession of free choice, value and its determination, and related subjects. Course fulfills a humanities requirement. **Five credits.** 

#### PHI 106 INTRODUCTION TO MODERN PHILOSOPHY

Examines the development of modern philosophy from Descartes to the present. Romanticism, pragmatism, existentialism, logical positivism, and phenomenology will be duscussed and applied to the nature of human reality. Emphasis is given to creating a framework which the student can use to develop his or her own personal philosophy. Course fulfills a humanities requirement. **Five credits.** 

#### PHI 107 INTRODUCTION TO LOGIC

An introduction to the principles of logic used in the construction and appraisal of arguments. 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 ARCHERY I

Teaches the techniques and fundamentals of archery. **One credit:** two clock hours per week.

#### PEA 102 ARCHERY II

Improves knowledge of basic skills learned in PEA 101. More time will be spent on correction of errors and accuracy in shooting. **One credit:** two clock hours per week.

#### PEA 103 ARCHERY III

For those who want to continue improving the skills and techniques of archery.

One credit: two clock hours per week.

#### PEA 111 BADMINTON I

Introduces the basic skills of badminton, including game rules and score keeping.

One credit: two clock hours per week.

#### PEA 112 BADMINTON II

Improves skills and techniques of badminton. **One credit:** two clock hours per week.

#### PEA 113 BADMINTON III

For those who desire advanced badminton knowledge, skills, and techniques.

One credit: two clock hours per week.

#### PEA 131 BOWLING I

Rules, skills, strategy, and courtesies of individual and team bowling are covered.

One credit: two clock hours per week.

#### PEA 132 BOWLING II

Improves the basic skills of bowling and introduces techniques of tournament bowling. One credit: two clock hours per week.

#### PEA 133 BOWLING III

For bowlers who wish to improve skills while working on rules, strategy, and techniques of team bowling. One credit: two clock hours per week.

#### PEA 134 CAMPING AND BACKPACKING

Teaches the basic techniques used in camping and backpacking. Includes selection of equipment, map reading, skills of survival, and physical training.

One credit: two clock hours per week.

#### PEA 141 ROLLER SKATING I

Introduces the basic fundamentals and skills of roller skating. One credit: two clock hours per week.

#### PEA 142 ROLLER SKATING II

Continuation of PEA 141. Develops poise, grace, agility, and rhythm.

One credit: two clock hours per week.

#### PEA 143 ROLLER SKATING III

For those who want to continue improving the fundamentals and skills of roller skating. Couple skate dancing is included. One credit: two clock hours per week.

#### PEA 151 ICE SKATING I

Introduces the basic skills and fundamentals of figure or ice skating.

One credit: two clock hours per week.

#### PEA 152 ICE SKATING II

For those who want to improve the skills and fundamentals of figure or ice skating.

One credit: two clock hours per week.

#### PEA 161 SWIMMING I

Instructs nonswimmers, using the American Red Cross swimming program. Teaches basic strokes of swimming. One credit: two clock hours per week.

#### PEA 162 SWIMMING II

Incorporates the basic sequence of skills taught in the American Red Cross intermediate and advanced swimmer classifications. One credit: two clock hours per week.

#### PEA 171 SKIING I

Introduces students to basic skills and techniques of skiing. One credit: two clock hours per week.

#### PEA 172 SKIING II

Increases students basic skills. Instruction of advanced techniques will provide the student with a confident attitude for a more pleasurable and safe sport. One credit: two clock hours per week.

#### PEB: PHYSICAL EDUCATION BALL SPORTS

#### PEB 101 BASKETBALL I

An activity class which allows the student maximum participation on an intraclass team organizational basis. One credit: two clock hours per week.

#### PEB 102 BASKETBALL II

Gives students additional training in basketball skills, fundamentals, and team play. One credit: two clock hours per week.

#### PEB 103 FLAG FOOTBALL I

Allows students to participate on a team level. Participants are divided into teams and records are maintained throughout the season

One credit: two clock hours per week.

#### PEB 104 FLAG FOOTBALL II

Allows students to participate on a team level and provides additional opportunities in leadership experience. One credit: two clock hours per week.

#### PEB 107 GOLF I

Develops knowledge of the rules, courtesies, and skills of golf and instills an appreciation of the game. One credit: two clock hours per week.

#### PEB 108 GOLF II

Improves the techniques of grip, stance, swing, and follow-through. Individual play and putting will be stressed. One credit: two clock hours per week.

#### PEB 109 GOLF III

Develops advanced techniques of golf. One credit: two clock hours per week.

#### PEB 141 RACQUETBALL I

Teaches the basic movements, skills, and rules of racquetball. One credit: two clock hours per week.

#### PEB 142 RACQUETBALL II

Improves player skills and strategies of PEB 141. More individual play will be stressed. One credit: two clock hours per week.

#### PEB 143 RACQUETBALL III

For students who want to improve skills and knowledge of racquetball.

One credit: two clock hours per week.

#### PEB 147 SOCCER I

Introduces the student to a popular team sport which demands skill, endurance, teamwork, and fast thinking. One credit: two clock hours per week.

#### PEB 148 SOCCER II

Teaches additional skills, strategies, rules, regulations and game tactics. Basic coaching and referee techniques will be introduced. One credit: two clock hours per week.

#### PEB 149 SOCCER III

Teaches advanced methods of game planning, strategy, and tactics. Rule interpretation and application will be stressed. More advanced coaching and refereeing techniques will be studied. One credit: two clock hours per week.

#### PEB 151 SOFTBALL I

Teaches various skills, techniques, rules, and regulations of softball.

One credit: two clock hours per week.

#### PEB 152 SOFTBALL II

Improves knowledge of the fundamentals, skills, rules, and regulations of softball.

One credit: two clock hours per week.

#### PEB 157 TABLE TENNIS I

Introduces the basic skills, rules, regulations, and terminology of table tennis.

One credit: two clock hours per week.

#### PEB 158 TABLE TENNIS II

For students who want to continue learning fundamental skills and strategies of table tennis. One credit: two clock hours per week.

#### PEB 159 TABLE TENNIS III

Develops the agility to play a competitive game. The advanced player will have a better knowledge of the rules and regulations, and will officiate games.

One credit: two clock hours per week.

#### PEB 161 TENNIS I

Introduces theory and practice of tennis. Skills taught include serve, forehand, and backhand drives; volleying, footwork, and scoring rules.

One credit: two clock hours per week.

#### PEB 162 TENNIS II

Improves the player's skills and strategies. More individual play will be stressed.

One credit: two clock hours per week.

#### PEB 163 TENNIS III

For improvement and advancement of skills in tennis. One credit: two clock hours per week.

#### PEB 171 VOLLEYBALL I

Teaches basic skills of volleyball. Team play is stressed and some intrasquad competition is provided. One credit: two clock hours per week.

#### PEB 172 VOLLEYBALL II

Teaches the finer skills and strategies of PEB 171. More time will be devoted to team play and intrasquad competition. One credit: two clock hours per week.

#### PEB 173 VOLLEYBALL III

Improvement of skills, strategies, and knowledge of volleyball stressed

One credit: two clock hours per week.

#### PEB 177 WHIFFLE TENNIS I

A fast moving game which utilizes the basic skills of eye-hand coordination, quickness of feet, and perception. One credit: two clock hours per week.

#### PEB 178 WHIFFLE TENNIS II

Improves skills and knowledge of whiffle tennis. Increases ability to play a more challenging game. One credit: two clock hours per week.

#### PEB 179 WHIFFLE TENNIS III

Improves the agility to play a more competitive game. Students gain a better knowledge of rules, regulations, and officiating. One credit: two clock hours per week.

#### 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: two clock hours per week.

#### PED 102 CLASSICAL BALLET II

Increaes the poise, agility, and rhythm achieved in PED 101. Develops an appreciation of ballet as an art form. One credit: two clock hours per week.

#### 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: two clock hours per week.

#### PED 104 DANCE AEROBICS I

Helps students gain cardiovascular efficiency through a variety of dance routines.

One credit: two clock hours per week.

#### PED 105 DANCE AEROBICS II

Involves the student in more strenuous and difficult dance routines. Develops better cardiovascular efficiency and proficiency. One credit: two clock hours per week.

#### PED 106 DANCE AEROBICS III

Continues to aid the student in maintaining greater cardiovascular efficiency. Routines will be more difficult. One credit: two clock hours per week.

#### PED 107 DISCO DANCING I

Introduces students to disco dance routines and offers them the satisfaction and pleasure of dancing modern steps. One credit: two clock hours per week.

#### PED 108 DISCO DANCING II

Students learn more difficult dance routines and to improvise their own steps and routines. One credit: two clock hours per week.

#### PED 106 FOLK DANCING I

Develops understanding of other cultures and how their heritages have blended with our own. One credit: two clock hours per week.

#### PED 121 JAZZ DANCE I

Introduces students to this indigenous dance form of the United States. Teaches basic jazz techniques, terminology, jazz movement, and routines.

One credit: two clock hours per week.

#### PED 122 JAZZ DANCE II

Continued instruction in jazz dance. Provides a rewarding, satisfying jazz dance experience.

One credit: two clock hours per week.

#### PED 123 JAZZ DANCE III

Advanced instruction in jazz dance. Develops a greater knowledge of and proficiency in jazz as a form of dance. One credit: two clock hours per week.

#### PED 131 MIDDLE-EASTERN DANCE I

Teaches movement techniques for the graceful performance of body action. Includes the specific body movements of Middle-Eastern dancing.

One credit: two clock hours per week.

#### PED 132 MIDDLE-EASTERN DANCE II

For those who want to improve the techniques necessary for the graceful performance of body action. Includes more complex movements of Middle-Eastern dancing. One credit: two clock hours per week.

#### PED 141 SOCIAL DANCE I

Teaches a variety of social dances such as the rumba, cha cha, and waltzes. Emphasizes enjoyment dancing with others and developing the ability to lead as well as to follow your partner. One credit: two clock hours per week.

#### PED 142 SOCIAL DANCE II

An advanced class in social dance for those who desire to improve their skills and abilities in social dancing. One credit: two clock hours per week.

#### PED 151 SQUARE DANCING I

Teaches basic steps and other dancing skills that formulate a reasonably comprehensive introduction to square dancing. One credit: two clock hours per week.

#### PED 152 SQUARE DANCING II

Square dancing patterns and fundamentals will be taught in addition to old and new square dances. One credit: two clock hours per week.

#### PED 153 SQUARE DANCING III

For those who want to improve their skills and steps in square dancing. Students may be required to do some of the calling for the square dance steps.

One credit: two clock hours per week.

#### PED 161 TAP DANCE I

Formal instruction in tap techniques and movements. Introduces the student to the special mix of rhythm, sound, and style that constitute the American tap dance form. One credit: two clock hours per week.

#### PED 162 TAP DANCE II

Students learn more difficult tap steps, movements, and routines. One credit: two clock hours per week.

#### 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: two clock hours per week.

#### 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: two clock hours per week.

#### PED 173 COUNTRY SWING III

For those who want to improve their skills and abilities in country swing dancing.

One credit: two clock hours per week.

#### MAS 155 MEXICAN DANCE

Teaches Mexican dances and provides background on their origins.

One credit: two clock hours per week.

#### PEF: PHYSICAL EDUCATION FITNESS

#### PEF 101 KARATE I

Students learn basic blocks, kicks, and punches of karate. One credit: two clock hours per week.

#### PEF 102 KARATE II

Advanced form of kicking, punching, and blocking. Self-defense and fighting techniques of karate examined. One credit: two clock hours per week.

#### PEF 108 SELF-DEFENSE

Teaches various skills and techniques of self-defense. One credit: two clock hours per week.

#### PEF 111 PHYSICAL FITNESS 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: two clock hours per week.

#### 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: two clock hours per week.

#### PEF 113 PHYSICAL FITNESS III

An activity course which continues to improve the endurance and overall condition of the individual. One credit: two clock hours per week.

#### PEF 121 SLIMNASTICS I

Designed to develop a better figure, firm up the body, increase circulation, and improve coordination. One credit: two clock hours per week.

#### PEF 122 SLIMNASTICS II

Designed to improve the individual's figure, posture, and coordination.

One credit: two clock hours per week.

#### 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: two clock hours per week.

#### PEF 131 WEIGHT TRAINING I

An opportunity to learn and practice fundamentals of physical training using various weight apparatus. One credit: two clock hours per week.

#### PEF 132 WEIGHT TRAINING II

For those who want to continue improving their weight training skills and techniques, and reach a higher level of physical fitness. One credit: two clock hours per week.

#### PEF 133 WEIGHT TRAINING III

Continuation of PEF 132, including advanced techniques demonstrated in class.

One credit: two clock hours per week.

#### PEF 135 POWERLIFTING & BODYBUILDING

Students acquire proper lifting techniques for the attainment of maximum lifting potential; attain maximum potential in muscular definition and size through weight training and diet. One credit: two clock hours per week.

#### PEF 141 YOGA I

Helps students attain physical health, clarity of mind, and spiritual awareness through various exercises. Studies one's entire being, consisting of body, mind, and spirit. **One credit:** two clock hours per week.

#### PEF 142 YOGA II

Improves the student's appreciation of physical health and clarity of mind through various exercises. **One credit:** two clock hours per week.

#### PEF 151 CONTEMPORARY TUMBLING I

Introduces basic tumbling and acrobatic skills. **One credit:** two clock hours per week.

#### PEF 152 CONTEMPORARY TUMBLING II

Provides instruction in intermediate tumbling and develops challenging tumbling routines and acrobatic skills. **One credit:** two clock hours per week.

#### PEF 161 GYMNASTICS I

Teaches basics of tumbling, balance beam, uneven bars, vault, pommel horse, parallel bars, rings, and high bar. Development of routines will be covered.

One credit: two clock hours per week.

#### PEF 162 GYMNASTICS II

Continuation of PEF 161, involving more advanced instruction and routines.

One credit: two clock hours per week.

#### PEF 163 GYMNASTICS III

Continuation of PEF 161 and PEF 162. Emphasizes developing the student's poise, grace, agility, and rhythm. **One credit:** two clock hours per week.

#### PEF 171 WRESTLING I

Introduces the basic fundamentals and skills of wrestling. **One credit:** two clock hours per week.

#### PEF 172 WRESTLING II

Allows the student to continue improving basic fundamentals and skills of wrestling. **One credit:** two clock hours per week.

#### PEF 173 WRESTLING III

An advanced class in wrestling for those who want to improve their techniques.

One credit: two clock hours per week.

#### PEF 181 ADULT FITNESS I

Continuation of FLE 166 (Body Shoppe) principles and practices. Activities are continued which fulfill the student's individual, exercise prescription. Periodic reevaluations may be necessary for prescription purposes. **Prerequisite:** FLE 166.

One credit: meets twice weekly for one hour.

#### PEF 182 ADULT FITNESS II

Continuation of PEF 181. Prerequisite: PEF 181. One credit: meets twice weekly for one hour.

#### PEF 183 ADULT FITNESS III

Continuation of PEF 182. **Prerequisite:** PEF 182. **One credit:** meets twice weekly for one hour.

#### PHY: PHYSICS

#### PHY 101 APPLIED PHYSICS I

# (This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree.)

Introduces the student to a survey of physics as it applies to the scientific concepts of mechanics. Includes energy, work and power, torque, force, pressure, speed, velocity and acceleration, inertia momentum, properties of matter, the gas laws, mechanics of fluids and simple machines. Involves lecture and discussion on theory and practical applications of concepts. No lab time is required. **Prerequisite:** none. **Five credits.** 

#### PHY 102 APPLIED PHYSICS II

The fundamental area of mechanics is the major topic of study. Proficiency in practical problem solutions involving the principles of force, motion, work, energy, power, friction, and rotation will be developed. Where possible, the various concepts are verified using laboratory experiments.

Prerequisite: MAT 102 or permission of instructor. Five credits.

#### PHY 103 APPLIED PHYSICS III

Three fundamental areas of physics are covered: heat, light, and sound. Proficiency will developed in practical problem solutions in the topical areas of heat generation and transfer, sound dynamics, and light dynamics. Where possible, the various concepts are verified by laboratory experiments.

Prerequisite: MAT 102 or permission of instructor. Five credits.

#### PHY 120 FUNDAMENTALS OF PHYSICS

Qualitative survey of the basic concept of physics. Designed for the student who has minimal mathematical preparation and wants to explore the field of physical science including basic mechanics, thermal dynamics, sound, light, electricity, and magnetism. **Five hours credit:** four hours lecture, two hours lab.

# INTRODUCTORY COLLEGE PHYSICS COURSES: PHY 151, 152, 153.

An introductory sequence of courses for students in preprofessional disciplines. It is recommended that his sequence be transferred to other academic institutions as a block of three quarters.

#### PHY 151 INTRODUCTORY COLLEGE PHYSICS I: MECHANICS AND THERMODYNAMICS

Studied the concepts of mechanics, relativity, and thermodynamics using a non-calculus approach.

Prerequisite: two years of high school algebra, MAT 131, or permission of instructor.

Five credits: four hours lecture, two hours lab.

#### PHY 152 INTRODUCTORY COLLEGE PHYSICS II: ELECTRICITY AND MAGNETISM

Studies the concepts of electricity and magnetism using a non-calculus approach.

**Prerequisite:** PHY 151 or permission of instructor. **Five credits:** four hours lecture, two hours lab.

#### PHY 153 INTRODUCTORY COLLEGE PHYSICS III: WAVES, OPTICS, AND QUANTUM PHENOMENA

Studies the concepts of waves, optics, and quantum pnenomena using a non-calculus approach. **Prerequisite:** PHY 152 or permission of instructor.

Five credits: four hours lecture, two hours lab.

#### **GENERAL PHYSICS COURSES: PHY 201, 202, 203**

This sequence of courses provides a through 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 a block of three quarters.

#### PHY 201 GENERAL PHYSICS I: MECHANICS AND THERMODYNAMICS

First quarter: an analytical and comprehensive treatment of mechanics, mechanical waves, and heat. Includes basics of relativistic mechanics.

**Prerequisite:** MAT 161 (or may be taken concurrently) or permission of instructor.

Five credits: four hours lecture, two hours lab.

#### PHY 202 GENERAL PHYSICS II: ELECTRICITY AND MAGNETISM

Second quarter: an analytical and comprehensive treatment of electricity and magnetism.

**Prerequisite:** MAT 162 (or may be taken concurrently), PHY 201, or permission of instructor.

Five credits: four hours lecture, two hours lab.

# PHY 203 GENERAL PHYSICS III: WAVES, OPTICS, AND QUANTUM PHENOMENA

Third quarter: an analytical and comprehensive treatment of waves, light, quantum effects, and basics of nuclear physics. **Prerequisite:** MAT 163 (or may be taken concurrently), PHY 202, or permission of instructor.

Five credits: four hours lecture, two hours lab.

#### 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 100 INTRODUCTION TO POLITICAL SCIENCE

Examines the nature of the state, basic forms of government, and the major political ideologies. Surveys the field of political science and gives the student a broad understanding of major subdivisions such as international relations and public administration. **Five credits.** 

#### POS 101 AMERICAN GOVERNMENT

A study of American national government, political activities, political parties, separation of powers and purposes, philosophy and problems of the American system. **Five credits.** 

#### POS 102 COMPARATIVE FOREIGN GOVERNMENT

The governmental systems and political cultures of several representative countries outside the United States are surveyed. **Five credits.** 

#### POS 107 STATE GOVERNMENT

A study of the origins, structure, and current trends in state government in the U.S. with emphasis on Colorado government. Usually offered between quarters in the spring to allow students to spend some time at the capitol while the legislature is in session. **Two to five credits.** 

#### POS 108 THE AMERICAN PRESIDENCY

An examination of America's highest elective office from Washington to Watergate. Philosophical origins, crisis, successes, and failures are examined. Offered every quarter in individualized form. Lectures by Professor Walt Rostow, former advisor to Lyndon B. Johnson, are on video tape or audio tape. Consult with the staff member at G.S. 210 for further details. **Five credits.** 

#### POS 109 CONTEMPORARY POLITICAL ISSUES

Encourages students to engage in a lively examination of a variety of controversial political topics of current public interest. The course will touch on issues of national and/or international impact. Topics vary each quarter. Class emphasizes reading and discussion. **Five credits.** 

#### POS 116 INTERNATIONAL POLITICS SINCE 1945

A study of trends in world politics and an examination of a number of major crises in the postwar ear, including the Cold War and the Vietnam conflict. Purposely designed to avoid prerequisites of any kind.

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 theories of international politics with a view toward understanding current international problems. **Five credits.** 

#### POS 206 AMERICAN FOREIGN POLICY

An examination of America's strategy in world politics viewed from both the historical and current perspective. Factors and institutions influencing the formation of foreign policy are analyzed and discussed. **Five credits.** 

Five credits.

#### PSY: PSYCHOLOGY

#### PSY 101 GENERAL PSYCHOLOGY I

Introduces principles of human behavior, including personality development, emotions, learning, and other processes. Classroom and individualized format available. Consult quarterly schedule and/or the staff member at G.S. 210 for further details. **Five credits.** 

#### PSY 102 GENERAL PSYCHOLOGY II

Sequential course for the student interested in exploring the following topics: sensation and perception, genetic psychology, cognitive development, pain and hypnosis, personality testing, social psychology, and psychotherapy. **Five credits.** 

#### PSY 104 APPLIED INDUSTRIAL RELATIONS

Person-to-person relationships are studied from the perspective of the first line supervisor and his or her development and responsibilities relative to management expectations. Emphasizes the employee and his or her development, employee evaluatin, and leadership development. Job safety relative to current government standards is discussed. **Three credits.** 

#### PSY 107 I'M OK, YOU'RE OK: PSYCHOLOGY OF PERSONAL RELATIONS

Enrichment of personal and family life through the application of transactional analysis. Three credits.

#### PSY 111 BASIC HUMAN POTENTIAL SEMINAR

A personal growth workshop based on the self-actualization principals 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 115 HUMANISTIC PSYCHOLOGY

A survey of the third force in psychology. Emphasizes Gestalt therapy, psychosynthesis, reality therapy, bio-energetics, body movement, biofeedback, and transactional analysis. **Five credits.** 

#### PSY 117 CAREER PLANNING SEMINAR

A course designed to help clarify abilities, interests, and values; and to help with job information, vocational planning, and decision making.

Three credits.

#### PSY 118 PSYCHOLOGY OF ADULTHOOD

Explores the psychological, social, and physiological issues of adulthood and aging, from a lifespan perspective and as a framework for viewing the adult years. Three credits.

#### PSY 121 DEATH AND DYING: A HOLISTIC PERSPECTIVE

Acquaints participants with new research, alternative approaches, and psychological literature on death and dying. Explores individual views and feelings about death and dying. Three credits.

#### PSY 131 BEGINNING COUNSELING

A beginning course which introduces students to basic concepts and skills involved in counseling. Emphasizes the uses and abuses of basic counseling skills. Provides information to help students decide if they want to become counselors. **Five credits.** 

#### PSY 138 BIOFEEDBACK AND LEARNING: STRESS MANAGEMENT

A survey of coping and preventive skills and techniques for dealing with the disabling effects of anxiety which some individuals experience when taking tests, doing or learning math, speaking before groups, etc. The successful transfer of these skills and techniques to real-life situations is enhanced by supplementing cognitive presentations with regular labwork utilizing biofeedback. **Four credits:** three hours lecture, two hours lab.

#### **PSY 145 HUMAN RELATIONS AT WORK**

Surveys the behavioral and social sciences as they affect people at work. Includes personal development, motivation, leadership, perceptions, and attitudes as they affect employment relationships. **Five credits.** 

#### PSY 206 PSYCHOLOGY OF WOMEN

An examination of new roles and identities for women with emphasis on changes of traditional attitudes twoard women, both personal and societal. **Three credits.** 

#### PSY 207 PRINCIPLES OF MEDITATION AND CONSCIOUSNESS ALTERATION

A survey of Eastern meditational systems, meditational and biofeedback procedures, and limitations and applications of consciousness altering techniques. Three credits.

#### PSY 211 PARAPSYCHOLOGY I

A broad, experimental introduction to the study of psychic phenomena, including ESP, psychokinesis, psychic healing and others.

Three credits.

#### PSY 212 HOLISTIC HEALTH

Investigates the principles of high-level wellness, including stress management, mental visualization, nutritional awareness, exercise, and one's responsibility for life and health. **Three credits.** 

#### PSY 216 PSYCHOLOGICAL AND PRACTICAL ISSUES OF SEPARATION AND DIVORCE

Assists in creatively sorting and working through the psychological and practical issues related to separation and divorce. **Prerequisite:** enrollment limited to persons separated or divorced. **Three credits.** 

#### PSY 221 ABNORMAL PSYCHOLOGY

Concentrates on the organic factors in mental illness, brain tumors, mental retardation, senility, head injuries, etc. **Five credits.** 

#### PSY 231 PSYCHOLOGY OF DREAMS PSY 232 PSYCHOLOGY OF DREAMS

An examination of Jungian, Freudian, Gestalt, and experimental approaches to dream phenomena. Three and five credits.

### PSY 236 HUMAN RELATIONS TRAINING

Development of communication skills, value clarification, and moral development; study of prejudice, low income problems, and issues of the aged and handicapped; examination of racial, sexual, and religious differences. **Three credits.** 

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#### PSY 237 ASSERTIVENESS TRAINING

Study and practice in asserting individual needs and feelings. Three credits.

#### PSY 238 ASSERTIVENESS TRAINING II

For those who have had a class in assertiveness training and have a working knowledge of the concepts and attitudes involved. Skill-building activities and group interaction will be used to move from critical, judgmental views of ourselves and others to more open, accepting, supportive responses and attitudes. **Three credits.** 

#### PSY 241 BIOFEEDBACK I: BIOFEEDBACK AND THE PSYCHOLOGY OF HEALTH

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. **Three credits.** 

#### PSY 242 BIOFEEDBACK II: EEG & EMG

An advanced seminar in biofeedback utilizing the EMG and EEG in education and health. Four credits: three hours lecture, two hours lab.

#### PSY 243 BIOFEEDBACK III: INTERNSHIP

Practical training in biofeedback provided by studying educational and clinical problems. Prerequisites: PSY 241 and PSY 242.

Four credits: three hours lecture, two hours lab.

#### PSY 248 CHILD PSYCHOLOGY

A study of the normal child's emotional and physical development from infancy through adolescence. Five credits.

#### **PSY 249 CRISIS COUNSELING**

Consists of para-professional skill-building exercises in communication, empathy training, core-dimensions of counseling, crisis intervention information and models, suicide information, and community emergency resources. On-site work with the In Touch Helpline provides an opportunity for the actual integration of para-professional helping skills with practical experience. Three 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. Includes the psychology of the Mexican American male and female, and realted social problems. Three credits.

#### MAS 205 COUNSELING MINORITIES

Builds awareness and understanding in the area of counseling minorities. Emphasizes the Mexican American and the development of conceptual models applicable to other minorities in terms of values and cultural conflict. Three credits.

#### XRT: RADIOLOGIC TECHNOLOGY

#### XRT 100 INTRODUCTION TO RADIOLOGIC **TECHNOLOGY/PATIENT CARE**

Introduces students to Radiologic Technology; program guidelines, history of radiology, organizational structure of clinical facilities, professional organizations, accreditation, certification, licensure, and professional development; aspects of patient care, the technologist and the patient, specific nursing procedures, contrast media, patient preparations, patient and interdepartment communications, and professional ethics. Three credits: 30 clock hours.

#### XRT 101 RADIOGRAPHIC POSITIONING/LABORATORY 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 cranium. Six credits: 75 clock hours.

#### XRT 102 RADIOGRAPHIC POSITIONING/LABORATORY 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. Six credits: 75 clock hours.

#### XRT 103 RADIOGRAPHIC POSITIONING/LABORATORY III

A continuation of XRT 101 and XRT 102. Emphasizes the structure and positioning of the vertebral column. Six credits: 75 clock hours.

#### XRT 104 RADIOGRAPHIC POSITIONING/LABORATORY IV

A continuation of XRT 101, XRT 102, and XRT 103, Emphasizes the structure and positioning of the boney thorax and skull. Six credits: 75 clock hours.

#### XRT 105 RADIATION PROTECTION

The student will learn the principles of radiation protection: the need for protection, interaction of radiation with matter, patient protection, personnel protection, maximum permissible dose, and personnel exposure monitoring. Two credits: 20 clock hours.

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 allowed to participate in this course.

Eight credits: 240 clock hours; 12 weeks.

#### XRT 112 CLINICAL EXPERIENCE II

Continuation of supervised clinical education under the direct supervision of a qualified radiologic technologist. Correlates skills from previous classes.

#### Prerequisite: XRT 111.

Six credits: 200 clock hours: 11 weeks.

#### XRT 113 CLINICAL EXPERIENCE III

Continuation of supervised clinical education under the direct supervision of a qualified radiologic technologist. Correlates skills from previous classes. Prerequisite: XRT 112.

Five credits: 160 clock hours.

#### XRT 114 CLINICAL EXPERIENCE IV

Continuation of supervised clinical education under the direct supervision of a qualified radiologic technologist. Correlates skills from previous classes.

Prerequisite: XRT 113. Five credits: 160 clock hours.

#### XRT 115 FILM EVALUATION

Develops an understanding of the radiographic image. Consideration will be given to evaluation of completed radiographs for: patients' data, technique employed, collimation and shielding, positioning accuracy, anatomy demonstrated, and radiographic quality.

Two credits: 20 clock hours.

#### XRT 116 RADIOGRAPHIC PROCESSING

Identifies the technical aspects of processing room design and function, manual and automatic processing, film characteristics, radiographic film artifacts and their causes, silver reclamation, film storage and handling.

Two credits: 20 clock hours.

#### XRT 121 RADIOGRAPHIC EXPOSURE: LECTURE

Introduces the student to the theory of radiographic prime factors, factors influencing radiographic qualities, conditions influencing exposure values, attenuating and restricting devices, technique charts and their application. Four credits: 40 clock hours.

#### XRT 122 RADIOGRAPHIC EXPOSURE: LAB

Provides the student with guided experiences in the laboratory setting to reinforce the theory material presented in XRT 121. Prerequisite: XRT 121.

Two credits: 30 clock hours.

#### XRT 205 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 effect on the production of a diagnostic radiograph. Two credits: 20 clock hours.

#### **XRT 206 RADIATION 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. Three credits: 30 clock hours.

#### XRT 207 IMAGING

A study of image intensification, recording media, and special imaging techniques in radiography. Two credits: 20 clock hours.

#### XRT 208 ULTRASOUND, NUCLEAR MEDICINE, AND **RADIATION THERAPY**

Gives the student a basic understanding of diagnostic and therapeutic principles of ultrasound, nuclear medicine, and radiation therapy.

Three credits: 30 clock hours.

#### XRT 209 SPECIAL PROCEDURES

Acquaints the student with the theory, equipment, and methodology of selected special procedures. Three credits: 30 clock hours.

#### 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 allowed to participate in the course.

Prerequisite: XRT 114. Nine credits: 280 clock hours; 11 weeks.

#### XRT 212 CLINICAL EXPERIENCE VI

Continuation of XRT 211. Correlates skills from previous classes. Prereguisite: XRT 211. Eight credits: 240 clock hours.

#### XRT 213 CLINICAL EXPERIENCE VII

Continuation of XRT 212. Orientation to minor affiliates. Prerequisite: XRT 212. Ten credits: 320 clock hours.

#### XRT 214 CLINICAL EXPERIENCE VIII

Continuation of XRT 213. Rotation to minor affiliates. Prerequisite: XRT 213. Ten credits: 320 clock hours.

#### XRT 221 X-RAY PHYSICS I

Imparts an understanding of basic x-ray physics. Includes: unit o measurement, mechanics, structure of matter, electrostatics magnetism, and electrodynamics. Three credits: 30 clock hours.

#### XRT 222 X-RAY PHYSICS II

A continuation of XRT 221. Consideration will be given to electromagnetism, rectification, and production and properties of x-rays, x-ray tubes, and x-ray circuits. Three credits: 30 clock hours.

XRT 231 RADIOLOGICAL SCIENCES

Reviews all courses and clinical work in radiologic technology in preparation for the American Registry of Radiologic Technologists examination. Diagnostic examination will be given to identify weak academic areas followed by recommendations for remedial study programs.

Three credits: 30 clock hours.

#### REA: READING

#### REA 011 DEVELOPMENTAL READING I

Provides an English-speaking non-reader with instruction and practice in basic reading skills. Primary objectives are to equip the student with initial skills in world attack and comprehension, and to prepare the student for REA 012.

Prerequisite: placement.

#### **REA 012 DEVELOPMENTAL READING II**

Provides the beginning reader with additional skills in word attack and comprehension, and provides practice in developing these skills. Primary purposes are to give the student a basic introduction to general reading skills and to prepare the student for **BEA 013** 

Prerequisite: REA 011 or placement.

#### **REA 013 DEVELOPMENTAL READING III**

Provides the intermediate level reader with instruction in vocabulary development, structural analysis, comprehension, and reading for a specific purpose. Provides practice in these reading skills in both 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.

#### REA 014 DEVELOPMENTAL READING IV

Provides the advanced intermediate reader with additional instruction in vocabulary development, structural analysis, comprehension, and reading for a specific purpose. Includes instruction in locational skills. The student will apply these skills in both general and content area reading materials. Primary purposes are to improve the student's reading level, to expand the variety of reading skills the student uses, and prepare the student for the series of REA 020 courses.

Prerequisite: REA 013 or placement.

#### REA 095 BASIC VOCABULARY BUILDING

Provides an opportunity for the serious-minded student to acquire an exact and extensive vocabulary which is important for success in college work and beyond. Five credits.

#### **REA 096 READING ESSENTIALS**

Provides the basic phonetic and structural analyses skills essential for comprehension; dictionary and contextual skills necessary for basic reading success in all content areas; and any skills that are not already mastered with college reading comprehension as a basis. Five credits.

#### REA 099 MODELS OF MAN

Introduces students to the art of living, surveying basic human concepts of love, friendship, happiness, freedom, and death, and their expressions as reflected by certain profiles of man. Explores the question: what does it mean to be human, now? Five credits.

#### REA 101 STUDY SKILLS FOR COLLEGE

Helps the student read college level texts and gives him or her the skills necessary for success in all content areas and study situations. Five credits.

#### **REA 106 SPEED READING**

Designed to develop the reading versatility of those who have mastered basic reading skills. Emphasis is mainly in the areas of improving comprehension, broadening the student's vocabulary, and increasing speed.

#### Five credits.

#### **REA 107 SPEED READING IMPROVEMENT**

Provides explanation and practice in the three levels of reading and vocabulary while developing versatility in the six basic speeds. Prerequisite: REA 101 or eleventh grad level on reading test. Five credits.

#### REA 116 BASIC SPELLING SKILLS

Two-week, efficiency course designed to help students develop efficient spelling skills. One credit.

#### **RES: REAL ESTATE**

#### **RES 105 REAL ESTATE PRACTICE**

Provides students with an understanding of real estate principles and practices, and the basic skills necessary to work in the field of real estate

Three credits: 30 clock hours.

#### **RES 106 REAL ESTATE LAW**

Provides students with an understanding of the rights and obligations of the real estate agent regarding his or her contractual and fiduciary duties owed to the parties he or she represents. Prerequisite: RES 105 or permission of instructor. Three credits: 30 clock hours.

#### **RES 108 REAL ESTATE LICENSE PREPARATION**

Assists students in preparing for the Colorado Real Estate License Examinations required to enter the field of real estate sales. Prereguisites: RES 105 and RES 106. Three credits: 30 clock hours.

#### **RES 109 REAL ESTATE CLOSINGS**

Provides an in-depth study of real estate closings. Includes understanding the contract and precipitating the closings, various problems in completing closing statements, documents related to closings, and debit and credit items encountered in real estate closings. Recommended for those preparing for a profession in real estate and especially for those planning to sit for the broker's exam. Prerequisite(s): RES 105 and RES 106, or permission of instructor. Three credits: 30 clock hours.

#### **RES 205 REAL ESTATE FINANCE**

Provides students with the history and development of real estate financing; an economic overview of the federal government's monetary and fiscal policy; a working knowledge of both primary and secondary money markets and of the contracts used in financing

Prerequisite: RES 105, RES 106, or permission of instructor. Three credits: 30 clock hours.

#### RES 206 REAL ESTATE APPRAISAL

Assists the student in understanding and arriving at an estimate of real property value for his or her principals. Emphasizes the three traditional approaches to value and their rationale.

Prerequisite(s): RES 105 and RES 106, or permission of instructor. Three credits: 30 clock hours.

#### **RSC: RESPIRATORY CARE**

#### RSC 111 RESPIRATORY SCIENCE I

Identifies the primary pharmacologic effects, toxic side effects, and how to recognize the adverse reactions of respiratory therapy drugs. Describes sterilization techniques and procedures. Develops an understanding and application of gas laws. Explains the indications, contraindications, hazards, and precautions of gas, aerosol, and humidity therapy. Develops an understanding of the theory of gas flow through a regulator, flowmeter, and cylinders of medical gases.

Prerequisite: program admission. Three credits: 30 clock hours.

#### **RSC 112 RESPIRATORY SCIENCE II**

Discusses the indications, contraindications, hazards, precautions, and the duration of the effects of respiratory therapy drugs. Explores, in detail, the anatomy and physiology of the heart and lungs in man. Develops the ability to understand and interpret heart tracings and rhythms.

Prerequisite: successful completion of RSC 111 with a minimum passing grade of "C" or permission of instructor. Four credits: 40 clock hours.

#### RSC 121 RESPIRATORY EQUIPMENT APPLICATION I

Applies the techniques and procedures of RSC 111 in laboratory situations. Shows how to implement basic principles of gas, aerosol, and humidity therapy; calculate, prepare, and administer respiratory drugs; operate equipment mentioned in RSC 111.

Prerequisite: program admission.

Four credits: 30 hours lecture, 20 hours lab.

#### RSC 122 RESPIRATORY EQUIPMENT APPLICATION II

Applies the techniques and procedures of RSC 112 in a controlled laboratory experiment. Develops an understanding of how to implement the principles of mechanical ventilation, intermittent positive pressure breathing treatments, continuous breathing treatments, adjunct modes of therapy, monitor techniques, and intensive care patients with respiratory abnormalities.

Prerequisite: successful completion of RSC 121 with a minimum passing grade of "C" or permission of instructor. Four credits: 30 hours lecture, 20 hours lab.

#### **RSC 131 RESPIRATORY PRACTICUM I**

Identifies the physiologic rationale and indications for gas, aerosol, and humidity therapy. Describes safe, effective, sterile endotracheal and nasotracheal suctioning techniques. Develops skills necessary to artifically ventilate and circulate patients in a respiratory/cardiac failure.

#### Prerequisite: OHC 100.

Three credits: 90 clock hours.

#### **RSC 132 RESPIRATORY PRACTICUM II**

Develops the skills and understanding necessary to administer proper and effective artifical ventilation, and give assistance to medical staff in initiating and maintaining continuous ventilation therapy.

Prerequisite: RSC 131. Eight credits: 240 clock hours.

#### **RSC 211 RESPIRATORY SCIENCE III**

Defines the basic principles of acid/base physiology as they relate to respiratory care of the patient. Exhibits and/or demonstrates specialized procedures in respiratory care. Discusses the principles, assessments, and techniques of pulmonary function tests. Develops an understanding of patients who need to be artificially supported on life support systems for short- and/or long-term situations. Identifies the fundamentals of continuous ventilation, supportive ventilation, and adjunct therapy modes. Develops an understanding of the advance procedures encountered in the field of respiratory care, i.e. procedures utilized in intensive care units, cardiac care units, nursery, and pediatrics.

Prerequisite: successful completion of RSC 112 with a minimum passing grade of "C" or permission of instructor. Two credits: 20 clock hours.

#### **RSC 212 RESPIRATORY SCIENCE IV**

Provides an understanding of newborn nursery procedures and techniques as they relate to respiratory care. Describes and demonstrates proper preparation of patients to be tested for heart and lung ailments on equipment commonly found in the respiratory therapy department.

Prerequisite: successful completion of RSC 211 with a minimum passing grade of "C" or permission of instructor. Two credits: 20 clock hours.

### **RSC 221 RESPIRATORY EQUIPMENT APPLICATION III**

Applies the techniques and procedures of RSC 211 in the laboratory. Demonstrates and explains advanced procedures of respiratory care, i.e. pulmonary function testing, treadmill and heart monitoring, arterial blood gas sampling, artifical blood gas analyzation, intensive care patient care, and the trouble-shooting and maintenance of pressure and volume ventilator machines. Prerequisite: successful completion of RSC 122 with a minimum passing grade of "C" or permission of instructor.

Two credits: 10 hours lecture, 15 hours lab,

#### RSC 222 RESPIRATORY EQUIPMENT APPLICATION IV

Applies the techniques and procedures of RSC 212 in the laboratory. Develops confidence in the care of newborn infants, and intensive and cardiac care patients. Implements laboratory situations on patient-simulated conditions.

Prerequisite: successful completion of RSC 221 with a minimum passing grade of "C" or permission of instructor. Two credits: 10 hours lecture, 10 hours lab.

#### RSC 227 PULMONARY REHABILITATION

Describes and demonstrates methods of chest physical therapy, breathing exercises, postural drainage, percussion and vibration, and related home care of patients. Prerequisite: RSC 131.

One credit: 10 clock hours.

#### RSC 228 RESPIRATORY NEONATAL AND PEDIATRICS

Develops an understanding of respiratory problems associated with the premature, newborn, or pediatric patient. Provides students with the fundamental foundation for applying respiratory therapy techniques and procedures that are unique to these types of patients. Develops a working knowledge of embriology and comparative anatomy. Provides insight for students in applying the science of respiratory care to the one kilogram (or smaller) patient. Prerequisite(s): successful completion of fall, winter, and spring quarters of the Respiratory Care curriculum with a minimum passing grade of "C" or permission of instructor. Two credits: 20 clock hours.

#### **RSC 231 RESPIRATORY PRACTICUM III**

Develops the skills and understanding necessary to properly perform arterial blood gas punctures and recognize possible contraindications, complications, and adverse reactions. Demonstrates techniques and procedures of pulmonary function testing and screening. Students will be expected to perform D1CO, Lung Volumes, and Nitrogen Washout tests. Prerequisite: RSC 132.

Eight credits: 240 clock hours.

#### **RSC 232 RESPIRATORY PRADTICUM IV**

Provides the clinical atmosphere for polishing and developing the theory and practice taught in RSC 212 and RSC 222. Develops the student's capabilities to perform pulmonary function testing, utilize advanced respiratory diagnostic modalities and equipment, and function and perform all therapeutic, diagnostic, and prophylactic modalities in the scope of the Respiratory Care program.

Prerequisite: successful completion of RSC 231 with a minimum passing grade of "C" or permission of instructor.

Eight credits: 240 clock hours (in a community hospital).

#### RSC 241 CLINICAL CONFERENCE I

Acquaints students with the basic concepts of medical practices as they relate to respiratory care and teaches basic pathological processes as they apply to respiratory diseases covered in this course.

Prerequisite(s): successful completion of fall and winter quarters of the Respiratory Care curriculum with a minimum passing grade of "C" or permission of instructor.

Two credits: 20 clock hours.

#### RSC 242 CLINICAL CONFERENCE II

Continuation of RSC 241.

Prerequisite: successful completion of RSC 241 with a minimum passing grade of "C" or permission of instructor. Two credits: 20 clock hours.

#### SCI: SCIENCE

#### 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 students to apply comprehension skills of reading appropriate to the area of the natural science adequate to allow students to pass the reading comprehension section of the GED test. Prerequisite: COS 013 or placement.

SCI 100 MAN: HIS TECHNOLOGY AND HIS WORLD

Introduces a series of significant, current problems concerned with technology which surround and influence students' lives. In each case an attempt is made to determine the magnitude and nature of the problems, ascertaining why they arose and discovering positive alternatives available to society and government. IBM 4331 computer is used as an instructional aid. Five credits.

#### SCI 101 EDUCATION FOR AVIATION AGE

General education course for students desiring a knowledge of aviation topics. Includes airports, airways, airline transportation, history of the space age, navigation, weather, power of aircraft, and aircraft in flight. Three 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:** SCI 105 or permission of instructor. **Three credits.** 

#### SCI 109 AN EXPLORATION OF MAN, EARTH, AND UNIVERSE: COSMOS

Explores the relationships between planet earth, its inhabitants, and the vast universe that surrounds them. Examines the evolution of the universe, earth, and humanity as well as the perceptions about them. This is an interdisciplinary study of science in general, placed in a humanistic perspective. The COSMOS series of telelessons will be an integral part of the course.

Three credits: three hours lecture.

#### SEC: SECRETARIAL

#### SEC 105 MACHINE TRANSCRIPTION

Instruction in the use of transcribing machines in preparing business letters and correspondence. **Four credits:** 50 clock hours.

#### SEC 106 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. **Three credits:** 30 clock hours.

#### SEC 136 APPLIED MEDICAL TERMINOLOGY

Prepares students to apply basic medical words by reading, discussing, and transcribing medical records, such as: case histories, medical letters, surgical reports, hospital admission and discharge summaries, and x-ray reports.

**Prerequisites:** BUS 102 (or concurrent enrollment), BUS 156, and HLH 131.

Four credits: 50 clock hours.

#### SEC 141 LEGAL MACHINE TRANSCRIPTION

Provides students with in-depth practice in transcribing legal material using legal terminology and legal forms. **Prerequisites:** BUS 102, CON 104, and SEC 106. **Four credits:** 50 clock hours.

#### SEC 143 MEDICAL MACHINE TRANSCRIPTION I

Develops accuracy and speed in transcribing medical dictation and the ability to produce accurate medical data through a broad knowledge of medical terms.

Prerequisite: SEC 136.

Four credits: 50 clock hours.

#### SEC 151 GREGG SHORTHAND THEORY I

Introduces the first three-fourths of the theory of Gregg Shorthand, Diamond Jubilee Series. Develops reading speeds from book plates and handwritten notes. Develops shorthand writing of familiar and unfamiliar material to speeds of 50-60 words a minute. Develops the ability to transcribe at the typewriter. This course is intended for students who have had no previous Gregg Shorthand instruction.

**Prerequisite:** BUS 101 or equivalent. **Five credits:** 50 clock hours.

#### SEC 152 GREGG SHORTHAND THEORY II

Thorough review of the first three-fourths of the theory of Gregg Shorthand, Diamond Jubilee Series. Introduces the last one-fourth of the theory of Gregg Shorthand. Develops reading speed from handwritten notes. Develops shorthand writing of familiar and unfamiliar material to speeds of 60-80 words a minute. Increases the ability to transcribe at the typewritter.

**Prerequisite:** SEC 151 or previous Gregg Shorthand instruction. **Five credits:** 50 clock hours.

#### SEC 153 INTERMEDIATE SHORTHAND

Develops shorthand writing of unfamiliar material to speeds of 80-100 words a minute. A review is provided in punctuation, spelling, letter styles, and business vocabulary improvement. Emphasizes production of mailable letters.

**Prerequisites:** SEC 152 or SEC 162 or two years of high school shorthand, ability to write at 60 words a minute, and a thorough knowledge of all Gregg or Alpha Shorthand theory. **Five credits:** 50 clock hours.

#### SEC 154 ADVANCED SHORTHAND

Develops shorthand writing of unfamiliar material to speeds of 80-120 words a minute. Total business proficiency is expected, and attention is directed to the ability to transcribe mailable letters at employable production rates.

**Prerequisites:** SEC 153 or two years of high school shorthand, a thorough knowledge of all Gregg or Alpha Shorthand theory, and knowledge of punctuation, spelling, letter styles, and business vocabulary.

Five credits: 50 clock hours.

#### SEC 161 ALPHABET SHORTHAND THEORY I

A beginning course introducing the first three-fourths of the theory of Forkner Alphabet Shorthand; a system of rapid writing using longhand letters and a few symbols. For those students preferring an alphabetic rather than a symbolic system. Develops reading speeds from handwritten notes. Develops shorthand writing of familiar and unfamiliar material to speeds of 50-60 words a minute. Develops the ability to transcribe at the typewriter.

Prerequisite: BUS 101 (or be enrolled concurrently).

Five credits: 50 clock hours.

#### SEC 162 ALPHABET SHORTHAND THEORY II

Thorough review of the first three-fourths of the theory of Forkner Alphabet Shorthand. Introduces the last one-fourth of the theory of Forkner Alphabet Shorthand. Develops reading speed from handwritten notes. Develops shorthand writing of familiar and unfamiliar material to speeds of 60-80 words a minute. Increases the ability to transcribe at the typewriter.

#### Prerequisite: SEC 161.

Five credits: 50 clock hours.

#### SEC 177 INSURANCE TERMINOLOGY AND PROCEDURES

Acquaints students with the routine of an insurance office. A study of basic principles in insurance terminology, kinds of insurance, daily reports, policies, agency files and records, expiration notices, cancelled policies, claims, etc. Primarily for legal secretarial students.

Prerequisite: BUS 101 or ability to type. Three credits: 30 clock hours.

#### SEC 215 LEGAL SHORTHAND

Specialized course for legal dictation and transcription. Students continue to build mastery of legal terminology. Taped dictation is used extensively. Lab hours may be required. **Prerequisite:** SEC 153.

Five credits: 50 clock hours.

#### SEC 231 CPS REVIEW I

A review course highlighting six areas of business: business law, accounting, typing and shorthand, office procedures, management, and business economics. Prepares students for Certified Professional Secretary test. Two credits: 20 clock hours.

#### SEC 232 CPS REVIEW II

A continuation of SEC 231. Prerequisite: SEC 231. Two credits: 20 clock hours.

#### SEC 275 REAL ESTATE OFFICE PROCEDURES

Acquaints students with the routine of a real estate office. A study of real estate terminology and basic legal forms required in real estate transactions. Prerequisite: BUS 101 or ability to type.

Three credits: 30 clock hours.

#### SEC 276 MEDICAL OFFICE PROCEDURES

Introduction to the routine of a medical office. A study of medical receptionist techniques, medical records and files, and instruction in billing. For medical secretarial students. Prerequisites: BUS 102 and SEC 136.

Five credits: 50 clock hours.

#### SEC 277 LEGAL OFFICE PROCEDURES

A study of the routines common to legal offices. Intensive practice in preparing many types of legal documents. For legal secretarial students.

Prerequisites: BUS 102 and SEC 106. Five credits: 50 clock hours.

#### SEC 281 COOPERATIVE OFFICE OCCUPATIONS I SEC 282 COOPERATIVE OFFICE OCCUPATIONS II

Supervised employment in an office occupation position. Intended to provide practical experience for students preparing for careers in a business office. It is the responsibility of the student to secure employment in an approved work station for a minimum of 15 hours per week during the two quarters of enrollment. A student with three months of previous full-time office employment or 500 hours of previous part-time office employment may elect to waive SEC 281. A student with six months of previous office employment or 1,000 hours of previous part-time employment may elect to waive SEC 281 and SEC 282. Confirmation of previous office employment will be requested.

Prerequisites: Student must be in the fifth and sixth quarters of an Office Occupations program, have salable office skills, and be approved for admission by his or her advisor and supervising instructor in the guarter prior to enrollment. Six credits each: 160 clock hours each.

#### SEC 295 SECRETARIAL INDEPENDENT STUDY

Provides an opportunity for the student to study a specific knowledge or skill under the direction of a faculty member. One to three credits: contact instructor.

#### SOC: SOCIOLOGY

#### SOC 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 students to apply comprehension skills of reading appropriate to the area of social science adequate to allow students to pass the reading comprehension sections of the GED test. Prerequisite: placement.

#### SOC 101 INTRODUCTION TO SOCIOLOGY

An introduction to the sociological analysis of social systems, culture, social stratification, population, and social change. Cultivates an interest in and awareness of social change. 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 be cross-cultural, but will emphasize courtship, marriage, and conjugal life in contemporary America. Four credits.

#### SOC 106 CONTEMPORARY SOCIAL PROBLEMS

A study of both specific and general problems of our time. Some of the social problems studied include poverty, civil liberties, social change, and crime and delinquency in the context of contemporary American society. Three credits.

#### SOC 108 SOCIAL GERONTOLOGY

Acquaints students with the process of aging, how aging affects the individual and society, gerontological services, and gerontology as a career.

Three credits: two hours lecture, two hours lab.

#### SOC 111 SOCIAL SERVICES I

Introduces and familiarizes the student with the human services field in the areas of social policy, social agencies and programs in the community, and the utilization of their services. Interrelates the social sciences with other scientific disciplines. Helps students strengthen and integrate their knowledge of human behavior and development.

Three credits.

#### SOC 112 SOCIAL SERVICES II

Second in a sequence of three courses in which students will be given an opportunity to explore the human services fields. Three credits.

#### SOC 113 SOCIAL SERVICES III

Last in a sequence of three courses in which students will be given an opportunity to explore the human services fields. Provides students with on-the-job experiences in one or more human services as part of becoming familiar with skills and techniques involved. Five credits.

#### SOC 115 SOCIOLOGY OF EDUCATION

Analysis and discussion of various learning situations, underlying values and norms, organizational bureaucratic structures, and the interrelationship of social and educational systems and expectations. Prerequisite: SOC 101.

Three credits.

#### SOC 117 SOCIOLOGY OF LEISURE

Analysis and discussion of nonwork behavior in relation to other social, recreational, and economic variables. New occupations, new patterns of behavior, and new opportunities may continually be created due to leisure time.

Prerequisite: SOC 101.

Three credits.

#### SOC 207 CONTEMPORARY ISSUES IN HUMAN SEXUALITY

Facilitates a deeper and more comprehensive understanding of human sexuality as it relates to our integrated functions of life and our total development as individual sexual beings and as members of a species.

Three credits.

#### SOC 208 SEX-ROLE ISSUES IN MODERN AMERICA

Helps students gain a better understanding of both traditional and alternative sex roles. Facilitates the recognition of cross-cultural differences and similarities of behavior for males and females within society. Increases awareness of sex roles and sexuality as they change with age.

Three 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 faculty member. One to three credits: contact instructor.

#### MAS 100 INTRODUCTION TO MEXICAN AMERICAN STUDIES

Provides a general understanding of the Mexican American Studies department; its background, philosophy, and courses. Also analyzes the Mexican American community and the general American society; their differences, commonalities and relative position to one another. Emphasizes the realtionship of the Chicano to the American educational system. Three credits.

#### MAS 125 AMERICAN SYSTEM

Presents vital information dealing with citizenship. Special emphasis will be placed on current legislation dealing with Chicanos.

Three credits.

#### SPP: SPECIAL PROGRAMS

#### SPP 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.

#### SPP 065 BILINGUAL DRIVER'S EDUCATION

Designed to prepare students to understand and pass the driver's license oral or written examination. Emphasizes verbal understanding of signs, rules, and state laws, if the student cannot read or write. Spanish instruction will be provided for those who need it.

#### SPP 025 CLASES DE CIUDADANIA

Esta clase se enseña para preparar estudiantes para que puedan pasar el examen de ciudadania de los Estados Unidos. Se dará énfasis a las funciones y procedimientos del govierno local, estatal y nacional. Cuando el estudiante esté listo, un sobre con las aplicaciones necesarias del Departamento de Imigración y Naturalización se dará al estudiante para que pueda aplicar por ciudadania. Instrucción en español se dará a los que la necesiten.

#### SPP 065 CLASES DE MANEJAR

Esta clase es para preparar estudiantes para que entiendan y pasen el examen de licencia en la forma oral o escrita. La instrucción de signos, leyes y reglas del estado de Colorado será presentada oralmente si el estudiante no puede leer o escribir. Instrucción en español se dará a los que la necesiten.

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#### SPP 100 WORLD OF WORK: SKILL EXPLORATION

The student will acquire a realistic understanding of the "world of work" through an introduction to a variety of occupational work areas.

Three credits: 35 clock hours.

#### SPP 105 OCCUPATIONAL CAREER PLANNING

Enables the student to assess his or her aptitude, strengths, interests, values, needs, and abilities (skills). Increases the students skills in goal setting and goal achievement, upon satisfactory completion the student will be aware of the world of work and alternatives available through occupational information sources. Three credits: 35 clock hours.

#### SPP 106 WORLD OF WORK: REALITY EXPERIENCE

The student will develop fundamental skills in an occupational area which was reinforced through the World of Work: Reality Experience.

Three credits: 35 clock hours.

#### SPE: SPEECH

#### SPE 105 ELEMENTS OF ORAL COMMUNICATIONS

The student will be made aware of the importance of communication in business and industry. Communication skills through talking and listening in both an individual and group situation will be developed. Vocabulary development and reading skill development are emphasized.

#### Prerequisite: none.

Three credits: 30 clock hours.

#### SPE 112 INTRODUCTION TO MASS MEDIA

Studies the history, ethics, current problems, and practices of the mass media within the social system. Emphasizes newspaper, radio, and television. Five credits.

#### SPE 113 INTRODUCTION TO RADIO BROADCASTING

Introduces basic radio principles and production techniques. Includes some practical laboratory experience in the studio. Five credits.

#### SPE 114 INTRODUCTION TO TELEVISION BROADCASTING

Basic introduction to the use of video production equipment and processes. Emphasizes giving students hands-on experience with microphones, TV cameras, lights, sets, audio equipment, and the control board

Five credits.

#### SPE 115 SPEECH COMMUNICATIONS

Provides students with practical experience in everyday, oral communications, such as group discussion, interpersonal communications, listening skills, and certain fundamentals of public speaking.

Five credits.

#### SPE 116 PUBLIC SPEAKING

Emphasizes organization, preparation, and presentation of various types of speeches. Includes some practice, in group discussion on the five credit hour requirement. Three to 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 self-confidence and self-awareness while working in pairs and small groups.

#### Five credits.

#### SPE 119 INTRODUCTION TO SEMANTICS

Introductory study of how persons respond to words 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. Three credits.

#### SPE 125 WORD POWER: ADVANCED VOCABULARY

Provides an opportunity to increase the student's knowledge of the function in the English language of words derived from Latin, Greek, and other languages. **Two credits.** 

#### SPE 220 SPEECH PRACTICUM

Provides an opportunity for the serious-minded student to develop his or her skills in writing and producing a publication or 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.

#### STA: STATISTICS

#### 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. Calculators and the IBM 4331 Computer are used as aids in computation. **Prerequisite:** MAT 111 is highly recommended. **Five credits.** 

# STA 202 STATISTICS FOR BUSINESS, SCIENCE, AND SOCIAL SCIENCE II

Topics include tests of statistical hypothesis based upon the z, t, chi-square and F distributions. Other selected topics may include curve fitting, the relationship between correlation and regression, and analysis of variance. Calculators and the IBM 4331 will be used as aids in computation.

Prerequisite: STA 201 or permission of instructor. Five credits.

#### THE: THEATRE

#### THE 100 INTRODUCTION TO THEATRE ARTS

Involves the study and appreciation of a variety of dramatic presentations in the media of live theatre, television, and cinema. Includes an introduction to acting, stagecraft, and directing. Course fulfills a humanities requirement. **Five credits.** 

#### THE 105 ACTING I THE 106 ACTING II

These courses introduce basic principles of acting and dramatic production. Development of characterization skills, increased understanding of human behavior and relationships, imaginative encounters with one's self and others to build confidence and cooperation, and familiarization with dramatic literature is involved. **Three credits each.** 

#### THE 255 DIRECTING

Includes a survey of acting styles, a study of the development of directing concepts for stage and television, and work with blocking, actor coaching, and the direction of one act plays or scenes. **Three credits:** four studio hours.

#### THE 275 THE ART OF DANCE AND MOVEMENT

Utilizes selected dance forms to develop an appreciation of the art of dance and dramatic movement as highly developed forms of expression.

Three credits: four clock hours.

#### 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 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.

#### TRA: TRANSPORTATION

#### TRA 101 TRANSPORTATION TERMS & DOCUMENTATION

Assists students in understanding the meanings and terms used in transportation, such as SL&C, FOB, etc.; Bill of Lading contractual obligations; learning to read and interpret the National Motor Freight Classification rules and regulations. **Prerequisite:** interest in transportation.

Four credits: 40 clock hours.

#### TRA 102 TRANSPORTATION FUNCTIONS AND REGULATIONS

Students will examine loss and damage and the responsibilities and duties of both the shipper and carrier when loss and damage occur. Study tracing and expediting shipments by the different modes of transportation; understand the differences between private, contract, and common carriage; and understand the federal and state regulations which control common carriers.

**Prerequisites:** TRA 101 or work experience, and permission of instructor.

Four credits: 40 clock hours.

#### TRA 103 TRANSPORTATION FREIGHT RATES AND TARIFFS

Identifies the rate bureaus and teaches how they function in the rail and motor industry. Students check rail and motor rates by using actual published rail and motor tariffs and learn the basic considerations used to determine transportation rates. **Four credits:** 40 clock hours.

#### WLT: WELDING TECHNOLOGY

#### WLT 100 INTRODUCTION TO WELDING

Introduces the student to the welding profession. Emphasizes safety and introduces welding tools, equipment, methods, and procedures. Upon satisfactory completion, the student will have a fundamental understanding, knowledge, and skills of oxy/acetylene welding, cutting, arc welding, and mig welding. **Three credits:** 35 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 151 WELDING TECHNOLOGY I

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. 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.

Twenty-four credits: 300 clock hours.

#### WLT 204 WELDING PROBLEMS

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 236 SPECIAL PROBLEMS IN WELDING

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.

### AIMS JUNIOR COLLEGE DISTRICT COMMITTEE

Burl Van Buskirk Dale Majors H. Gordon Johnson Wayne Foster Lynn Pitcher President Secretary Treasurer Member Member

### ADMINISTRATIVE STAFF

	1070
CONGER, DR. GEORGE R. (President)	1979
GAISER, PAUL W. (Dean/School of Occupational Education)	1977
KARPOWICH, TIMOTHY A. (Dean/Administrative Services)	1980
KIEFER, JERRY (Dean of the College)	1974
RAILE, DWANE D. (Dean/School of Arts and Sciences)	1971
SLOMER, RUTH M. (Acting Dean/Student Personnel Services)	1970
RANGEL, ROBERT N. (Associate Dean of the College)	1969
ROUSE, PHILIP (Associate Dean/School of Occupational Education)	1980
BOGGS, RICHARD E. (Director/Computer Services)	1977
CARR, TERRY (Director/Financial Aids)	1971
CUMMINS, DON (Director/Purchasing)	1980
HANES, CLAUD W. (Controller)	1979
MARTINEZ, P.ALPH D. (Director/Admissions and Records)	1973
RASMUSSEN, ALVIN R. (Director/Student Affairs)	1979
TINDALL, DAN (Director/Physical Plant)	1980
WHITE, WILSON B. (Director/Personnel and Payroll)	1980

### AIMS COMMUNITY COLLEGE FACULTY

#### ADAMS, JAMES R. (Mid-Management)

B.A., University of Northern Colorado; Graduate study, University of Northern Colorado; Eighteen years of business experience. 1968

ADAMSON, WILLIAM H. (Electronics Technology)

B.S.E.E., University of Southern California; Graduate study, University of California, Los Angeles, and Colorado State University; Eighteen years industrial and military experience. 1968

ARNDT, MICHAEL W. (Respiratory Care)

B.S., Mount Marty College, Certified Respiratory Therapy Technician; Nine years experience in respiratory therapy. 1976

BATMAN, LARRY G. (Mathematics)

B.A., University of Northern Colorado; M.A., University of Northern Colorado; Advanced graduate study, Colorado State University. 1967

BAY, MARVIN L. (Aviation)

B.S., Colorado State University; M.A., University of Northern Colorado; Advanced graduate study, University of Northern Colorado; Eight years experience in aviation industry. 1970

BECK, ROBERT (Electronics)

Two years electronic school, Navy; Fifteen years electronics experience, Navy; Three years part-time instructor at Aims 1980

- BINGER, WILLIAM R. (Building Construction)Twenty years industrial experience.1972
- BORTHICK, GILBERT D. (Engineering Technology) P.R.E., Colorado School of Mines; M.S., Colorado School of Mines; Nineteen years industrial experience. 1968

BROWN, W. ARLIN (Division Chairperson, Communications & Arts)

B.A., Eastern New Mexico University; M.A., Administration and M.A., English, Western State College of Colorado; Ed.D., University of Northern Colorado. 1968

BROWN, JAMES E., JR. (Graphics Technology)

B.A., University of Northern Colorado; Graduate study, University of Northern Colorado, Colorado State University; Five years experience, lithographic pressman; Three years experience, foil stamping pressman; Three years managerial experience. 1976

#### BUXMAN, BETTY J. (Accounting)

A.A., Aims Community College; B.A., University of Northern Colorado; M.A., University of Northern Colorado; Eight years business experience. 1974 CAMERON, ROY E. (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, Denver University. 1967

COLTON, KERRY L. (Accounting)

B.A., University of Northern Colorado; M.S., University of Northern Colorado; One year business experience. 1971

COMPESTINE, FRANCIS C. (Division Chairperson, Mathematics & Science)

B.A., Arizona State University; M.S., New Mexico Highlands University; Ph.D., University of Northern Colorado. 1968

CRIBELLI, SUSAN (Developmental/Remedial Education)

B.A., University of Northern Colorado; M.A., University of Northern Colorado. 1972

CROSS, ARLINE M. (Communications & Arts) B.A., University of Northern Colorado; Attended New England Conservatory of Music; M.A., University of Northern Colorado; Advanced graduate study, Arizona State University, New York University. 1967

CULLISON, DIANA (Radiologic Technology) Weld County General Hospital, Registered Technologist (American, Registry of Radiologic Technology); Ten years experience. 1979

DALPRA, CHARLES G. (Skill Center)
B.A., University of Northern Colorado; M.A., University of Northern Colorado; Eight years industrial experience. 1974

DARLING, DONALD W. (Drafting)

A.A., Foothill College; B.A., University of Northern Colorado; M.A., University of Northern Colorado; Advanced graduate study, Colorado State University; Fifteen years industrial experience. 1976

DAVISSON, SUE E. (Counselor)

B.A., University of Northern Colorado; M.A., University of Northern Colorado; Advanced graduate study, Kephart Clinic. 1976

ECKHARDT, LUCILLE (Business)

101

B.A., University of Northern Colorado; Six years business experience. 1976

EDEL, GEORGE D. (Automotive Mechanics)
B.E., Colorado State University; Graduate study, Colorado State University; Eight years automotive trade experience. EDWARDS, J. PHILLIP (Electronics Technology)

B.A., University of Northern Colorado; Graduate study, University of Northern Colorado, Colorado State University; Nine years military and industrial experience. 1969

FAJARDO, JOSEPH S. (Program Chairman, Mexican American Studies)

B.A., University of Denver; M.A., University of Colorado. 1974

FREDERICK, GENE A. (Economics and Geography)
B.S., University of Missouri; M.A., Adams State
College; Advanced graduate study, Purdue
University, University of Northern Colorado,
University of New York.

FREESE, JASPER (JAY) (Engineering)

B.S.C.E., Worchester Polytechnic Institute; M.S.C.E., University of Southern California; Twenty-three years engineering and military experience; Professional engineer: California, Colorado, Iowa, Wyoming; Registered land surveyor, Colorado. 1981

#### GEIST, MIKE (Auto Body)

B.E., Colorado State University; Graduate study, Colorado State University and University of Northern Colorado; Nine years industrial experience. 1979

GIESICK, R. ARTHUR (Division Chairperson, Technical)

B.A., University of Northern Colorado; Nationally certified as an Engineering Technician by I.C.E.T.; Graduate study, Colorado State University, University of Northern Colorado; Ten years experience as a draftsman, designer. 1970

GODDARD, JERRY F. (Business)

A.A., Graceland College; A.B., University of Northern Colorado; M.A., Colorado State University. 1972

GOMEZ, RUTH (Division Chairperson

Developmental/Remedial Education)

Undergraduate and graduate study, University of Northern Colorado. 1973

GONZALEZ, DAVID (Developmental/Remedial Education)

B.A., University of Northern Colorado; M.A., University of Northern Colorado. 1973

GORGEN, LAWRENCE A. (Developmental/Remedial Education)

B.A., Kearney State College; M.A.T., Washington State University; Ed.S., University of Northern Colorado; Advanced study, University of Edinburgh. 1970

GREEN, RALPH H. (Electronics Technology)

B.S., Colorado State University; M.Ed., Colorado State University; Advanced graduate study, Colorado State University; Eighteen years business and industrial experience. 1974

GUILLIAMS, CARL E. (Auto Body)

Thirty years industrial experience.

GUY, KATHLEEN (Psychology)

B.S., Denison University, Ohio; M.A., University of California, Berkley; Seven years teaching and counseling experience; Former director, Child Abuse Intervention, Inc., Greeley 1980

HARDIN, R.A. "JACK" (Welding)

A.S., El Paso Community College; Attended Southern Colorado State University and Colorado State University; Twelve years industrial experience. 1976

HARRIS, DONALD T. (Chemistry)

B.S., Western Kentucky State University; M.A., Western Kentucky State University; Advanced graduate study, Colorado State University; Seven years industrial experience. 1970

HEEN, SAMUEL K. (Physical Education and Communications & Arts)

B.A., Colorado State University; M.Ed., Colorado State University. 1971

HEIMAN, GALE E. (Business)

A.B., University of Northern Colorado; M.A., University of Northern Colorado; Ph.D., Laurence University School of Banking; Fourteen years business experience. 1969

HEIN, B. JIM (Division Chairperson, Trades and Industry)

B.Ed., Colorado State University; M.Ed., Colorado State University; Ten years trade experience. 1969

HICKMAN, JOHN C. (Welding)

Welding Certificate, Hobart Technical Center; Colorado State University; Eighteen years in welding media -- eight years in field consisting of production welding, bridge construction, gas pipelines, and maintenance welding; Eleven years in testing and laboratory work. 1970

JOKERST, JAMES C. (Counselor)

B.A., University of Arizona; M.A., University of Northern Colorado. 1971

KARST, GERALD L. (Sociology)

B.A., University of Northern Colorado; M.Ed., Colorado State University. 1970

KIEKHAEFER, ELMER A. (Division Chairperson, Business)

B.A., Valpariaso University; M.A., University of New Mexico; Advanced graduate study, University of Northern Colorado; Eighteen years business experience. 1974

KILLEBREW, WILLIAM A. (Welding)

A.S., Aims Community College; Four years industrial experience. 1974

KLENKE, WILLIAM (Skill Center)

A.S., University of Cincinnati, Ohio; B.S., Ohio University, Athens; M.Ed., University of Northern Colorado; Ten years industrial experience; Three years teaching experience. 1981

KRIEGEL, MELBA E. (Business)

1976 102

B.B.A., Texas Technological University; M.A., University of Northern Colorado; Advanced graduate study, Colorado State University. 1971 LANE, E. KEITH (Mathematics)

B.S., West Texas State University; M.S., West Texas State University. 1968

- LEUSINK, JUDITH P. (Office, Secretarial) B.S., Colorado State University; Graduate study, University of Northern Colorado; Five years business and office experience. 1971
- LORENSON, M. RUTH (Health Occupations) Nsg. Diploma, University of Oklahoma; B.S., Nursing, University of Colorado; Graduate study, University of Northern Colorado; M.A., University of Northern Colorado. 1971
- MARQUEZ, MAXINE F. (Business) B.A., University of Northern Colorado; M.A., Colorado State University. 1974
- MARTZ, NANCY SUE (Developmental/Remedial Education)

B.A., University of Northern Iowa; M.S.T., Wisconsin State University; Advanced graduate study, University of Northern Colorado. 1969

MATHEWS, MARILYN (Accounting)

B.A., University of Northern Colorado; M.A., University of Northern Colorado; Eight years business and office experience. 1968

MAXFIELD, BARBARA (Developmental/Remedial

Education)

B.S., Colorado State University; M.A., University of Northern Colorado; Fourteen years teaching experience. 1980

McKIBBIN, CALVIN T. (Mid-Management)

B.S., University of Nebraska; M.A., University of Northern Colorado; Twenty-four years business experience. 1976

MILLER, SANDRA (Developmental/Remedial

Education)

B.A., University of Northern Colorado; M.A., University of Northern Colorado. 1971

### MOONEN, JOHN (Business Lab Coordinator)

A.A.S., Niagra County Community College, New York; B.S., State University of New York at Buffalo; Six years business related experience; Three years military experience. 1980

MOORE, GEORGE D. (Automotive Mechanics)

B.Ed., Colorado State University; M.Ed., Colorado State University; Advanced graduate study, Colorado State University; Certified General Mechanic, NIASE; Fourteen years trade experience. 1968

MUELLER, JOHN P. (History)

B.S., Colorado State University; M.A., Colorado University. 1971

PAGE, TRULENE B. (Business)

B.S., Colorado State University; M.A., University of Northern Colorado; Advanced graduate study, University of Northern Colorado. 1968 103 PECK, DANIEL D. (Division Chairperson, Public Service)

Attended University of Illinois, Bradley University, Illinois State University; B.E., Colorado State University; Twelve years industrial experience. 1971

PETERSON, MIRIAM E. (Business)

B.S., University of Northern Iowa; M.A., University of Northern Colorado; Eight years business and office experience. 1967

POWERS, KEVIN (Radiologic Technology)

A.A.S., Hudson Valley Community College; B.S., Downstate Mecical Center; Registered Radiologic Technologist. 1978

- PTACEK, WARREN P. (Auto Body) B.E., Colorado State University, Dunwoody Institute (Minneapolis); Four years trade experinece. 1972
- REALE, BARBARA G. (Developmental/Remedial Education)

A.A., Colorado Women's College; B.A., University of Northern Colorado; M.A., University of Northern Colorado; Advanced graduate study, University of Colorado, Eastern New Mexico University, University of Northern Colorado, Adams State College. 1969

RICHTER, WALTER (Science)

B.S., Wagner College, New York City, New York; Ph.D., University of Vermont. 1980

- RITTER, DONALD B. (Assistant Division Chairperson, Design and Creative Studies) B.A., Michigan State University; M.A., Michigan State University, M.A., University of Northern Colorado. 1971
- ROBERTS, WILLIAM (Building Construction) Twenty-six years industrial experience. 1979

ROBINSON, JAMES (LYN) (Physical Science)
B.S., University of New Mexico; M.S., University of New Mexico; Advanced graduate study, University of Kansas, University of Denver, Colorado State University.

RODRIGUEZ, CHARLOTTE (Counselor)

M.A., University of Northern Colorado. 1971

SCHOSSOW, DENNIS (Automotive)

B.S., Industrial Arts, Moorhead State University, Minnesota; Vocational Credential in Trades and Industrial Education, Colorado State University; Five years industrial experience; Five years teaching experience in special needs. 1980

SHELL, WILLIAM L. (Political Science)

B.A., Trinity University (San Antonio); M.A., Johns Hopkins University; Advanced study, University of Heidelberg, University of Munich, Goethe Institute (Germany) 1974

SHELLENBERGER, ROBERT (Assistant Division Chairperson for Psychology)

B.A., Bluffton College; B.D., Vanderbilt University; M.A., Northwestern University; Ph.D., Northwestern University. 1975 SIMS, ESTHER S. (Communications & Arts)

B.A., University of Colorado; M.A., University of Colorado; Ed.S., University of Northern Colorado. 1968

SLIWINSKI, BOB (Auto Mechanics)

Eighteen hour certificate in Vocational Education, University of Maryland; Fifteen years industrial experience. 1979

SMITH, CHARLES G. (Building Construction) A.S., Aims Community College; Eight years industrial experience. 1978

SPIKA, MICHAEL (Welding)

A.A., Long Beach City College; Attended California State University, San Diego and University of California, Los Angeles; Nine years industrial experience. 1978

- STEPHENSON, THELMA J. (Data Processing) A.S., Aims Community College; B.M.E., Indiana
- University, One year business experience. 1976 STEWART, DOROTHY M. (Communications & Arts)

B.A., University of Northern Colorado; M.A., University of Northern Colorado; Advanced graduate study, University of Northern Colorado, Colorado University. 1967

SUMMERS, MAURINE (Child Care)

B.A., University of Northern Colorado; M.A., Colorado State University; Certified Child Care Center director; Seven years experience in child care services. 1972

TERRAZAS, ARTHUR (Developmental/Remedial Education)

A.A., Aims Community College; B.A., University of Northern Colorado; M.A., University of Northern Colorado. 1973

TRIMBLE, C. WILLIAM (Assistant Division

Chairperson, Physical Education)

B.A., University of Northern Colorado; M.A., University of Northern Colorado; Ed.S., University of Northern Colorado 1970

TURNER, JOHN T. (Division Chairperson, Behavioral and Social Science)

B.A., Adams State College; M.A., Adams State College; Advanced graduate study, Colorado State University. 1968

VANTINE, DIANE L. (Communications & Arts) B.A., University of Wyoming; M.A., University of Wyoming; Advanced graduate study, Kansas State University, University of Denver. 1969 VASA, KATHERINE (Director of Child Development Center)

B.S., Colorado State University; Advanced study, University of Northern Colorado; Certified Child Care Center director; Six years experience in child care. 1976

VELASQUEZ, MARIA B. (Developmental/Remedial Education)

B.A., University of Northern Colorado; M.A., University of Northern Colorado. 1972

- VIGIL, MARY L. (Developmental/Remedial Education) B.A., University of Colorado. 1973
- WEBSTER, MARY E. (Business)

B.S., Colorado State University; Four years of business experience. 1978

WRIGHT, DONNA A. (Counselor)

B.S., Colorado State University; M.S., University of Northern Colorado; Ed.S., University of Northern Colorado (Glenhaven Achievement Center). 1973

### ADJUNCT FACULTY

Jerry D. Ballard, M.D. Internal Medicine Medical Group of Greeley

Greeley, Colorado

Tom Budzynski, Ph.D. Assistant Clinical Professor of Psychiatry University of Colorado School of Medicine Clinical Director Biofeedback Institute of Denver

Judith Green, Ph.D. Psychophysiological Therapist Biofeedback and Stress Management Group Boulder, Colorado

Earl Hutchins, M.D.

Neurology Neurology Clinic of Northern Colorado Greeley, Colorado

Ed Wilson, M.D. Family Practice Wardenburg Health Center University of Colorado Boulder, Colorado INDEX

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