## MSI Separator Sheet


MSI2010



## 1980-81 Catalog



# AIMS COMMUNITY COLLEGE 

## Established 1967

P.O. Box 69 Greeley, Colorado 80632

Telephone (303) 330-8008

## HOW TO USE THIS CATALOG

For your convenience, the 1980-81 Aims Community College Catalog has been designed in six individual sections. Section one provides general information. Sections two through six detail courses, curriculum requirements, and programs for the School of Arts and Sciences and the School of Occupational Education: Business Division, Public Service Division, Technical Division, Trades and Industry Division.

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## ACADEMIC CALENDAR

## 1980-1981

## SUMMER SESSION, 1980


Note: No Preregistration for Fall Quarter, 1980

FALL QUARTER, 1980
September 22
Returning Student Orientation, Advising and Registration
September 23 New Student Orientation, Advising and Registration
September 25
Classes Begin
October 6 Last Day to Drop Classes with Refund
October 27-31 Mid-Term Week
November 7 ............................................................................. . . Staff Development Day
November 17-21
Preregistration for Winter Quarter
November 26-28 Thanksgiving Holiday (College Closed)
December 10-11 ................................................................................. Examination Days
December 11
End of Quarter
December 22-26 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Christmas Holiday (College Closed)

WINTER QUARTER, 1981
January 1
New Year's Holiday (College Closed)
January 5
Registration
January 6
Classes Begin
January 15
February 9-13 Last Day to Drop Classes with Refund

February 20 Staff Development Day
March 9-13 Preregistration for Spring Quarter
March 18-19 Examination Days
March 19 End of Quarter

## SPRING QUARTER, 1981


March 31 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Classes Begin

May 4-8 Mid-Term Week
May 25
Memorial Day Holiday (College Closed)
June 8-9
Preregistration for Summer Quarter
June 10-11 Examination Days
June 11 End of Quarter
June 12
Graduation


## HISTORY

In the summer of 1966, after several months of study, a citizen's committee representing all Well 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 1979. Diverse needs of these students have resulted in an increased number of classes and programs.

The college currently offers three associate degrees: the Associate in Arts degree (A.A.) and the Associate in Science degree (A.S.), designed for those who plan to transfer to another college or university to pursue a baccalaureate degree, and the Associate in 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 Occupationd 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. Richard 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;
2. Foster a climate for students to develop rewarding personal and social patterns of life for their roles at home and in the community;
3. Assist students to achieve optimum vocational maturity; and
4. Promote an appreciation for the creativity of others and, thereby, to discover the potential for one's own creativeness.

## PURPOSES

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

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

## THE FOUNDATION

The Aims Community College Foundation was established during the 1979-1980 academic year to provide financial and other support for the college and its activities beyond those which 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. Leroy Levitt, 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 review certain 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 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 16 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 student's previous secondary and college education, submitted to the college as part of the admissions procedures, become part of the official file and cannot be returned to the student. The college does not issue or certify copies of transcripts from other institutions.

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.)
2. 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.
4. 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 (l-20).
5. Foreign students are required to maintain satistactory 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 20 (l-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 93380 Subsection 513, 88 Stat. 571; 20 U.S.C. 1232q).

Students may review their records upon 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:
3. Aims Community College officials
4. Officials of other schools or colleges where the student intends to enroll
5. State or federal educational authorities
6. In connection with a student's application for financial aid
7. State and local officials requiring reporting data
8. Organizations conducting studies for educational institutions or agencies
9. Accrediting organizations
10. Parent of a dependent student
11. In compliance with judicial order
12. 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 completed the FFS)
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 an 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 ANDIOR DROP COURSES:

1. Obtain an Add/Drop form from the Admissions office, room 208, General Studies 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 8 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, nonoccupational educ. student
12-22 credit hours, occupational educ. student
In-State, In-District residents:
$\$ 96.00$ per quarter (greater Weld County area)
In-State, Out-of-District residents:
Out-of-State residents:
$\$ 144.00$ per quarter $\$ 660.00$ per quarter
Surcharge: over 18 credit hours, nonoccupational educ. student over 22 credit hours, occupational educ. student In-State, In-District residents:
$\$ 6.00$ per credit hour
(greater Weld County area)
In-State, Out-of-District residents: Out-of-State residents:
$\$ 8.00$ per credit hour
Part-time Students: 1-11 credit hours
In-State, In-District residents:
$\$ 35.00$ per credit hour
(greater Weld County area)
In-State, Out-of-District residents: Out-of-State residents:

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 oblain 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.

ESTIMATED ACADEMIC YEAR BUDGETS (9 Mo.)*

SINGLE RESIDENT

| Tuition \& Fees | $\$ 294.00$ |
| :--- | ---: |
| Room \& Board | 1890.00 |
| Books \& Supplies | 175.00 |
| Personal Expenses | 450.00 |
| Transportation | 270.00 |
|  | $\$ 3079.00$ |

## MARRIED RESIDENT

Tuition \& Fees \$294.00
Room \& Board $\quad 3015.00$
Books \& Supplies $\quad 175.00$
Personal Expenses $\quad 750.00$
Transportation $\quad \begin{array}{r}270.00 \\ \$ 4504.00\end{array}$

## SINGLE NONRESIDENT

| Tuition \& Fees | $\$ 1625.00$ |
| :--- | ---: |
| Room \& Board | 1890.00 |
| Books \& Supplies | 175.00 |
| Personal Expenses | 450.00 |
| Transportation | $\underline{270.00}$ |
|  | $\$ 4410.00$ |

## MARRIED NONRESIDENT

| Tuition \& Fees | $\$ 1625.00$ |
| :--- | ---: |
| Room \& Board | 3015.00 |
| Books \& Supplies | 175.00 |
| Personal Expenses | 750.00 |
| Transportation | $\underline{270.00}$ |
|  | $\$ 5835.00$ |

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

## 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 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 Studies building, room 217.

## ELIGIBILITY

Most financial aid is awarded to students on the basis of NEED. In determining NEED in a consistent way for all aid candidates, Aims Community College requires all financial aid applicants to submit the ACT Family Financial Statement to the ACT program in lowa City, lowa. The ACT Family Financial Statement and information about financial aid may be obtained from the high school guidance counselors. 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. Colorado Student Data Form.
2. Family Financial Statement (FFS) of the American College Testing program (ACT)
3. Affidavit of Nonsupport (independent students only).

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:

Summer quarter ................................................................................. 15
Fall quarter 15
Fall quarter.

## Winter quarter

 October 31Spring quarter . January 31

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.)

## STUDENT FINANCIAL ASSISTANCE PROGRAMS <br> 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 $\$ 2,500$. Repayment of the NDSL begins nine 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.

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

## COLORADO GUARANTEED STUDENT LOANS (CGSL)

Undergraduate students may borrow up to $\$ 2,500$ per year, but not more than $\$ 7,500$ during their undergraduate career. The interest on a CGSL is $7 \%$ simple interest. The federal government pays the interest while the individual is enrolled as a full time student and up to ten 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 applyng for a CGSL should contact their local lending institutions. If local lending 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

BASIC EDUCATIONAL OPPORTUNITY GRANT (BEOG):
Available to all eligible undergraduate students. All Basic Educational Opportunity Grant 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 the original set 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 the most "needy" undergraduate students. Allocated after all other sources of aid are awarded and the applicant still has unmet need. SEOG awards must be matched with an equal or greater award from another source.

## COLORADO STATE GRANT:

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 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.

## 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.

## CAMPUS EMPLOYMENT PROGRAM:

This is not a need based program. Students participating in a need based federal or state financial aid program will, however, be limited in the amount of campus employment funds they may earn within the given academic year. Authorization for employment under the campus employment program is through the securing of a campus work permit from the Financial Aid office. Students not receiving financial assistance from the need based programs may secure an unlimited authorization for employment.

## 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.

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 a letter of recommendation accompanies regular financial aid application. In-district students should contact their high school counselors regarding these scholarships.

## ROY L. SMITH MEMORIAL FUND AWARD:

Annually, two $\$ 300$ scholarships from a $\$ 8000$ 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. Further information may be obtained from the Financial Aid office.

## 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 Financial Aid 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 Gl Bill), 634 (War Widows and War Orphans), and 815 (Disabled Veterans).

Veterans who are eligible for Veterans Benefits should contact the Financial Aid 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 Financial Aid 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 | NO |  |  | EA. ADD. |
| LOAD | DEPS. | 1 DEP. 2 DEPS. | DEP. |  |
| Full Time (12 credit hrs.) | 311 | 370 | 422 | 26 |
| Three-Quarter <br> (9-11 credit hrs.) | 233 | 277 | 317 | 19 |
| Half Time (6-8 credit hrs.) | 156 | 185 | 211 | 13 |

Students who are receiving VA benefits must report immediately to the Financial Aid 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, 1975. 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 eighty nine dollars (\$89) 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 Financial Aid 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 tution 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.

1. 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 9 credit hours, with a D grade or better
b. Three-quarter-time students (those enrolled in 9-11 credit hours) must complete at least 6 credit hours, with a D grade or better
c. Half time students (those enrolled in 6-8 credit hours) must complete at least three credit hours, with a D grade or better
2. 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 in which they enrolled.
3. Sophomores (those students who have earned more than 44 credit hours) must maintain a 2.00 grade point average in ALL courses in which they enrolled.
4. No student will receive financial aid for more than a total of three academic years.
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 the 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 and during a subsequent quarter meets the standards of progress, he or she can be reinstated on financial aid.

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 contact the Financial Aid office within a week after being notified that his or her financial aid has been terminated.

## ACADEMIC INFORMATION 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 achieve at a level of C or above in designated courses
COURSE STATUS DESIGNATIONS
W Withdrawal - no grade points (administrator, faculty member, or student initiated)
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 changed 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 gradepoint 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 sucessfully 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 in Applied Science degree, (A.A.S.), an Associate in Arts degree (A.A.), an Associate in 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 applications 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 Studies building. Instructional Centers, which are extensions of the LDC, are located within each classroom building on the campus. 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.

## MEDIA PRODUCTION CENTER

The Media Production component of the LDC supports through its services the total instructional program at Aims Community College. Instructional materials are produced utilizing such graphics as charts, posters, graphs, and overhead transparencies; other graphics are employed for video, film, and slide productions. Nongraphic materials vary from photograph print, slide, and filmstrip production, to instructional television. Also available for the production and duplication of instructional materials are a twocamera, color television studio, an audio production board, and portable color TV capabilities.


## AUDIO-VISUAL EQUIPMENT CENTER

The Audio-Visual Equipment Center provides preventive maintenance and repair service for the college's visual 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 Media Production Center to ensure the availability of compatible equipment in sufficient quantity.


## LIBRARY

The LDC Library houses a collection of both print and nonprint materials which complement the curricula of Aims Community College. Subscriptions to periodicals and newspapers are maintained. Nonprint materials include audio tapes, records, 16 mm and 8 mm films, filmstrips, and microfilm. Microfilm readers, selfservice copy equipment, and audio-visual equipment are available. The library uses a computerized circulation system for checking out materials. Student identification numbers are used to check out materials. The library is open from 8:00 a.m. to 9:00 p.m. Monday through Thursday and from 8:00 a.m. to 5:00 p.m. on Friday. The library is closed on weekends.

## DIAGNOSTIC CENTER

Located within the LDC, the Diagnostic Center has the services of two staff members who have received special training in diagnostic testing and remediation. Students are assessed to determine their learning/working characteristics. The center is based upon a three-dimensional approach: 1) the cognitive, which includes academic, achievement, and aptitude testing; 2) the affective, which includes testing to aid students to better understand themselves and their needs; and 3) the perceptual-motor, which includes the assessment of those learning characteristics which interfere with the stdent's academic progress.

## COUNSELING AND GUIDANCE SERVICES

While attending Aims Community College, students will discover that many new and important decisions confront them. In general, 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 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 Psychological Association and 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. Emphasis is placed on helping all students with any problems that interfere with achieving success at the college. Since the service is 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 LDC.

The counseling staff assists students in the following areas:

1. Educational planning
2. Career planning
3. Diagnostic evaluation (interest, aptitude, personality, and learning disabilities)
4. Self-exploration and interpersonal relations
5. Vocational counseling

No entrance examinations or tests are required for admission to the college. Individuals contemplating transfer to other colleges are encouraged, however, to take the ACT required by those institutions and have a copy of the results sent to Aims Community College. With this data, counselors and advisors are able to aid the individual student in planning his or her educational program and to make the most appropriate use of resources available to the student.

## 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:

1. 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 interference, 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 whose 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 vacations, or after graduation. Contact the Job Development Specialist in the Trades and Industry building.

## 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 arrangements 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.


## COLLEGE COMMITTEE AND FACULTY

## AIMS JUNIOR COLLEGE DISTRICT COMMITTEE

| Lynn Pitcher | President |
| :--- | ---: |
| Wayne Foster | Secretary |
| H. Gordon Johnson | Treasurer |
| Buryl Van Buskirk | Member |
| Dale Majors | Member |

## AIMS COMMUNITY COLLEGE FACULTY AND ADMINISTRATION

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

ANDRADE, CHARLOTTE (Counselor)
M.A., University of Northern Colorado.

1971
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
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
CALLER, EDWARD G. (Engineering Technology) Attended Rochester Technical School, Luton College of Technology; Fifteen years industrial experience.

1978
CAMERON, ROY E. (Biology)
B.S., University of Illinois; M.S., University of lllinois; 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.

1967
CRIBELLI, SUSAN (Developmental Studies)
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

DUNCAN, JAMES CARROLL (Agriculture)
B.S., Abilene Christian College; M.Ed., Sam Houston State University; Seven years industrial experience.

1974
ECKHARDT, LUCILLE (Business)
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.

1972
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.

1968
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 (Divison 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 Studies)
Undergraduate and graduate study, University of Northern Colorado.

GONZALEZ, DAVID (Developmental Studies)
B.A., University of Northern Colorado; M.A., University of Northern Colorado.

1973
GORGEN, LAWRENCE A. (Developmental Studies)
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; Adanced graduate study, Colorado State University; Eighteen years business and industrial experience. 1974

GUILLIAMS, CARL E. (Auto Body)
Thirty years industrial experience.
1976
HARDER, PATRICIA A. (Business Lab Coordinator)
B.S., Colorado State University; Eight years secretarial experience. 1979

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
KRIEGEL, MELBA E. (Business) 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 Studies)
B.A., University of Northern lowa; 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
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 Studies)
B.A., University of Northern Colorado; M.A., University of Northern Colorado. 1971

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

## NEARY, SANDRA S. (Data Processing)

B.B.A., University of Iowa; M.Ed., Colorado State University; Four years business experience. 1975

PECK, DANIEL D. (Divison 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 Medical Center; Registered Radiologic Technologist.

1978
PTACEK, WARREN P. (Auto Body)
B.E., Colorado State University, Dunwoody Institute
(Minneapolis); Four years trade experience. 1972

REALE, BARBARA G. (Communications \& Arts) 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
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.

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. 1969

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.

1975
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.

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 Coloado; 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
TAYLOR, JAMES H. (Respiratory Care)
A.S., El Camino College; B.S. Southern Illinois University at Carbondale; EMT-1, Physician Assistant SP-2, Registered Respiratory Therapist No. 3713; Nine years experience as respiratory practitioner; Three years experience as program director of schools of respiratory care.

1978
TERRAZAS, ARTHUR (Developmental Studies)
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. (Director, Bilingual Teacher Aide Program)
B.A., University of Northern Colorado; M.A., University of Northern Colorado. 1972

VIGIL, MARY L. (Developmental Studies) B.A., University of Colorado. 1973

WEBSTER, MARY E. (Developmental Studies)
B.S., Colorado State University; Four years of business experience.

1978
WERNER, DAVID D. (Communications \& Arts)
B.A., University of Montana; M.A., University of Montana; M.A.L.S., University of Denver. 1969
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

## ADMINISTRATIVE STAFF

BOGGS, RICHARD E. (Director/Computer Center) ..... 1977
CARR, TERRY (Director/Financial Aids) ..... 1971
CONGER, DR. GEORGE R. (President) ..... 1979
CUMMINS, DON (Director/Purchasing) ..... 1980
GAISER, PAUL W. (Dean/Occupational Education) ..... 1977
HANES, CLAUD W. (Controller) ..... 1979
KERT-GIVEN, ELIZABETH J. (Director/Public Information) ..... 1979
KIEFER, JERRY (Dean of the College) ..... 1974
MARTINEZ, RALPH D. (Director/Admissions and Records) ..... 1973
RAILE, DWANE D. (Dean/Arts and Sciences) ..... 1971
RANGEL, ROBERT N. (Dean/Student Personnel Services) ..... 1969
RASMUSSEN, ALVIN R. (Director/Student Affairs) ..... 1979
SLOMER, RUTH M. (Associate Dean/Student Personnel Services) ..... 1970
TINDALL, DON (Director/Plant and Maintenance) ..... 1980
WHITE, WILSON B. (Director/Personnel) ..... 1980

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1980-81 Catalog


Arts \& Sciences


# AIMS COMMUNITY COLLEGE <br> Established 1967 <br> <br> P.O. Box 69 Greeley, Colorado 80632 <br> <br> P.O. Box 69 Greeley, Colorado 80632 <br> <br> Telephone (303) 330-8008 

 <br> <br> Telephone (303) 330-8008}

## HOW TO USE THIS CATALOG

For your convenience, the 1980-81 Aims Community College Catalog has been designed in six individual sections. Section one provides general information. Sections two through six detail courses, curriculum requirements, and programs for the School of Arts and Sciences and the School of Occupational Education: Business Division, Public Service Division, Technical Division, Trades and Industry Division.

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Welding Programs

## 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 serve the special and the developmental 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 in Arts degree or the Associate in 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 School of Arts and Sciences also provides specific developmental course offerings which make available educational options for adults in the areas of language and communication skills, reading, computation, science, consumer economics, and social studies.

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 in Arts degree (A.A.) and the Associate in 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 in Arts degree or the Associate in 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."

## DEVELOPMENTAL STUDIES DIVISION

The Developmental Studies Division offers classes in English as a Second Language (ESL), Adult Basic Education (ABE), and General Education Development (GED). The Division exists to provide educational options for adults in these areas. Upon entering the Developmental Studies Division, academic skills are analyzed in relation to the educational goals and social living needs of each student. As a result of the initial assessment, students are placed into one of the three programs: ESL, ABE, or GED. The student's academic curriculum is based on his or her goals. Students have an opportunity to acquire a level of skills ranging from the basic to those necessary to pass the GED exam. Course credits in the Developmental Studies Division are nontransferable. Class tuition is free for those who meet the college's residency requirements and do not have a high school diploma or a GED certificate. Nonresidents and/or those without a diploma or certificate will be required to pay tuition according to the college's tuition structure.

## 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, UNC.

## MEXICAN AMERICAN STUDIES

A Mexican American Studies (MAS) curriculum exists within the School of Arts and Sciences. MAS courses are listed separately and also are included in other divisions and departments within the School of Arts and Sciences. 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 the individual has a special interest in. 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 communites 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.


## ASSOCIATE IN ARTS DEGREE

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

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

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

## COMMUNICATIONS

CON 102 Introduction to Writing
CREDITS

As the result of a placement test, the student may be required to take Fundamentals of Composition, CON 101, for elective credit (five credits).
Students are encouraged to take the above courses within the first two quarters of their degree program

Select from the following courses:

| SPE | 115 | Speech Communications |
| :--- | :--- | :--- |
| SPE | 116 | Public Speaking |
| SPE | 118 | Interpersonal Communications |
| SPE | 119 | Introduction to Semantics |

SPE 119 Introduction to Semantics
(3)

Select from the following courses:
Any combination of courses listed in the Communications course section: journalism, literature, logic, reading, other speech courses, and other writing courses are acceptable except any course below the 100 level and REA 115119.

Total Credits for A.A. Degree

## HUMANITIES

HUM 100 Introduction to the Humanities
Select from the following courses:

| HUM 101 | Introduction to the Greek and <br> Roman period |
| :--- | :--- | ---: |
| HUM 102 | Introduction to the Middle Ages and <br> $\quad$ Renaissance Period |
| HUM 103 | Introduction to the Modern Period to <br> World War II |
| (5) |  |

Total Credits for A.A. Degree

BEHAVIORAL AND SOCIAL SCIENCE

Select from the following courses:

Select from two of the following five areas:

## ANTHROPOLOGY

| ANT | 101 | Introduction to Anthropology |
| :--- | :--- | :--- | :--- |
| ANT | 205 | Environment and Culture Behavior |

## ECONOMICS

ECO 100 Introduction to Economics
ECO 201 Principles of Economics - Macroeconomics
ECO 202 Principles of Economics - Microeconomics
HISTORY
HIS 101 Hang-ups From Way Back -
ang-ups From Way Back Medieval Civilization
HIS 103 Hang-ups From Way Back Modern Civilization
HIS 105 History of the United States to 1877
HIS 106 History of the United States from 1865-1945 - Myth and Reality in America's Past
HIS 107 History of the United States Since 1945
HIS 108 Modern Russian Civilization
HIS 205 History of England
(5)

HIS 209 History of Colorado and the
Rocky Mountain West
MAS 161 Aztec Civilization
MAS 162 Introduction to Modern Mexico

POLITICAL SCIENCE

| POS | 100 | Introduction to Political Science |
| :--- | :--- | :--- |
| POS | 101 | American Government |
| POS | 102 | Comparative Foreign Government |
| POS | 107 | State Government |
| POS | 108 | The American Presidency |
| POS | 109 | Contemporary Political Issues |
| POS | 116 | International Politics Since 1945 |
| POS | 118 | State and Local Governments |
| POS | 205 | International Relations |
| POS | 206 | American Foreign Policy |

(5)

## GEOGRAPHY

GEO 105 World Geography
GEO 205 Geography of North America (3)
GEO 206 Geography of Colorado
GEO 207 Urban Geography
Total Credits for A.A. 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 physica 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.A. degree. Students who desire a physical education waiver must contact the Guidance office.

## MATHEMATICS AND SCIENCE

Only those courses numbered 100 or above are acceptable in meeting these requirements. Students should give maximum attention to prerequisities and corequisites as stated in this catalog. NOTE: A single course may be used to meet only one requirement.

Select from the following courses:
Any course having the prefix MAT, STA, or COS (excluding MAT 109 and MAT 115).

Select from the following courses:
Any course having the prefix AST, BIO, CHE, GEY, PHY, EAS, and SCI.

Select from the following courses:
Any course having the prefix MAT, STA, COS, EAS, AST, BIO, CHE, GEY, PHY, and SCI.

Students 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) mathematics requirement can be met by completing MAT 101 or a higher numbered course (excluding MAT 107, MAT 109, and MAT 115).

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

Total Credits for A.A. Degree

## 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 necessary, however, to enroll in specific courses to fulfill those degree requirements for a particular area of emphasis.

## 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:
CREDITS

## COMMUNICATIONS

 15See A.A. degree requirements

HUMANITIES
HUM 100 Introduction to the Humanities
(5)

MAS 120 Culture of Mexico and South America
See A.A. degree requirements

BEHAVIORAL AND SOCIAL SCIENCE
See A.A. degree requirements

## PHYSICAL EDUCATION

5
See A.A. degree requirements
MATHEMATICS AND SCIENCE
CHE 105 Introductory Nutrition
MAT 100 Survey of Mathematics
See A.A. degree requirements

ELECTIVES

| SPP | 125 | Field Experience in Teacher Aide |  |
| :--- | :--- | :---: | :---: |
|  | Education |  |  |
| SPP | 126 | Methods for Teaching the Bilingual |  |

SPP 117 | Introduction to Teacher Aide Training |
| :---: |
| Program |

SPP 119 Concepts of Bilingual Education (3)
CCT 162 Child Growth and Development II
SPA 111 Elementary Spanish I (if not proficient in Spanish)

RECOMMENDED ELECTIVES
Select from the following courses:

| SPA | 112 | Elementary Spanish II |
| :--- | :--- | :--- | :--- |
| MAS | 105 | Mexican Music |
| MAS | 116 | Bilingual Skills |
| MAS | 155 | Mexican Dance |
| MAS | 165 | Chicano History <br> Independent study in classroom <br> equipment (see advisor) |
| PSY | 118 | Psychology of Adulthood <br> (for students wanting to aid <br> in adult programs) |
| PSY | 205 | Psychology of Adolescence <br> (for students wanting to aid <br> in secondary programs) |

Total Credits for Area of Emphasis


## BEHAVIORAL AND SOCIAL SCIENCE DIVISION

## HUMANISTIC PSYCHOLOGY EMPHASIS

Recommended degree requirements for area of emphasis:
CREDITS

## COMMUNICATIONS

See A.A. degree requirements
HUMANITIES
See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE
$\begin{array}{ll}\text { PSY } 101 & \text { General Psychology } \\ & \\ & \text { See A.A. degree requirements }\end{array}$
PHYSICAL EDUCATION

See A.A. degree requirements
MATHEMATICS AND SCIENCE
See A.A. degree requirements

## ELECTIVES

| PSY 115 | Humanistic Psychology |
| :--- | :--- | :--- |
| PSY 207 |  |
| Consciousness Alteration |  |
| PSY 211 | Parapsychology I |
| PSY 241 | Biofeedback I: Biofeedback \& the |
| Psychology of Health (Principles) |  |
| PSY 248 | Child Psychology |
| SOC 105 | Sociology of Mar riage and |
|  | the Family |

Select from the following courses:
$\begin{array}{llc}\text { PSY } & 107 & \text { I'm OK, You're OK — Psychology of } \\ & \text { Personal Relations } \\ \text { PSY } 111 & \text { Basic Human Potential Seminar }\end{array}$
Select from the following courses:
PSY 242 Biofeedback II: EEG \& EMG (Practicum)
SOC 106 Contemporary Social Problems
SOC 115 Sociology of Education
(3)

SOC 117 Sociology of Leisure
(3)

Remaining hours selected as desired 0-1
Total Credits for Area of Emphasis

## PARAPROFESSIONAL COUNSELNG EMPHASIS

Recommended degree requirements for area of emphasis:

## CREDITS

## COMMUNICATIONS

See A.A. degree requirements
HUM ANITIES
See A.A. degree requirements

BEHAVIORAL AND SOCIAL SCIENCE
See A.A. degree requirements
PHYSICAL EDUCATION
See A.A. degree requirements
MATHEMATICS AND SCIENCE
See A.A. degree requirements

## ELECTIVES

PSY 107 I'm OK, You're OK — Psychology of
Personal Relations
PSY 111 Basic Human Potential Seminar
(3)

PSY 221 Abnormal Psychology
PSY 241 Biofeedback I: Biofeedback \& the Psychology of Health (Principles)
PSY 248 Child Psychology
PSY 249 Counselng and Crisis Intervention
SOC 111 Social Services I

Select one of the following courses:

| PSY 205 | Psychology of Adolescence |
| :--- | :--- | :--- |
| PSY 231 | Psychology of Dreams |
| PSY 232 | Psychology of Dreams |
| PSY 237 | Assertiveness Training |
| PSY 242 | Biofeedback II: EEG \& EMG <br>  <br>  <br>  <br> (Practicum) |

Remaining hours selected as desired
Total Credits for Area of Emphasis

BIOFEEDBACK EMPHASIS
Recommended degree requirements for area of emphasis:

CREDITS
15
See A.A. degree requirements
HUMANITIES
See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE
(10)

## PHYSICAL EDUCATION <br> PEF 141 Yogal <br> PEF 142 Yoga II

(1)
(1)
(3)

## MATHEMATICS AND SCIENCE

BIO 101 Biological Concepts (5)
(5)
(5)

31-(33)*
PSY 107 I'm OK, You're OK — Psychology of
$\quad$ Personal Relations
PSY 207 Principles of Meditation \& Consciousness Alteration
PSY 212 Holistic Health
PSY 221 Abnormal Psychology
PSY 231 Psychology of Dreams
(5)
*(Or may substitute Psy 232.
Psychology of Dreams, 5 credits)
PSY 241 Biofeedback I: Biofeedback \& the Psychology of Health (Principles)
PSY 242 Biofeedback II: EEG \& EMG (Practicum)
(3)
(4)

PSY 243 Biofeedback III: Internship
PSY 249 Counseling \& Crisis Intervention
Total Credits for Area of Emphasis

## 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.

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

## HUMANITIES

See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE
POS 101 American Government
POS 118 State and Local Governments
Select one of the following courses:
PSY 101 General Psychology
SOC 101 Introduction to Sociology

See A.A. degree requirements
MATHEMATICS AND SCIENCE
See A.A. degree requirements
The following courses are suggested after consultation with an advisor:
ACC 101 Principles of Accounting I
ACC 102 Principles of Accounting II
ECO 201 Principles of Economics - Macroeconomics
EDP 101 Introduction to Data Processing
MGT 215 Personnel Management
ELECTIVES (as appropriate)
Total Credits for Area of Emphasis

## JUDICIAL-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 services 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 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 J-LA.
Recommended degree requirements for area of emphasis:

# COMMUNICATIONS 

SPE 116 Public Speaking
See A.A. degree requirements

## HUMANITIES

See A.A. degree requirements

BEHAVIORAL AND SOCIAL SCIENCE
ECO 201 Principles of Economics - Macroeconomics (5)
POS 101 American Government
(5)

Select one of the following courses:
PSY 101 General Psychology
SOC 101 Introduction to Sociology
(5)

PHYSICAL EDUCATION
See A.A. degree requirements

MATHEMATICS AND SCIENCE
MAT 112 College Algebra
(Preceded by MAT 111, Intermediate Algebra, if necessary)
STA 201
Statistics for Business, Science and Social Science I
STA 202 Statistics for Business, Science and Social Science II

ELECTIVES:

ACC 101 Principles of Accounting I (5)
ACC 102 Principles of Accounting II
BUS 255 Business Law
ECO 202 Principles of Economics - Microeconomics
EDP 101 Introduction to Data Processing
POS 118 State and Local Governments
$(5)$
(5)
Remaining hours selected as desired
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 Studies building, ext. 213.

Additional 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

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.

Recommended degree requirements for area of emphasis:
CREDITS

## COMMUNICATIONS

See A.A. degree requirements
HUMANITIES
See A.A. degree requirements

## BEHAVIORAL AND SOCIAL SCIENCE

HIS 103 Hang-ups from Way Back - Modern
Civilization
Select one of the following courses:
PSY 101 General Psychology
SOC 101 Introduction to Sociology
Select one of the following courses:
ECO 100 Introduction to Economics
ECO 201 Principles of Economics - Macroeconomics (5)
PHYSICAL EDUCATION
See A.A. degree requirements

## MATHEMATICS AND SCIENCE

See A.A. degree requirements

# ELECTIVES 

| HIS | 105 | History of the United States <br> from 1877 |
| :---: | :---: | :---: |
| HIS | 106 | History of the United States |

HIS 106 History of the United States

POS 100 Introduction to Political Science
POS 101 American Government
POS 118 State and Local Governments
Select one of the following courses:
(5)
(5)

HIS 107 History of the United States Since 1945
POS 102 Comparative Foreign Government
POS 107 State Government (2-5)
POS 108 The American Presidency
POS 109 Contemporary Political Issues
POS 116 International Politics Since 1945
POS 205 International Relations
POS 206 American Foreign Policy
(5)

Remaining hours selected as desired
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 opportunites 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:

## COMMUNICATIONS

See A.A. degree requirements

## HUMANITIES

See A.A. degree requirements

## BEHAVIORAL AND SOCIAL SCIENCE

| ECO | 210 | Principles of Economics - Macroeconomics | $(5)$ |
| :--- | :--- | :--- | :--- |
| GEO | 105 | World Geography | $(5)$ |
| GEO | 206 | Geography of Colorado | $(3)$ |
| HIS | 107 | History of the U.S. Since 1945 | $(5)$ |
| PSY 101 | General Psychology | $(5)$ |  |
| POS 101 | American Government | $(5)$ |  |
| POS 118 | State and Local Government | $(5)$ |  |
| SOC 101 | Introduction to Sociology | $(5)$ |  |
| SOC 111 | Social Services I | $(3)$ |  |
|  |  | Consult with an advisor to determine which of |  |
|  |  | these courses will apply to the A.A. degree |  |
|  | "area" requirements and which will apply to |  |  |
|  | "elective" requirements. All of the above |  |  |
|  | courses are required to complete this emphasis. |  |  |

## PHYSICAL EDUCATION

See A.A. degree requirements

## MATHEMATICS AND SCIENCE

See A.A. degree requirements
ELECTIVES ..... 5
Total Credits for Area of Emphasis ..... 96

## 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, education, economic security, housing, and mental 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 in 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:

## COMMUNICATIONS

CON 102 Introduction to Writing (5)
CON 103 Communication and Research
SPE 115 Speech Communications

## HUMANITIES

Select two of the following courses:

| ART 100 | Art Appreciation |
| :--- | :--- | :--- |
| HUM 101 | Introduction to the Greek and <br> Roman Period |
| HUM 102 | Introduction to the Middle Ages <br> and Renaissance Period |
| MUS 100 | Music Appreciation <br> Introduction to Philosophy |
| PHI 105 | Intren |

BEHAVIORAL AND SOCIAL SCIENCE
ANT 101 Introduction to Anthropology
POS 101 American Government
SOC 101 Introduction to Sociology

## PHYSICAL EDUCATION

See A.A. degree requirements

## MATHEMATICS AND SCIENCE

BIO 101 Biological Concepts
(5)

MAT 112 College Algebra
Select one of the following courses:
CHE 105 Introduction to Nutrition
(5)

STA 201 Statistics for Social Science I

## ELECTIVES

ECO 100 Introduction to Economics
(5)

MAS 106 Psychology of the Mexican American
PSY 101 General Psychology
SOC 106 Contemporary Social Problems
(5)

SOC 111 Social Services I
(3)

SOC 112 Social Services II
(3)

SOC 113 Social Services III
(3)

Select one of the following courses:

| PSY | 118 | Psychology of Adulthood |
| :--- | :--- | :--- |
| PSY | 205 | Psychology of Adolescence |
| PSY | 248 | Child Psychology |

PSY 248 Child Psychology
Remaining hours selected as desired
Total Credits for Area of Emphasis

CREDITS

## COMMUNICATIONS

See A.A. degree requirements

## HUMANITIES

Art 100 Art Appreciation See A.A. degree requirements

BEHAVIORAL AND SOCIAL SCIENCE
See A.A. degree requirements
PHYSICAL EDUCATION
See A.A. degree requirements

## MATHEMATICS AND SCIENCE

See A.A. degree requirements

## ELECTIVES

Select from the following courses:

$$
\begin{array}{lll}
\text { AAD } & 101 & \text { Fundamentals of Art \& Design I } \\
\text { AAD } & 102 & \text { Fundamentals of Art \& Design II }
\end{array}
$$

AAD 103 Fundamentals of Art \& Design III
Select from the following courses:
$\begin{array}{lll}\text { AAD } & 221 & \text { Graphic Design I } \\ \text { AAD } & 222 & \text { Graphic Design II }\end{array}$
AAD 223 Design III
Select from the following courses:

| AAD | 100 | Survey of Architecture |
| :--- | :--- | :--- |
| AAD | 131 | Drawing I |
| AAD | 132 | Drawing II |
| AAD | 225 | Photography I |
| AAD | 226 | Photography II |
| AAD | 227 | Interior Design I |
| AAD | 228 | Interior Design II |
| AAD | 231 | Figure Drawing |
| ARS | 243 | Water Media I |
| FTC | 100 | Survey of Clothing Design and |
|  |  | Selection |

Total Credits for Area of Emphasis

## DESIGN AND CREATIVE STUDIES ADVISORY COMMITTEE

| Architecture | Robert Shreve <br> Architect and Vice President <br> ARIX - Architects, Engineers, Planners <br> Interior Design <br> Kraphic Design <br> Kay Carithers <br> Owner <br> Decor Ltd. <br> Marty Van Loan <br> Graphic Designer <br> Shef Enterprises |
| :--- | :--- |
|  | Deborah Dalton <br> Advertising Manager <br> Joslins Department Stores |
| Photography | Paul Moloney <br> Photo Editor |
|  | The Greeley Daily Tribune <br> John Buffington <br> Photo Technician <br> Colorado State University |

*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), the student selects from either the Art electives listed, or from the Music and Theatre electives listed.

Recommended degree requirements for area of emphasis:

COMMUNICATIONS
15
See A.A. degree requirements

## HUM ANITIES

15
HUM 100 Introduction to the Humanities
Select two of the following courses:

| ART 100 | Art Appreciation |
| :--- | :--- | :--- |
| MUS 100 | Music Appreciation |
| THE 100 | Introduction to Theatre Arts |

BEHAVIORAL AND SOCIAL SCIENCE
See A.A. degree requirements
PHYSICAL EDUCATION
See A.A. degree requirements

ELECTIVES - ART

Select from the following courses:

| AAD | 101 | Fundamentals of Art \& Design I |
| :--- | :--- | :--- |
| AAD | 102 | Fundamentals of Art \& Design II |
| AAD | 103 | Fundamentals of Art \& Design II |
| ART | 111 | Art History I |
| ART | 112 | Art History II |

(5)

AAD 102 Fundamentals of Art \& Design II
(5)
(5)

ART 112 Art History II
(

Select from the following courses:

| AAD | 131 | Drawing I |
| :--- | :--- | :--- |
| AAD | 132 | Drawing II |
| AAD | 231 | Figure Drawing |
| ARS | 241 | Painting I |
| ARS | 243 | Water Media । |
| ARS | 251 | Sculpture I |
| ARS | 261 | Jewelry and Metalwork I |
| ARS | 271 | Pottery and Ceramic Design I |
| ARS | 281 | Weaving and Textile Design I |

(3)

AAD 132 Drawing II
AAD 231 Figure Drawing
(3)

ARS 243 Water Media I
ARS 251 Sculpture I
(3)

ARS 261 Jewelry and Metalwork I
(3)

ARS 271 Pottery and Ceramic Design
(3)

ARS 281 Weaving and Textile Design I
(3)

Remaining hours selected as desired
Total Credits for Area of Emphasis

## ELECTIVES - MUSIC AND THEATRE

Select from the following courses:

| MUP | 131 | Piano I |
| :--- | :--- | ---: |
| MUP | 132 | Piano II |
| MUS | 105 | Fundamentals of Music |
| MUS | 106 | Music Theory |
| MUS | 220 | Children's Music |
| THE | 100 | Introduction to Theatre Arts |
| THE | 135 | Acting I |
| THE | 136 | Acting II |
| THE | 145 | Stagecraft |
| THE | 255 | Directing |
| THE | 275 | Art of Dance \& Movement |
| THE | 299 | $(3)$ |
|  |  | Theatre Practicum |
|  | (Prospective theatre majors should take part in a |  |
|  | minimum of 4 productions in which credit is |  |
|  | given through the theatre "practicum.") |  |

Total Credits for Area of Emphasis


## ASSOCIATE IN SCIENCE DEGREE

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

|  | CREDITS |
| :--- | ---: |
| Communications | 15 |
| Humanities | 15 |
| Behavioral and Social Science | 15 |
| Physical Education | 5 |
| Mathematics and Science | 35 |
| Electives | 11 |
| Total | 96 |

## ASSOCIATE IN SCIENCE DEGREE (A.S.) TOTAL MINIMUM REQUIREMENTS

CREDITS

## COMMUNICATIONS

CON 102 Introduction to Writing
As a result of a placement test, the student may be required to take Fundamentals of Composition, CON 101, for elective credit (five credits).
Students are encouraged to take the above courses within the first two quarters of their degree program.

Select from the following courses:
SPE 115
SPE 116 Public Speaking
SPE 118 Interpersonal Communications
SPE 119 Introduction to Semantics
en
(5)
(3)

Select from the following courses:
Any combination of courses listed in the Communications course section: journalism, literature, logic, reading, other speech courses, and other writing courses are acceptable except any course below the 100 level and REA 115119.

Total Credits for A.S. Degree

## HUMANITIES

HUM 100 Introduction to the Humanities
Select from the following courses:

| 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 | (5) |
| HUM | 106 | Introduction to World Religions | (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) |
| THE | 100 | Introduction to Theatre Arts | (5) |

Total Credits for A.S. Degree

## BEHAVIORAL AND SOCIAL SCIENCE

Select from the following courses:
(5)

SOC 101 Introduction to Sociology
Select from two of the following five areas:

ANTHROPOLOGY

## ECONOMICS

ECO 100 Introduction to Economics
ECO 201 Principles of Economics - Macroeconomics
ECO 202 Principles of Economics - Microeconomics
(5)

## HISTORY

HIS 101
Hang-ups From Way Back Ancient Civilization
HIS 102 Hang-ups From Way Back Medieval Civilization
HIS 103 Hang-ups From Way BackModern Civilization
HIS 105 History of the United States to 1877
HIS 106 History of the United States from 1865-1945 - Myth and Reality in America's Past
HIS 107 History of the United States Since 1945
HIS 108 Modern Russian Civilization
HIS 205 History of England
HIS 209 History of Colorado and the Rocky Mountain West
MAS 161
Aztec Civilization
MAS 162 Introduction to Modern Mexico

## 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
GEO 205 Geography of North America
GEO 206 Geography of Colorado
GEO 207 Urban Geography
Total Credits for A.S. Degree

## CREDITS

## 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 Guidance office.

Total Credits for A.S. Degree

CREDITS

## MATHEMATICS AND SCIENCE

A minimum of 35 credits is required for the Associate in Science degree. Only those courses numbered 100 or above are acceptable. Students should give maximum attention to prerequisites and corequisites 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 in 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 followng prefixes: MAT, STA, COS, AST, BIO, CHE, EAS, GEY, PHY, SCI.
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: MAT, COS, STA, and at least (3) credits selected from courses with the following prefixes: AST, BIO, CHE, EAS, GEY, PHY, SCI.

Total Credits for A.S. Degree

## 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:
CHE 101, 102, 103
MAT 112, 113
General Chemistry I, II, III College Algebra, Trigonometry Calculus with Analytic Geometry I

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
PHY 201, 202, 203
COS 101
General Physics I, II, III
(each) 5
(each) 5 Introduction to Computer Programming and the FORTRAN IV Language 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:
CHE 101, 102, 103 General Chemistry I, II, III
CREDITS

CHE 205
Creative Glassblowing
(each) 5

GEY 101 Physical Geology 2
101 Physical Geology 5
PHY $100 \quad$ Fundamentals of Physics Intermediate Algebra Safety and First Aid Electives (as appropriate)

TERMINAL COURSE BLOCK:
CHE 201, 202, 203 Organic Chemistry I, II, III
(each) 5
CHE 215, 216, 217
CHE 225, 226, 227 Instrumental Analysis I Instrumental Analysis II Instrumental Analysis III Statistics for Business, Science, and Social Science I 5
STA 201
COS 101
*MAT 161 Introduction to Computer Programming and the FORTRAN IV Language4

MAT 111
5
HEN 106 Calculus with Analytic Geometry I 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
Bob Steener
Eastman Kodak
Larry Mounce Colorado State University Larry Scott
Triple S. Labs, Inc.

## 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 112, 113
College Algebra, Trigonometry
(each) 5
COS 100

COS 101

COS 102

EDP 102, 103
Introduction to Computers and the BASIC Language
Introduction to Computer Programming and the FORTRAN IV Language
Advanced Topics in
Computer Programming
4

Computer Concepts I, II
4

Electives (as appropriate)
TERMINAL COURSE BLOCK:
MAT 161, 162, 163 Calculus with Analytic Geometry I, II, III
(each) 5
MAT 261
STA 201, 202
EDP 201, 202 Linear Algebra

5
Statistics for Business, Science, and
Social Science I, II
(each) 5
Assembler Language
Programming I, II
(each) 5

## 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 COURSE BLOCK:
CREDITS
MAT 112, 113 College Algebra, Trigonometry (each) 5
MAT 161, 162, 163
Calculus with Analytic
Geometry I, II, III (each) 5
COS 101 Introduction to Computer Programming and the FORTRAN IV Language 4
CHE 101, 102, 103 General Chemistry I. II, III (each) 5
Electives (as appropriate)
TERMINAL COURSE BLOCK:

| STA 201, 202 | Statistics for Business, Science and <br>  <br>  <br>  <br> 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 | 5 |  |

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 BLOCK:
CREDITS
CHE 101, 102, 103 General Chemistry I, II, II
(each) 5
BIO 101
BIO 102
BIO 103
MAT 112
CHE 201
BIO 207
Biology Concepts
Animal Biology
Plant Biology
College Algebra
Organic Chemistry I
Vertebrate Biology
Electives (as appropriate)

## TERMINAL COURSE BLOCK:

CREDITS

| BIO | 201 | Ecosystems Biology | 5 |
| :--- | :--- | :--- | :--- |
| BIO | 202 | Cell Biology | 5 |
| BIO | 203 | Developmental Biology | 5 |
| STA | 201, 202 | Statistics for Business, Science, and |  |
|  |  | Social Science I, II | (each) |
|  | 5 |  |  |

## 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.

## INITIAL COURSE BLOCK:

CREDITS
MAT 112, 113 College Algebra, Trigonometry (each) 5
MAT 161, 162, 163 Calculus with Analytic
$\operatorname{COS} 100$
COS 101

STA 201, 202 Geometry I, II, III
(each) 5
Introduction to Computers and the BASIC Language
Introduction to Computer Programming and the FORTRAN IV Language
Statistics for Business, Science, and 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 Algebra and 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.

INITIAL COURSE BLOCK:
CREDITS


BIO 101
Biology Concepts
BIO 102
Animal Biology
BIO 103
Plant Biology
Vertebrate Biology


## TERMINAL COURSE BLOCK:

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

## ARTS AND SCIENCES COURSES

## 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.

## BEHAVIORAL AND SOCIAL SCIENCE DIVISION

## ANTHROPOLOGY (ANT)

## 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.

## ECONOMICS (ECO)

## ECO 100 INTRODUCTION TO ECONOMICS

Survey course designed to give a nonbusiness major an introduction to basic economics. Classroom and individualized format available. Consult a quarterly schedule and/or the staff member at G.S. 210 for further details.

## Five credits.

## ECO 201 PRINCIPLES OF ECONOMICS MACROECONOMICS

Introduction to American capitalism, national policy, economic stability, and ecnomic growth.

## Five credits.

## ECO 202 PRINCIPLES OF ECONOMICS MICROECONOMICS

A study of problems and principles of production, distribution, and consumption of wealth.

Five credits.


## FAMILY LIFE EDUCATION (FAL)

Expectant Parenting \& Infancy Courses Are Cosponsored With Weld County General Hospital

## EXPECTANT PARENTING

## FAL 114 EARLY PREGNANCY

Designed for the first 5 months of pregnancy. Discussions concern physical changes, emotional adjustments, basic nutrition, and fetal development. Body conditioning, proper body mechanics, and relaxation are taught.

## One credit.

## FAL 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.

## FAL 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 conscious relaxation, related exercises 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.

## FAL 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.
Prerequiresite: Chilbirth Education course.

## One credit.

## FAL 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.

## INFANCY

## FAL 126 YOUR AMAZING INFANT

For parents of 0-6 month old infants. Parents bring infants and discuss postpartum adjustment and role changes, growth and development, infant stimulation, nutrition and dental health, safety and first aid, health maintenance and illnesses; physical, social, and emotional needs of infants, and emotional adjustments of parents. Parent-infant and postpartum exercises are taught.

## Two credits.

## PARENTING

## FAL 127 COPING WITH YOUR ACTIVE TODDLER

For parents of $1-21 / 2$ year olds. Discussions concern parental stress and alternatives in discipline; developing a child's selfesteem, 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.

## FAL 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.

FAL 129 PARENTING FOR FOSTER AND ADOPTIVE PARENTS
Provides foster and adoptive parents with a working knowledge of general child development by age group. Includes alternatives in communication and discipline, and skills in building a child's selfesteem.

Three credits.

## FAL 148 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.

## FAL 167 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.

## FAL 168 ADOLESCENT SEXUALITY

Increases parents' and teachers' awareness and understanding of teen attitudes, concepts, and needs in this crucial stage of maturing.

## Two credits.

## FAL 218 FAMILY VIOLENCE

For professional and lay persons. Explores the extent, possible reasons, and implications of family violence. Practical considerations as well as theoretcial aspects are covered.

## Three credits.

## FAMILY LIFE EDUCATICV ADVISORY COMMITTEE

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

Charles C. Chesley, M.D. Weld County Medical Society

Jayleen Gilkey
Consumer Representative

Joan Gillespie
Certified Psychologist
Weld Mental Health
Center, Inc.

Connie Guist, R.N.
Weld County Department of Public Health

Kathleen Guy Child Abuse Intervention, Inc,

Robert Hartley, M.D. Weld County Medical Society

## Enita Kearns

Weld County Department of Social Services

Stephen R. Kozloff, M.D. Weld County Medical Society

Kathleen Ley, R.N.
Young Pregnancy Coordinator
Aims Community College
March of Dimes
Weld County General Hospital
Jean Mallett, R.N.
Weld County School District 6
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 Parent \&
Infancy Coordinator
Aims Community College
Weld County General Hospital

## John Turner

Behavioral \& Social Science Division
Chairperson
Aims Community College

## PROGRAMS FOR HEALTH (PFH)

Cosponsored With Weld County General Hospital

## PFH 121 HEALTH AWARENESS I

Increases awareness of the importance of taking an active role in maintaining health and provides knowledge about the body and health. Topics discussed include back care, the circulatory system (heart and blood pressure), arthritis, medications, foot care, and family relationships.

## One credit.

## PFH 122 HEALTH AWARENESS II

Motivates consumers to increase their knowledge and personal responsibility for healthful living. Topics discussed include blood clots, hearing and vision, diabetes, hypothermia, chronic diseases, coping with physical and psychological changes, and community resources.

## One credit.

## PFH 123 HEALTH AWARENESS III

Motivates senior citizens to incoporate 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.

## PFH 124 HEALTH AWARENESS IV

A basic cardiopulmonary resuscitation (CPR) course for senior citizens.

## One credit.

## PFH 156 FOOD, FACTS, FADS AND YOUR HEALTH

A practical application of good nutrition for the consumer, including 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.

## PFH 165 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 American Cancer Society.

## Two credits.

## PFH 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 posttesting. Supervised exercise sessions take place twice weekly.

## Three credits.

## PEF 114 ADULT FITNESS

A continuation of the principles and practices of PFH 166. The student will continue activities which fulfill his or her individual exercise prescription. A variety of activities will be introduced as an appropriate means of attaining physical fitness. Periodic reevaluations may be necessarty for prescription purposes.

Prerequisite: PFH 166
One credit: meets twice weekly for one hour.

## PFH 169 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.

## PROGRAMS FOR HEALTH <br> ADVISORY COMMITTEE

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

Robert Cash, M.D.
Weld County Medical Society
Nathan Clifford, M.D.
Weld County Medical Society
Joseph Corona, M.D.
Weld County Medical Society

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
John Turner
Behavioral \& Social Science
Division Chairperson
Aims Community College
Gordon Tomasi
Consumer Representative

## GEOGRAPHY (GEO)

## GEO 105 WORLD GEOGRAPHY

A study of the world's regions. Emphasis is on culture. Regions as well as landform, climate, vegetation, and soils of each region are examined. How these factors influence economic activities also is examined.

## Five credits.

GEO 205 GEOGRAPHY OF NORTH AMERICA
Survey of physical, cultural, and economic features of the United States and Canada. Dynamic processes (as opposed to static) are studied and analyzed.

## Three credits.

## 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 207 URBAN GEOGRAPHY

Introductory study of geographical factors that influence development of modern urban areas: population growth, land use, environmental deterioration, and future planning.

## Three credits.

GEO 295 INDEPENDENT STUDY IN GEOGRAPHY
Provides an opportunity 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 quarter hours in geography.
Three credits: contact instructor.

## HISTORY (HIS)

HIS 101 HANGUPS FROM WAY BACK ANCIENT CIVILIZATION
Introductory study of the political, social, and cultural development of the Western world and its relationship to the contemporary world. Middle Eastern, Greek, and Roman civilizations. Study methods, historical research, and interpretations are integrated throughout.

Five credits.

## HIS 102 HANGUPS FROM WAY BACK 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 HANGUPS FROM WAY BACK 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

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 FROM 1865 1945

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
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 RUSSIA 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 Russion 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 115 OCCULT SCIENCES

A historical examination of the beliefs and practices of voodoo, vampirism, witchcraft, hunting magic, snake handling cults, palmistry, tarot cards, I Ching, and hysterical possession.

## 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 FIELD TRIP

Combines three full days of mountain touring, hiking, and camping with two weeks of classroom orientation (one hour per day). Offered twice a year - July or August, and September students travel via bus wired for lecturing, camp two nights, and share meals. Areas visited include: Decatur ghost town and mill, Georgetown loop, Leadville, and five miles of hiking along the Hagerman railroad loop or the Alpine Tunnel. Minimum fee covers meals and expenses.

## 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, mining, railroad, farming, and ranching frontiers. Field trips included.

Five credits.

## HIS 210 REVOLUTIONARY RUSSIA (1900-PRESENT)

Surveys Russian history leading to the revolutionary period and examines the changes in the Soviet state since the revolution. Special emphasis will be on modern cultural, economic and political theories 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.

## 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.

## Three 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, industrilization, and population.

## Three 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.

## POLITICAL SCIENCE (POS)

## 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 era, 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.

## Three 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.

## PSYCHOLOGY (PSY)

## PSY 101 GENERAL PSYCHOLOGY

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 PSYCHOLOGY OF ADJUSTMENT

Application of psychological principles to problems of living. Personality integration is the primary goal.

## 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, selfaffirming, 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; concentrating on 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 205 PSYCHOLOGY OF ADOLESCENCE

A comprehensive study of the development of adolescents in terms of physical, intellectual, emotional, and social growth.

Three credits.

## PSY 206 PSYCHOLOGY OF WOMEN

An examination of new roles and identities for women with emphasis on changes of traditional attitudes toward women, both personal and societal.

## Three credits.

## PSY 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

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 <br> 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.

## PSY 237 ASSERTIVENESS TRAINING

Study and practice in asserting individual needs and feelings.

## 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 childhood.

Five credits.

## PSY 249 COUNSELING AND CRISIS INTERVENTION

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 paraprofessional 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

Indentifies and examines the various psychological traits which nake up the unique, and seldom understood, world view of the Mexican American. Topics will include the psychology of the Mexican American male and female and related 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.

## SOCIOLOGY (SOC)

## SOC 101 INTRODUCTION TO SOCIOLOGY

An introduction to the sociological analysis of social systems, culture, social stratification, population, and social change; to cultivate in the student an interest in and awareness of social change.

Five credits.

## SOC 105 SOCIOLOGY OF MARRIAGE AND FAMILY

A study of marriage and family relationships, with focus 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.

Five credits.

## SOC 106 CONTEMPORARY SOCIAL PROBLEMS

A study of both specific and general problems of our time. Some of the social problems that will be studied are poverty, civil liberties, social change, 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 scienctific 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. Objectives will be to provide 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, and organizational bureaucratic structures. Analysis of 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

Help 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 qualified 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 relationship of the Chicano to the American educational system.

## Three 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.

## COMMUNICATIONS AND ARTS DIVISION

## COMMUNICATIONS

## CON 101 FUNDAMENTALS OF COMPOSITION

Prepares the student for CON 102. Emphasizes sentence building and paragraph development, culminating in short theme writing. Special areas of need such as spelling and punctuation also are treated with additional work in the Instructional Center using mini-courses.

## 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 103 RESEARCH AND COMMUNICATION

Introduction to library organization and resources, the research process, and the communication of information in a research paper.

Prerequisite: CON 102.
Five credits.

## 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 and critical reviews, and advanced expository writing.

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 topic 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.

## JOU 111 NEWSWRITING

Fundamentals of news gathering, reportorial skills, interviewing, and news story forms. Introduction to feature writing and press law. Some typing ability is needed.

Prerequisite: CON 101 or placement test. Five credits.

## JOU 113 MAGAZINE ARTICLE WRITING

Analyzing newspaper and magazine markets and researching and writing the longer non-fiction articles. Basic typing ability is needed.

Prerequisite: CON 101
Three credits.

## JOU 114 INTRODUCTION TO MASS MEDIA

Study of history, ethics, current problems, and practices of the mass media within the social system, with special emphasis on newspaper, radio, and television.

Five credits.

JOU 115 INTRODUCTION TO RADIO BROADCASTING
An introduction to basic radio principles and production techniques with some practical laboratory experience in the studio.

Five credits.

JOU 116 INTRODUCTION TO TELEVISION BROADCASTING
Basic introduction to the use of video production equipment and processes. Emphasis will be on giving students hands-on experience with microphones, TV cameras, lights, sets, audio equipment, and the control board.

Five credits.

JOU 117 MEDIA GRAPHICS
Provides student with basic skills in producing various graphic materials for use in production of television programs.

Two credits: two additional lab hours per week.

## JOU 206 PHOTOJOURNALISM

A practical, nontechnical study of photography covering the mechanics of cameras, darkroom procedures, telling a picture story, composition, and use of the camera for publications.

Prerequisite: AAD 225 (Photography I).
Three credits: two additional lab hours per week.

## JOU 299 JOURNALISM PRACTICUM

Provides an opportunity for the serious minded student to develop his or her skills in writing and producing a publication, or in writing and producing a broadcast program under the direction of a faculty member. May be repeated at different levels of proficiency.

One to three credits: contact instructor.

## LIT 105 INTRODUCTION TO LITERATURE: TYPES AND THEMES

Increases 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

Study of American short stories, plays, poems, and novels with settings west of the Mississippi River, from after the Civil War to the present. To include 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 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 fulfillment beyond coping with life.

## 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.

One to three credits: contact instructor.

## REA 090 READING ESSENTIALS

Reviews basic reading skills such as vowels, consonants, syllabic patterns, and dictionary skills. Prepares the student for college and vocational courses.

## Two credits.

## REA 101 READING AND STUDY SKILLS FOR COLLEGE

Helps the student read college level texts and gives him or her skills necessary for success in all content areas and study situations.

## Five credits.

## REA 106 SPEED READING

Emphasizes versatility in speed, vocabulary, and critical reading skills.

## Three credits.

## REA 107 ADVANCED AND SPEED READING IMPROVEMENT

Exploration and practice of the three levels of reading and vocabulary while developing versatility in the six basic speeds. Prerequisite: REA 101 or eleventh grade level on reading test.

## Five credits.

## REA 115 BASIC READING SKILLS

Multimedia, two-week efficiency course designed to review basic reading skills needed for success in reading college textbooks.

## One credit.

## REA 116 BASIC SPELLING SKILLS

Two-week, efficiency course designed to help students develop efficient spelling skills.

One credit.

## REA 117 BASIC GRAMMAR AND PUNCTUATION SKILLS

Two-week, efficiency course designed to help students develop skills necessary for understanding the structure and use of the English language and its symbols.

## One credit.

## REA 118 BASIC LANGUAGE SKILLS

Two-week, efficiency course designed to help students develop or review skills such as basic sentence patterns, clauses and phrases, and the correction of frequent writing errors.

## One credit.

## REA 119 BASIC SPEED READING SKILLS

Two-week course which introduces the basics of speed reading. Students will respond to several individual practice devices.

Five credits.

REA 125 COLLEGE VOCABULARY SKILLS
Provides the opportunity for the serious-minded student to acquire an exact and extensive vocabulary which is important for success in college work and beyond.

## Three credits.

## REA 295 INDEPENDENT STUDY IN READING

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.

## 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.

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.

## 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, with emphasis on 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 comparing and contrasting Ameslan (ASL) with English (SEE).

Prerequisite: MCM 211 or permission of instructor. Three credits.

## 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

Students develop the ability to learn German through listening, reading, writing, and speaking the language. The German in this course is standard or High German. Primary aim of this course 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 111 or equivalent knowldege.
Five credits.

## GER 113 ELEMENTARY GERMAN 111

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 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.
Two 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. Topics will include expository and creative writing plus 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.

## 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 ethical approaches to these areas as reflected in all 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.

## Five credits.

## HUM 106 INTRODUCTION TO WORLD RELIGIONS

A comparative study of the ideas, doctrines, and concepts of the world's major religions through their historical-geographical evolution and their expression in the arts, music, and literature.

## 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.

## 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 discussed 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.

DESIGN AND CREATIVE STUDIES<br>(DESIGN, VISUAL ARTS, MUSIC, THEATRE, MOVEMENT, AND TEXTILES AND CLOTHING)

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.

## 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 <br> ART 112 ART HISTORY II

These courses provide students with basic historical understanding of western art forms, architecture, and relevant crafts. Art History I covers pre-historic 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)

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.

## DESIGN AND VISUAL COMMUNICATION (AAD)

## AAD 100 SURVEY OF ARCHITECTURE

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

Three credits.

## 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 organizatic. . 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 103 FUNDAMENTALS OF ART \& DESIGN III
Provides the serious student of visual arts or design an opportunity to apply the principles of perception, invention, and design to problems in selected design and visual arts fields. Students select projects from areas such as graphic design, advertising, interior design, industrial design and packaging, landscape and environmental design, and visual arts and crafts.

Five credits: eight studio hours.

## AAD 125 DESIGN FOR PRINTING

Covers the study of design specifically for printing. Using customers' specifications, students will execute designs for common printing projects, such as logos and letterheads.

Three credits: six studio hours.
$\begin{array}{lll}\text { AAD } & 131 & \text { DRAWING I } \\ \text { AAD } & 132 & \text { DRAWING II }\end{array}$
These courses introduce students to drawing as a means of visual thinking and expression. Drawing $\mid$ assignments cover development of visual perception, basic drawing techniques, and composition. Students may choose to emphasize descriptive or personally expressive drawing approaches. Drawing II incudes a survey of expressive drawing styles, study of formulating ideas for drawing, further experience with developing and expressing concepts in terms of drawing, and an exploraton of 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 also 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). Graphic Design II gives students an opportunity to apply, within a structured course setting, graphic design techniques to specific problems (e.g. architectural rendering, fashion illustration, advertising, design and packaging, display, signs, and posters).

## AAD 223 GRAPHIC DESIGN III

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

Three credits each: six studio hours each.

## AAD 225 PHOTOGRAPHY I <br> AAD 226 PHOTOGRAPHY II

Photography I includes a survey of historical and contemporary photographic styles; the study of relevant design elements and principles of organization; camera mechanics and darkroom techniques. Emphasizes the planning and execution of photographs of expressive and creative visual content. Photography II includes a survey of functional applications of photography (e.g. photo illustration, portraiture), and work with relevant design principles and photographic techniques.

Three credits each: six studio hours each.

## AAD 227 INTERIOR DESIGN I <br> AAD 228 INTERIOR DESIGN II

Interior Design I covers interior visual and spatial elements, organizing principles, materials, and their relationship to architecture. Emphasizes the process of studying and designing for interior spaces. Interior Design II 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.

## 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 each: six studio hours each.

## AAD 232 DRAWING APPLICATIONS

Course structure allows students with previous drawing experience to explore applications of drawing to illustration, rendering, or selected printmaking media.

Three credits: six studio hours.

## ART STUDIO (ARS)

## 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 <br> ARS 244 WATER MEDIA II

These courses include a survey of the various water media processes, instruction in the basic water media techniques, and work with the unique aspects of developing a painting. Water Media II includes the study of concepts, (forms for effective water media statements), and concentrates on individual patterns of expression.

## 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; 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 suvey 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; 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; 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 with an emphasis on the basic weaves. Emphasizes experimental and creative design within the weaving process.

Three credits each: six studio hours each.

## ARS 285 ELEMENTARY CRAFT TECHNIQUES

Surveys primitive craft techniques (for example, work with clay processing and elementary earthenware firing tehniques) and, when appropriate, includes experience with other craft materials for use in programs with children.

Three credits each: six studio hours each.

# hOME FURNISHINGS, TEXTILES AND CLOTHING (FTC) 

FTC 100 SURVEY OF CLOTHING DESIGN AND SELECTION
Studies the physical, cultural, psychological, and aesthetic factors involved in the design, selection, and use of clothing.

## Three credits.

## MUSIC (MUS)

## MUS 100 MUSIC APPRECIATION

A nontechnical course for the beginner, emphasizing listening and discussion for enjoyment and appreciation of music. Course fulfills a humanities requirement.

## Five credits.

## MUS 105 FUNDAMENTALS GF MUSIC

Introduction to basic terminology, scales, key signatures, intervals, and ear training. For students with little or no previous background in music theory.

## Five credits.

## MUS 106 MUSIC 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.

## MUSIC PERFORMING (MUP)

## MUP 131 PIANO I MUP 132 PIANO II

These courses are for the student begining to study piano; include reading skills and techniques necessary to play simple songs and accompaniments; survey selected piano works.

Three credits each: eight practice hours each.

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MUP 151 APPLIED VOICE I
MUP 152 APPLIED VOICE II
MUP 153 APPLIED VOICE III
    Individualized or group instruction in vocal techniques for
beginners or more advanced students.
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One credit each: three 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.

## 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.

## THEATRE AND MOVEMENT ARTS (THE)

## 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 135 ACTING I
THE 136 ACTING II
These courses introduce basic prinicples 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 145 STAGECRAFT
Studies various facets of the technical production of theatre: stagecraft, costume and scene design, make-up, stage lighting, sound, stage rigging, properties, and painting.

Three credits: four studio hours.

## 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.

Two credits.

## THE 299 THEATRE PRACTICUM

This learning structure facilitates the development of creative talents (an interrelation of motor, affective, and cognitive skills). The particular format and content of each practicum is determined by the theatrical form the student is working in and his or her level of proficiency. May be repeated at different levels of proficiency.

## COMMUNITY NONCREDIT (CNC)

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 introduces throwing on the potter's wheel.

CNC 015 COMMUNITY DRAWING \& PAINTING
Covers a variety of drawing and painting techniques.

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 018 COMMUNITY PHOTOGRAPHY

Covers black and white photography, cameras, lenses, films, and papers.

## CNC 019 COMMUNITY HOME DECORATING

Covers the visual design and aesthetic aspects of remodeling and interior decorating.

## CNC 020 COMMUNITY NEEDLE ARTS

Covers several needle arts techniques: knitting, crocheting, counted cross stitch, needlepoint.

## CNC 025 COMMUNITY SEWING

For those persons learning to sew and also for those needing more advance instruction.

## CNC 051 COMMUNITY GUITAR I

A nonacademic experience with guitar.

## DEVELOPMENTAL STUDIES

## ENGLISH AS A SECOND LANGUAGE (ESL)

This program is primarily for Spanish-speaking students who are residents of Weld County and either wish to improve or gain English speaking skills. ESL classes are taught in order to transfer students' communication skills in their native lanuguage (Spanish) to communication skills in English. 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 be cleared by the Admission office.

Although the emphasis in the ESL classes will be on the acquisition of verbal skills, beginning reading, and writing also will be taught. As part of these classes, students may take field trips.

## ESL 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 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 I, or score of 80 percent or better on test used to assess English skills learned in ESL I.

## ESL 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 ESL I 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 II, or score of 80 percent or better on test used to assess English skills learned in ESL II.

## ESL ENGLISH AS A SECOND LANGUAGE IV

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, and III. 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 III, or score of 80 percent or better on test used to assess English skills learned in ESL III.

## ESL 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 IV, or score of 80 percent or better on test used to assess English skills learned in ESL IV.

## APRENDER INGLES COMO SEGUNDA LENGUA (ESL)

Estas clases son principalmente para estudiantes que hablan español quienes son residentes del condado de Weld que quieren aprender o mejorar su habilidad en ingles. Las clases de inglés se ensenan para que el estudiante pueda transfirir sus habilidades de comunicarse en su idioma natal (español) al inglés. Énfasis en la enseñanza de las clases séra en desarollar habilidades orales (de conversación) que son relacionadas al estudiante, tal como educación al consumidor, el empleo, la escuela, y la comunidad.

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

Aunque el énfasis de estas clases será en que el estudiante obtenga habilidad oral (de conversación) lectura y escritura principante será enseñada junto con la enseñanza oral. Como parte de las clases, los estudiantes participarán en excurciones cuando el intructor vea la necesidad.

## ESL CLASE DE INGLES - 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. Cómo un 75 por ciento de la enseñanza de la clase pondrá énfasis 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 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 I de Ingle's. El estudiante debe de fener un grado de 80 por ciento o mejor en el examen del nivel I de ingles.

## ESL CLASE DE INGLES - NIVEL III

Esta clase está diseñada para darle al estudiante quien esta limitado en la habilidad de comunicarse en inglés una habilidad basica en inglés que será integrada con formas de como se usa el inglés correctamente. Estas habilidades serán una continuación de esas habilidades introducidas en los Nivels 1 y II. Se dara'mucha atención al desarollo oral (de conversacion) y de escuchar ingles. Tambien se dará mucha atención al desarollo de la escritura y lectura.

Requisito: Completar el Nivel II de Ingle's. El estudiante debe de tener un grado de 80 por ciento a mejor en el examen del Nivel II de Inglés.

## ESL CLASE DE INGLES - NIVEL IV

Esta clase está diseñada para darle al estudiante quien esta 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 serańn una continuación de esas habilidades introducidas en los Niveles I, II, y III. Se dara 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 III de Inglés. El estudiante debe de tener un grado de 80 por ciento o mejor en el examen del Nivel III de Inglés.

## ESL CLASE DE INGLEŚ - 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 seran 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 IV de Inglés. El estudiante debe de tener un grado de 80 por ciento a mejor en el examen del Nivel IV de Inglés.

## ADULT BASIC EDUCATION (ABE)

This program is designed to give the adult student who previously dropped out of school or was not able to attend school, a basic education in reading, language, and math skills sufficient to each student's personal, vocational, and/or academic needs. This program may be a prerequisite for the GED curriculum.

## ABE ARITHMETIC SKILLS I

Provides students who lack basic math skills with an orientation to money, place values, and the computation of whole numbers. Major objectives will be to develop the concepts and skills involved in addition, subtraction, multiplication, and division adequate to enter ABE Arithmatic Skills II.

## ABE ARITHMETIC SKILLS II

Provides students the opportunity to develop intermediate math skills. Major objectives are to develop computational skills with fractions, decimals, measurements, percents, and graphs sufficient to enter GED Arithmetic Skills III.

Prerequisite: ABE Arithmetic Skills I or placement.

## ABE LANGUAGE SKILLS I

Provides students, who have readiness for beginning language skills, a basic orientation to grammar, punctuation, spelling, and writing. Prepares students to write and recognize complete sentences and readies them for ABE Language Skills II.

## ABE LANGUAGE SKILLS II

Provides students, who have complete ABE Language Skills I or the equivalent, with a more developed foundation in grammar, punctuation, spelling, and writing. Prepares students to write and recognize complete paragraphs and readies them for GED Language Skills III.

Prerequisite: ABE Language Skills I or placement.

## ABE READING SKILLS I

Provides a basic introduction to beginning reading skills for adults. Major objectives are to provide instruction in word analysis, phonic analysis, work recognition, and comprehension adequate to allow the student to comprehend reading materials at a level that will enable the student to enter ABE Reading Skills II.

## ABE READING SKILLS II

Provides intermediate reading skill instruction for the adult who lacks the reading ability to enter GED Reading Skills III. Major objectives are to introduce students to reading skills which include recognition, word analysis, comprehension, and information finding. Class goal is that introduction of these skills will be adequate to allow students to comprehend reading materials at a reading level to enable the student to enter GED Reading Skills III.
Prerequisite: ABE Reading Skills I or placement.

ABE SOCIAL SCIENCE SKILLS I
Designed to increase beginning students' knowledge of community, state, and federal government, especially in the areas of voting, consumer economics, welfare, and civil law and to provide readiness skills for ABE Social Science Skills II.

## ABE SOCIAL SCIENCE SKILLS II

Designed to allow students to read and discuss writings on issues such as the family, contemporary gender styles, and the role of minorities and women in American history. Students will study in some depth at least one culture other than the dominant, American one. Course also will prepare students for GED Social Science III.

Prerequisite: ABE Social Studies Skills I or placement.

## GENERAL EDUCATION DEVELOPMENT (GED)

The GED program is designed to teach students 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 encouraged to study any of the content areas in greater depth than is 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.

GED ARITHMETIC SKILLS III
Teaches skills necessary to pass the algebra and geometry sections of the GED math subtest. Helps students acquire problem solving skills in percents, graphs, basic algebra, and geometry in preparation for introductory college courses.

Prerequisite: ABE Arithmetic Skills II or placement.
GED LANGUAGE SKILLS III
Provides students who have fairly high reading abilities a content oriented course in which they can study to pass the GED test and, at the same time, acquire basic grammar and writing skills to prepare them for introductory college courses, job market entry, or one and two year certificate or degree programs.

Prerequisite: ABE Language Skills II or placement.
GED READING SKILLS III
Provides a basic introduction to reading in the content field of literature and to general or practical reading. Major course objectives: familiarize students with literary terminology and prepare them to apply reading comprehension skills adequate for entrance into college level courses or passage of the literature or reading sections of the GED test.

Prerequisite: ABE Reading Skills II or placement.

## GED SCIENCE SKILLS III

Provides a basic introduction to reading in the content field of the natural sciences. Major course objectives: familiarize students with science terminology and prepare them to apply reading comprehension skills adequate for entrance into college level courses or passage of the reading comprehension sections of the GED test.

Prerequisite: ABE Reading Skills II or placement.

## GED SOCIAL SCIENCE SKILLS III

Provides a basic introduction to reading in the content field of the social sciences. Major objectives: familiarize students with social science terminology and prepare them to apply reading comprehension skills adequate for entrance into college level courses or passage of the reading comprehension sections of the GED test.

## Prerequisite: ABE Reading II or placement.

## GED SUPERVISED STUDY IN BASIC ARITHMETIC SKILLS III

Designed to provide individualized help in arithmetic based upon a student's identified needs. Course may be requested by a student, an academic advisor, or an instructor.

## GED SUPERVISED STUDY IN BASIC LANGUAGE SKILLS III

Designed to provide individualized help in language based upon a student's identified needs. Course may be requested by a student, an academic advisor, or an instructor.

GED SUPERVISED STUDY IN BASIC READING SKILLS III
Designed to provide individualized help in reading based upon a student's identified needs. Course may be requested by a student, an academic advisor, or an instructor.

## SPP 117 INTRODUCTION TO TEACHER AIDE 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 tutor's self concept, learning concepts, the tutor's learning style.
Three credits.

## SPP 119 CONCEPTS OF 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.

## SPP 125 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.

## SPP 126 METHODS FOR TEACHING THE BILINGUAL

Bilingual teaching techniques used in reading, writing, spelling, language arts, arithmetic, social studies, and science will be emphasized as they relate to the role of the bilingual teacher aide.
Five credits.

## SPECIAL PROGRAMS (SPP)

## 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.

## PROGRAMAS ESPECIALES (SPP)

## 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 dara' 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 Imigracion y Naturalizacion se dará al estudiante para que pueda aplicar por ciudadania. Instrucción en español se daráa 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 instruccion de signos, leyes y reglas del estado de Colorado será presentada oralmente si el estudiante no puede leer o escribir. Instrucción en español se daráa los que la necesiten.

## MATHEMATICS AND SCIENCE DIVISION

## ASTRONOMY (AST)

## AST 101 INTRODUCTORY ASTRONOMY

For the nonscience student. Covers methods of observation and analysis used by astronomers: astronomers, tools, 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 method of exposition, and present the special information to the class.

Three credits: three 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.

## BIOLOGICAL SCIENCES (BIO)

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: three hours lecture, four 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 use, 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.

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 considered 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 202 CELL BIOLOGY

Comprehensive examination of the cell, its components and their functions. Includes studies of physiochemical properties of living systems, organelles 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
(The structure and content of this course is presently under review and subject to change.)

A beginning class in human physiology emphasizing broad, general biological principles, anatomical structures of the human body, and the relationship of structure to body functions. Part I will cover the following: chemical composition, cellular and tissue organization, and integumentary skeletal, muscular, and nervous systems.

Prerequisite: BIO 101 or equivalent.
Five credits: three hours lecture, four hours lab.

## BIO 212 HUMAN ANATOMY - PHYSIOLOGY II

(This structure and content of this course is presently under review and subject to change.)

A beginning class in human physiology emphasizing broad general biological principles, anatomical structures of the human body, and the relationship of structure to body functions. Part II will cover the following: digestive, urinary, reproductive, endocrine, respiratory, and circulatory systems.

Prerequisite: BIO 211 or permission of instructor.
Five credits: three hours lecture, four hours lab.

## BIO 216 INTRODUCTION TO MICROBIOLOGY

(The structure and content of this course is presently under review and subject to change.)

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

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 on the classification and natural history of birds. Field identification of birds is emphasized with field trips to different habitats to observe behavior and adaptations. Offered spring or summer quarters. Field trips required.

Prerequisite: BIO 101 or permission of instructor. Four credits: six clock hours.

## BIO 218 SPECIAL TOPICS IN

## ANATOMY AND PHYSIOLOGY

Will introduce students in certain occupational programs to the anatomy and physiology of the skeletal, muscular, nervous, endocrine, circulatory, respiratory, and integumentary systems.

Four credits: three hours lecture, two hours lab.

## 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.

## CHEMISTRY (CHE)

## 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 101.
Five credits: three hours lecture, four hours lab.

## CHE 101 GENERAL CHEMISTRY I

Students planning to major in chemistry, engineering, veterinary medicine, pre-med, 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 111, MAT 112, 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 201 ORGANIC CHEMISTRY I

Studies atomic and molecular structures; nomenclature; chemical bonding reactions; reaction mechanisms of hydrocarbons, aromatics, alcohols, phenols, 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, and ketones, and organic nitrogen compounds. Identification of structure of organic compounds by classical and modern techniques will be covered. Laboratory will examine the Williamson ether synthesis, esterification and other carbonyl reactions; reactions of amines; infrared and nuclear magnetic resonance spectroscopy.

Prerequisite: CHE 201 or 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, and reaction mechanisms; industrial and biological applications of fats and other lipids; terpense, carbohydrates, proteins, amino acids, catalysis and enzymes; metabolism of carbohydrates, lipids, and proteins. The laboratory consists of an examination of sugars and amino acids with synthesis, qualitative organic chemistry, and structural determination of known and "unknown" 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 GLASSBLOWING

Instruction and practice in methods of repair and construction of laboratory apparatus. Techniques used are applicable to glassblowing as a hobby or a craft.

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

INSTRUMENTAL ANALYSIS I: CHE 215, 216, 217
Consists of three modules which may be taken separately:

## 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 INFRARED SPECTROSCOPY
Concentrated study of instrumentation, sample preparation, applications, and interpretation of infrared absorption spectra.

Prerequisite: CHE 102.
One Credit: five hours lecture, ten hours lab.

## CHE 217 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.

INSTRUMENTAL ANALYSIS II: CHE 225, 226, 227
Consists of three modules which may be taken separately:

## 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 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 201.
One credit: five hours lecture ten hours lab.

## CHE 227 OPTICAL ACTIVITY AND ELECTROPHORESIS

Electrophoretic separations will be studied. Use of a polarimeter in the study of optically active compounds also will be covered.

Prerequisite: CHE 201.
One credit: five hours lecture, ten hours lab.

INSTRUMENTAL ANALYSIS III: CHE 235, 236, 237
Consists of three modules which may be taken separately:

## CHE 235 GAS CHROMOTOGRAPHY

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

Prerequisite: CHE 201.
One credit: five hours lecture, ten hours lab.

## CHE 236 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 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 201.
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.

## COMPUTER SCIENCE (COS) <br> COS 100 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.

Three credits: four clock hours per week.

## COS 101 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 techinques which can be applied to their work in physical science, mathematics, business, biological science, social science, and engineering. Topics include subscript operations, arrays and subprograms.

Four credits: five clock hours per week.

## COS 102 ADVANCED TOPICS IN COMPUTER

 PROGRAMMINGContinuation 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: $\operatorname{COS} 100$, or $\operatorname{COS}$ 101, or permission of instructor.
Four credits: five clock hours per week.

## EARTH SCIENCE (EAS)

## EAS 105 EARTH SCIENCE

For nonscience majors and prospective teachers. Depicts earth orientation in space, and how weather results from this configuration. Various facets of weather related to their effects on the solid earth, and introductory features of physical geology are presented with reference to historical geology.

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 atmosphereic 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.

## GEOLOGY (GEY)

## GEY 101 PHYSICAL GEOLOGY

Promotes the physical awareness and observations of the student by a study of our physical surroundings, including rocks, minerals, and landforms. Emphasis is placed on the processes that shape our everchanging landscape. Field trips required. Offered fall quarter only.

Five credits: three hours lecture, four hours lab.

## GEY 102 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 quarter only.

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

## MATHEMATICS (MAT)

MAT 015 INTRODUCTORY MATHEMATICS
Provides the student with arithmetic skills to enter business mathematics courses or MAT 016.

## Three credits.

## MAT 016 PRE-ALGEBRA

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, and complex fractions.

Prerequisite: MAT 015 or competency in the arithmetic of whole numbers.
Three credits.

## MAT 100 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: knowledge of basic arithmetic. An entrance exam may be requested.
Five credits.

## MAT 101 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. An entrance exam may be requested.
Five credits.

## MAT 105 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. Emphasis will be placed on the properties of circles, similarity of triangles, areas and volumes, with introductions to inequalities, constructions, and loci.

Prerequisite: MAT 101 or one year of high school algebra. Five credits.

## MAT 107 MATHEMATICS FOR FAMILY FINANCIAL PLANNING

Upon completion of the course, the student should be able to mathematically determine or describe investment procedures, inflationary trends, rates of return, annuities, interest rates, the college formula, and tax-sheltered investments. Other topics may include leasing formulas, values of stocks, and insurance programs.

## Two credits.

## MAT 109 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 111 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.

Prerequisite: MAT 101 or one year of high school algebra. An entrance exam may be requested.
Five credits.

## MAT 112 COLLEGE ALGEBRA

The student is exposed to 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 and polynomial functions of degree. If time permits, an introduction to matrix theory is presented.

Prerequisite: MAT 111 or permission of instructor. An entrance exam may be requested.
Five credits.

## MAT 113 COLLEGE TRIGONOMETRY

The wrapping function is used to develop the trigonometric functions and identities with applications to both right and oblique triangles. The student also will study the exponential and logarithmetic functions and trigonometric applications to complex numbers. Graphing of all the above will be included.

Prerequisite: MAT 112 or permission of instructor. An entrance exam may be requested.
Five credits.

## MAT 115 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 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, integration by change of variable and areas.

Prerequisite: MAT 112 or consent of the instructor. An entrance exam may be requested.
Five credits.

## MAT 162 CALCULUS WITH ANALYTIC GEOMETRY II

A continuaton of MAT 161: logarithm, exponential, trigonometric and hyperbolic functions; techniques of integration, conic sections and applications of the definite integral to work, volume, pressure, etc.

Prerequisites: MAT 161 and MAT 113.
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, 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.

## 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.

## PHYSICS (PHY)

## PHY 100 FUNDAMENTALS OF PHYSICS

Qualitative survey of the basic conceptual aspects of physics. Designed for the nonscience 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 101, 102, 103

An introductory sequence of courses for students in preprofessional disciplines. It is recommended that this sequence be transferred to other academic institutions as a block of three quarters.

## PHY 101 INTRODUCTORY COLLEGE PHYSICS-MECHANICS

Studies the concepts of mechanics and relativity.

Prerequisite: Two years of high school algebra, MAT 112, or permission of instructor.
Five credits: three hours lecture, four hours lab.

## PHY 102 INTRODUCTORY COLLEGE PHYSICS ELECTRICITY AND MAGNETISM

Studies the concepts of electricity, magnetism, and nuclear physics.

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

## PHY 103 INTRODUCTORY COLLEGE PHYSICS - HEAT, LIGHT, AND SOUND

Studies the concepts of thermal dynamics, light, and sound.
Prerequisite: PHY 102 or permission of instructor.
Five credits: three hours lecture, four hours lab.
GENERAL PHYSICS COURSES: PHY 201, 202, 203
This sequence of courses provides a thorough understanding of basic physics for students majoring in engineering, physical science, or related disciplines. The student will acquire a working knowledge of fundamental laws and principles in preparation for advanced study. It is recommended that this sequence be transferred to other academic institutions as a block of three quarters.

## PHY 201 GENERAL PHYSICS - MECHANICS <br> First quarter: an analytical and comprehensive treatment of mechanics, mechanical waves and heat, including basics of relativistic mechanics. <br> Prerequsite: MAT 161 (or may be taken concurrently) or permission of instructor. <br> Five credits: three hours lecture, four hours lab.

## PHY 202 GENERAL PHYSICS - ELECTRICITY AND MAGNETISM

Second quarter: an analytical and comprehensive treatment of electricity and magnetism.

Prerequisites: MAT 162 (or may be taken concurrently), PHY 201, or permission of instructor.
Five credits: three hours lecture, four hours lab.

## PHY 203 GENERAL PHYSICS - HEAT, LIGHT, AND SOUND

Third quarter: an analytical and comprehensive treatment of heat, light, and sound, quantum effects, and basics of nuclear physics.

Prerequisite: PHY 202 or permission of instructor.
Five credits: three hours lecture, four 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.

## SCIENCE (SCI)

SCI 100 MAN - HIS TECHNOLOGY AND HIS WORLD
Introduction to 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 370 computer is used as an instructional aid.

## 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.

## STATISTICS (STA)

## STA 201 STATISTICS FOR BUSINESS, SCIENCE AND

 SOCIAL SCIENCE IEmphasizes concepts and applications of selected topics from descriptive and inferential statistics. Topics include 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 370 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 370 will be used as aids in computation.

Prerequisite: STA 201 or consent of instructor.
Five credits.

## MEXICAN AMERICAN STUDIES (MAS \& SPA)

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.

## SPA 101 BASIC APPLIED SPANISH

A 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.

## 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. Topics covered will include the psychology of the Mexican American male and female, and related social problems.

## Three credits.

## SPA 111 ELEMENTARY SPANISH

Develops the 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.

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.

## MAS 155 MEXICAN DANCE

Teaches Mexican dances and provides background on their origins.

One credit: meets 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.

## Three 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, industrilization, and population.

## Three 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.

## 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 the instructor.

## Two credits.

## SPA 212 THE SPANISH SUBJUNCTIVE

Gives serious students of Spanish an in-depth study of the very difficult Spanish subjuctive 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. Topics will include expository and creative writing plus 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.

Five credits.


## PHYSICAL EDUCATION DIVISION

## HEALTH EDUCATION (HEN)

## HEN 105 PERSONAL HEALTH

Studies problems involved in personal and community health. Special emphasis is on 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

The Red Cross Advanced First Aid and Emergency Care course is designed for use by 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, firemen, ski patrol, and other special interest groups. Included in this class will be cardiopulmonary resuscitation. Students completing course and testing will be certified by Amercian Red Cross in advanced first aid and cardiopulmonary resuscitation.

Five credits: five clock hours per week.

## HEN 109 NUTRITION - PRACTICAL - APPLICATION

Covers nutritional principles which will aid students in developing and implementing their own nutritional requirements. The class will cover food labeling, additives, the hows and whys of weight control, and how foods are utilized as fuels.

Three credits: three 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. Objectives include preventive and support techniques for accidents frequent to the remote regions.

Three credits: three clock hours per week.

## PHYSICAL EDUCATION ACTIVITIES (PEA)

## PEA 101 ARCHERYI

Teaches the techniques and fundamentals of archery.
One credit: two clock hours per week.

## PEA 102 ARCHERY II

Students will further their knowledge of the basic skills learned in Archery I. 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

Designed for those who desire advanced badminton knowledge, skills, and techniques.

One credit: two clock hours per week.

## PEA 131 BOWLINGI

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. Areas covered include: selection of equipment, map reading, skills of survival, and physical training.

One credit: two clock hours per week.

## PEA 161 SWIMMINGI

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 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.

## PHYSICAL EDUCATION BALL SPORTS (PEB)

PEB 101 BASKETBALLI
An activity class whch 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 followthrough. 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 111 HANDBALLI

An activity class which teaches the basic movements, skills, and rules of handball.

One credit: two clock hours per week.

## PEB 112 HANDBALL II

Improves the player skills and strategies of Handball I. More individual play will be stressed.

One credit: two clock hours per week.

## PEB 113 HANDBALL III

For students who want to improve their skills and knowledge of handball.

One credit: two clock hours per week.

PEB 131 PILLO POLO I
A team game played with 6 players per team. Introduces students to team play and the skills and strategies for competitive play.

One credit: two clock hours per week.
PEB 132 PILLO POLO II
Improves skills and techniques of team sport. Includes instructions for officiating the game.

One credit: two clock hours per week.
PEB 133 PILLO POLO III
Through intraclass competition students learn player responsibilities. Includes maneuvering, using planned and strategic offensive and defensive patterns.

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 Racquetball I. 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 SOCCERI
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 SOFTBALLI
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; 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 Volleyball I. 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 wiffle tennis. Increases ability to play a more challenging game.

One credit: two clock hours per week.

## PEB 179 WIFFLE 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.


## PHYSICAL EDUCATION DANCE (PED)

## 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

Increases 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 111 FUNDAMENTALS OF DANCE I

Introduces kinesthetic perception of movement, and the relationship between body movement and emotional expression.

One credit: two clock hours per week.

## PED 112 FUNDAMENTALS OF DANCE II

Increases awareness of kinesthetic perception of movement, and improves the relationship between body movement and emotional expression.

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 MiddleEastern 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 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 CREATIVE MOVEMENT DANCE I
Develops and improves coordination, strength, flexibility, endurance, and rhythm. Emphasizes awareness of a kinesthetic perception of movement, and the relationship between body movement and emotional expression.

One credit: two clock hours per week.

## PED 172 CREATIVE MOVEMENT DANCE II

Continues developing awareness of a kinesthetic perception of movement, and the relationship between body movement and emotional expression.

One credit: two clock hours per week.
PED 173 CREATIVE MOVEMENT DANCE III
Continuation of PED 172, with more advanced techniques and routines.

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.

## PHYSICAL EDUCATION FITNESS (PEF)

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 105 JUDO

Teaches basic fundamentals, movements, skills and rules of judo. Includes mannerisms, terminology, and proper techniques of falling.

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 115 ADULT FITNESS

A continuation of the principles and practices of PFH 166 (Body Shoppe). The student will continue activities which fulfill his or her individual, exercise prescription. A variety of activites will be introduced as an appropriate means of attaining physical fitness. Periodic reevaluations may be necessary for prescription purposes.

Prerequisite: PFH 166
One credit: meets twice weekly for one hour.

## 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.

## 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 144 KUNDALINI YOGA

Provides instruction in the control of the digestive, respiratory, excretory, adrenal, and parasympathetic systems through the study of Kundalini yoga.

Two credits: three clock hours per week.

## PEF 151 CONTEMPORARY TUMBLING I

Provides instruction in 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.

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# AIMS COMMUNITY COLLEGE <br> Established 1967 <br> P.O. Box 69 Greeley, Colorado 80632 <br> Telephone (303) 330-8008 

## HOW TO USE THIS CATALOG

For your convenience, the 1980-81 Aims Community College Catalog has been designed in six individual sections. Section one provides general information. Sections two through six detail courses, curriculum requirements, and programs for the School of Arts and Sciences and the School of Occupational Education: Business Division, Public Service Division, Technical Division, Trades and Industry Division.

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## 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 in Applied Science degree. Persons enrolling in and successfully completing an occupational course may request a certficate of completion or competency.

## 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 the Skill Center. 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 English and mathematical skills, and spelling ability. Neaatness 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 in 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 BUS 115 (Business Mathematics) and BUS 155 (Business Communications I) will require students to take a pretest. The student may be required to take BUS 109 (Basic Business Math) for elective credit prior to enrollment in BUS 115. The student may be required to take BUS 153 and 154 (Principles of Business Communications A and B) instead of BUS 155 .

The Business Division offers the following programs:

## ACCOUNTING ACCOUNTING

(two year A.A.S. degree)

## ELECTRONIC DATA PROCESSING <br> ELECTRONIC DATA PROCESSING (two year A.A.S. Degree)

## GENERAL BUSINESS CLERK-BOOKKEEPER CLERK TYPIST OFFICE SUPERVISION

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

## MID-MANAGEMENT

MID-MANAGEMENT INDUSTRIALINSTITUTIONAL MANAGEMENT OPTION SALES OPTION
SMALL BUSINESS MANAGEMENT OPTION

REAL ESTATE FOR COLORADO LICENSING

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

ACCOUNTING
(Betty Buxman, Kerry Colton, Marilyn Mathews - 330-8008)
Program Length: Usually six quarters for Associate in 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 and 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:
DEGREE PROGRAM
Degree requirements:

70

| ACC | 101 | Principles of Accounting I |
| :--- | :--- | :--- |
| ACC | 102 | Principles of Accounting II |
| ACC | 103 | Principles of Accounting III |
| ACC | 105 | Payroll Accounting |
| ACC | 201 | Intermediate Accounting I |
| ACC | 202 | Intermediate Accounting II |
| ACC | 205 | Accounting Systems |
| ACC | 211 | Cost Accounting I |
| ACC | 246 | Financial Management |
| BUS | 115 | Business Mathematics |
| BUS | 116 | Adding and Calculating Machines |
| BUS | 155 | Business Communications I |
| BUS | 156 | Business Communications II |
| BUS | 157 | Business Communications III |
| BUS | 255 | Business Law |
| EDP | 101 | Introduction to Data Processing |

(5)
(5)
(3)
(5)

Select one of the following courses:
BUS 145 Human Relations and Supervision
ECO 100 Introduction to Economics
PSY 101 General Psychology
SOC 101 Introduction to Sociology
ELECTIVES (selected with advisor approval)
Total credits for A.A.S. Degree

## ACCOUNTING ADVISORY COMMITTEE

Arlin Disselkoen
Greeley National Bank
Jon Ewert
Agland, Incorporated
Larry Heinze
Monfort of Colorado
Linda Kadlecek
Kosmicki \& Kurtz
Allen McConnell
University of Northern Colorado
Bill Sleigh
Eastman Kodak
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 in 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, perseverance, 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 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 EDP 281 and 282.

| ACC | 101 | Principles of Accounting I | (5) |
| :---: | :---: | :---: | :---: |
| ACC | 102 | Principles of Accounting II | (5) |
| ACC | 103 | Principles of Accounting III | (5) |
| BUS | 115 | Business Mathematics | (5) |
| BUS | 155 | Business Communications I | (5) |
| BUS | 156 | Business Communications II | (3) |
| EDP | 101 | Introduction to Data Processing | (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 Programming | (5) |
| EDP | 126 | Report Program Generator II (RPG II) | (5) |
| EDP | 201 | Assembler Language Programming | (5) |
| EDP | 211 | New Issues and Developments in Data Processing | (5) |
| EDP | 237 | Systems Analysis and Data Management | (5) |
| Select one of the following courses: |  |  |  |
| BUS | 100 | Introduction to Business | (5) |
| BUS | 125 | Money Management | (3) |
| BUS | 145 | Human Relations and Supervision | (3) |
| MGT | 145 | Management and Human Relations | (5) |
| PSY | 117 | Career Planning Seminar | (3) |

ELECTIVES (selected with advisor approval)

Total Credits for A.A.S. Degree

## ELECTRONIC DATA PROCESSING ADVISORY COMMITTEE

William Hoffman
District Six Administration
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

## GENERAL BUSINESS

(Lucille Eckhardt, Jerry Goddard, Melba Kriegel, Judy Lensink, 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 in Applied Science degree program.

## CLERK-BOOKKEEPER <br> CERTIFICATE PROGRAM

Certificate requirements:

CREDITS

ACC 105 Payroll Accounting
BUS 102 Intermediate Typewriting
BUS 115 Business Mathematics
BUS 116 Adding and Calculating Machines
BUS 141 College Bookkeeping I
(5)

BUS 142
College Bookkeeping II
BUS 145 Human Relations and Superivision
BUS 155 Business Communcations I
BUS 165 Filing
BUS 175 Office Procedures
EDP 101 Introduction to Data Processing

ELECTIVES (selected with advisor approval)

## CLERK-TYPIST CERTIFICATE PROGRAM

Certificate requirements:

| BUS | 101 | Beginning Typewriting |
| :--- | :--- | :--- |
| BUS 102 | Intermediate Typewriting | (3) |
| BUS 103 | Advanced Typewriting | (3) |
| BUS 115 | Business Mathematics | (3) |
| BUS 116 | Adding and Calculating Machines | (5) |
| BUS 145 | Human Relations and Supervision | (2) |
| BUS 155 | Business Communications I | (3) |
| BUS 156 | Business Communications II | (3) |
| BUS 157 | Business Communications III | (3) |
| BUS 165 | Filing | (3) |
| BUS | 175 | Office Procedures |
| SEC 105 | Machine Transcription | (5) |

ELECTIVES (selected with advisor approval)
Total Credits for Certificate

OFFICE SUPERVISION DEGREE PROGRAM

Degree Requirements:

ACC 101 Principles of Accounting I
ACC 102 Principles of Accounting II
ACC 105 Payroll Accounting
BUS 100 Introduction to Business
BUS 101 Beginning Typewriting
BUS 102 Intermediate Typewriting
BUS 115 Business Mathematics
BUS 116 Adding and Calculating Machines
BUS 145 Human Relations and Supervision
(3)

BUS 155 Business Communications I
BUS 156 Business Communications II
BUS 157 Business Communications III
(3)

BUS 165 Filing
BUS 175 Office Procedures
(5)
(5)

BUS 281 Cooperative Office Occupations I
BUS 282 Cooperative Office Occupations II
(5)

EDP 101 Introduction to Data Processing
MGT 205 Credit Management
MGT 215 Personnel Management
Select one of the following courses: (with advisor approval)
ACC 246 Financial Management
(5)

BUS 247 Business and Banking
ELECTIVES (selected with advisor approval)

## GENERAL BUSINESS ADVISORY COMMITTEE

Kay Alvarez
City of Greeley
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

(Jim Adams, Elmer Kiekhaefer, Cal McKibbin, Mary Webster - 3308008)

Program Length: Usually six quarters for Associate in Applied Science degree program. The degree will be awarded in MidManagement, 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 in 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 estate 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.

Degree requirements:

| ACC | 101 | Principles of Accounting I | (5) |
| :---: | :---: | :---: | :---: |
| BUS | 115 | Business Mathematics | (5) |
| BUS | 155 | Business Communications I | (5) |
| BUS | 156 | Business Communications II | (3) |
| BUS | 255 | Business Law | (5) |
| EDP | 101 | Introduction to Data Processing | (5) |
| MGT | 101 | Salesmanship | (5) |
| MGT | 145 | Management and Human Relations | (5) |
| MGT | 215 | Personnel Management | (5) |
| MGT | 235 | Principles of Management | (5) |
| MGT | 245 | Organizational Environment | (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 | (5) |
| MGT | 282 | Personal Adjustment to Business | (5) |
| MGT | 283 | Personal Adjustment to Business | (5) |
| RECOMMENDED ELECTIVES |  |  |  |
| ECO | 201 | Principles of Economics - Macroeconomics | (5) |
| ECO | 202 | Principles of Economics - Microeconomics | (5) |
| MGT | 116 | Management Activity I | (2) |
| MGT | 117 | Management Activity II | (2) |
| MGT | 118 | Management Activity III | (2) |
| POS | 101 | American Government (inst. mgt. only) | (5) |
| POS | 118 | State and Local Government (inst. mgt. only) | (5) |
| TRA | 101 | Transportation Terms \& Documentation | (4) |
| TRA | 102 | Transportation Functions and Regulations | (4) |
| TRA | 103 | Transportation Freight Rates and Tariffs | (4) |
| VTR | 105 | Applied Industrial Communications | (3) |
| VTR | 106 | Applied Industrial Economics | (3) |
| VTR | 115 | Basic Quality Control I | (3) |

Total Credits for A.A.S. Degree

## SALES OPTION

Degree requirements:

ACC 101
BUS 115
BUS 155
BUS 156
BUS 157
BUS 255
MGT 101
MGT 102
MGT 107
MGT 116
MGT 117
MGT 118
MGT 145
MGT 201
MGT 215
MGT 221
MGT 235
MGT 245
MGT 28
MGT 282
MGT 283

Principles of Accounting 1
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RECOMMENDED ELECTIVES

| ECO | 201 | Principles of Economics - Macroeconomics | (5) |
| :--- | :--- | :--- | :--- |
| ECO | 202 | Principles of Economics - Microeconomics | (5) |
| EDP | 101 | Introduction to Data Processing | (5) |
| EDP | 105 | Computer Operations | (5) |
| MGT | 108 | Small Business Management | (5) |
| MGT | 205 | Credit Management | (5) |
| PSY | 101 | General Psychology | (5) |
| PSY 107 | I'm OK, You're OK - Psychology |  |  |
|  |  | of Personal Relations | (3) |
| PSY | 237 | Assertiveness Training | (3) |

Total Credits for A.A.S. Degree

SMALL BUSINESS MANAGEMENT OPTION

Degree requirements:

| ACC | 101 | Principles of Accounting I |
| :--- | :--- | :--- |
| ACC | 107 | Managerial Use of Accounting |
| BUS | 115 | Business Mathematics |
| BUS | 155 | Business Communications I |
| BUS | 156 | Business Communications II |
| BUS | 255 | Business Law |
| EDP | 101 | Introduction to Data Processing |
| MGT | 101 | Salesmanship |
| MGT | 107 | Principles of Advertising |
| MGT | 108 | Small Business Management |
| MGT | 116 | Management Activity I |
| MGT | 117 | Management Activity II |
| MGT | 118 | Management Activity III |
| MGT | 145 | Management and Human Relations |
| MGT | 205 | Credit Management |
| MGT | 215 | Personnel Management |
| MGT | 221 | Principles of Marketing |
| MGT | 235 | Principles of Management |
| MGT | 281 | Personal Adjustment to Business |
| MGT | 282 | Personal Adjustment to Business |
| MGT | 283 | Personal Adjustment to Business |

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RECOMMENDED ELECTIVES

| ACC | 246 | Finanical Management | (5) |
| :--- | :--- | :--- | :--- |
| BUS | 100 | Introduction to Business | (5) |
| BUS | 247 | Business and Banking | (5) |
| ECO | 201 | Principles of Economics - Macroeconomics | (5) |
| ECO | 202 | Principles of Economics - Microeconomics | (5) |
| EDP | 105 | Computer Operations | (5) |
| MGT | 222 | Marketing Management | (5) |
| MGT 245 | Organizational Environment | (5) |  |

Total Credits for A.A.S. Degree
RES 205 Real Estate Finance
RES 206 Real Estate Appraisal ..... (3)
SUPPORTIVE/ELECTIVE COURSES
RES 108 Real Estate License Preparation ..... (3)
RES 109 Real Estate Closings ..... (3)
MID-MANAGEMENT ADVISORY COMMITTEE
Richard ErwinDenver Dry Goods CompanyGeorge EvansNorthwestern Mutual Life
Rolland HigginsHiggins Sentry Hardware
Jack Weber
Woolco Department Store
Herb Zimmerman
Hewlett-Packard
REAL ESTATE
ADVISORY COMMITTEE
Carol CampbellTime Realty
Edwin Dyer
Wheeler Realty
Richard Gazlay
Realty WorldClift-McComb Realty
Paul Haugen
Scott Realty Company
Roland McKinley
Scott Realty Company
Chuck NealRE/MAX of Greeley
SECRETARIAL
(Judy Leusink, Maxine Marquez, Trulene Page - 330-8008)
Program Length: Usually six quarters for Business SecretaryAssociate in Applied Science degree program; usually four quartersfor Clerk-Steno Certificate in Occupational Education program;usually six quarters for Judicial/Legal Secretary Associate in AppliedScience degree program; usually three to four quarters for MedicalClerk-Typist Certificate in Occuational 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, ClerkSteno, and Judicial/Legal Secretary programs possess above average English skills.

## BUSINESS SECRETARY DEGREE PROGRAM

Degree requirements:

| BUS | 103 | Advanced Typewriting |
| :--- | :--- | :--- |
| BUS 115 | Business Mathematics | $(3)$ |
| BUS 116 | Adding and Calculating Machines | $(5)$ |
| BUS 141 | College Bookkeeping I | $(2)$ |
| BUS 142 | College Bookkeeping II | $(5)$ |
| BUS 145 | Human Relations and Supervision | $(5)$ |
| BUS 155 | Business Communications I | $(3)$ |
| BUS 156 | Business Communications II | $(5)$ |
| BUS 157 | Business Communications III | $(3)$ |
| BUS 165 | Filing | $(3)$ |
| BUS 175 | Office Procedures | $(3)$ |
| EDP 101 | Introduction to Data Processing | $(5)$ |
| SEC 105 | Machine Transcription | $(5)$ |
| SEC 153 | Intermediate Shorthand | $(3)$ |
| SEC 154 | Advanced Shorthand | $(5)$ |
| SEC | 281 | Cooperative Office Occupations I |
| SEC 282 | Cooperative Office Occupations II | $(5)$ |

Select one of the following courses:
SEC 151 Gregg Shorthand Theory I
Select one of the following courses:
SEC 152 Gregg Shorthand Theory II (5)
SEC 162 Alphabet Shorthand Theory II
(5)

ELECTIVES (selected with advisor approval)
Total Credits for A.A.S. Degree

## CLERK-STENO CERTIFICATE PROGRAM

Certificate Requirements:

|  | CREDITS |  |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| BUS | 102 | Intermediate Typewriting | $(3)$ |
| BUS | 103 | Advanced Typewriting | $(3)$ |
| BUS | 115 | Business Mathematics | $(5)$ |
| BUS | 145 | Human Relations and Supervision | $(3)$ |
| BUS | 155 | Business Communications I | $(5)$ |
| BUS | 156 | Business Communications II | $(3)$ |
| BUS | 157 | Business Communications III | $(3)$ |
| BUS | 165 | Filing | $(3)$ |
| BUS | 175 | Office Procedures | $(5)$ |
| SEC | 105 | Machine Transcription | $(3)$ |
| SEC | 153 | Intermediate Shorthand | $(5)$ |
| SEC | 154 | Advanced Shorthand | $(5)$ |

Total Credits for Certificate

## JUDICIAL / LEGAL SECRETARY DEGREE PROGRAM

Degree requirements:

BUS 102 Intermediate Typewriting
BUS 113 Legal Typewriting
BUS 115 Business Mathematics
BUS 116 Adding and Calculating Machines
BUS 141 College Bookkeeping I
BUS 145 Human Relations and Supervisiion
BUS 155 Business Communications I
BUS 156 Business Communications II
BUS 157
(3)

| BUS | 165 | Filing |
| :--- | :--- | :--- |
| SEC | 106 | Legal Terminolog |
| SEC | 141 | Legal Machine Tr |
| SEC | 153 | Intermediate Sho |
| SEC | 215 | Legal Shorthand |
| SEC | 277 | Legal Office Proc |
| SEC | 281 | Cooperative Offic |
| SEC | 282 | Cooperative Offic |
|  |  |  |
| Select one of the following co |  |  |
| SEC | 151 | Gregg Shorthand |
| SEC | $161 \quad$ Alphabet Shorthan |  |
| Select one of the following cou |  |  |
| SEC | 152 | Gregg Shorthand |
| SEC | 162 | Alphabet Shorthan |
| ELECTIVES (selected with ad |  |  |
| RECOMMENDED ELECTIVE |  |  |
| (selected with advisor approva |  |  |
| BUS 247 | Business and Ba |  |
| BUS | 255 | Business Law |
| EDP | 101 | Introduction to D |
| Total Credits for A.A.S. Degr |  |  |

Certificate requirements:

| BUS | 101 | Beginning Typewriting |
| :--- | :--- | :--- |
| BUS | 102 | Intermediate Typewriting |
| BUS | 114 | Medical Typewriting |
| BUS | 141 | College Bookkeeping I |
| BUS | 145 | Human Relations and Supervision |
| BUS | 155 | Business Communications I |
| BUS | 156 | Business Communications II |
| BUS | 157 | Business Communications III |
| BUS | 165 | Filing |
| HLH | 131 | Medical Terminology |
| SEC | 136 | Applied Medical Terminology |
| SEC | 143 | Medical Machine Transcription I |
| SEC | 276 | Medical Office Procedures |

ELECTIVES (selected with advisor approval)
Total Credits for Certificate

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## 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
Mary Osaki
Hensel Phelps Construction Company
Fred Otis
Attorney-at-Law

## BUSINESS DIVISION COURSES <br> ACCOUNTING (ACC)

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.

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.

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.

## ACC 205 ACCOUNTING SYSTEMS

A study of flow accounting information within an organization: special emphasis on integration of accounting sub-systems.
Prerequisites: ACC 105 and ACC 201, or permission of instructor. Four credits.

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.

## ACC 246 FINANCIAL MANAGEMENT

Deals with conceptual alternatives of financial management. Emphasizes preparation and analysis of source and uses of shortand long-term capital, and an in-depth analysis of financial statements.
Prerequisite: ACC 103 or permission of instructor.
Five credits.

## 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.

## BUSINESS (BUS)

BUS 100 INTRODUCTION TO BUSINESS
A survey of principles, problems, institutions, practices, private and governmental systems affecting the world of business.

## Five credits.

## 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.

## Three credits.

## 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.

## Three credits.

## 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.
Three credits.

## BUS 105 SPEED AND ACCURACY DEVELOPMENT IN TYPEWRITING

A skill-building class designed to help the student build speed and accuracy through the use of proper technique, proper position, and concentrated effort.
Prerequisite: BUS 101, one year of high school typewriting, or 25 wpm typing speed.
Three credits.

## BUS 107 MEMORY TYPEWRITING

An independent study in basic operations of the memory typewriter. Upon completion the student will be able to produce one page letters, memos, and reports.
Prerequisite: BUS 102 or equivalent.
Two credits.

## BUS 109 BASIC MATHEMATICS

Helps students develop the ability to accurately perform fundamental mathematical operations required in business activities. Five credits.

## BUS 113 LEGAL TYPEWRITING

Production practice in preparing legal documents. Emphasizes typewriting and spelling accuracy of legal terminology.
Prerequisites: BUS 102 and 60 wpm .
Three credits.

## 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.
Three credits.

## BUS 115 BUSINESS MATHEMATICS

A study of 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 BUS 109 prior to enrollment in BUS 115.

## Five credits.

## 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: BUS 115.
Two credits.

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 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.

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.

## 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.

## 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.

## BUS 145 HUMAN RELATIONS AND SUPERVISION

A study of personal development and adjustment in business. Also studies attitudes and working relationships with co-workers and supervisors in order that the office can be organized and run in an efficient manner.
Three credits.

## BUS 153 PRINCIPLES OF BUSINESS COMMUNICATIONS A

Helps students learn grammar usage as it should be appied to business communication.
Five credits.

BUS 154 PRINCIPLES OF BUSINESS COMMUNICATIONS B
Major emphasis is given to development of business vocabulary. Students learn correct and effective use of punctuation, spelling, capitalization, and word division in business correspondence.
Five credits.

## BUS 155 BUSINESS COMMUNICATIONS I

Students develop more extensive vocabularies, emphasizing business terminology. Students learn parts of speech, sentence structure, punctuation, spelling and word division as they are used in business. Pretest is required. BUS 153 and BUS 154 may be substituted for BUS 155. (BUS 153 and BUS 154 are equivalent to BUS 155.)
Five credits.

## 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(s): BUS 155, or BUS 153 and BUS 154.
Three credits.

## 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(s): BUS 155, or BUS 153 and BUS 154.
Three credits.

## BUS 165 FILING

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

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.
Prerequisites: BUS 102 and ability to type 40 wpm
Five credits.

## 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.

## BUS 255 BUSINESS LAW

An introduction to law. Analyizes its origin, development, and interaction with business.
Five credits.

## BUS 281 COOPERATIVE OFFICE OCCUPATIONS I

 BUS 282 COOPERATIVE OFFICE OCCUPATIONS IISupervised 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 advisor and supervising instructor in the quarter prior to enrollment.
Five credits 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.


## ELECTRONIC DATA PROCESSING (EDP)

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.

## 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.

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.

## 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.

## 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.

## 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.
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.
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.

## EDP 201 ASSEMBLER LANGUAGE PROGRAMMING

Programming concepts learned in EDP 102 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: EDP 102 or permission of instructor.
Five credits.

## 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.

## 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.

## 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 be approved for admission by his advisor and the supervising instructor.
Five credits each.

## MID-MANAGEMENT (MGT)

## 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.

## 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.

## 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.

## 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.

## 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.

## MGT 145 MANAGEMENT AND HUMAN RELATIONS

A study of the behavioral sciences as they apply to management. Includes motivation, leadership, perceptions, attitudes, and values as they affect management decisions and actions.
Five credits.

## 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.

## MGT 205 CREDIT MANAGEMENT

A study of principles in credit extension, investigation, charge accounts, and collections in selling organizations.
Five credits.

## 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 work incentives. Special emphasis on art of supervision.
Five credits.

## 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.

## 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.

## 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.

## MGT 226 INDIVIDUAL STUDIES IN MARKETING <br> MGT 227 INDIVIDUAL STUDIES IN MARKETING <br> 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.
MGT 236 INDIVIDUAL STUDIES IN MANAGEMENT
MGT 237 INDIVIDUAL STUDIES IN MANAGEMENT
MGT 238 INDIVIDUAL 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.

## 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.

## 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.

## 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.

## 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.

MGT 281 PERSONAL ADJUSTMENT TO BUSINESS
MGT 282 PERSONAL ADJUSTMENT TO BUSINESS
MGT 283 PERSONAL ADJUSTMENT TO BUSINESS
Bridges the gap between classroom instruction and work experience for the management-oriented student. Attention is given to specific on-the-job problems encountered by the student. Student will formulate work objectives and attend a weekly one-hour seminar.
Prerequisites: (1) declared Mid-Management major, (2) consent of a Mid-Management advisor, (3) enrolled in one or more of the MidManagement 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.
Five credits each.


## REAL ESTATE (RES)

## 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.

## 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.

## 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. Prerequisites: RES 105 and RES 106.
Three credits.

## RES 109 REAL ESTATE CLOSINGS

Provides an in-depth study of real estate closings. Includes understanding the contract and precipitating the closing, 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.

## 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.

## 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.

## SECRETARIAL (SEC)

## SEC 105 MACHINE TRANSCRIPTION

Instruction in the use of transcribing machines in preparing business letters and correspondence.
Three credits.

## 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.

## 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.
Three credits.

## SEC 141 LEGAL MACHINE TRANSCRIPTION I

Provides students with in-depth practice in transcribing legal material using legal terminology and legal forms.
Prerequisites: BUS 102, SEC 106, and BUS 155.
Three credits.

SEC 142 LEGAL MACHINE TRANSCRIPTION II
A continuation of SEC 141
Prerequisite: SEC 141.
Three credits.

## 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.
Three credits.

SEC 144 MEDICAL MACHINE TRANSCRIPTION II
A continuation of SEC 143.
Prerequisite: SEC 143.
Three credits.

## 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.

## 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 typewriter.
Prerequisite: SEC 151 or previous Gregg Shorthand instruction. Five credits.

## 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.

## 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.

## 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.

## 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.

## 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.

## 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.

## 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.

SEC 232 CPS REVIEW II
A continuation of SEC 231.

## Prerequisite: SEC 231.

Two credits.

## 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.

## 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.

## 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.

## 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 advisor and supervising instructor in the quarter prior to enrollment.

## Five credits 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.

## TRANSPORTATION (TRA)

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.

## 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.

## 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.

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## 1980-81 Catalog



Public Service


# AIMS COMMUNITY COLLEGE <br> Established 1967 <br> P.O. Box 69 Greeley, Colorado 80632 <br> Telephone (303) 330-8008 

## HOW TO USE THIS CATALOG

For your convenience, the 1980-81 Aims Community College Catalog has been designed in six individual sections. Section one provides general information. Sections two through six detail courses, curriculum requirements, and programs for the School of Arts and Sciences and the School of Occupational Education: Business Division, Public Service Division, Technical Division, Trades and Industry Division.

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## SCHOOL OF <br> 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 Applied Science degree. Persons enrolling in and successfully completing an occupational course may request a certificate of completion or competency.

## JOB PLACEMENT

Each year a large number of students qualify for employement upon graduation or upon completion of a specific course of study in the vocational-technical programs.

A record of available positions, both full and part-time, is kept in the Job Placement office. This office coordinates all of the college's efforts in assisting students to obtain full time employment in occupations for which they have been prepared.

The Job Placement office is located in the Skill Center. 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.


## 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 in Applied Science (A.A.S.) degree program.

The Public Service Division offers the following programs:

> CRIMINAL JUSTICE
> FIRE PROTECTION TECHNOLOGY
> FIRE SCIENCE TECHNOLOGY HEALTH OCCUPATIONS: EMERGENCY MEDICAL TECHNICIAN GERIATRIC AIDE NURSE ASSISTING
> (two year A.A.S. degree) (two year A.A.S. degree)
> (two year A.A.S. degree)

> RADIOLOGIC TECHNOLOGY (two year A.A.S. degree) RESPIRATORY CARE (one year certificate) OTHER HEALTH SERVICES

## CRIMINAL JUSTICE

Program Length: Usually two years for Associate in 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 Justice program consists of course 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, Ninteenth Judicial District Court, and other agencies. The remaining 45 credits are general courses.

## DEGREE PROGRAM

Degree requirements:

| CRJ | 101 | Introduction to Criminal Justice |
| :--- | :--- | :--- |
| CRJ | 115 | Traffic Control Accident Investigation |

CRJ 115 Traffic Control Accident Investigation
CRJ 130 Community Relations (3)
CRJ 135 Report Writing
(3)

CRJ 140 Juvenile Procedures
CRJ 150 Law Enforcement Basic Training
Certification indicating comple-
tion of the Basic Recruit Seminar, Colorado Law Enforcement Training Academy (CLETA) may be substituted for CRJ 150.
CRJ 200 Criminal Law Procedures
CRJ 210 Criminal Investigation
CRJ 215
Evidence I
CRJ 225 Evidence II
CRJ 231 Court Procedures
CRJ 240 Consititutional Law Seminar

## COMMUNICATIONS

| CON | 102 | Introduction to Writing |
| :--- | :--- | :--- |
| SPE | 115 | Speech Communications |

SPE 115 Speech Communications

As a result of a placement test, the student may be required to take Fundamentals of Composition, CON 101, for elective credit (five credits).

BEHAVIORAL AND SOCIAL SCIENCE
POS 118 State and Local Government
(5)

PSY 101 General Psychology
(5)

Select one of the following courses:

| ECO | 100 | Introduction to Economics |  |
| :--- | :--- | :--- | :---: |
| HIS | 105 | History of the United States to 1877 |  |
| HIS | 209 | History of Colorado and the Rocky |  |
|  | Mountain West |  |  |
| SOC | 101 | Introduction to Sociology |  |

## MATHEMATICS AND SCIENCE

BIO 101 Biology Concepts
(5)

Select one of the following courses:
CHE 100 Fundamentals of Chemistry
PHY 100 Fundamentals of Physics
(5)
(5)

RECOMMENDED ELECTIVES
CRJ 158 Forensic Photography
CRJ 251 Police Cadet Cooperative
CRJ 252 Police Cadet Cooperative
CRJ 253 Police Cadet Cooeprative
CRJ 254 Police Cadet Cooperative
CRJ 255 Police Cadet Cooperative
Courses having the prefix BIO , MAT, and PHY in the Mathematics and Science Division.

Other advisor-approved courses may be used to meet this requirement.

Total Credits for A.A.S. Degree

## CRIMINAL JUSTICE ADVISORY COMMITTEE

Sheriff Harold Andrews
Weld County Sheriff's Department
Donald Carpenter
Greeley, Colorado
Chief Robert Edington
Greeley Police Department
Robert N. Miller
District Attorney
19th Judical District
Chief Walter Teel
Windsor Police Department

## FIRE PROTECTION TECHNOLOGY FIRE SCIENCE TECHNOLOGY

Program Length: Usually two years for Associate in 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 sicences, 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:

| CON | 101 | Fundamentals of Composition |
| :---: | :---: | :---: |
| CON | 103 | Research and Communication |
| FS | 100 | Introduction to Fire Science and Suppression |
| FS | 104 | Fire Company Organization and Procedure |
| FS | 108 | Fire Hydraulics |
| FS | 190 | Adminsitration of Justice and Court Procedures |
| FS | 202 | Fundamentals of Fire Prevention |
| FS | 204 | Related Codes and Ordinances I |
| FS | 205 | Related Codes and Ordinances II |
| FS | 207 | Applied Chemistry for Firefighters |
| FS | 208 | Hazardous Materials I |
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| FS | 218 | Fire Investigation |
| FS | 220 | Fire Insurance |
| FS | 230 | Building Construction/Blueprint Reading for Firefighters |
| PHY | 100 | Fundamentals of Physics |
| PSY | 111 | Basic Human Potential Seminar |
| SOC | 101 | Introduction to Sociolgy |
| SPE | 115 | Speech Communications |
| VTR | 101 | Basic Applied Technical Mathematics |
| WLT | 190 | Introduction to Welding |
| RECOMMENDED ELECTIVES |  |  |
| BUS | 101 | Beginning Typewriting |
| FS | 111 | Fire Safety |
| FS | 112 | Fire Service Planning |
| FS | 113 | Building Fire Inspections |
| FS | 232 | Fire Service Supervision |
| HEN | 106 | Safety and First Aid |
| HLH | 105 | Emergency Medical Technician |
| POS | 101 | American Government |
| POS | 118 | State and Local Government |
| PSY | 107 | I'm OK, You're OK - Psychology of Personal Relations |
| VTR | 106 | Applied Industrial Economics |

Total Credits for A.A.S. Degree

## FIRE SCIENCE TECHNOLOGY DEGREE PROGRAM

Degree requirements:

## CREDITS

| CON 101 | Fundamentals of Composition |
| :--- | :--- |
| CON 103 | Research and Communication |

FS 100 Introduction to Fire Science and Suppression
FS 104 Fire Company Organization and Procedure
(3)
(3)

FS 106 Fire Fighting Tactics and Strategy
FS 108 Fire Hydraulics
(3)

FS 110 Fire Apparatus and Equipment (3)
FS 202 Fundamentals of Fire Prevention
FS 206
FS 207 Applied Chemistry for Firefighters
FS 208 Hazardous Materials I
FS 209 Hazardous Materials II
FS 214 Fire Department Administration
FS 218 Fire Investigation
FS 220 Fire Insurance
FS 230 Building Construction/Blueprint Reading for Firefighters
(5)

| PHY | 100 | Fundamentals of Physics |  |
| :--- | :--- | :--- | ---: |
| PSY | 111 | Basic Human Potential Seminar |  |
| SOC | 101 | Introduction to Sociology |  |
| SPE | 115 | Speech Communications |  |
| VTR | 101 | Basic Applied Technical Mathematics |  |
| WLT | 190 | Introduction to Welding |  |
|  |  |  |  |
| RECOMMENDED ELECTIVES |  |  |  |
| BUS | 101 | Beginning Typewriting |  |
| FS | 111 | Fire Safety |  |
| FS | 112 | Fire Service Planning |  |
| FS | 113 | Buildng Fire Inspections |  |
| FS | 232 | Fire Service Supervision |  |
| HEN | 106 | Safety and First Aid |  |
| HLH | 105 | Emergency Medical Technician |  |
| POS | 101 | American Government |  |
| POS | 118 | State and Local Government |  |
| PSY | 107 | I'm OK, You're OK - Psychology of Personal |  |
| $\quad$ Relations |  |  |  |
| VTR | 106 | Applied Industrial Economics |  |

Total Credits for A•A.S. Degree

## FIRE PROTECTION TECHNOLOGY

## FIRE SCIENCE TECHNOLOGY

ADVISORY COMMITTEE
William Bailey
Western Hills Fire Protection District
Jack Cockran, Jr.
Civil Service Commission
Larry Donner
Ft. Collins Fire Department
James Edwards
Loveland, Colorado
Verne Einspahr
Greeley Fire Department
Bruce Forbes
Greeley Fire Department
Tom Hauss
Kodak Colorado
Donna King
Community Representative
Student Representative
Gerald Ward
Berthoud Fire Department
Chuck Willis
Poudre Valley Rural Fire Department

## HEALTH OCCUPATIONS: EMERGENCY MEDICAL TECHNICIAN

Program Length: Usually 16 weeks for Certificate in Occupational Education program. Nine credit 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 Opportunities: Entry level employment in this field is frequently difficult to obtain. The course is designed to serve those who, in an offical 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

9
(9)

9

## CREDITS

## 4

(4)

Total Credits For Certificate Renewal

## EMERGENCY MEDICAL TECHNICIAN ADVISORY COMMITTEE

Norman Carlson
Weld County Commissioner
Cathy Caster, R.N.
Weld County General Hospital
John Cullen, M.D.
Family Practice Medical Center
James B. Edwards
Loveland, Colorado
Dennis Elo, M.D.
McKee Medical Center
Craig Gallagher
Weld County Ambulance Service
Elaine Gilmore
Poudre Valley Memorial Hospital
Robert Kohrmann
Loveland Fire Department
John McMaster
Loveland Ambulance Service
Larry Mitchel
Greeley Fire Department
Marian Montoya
Tri-Area Ambulance Service
Mark Quinn
Loveland Ambulance Service
James Seery
Eastman Kodak Company
Pat Walden
Grover-Hereford-Carpenter Ambulance
Gerald J. Ward
Berthoud Fire Department
Ben Welch, M.D.
Poudre Valley Memorial Hospital
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, selfimprovement, 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.

## GERIATRIC AIDE

 CERTIFICATE PROGRAMCertificate requirements:

## CREDITS

HLH 135 Geriatric Aide
Total Credits for Certificate

## NURSE ASSISTING CERTIFICATE PROGRAM

Certificate requirements:

NA 100 Nurse Aide
Total Credits For Certificate

## GERIATRIC AIDE NURSE ASSISTING ADVISORY COMMITTEE

Margaret Clemons, R.N.
Nurse Placement Service
Mrs. Peggy Davis, R.N.
Bonell Good Samaritan Center
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


## RADIOLOGIC TECHNOLOGY

Program Length: Usually eight quarters for Associate in 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 desease.

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

Outline of degree requirements:

## CREDITS

## XRT, HLH LECTURE LAB <br> XRT CLINICAL <br> GENERAL EDUCATION

BIO 211 Human Anatomy - Physiology I
BIO 212 Human Anatomy - Physiology II (5)
MAT 109 Metric System
Electives (must have advisor approval)
Total Credits for A.A.S. Degree
Degree requirements:
CREDITS
FIRST YEAR
Summer Quarter
BIO 211 Human Anatomy - Physiology I
troduction to Radiologic Technology $/$ Patient Care
XRT 101 Radiographic Positioning/Laboratory I
XRT 111 Clinical Experience I (12 weeks)
Fall Quarter
BIO 212 Human Anatomy - Physiology II
HLH 131 Medical Terminology
XRT 102 Radiographic Positioning/Laboratory II
XRT 112 Clinical Experience II (11 weeks)
XRT 121 Radiographic Exposure - Lecture
Winter Quarter
15
XRT 103 Radiographic Positioning/Laboratory III (6)
XRT 105 Radiation Protection
XRT 113 Clinical Experience III
XRT 122 Radiographic Exposure - Lab
Spring Quarter
XRT 104 Radiographic Positioning/Laboratory IV
XRT 114 Clinical Experience IV
XRT 115 Film Evaluation
XRT 116 Radiographic Processing
Total Credits For First Year

## SECOND YEAR

Summer Quarter
XRT 209 Special Procedures (3)
XRT 211 Clinical Experience V (11 weeks)
XRT 221 X-Ray Physics I
Fall Quarter
XRT 205 Pathology (2)
XRT 212 Clinical Experience VI
XRT 222 X-Ray Physics II
Winter Quarter
XRT 206 Radiation Biology
XRT 207 Imaging
XRT 213 Clinical Experience VII
Spring Quarter
XRT 208 Ultrasound, Nuclear Medicine, and Radiation Therapy
XRT 214 Clinical Experience VIII (10)
XRT 231 Radiological Sciences
(3)

Total Credits For Second Year
GENERAL EDUCATION ADDITIONAL COURSES
MAT 109 Metric System
Electives
Total Credits For A.A.S. Degree

## RADIOLOGIC TECHNOLOGY ADVISORY COMMITTEE

Phyllis Bell
Student Representative
John Guy
Weld County General Hospital
Glenn Hewitt, M.D.
Weld County General Hospital
Dennis Kiethly
Weld County General Hospital

## 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 of 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:

| Fall Quarter |  |  |
| :--- | :--- | :--- |
| BIO | 211 | Human Anatomy - Physiology I |
| RSC | 111 | Respiratory Science I |
| RSC | 121 | Respiratory Equipment Application I |
| RSC | 131 | Respiratory Practicum I |
| RSC | 227 | Pulmonary Rehabilitation |

Winter Quarter
BIO 212 Human Anatomy - Physiology II
RSC 112 Respiratory Science II
RSC 122 Respiratory Equipment Application II
RSC 132 Respiratory Praciticum II
Spring Quarter
BIO 213 Human Anatomy - Physiology III
(4)

RSC 211 Respiratory Science III
RSC 221 Respiratory Equipment Application III
RSC 231 Respiratory Practicum III
RSC 241 Clinical Conference I
Summer Quarter
RSC 212 Respiratory Science IV
RSC 222 Respiratory Equipment Application IV
RSC 228 Respiratory Neonatal and Pediatrics
RSC 232 Respiratory Practicum IV
RSC 242 Clinical Conference II

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

11
HLH 131 Medical Terminology
HLH 127 Cardiopulmonary Resuscitation (CPR) (1)
MAT 109 Metric System
OHC 100 Orientation to Health Care
Select one of the following courses:
BIO 101 Biology Concepts
RSC 101 Applied Science I
Select one of the following courses:
CHE 101 General Chemistry I
RSC 102 Applied Science II
Select one of the following courses:
2-5
PHY 100 Fundamentals of Physics
RSC 103 Applied Science III
Total Credits for Certificate

## RESPIRATORY CARE TECHNICIAN ADVISORY COMMITTEE

Robert Cash, M.D.
Medical Director
Respiratory Care Technician Program
Aims Community College
Pulmonary Specialist
Greeley Clinic
Harold Chadwick
Consumer Representative
Melva Faulkner, R.N.
Non-Affiliated Allied Health Professional
Weld County General Hospital
Sally Heiser, R.R.T.
Director
Respiratory Care Department
McKee Medical Center
Charles Hoenig, B.S., C.R.T.T.
Supervisor
Respiratory Care Department
Weld County General Hospital
Dora Johnson, R.N.
University of Northern Colorado
Roberta Miller
Administrator
Weld County General Hospital
Janie Nestor
Respiratory Care Practitioner
Alumni Representative
Kathy Riser, R.R.T.
Brighton Community Hospital
Charles Rybar, B.S., R.R.T.
Manager
Respiratory and
Electro-Diagnosis Department
Weld County General Hospital
Irene Schanz, R.R.T.
Director
Respiratory Care Department
Longmont United Hospital
Student Representative

## PUBLIC SERVICE DIVISION COURSES

## CRIMINAL JUSTICE (CRJ)

## 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 hoours.

## 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 EVIDENCEI

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, crossexamination 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
CRJ 252 POLICE CADET COOPERATIVE
CRJ 253 POLICE CADET COOPERATIVE
CRJ 254 POLICE CADET COOPERATIVE
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.

## FIRE SCIENCE (FS)

## 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 firefighting tactics and strategy; methods of attack, 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, 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 trials, 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 SYSTEM

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 exposures.
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


## HEALTH OCCUPATIONS (HLH, NA)

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.

## 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, twoman 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. Opportunity for discussing 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 capilary 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.

## RADIOLOGIC TECHNOLOGY (XRT)

## XRT 100 INTRODUCTION TO RADIOLOGIC TECHNOLOGYIPATIENT 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 and patient preparations.
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 examination 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. Consideration will be given to 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. Consideration will be given to 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.
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.
Five credits: 160 clock hours.

## XRT 114 CLINICAL EXPERIENCE IV

Continuation of supervised clinical education under the direct supervision of a qualified radiologic technologist.
Five credits: 160 clock hours.

## XRT 115 FILM EVALUATION I

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.
Two credits: 30 clock hours.

## XRT 205 PATHOLOGY

Gives the student a basic understanding of the definition and types of diseases. 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 this course.
Nine credits: 280 clock hours; 11 weeks.

## XRT 212 CLINICAL EXPERIENCE VI

Continuation of XRT 211.
Eight credits: 240 clock hours.

## XRT 213 CLINICAL EXPERIENCE VII

Continuation of XRT 212.
Ten credits: 320 clock hours.

## XRT 214 CLINICAL EXPERIENCE VIII

Contination of XRT 213.
Ten credits: 320 clock hours.

## XRT 221 X-RAY PHYSICS I

Imparts an understanding of basic $x$-ray physics. Includes: unit of 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; 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.


## RESPIRATORY CARE (OHC, RSC)

## 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.
Six credits: 40 hours lecture, 20 hours lab, 16 hours clinical.

## RSC 101 APPLIED SCIENCE I

Develops an understanding of biology as it relates to the field of respiratory care. Focuses on the living cell - its structure and metabolic needs. Includes the environmental relationship beween man and plant. Introduces anatomy and physiology in terms of organs and systems.
Prerequisite: high school graduate or equivalent.
Two credits: 20 clock hours.

## RSC 102 APPLIED SCIENCE II

Develops and understanding of chemistry as it relates to the field of respiratory care. Discusses ions, elements, valence, substance, compounds, density, gases, and volumes as they relate to the field of respiratory care.
Prerequisite: high school graduate or equivalent.
Two credits: 20 clock hours.

## RSC 103 APPLIED SCIENCE III

Develops an understanding of physics as it relates to the field of respiratory care. Introduces gas laws and their general function and application. Discusses the law of conservation. Focuses on energy, matter, acceleration, speed, and pressure and volume.
Prerequisite: high school graduate or equivalent.
Two credits: 20 clock hours.

## 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.
Three credits: 20 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.
Three credits: 20 hours lecture, 20 hours lab.

## 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 longterm 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, 10 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 situtations 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 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.
Three credits: 30 clock hours.

## RSC 232 RESPIRATORY PRACTICUM 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.




# AIMS COMMUNITY COLLEGE 

Established 1967
P.O. Box 69 Greeley, Colorado 80632

Telephone (303) 330-8008

## HOW TO USE THIS CATALOG

For your convenience, the 1980-81 Aims Community College Catalog has been designed in six individual sections. Section one provides general information. Sections two through six detail courses, curriculum requirements, and programs for the School of Arts and Sciences and the School of Occupational Education: Business Division, Public Service Division, Technical Division, Trades and Industry Division.

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## 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 in Applied Science degree. Persons enrolling in and successfully completing an occupational course may request a certificate of completion or competency.

## JOB PLACEMENT

Each year a large number of students qualify for employment upon graduation or upon completion of a specific course of study in the vocational-technical programs.

A record of available positions, both full and part-time, is kept in the Job Placement office. This office coordinates all of the college's efforts in assisting students to obtain full time employment in occupations for which they have been prepared.

The Job Placement office is located in the Skill Center. 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.

## 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 in 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 Cooperative<br>Sales and Service Technology<br>Agriculture Cooperative Service Center Management

Young Farmer Program
Aviation Technology

Electronics Technology
Architectural Drafting Technology
Mechanical and Civil Engineering Technology
(two year A.A.S. degree or four quarter certificate)
(two year A.A.S. degree or three quarter certificate)
(no degree awarded) (two year A.A.S. degree or three quarter certificate)
(two year A.A.S. degree)
(two year A.A.S. degree or three quarter certificate)
(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 in 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:

## CREDITS

AGR 111
AGR 112 Agriculture Sales \& Customer Relations
AGR 115 Agriculture Economics
AGR 116 Introduction to Cooperatives Organization
AGR 117 Feeds and Feeding
AGR 118 Soils and Fertilizer
AGR 125 Farm Chemicals
AGR 135 Agriculture On-the-Job Training
AGR 136 Agriculture On-the-Job Training
AGR 137 Agriculture Chemicals
AGR 146 Anhydrous Ammonia
AGR 147 Corn Production
AGR 156 Basic Management
AGR 159 Animal Health
(5)
(10)
(2)
$\square$
(5)
0)
)
2) (2)

| AGR | 235 | Agriculture On-the-Job Training |
| :--- | :--- | :--- |
| BUS | 115 | Business Math |
| MGT | 101 | Salesmanship |
| MGT | 215 | Personnel Management |
| MGT | 235 | Principles of Management |

Select from the following courses:

| BUS | 155 | Business Communications I |
| :--- | :--- | :--- |
| BUS | 156 | Business Communications II |
| BUS | 157 | Business Communications III |
| CON | 101 | Fundamentals of Composition |
| CON | 102 | Introduction to Writing |
| VTR | 105 | Industrial Communication |

(5)
(3)
(3)
(5)
(3)

## RECOMMENDED ELECTIVES

Select from the following courses:

| ACC | 101 | Principles of Accounting I |
| :--- | :--- | :--- | :--- |
| AGR | 107 | Agriculture Math |

AGR 126
AGR 127 Tires, Batteries, Accessories (2)
AGR 128 LP Gas (2)
AGR 138 Paint
(2)

Fertilizer
Fertilizer Bulk Blending
AGR 148 Feed
(3)
(2)

AGR 149 Profitable Pork Production (2)
AGR 157 Modern Salesmanship (2)
BUS 141 College Bookkeeping I
(5)

MGT 102 Advanced Salesmanship (5)
MGT 108 Small Business Management
MGT 116 Management Activity I (2)
MGT 117 Management Activity II (2)
MGT 118 Management Activity III (2)
MGT 201 Sales Management
MGT 221 Principles of Marketing (5)
Total Credits for A.A.S. Degree

## CERTIFICATE PROGRAM

Certificate requirements:

| AGR | 107 | Agriculture Math | $(5)$ |
| :--- | :--- | :--- | ---: |
| AGR | 115 | Agriculture Economics | $(5)$ |
| AGR | 116 | Introduction to Cooperatives | $(5)$ |
| AGR | 118 | Soils and Fertilizer | $(5)$ |
| AGR | 135 | Agriculture On-the-Job Training | $(10)$ |
| AGR | 136 | Agriculture On-the-Job Training | $(10)$ |
| AGR | 146 | Anhydrous Ammonia | $(3)$ |
| AGR | 156 | Basic Management | $(2)$ |
| BUS | 155 | Business Communications I | $(5)$ |
| MGT | 101 | Salesmanship | $(5)$ |
| MGT 235 | Principles of Management | $(5)$ |  |

Total Credits for Certificate

## AGRICULTURE COOPERATIVE SERVICE CENTER MANAGEMENT

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

Potential Opportunities: Upon completion of the program, the stduent 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:

## CREDITS

AGR 107 Agriculture Math (5)

AGR 112 Agriculture Sales \& Customer Relations
AGR 115 Agriculture Economics (5)
AGR 116 Introduction to Cooperatives Organization (5)
AGR 126 Petroleum
(2)

AGR 127 Tires, Batteries, Accessories (2)
AGR 128 LP Gas
AGR 135 Agriculture On-the-Job Training
AGR 136 Agriculture On-the-Job Training (10)
AGR 156 Basic Management
(2)

BUS 115 Business Math
(5)

MGT 101 Salesmanship
MGT 106 Principles of Retailing
MGT 205 Credit Management
MGT 235 Principles of Management
VTR 105 Applied Industrial Communications
(3)

Select from the following courses: (with advisor approval)
AMT 104 Brake Repair (4)
AMT 106 Tune-up
AMT 107 Advanced Tune-up
AMT 125 Auto Certification Refresher
AMT 131 Brakes, Transmission \& Final Drive
AMT 132 Steering and Suspension (12)
AMT 133 Fuel Systems and Tune-up
AMT 136 Emission Control
AMT 233 Air Conditioning and Comfort Controls

## RECOMMENDED ELECTIVES

ACC 101 Principles of Accounting I
AGR 138 Paint
(2)

AGR 157 Modern Salesmanship
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
MGT 118 Management Activity III (2)
MGT 201 Sales Management
(5)

MGT 221 Principles of Marketing
MGT 245 Organizational Environment
Total Credits for A.A.S. Degree

## CERTIFICATE PROGRAM

Certificate requirements:
(5)

AGR 135 Agriculture On-the-Job Training
Basic Management
AMT 125 Auto Certification Refresher
BUS 115 Business Math
MGT 106 Principles of Retailing
MGT 135 Principles of Management

Select from the following courses:
AMT 104 Brake Repair
(4)

AMT 107 Advanced Tune-up
AMT 131 Brakes, Transmissions \& Final Drive
AMT 132 Steering and Suspension
AMT 133 Fuel Systems and Tune-up (12)

AMT 136 Emission Control
(5)

AMT 233 Air Conditioning and Comfort Controls (5)
Total Credits for Certificate

## AGRICULTURE COOPERATIVE SERVICE CENTER MANAGEMENT ADIVISORY COMMITTEE

Clarence Carlson
Director
Adams County Co-op
Don Dreyer
Director
Adams County Co-op
P.K. Mahanti

Agland, Inc.

Gerald Mueller Farmland Industries
Z.G. Spalding (Retired) Agland, Inc.
Bob Wilcox
Agland, Inc.

## YOUNG FARMER PROGRAM

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

The major instructional objective is to develop the group and individual responsiblity 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 Carrol Duncan 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 in 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:

Instrument Rating:

Commercial Pilot License:

Certified Flight Instructor:
Instrument Flight Instructor:

Multi-Engine Rating:
Basic Ground Instructor:
Advanced Ground Instructor:

Aims Courses
AVT 105 Aviation Seminar AVT 108 Private Ground School AVT 115 Private Flight Simulator AVT 116 Private Flight Lab

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

AVT 206 Commercial Ground School AVT 217 Commercial Flight Lab III

AVT 218 Certified Flight Instructor
AVT 219 Instrument Flight Instructor

AVT 225 Multi-Engine Transition Lab
AVT 207 Basic Ground Instructor
AVT 208 Advanced Ground Instructor

Instrument Ground Instructor: AVT 209 Instrument Ground Instructor

## DEGREE PROGRAM

Degree requirements:

## CREDITS

CLASSROOM
AVT 105 Aviation Seminar (2)

AVT 108 Private Ground School
AVT 205 Instrument Ground School
AVT 206 Commercial Ground School
FLIGHT (conducted at airport)
AVT 116 Private Flight Lab
(5)

AVT 117 Commercial Flight Lab I
AVT 118 Commercial Flight Lab II
AVT 216 Instrument Flight Lab
AVT 217 Commercial Flight Lab III

## FLIGHT SIMULATOR

AVT 115 Private Flight Simulator
AVT 215 Instrument Flight Simulator

GENERAL EDUCATION
10
CON 102 Introduction to Writing
PSY 101 General Psychology
(5)

Select one of the following courses:
3-5

| CON | 103 | Research and Communication |
| :--- | :--- | :--- |
| JOU | 111 | Newswriting |
| REA | 101 | Reading and Study Skills for College |
| REA | 106 | Speed Reading |
| SPE | 116 | Public Speaking |

(5)

Select two of the following courses:

| MAT | 111 | Intermediate Algebra | (5) |
| :--- | :--- | :--- | :--- |
| MAT | 112 | College Algebra | (5) |
| MAT | 113 | College Trigonometry | (5) |
| VTR | 101 | Basic Technical Math | $(6)$ |
| VTR | 102 | Applied Technical Math | (6) |

Select one of the following courses:

| PHY | 100 | Fundamentals of Physics |
| :--- | :--- | :--- | :--- |
| PHY | 101 | Introductory College Physics-Mechanics |
| VTR | 108 | Industrial Physics I |

Select one of the following courses:
$\begin{array}{lll}\text { EAS } & 105 & \text { Earth Science } \\ \text { EAS } & 106 & \text { Meteorology }\end{array}$
ELECTIVES (selected with advisor approval)
AVT 119 Conventional Gear Transition Lab
AVT 207 Basic Ground Instructor
AVT 208 Advanced Ground Instructor
AVT 209 Instrument Ground Instructor (2)

AVT 218 Certified Flight Instructor
(5)

AVT 219 Instrument Flight Instructor
AVT 225 Multi-engine Transition Lab
(3)

Total Credits for A.A.S. Degree

## CERTIFICATE PROGRAM

Certificate requirements:

## CLASSROOM

AVT 105 Aviation Seminar TS

AVT 108 Private Ground School
AVT 205 Instrument Ground School
AVT 206 Commercial Ground School
(3)

FLIGHT (conducted at airport)
AVT 116 Private Flight Lab
(5)

AVT 117 Commercial Flight Lab I
(5)

AVT 118 Commercial Flight Lab II
AVT 216 Instrument Flight Lab
AVT 217 Commercial Flight Lab III

## FLIGHT SIMULATOR

10
AVT 115 Private Flight Simulator
(5)

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

Roy Shore, M.D.
FAA Medical Examiner

Joe Thompson
Top Notch Aerial Applicator

Neal Keddington
Manager
Weld County Airport

## ELECTRONICS TECHNOLOGY

Program Length: Usualy six quarters for Associate in Applied Science degree program.

Potential Opportunities: Students can expect to secure entry level positions 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 accomodate students who are out of phase with a normal acedemic year.

* 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 PROGRAM

Degree requirements:

## CREDITS

## FIRST YEAR

COS 100 Introduction to Computers/BASIC Language Programming
(3)

ELT 141 Introduction to Electronics (10)
ELT 142 AC/DC Circuits
ELT 143 Circuits and Applications
(10)
(10)

ELT 146 Electronics Print Reading and Sketching

* VTR 105 Applied Industrial Communications

VTR 107 Technical Writing
Mathematics and Science Subject Courses
in the Technical or Mathematics and
Science Divisions
Recommended
VTR 108 Industrial Physics I
(5)

VTR 109 Industrial Physics II
(5)

Total Credits for First Year

## SECOND YEAR

ELT 255 Linear ICs and Sensors
*ELT 266 Electronic Design and Fabrication
*ELT 267 Introduction to New Electronics Industry Developments

* ELT 268 Practical Solid State Troubleshooting

ELT 271 Communications I
ELT 272 Communications II
ELT 281 Computers I
ELT 282 Computers II
(5)
(5)
*VTR 106 Industrial Economics
*VTR 206 Industrial Relations

## ELECTIVES

Select from the following, with advisor approval: mathematics and science subject courses in the Technical Division and courses having the prefix CME, EDP, ELM, and ELT.

Total Credits for Second Year
Total Credits for A.A.S. Degree

## ELECTRONICS TECHNOLOGY ADVISORY COMMITTEE

Wes Byers
Eastman Kodak
Windsor
Clarence Laber
Hewlett Packard
Loveland
John Martin
Woodward Governor
Fort Collins

## DRAFTING

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

A special Introduction to Drafting course, DRA 100, is offered to help students determine their aptitude as well as their interest in the drafting field.

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 specific 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 three quarters for completion of Certificate in Occupational Education program or six quarters for Associate in Applied Science degree program.

Potential Opportunities: The program is designed to qualify the student for immediate entry into 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 Technology
b. Civil Technology
c. Building Inspection
d. Urban Planning
e. Solar Energy Technology
f. Engineering Related Technology
g. Drafting

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

## DEGREE PROGRAM

(This progam is presently under review and is subject to change.)
Degree requirements:

## CREDITS

## FIRST YEAR

Fall Quarter 16
AAD 131 Drawing I (3)
ARC 100 Introduction to Architectural Technology (2)
MCE 101 Drafting I (5)
VTR 101 Basic Technical Mathematics
Winter Quarter
AAD 132 Drawing II (3)
MCE 102 Drafting II
VTR 102 Applied Technical Mathematics (6)
VTR 108 Industrial Physics I
Spring Quarter

| ARC | 103 | Architectural Drafting III | (6) |
| :--- | :--- | :--- | :--- |
| SCI | 105 | Introduction to Principles of Solar Energy | (3) |
| VTR | 109 | Industrial Physics II | (5) |
|  |  | Elective in Psychology | (3) |

Total Credits for First Year

## SECOND YEAR

Fall Quarter
ARC 201 Architectural Drafting IV (6)
ARC 204 Contract Drawing Interpretation (5)
MCE 201 Drafting IV (Structural)
VTR 105 Applied Industrial Communications
Winter Quarter
ARC 202 Architectural Drafting V
DRA 202 Drafting $V$ (Topographic)
(5)

MCE 210 Cost Estimating
MCE 211 Basic Field Surveying I
Spring Quarter
ARC 203 Architectural Drafting VI (Steel) (6)
ARC 205 Construction Supervision \& Inspection
ARC 205 Architectural Project Drafting
(6)

Total Credits for Second Year
Total Credits for A.A.S. Degree

## CERTIFICATE PROGRAM

Certificate requirements:

| AAD | 131 | Drawing I |
| :--- | :--- | :--- | :--- |
| AAD | 132 | Drawing II |

ARC 100 Introduction to Architectural Technology
ARC 101 Introduction to Architectural Drafting
ARC 201 Architectural Drafting I (Frame)
(6)
(5)

RECOMMENDED ELECTIVES (for additional infor-
mation and knowledge)

| AAD | 100 | Survey of Architecture | (3) |
| :--- | :--- | :--- | :--- |
| AAD | 101 | Fundamentals of Art and Design I | (5) |
| AAD | 225 | Photography I | (3) |
| ART | 100 | Art Appreciation | (5) |
| BUS | 101 | Beginning Typewriting | (3) |
| MAT | 105 | College Plane Geometry | (5) |
| MCE | 201 | Drafting IV | (5) |
| MCE | 207 | Cost Estimating | (3) |
| MCE | 208 | Strength of Materials | (4) |
| MCE | 211 | Basic Field Surveying | (2) |
| SCI | 105 | Introducton to Principles of Solar Energy | (3) |

## ARCHITECTURAL DRAFTING TECHNOLOGY ADVISORY COMMITTEE

Registered Architects:

| Loren Bley | Wayne Roberts <br> Bley Associates <br> Greeley |
| :--- | :--- |
| Wayne Roberts Architect |  |
| Greeley |  |

## MECHANICAL AND CIVIL ENGINEERING TECHNOLOGY

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

Potential Opportunities: The program is designed to prepare a student for activities of a technical nature, usually associated with civil and mechanical 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 Divison 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:
CREDITS

## FIRST YEAR

Fall Quarter

VTR 101 Basic Technical Mathematics
VTR 105 Applied Industrial Communications
VTR 106 Industrial Economics

Winter Quarter
MCE 102 Drafting II
VTR 102 Applied Technical Mathematics
VTR 107 Elements of Technical Writing
VTR 108 Industrial Physics I
Spring Quarter
MCE 103 Drafting II
MCE 105 Statics and Mechanics
VTR 109 Industrial Physics II
VTR 115 Basic Quality Control
Total Credits for First Year

## SECOND YEAR

Fall Quarter

MCE 207 Materials and Processes
VTR 205 Industrial Electricity
Winter Quarter
MCE 202 Drafting V (5)
MCE 208 Strength of Materials (4)
MCE 210 Cost and Material Estimating (3)
MCE 211 Basic Field Surveying I (2)
VTR 206 Industrial Relations

Spring Quarter
18
MCE 203 Drafting VI (5)
MCE 209 Engineering Problems
MCE 212 Basic Field Surveying II
(4)

VTR 208 Computer Systems and Applications
(4)

Total Credits for Second Year
Total Credits for A.A.S. Degree

## MECHANICAL AND CIVIL ENGINEERING TECHNOLOGY ADVISORY COMMITTEE

## TECHNICAL DIVISION COURSES

## AGRICULTURE COOPERATIVE SALES AND SERVICE TECHNOLOGY (AGR)

## AGR 107 AGRICULTURE MATH

Covers the essential math required to solve problems in feed blending, fertilizer blending, measurement, ratios, belts and gears, and lumber measurements. Students will be required to complete exercises in their workbook and classroom assignments.
Five credits: 50 clock hours.

## 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 \& 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.

## AGR 115 AGRICULTURE ECONOMICS

Approaches agriculture economics from a practical standpoint. Covers law of supply and demand as related to farm prices, water rights and regulation, independents, cooperative organization, buysell, futures hedging, etc. Also covers land banks and other credit organizations. Field trips included.
Five credits: 50 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.

## 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.

## AGR 128 LP GAS

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

## AGR 129 LP CARBURATION

Provides an overview of the nature, origin, and use 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.

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 per course.

## 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.

## 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 is 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 farming 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: 30 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 structure, 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.


## ARCHITECTURAL DRAFTING TECHNOLOGY (ARC)

## ARC 100 INTRODUCTION TO ARCHITECTURAL DRAFTING

A survey course to provide students with fundamental knowledge needed to work with architect. The student that successfully compeltes 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 108 ARCHITECTURAL DRAFTING III

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 ARCHITECTURAL DRAFTING IIIA (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 ARCHITECTURAL DRAFTING IIIB (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 ARCHITECTURAL DRAFTING IV
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 ARCHITECTURAL DRAFTING V

Provides students with an opportunity to study concrete and masonry as building materials. Applications and techniques related to structue as well as decor will be exploied.
Prerequisite: ARC 201, equivalent, or permission of instructor.
Six credits: 80 clock hours.

## ARC 203 ARCHITECTURAL DRAFTING VI

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; then, 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 DRAWING

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 specific area of interest. Building systems and components will be emphasized.
Corequisite: ARC 203 or permission of instructor.
Five credits: 70 clock hours.

## AVIATION TECHNOLOGY (AVT)

AVT 105 AVIATION SEMINAR
A general study of the aviation field which includes theory of flight, history of aviation, radio communication, aviation in today's economy, and aviation careers. For students who wish to be commercial pilots.
Two credits: 20 clock hours.

## AVT 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 Air 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.

## 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.

## 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.

## 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.

## 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.

## 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 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.

## 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.

## 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 or permission of instructor.
Five credits.

## 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 of permission of instructor. Five credits.

## 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.

## 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. Three credits.

## ELECTRONICS TECHNOLOGY (ELT)

* Electronics electives: additional courses may be designed or permitted in the elective area.


## 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 $A C$ 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 ACIDC 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. Presentation of terms and techniques employed in industry. 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

Study of 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

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

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 the 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

Digital fundamentals beginning with the block diagram of a general purpose digital computer. 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. Hardware and software studies and tradeoffs between hardware/software. 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.

## MECHANICAL AND CIVIL ENGINEERING TECHNOLOGY (MCE)



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: VTR 102 or permission of instructor.
Five credits: 60 clock hours.

## MCE 111 DRAFTING 1A (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 $1 B$ (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 1C (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 1D (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 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: $\mathbf{8 0}$ 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.

Prerequisites: VTR 102, VTR 108, VTR 109, and MCE 103, or permission of instructor.
Five credits: 80 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 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.
Prerequisites: MCE 206, MCE 207, and MCE 208, or permission of instructor.
Five credits: 50 clock hours.

## MCE 210 COST AND MATERIAL ESTIMATING

Techniqes and procedures are studied and applied relative to technical projects for construction and manufacturing.
Prerequisites: MCE 103 or MCE 114, and VTR 102, or permission of instructor.
Three credits: 40 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.
Prerequisites: MCE 101 and VTR 102, 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 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: MCE 103, MCE 114, 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 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.
Prerequisites: VTR 102, VTR 108, VTR 109, and MCE 222, 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, cams, clutches, and brakes. Design theory and principles are studied.
Prerequisite: MCE 223.
Four credits: 60 clock hours.


## VOCATIONAL TECHNICAL RELATED (VTR)

## VTR 101 BASIC APPLIED TECHNICAL MATHEMATICS

Reviews basic arithmetic functions, emphasizing fractions, percentages, ratios, proporations, weights and measures, unit conversions, and roots and powers. Primary obectives are skill development in the fundamentals of algebra and the application of algebraic formulas to problems in a business and/or industrial environment.
Prerequisite: high school mathematics or permission of instructor.
Six credits: 70 clock hours.

## VTR 102 APPLIED TECHNICAL MATHEMATICS

Continuation of VTR 101 emphasizing the application of algebra to solve practical problems in quadratic equations and graphical algebra. Trigonometry is introduced as a practical solution for problems relevant to right and oblique triangles, land surveying, and industrial manufacturing
Prerequisite: VTR 101 or permission of instructor.
Six credits: 70 clock hours.

## VTR 105 APPLIED INDUSTRIAL COMMUNICATIONS

Studies the importance of communications in business and industrial environments through talking, listening, reading improvement, and individual and group communication. Emphasizes assisting the student in improving oral communication abilities and applying that knowledge.
Prerequisite: none.
Three credits: 30 clock hours.

## VTR 106 APPLIED INDUSTRIAL ECONOMICS

Studies fundamental principles emphasizing practical applications in business and industry. Application in the following areas will be studied: economic forces and indicators; natural resources: capital and labor; factors of cost, price and competition; money and banking; business enterprise and government involvement.
Prerequisite: none.
Three credits: 30 clock hours.

VTR 107 ELEMENTS OF TECHNICAL WRITING
Studies written communication in business and industrial environments. Emphasizes application of written communication in proper maintenance of engineering notebooks, trip reports, experimental findings, technical procedures, specifications, and formal technical reports. Writing effective resumes and employment applicatios is studied and practiced.
Prerequisite: none.
Three credits: 30 clock hours.

## VTR 108 APPLIED PHYSICS I

Studies principles of precision measurement and applied mechanics. Develops mathematical proficiency in solving problems involving principles of force, motion, work, energy, power, friction, and rotation. Practical applications of these basic laws in an industrial environment are studied.
Prerequisite: VTR 101 or permission of instructor.
Five credits: 70 clock hours.

## VTR 109 APPLIED PHYSICS II

Studies the physical properties of solids, liquids and gases. Mathematical proficiency in solving problems involving principles and application of these physical laws in an industrial environment is developed.
Prerequisite: VTR 101 or permission of instructor.
Five credits: 70 clock hours.

## VTR 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.
Prerequisites: VTR 102, VTR 108, and VTR 109, or permission of instructor.
Three credits: 30 clock hours.

## VTR 205 INDUSTRIAL ELECTRICITY

Studies the basics of electricity as applied to industrial motors, generators, and power distribution.
Prerequisites: VTR 102, VTR 108, and VTR 109, or permission of instructor.
Three credits: 40 clock hours.

## VTR 206 APPLIED INDUSTRIAL RELATIONS

Person-to-person relationships are studied form 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 evaluation, and leadership development. Job safety relative to current government standards is discussed.
Prerequisite: none.
Three credits: 30 clock hours.

## VTR 208 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.


## 1980-81 Catalog



## Trades 8 <br> Industry



# AIMS COMMUNITY COLLEGE <br> Established 1967 

P.O. Box 69 Greeley, Colorado 80632<br>Telephone (303) 330-8008

## HOW TO USE THIS CATALOG

For your convenience, the 1980-81 Aims Community College Catalog has been designed in six individual sections. Section one provides general information. Sections two through six detail courses, curriculum requirements, and programs for the School of Arts and Sciences and the School of Occupational Education: Business Division, Public Service Division, Technical Division, Trades and Industry Division.

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## 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 in Applied Science degree. Persons enrolling in and successfully completing an occupational course may request a certificate of completion or competency.

## JOB PLACEMENT

Each year a large number of students qualify for employment upon gradutation 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 the Skill Center. 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 available to all past and present students of Aims Community College.


## TRADES AND INDUSTRY DIVISION PROGRAMS

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

GRAPHIC TECHNOLOGY
INDUSTRIAL MECHANICS
WELDING TECHNOLOGY
(two year A.A.S. degree or one year Occupational certificate)
(A.A.S. degree or Occupational certificate)
(A.A.S. degree or Occupational certificate)
(A.A.S. degree or Occupational certificate)

## AUTO BODY REFINISHING

(The curriculum for this program is presently under review and is subject to change.)

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:

CREDITS
Fall Quarter
12
ABR 151 Auto Refinish I
Winter Quarter
ABR 152 Auto Refinish II
Spring Quarter
ABR 153 Auto Refinish III

Total Credits for Certificate

## AUTO BODY REPAIR

(The curriculum for this program is presently under review and is subject to change.)

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 in 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 employement.

At the beginning of winter quarter students will be required to provide some very basic hand tools for use in the body shop. These tools also will be needed to acquire a job in the trade after completion of the program.

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

Program Requirements: Completion of the 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 selected to fulfill the general education requirements.

## CERTIFICATE PROGRAM

Certificate requirements:

## CREDITS

## Fall Quarter

ABR 141 Auto Body Repair I
ABR 241 Auto Body Repair IV
Winter Quarter
ABR 142 Auto Body Repair II
ABR 242 Auto Body Repair V
Spring Quarter
ABR 143 Auto Body Repair III
ABR 243 Auto Body Repair VI
Total Credits for Certificate

## DEGREE PROGRAM

Degree requirements:

## CREDITS

AUTO BODY REPAIR CERTIFICATE REQUIREMENTS
RECOMMENDED GENERAL EDUCATION COURSES

| HEN | 106 | Safety and First Aid |
| :--- | :--- | :--- |
| VTI | 103 | Communications |
| VTI | 105 | Organizations and Institutions |
| VTI | 121 | Applied Math |
| VTI | 135 | Introduction to Applied Physics |

(5)

Total Credits for A.A.S. Degree

## SUPPORTING COURSES

| ABR | 100 | Introduction to Auto Body | (2) |
| :--- | :--- | :--- | ---: |
| ABR | 101 | Auto Body Welding | (4) |
| ABR | 102 | Basic Straightening | (4) |
| ABR | 103 | Basic Refinishing | (4) |
| ABR | 111 | Damage Repair | (4) |
| ABR | 112 | Panel Replacement | $(4)$ |
| ABR | 121 | Electrical and Alignment | $(4)$ |
| ABR | 122 | Advanced Refinishing | $(4)$ |
| ABR | 123 | Damage Appraisal (Estimating) | (4) |
| ABR | 199 | Special Needs/Auto Body | $(1-3)$ |
| ABR | 201 | Quarter Panel Replacement | $(4)$ |
| ABR | 202 | Basic Sheet Metal Replacement | $(4)$ |

To earn an Associate in 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
AMT 131 Brakes, Transmissions, and Final Drives A (12)
AMT 231 Automotive Engines A (12)
Winter Quarter
AMT 133 Fuel Systems and Tune-up A
AMT 232 Electrical A (12)
Spring Quarter
AMT 132 Steering and Suspension Systems A
AMT 234 Automotive Transmissions and Air Conditioning A

Total Credits for Certificate

## DEGREE PROGRAM

Degree requirements:

## AUTOMOTIVE MECHANICS TECHNOLOGY CERTIFICATE REQUIREMENTS

HEN 106 Safety and First Aid

VTI 103 Communications
VTI 105 Organizations and Institutions
VTI 121 Applied Math
VTI 135 Introduction to Applied Physics
Total Credits for A.A.S. Degree

## SUPPORTING COURSES

AMT 100 Introduction to Auto Mechanics
AMT 104 Brake Repair
AMT 105 Advanced Electrical
AMT 106 Tune-up
AMT 107 Advanced Engine Tune-up (4)
AMT 108 Automatic Transmissions
AMT 115 Foreign Car Tune-up
AMT 125 Auto Certification Refresher (2)
AMT 136 Emission Control
AMT 199 Special Needs/Auto Mechanics (1-3)
AMT 206 Advanced Diagnosis
AMT 207 Introduction to Diesel Engine
AMT 233 Air Conditioning and Comfort Controls
VTI 124 Automotive Service Management

## ON-THE-JOB TRAINING COURSES

AMT 141 Brakes, Transmissions, and Final Drives B (12) (Equivalent to AMT 131)
AMT 142 Steering and Suspension Systems B
(Equivalent to AMT 132)
AMT 143 Fuel Systems and Tune-up B
(Equivalent to AMT 133)
AMT 241 Automotive Engines B
(Equivalent to AMT 232)

## AUTOMOTIVE MECHANICS TECHNOLOGY ADVISORY COMMITTEE

Lou Bartlett<br>Self-employed

Claude Harvey
Ehrlich Datsun
Walt Loftus
Garrett Motors
Loveland
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

(The curriculum for this program is presently under review and is subject to change.)

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 in 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 in 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:

Fall Quarter
BCS 105 Building Construction I
BCS 205 Building Construction II
Winter Quarter
$\begin{array}{lll}\text { BCS } & 106 & \text { Building Construction III } \\ \text { BCS } & 206 & \text { Building Construction IV }\end{array}$
(14)

Spring Quarter
$\begin{array}{lll}\text { BCS } & 107 & \text { Building Construction V } \\ \text { BCS } & 207 & \text { Building Construction VI }\end{array}$
(14)

Total Credits for Certificate

## DEGREE PROGRAM

Degree requirements:

BUILDING CONSTRUCTION CERTIFICATE REQUIREMENTS 84 RECOMMENDED GENERAL EDUCATION COURSES

| HEN | 106 | Safety and First Aid |
| :--- | :--- | :--- |
| VTI | 103 | Communications |
| VTI | 105 | Organizations and Institutions |
| VTI | 121 | Applied Math |
| VTI | 135 | Introduction to Applied Physics |

(3)
(3)
(5)

Total Credits for A.A.S. Degree

## SUPPORTING COURSES

| BCS | 100 | Introduction to Building Construction |  |
| :--- | :--- | :--- | ---: |
| BCS | 102 | Basic Cabinetry | (2) |
| BCS | 104 | Cabinetry II | (4) |
| BCS | 199 | Building Construction Special Needs Class | $(1-3)$ |

## BUILDING CONSTRUCTION ADVISORY COMMITTEE

Jack Coy
Coy Realty
Dennis Gibson
Gibson Construction
Gary Martin
Economy Lumber
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 in 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.


CERTIFICATE PROGRAM
(Preschool Group Leader)
Certificate requirements:
Fall Quarter

| CCS | 100 | Introduction to Early Childhood Education |
| :--- | :--- | :--- |
| CCS | 101 | Written Communication for the <br>  <br>  <br> Preschool Teacher |
| CCS | 131 | Practice Teaching I |
| CCS | 161 | Child Growth and Development I |
| HEN | 105 | Personal Health <br> Elective |

Winter Quarter
CCS 102 Oral Communication for the Preschool Teacher
CCS 105 First Aid
CCS 132 Practice Teaching II
CCS 141 Activities for Young Children
CCS 162 Child Growth and Development II
Spring Quarter
CCS 106 Children's Literature
(3)

CCS 133 Vocational Teaching Experience
(4)

CCS 151 Nutrition for Young Children (4)
PSY 101 General Psychology
Total Credits for Certificate
48
DEGREE PROGRAM
Degree requirements:

FIRST YEAR
PRESCHOOL GROUP LEADER CERTIFICATE REQUIREMENTS

## SECOND YEAR

Fall Quarter
CCS 201 Business Management for Child Care Centers (3)

CCS 231 Practice Teaching III
CCS 241 Methods of Teaching the Young Child
CCS 251 Advanced Foods and Nutrition Elective

Winter Quarter

CCS 232 Human Relations in the Classroom
(5)
(5)

CCS 255 Science for Preschool Teachers
SOC 101 Introduction to Sociology
Spring Quarter
CCS 202 Administration of Child Care Centers (4)
CCS 233 Family and Community Relations
(5)

CCS 261 New Concepts and Practices in Child Development
Elective
(3)

Total Credits for A.A.S. Degree

## STATE SOCIAL SERVICES CERTIFICATION

(Educational courses acceptable for state services certification for director of a child care center, child development, and nursery education.)
CCS 100 Introduction to Early Childhood Education
CCS 105 First Aid
(2)

CCS 106 Children's Literature
CCS 141 Activities for Young Children (4)
CCS 161 Child Growth and Development I
CCS 162 Child Growth and Development II
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

## SUPPORTING COURSES

CCS 151 Nutrition for Young Children
CCS 201 Business Management for Child Care Centers (3)
CCS 202 Administration of Child Care Centers (4)
CCS 251 Creative Foods and Nutrition
PSY 101 General Psychology
(3)

SOC 101 Introduction to Sociology

## CHILD CARE SERVICES <br> ADVISORY COMMITTEE

Mrs. John Althoff
Parent Cooperatives
Mrs. Sandra Bright
ABC Child Development Center
Ann Heiman
Greeley Parent-Child Center
Keith McNeil
Director
Head Start
Mrs. Jeannine Truswell
Director
Partners, Inc.

## GRAPHIC TECHNOLOGY

(The curriculum for this program is presently under review and is subject to change.)

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 in 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 Technology. 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 requirements will earn a Certificate in Occupational Education.

To earn an Associate in 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.

Graphic Technology 1, II, and III (GRT 101, 102, 103) are offered every quarter.


## CERTIFICATE PROGRAM

Certificate requirements:

## CREDITS

Fall Quarter
GRT 101 Graphic Technology I
BUS 101 Beginning Typewriting
Winter Quarter
GRT 102 Graphic Technology II
(20)

BUS 155 Business Communications I
(5)

Spring Quarter
25
GRT 103 Graphic Technology III
(20)

BUS 109 Basic Mathematics
(5)

Total Credits for Certificate 73

## DEGREE PROGRAM

Degree requirements:
CREDITS
GRAPHIC TECHNOLOGY CERTIFICATE REQUIREMENTS 73
RECOMMENDED GENERAL EDUCATION COURSES

| HEN | 106 | Safety and First Aid |
| :--- | :--- | :--- |
| PSY | 111 | Basic Human Potential Seminar |
| PSY | 112 | Advanced Human Potential Seminar |
| PSY | 212 | Holistic Health |
| PSY | 241 | Biofeedback I: Biofeedback and the |
| VTI | Psychology of Health |  |
| VTI | 105 | Organizations and Institutions |

Total Credits for A.A.S. Degree

## SUPPORTING COURSES

| GRT | 107 | Silk Screen Printing |  |
| :--- | :--- | :--- | ---: |
| GRT | 199 | Graphic Technology/Special Needs |  |
| GRT 215 | Graphic Technology VIII |  |  |
| GRT 295 | Graphic Technology Indepdent Study |  |  |
| A,B,C |  |  |  |
| GRT | 299 | Graphic Technology Practicum A | $(1-3)$ |
| GRT 299 | Graphic Technology Practicum B | $(2-5)$ |  |
| GRT 299 | Graphic Technology Practicum C | $(1)$ |  |
|  |  |  |  |

## GRAPHIC TECHNOLOGY <br> ADVISORY COMMITTEE

Don Best
Pawnee Press
Steve Bojanowski
Nelson's Office Supply
Annette Ferguson
Sir Speedy
Elizabeth Guigli
State Farm Insurance
Glen H. Irwin
Pawnee Press
Mark Kendall
Shef Enterprises

## INDUSTRIAL MECHANICS

(The curriculum for this program is presently under review and is subject to change.)

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 in Applied Science degree program.

Potential Opportunities: This program is designed to prepare the student for entry into a number of career fields; opportunities are almost unlimited in Industrial Mechanics. Key occupational areas involve service, sales, manufacturing, and management. This training will help prepare you for jobs such as: general two and four stroke cycle gasoline engine repair, small bore diesel engine mechanic, fuel systems and ignition tune-up specialist, utility powered equipment mechanic, recreational vehicle mechanic, industrial construction equipment repair and maintenance, industrial electrical systems repair, shop management, and parts counterman. These are only a few of the major occupations available. If you are interested in power and its many applications, a position in this popular field is available to those with proper training and practical experience.

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 in 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 |  | 24 |
| INM 105 | Industrial Mechanics I | (12) |
| INM $205 \quad$ Industrial Mechanics IV | (12) |  |
| Winter Quarter |  | 24 |
| INM 106 Industrial Mechanics II | $(12)$ |  |
| INM 206 Industrial Mechanics V | $(12)$ |  |
| Spring Quarter |  | 24 |
| INM 107 Industrial Mechanics III | (12) |  |
| INM 207 Industrial Mechanics VI | (12) |  |

Total Credits for Certificate

DEGREE PROGRAM
Degree requirements:
CREDITS
INDUSTRIAL MECHANICS CERTIFICATE REQUIREMENTS

## RECOMMENDED GENERAL EDUCATION COURSES

HEN 106 Safety and First Aid
VTI 103 Communications
VTI 105 Organizations and Institutions
VTI 121 Applied Math
VTI 135 Introduction to Applied Physics
Total Credits for A.A.S. Degree

## SUPPORTING COURSES

INM 100 Introduction to Industrial Mechanics (2)
INM 151 Industrial Engine Repair I
INM 152 Industrial Engine Repair II
INM 153 Industrial Engine Tune-up
INM 199 Special Problems in Industrial Mechanics

## INDUSTRIAL MECHANICS ADVISORY COMMITTEE

Don Eckhardt
George's Repair Shop
Ron Gieck
Rental Enterprises
Bill Hoff
Hoff Motor
Neal McElrath
Oliver Construction Company
Carl Mekelburg
Golf Course Superintendent
Carl Minnig
Minnig Cycle Center
Richard Roth
Steven's Automotive

## WELDING TECHNOLOGY

(The curriculum for this program is presently under review and is subject to change.)

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 in Applied Science degree program.

Potential Opportunities: The program is designed to develop the skills necessary to pass the welder qualfication tests. Qualification tests may be given in one or more positions such as flat, horizontal, vertical, or overhead. After completion of this program, the student can find work on bridges, pipelines, power houses, refineries, railroads, automobiles, farm machinery, and earth-moving equipment. Wherever metal is to be joined, welding usually is chosen as the fastest and most economical process. The welder must be able to fabricate all or part of a structure from drawings or blueprints with accuracy and in a reasonable amount of time. Other opportunities 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 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 three certificate requirements will earn a Certificate in Occupational Education.

To earn an Associate in 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:
CREDITS
Fall Quarter ..... 24WLT 151 Welding Technology I(24)Winter Quarter24WLT 152 Welding Technology II(24)
Spring Quarter ..... 24
WLT 153 Welding Technology III ..... (24)
Total Credits for Certificate ..... 73
DEGREE PROGRAMDegree requirements:
CREDITS
WELDING TECHNOLOGY CERTIFICATE REQUIREMENTS ..... 72
RECOMMENDED GENERAL EDUCATION COURSES ..... 19
HEN 106 Safety and First Aid ..... (3)
VTI 105 Organizations and Institutions ..... (3)
VTI 121 Applied Math ..... (5)
VTI 135 Introduction to Applied Physics ..... (5)
Total Credits for A.A.S. Degree ..... 91
SUPPORTING COURSES
WLT 100 Introduction to Welding ..... (2)
WLT 105 ..... (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 109 Basic Gas Metal Arc Welding ..... (4)
WLT 110 Advanced Gas Metal Arc Welding ..... (4)
WLT 204 Welding Problems ..... (4)
WLT 236 Special Problems in Welding ..... (24)
WELDING TECHNOLOGY
ADVISORY COMMITTEE
Kurt BurrelEastman Kodak Company
Dr. Joe GoddardSelf-employed
Murray Hill
Lundvall Manufacturing
Gene Johnson
Self-employedDale MajorsMajors Welding Supply
Bob Shear
Hydraulics Unlimited

## TRADES AND INDUSTRY DIVISION COURSES



## AUTO BODY REFINISHING (ABR) AUTO BODY REPAIR (ABR)

## ABR 100 INTRODUCTION TO AUTO BODY

Introduces students to modern shop tools, methods, and procedures. Emphasizes safety and an understhanding of the automobile body repair profession. Upon completion students will have basic auto body skills.
Two credits: 30 clock hours.

## ABR 101 AUTO BODY WELDING

The student will be able to properly set up a gas welding unit; make lap, butt, and T-joints in the flat position; and make lap and butt joints in the vertical position.
Four credits: 60 clock hours.

## ABR 102 BASIC STRAIGHTENING

Students will be able to identify types of damage; use the hand tool and power equipment necessary for repairing minor damage and major door damage ; and use plastic filler on the larger areas of repair.
Prerequisite: ABR 101 or permission of instructor.
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 quipment 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 refinish the car with finishes currently used in industry, and will become familiar with the use of the front end alignment equipment and methods used in aligning the front end. Students will learn to remove, install, and make 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 NEEDSIAUTO 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 quarter panel, repair panels and reinforcements, align the sheet metal, and complete the job, including refinishing.
Prerequisite: ABR 123, ABR 143, or permission of instructor.
Four credits: 60 clock hours.

## ABR 202 BASIC SHEET METAL REPLACEMENT

Students will learn to remove and replace a door skin and front sheet metal. They also will do the alignment and refinishing.
Prerequisite: ABR 201 or permission of instructor.
Four credits: 60 clock hours.

## ABR 203 ADVANCED SHEET METAL REPLACEMENT

Continuation of ABR 201 and ABR 202. Students will learn to remove and replace the door skin and the front sheet metal, will do the alignment and refinishing, will remove and replace a quarter panel, repair inner panels and reinforcements, will align the sheet metal, and complete the job, including refinishing.
Prerequisite: ABR 201, ABR 202, or permission of instructor
Four credits: 60 clock hours.

## ABR 211 BASIC FRAME REPAIR

Students will learn to identify and diagnose types of frames and damage. They will 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 become familiar with the equipment and methods 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.
Prerequisites: 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.

## AUTOMOTIVE MECHANICS TECHNOLOGY (AMT)

## AMT 100 INTRODUCTION TO AUTO MECHANICS

Introduces students to modern shop tools, methods, and procedures. Emphasizes safety and an understanding of the automotive mechanics profession. Upon course completion students will have a basic knowledge of automobile mechanics.
Three credits: 30 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 skilis and knowledge in tuneup 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 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 precedures 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 truck 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 couse.
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 equvialent 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 give 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 NEEDSIAUTO 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 stduent, instructor, and advisor. The student must be enrolled in the Automotive Mechanics program. One to three credits: 10 to 30 clock hours.

## AMT 206 ADVANCED DIAGNOSIS

Designed to advance experienced mechanics in the field of automotive diagnosis and troubleshooting.
Four credits: 60 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.
Four 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.

## BUILDING CONSTRUCTION (BCS)

BCS 100 INTRODUCTION TO BUILDING CONSTRUCTION
Introduces students to the building trades profession. Emphasizes safety and introduces building trades tools, equipment, methods, and procedures. Upon completion the student will have a basic knowledge of building construction.
Two credits: 30 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 122 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.


CHILD CARE SERVICES (CCS)
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 TEACHERDevelops 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 102 ORAL COMMUNICATION FOR THE PRESCHOOL

 TEACHERDevelops vocational applications of oral communication skills basic to the early childhood education field. Develops an appreciation for the process of attentive listening in a variety of settings familiar to the child care worker. Develops the ability to differentiate between personal attitudes, values, and beliefs and professional results.
Three credits: 30 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 (Practicum)

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: 80 clock hours.

## CCS 132 PRACTICE TEACHING II (Practicum)

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

## CCS 133 VOCATIONAL TEACHING EXPERIENCE

 (Practicum)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.
Four 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 influences 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

 CENTERSRecord-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 CCS 102
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 (Practicum)

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.
Four credits: 80 clock hours.

## CCS 232 HUMAN RELATIONS IN THE CLASSROOM (Practicum)

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.

Five credits: 100 clock hours.

## CCS 233 FAMILY AND COMMUNITY RELATIONS (Practicum)

A team teaching experience emphasizing the effects of family, class, and ethnic value systems on the young child's personality.
Prerequisite: CCS 232.
Five 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.

## GRAPHIC TECHNOLOGY (GRT)

## GRT 100 INTRODUCTION TO GRAPHIC TECHNOLOGY

Introduces students to printing industry procedures. A broad overview of the duplicating processes will emphasize offset printing. Upon completion, the student will have a basic understanding of the printing industry.
Two credits: 30 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 108.
Twenty credits: 250 clock hours.

## GRT 103 GRAPHIC TECHNOLOGY III

Students will be given the opportunity to refine knowledge and skills acquired in GRT 108 and GRT 109 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 designing forms and job placement.
Prerequisite: GRT 109.
Twenty Credits: 250 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 TECHNOLOGYISPECIAL 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 215 GRAPHIC TECHNOLOGY VIII

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 sticher, folder and collator.
Ten credits: 125 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 process camera work, press work, etc. This course may be repeated.
One credit each: 10 clock hours each.

## INDUSTRIAL MECHANICS (INM)

## INM 100 INTRODUCTION TO INDUSTRIAL MECHANICS

Introduces the students to industrial engines. Emphasizes safety and knowledge of the industrial engine. Upon completion the student will have a basic understanding of power mechanics, and other mechanical and electrical systems as applied to modern industrial engines.
Two credits: 30 clock hours.

## INM 105 INDUSTRIAL MECHANICS I

Students will be given training and skill development in the use of general hand tools, basic and specialized shop equipment, measuring instruments, shop safety, procedures used and required by industries in industrial mechanics, and the four stroke cycle gas powered engine. Students will perform various services and repairs, including complete engine overhaul on all types of gasoline, four stroke cycle industrial engines.
Twelve credits: 150 clock hours.

## INM 106 INDUSTRIAL MECHANICS II

Students will learn the construction, design, principles of operation, and repair of the two stroke cycle, gasoline engine and its many applications to industrial mechanics. Introduces diesel powered, 2 and 4 stroke cycle engines; covers special design features, principles of operation, repair, and maintenance. Service and maintenance of gas powered utility equipment such as chair saws, power-driven pumps and generators, and lawn and garden equipment are included.
Twelve credits: 150 clock hours.

## INM 107 INDUSTRIAL MECHANICS III

Students will study the concept and various methods of mechanical power transfer systems, brakes, suspension, and wheels. Includes belt, chain, shaft, gear, and fluid drives; couplings and clutches, sprockets, gear design, power and speed ratios, and power flows for manual transmissions and final drives. Also, types of seals, bearings, flex joints, and service procedures; manual and hydraulic actuated brake systems, suspension, wheel lacing, truing, and balancing. Basic fundamentals of oxyacetylene, electric arc welding, and soldering included in this course provide initial skills required in many areas of industrial mechanics.
Twelve credits: 150 clock hours.


## INM 151 INDUSTRIAL ENGINE REPAIR I

Introduces students to basic shop parctice and procedures, shop equipment, and measuring instruments. The design, construction, operation, and servicing of four stroke cycle, gasoline engines are covered.
Four credits: 60 clock hours.

## INM 152 INDUSTRIAL ENGINE REPAIR II

Introduces students to the design, construction, operation, and servicing of two stroke cycle, gasoline engines. The design, construction, and principles of operation of the four stroke cycle and the two stroke cycle diesel engine as used in light industrial applications also are covered.
Four credits: 60 clock hours.

## INM 153 INDUSTRIAL ENGINE TUNE-UP

Deals with basic electrical terms and definitions; the operation and service of ignition systems, gasoline carburetors, and diesel pumps and injectors. Emphasizes correct testing, and adjustment procedures for each system.
Four credits: 60 clock hours.

## INM 199 SPECIAL PROBLEMS IN INDUSTRIAL MECHANICS

Designed to improve skills in any one of the various areas of industrial mechanics. Actual course content will be established as necessary upon agreement of the studet, instructor, and advisor. The student must be enrolled in the Industrial Mechanics program. One to three credits: 10 to 30 clock hours.

## INM 205 INDUSTRIAL MECHANICS IV

Students obtain an understanding and working knowledge of basic electricity ( DC ) in the areas of electron theory, magnetism, magnetic induction, electrical terms and properties, application of Ohm's Law, conductors, semi-conductors, insulators, and batteries. The principles of operation, complete testing, and servicing of all types of ignition systems are emphasized. Systems covered include conventional battery-contact point system, flywheel, and unit type magnetos, energy transfer system, and capacitor discharge ignition (CD) systems utilized by industrial, marine, motorcycle, and small gas engines.
Twelve credits: 150 clock hours.

## INM 206 INDUSTRIAL MECHANICS V

Students learn the units of a conventional gasoline fuel system, principles of carburetion, carburetor circuits, fuel pumps, and other system components service and repair. Types of carburetors covered are the throttle valve and slide valve float type, diaphragm and combination diaphragm, and fuel pump carburetors. includes vacuum and mechanical linkage fuel pumps, exhaust system, diesel injection units, principles of operation and system service and repair, fuels, motor oils, additives, and lubricants. Also covered are fluid power systems theory involving fundamental laws and principles, symbols, and component identification; operation principles and servicing of hydraulic pressure pumps, water pumps, compressors, reservoirs, control valves, cylinders, and plumbing. Twelve credits: 150 clock hours.

## INM 207 INDUSTRIAL MECHANICS VI

Students learn construction, theory, diagnosis, and repair of industrial (DC) and (AC) charging systems, starting systems, lighting, and accessory circuits and components. Students will further develop their knowledge and skills in trouble-shooting many common mechanical, electrical, fuel, and hydraulic systems used in industrial mechanics. The assembly, predelivery service, and performance testing of units such as boats, motors, power driven industrial equipment, recreational, and home utility equipment also are covered.
Twelve credits: 150 clock hours.

## WELDING TECHNOLOGY (WLT)

## WLT 100 INTRODUCTION TO WELDING

Introduces students to oxy-acetylene arc welding. Emphasizes safety and knowledge of the welding profession. Upon satisfactory completion, students will have a basic understanding of oxyacetylene and arc welding.
Two credits: 30 clock hours.

## WLT 105 BASIC OXYIACET/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 OXYIACET 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 110 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.

## VOCATIONAL: TRADES AND INDUSTRY (VTI)

## VTI 103 COMMUNICATIONS

Stresses the value and importance of communications throughout man's social and working life. Provides instruction and skill development practice in oral and written communications. Includes developing listening skills, the ability to give and receive oral instructions, job interview skills, and group presentation skills; correct telephone procedures, giving and following written instructions; writing common business letters such as: letters of request, reference, complaint, and information; filling out job applications and other business forms, developing resumes.
Three credits: 30 clock hours.

## VTI 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.

## VTI 121 APPLIED MATH

Designed to teach and review many of the basic fundamentals of math used in everyday life, on the job, at home, in business, and for leisure. Covers whole numbers, fractions, decimals, percentage, measurement, ratio and proportion, and simple algebraic equations; introduces the metric system. The mathematics concepts and problems can be applied by the student to his or her special area of interest.
Five credits: 50 clock hours.

## VTI 124 AUTOMOTIVE SERVICE MANAGMENT

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.

## VTI 135 INTRODUCTION TO APPLIED PHYSICS

Introduces students 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. Instruction involves lecture and discussion on theory and practical application of concepts. No lab time is involved.
Five credits: 50 clock hours.

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