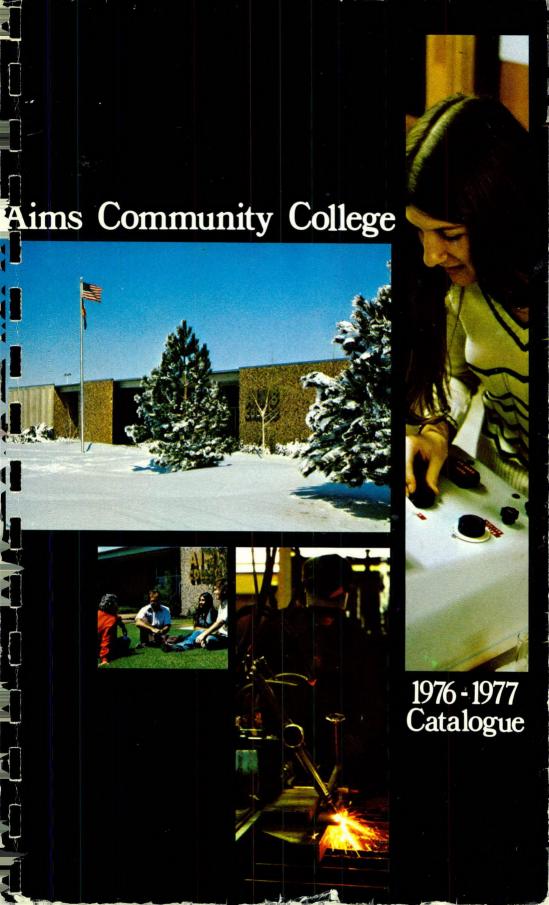
# **MSI Separator Sheet**



1976-1977



page 28

# AIMS COMMUNITY COLLEGE

Established 1967



1976-77 CATALOG

A COLLEGE SERVING NORTH-CENTRAL COLORADO

P.O. BOX 69 GREELEY, COLORADO 80631 Telephone (303) 353-8008

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## 1976 - 77 ACADEMIC CALENDAR

SUMMER QUARTER, 1976 (48-Day Quarter: 55-Minute Periods)

June 17 Registration (Summer, 1976)

June 18Staff DevelopmentJune 21Classes Begin

July 4 Holiday (College Closed)

July 19 - 23Mid-Term WeekAugust 25 & 26Student EvaluationAugust 26End of Quarter

FALL QUARTER, 1976 (52-Day Quarter: 50-Minute Periods)

September 13 Faculty Orientation

September 14 - 17 Orientation, Advising and Testing September 14 (All Day & Evening) Returning Student Registration

Classes Begin

Mid-Term Week

(Spring & Summer, 1976, Students Only)

September 15 (Afternoon & Evening)
September 16 & 17 (Afternoon)

New Student Registration
New Student Registration

September 20 October 18 - 22 October 29 November 24 - 26 November 30

Staff Development (No Classes)
Thanksgiving Holiday (College Closed)
Pre-registration for Winter Quarter, 1977,
by Fall Quarter Students Only (No Classes)

December 6 & 7 Student Evaluation
December 7 End of Quarter
December 20 - 24 Christmas Holiday

December 20 - 24 Christmas Holiday (College Closed)
December 31 New Year's Holiday (College Closed)

WINTER QUARTER, 1977 (52-Day Quarter: 50-Minute Periods)

January 3 (All Day & Evening) Registration
January 4 (Morning) Registration

January 4 (Afternoon) Staff Development (Budget)

January 5 Classes Begin February 7 - 11 Mid-Term Week

March 14 Pre-registration for Spring Quarter, 1977, by Winter Quarter Students Only (No Classes)

March 17 & 18 Student Evaluation
March 18 End of Quarter

SPRING QUARTER, 1977 (52-Day Quarter: 50 Minute Periods)

March 28 (All Day & Evening)RegistrationMarch 29 (Morning)RegistrationMarch 29 (Afternoon)Staff DevelopmentMarch 30Classes Begin

May 2 - 6 Mid-Term Week
May 30 Memorial Day (College Closed)

June 8 & 9Student EvaluationJune 9GraduationJune 9End of Quarter

SUMMER QUARTER, 1977 (48-Day Quarter: 55-Minute Periods)

June 16
June 17
June 20
July 4

Registration
Staff Development
Classes Begin
Holiday (College Classes)

July 4 Holiday (College Closed)
July 18 - 23 Mid-Term Week
August 24 & 25 Student Evaluation
August 25 End of Quarter

# GENERAL INFORMATION HISTORY

In the summer of 1966, after several months of study, a citizens committee representing Weld County school districts, recommended formation of a junior college district. In January, 1967, voters gave overwhelming approval. Two months later a governing committee was elected which chose Dr. Ed Beaty as president. In September, 1967, Aims Community College opened with 900 students enrolled in day and evening programs.

Enrollment during fall, 1975, reached over 4,000. Diverse needs of students have resulted in an increased number of classes and programs, totaling 34 occupational programs, adult interest classes, and the Associate Degree in Arts and Sciences.

Expanded programs and class offerings demanded an increased amount of campus space. In 1971, a 50,000 square-foot building was purchased (now the General Studies Building) as were ten additional acres of land bringing the campus size to 185 acres.

The first new building, the Trades and Industry Building, was constructed in 1971. The Office Occupations and Technical Building opened in 1973. In 1975, the Center for Arts and Crafts/Skill Center was completed. Opening for the Winter Quarter of 1976 was the Physical Education Building.

#### PHILOSOPHY

Three concepts are fundamental to the educational philosophy of Aims Community College: Every individual possesses intrinsic worth; an educational environment should foster development of intellectual, social and physical skills appropriate to the individual's abilities; and in our complex and dynamic society, ideas are as essential as facts. The student should have available an environment which stimulates the discovery and exchange of ideas. He may then use creatively the body of knowledge and technical skills attained in realizing significant specific values and goals.

#### **PURPOSES**

Aims Community College was founded in order to meet a wide variety of educational needs in north-central Colorado. Very broadly, the purposes of Aims Community College are to provide:

- College parallel courses to enable students to transfer credits earned to a four-year college or university.
- Occupational education to help prepare students for initial employment, or advancement in their area of development.
- General and developmental education for those who wish to achieve a higher educational level.
- Counseling and guidance, both personal and career, to enable the student to more clearly define his goals.
- 5. Community services for the entire area to insure that the total population, young and old, receives full benefit from the college.

# 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 AIDS 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, non-graduates of high school who are 18 years of age or older, and any other person who can profit from the instruction for which he enrolls. However, admission to the college 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 deficiences.

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 advantage of the student to enroll at the beginning of the quarter.

#### APPLICATION FOR ADMISSION TO AIMS COMMUNITY COLLEGE

If a student wishes to attend Aims Community College in order to pursue a program of self-improvement or for the development of a personal interest, he may do so by completing student statistical information materials each quarter of attendance.

# APPLICATION FOR ADMISSION TO AIMS COMMUNITY COLLEGE AND DEGREE PROGRAM

If a student wishes to attend Aims Community College in order to pursue a degree, he may meet the requirements for admission to Aims Community College and the simultaneous admission to a degree program by fulfilling the following requirements:

- 1. Submit the Colorado general application for admission to the college.
- Provide a complete transcript of all high school and college credits and a certified record of G.E.D. scores if applicable.
- 3. Submit a health form (optional).

#### ADMISSION REQUIREMENTS FOR FOREIGN STUDENTS

- 1. Complete all steps in "Application for Admission to a Degree Program."
- Submit TOEFL scores. Foreign students must have a minimum of 450 on the TOEFL to be considered for admission to Aims Community College.
- Completed application and supporting credentials must be in the Office of Admissions and Records one full quarter before the date of anticipated enrollment.



#### TUITION

Tuition charges at Aims Community College are dependent upon the student's residency status, which is determined in accordance with Colorado Statute (CRS '63).

ALL TUITION AND FEE CHARGES ARE SUBJECT TO CHANGES BY THE GOVERNING BOARD OF THE COLLEGE AS CIRCUMSTANCES MAY REQUIRE, WITHOUT NOTICE.

#### **TUITION DEFERMENTS**

Single Resident

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 must be made at the time an eligible student assumes this obligation. A student who requests tuition deferment must demonstrate the ability to pay the deferred balance of his tuition during that same quarter. Application for deferment must be made at the Office of Financial Aid.

Single Non-Resident

#### **ESTIMATED ACADEMIC YEAR BUDGETS**

\$ 250.00 1320.00 225.00	Tuition & Fees Room & Board	\$1350.00 1320.00
		1320.00
225.00		1020.00
	Books & Supplies	225.00
530.00	Misc. Expenses	530.00
\$2325.00		\$3425.00
	Married Non-Resident	
\$ 250.00	Tuition & Fees	\$1350.00
2835.00	Room & Board	2835.00
225.00	Books & Supplies	225.00
1005.00	Personal Expenses	1005.00
\$4315.00		\$5415.00
	Less: Expected	
\$1500.00	Spouse's Earnings	\$1500.00
\$2815.00		\$3915.00
	\$2325.00 \$250.00 2835.00 225.00	\$2325.00  Married Non-Resident  \$ 250.00

The student should keep in mind that the budgets listed above are used only as average budget costs.

#### FINANCIAL OBLIGATIONS OF STUDENTS

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

#### Colorado State Grant:

Available to Colorado residents, undergraduate students.

#### Aims Program of Scholars:

Awards made to recognize outstanding achievement of Colorado resident students in both academic and talent areas. Maximum award \$300/year. Applications made to Student Financial Aids Office; award recipients selected by Financial Aids Director only if letter of recommendation accompanies regular financial aid application.

#### State Student Incentive Grant (SSIG):

Grant awards are made to exceptionally financially needy students. SSIG awards must be matched by an equal or greater award from the Colorado State Grant Program; therefore, recipients must be residents.

#### STUDENT EMPLOYMENT

#### Federal College Work-Study Program:

Allocations from college work-study program are made to financially needy students. Awards are made in terms of maximum dollar earning capacity. Wages are paid on an hour's pay for an hour's work basis. Students may not earn over the maximum authorized earning figure, as allocated from the Office of Student Financial Aid. The current minimum wage is \$2.20 per hour.

#### State College Work-Study Program:

Allocations from college work-study program are made to financially needy students. Awards are made in terms of maximum dollar earning capacity. Wages are paid on an hour's pay for an hour's work basis. Students may not earn over the maximum authorized earning figure, as allocated from the Office of Student Financial Aid. The current minimum wage is \$2.20 per hour.

#### 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 Office of Financial Aids. Students not receiving financial assistance from the needbased programs may secure an unlimited authorization for employment.

#### **TUITION WAIVERS**

Tuition waivers are available to in-district students whose financial status is such that they qualify as low-income under the Offices of Economic Opportunity. Waivers are made to cover the costs of tuition and textbooks.

#### ADDITIONAL SCHOLARSHIPS

Other scholarships are made available through local clubs and organizations in Weld County area. Whenever a student applies for a scholarship he will be considered for all financial aid opportunities that may be currently available at Aims Community College.

#### SATISFACTORY PROGRESS

During each quarter of enrollment, the student must:

- a. Complete 50% of all courses for which he/she registered.
- First year (1 to 45 credit hours) earn a grade point average of 1.75 or better based on ALL courses for which he/she registered.
- Second year (46 hours to completion of program) earn a grade point average of 2.0 or better based on ALL courses for which he/she registered.

The adoption of this policy means that students failing to meet for two consecutive quarters the criteria established by the above policy will be in jeopardy of losing their benefits since the school cannot certify that satisfactory progress is being made by the student. All federal and state aid programs require that Aims certify satisfactory progress before allowing students to receive state or federal student assistance.

#### **VETERANS' BENEFITS**

The Office of Financial Aids 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), 815 (Disabled Veterans).

Veterans who are eligible for Veterans Benefits should contact the Veterans' Representative, Office of Veterans Affairs in the Financial Aids Office, preferably one month before enrollment to assure timely payment of benefits.

Students receiving VA benefits are required to complete an enrollment form during registration for each quarter they are enrolled.

#### MONTHLY RATES - G.I. BILL

COURSE LOAD	NO DEPS.	1 DEP	2 DEPS.	EACH ADD. DEP.
FULL-TIME (12 credit hrs.)	\$270	\$321	\$366	\$22
THREE- QUARTER (9-11 cr. hrs.)	203	240	275	17
HALF-TIME (6-8 cr. hrs.)	135	160	182	11

Students who are receiving VA benefits must report immediately to the Financial Aids 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 Office of Admissions and Records with a copy of 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 August 5, 1973. The program intent is to give tuition assistance to Colorado veterans enrolled for post-secondary education in specified institutions. Aims students who are eligible for a tuition assistance are those who are veterans of the military services, who are currently Colorado residents and were Colorado residents prior to entry into active military service. Student veterans who apply for the tuition assistance and are determined to be eligible, may receive up to an amount of sixty-nine (\$69) dollars 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 August 5, 1973.

Applications for this program may be obtained at the Financial Aids 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 Waiver Program, Aims Community College shall give in-district tuition waivers for the amount not paid by the Colorado Vietnam Era Veterans Tuition Assistance Program if the veteran meets the following criteria:

- 1. Is a veteran of the Vietnam Era (Aug. 5, 1964 Aug. 5, 1973).
- 2. Was discharged and certified eligible for veterans educational benefits.
- 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 GPA).

## 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 ailure. 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 (Administrative and/or student initiated)
- I Incomplete work no grade points
- IP In-Progress no grade points
- AU Audit (non-credit 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 he 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. IN-PROGRESS means the student must re-enroll in the class to achieve a grade. (Veterans receiving benefits should be aware that re-enrollment in a course for which he initially received an IP or I does not qualify for benefits.) An INCOMPLETE designation will be changed to an IN-PROGRESS designation if the student fails to complete the course requirements within the subsequent four academic quarters. The student must re-enroll in the course if he wishes to receive credit. 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 IP are not calculated in a students cumulative grade-point average.

#### HONORS

Full-time students who complete at least 12 degree hours of credit during a quarter and who earn a grade-point average of 4.0 (straight A) will be listed on the President's List. Full-time students who earn a grade-point average 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.

#### ADVANCED STANDING

Aims Community College gives college credit, according to its policy, for CLEP (College Level Examination Program), advanced placement, specific education experience in the armed forces, and courses completed at other collegiate institutions. The minimum grade acceptable is C for all courses transferred to Aims.

#### ATTENDANCE

Regular class attendance is necessary if a student is to receive maximum benefits from his work, and students are expected to attend all sessions of the classes for which they are registered. The individual instructor may determine that the quality of a student's work has been adversely affected by absence or tardiness. Students should explain the reason for absence to their instructors. The student is responsible for making up work missed because of any absence. Students who anticipate absences may profit from discussing these in advance with instructors.

#### COURSE CHALLENGING

A student may challenge a course for which he believes his 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 Office of Admissions and Records 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.

#### **COURSE LOAD**

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

#### **COURSE NUMBERING**

- 0- 99 Pre-college 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 non-credit course on an audit basis if space is available. Such individuals will pay the regular tuition assessed for courses taken under this option. Auditors need not take examinations nor do they receive college credit.

#### GRADUATION REQUIREMENTS

The general requirements for receipt of an Associate Degree in Applied Science, an Associate Degree in Arts and Sciences, 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 Office of Admissions and Records or the Counseling Center. Students must make application for graduation by mid-term week of the quarter preceding the anticipated quarter of graduation. Graduation applications are available from the Office of Admissions and Records. Completed graduation applications must be returned to the Office of Admissions and Records 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 last quarter.

#### **ADVISING**

Each student is assigned a faculty advisor who becomes conversant with his background, aptitudes, and educational objectives, and who takes a personal interest in his education and welfare. Generally his advisor is associated with the student's major field of study. Each student must accept the responsibility to:

- Meet with his advisor to discuss career objectives.
- 2. Discuss program and class schedule prior to each registration or pre-registration.
- 3. Make an appointment with his advisor when problems arise in his program or if class changes are necessary.

## LEARNING DEVELOPMENT CENTER

The Learning Development Center is located in the Open Area of the General Studies Building at 5401 W. 20th Street. Instructional Centers, extensions of the Learning Development Center, are located in each building on the campus. The personnel in the LDC work with teachers and students in helping students reach their educational, career and personal goals.

#### INSTRUCTIONAL CENTERS

The Instructional Centers integrate the individualized concept of learning for the student as a possible means of success in all types of education. (A testing service to help the student determine his needs is offered through the LDC.) The Centers provide tutorial services in the basic skills of reading, writing, grammar, spelling and arithmetic, and in enrichment of subject matter courses. Some mini-courses in academic subjects, as well as complete individual courses, are available through the Centers. Print materials, filmstrips, tapes, slides, and television programs within the Centers offer a variety of learning experiences for the student.

#### 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 avail himself of 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.

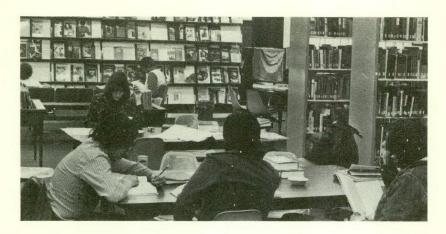
The counseling staff assists students in the following areas:

- 1. Educational planning.
- 2. Career planning.
- 3. Diagnostic evaluation (interest, aptitude, ability, personality and learning disabilities).
- 4. Personal, family, or marriage counseling.
- 5. Self-exploration and interpersonal relations.
- 6. Vocational Counseling.

No entrance examinations or tests are required for admission to the college. However, individuals contemplating transfer to another college are encouraged to take the ACT required by such institutions and have a copy of the results sent to Aims Community College. With these data, counselors and advisors are able to aid the individual student in planning his educational program and to make the most appropriate use of the resources available to him.

#### LIBRARY

The library houses a collection of both print and nonprint materials which implement the curricula of Aims Community College. The collection consists of over 20,000 volumes, more than 200 subscriptions to periodicals and newspapers and nonprint materials including audio tapes, records, films, videotapes and filmstrips. Microfilm readers, self-service copy equipment and audio-visual equipment are available.



#### INSTRUCTIONAL MATERIALS PRODUCTION CENTER

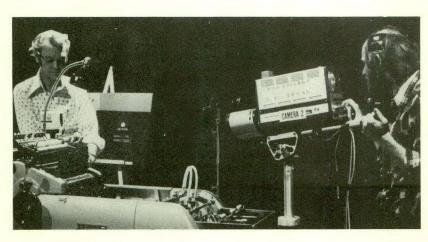
The Instructional Materials Production component of the Learning Development Center offers its services in support of the total instructional program at Aims Community College.

Instructional materials can be produced utilizing Graphics such as charts, graphs, posters, overhead transparencies, and other graphics for T.V., film, and slide productions. The nongraphic materials vary from original photographs, slide and film strip production, to instructional television, motion film, and audio tape production.

There is a two-camera Black & White television studio and an audio production board available for production and duplication of instructional materials.

#### AUDIO VISUAL EQUIPMENT CENTER

The Audio Visual Equipment Center affects preventative maintenance and repair on all audio visual equipment to include the radio and T.V. studio. The Center is actively engaged in designing future media delivery systems that allow students and staff better access to learning media for group or individualized instruction. A centralized distribution program provides equipment to individuals or classrooms for day and evening classes. An efficient checkout system provides easy access to a variety of equipment in which users may review audio tapes, video tapes, film, film strips, slides and other instructional media. The Audio Visual Equipment Center functions in close harmony with audio visual media production to insure that compatable equipment in the necessary quantities is available. Instruction is given to any person that requires assistance in operating audio visual equipment not familiar to him/her.



## STUDENT GOVERNMENT

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

- Participating in the decision making of the college community by providing student input into the areas of classroom education, student needs, school policies and community services.
- 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 re-evaluation of objectives and performance.

#### STUDENT FEES

The representation, activities and services of the Associated Students are supported by a non-mandatory student fee of \$.25 per college credit hour per quarter. ID cards are issued promptly upon payment of fees.



# 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 feels warrants 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.

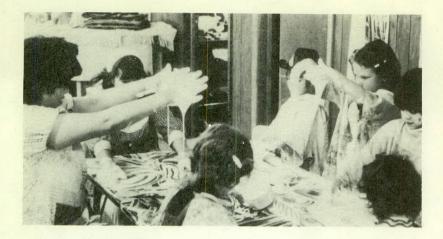
Student groups planning organized meetings or demonstrations are to give notice to the college administration at least 24 hours in advance of the activity.

#### 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.

#### HEALTH SERVICES

Aims Community College provides a Health Center in the General Studies Building at 5401 West 20th Street — Room 233. The facility is staffed and directed by a registered nurse. Health counseling, first aid, referral services, health education, part-time physician services and a limited testing program are offered through the service. All students with health questions or difficulties are encouraged to contact the Health Center.



#### CHILD DEVELOPMENT CENTER

Aims Community College 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.
- 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 licensed Day Care 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 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.

#### 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 Placement Officer 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 Placement Officer in the Trades and Industry Building.

#### REQUESTS FOR TRANSCRIPTS

A student requesting that a transcript of his grades be sent to an educational institution or to a prospective employer must complete the appropriate form in the Office of Admissions and Records. There is no charge for this service.

#### BOOKSTORE

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

# **GENERAL STUDIES**

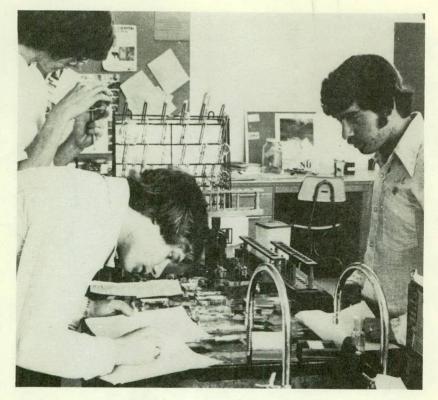
General Studies offerings are intended to serve a variety of student needs. Students may find support for their Occupational Education programs in these offerings; they may be enrolled in order to earn a two-year liberal arts degree; or a student may be preparing for a baccalaureate program at a four-year institution to which he 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 General Studies courses in order to meet the specific requirement of a particular occupational curriculum and to select desired elective courses.

Students who earn the Associate Degree in Arts and Sciences 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.

Aims General Studies 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 General Studies program provides adult and evening courses as part of its regular instruction. The curriculum consists of general studies 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 DEGREE IN ARTS AND SCIENCES

Students seeking the Associate Degree in Arts and Sciences must earn minimum credits in the following subject areas:

	Credits
Communications	9
Humanities	15
Science and Mathematics	15
Social Science	15
Physical Education	5
Electives	37
TOTAL	06

# ALTERNATIVE ASSOCIATE DEGREE PROGRAM

Students who plan to transfer to a particular four-year college or university need not follow the Arts and Sciences degree requirements listed above. They may, instead, substitute the first two years' requirements of the four-year institution to which they will transfer. The Associate of Arts and Sciences 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.

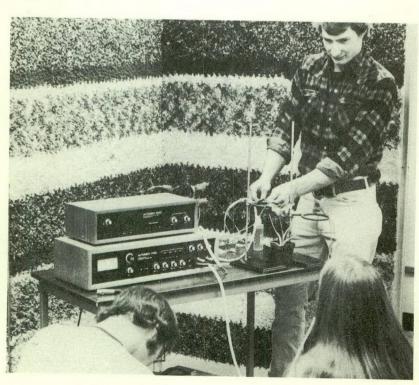
Students interested in this alternative plan should contact their Faculty Advisors for help in developing a "transfer degree contract."

C 400	ANII		150.100	15 Credits
Dasic	requi	irement is the following five hour course:		Oradita
ним	101	Introduction to the Humanities		Credits
Addit	ional t	en hours of credit is to be selected from the following:		5
ним	101	Classical Tradition		5
HUM	102	Culture of Christendom		5
HUM	103	Romantic Rebeltion		5
HUM	104	Contemporary Culture		5
HUM	105	Myth, Legend and Folk Tales		5
HUM	106	Introduction to World Religions		5
HUM	107	Man as Self and Society		5
HUM	108	Oriental Culture		5
ART	105	Introduction to the Visual Arts		
		and Design		5
CUS	106	Cultural Heritage of Africa		
		and American Blacks		5
MAS	120	Cultural Heritage of the American		
		Southwest and Mexico		5
LIT	206	Modern American Culture		5
MUA	102	Conformity and Revolution in Music		5
PHI	105	Introduction to Philosophy		5
THE	105	Introduction to Theatre		0

## SCIENCE AND MATHEMATICS

15 Credits

Fifteen credits of science and/or mathematics are required for the AA Degree. Any combination of courses is acceptable except any course below the 100-level, which is not acceptable.



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 general education.

Veterans who have fulfilled their physical education requirements or students with a doctor's excuse may have their physical education requirement waived. However, they must still meet the 96 credit requirement for the AA Degree. Students who desire a physical education waiver must contact the Guidance Office.



# MEXICAN AMERICAN STUDIES

A Mexican American Studies program also exists within the existing divisional framework. Consult MAS listings under individual divisions and departments or consult the program chairman for Mexican American Studies for specific course offerings.

MAS	100	Introduction to Mexicon Access to the control of th	Credits
		Introduction to Mexican American Studies	3
SPA	101	Elementary Spanish I	5
SPA	102	Elementary Spanish II	5
SPA	103	Elementary Spanish III	
MAS	105	Mexican Music	5
MAS	116	Bilingual Skills	3
MAS		Cultural Heritage of the American	3
		Southwest and Mexico	5
MAS	125	The American System	3
MAS	155	Mexican Dance	3
MAS	161	History of Mexico I	
MAS	162	History of Mexico II	3
MAS	165	Chicano History	3
MAS	206	Chicano Literature	3
			9

## ADULT INTEREST PROGRAMS

Classes are offered in a number of instructional areas for the person who desires to broaden his experiences in the study of subjects of a special interest to the individual. 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 are also offered in communities outside Greeley including Ault, Eaton, Windsor, Kersey, Johnstown, Gilcrest, Fort Lupton, Keenesburg, and others.

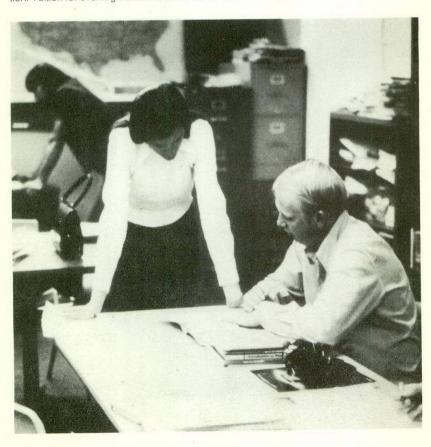
Examples of classes which may be offered are upholstery, interior decorating, income tax preparation, farm records, metal casting, and creative welding.

Persons interested in further information should contact the Associate Dean of General Studies.

## **EVENING DIVISION**

Aims College provides evening courses as part of its regular program of instruction. The evening curriculum consists of academic course work, vocational-technical and related instruction, basic education, and adult interest offerings. This wide variety of instruction enables adults of all ages to complete college work, acquire new skills, improve existing skills, and pursue special interests.

Evening classes are generally held Monday through Thursday between 7 and 10 p.m. Schedules for each quarter are available four to five weeks prior to the quarterly registration. Tuition for evening classes is at the same rate as for day classes.



# OCCUPATIONAL EDUCATION

Aims Community College offers selected vocational-technical education curricula designed to prepare high school and post-high school youth and adults for useful and gainful employment. Persons seeking to prepare for initial employment, persons who are employed but may need to improve their skills, and persons who wish to re-train will find a variety of programs from which to choose.

To best service each individual under our "Open Door Policy," we have a tutorial service which allows us to work with individuals, sometimes on a one-to-one basis, to insure that they may leave our institution with an employable skill.

Many opportunities exist for the person who can perform essential semi-professional, technical and other tasks competently. As a community college, Aims Community College has adapted to these new and demanding requirements by developing programs to supply trades, business, and industry with competent workers who have pride in craftsmanship and who are taught to understand their responsibilities to community, state, and nation.

Since the purpose of vocational-technical programs is to prepare students for entry-level employment, programs are developed on the basis of detailed study of existing and potential needs of business, industry, and government. Advisory committees are formed to aid in determining what trained personnel are needed in a particular occupational field, and to assist in planning programs of study and training.

Any person enrolling in and successfully completing an occupational course may request a certificate of competency. While many of the following programs result in an Associate in Applied Science degree, it is not always necessary for a person to complete the degree in order to be employable.



# OCCUPATIONAL JOB PLACEMENT AND GUIDANCE

Guidance Services are available through the Vocational Guidance Specialist for students who need assistance in selecting a career goal. This office is located in the Trades and Industry Building. To assist students in career directions, there are available: interest surveys; assessments for hand/eye coordination, dexterity and aptitude.

Each year a large number of students qualify for employment upon graduating or upon completion of a specific course of study in one of the many vocational-technical programs. The instructors, division chairpersons, and counselors in occupational education maintain close confact with business and industry concerning job opportunities and training needs.

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 Trades and Industry Building. Students interested in full and part-time jobs should contact the Placement Office and complete an application for employment. This is a free service available to all past and present students of Aims Community College.

# **BUSINESS DIVISION**

Desirable characteristics in all business programs are the ability to take responsibility, average English and mathematical skills, and spelling ability. Neatness in work and appearance is also helpful.

The Business Division is flexible in order to create any specific training needed in the business community; members of the division will work individually or collectively with employers to offer in-service or up-grading training. The training could be limited to a number of hours, one or more quarters, or to a one-year (certificate) or to a two-year (AAS Degree) program.

The Business Division offers the following programs:

# Accounting/Data Processing Department:

Clerk-Bookkeeper (one-year certificate)
Accounting (two-year AAS Degree)
Office Supervision (two-year AAS Degree)
Data Processing (two-year AAS Degree)

## **Business/Office Department:**

Clerk-Steno (one-year certificate)
Clerk-Typist (one-year certificate)
Business Secretary (two-year AAS Degree)
Judicial/Legal Secretary (two-year AAS Degree)
Medical Secretary (two-year AAS Degree)
Medical Office Clerk (one-year certificate)

#### Mid-Management Department:

(one-year certificate) (two-year AAS Degree)





# ELECTRONIC DATA PROCESSING (Bill Jackson - 353-8008)

Course Length: Usually 6 quarters for Associate in Applied Science Degree.

**Potential Opportunities:** The two-year program is designed to prepare the student 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. 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.

#### REQUIRED COURSES:

		Oround
EDP 101	Introduction to Data Processing	3
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 201	Assembler Language Programming	5
EDP 202	Advanced Assembler Language Programming	5
EDP 237	Systems Analysis and Data Management	5
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
GENERAL	REQUIREMENTS	71
*ELECTIVE	S	25
Т	OTAL	96
		15.5

\*Electives will be chosen by the student after receiving counseling and guidance from a Data Processing major advisor. Occupational objectives and individual interest and abilities will be considered.

# ADVISORY COMMITTEE FOR ELECTRONIC DATA PROCESSING

Larry Bohlender
Home Light and Power Co.

Leon Overbeck State Farm Insurance Co.

# OCCUPATIONAL EDUCATION

## ADVISORY COMMITTEE FOR MID-MANAGEMENT

Richard Erwin

Denver Dry Goods Co.

Bill Walters Affiliated Bank Services

George Evans Greeley Chamber of Commerce Jack Weber Woolco Department Store

Rolland Higgins
American National Insurance Co.

Herb Zimmerman Hewlitt-Packard

Credits

Jack Jerome Jerome Company

# CLERK-BOOKKEEPER (Miriam Peterson - 353-8008)

Course Length: Usually 3 quarters for Certificate in Occupational Education.

#### REQUIRED COURSES:

		Oround
*BUS101	Beginning Typewriting	3
*BUS 102	Intermediate Typewriting	3
BUS115	Business Mathematics	5
<b>BUS116</b>	Adding and Calculating Machines	2
*BUS 141	College Bookkeeping I	5
BUS 142	College Bookkeeping II	5
BUS 145	Human Relations and Supervision	3
BUS 155	Business Communications I	5
BUS 165	Filing and Records Management	3
BUS 175	Office Procedures	5
ACC105	Payroll Accounting	3
EDP 101	Introduction to Data Processing	3
THE REAL PROPERTY AND ADDRESS OF THE PARTY AND	L REQUIREMENTS	45
**ELECTIVI	ES	5
т	OTAL	
1	UTAL	50

\*Students entering Aims with high school credit in typewriting and/or bookkeeping may substitute other courses for BUS 101, BUS 102, BUS 141.

# ADVISORY COMMITTEE FOR BUSINESS AND OFFICE EDUCATION

William Grant Sheridan Savings & Loan Assc. Mrs. Mary Osaki Hensel Phelps Construction Co.

Mrs. Ruth Long Graduate of Aims Community College Mrs. Janice Roe Northern General Tire

Ron Morris Eastman Kodak Robert Ruyle Hensel Phelps Construction Co.

Mrs. Joyce Meyer University of Northern Colorado John Steel State Bank of Greeley

<sup>\*\*</sup>Electives will be chosen by the student after receiving counseling and guidance from a Business Division advisor. Occupational objectives and individual interest and abilities will be considered.

## CLERK-TYPIST (Jerry Goddard - 353-8008)

Course Length: Usually 3 quarters for Certificate in Occupational Education.

#### REQUIRED COURSES:

		Credits
*BUS 101	Beginning Typewriting	3
*BUS 102	Intermediate Typewriting	3
BUS 103	Advanced Typewriting	3
SEC 105	Machine Transcription	3
BUS115	Business Mathematics	5
BUS116	Adding and Calculating Machines	2
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 and Records Management	3
BUS 175	Office Procedures	5
GENERAL	REQUIREMENTS	41
**ELECTIVE	S	9
Т	OTAL	50

<sup>\*</sup>Students entering Aims with high school credit in typewriting may substitute another course for BUS 101 and BUS 102.

## MEDICAL OFFICE CLERK (Maxine Marquez, Trulene Page - 353-8008)

Course Length: Usually 3-4 quarters for Certificate in Occupational Education.

REQU	IIKEL	COURSES:	
			Credits
BUS	102	Intermediate Typewriting	3
BUS	114	Medical Typewriting	3
SEC	131	Medical Terminology	3
SEC	132	Advanced Medical Terminology	3
SEC	135	Anatomy and Physiology	3
SEC	143	Medical Machine Transcription I	3
SEC	144	Medical Machine Transcription II	3
SEC	176	Medical Insurance Procedures	3
SEC	276	Medical Office Procedures	5
BUS	165	Filing and Records Management	3
BUS	155	Business Communications I	5
BUS	156	Business Communications II	3
BUS	157	Business Communications III	3
BUS	145	Human Relations and Supervision	3
GEN	ERAL	REQUIREMENTS	46
*ELEC	TIVE	S	4
	Т	OTAL	50

<sup>\*</sup>Electives will be chosen by the student after receiving counseling and guidance from a Business Division advisor. Objectives and individual interest and abilities will be considered.

<sup>\*\*</sup>Electives will be chosen by the student after receiving counseling and guidance from a Business Division advisor. Occupational objectives and individual interest and abilities will be considered.

# OFFICE SUPERVISION (Melba Kriegel - 353-8008)

Course Length: Usually 6 quarters for Associate in Applied Science Degree.

		Credits
BUS	100 American Business Systems	5
*BUS	101 Beginning Typewriting	3
*BUS	102 Intermediate Typewriting	3
BUS	115 Business Mathematics	5
BUS	116 Adding and Calculating Machines	2
BUS	145 Human Relations and Supervision	3
BUS	155 Business Communications I	
BUS	156 Business Communications II	3
BUS	157 Business Communications III	3
BUS	175 Office Procedures	5
**ACC	246 Financial Management or	
	BUS 247 Business and Banking	5
	255 Business Law	5
***BUS	281 Cooperative Office Occupations I	5
***BUS	282 Cooperative Office Occupations II	5
ACC	101 Principles of Accounting I	5
ACC	102 Principles of Accounting II	5
	105 Payroll Accounting	3
EDP	and the second s	
MGT	9	5
MGT	215 Personnel Management	
GENE	ERAL REQUIREMENTS	83
***ELEC	CTIVES	13
	TOTAL	96

- \*Students entering Aims with high school credit in typewriting may substitute other courses for BUS 101, BUS 102.
- \*\*Selection between these courses to be made with approval of business advisor.
- \*\*\*With the approval of the advisor, classes may be substituted in lieu of Cooperative Office Occupations.
- \*\*\*\*Electives will be chosen by the student after receiving counseling from a Business Division advisor. Occupational objectives, individual interest, and abilities will be considered.



## BUSINESS SECRETARY (Trulene Page, Maxine Marquez - 353-8008)

Course Length: Usually 6 quarters for Associate in Applied Science Degree.

Desirable Characteristics: Possess above average English skills.

**Potential Opportunities:** This program is designed for persons interested in learning basic knowledge and skills necessary for a secretarial position in a business, education, or government office.

		Credits
BUS	100 American Business Systems	5
*BUS	101 Beginning Typewriting	3
*BUS	102 Intermediate Typewriting	3
BUS	103 Advanced Typewriting	3
SEC	105 Machine Transcription	3
**SEC	111, 112, 113, 114 Gregg Shorthand or	15/20
**SEC	121, 122, 123, Alphabet Shorthand	
BUS	115 Business Mathematics	5
BUS	116 Adding and Calculating Machines	2
BUS	141 College Bookkeeping I	5
BUS	142 College Bookkeeping II	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 and Records Management	3
BUS	175 Office Procedures	5
EDP	101 Introduction to Data Processing	3
***SEC	281 Cooperative Office Occupations I	5
***SEC	282 Cooperative Office Occupations II	5
GENI	ERAL REQUIREMENTS	84-89
****ELEC	CTIVES	7-12
	TOTAL	96

- \*Students entering Aims with high school credit in typewriting, shorthand, and/or bookkeeping may substitute other courses for BUS 101, BUS 102, SEC 111, SEC 112, SEC 121, and BUS 141.
- \*\*Students may elect to take Gregg Shorthand series (SEC 111, SEC 112, SEC 113, SEC 114) or the Alphabet Shorthand series (SEC 121, SEC 122, SEC 123).
- \*\*\*With the approval of the advisor, classes may be substituted in lieu of Cooperative Office Occupations.
- \*\*\*\*\*Electives will be chosen by the student after receiving counseling and guidance from a Business Division advisor. Objectives and individual interest and abilities will be considered.

Credits

Two of the following courses will be required upon the recommendation of the Business Division advisor:

BUS	255 Business Law	5
BUS	275 Real Estate Office Procedures	3
SEC	177 Insurance Terminology and Procedures	3
BUS	247 Business and Banking	5
EDP	101 Introduction to Data Processing	3

- \*Students entering Aims with high school credit in typewriting and/or shorthand may substitute other courses for BUS 102, SEC 111, SEC 112, and SEC 121.
- \*\*Students may elect to take Gregg Shorthand series (SEC 111, SEC 112) or the Alphabet Shorthand series (SEC 121, SEC 122).
- \*\*\*With the approval of the advisor, classes may be substituted in lieu of Cooperative Office Occupations.
- \*\*\*\*Electives will be chosen by the student after receiving counseling and guidance from a Business Division advisor. Objectives and individual interest and abilities will be considered.

#### ADVISORY COMMITTEE FOR JUDICIAL/LEGAL

Dave Agena	
Majestic Savings & Loan	

Bill Hendren State Farm Insurance

Steve Arceneaux Wheeler Realty Company

Ms. Cleona Nelson Security Abstract Company

William E. Bohlender Attorney at Law

Norman Noe Bartels & Noe Agency

Ms. Mary Connell District Court

Karen Trossen Bankers Life Company

Charles First Insurance Broker

# MEDICAL SECRETARY (Maxine Marquez, Trulene Page - 353-8008)

Course Length: Usually 6 quarters for Associate in Applied Science Degree.

Desirable Characteristics: Possess above average English skills.

Potential Opportunities: The program is designed to teach the basic skills that medical secretarial personnel use who work in hopsitals, clinics, doctors' offices, etc. These students will receive training for a variety of positions in the medical secretarial field, including medical receptionist, medical office clerk, medical transcriptionist, insurance clerk-typist, and medical secretary.

BUS	100 American Business Systems	5
*BUS	102 Intermediate Typewriting	3
BUS	114 Medical Typewriting	3
SEC	131 Medical Terminology	3
SEC	132 Advanced Medical Terminology	3
SEC	135 Anatomy and Physiology	3

# **TECHNICAL DIVISION**

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.

The training or classes may be conducted in-plant or on campus, and may range in length of time from a number of hours or quarters to a one or two-year certificate program or to the Associate in Applied Science Degree.

The Technical Division offers the following programs:

Agriculture Co-op Premanagement

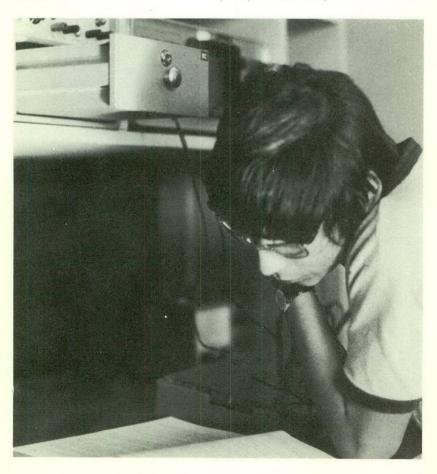
Aviation Technology

Criminal Justice Laboratory Testing Technology

Electronics Technology
Fire Science
Mechanical/Civil Engineering
Technology
Nurse Aide
Ward Clerk

(two-year AAS Degree or four-quarter certificate) (two-year AAS Degree or three-quarter certificate) (two-year AAS Degree) (two-year AAS Degree or three-quarter certificate) (two-year AAS Degree) (two-year AAS Degree)

(two-year AAS Degree) (one-quarter certificate) (one-quarter certificate)



Individualized Courses: During the Spring and Summer quarters, the student will complete at least eight credits of individualized instruction. These courses will be selected with approval of his advisor. The following list of courses is given as a sample of the types of courses which are available to the student. Other courses may be added as the need arises.

AGR	126	Petroleum	2)	
AGR	127	Tires, Batteries and Accessories	2)	
AGR	128	L.P. Gas	2)	
AGR	129	L.P. Carburation	2)	
AGR	137	Agriculture Chemicals	2)	
AGR	138	Paint	2)	
AGR	139	Fertilizer	3)	
AGR	145	Fertilizer Bulk Blending	2)	8
AGR	146	Anhydrous Ammonia	2)	
AGR	147	Corn Production	3)	
AGR	148	Feed	2)	
AGR	149	Profitable Pork Production	2)	
AGR	155	Cooperative Organizations	2)	
AGR	156	Basic Management	2)	
AGR	157	Modern Salesmanship	2)	
AGR	159	Animal Health	2)	

#### **TOTAL First Year**

66

Credits

After the student successfully completes the program, he will be awarded a certificate of completion. If a student wishes to receive the Associate in Applied Science Degree, he must successfully complete the following:

#### SECOND YEAR:

AGR	117	Feeds and Feeding		5
MGT	205	Credit Management		5
MGT		Personnel Management		5
MGT		Principles of Marketing (service area)		3
Mai	220	or		
DITE	047			_
BUS	247	Business and Banking (credit area)		5
MGT		Principles of Management		5
AGR	235	Agriculture on the job training		10
Addit	ional 2	individualized courses		5
Two	courses	s to be selected from the following with advisor approval:		
		The second was an end only that advisor approval.		
EDP	101	Introduction to Data Proc.	3)	
ACC	101	Principles of Accounting I	5)	
ACC	102	Principles of Accounting II	5)	
AGR	118	Fertilization and Soil	5)	10
AGR	119	Feed Processing and	9	,,,
		Grain Handling	5)	
AGR	125	Chemicals	5)	
BUS	255	Business Law	5)	
BUS	246	Financial Management	5)	
			91	

#### **TOTAL Second Year**

Multi	-Engir	ne Rating	AVT 225	Multi-Engine Transition Lab	
Basic	Grou	nd Instructor	AVT 207	Basic Ground Instructor	
Adva	inced (	Ground Instructor	AVT 208	Advanced Ground Instructor	
Instru	ument	Ground Instructor	AVT 209	Instrument Ground Instructor	
		ONE YEAR CERT	IFICATE IN	AVIATION	
Class	sroom	: (3 quarters)			
					Credits
AVT	105	Aviation Seminar			0
AVT	106	O Y CONTROL OF THE PARTY TO ANALYSIS			2
AVT		Private Ground School I			3
AVT	107 205	Private Ground School II			3
AVT	205	Instrument Ground School Commercial Ground School			6
		rses (Conducted at Airport):			3
ingii	COUI	ses (conducted at Airport).			
AVT	116	Private Flight Lab			5
AVT	117	Commercial Flight Lab I			5
AVT	118	Commercial Flight Lab II			. 5
AVT	216	Instrument Flight Lab			5
AVT	217	Commercial Flight Lab III			5
AVT	218	Certified Flight Instructor			5
Fligh	t Simu	lator Courses:			
AVT	115	Private Flight Simulator			5
AVT	215	Instrument Flight Simulator			5
		gineinator			
	Т	OTAL			57
		ASSOCIATE IN APPLI	ED SCIENC	CE DEGREE IN	
		AVIATION	TECHNOLO	OGY	
Class	room	•			<b>6</b> W
					Credits
AVT	105	Aviation Seminar			2
AVT	106	Private Ground School I			3
AVT	107	Private Ground School II			3
AVT	205	Instrument Ground School			6
AVT	206	Commercial Ground School			3
	Cour	ses (Conducted at Airport):			3
A \ / T	110	Drivete Eliabet			
AVT	116	Private Flight Lab			5
AVT	117	Commercial Flight Lab I			. 5
AVT	118	Commercial Flight Lab II			5
AVT	216	Instrument Flight Lab			. 5
AVT	217	Commercial Flight Lab III			5
AVT AVT	218	Certified Flight Instructor			5
VI	219	Instrument Flight Instructor			3



#### CRIMINAL JUSTICE

Course Length: Usually 2 years for Associate in Applied Science Degree.

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

The Criminal Justice Program consists of courses totaling 10 hours. Fifty-seven credit hours will be taught by vocationally certified instructors from Sheriff and Police Departments, District Attorney's Office, Nineteenth Judicial District Court and other agencies. The remaining 44 credits are general courses.

Core Cours	ses:	Credit
CRJ 105	Police Procedures	Oreans
CRJ 115	Traffic Control Accident Investigation	
	Community Relations	
CRJ 135	Report Writing	
CRJ 140	Juvenile Procedures	
*CRJ 150	Law Enforcement Basic Training	20
	Criminal Law Procedures	5
***CRJ 210	Criminal Investigation	3
***CRJ 215	Evidence I	3
	Evidence II	3
***CRJ 231	Court Procedures	5
CRJ 240	Constitutional Law Seminar	3
	TOTAL Core Courses	57
Recommend	ded Elective for Candidates:	
CRJ 251	1-255 Police Cadet Co-operatives	1-5
GENERAL (	COURSES:	
Communica	ation Skills	
Basic requir	ements are the following:	
CON 102	Fundamentals of Writing	3
	Speech Essentials	3
		3

As a result of a diagnostic test, the student may be required to take CON 101 for elective credit. (3 hours)

# DRAFTING

Drafting courses at Aims Community College are offered in a variety of areas with course content emphasis on meeting the needs of the students within the College district.

A **series** of six (6) courses are offered in the two-year Mechanical-Civil Engineering Technology day 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 basic skills and his subject matter objective before selecting a particular course. Three of these particular courses have equal counterparts in four evening course offerings. Descriptions of these courses may be found in the MCE program section of the catalog.

Specialty offerings are available in th areas of Architectural Drafting and Electronics Drafting. There are two architectural courses, DRA-107 and DRA-110, usually conducted during the evening hours. The Electronics Drafting course, VTR-204, is part of the two-year Electronics program and is usually taught during morning hours. However, by meeting minimum enrollment requirements, this course may be offered during evening hours.

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

Offerings in the Aims Drafting program are also made through the Area Vocational School. These courses are available during the regular high school afternoon hours to all students in the Aims Junior College District. Students interested in this work should contact their school principals or counselors for details and about the possibilities for enrollment.



# FIRE SCIENCE

Course Length: Usually 2 years for Associate in Applied Science Degree.

Potential Opportunities: The protection of life and property from fire is the primary function of a fireman; however, with today's sophisticated techniques, training, and equipment, modern fire-fighters must be well educated in physics, chemistry, other sciences, and state and city laws and codes applicable to fire science. High school diploma or 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 College Counseling Center.

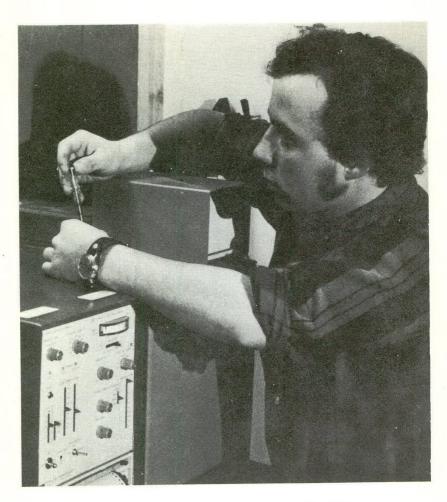
# FIRE SCIENCE

The following courses are required for the Associate in Applied Science Degree:

1.1	ie iolic	owing courses are required for the Associate in Applied Science [	Degree:	
			Cre	dits
FS	100	Introduction to Fire Science and Suppression		3
FS	104	- Same and Tooldard		3
FS	106	grand charactery		3
FS	108	Fire Hydraulics		3
FS	110	Fire Apparatus and Equipment		3
FS	190	Administration of Justice and Court Procedures		5
FS	202	Fundamentals of Fire Prevention		3
FS	204	Related Codes and Ordinances I		3
FS	205	Related Codes and Ordinances II		3
FS	206	Rescue Practice		3
FS	207	Applied Chemistry for Firemen		5
FS	208	Hazardous Materials I		3
FS	209	Hazardous Materials II		3
FS	212	Fire Protection Equipment and Systems		3
FS	214	Fire Department Administration		3
FS	216	Private Fire Protection Systems		3
FS	218	Fire Investigation		3
FS	220	Fire Insurance		3
FS	230	Blueprint Reading for Firemen		3
BUS	101	Beginning Typewriting (will be waived if		
		student can type 40 wpm)		3
SPE	115	Speech Essentials		3
BUS	155	Business Communications I		3
BUS	156	Business Communications II		3
VTR	101	Basic Technical Math		6
VTR	108	Industrial Physics I		5
VTR	109	Industrial Physics II		5
VTR	206	Industrial Relations		3
POS	118	State and Local Governments		5
Selec	t one c	of the following courses with advisor approval.		5
HLH	105	Emergency Medical Technician	7)	
PSY	101	General Psychology	5)	
POS	101	American Government	5)	
		*	3)	
		TOTAL	102-1	04
			102-	04

# ADVISORY COMMITTEE FOR FIRE SCIENCE

Bruce Forbes Greeley Fire Department Robert Frosco Ft. Collins Fire Dept. Robert Gilbreath Ft. Collins Fire Department Charley Howley Eastman Kodak Peter Morrell City of Greeley



# LABORATORY TESTING TECHNOLOGY

Course Length: Three quarters for certificate; six quarters for Associate in Applied Science Degree.

Potential Opportunities: This program is designed to train laboratory testing technicians who will be qualified for immediate employment as chemical technicians in the area industries such as film processing, cement manufacture, radioactive material processing, and electronic equipment manufacture. Chemical technicians are also employed in other industrial, commercial, agricultural and biological laboratories in the area.

Chemical Testing Technician: Designed for persons interested in learning basic skills necessary to gain employment in Industrial Testing Laboratories (also includes cement labs).

**Agricultural Testing Technician:** Designed for persons interested in basic skills necessary to gain employment in agricultural consulting Service Center laboratories.

**Environmental Technician:** Designed for persons desiring employment in Environmental Protection Administration Laboratories.

First Year Courses required for all programs. Certificate of Occupational Education in Laboratory Testing Technology upon successful completion of first year.

### Core Courses:

			Credits
CHT	101	Chemical Testing Technology I	5
CHT	102	Chemical Testing Technology II	5
CHT	103	Chemical Testing Technology III	5
VTR	101	Basic Technical Mathematics	6
VTR	102	Applied Technical Mathematics	6
VTR	107	Elements of Technical Writing	3
VTR	108	Industrial Physics I	5
BIO	101	Biological Concepts	5
CHE	100	Fundamentals of Chemistry	5
ELT	100	Introduction to Electronics	4
			7
		TOTAL	49

Second Year Courses in the following specialized areas leading to an Associate in Applied Science Degree (AAS).

# CHEMICAL TESTING TECHNOLOGY

Successful completion of CORE Courses (first year) plus the following are required to receive an AAS Degree.

CHT	201	Chemical Testing Technology IV	5
CHT	202	Chemical Testing Technology V	5
CHT	203	Chemical Testing Technology VI	5
VTR	103	Industrial Communications	3
VTR	105	Industrial Organizations & Inst.	3
VTR	106	Industrial Economics	3
VTR	109	Industrial Physics II	5
ELT	111	Solid State Circuits II	5
ELT	131	AC-DC Fundamentals	9
EDP	101	Introduction to Data Processing	3
		*SUPPORTING COURSES	6
			0
		TOTAL	52

# AGRICULTURAL TESTING TECHNOLOGY

Successful completion of CORE Courses (first year) plus the following are required for AAS Degree.

CHT	201	Chemical Testing Technology IV		5
CHT	202	Chemical Testing Technology V		5
CHT	203	Chemical Testing Technology VI		5
AGR	137	Agriculture Chemicals		3
AGR	139	Fertilizer		3
AGR	.146	Anhydrous Ammonia		3
AGR	148	Feed		3
AGR	145	Fertilizer Bulk Blending		3
VTR	205	Industrial Economics		3
ELT	134	Instruments and Measurements		5
GEY	101	Physical Geology	Y.	5
		*SUPPORTING COURSES		9
				3

TOTAL

52

# OCCUPATIONAL EDUCATION

Credits

# MECHANICAL AND CIVIL ENGINEERING TECHNOLOGY

Course Length: Usually 6 quarters for Associate in Applied Science Degree.

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, understanding of mathematics and materials, and techniques relative to human relations, leadership, and obtaining a position. Previous experience in mathematics is helpful, but may be obtained through preparatory courses within the college. Good eyesight, hand dexterity, and a sense of size and shape are also helpful.

Note: the block of Evening Courses, MCE 101, 102, 103 and 104 (16 credits), is equivalent to the block, MCE 111, 112 and 113 (15 credits).

# FIRST YEAR:

Fall Quarter

VTR 10	Drafting I	5 3 3 6
	TOTAL Fall Quarter	
Winter C		17
MCE 11		5
VTR 10	The state of the s	3
VTR 10	The state of the s	5
VTR 10	Applied Technical Mathematics	6
	TOTAL Winter Quarter	19
Spring Q	uarter:	
MCE 11	3 Drafting III	
MCE 10	9	5
VTR 11		5
VTR 10		5
	TOTAL Spring Quarter	18
	TOTAL First Year	54
SECOND	YEAR:	
Fall Quar	ter:	
MCE 20	Drafting IV	
MCE 206	9	5
MCE 207	Materials and Processes	5
VTR 205		4 3
		. 3
	TOTAL Fall Quarter	17

# OCCUPATIONAL EDUCATION

# NURSE ASSISTING AND HOME HEALTH AIDE

Course Length: 1 quarter for Certificate in Occupational Education. 17 credit hours. 210 clock hours.

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

Potential Opportunities: Entry level employment as nurse aide in public hospitals, private hospitals, nursing homes, veterans hospitals, private homes, and home health agencies. Additionally, it offers opportunity for nursing career exploration, self-improvement, and satisfaction. High school diploma not required. Education will be evaluated. Minimum age, 16 years. Good health, physical examination required. Interest in working with people and reliable transportation are necessary.

Additional Student Cost: Uniform, white shoes, wrist watch with sweep second hand.

Credits

NA 100 Nurse Aide

17

# ADVISORY COMMITTEE FOR NURSE ASSISTING AND HOME HEALTH AIDE AND WARD CLERK

Mrs. Lorraine Dupper, L.P.N. Bonell Retirement Community

Donald G. Miller Fairacres Manor

Richard Foster Kenton Nursing Home Mrs. Juanita Sanderson, R.N. Weld County General Hospital

Mrs. Verna Jones, R.N. Fairacres Manor

Richard Patterson Eventide of Greelev

Karin MacDowell, R.N. Memorial Hospital

Mrs. Louise Warner Birch Avenue Manor

Ms. Jean McEvoy, R.N. Eventide of Windsor

# WARD CLERK

Course Length: One quarter for Certificate in Occupational Education. 14 credit hours, 170 clock hours. BUS 131, Medical Terminology is required; although this is suggested as a prerequisite, it may be taken concurrently. Formal classroom teaching is related to clinical experience at Weld County General Hospital.

Potential Opportunities: Entry level employment as Ward Clerk. This program is specifically directed toward hospital employment, but basic skills are also applicable in nursing homes and doctors' offices. High school diploma or GED is strongly recommended. Good verbal and written English skills are required. Minimum age of local employment is 18. Good health and physical examination is required. Work requires mature, emotionally stable individuals able to work accurately under pressure.

Additional student costs: Blue smock to be worn over street clothes.

Credits

WCL 106 Ward Clerk

14

# TRADES AND INDUSTRY DIVISION

The Trades and Industry Division is committed to help the students acquire job required skills through demonstration and hands-on practice. We are also committed to provide advanced training for students who are already 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 the regular programs.

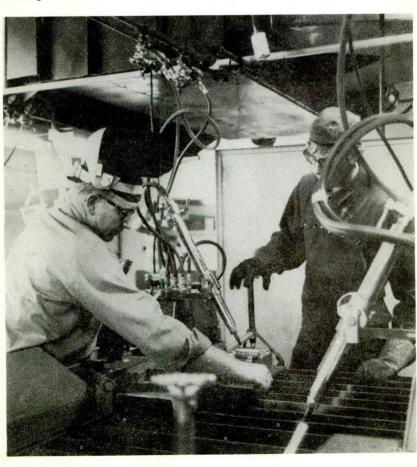
It is our purpose to meet the training needs of the community. In most cases we are able to offer special vocational classes or programs upon request from industry or from a group of students.

The Trades and Industry Division offers the following programs:

Auto Body Repair Auto Body Refinishing Automotive Mechanics Building Construction Child Care Teacher

Graphic Technology Motorcycle and Sportscraft Engines Welding (two-year AAS Degree)
(one-year Occupational Certificate)
(two-year AAS Degree)
(two-year AAS Degree)
(two-year AAS Degree or one-year
Occupational Certificate)
(one-year Occupational Certificate)

(one-year Occupational Certificate) (two-year AAS Degree)



# OCCUPATIONAL EDUCATION

# AUTO BODY REPAIR

Course Length: Usually 6 quarters for Associate in Applied Science Degree.

Potential Opportunities: Opportunities for the tradesman range from the actual repair of the damaged auto to the owning of the shop, shop foreman, shop estimator, and 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 for the repair of a damaged auto including glass removal and replacement, straightening of damaged panels and frames, checking of wheel alignment, panel alignment, filling of dents, welding and brazing of torn panels, and preparing for the applying of the modern automotive finishes. This course is designed to give the student skill and knowledge for job entry-level employment.

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 from a group of students.

# FIRST YEAR:

### Fall Quarter

		·		Credits
ABR VTI	141 101	Auto Body Repair I Safety and First Aid		12
		TOTAL Fall Quarter		14
Winte	er Qua	rter		
ABR VTI	142 121	Auto Body Repair II Shop Math		12 3
		TOTAL Winter Quarter		15
Sprir	ng Qua	arter		
ABR AMT	143 233	Auto Body Repair III Air Cond./Comfort Control		12 5
		TOTAL Spring Quarter TOTAL FIRST YEAR		17 46
SEC	OND Y	EAR:		
Fall C	uarte	r		
ABR VTI	241 105	Auto Repair IV Industrial Organizations & Institutions		12
		TOTAL Fall Quarter		15
Winte	r Qua	rter		10
ABR VTI	242 124	Auto Body Repair V Service Management		12
		TOTAL Winter Quarter		15
Sprin	g Qua			13
ABR VTI	243 103	Auto Body Repair VI Industrial Communications		12
		TOTAL Spring Quarter TOTAL SECOND YEAR TOTAL		15 45

91

# OCCUPATIONAL EDUCATION

# ADVISORY COMMITTEE FOR AUTO BODY

Harly Bjoralt Auto Alignment & Frame Ser. Mike Gundes Garnsey & Wheeler Co.

Art Butheras State Farm Insurance Co. Harold Mothershed Garnsey & Wheeler Co.

Carl Guilliams Edwards Chevrolet



# **AUTO BODY REFINISHING**

Course Length: Usually 3 quarters for Certificate in Occupational Education.

Potential Opportunities: This is a specialized 3 quarter certificate program to help develop the knowledge and skill used by an automotive or truck refinisher. The program will include materials, equipment, and their uses to bring the trainee to a job entry level.

Opportunities will be in the refinish field as a painter or possibly paint shop foreman. The shop may repair cars or it could include large truck refinishing.

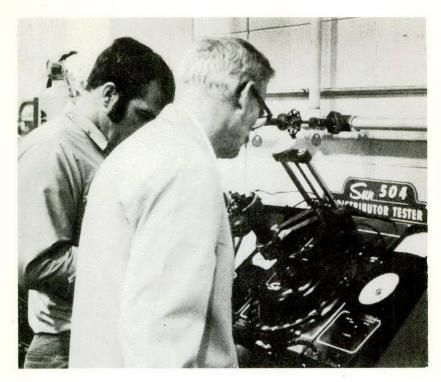
It is our purpose to meet the training needs of the community. In most cases we are able to offer special vocational classes or programs upon request from industry or from a group of students.

# Fall Quarter

TOTAL

ABR	151	Auto Refinish I	Credits 12
VTI	101	Safety and First Aid	2
		TOTAL Fall Quarter	14
Winte	er Qua	arter	
ABR	152	Auto Refinish II	12
VTI	124	Service Management	3
		TOTAL Winter Quarter	15
Sprin	g Qua	arter	
ABR	153	Auto Refinish III	12
VTI	103	Industrial Communications	3
		TOTAL Spring Quarter	15

44



# **AUTOMOTIVE MECHANICS**

Course Length: Usually 6 quarters for Associate in Applied Science Degree.

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

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

We are designated as a testing center for Auto Mechanics Certification. We also offer a refresher course to help prepare a mechanic for the certification tests.

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

# FIRST YEAR:

Fall Quarter

AMT	131	Brakes, Transmissions and	
		Final Drives	12
VTI	101	Safety and First Aid	2
VTI	122	Automotive Drawing	3

**TOTAL Fall Quarter** 

17

Credits

Wint	er Qua	arter		
AMT VTI VTI	133 121 103	Fuel Systems and Tune-up Shop Math Industrial Communications		12 3 3
•	100	industrial communications		
		TOTAL Winter Quarter		18
Sprin	ig Qua	arter		
AMT VTI	132 123	Steering and Suspension Systems Industrial Science		12 5
		TOTAL Spring Quarter TOTAL FIRST YEAR		17 52
SECO	OND Y	EAR:		
Fall C	uarte	r		
AMT VTI	231 125	Automotive Engines Colorado State Safety Inspections		12
	-	TOTAL Fall Quarter		14
Winte	er Qua	arter		
AMT VTI VTI	232 104 124	Advanced Electrical and Shop Practice Oral Communications in Industry Service Management		12 3 3
		TOTAL Winter Quarter		18
Sprin	g Qua	arter		
AMT AMT	<ul><li>234</li><li>233</li></ul>	Automatic Transmission and Advanced Service Practice Air Conditioning and Comfort Control		12 5
		TOTAL Spring Quater TOTAL SECOND YEAR TOTAL		17 49 101
SUPF	ORTI	NG COURSES		
AMT AMT	190 125	Introduction to Automobile Mechanics Auto Certification Refresher		2
	ADV	ISORY COMMITTEE FOR AUTO	DMOTIVE MECHANICS	
		Joe Armstrong	Ed Margheim	
		Ted Nieters Motor Co.	Bob Markley Volkswagon	
		John Broderick Import Parts	Bob Stover McArthur Olds-Cadillac	
		Wayne Kinsey Edwards Chevrolet	Ron Walker Garnsey & Wheeler Co.	

Walt Loftus

Ned Nieters Motor Co.

Bill Waller

16th St. Conoco

Sprin	ng Qua	arter:		
BCS BCT BCT BCT BCT	133 135 136 131 141	Building Construction III Interior Trim and Cabinets Painting and Finishing Basic Math and Estimating Basic Architectural Drafting and Print Reading		9 2 1 3
		TOTAL Spring Quarter TOTAL FIRST YEAR		17 51
SECO	OND Y	EAR:		
Fall C	uarte	a a a a a a a a a a a a a a a a a a a		
BCS BCT BCT VTI	215	Building Construction IV Preparation and Layout Framing II Industrial Organizations & Institutions		9 2 3 3
		TOTAL Fall Quarter		17
Winte	er Qua	rter:		
BCS BCT BCT VTI		Building Construction V Building Codes Architectural Drafting II Oral Communications in Industry		7 2 4 3
		TOTAL Winter Quarter		16
Sprin	ng Qua			, ,
BCS BCT BCT VTI	233 237	Building Construction VI Legal Procedures and Practices Construction Estimating Industrial Communications		7 3 4 3
		TOTAL Spring Quarter TOTAL SECOND YEAR TOTAL		17 50 101
SUPF	PORTI	NG COURSE:		
BCS	190	Introduction to Building Construction		2
	ADV	SORY COMMITTEE FOR BUIL	DING CONSTRUCTION	
		Ernie Austin	D. H. Neece	

Ernie Austin
Austin & Austin
Sam Fletcher
Fletcher Electric
Mel Geist
Geist Homes
Ed Kaberlein
Private Contractor

D. H. Neece
Northern Colorado Savings
and Loan
Mike Sholders
Hensel Phelps
Bill Watkins
Everitt Lumber Co.
Glen White

Glen White Business Agent

42

Winte	er Qua	arter	
CCT	200	Human Relations in the Classroom	5
CCT	205	Bus. Mgm't for Child Care Centers	3
BUS	157	Oral Business Communications	3
		Elective	5
		TOTAL Winter Quarter	16
Sprir	ng Qua	arter	
CCT	225	Science for Preschool Teachers	5
CCT	230	Family and Community Child Care Centers	5
CCT	250	Administration of Child Care Centers	4
		Elective	3
		TOTAL Spring Quarter	17
		TOTAL SECOND YEAR	49
		TOTAL	99
Educ	ationa I Care	al courses necessary for State Social Services Certification for Dire Center, Child Development and Nursery Education:	ctor of a
CCT	100	First Aid	2
CCT	104	Child Growth and Development I	3
CCT	105	Child Growth and Development II	3
CCT	106	Intro to Early Childhood Education	2
CCT	110	Activities for Young Children	4
CCT	141	Methods of Teaching the Young Child	4
CCT	210	Children's Literature	3
		*	21
Relat	ed Su	bjects:	
SOC	101	Introduction to Sociology	5
PSY	101	General Psychology	5
CCT	145	Nutrition for Young Children	4
CCT	205	Bus. Mgm't. for Child Care Centers	3
CCT	250	Administration of Child Care Centers	4
			21
		TOTAL	42

# ADVISORY COMMITTEE FOR CHILD CARE/TEACHER AIDE

Mrs. John Althoff First Congregational Church

Ann Heiman Greeley Parent-Child Center

Al Schmidt Follow Through

Mrs. Jeannie Truswell 16th Street Preschool and Day Care Center



# **GRAPHIC TECHNOLOGY**

Course Length: Approximately 3 quarters for certificate in Occupational Education.

Potential Opportunities: This training program is designed to give the student a basic core of knowledge and machine skills related to office duplicators and the off-set printing process. Included in this core of training is the preparation and operation of the spirit and stencil duplicators, copy composition and pasteup, process camera production of line and halftone negatives, off-set plate making techniques, off-set press operation and bindery functions which will prepare the student for apprentice-type work in commercial print shops or in-house copy centers.

Placement possibilities are found in insurance companies, business offices, manufacturing plants, educational institutions and church offices. Additionally this core may, with experience, lead to a specialization in such related careers as technical illustrating, commercial art, sales, management, service and repair, writing or photography.

If you like machines, are creative, patient and meticulous, enjoy words, variety, change and the satisfaction of seeing a job well done, then you have found a beginning for building a career.

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 from a group of students.

#### Fall Quarter:

			Credits
*GRT	101	Intro to Duplicating Machines	4
*GRT		Intro to Graphic Technology I	8
VTI	103	Industrial Communications	3
VTI	205	Industrial Economics	3
			40
		TOTAL Fall Quarter	18
Winte	r Qua	arter:	
GRT	102	Duplicating Machines II	4
GRT		Graphic Technology II	8
VTI	206	Industrial Management	 3
BUS	102	Intermediate Typewriting	
or		The state of the s	3
BUS	103	Advanced Typewriting	
		TOTAL Winter Quarter	18

# OCCUPATIONAL EDUCATION

Credits

# Spring Quarter:

GRT 103	Duplicating Machines III	4
	Graphic Technology III	8
VTI 105	Industrial Organizations and	
	Institutions	3
	TOTAL Spring Quarter	15
	TOTAL	51

\*Students who do not have high school credit in typing must enroll concurrently in Beginning Typing.

# ADVISORY COMMITTEE FOR GRAPHIC TECHNOLOGY

James Feickert	Allen Howe
Nelson, Haley, Patterson &	Hewlett-Packard Co.
Quirk, Inc.	
	Jim Poppe
Stafford Gnadt	Greeley Tribune
Shef Enterprises	
	Ron Shefflen
Art Hawkridge	Shef Enterprises
Pawnee Press	

Jerry Hoff Journal Publishing Co.

# MOTORCYCLE AND SPORTSCRAFT ENGINES MECHANICS

Course Length: Usually 3 quarters for Certificate in Occupational Education.

Potential Opportunities: The growth of motorcycle and sportscraft engines has been most significant in recent years. Indications are that the boom is just getting started; that the sale of motorcycles and recreational vehicles, as well as mechanized lawn and garden equipment, etc., will continue to increase rapidly. This development is associated with the energy shortage, the public and its leisure time, growth and consumption. Many opportunities in this field are motorcycle mechanic, boating and outboard engines service, snowmobile mechanic, miscellaneous recreational vehicle mechanic, shop owner and/or manager. Other related job areas are auto repair shops, service stations, farm equipment dealerships, construction companies, and various retail stores selling lawn and garden equipment.

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 from a group of students.

# Fall Quarter

VTI	101	Motorcycle and Sportscraft Engines I Safety and First Aid Shop Math	2 3
		TOTAL Fall Quarter	17

# OCCUPATIONAL EDUCATION

# WELDING

Course Length: Usually 6 quarters for Associate in Applied Science Degree.

Potential Opportunities: The welding course is designed to develop the necessary skills so the participant can pass the welder qualification tests: Qualification tests may be given in one or more positions such as flat, horizontal, vertical, or overhead. After completion of this course, the student can find work on bridges, pipelines, power houses, refineries, railroads, automobiles, farm machinery, earthmoving equipment. Wherever metal is to be joined, welding is usually 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, the desire to work steadily and patiently with determination to achieve high skills in the art of welding, are prerequisites for this course.

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 from a group of students.

## FIRST YEAR:

## Fall Quarter

			Credits
WLT	141	Oxygen/Acetylene Welding	12
VTI	101	Safety and First Aid	2
VTI	105	Industrial Organizations & Institutions	3
		TOTAL Fall Quarter	17
Wint	er Qua	arter	
WLT	142	Shielded, Metal, Arc I	12
VTI	181	Basic Blueprint Reading	3
		TOTAL Winter Quarter	15
Sprin	ng Qua	arter	
WLT	143	Shielded, Metal, Arc II	12
VTI	103	Industrial Communications	3
VTI	182	Welding Layout	3
		TOTAL Spring Quarter	18
		TOTAL FIRST YEAR	50
SEC	Y DNC	EAR:	
Fall C	Quarte	r	
WLT	241	Shielded Metal Arc III	12
VTI	183	Welding Industry	3
		TOTAL Fall Quarter	15
Winte	er Qua	urter	
WLT	242	Shielded Metal Arc	
		Pipe Welding	12
VTI	104	Oral Communications in Industry	3
WLT	135	Metallurgy	5
		TOTAL Winter Quarter	20

# ADVISORY COMMITTEE FOR WELDING

D. R. Joe Goddard Self Employed

Murray Hill Lundvall Manufacturing

Fred W. Hine Farmhand, Inc.

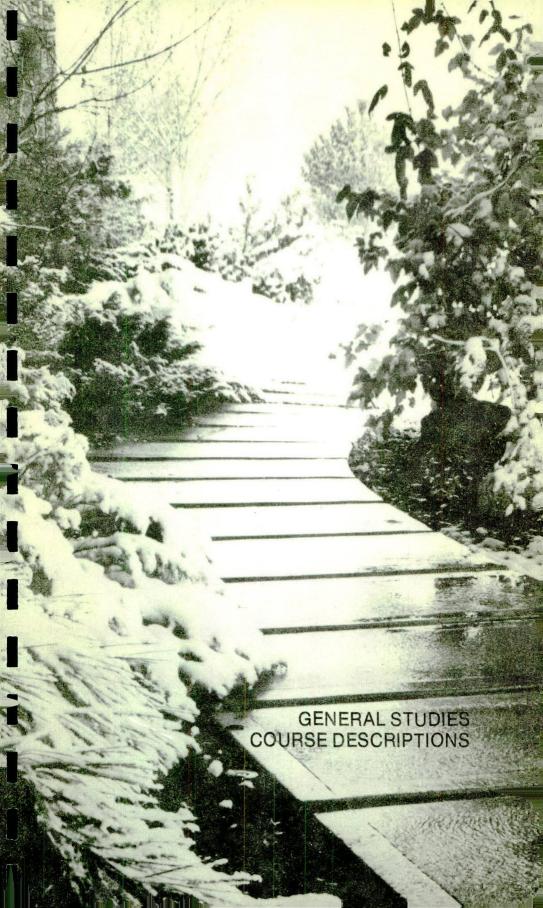
Gene Johnson Eastman Kodak

Dale Majors Majors Welding Supply

Floyd Scofield .
Hensel Phelps Construction Co.

Bob Shea Hydraulics Unlimited





# COMMUNICATION AND ARTS DIVISION

The Instructional Center, Communication and Arts vestibule, is available for the student desiring assistance with any difficulty or activity related to Communication and Arts. The center is supervised by members of the Communication and Arts staff. Students may avail themselves of this facility or may be referred by an instructor.

Those students wishing to enroll in Art, Music or Theatre classes solely for recreational purposes are advised to register for one of the self-supporting, non-transferable "community" classes.

Those choosing Art, Music or Theatre coursework as a "concentration" or as an elective within another program should enroll in the appropriate transfer level course. The community classes are not applicable to the degree programs of the College.

# ART (ART)

# ART 100 INTRODUCTION TO THE VISUAL ARTS AND DESIGN

An introduction to art, architecture, and the several fields of design. Through visual presentations, discussions, and studio work, students will examine various ways in which people express themselves through manipulations of materials, including painting, sculpture, crafts, housing and consumer goods. This course fulfills a humanities requirement. Five Credits.

### ART 205 ANCIENT ART HISTORY

A study of the various forms of art and crafts from pre-historic into the Middle Ages. Three credits.

# ART 206 RENAISSANCE ART HISTORY

A study of art from the Middle Ages through the Renaissance and to the Baroque and Rococo. Three credits.

### ART 207 CONTEMPORARY ART HISTORY

A study of art from Romanticism through the various major 20th Century movements. Three credits.

# ART 299 ARTS PRACTICUM

This learning structure is designed to facilitate the development of creative knowledge and skills. The format and content of each practicum is determined by the art medium and the level of proficiency. Credit hours 1-6 per term. Repeatable at different levels of proficiency.

# CERAMICS (CER)

## CER 011 COMMUNITY POTTERY I

A non-academic experience with pottery for the citizens of the community. Emphasis on handbuilding. Not applicable to the degree programs of the College. No credit. Meets 2 hours per week.

#### CER 012 COMMUNITY POTTERY II

A non-academic experience with pottery for the citizens of the community. Emphasis on throwing. Not applicable to the degree programs of the College. No credit. Meets 2 hours per week.

#### CER 105 CERAMIC DESIGN I

A basic course in pottery covering different techniques of handbuilding; pinch, coil, slab, and their variations. Emphasis will be on form and decoration. Students will also be introduced to beginning throwing on the potter's wheel. Additional two studio hours arranged. Three credits.

### CER 107 PRIMITIVE METHODS

Study of selected "primitive" methods of processing, shaping, coloring, and firing clay. Additional two studio hours arranged. Offered every other year. Three credits.

### CER 205 CERAMIC DESIGN II

Study of the various techniques of throwing and introduction to glaze formulation. Additional two studio hours arranged. Three credits.

# **DESIGN AND PHOTOGRAPHY (DEP)**

# **DEP 016 COMMUNITY PHOTOGRAPHY**

A non-academic experience with photography for the citizens of the community. Not applicable to the degree programs of the College. No credit. Meets 2 hours per week.

### DEP 101 DESIGNI

Study of the several ways in which the fundamental visual elements are organized and perceived as expressions of thought and feeling. Visual presentation, discussion, and projects. Emphasis on application in two-dimensional forms. Five credits.

### DEP 102 DESIGNII

Study of the several ways in which the fundamental visual elements are organized and perceived as expressions of thought and feeling. Visual presentations, discussion, and projects. Emphasis on three-dimentional projects. Five credits.

### **DEP 103 DESIGN APPLICATION**

Course involves the application of the principles of perception, invention, and design to problems of a practical nature (e.g. advertising, interiors, landscape, packaging, products). Additional two studio hours arranged. Five credits.

# DEP 106 PHOTOGRAPHY I

A course dealing with black and white photography, cameras, lenses, films, papers, and relevent two-dimensional design principles. Additional two studio hours arranged. Three credits.

# **DEP 107 INTERIOR DESIGN**

Introduction to principles of interior design with emphasis on students' exploration of individual design problems. Three credits.

# DRAWING AND PAINTING (DRP)

# DRP 015 COMMUNITY DRAWING & PAINTING

A non-academic experience with drawing and/or painting. Not applicable to the degree programs of the College. No credit. Meets 2 hours per week.

# DRP 101 DRAWING I

Study of the descriptive and expressive techniques of drawing. Emphasis on realistic composition. Additional two studio hours arranged. Three credits.

# DRP 102 FIGURE DRAWING

Using the figure as an object in space, emphasis will be on manipulation of line, values, shapes, and textures. Exercises will include both traditional and contemporary types of composition, working with pencil, charcoal, conte crayon, and ink. Additional two studio hours arranged. Three credits.

### DRP 105 WATER MEDIA I

Designed to introduce the student to the water color medium and its varied uses. Additional two studio hours arranged. Three credits.

#### DRP 106 PAINTING I

Introduction of techniques of painting with oil and acrylic paints. Additional two studio hours arranged. Three credits.

### DRP 201 DRAWING II

Intermediate study of expressive media of drawing Students further develop craft of drawing as well as ability to transform ideas and experiences into drawing statements. Additional two studio hours arranged. Three credits.

#### DRP 205 WATER MEDIA II

Continuation of working with concepts and techniques of water color, water media paints, and related media. Additional two studio hours arranged. Three credits.

#### DRP 206 PAINTING II

The course will emphasize painting elements as they relate to the human figure. Additional two studio hours arranged. Three credits.

#### DRP 208 RELIEF PRINTMAKING

Study of the various relief methods of printing as an aesthetic form. Additional two studio hours arranged. Three credits.

# JEWELRY AND METALCRAFTS (JMC)

# JMC 065 COMMUNITY JEWELRY AND SCULPTURE

A non-academic experience with jewelry and sculpture for citizens of the community. Not applicable to the degree programs of the College. No credit. Meets 2 hous per week.

### JMC 105 METALWORK DESIGN I

Basic forming, forging, soldering, casting, and finishing techniques involved in creative metalwork. Additional two studio hours arranged. Three credits.

#### JMC 205 METALWORK DESIGN II

Continued work in construction, casting, and finishing techniques. Includes some stone cutting. Additional two studio hours arranged. Three credits.

# SCULPTURE AND WOOD CRAFTS (SWC)

# SWC 105 SCULPTURE: INTRODUCTION AND CLAY MODELING

Introduction to traditional and contemporary sculptural forms. Emphasis on modeling techniques and ceramic sculpture. Additional two studio hours arranged. Three credits.

# SWC 205 FIGURE SCULPTURE AND CASTING

Work with the head and the figure, and the techniques of metal casting. Additional two studio hours arranged. Three credits.

# TEXTILE CRAFTS (TEC)

# TEC 056 COMMUNITY FABRIC CRAFTS

A non-academic experience with selected fabric crafts for the citizens of the community. Not applicable to the degree programs of the College. No credit. Meets 2 hours per week.

# TEC 105 WEAVING AND TEXTILE DESIGN I

Introduction to the basic techniques and design of weaving and selected textile crafts. Additional two studio hours arranged. Three credits.

### JOU 106 PHOTOGRAPHY I

Teaches basic techniques of using photography as a means of communication. Emphasis is on using a good combination of photographic materials, composition, and darkroom techniques. Two additional lab hours arranged per week. Three credits.

### JOU 111 NEWSWRITING I

Introduction to fundamentals of news gathering, reportorial skills, interviewing, and new story forms. Must be enrolled in JOU 101 concurrently. Three credits.

## JOU 112 NEWSWRITING II

Principle and practices in writing news stories, features, and editorials. Must be enrolled in JOU 102 concurrently. Three credits.

# JOU 113 NON-FICTION ARTICLE WRITING

Analyzing newspaper and magazine markets, and researching and writing the longer non-fiction articles. Three credits.

# JOU 114 INTRODUCTION TO MASS COMMUNICATION

Study of history, ethics, and current practices of mass communications media with emphasis on newspaper, radio, and television. Three credits.

# JOU 115 INTRODUCTION TO RADIO BROADCASTING

An introduction to basic radio principles and production techniques with some practical laboratory experience in the studio. Three credits.

# JOU 116 INTRODUCTION TO TELEVISION BROADCASTING

A 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. Three credits.

# JOU 117 MEDIA GRAPHICS

Provides student with basic skills in producing various graphic materials for use in production of television programs. Must be enrolled in JOU 116 concurrently. Two additional lab hours arranged per week. Two credits.

#### JOU 120 ADVERTISING

Introduction to functions of advertising as a merchandising tool, including study of copy, media, art work, and production. Five credits.

# JOU 125 RADIO BROADCAST LAB

Student is involved in practice sessions to develop proficiency in operating the control board and other studio equipment. Must be enrolled in JOU 115 concurrently. Two additional lab hours arranged per week. Two credits.

# JOU 126 TV BROADCAST LAB

Student is involved in practice sessions to develop proficiency in operating the control board and other studio equipment. Must be enrolled in JOU 116 concurrently. Two additional lab hours arranged per week. Two credits.

# JOU 205 COOPERATIVE JOURNALISM

Student works 15 hours a week on the job under supervision. Intended to provide practical experience for students in the mass media. Five credits.

# JOU 299 JOURNALISM PRACTICUM

The practicum provides the opportunity for the serious-minded student to develop his skills in writing and producing a publication or in writing and producing a broadcast program under the direction of a qualified faculty member. Credit hours 1-6 per term. May be repeated at different levels of proficiency. Must be arranged with instructor and Division Chairman.

# LITERATURE (LIT)

### LIT 105 INTRODUCTION TO LITERATURE

A beginner's exploratory study of poetry, drama, and the short story. Emphasis is on helping the student discover basic concepts of these genres and the relevance of literature in any society. Three credits.

# LIT 106 INTRODUCTION TO FICTION

Practice in analytical and interpretive reading to broaden and refine interests of students so that they may evaluate short stories and novels as well as obtain a better understanding of all types of people and of themselves. Three credits.

# LIT 108 INTRODUCTION TO POETRY

Exploration of forms, types, language, and philosophies underlying the works of major American and British poets in order that students may better understand humanity and themselves. Three credits.

# LIT 109 CREATIVE WRITING

Instruction and practice in creative writing of types best suited to individual interest, talent, and needs. Three credits.

# LIT 115 SCIENCE FICTION

An examination of the genre of science fiction as it reflects social, political, psychological, and moral views of writers beginning with Jules Verne through the present. Three credits.

# LIT 117 DETECTIVE FICTION

The study of the genre from its origins to now. The course will be concerned with the reading of short stories and novels and their value as entertainment and as a reflection of society. Three credits.

# LIT 118 WRITERS FOR THE SEVENTIES

This course is a selected study of a writer, whose works are presently receiving popular attention, includes such authors as Brautigan, Hesse, Tolkien, and Vonnegut. Two credits.

# LIT 119 INTRODUCTION TO FILM AS LITERATURE

An introductory study to recent film literature or scripts from the standpoint of a written and cultural perspective. Includes viewing films at local theaters and the writing of critical reviews. Prerequisite: CON 102 or Permission of the Instructor. Two credits.

# LIT 125 READING OF MASTERPIECES

This course is an intensive treatment of a great book, which has had world-wide influence. The selection of the book is made by the instructor who is teaching the course. One credit.

# LIT 205 THE AMERICAN WEST

A study of the Westward Movement on American culture, beginning with James Fenimore Cooper and extending to modern writers such as John Steinbeck. Three credits.

# LIT 206 MODERN AMERICAN CULTURE

A study of American thought and the problems of modern culture since the 1920's as reflected in the arts of America. This course fulfills a humanities requirement. Five credits.

# LIT 217 WOMEN IN LITERATURE

The exploration of the options in life styles offered women and of the varying images of women as found in poetry, drama, short story, and novels, giving the student a better understanding of the woman of the 70's. Three credits.

# LIT 218 POPULAR HUMOR AND SATIRE

The study of satire and humor in contemporary periodicals, comic strips, and cartoons. Emphasis will be placed on the implications of the genre for society and on the genre as art. Three credits.

# MAS 206 CHICANO LITERATURE

A survey of contemporary Mexican literature of social protest from "Corky" Gonzales to Ramon Barrio and other authors who have contributed to the literary heritage of the present-day Chicano. Includes examination through literature, Chicano image literature, analysis of Anglo literature about Chicanos, and Chicano literature itself. Three credits.

# **READING (REA)**

### **REA 101 READING**

An individualized laboratory course to aid average readers in learning and applying reading rate, vocabulary, and study skills to all content areas and study situations. Three credits.

# **REA 106 SPEED READING**

Instruction and practice concentrates on versatility in speed, vocabulary, and critical reading skills. Three credits.

# REA 115 INDIVIDUALIZED PROGRAM IN VOCABULARY

A multi-media efficiency course designed to help students develop their vocabulary on an individual basis. One credit.

# REA 116 INDIVIDUALIZED PROGRAM IN SPELLING

A multi-media efficiency course designed to help students develop spelling skills on an individual basis. One credit.

# REA 117 INDIVIDUALIZED PROGRAM IN SPEED READING

A multi-media efficiency course designed to help students with basic speed reading techniques. One credit.

# REA 118 INDIVIDUALIZED PROGRAM IN BASIC LANGUAGE SKILLS

A duo-media efficiency course designed to help students develop the basic English skills needed on an individual basis. One credit.

# REA 119 INDIVIDUALIZED PROGRAM IN WORD ANALYSIS AND DICTIONARY SKILLS

A multi-media efficiency course designed to help students with phonetic and structural analysis and with use of the dictionary on an individual basis. One credit.

# REA 120 INDIVIDUALIZED PROGRAM IN COMPREHENSION

A multi-media efficiency course designed to help students improve in basic comprehension skills. One credit.

# REA 295 INDEPENDENT STUDY IN READING

This course provides the 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. Credit hours (1-3) must be arranged with the Division Chairman and instructor.

# SPEECH (SPE)

# SPE 115 SPEECH ESSENTIALS

A performance course emphasizing oral communication skills and interpersonal communication. Three credits.

# SPE 116 PUBLIC SPEAKING

Emphasizes organization, preparation, and presentation of various types of speeches. Three credits.

# HUMANITIES (HUM)

# HUM 100 INTRODUCTION TO THE HUMANITIES

To introduce students to the creative and speculative nature of man through 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 CLASSICAL TRADITION**

A consideration of the rational in the arts from their Greek origins to the present time. Prerequisite: HUM 100. Five credits.

# HUM 102 CULTURE OF CHRISTENDOM

An understanding of the modern crisis in Christendom through its philosophical roots in Plato, Aristotle, Augustine, and Aquinas; through the ideals expressed in medieval architecture of the Byzantine and Gothic styles; and thrgugh medieval allegorical literature and liturgical music. Christian development will be studied from the perspective of a Greco-Judaic synthesis in art and philosophy. Prerequisite: HUM 100. Five credits.

# **HUM 103 ROMANTIC REBELLION**

An exploration of the imaginative in the arts from its mythological origins to the present time. Prerequisite: HUM 100. Five credits.

# **HUM 104 CONTEMPORARY CULTURE**

Study of ideas, both Eastern and Western, in the 20th Century through firsthand experience of contemporary drama, live concert performance, local films, and viewing of 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 107 MAN AS SELF AND SOCIETY

A study of the nature of man by a direct comparison of man's cultural contributions to his human values. Other related themes are the comic in man, the outsider or rebel in the arts, the relationship of utopian concepts to the human environment, and the heritage of humanism. Five credits.

# **HUM 108 ORIENTAL CULTURE**

An examination of the great cultural traditions of the Orient and of their expression in a diversity of the arts. Content will focus mainly on the civilizations of India, China, and Japan but will include other parts of the Orient. Emphasis will be upon philosophy and religion and their expression through the developing arts of literature, painting, sculpture, architecture, and music. Five credits.

# HUM 296 SEMINAR IN HUMANISTIC STUDIES

This course is for the student who wishes to pursue a special topic of interest in the Humanities. Students meet informally in various meetings to discuss and report the progress of their creative project(s), which may involve media resources. Two credits.

# **CULTURAL STUDIES (CUS)**

# CUS 106 CULTURAL HERITAGE OF AFRICA AND AMERICAN BLACKS

Students examine the art, music, and literature as expressions of the philosophy of Africa and the American Black. Influences of African culture from its existence in the tribal structure to its emergence in pre-Civil War and to contemporary culture are included. This course fulfills a humanities requirement. Five credits.

# MAS 120 CULTURAL HERITAGE OF THE AMERICAN SOUTHWEST AND MEXICO

Students examine the art, music, literature, and philosophy of the American Southwest from pre-Columbian civilizations to the present time as it relates to the Chicano culture. This course fulfills a humanities requirement. Five credits.

# PHILOSOPHY (PHI)

# 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. This course fulfills a humanities requirement. Five credits.

# PHI 121 INTRODUCTION TO WALDORF EDUCATION

How does a child encounter the world? What are the problems it is going to be confronted with? Child development and child psychology based on Rudolf Steiner's philosophy. Education at home, in preschool and kindergarten. Home and class environment; nutrition; books; toys...Artistic and physical activities. Three credits.

# PHI 122 WALDORF EDUCATION I

Learning through living. Demonstration and discussion of the work in the elementary grades: Fairy tales; fables; mythology; history...The three R's; anatomy; zoology; botany; mineralogy; geography; geometry; physics; chemistry; meterology; astronomy...Arts and crafts. Second and third language. Three credits.

## PHI 123 WALDORF EDUCATION II

The adventure of adolescence. The physical, psychological and mental process of maturing. The liberating approach in high school. The social structure of a Waldorf school: The college of teacher—the students—the parents. The training of a Waldorf teacher. Three credits.

# PHI 207 CONTEMPORARY PHILOSOPHY

Examination of three philosophical movements: existentialism, logical positivism, and cosmic consciousness, which should be used as a basis for enriching disucssions and creative presentations on such subjects as law and chaos, art and society, concept of mystery, and nature of human reality. Primary emphasis is given to creating a framework from which the student can develop his own personal philosophy. Three credits.

# MUSIC MUSIC APPRECIATION (MUA)

# MUA 101 ORIGINS OF MUSIC

A non-technical introductory course of exploration of the beginnings and origins of music in the Eastern and the Western world. Three credits.

# MUA 102 CONFORMITY AND REVOLUTION IN MUSIC

A non-technical study of musical creation and its influence on man and his society. The course emphasizes a study of music from Baroque conformity through the Romantic revolution. This course fulfills a humanities requirement. Five credits.

# MUA 103 NOW MUSIC

A non-technical course of listening and discussion of the music from the 1930's through and with special emphasis on music being written and performed TODAY by popular orchestras, groups, and solosits. Three credits.

# MAS 105 MUSIC OF MEXICO AND THE SOUTHWEST

An examination of selected works in Mexican and Mexican American music from pre-Columbian time to the present, concentrating on regional works and on 20th Century composers and their relationship to Chicano and Anglo American Society. Three credits.

# MUSIC EDUCATION (MUE)

# MUE 100 FUNDAMENTALS OF MUSIC

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

# MUE 101 MUSIC THEORY

Analysis of musical composition, sight singing, and ear training for potential music majors or students with musical background. Three credits.

# MUE 205 CHILDREN'S MUSIC

Workshop approach for prospective teachers of music on the preschool/elementary level and for parents who want to increase their ability to deal with children's music potential. Three credits.

# MUSIC PERFORMANCE—VOCAL (MPV)

# MPV 106, 107, 108 APPLIED VOICE

Individualized or group instruction in vocal techniques for beginners or more advanced students. One credit per course.

# MUSIC PERFORMANCE— INSTRUMENTAL (MPI)

# MPI 011 COMMUNITY GUITARI

A non-academic experience with guitar for the community. Not applicable to the degree programs of the College. No credit.

# MPI 012 COMMUNITY GUITAR II

A non-academic experience with guitar for the community. Covers various "finger-style" picking methods. Not applicable to the degree programs of the College. No credit.

# MPI 013 COMMUNITY GUITAR III

A non-academic experience with guitar for the community. Covers some of the more complex approaches to playing the instrument. Not applicable to the degree programs of the College. No credit.

# MPI 015 COMMUNITY BANJO

A non-academic experience with banjo for the community. Not applicable to the degree programs of the College. No credit.

# MPI 106 BEGINNING PIANO

To provide a basic course in piano instruction for those who have not had a background in piano. This includes reading skills, style necessary for playing simple accompaniments, community songs, and music appropriate to public schools. Daily practice required. Three credits.

# MPI 121 CLASSICAL GUITAR I

Will develop a basic technical and musical foundation through classical guitar, covering sightreading, technical exercises, and study of selected guitar literature. Additional two studio hours arranged per week. Three credits.

# MPI 122 CLASSICAL GUITAR II

Continuation of Classical Guitar I. Further technical and theoretical studies. Additional two studio hours arranged per week. Three credits.

# MPI 123 CLASSICAL GUITAR III

Continuation of Classical Guitar II. Advanced technical and theoretical study of the classical guitar. Additional two studio hours arranged per week. Three credits.

# DEVELOPMENTAL STUDIES DIVISION

The Instructional Center, Developmental Studies vestibule, is available for the student desiring assistance with any difficulty or activity related to Developmental Studies. Minicourses for college level credit are also offered through the Instructional Center. The center is supervised by members of the Developmental Studies staff. Students may avail themselves of this facility or may be referred by an instructor.

The Developmental Studies Division, including classes in English as a Second Language (ESL), Adult Basic Education (ABE), and General Education Development (GED), operates on the assumption that all people can learn. The division exists to provide educational options for adults in the areas of language and communication skills, reading, computation, science, consumer economics, and social studies. These subject areas range from beginning skills levels to twelfth grade. Upon entering the program, a student's academic skills are analyzed in terms of the student's educational and occupational goals as well as social living needs and an individualized program of instruction is designed to meet that student's specific situation.

# FUNDAMENTAL EDUCATION—(ESL) ENGLISH AS A SECOND LANGUAGE

This class is for students who either wish to improve or gain English-speaking skills. English as a Second Language is taught in order to transfer students' communication skills in their native language to communication skills in English. Emphasis in teaching the class will be on verbal skills related to subject matter relevant to the adult learners in the class, such as consumer education, jobs, schools, and the community.

Although the emphasis in the class will be on the students' acquiring verbal skills, beginning reading and writing will be taught relative to verbal instruction. Elementary computation skills will be taught in the class. As a part of the class, the student will be exposed to existing facilities in the community via field trips and outside speakers.

# EDUCACION FUNDAMENTARIA—(ESL) INGLES COMO EL LENGUAJE SECUNDARIO

Esta clase es para estudiantes que quieren aprender ingles, o mejorar su abilidad de habler ingles. Esta clase de ingles es para studiantes que quieren transferie la abilidad de conumicarse en su idioma natal, al ingles, y para orientar personas a oficios, educacion de agencias a las que pueden llamar en caso de apuros, y education de la comunidad.

Aunque el enfasis de la clase sera para que el estudiante pueda comunicarse verbalmente en ingles, tambien se ensenara lectura y escritura de acuerdo con lo que el estudiante haya aprendido verbalmente. Habran viajes en la comunidad y fuera de la comunidad para aprender de las facilidades que estan a nuestro servicio.

Completacion con exito de esta clase education hasta un cuarto grado sera necesario para poder avanzar a la clase de educacion basica para adultos.

# ADULT BASIC EDUCATION (ABE)

This class is designed to give the adjult student who previously dropped out of school a basic education in reading, communications, and computation skills sufficient to each student's personal and academic needs.

Interwoven in this core curriculum are health orientation and nutrition, consumer education, parent and family life, and practical government. This class will take field trips both inside and outside of the community. Speakers will be brought in to better acquaint students with local and state services.

# INTERDISCIPLINARY ARTS AND SCIENCES (IAS)

# IAS 100 SURVIVAL SKILLS FOR COLLEGE STUDENTS

The course is designed to assist students in mastering the contemporary college environment. Instructors from each academic division will familiarize the student with academic skills necessary for success in college including: note-taking; test-taking, both objective and essay; effective use of the textbook; basic research techniques; familiarization with basic terms; and study skills. Three credits.

### IAS 105 OCCULT SCIENCES

An examination of the beliefs and practices of Voodoo, Vampirism, Witchcraft, Hunting Magic, Snake Handling Cults, Palmistry, Tarot Cards, I Ching, and Hysterical Possession from the ancient past to the present. Three credits.

# MEXICAN AMERICAN STUDIES (MAS & SPA)

# MAS 011 CONVERSATIONAL SPANISH

A course in Conversational Spanish concerned with developing the ability to understand and speak regional Spanish. No credits.

# MAS 100 INTRODUCTION TO MEXICAN AMERICAN STUDIES

A general course designed to provide an understanding of Mexican American Studies and the background and philosophy behind the department and its courses. Course will also analyze the relative position, differences, and commonalities of the Mexican American community to the general American society. Emphasis given to the relationship of the Chicano education system. Three credits.

#### SPA 101 ELEMENTARY SPANISH I

Students develop the ability to understand speak, read, and write the language within the limits of vocabulary. Especially designed for the non-native speaker of Spanish. Emphasis is on language and culture of the Southwest. Five credits.

# SPA 102 ELEMENTARY SPANISH II

Continuatin of SPA 101. Five credits.

# SPA 103 ELEMENTARY SPANISH III

Continuatin of SPA 101 & 102. Five credits.

# MAS 105 MEXICAN MUSIC

An examination of selected works in Mexican and Mexican American music from the pre-Columbian time to the present, concentrating on regional works and on 20th Century composers and their relationship to Chicano and Anglo American Society. Three credits.

# MAS 116 BILINGUAL SKILLS

A course designed primarily to meet the linguistic needs of Chicanos. Orthography, phonetics, vocabulary as well as the psychology of the language will be discussed. Comparative elements between Spanish and English, such as cognates, roots, suffixes, and prefixes, will be especially treated. Three credits.

# MAS 120 CULTURAL HERITAGE OF THE AMERICAN SOUTHWEST AND MEXICO

Students examine the art, music, literature and philosophy of the from pre-Columbian civilizations to the present time as it relates to the Chicano culture. This course fulfills a humanities requirement. Five credits.

# MAS 125 THE AMERICAN SYSTEM

The purpose of this course is the presentation of vital information dealing with citizenship. Special emphasis will be placed on current legislation dealing with Chicanos. Three credits.

### PED 104 ADVANCED KARATE

Advanced form of kicking, punching, and blocking; self-defense and fighting techniques of Karate examined. Two clock hours per week. One credit.

# PED 105 FLAG FOOTBALL

Designed to teach various skills, techniques, rules, and regulations of flag football. Two clock hours per week. One credit.

# PED 106 SOFTBALL

Designed to teach various skills, techniques, rules, and regulations of softball. Two clock hours per week. One credit.

#### PED 107 SKIING

Designed to expose students to basic skills and techniques for aiding in the art of skiing. Two clock hours per week. One credit.

## PED 108 PHYSICAL EDUCATION

Designed to teach skills of various individual and team sports, improve physical fitness, and develop endurance and provide recreational activities useful in later life. Two clock hours per week. One credit.

#### PED 109 SELF DEFENSE

Designed to teach various skills and techniques of self defense. Two clock hours per week. One credit.

# PED 111 BEGINNING VOLLEYBALL

Designed to teach basic skills of volleyball. Team play is stressed and some inter-squad competition is provided. Two clock hours per week. One credit.

# PED 112 INTERMEDIATE VOLLEYBALL

Designed to teach the finer skills and strategies of Beginning Volleyball. More time will be devoted to team play and intrasquad competition. Two clock hours per week. One credit.

#### PED 113 ADVANCED VOLLEYBALL

Improvement of skills, strategies, and knowledge of volleyball stressed. Two clock hours per week. One credit.

# PED 115 SLIMNASTICS

Designed to develop a better figure, firm up, increase circulation, and better coordination. Two clock hours per week. One credit.

#### PED 116 INTERMEDIATE SLIMNASTICS

A course designed to further develop the individual's figure, posture, and better coordination. Two clock hours per week. One credit.

# PED 117 ADVANCED SLIMNASTICS

Designed for those students who want to continue in an advanced course of Slimnastics emphasizing the development of the total body. Two clock hours per week. One credit.

# PED 118 BASKETBALL

An activity class designed to allow the student maximum participation on an intra-class team organizational basis. Two clock hours per week. One credit.

# PED 121 BEGINNING SWIMMING

Instruction provided for non-swimmers under the American Red Cross swimming program. Designed to teach basic strokes of swimming. Two clock hours per week. One credit.

# PED 165 BEGINNING HANDBALL

An activity class designed to teach the basic movements, skills, and rules of handball. Two clock hours per week. One credit.

## PED 166 INTERMEDIATE HANDBALL

Designed to improve the player skills and strategies of Beginning Handball. More individual play will be stressed. Two clock hours per week. One credit.

# PED 167 ADVANCED HANDBALL

Designed for students who want to further their skills and knowledge of handball. Two clock hours per week. One credit.

# PED 173 BEGINNING RHYTHMIC ACTIVITIES

Designed to teach the skills and techniques of movements for the graceful performance of body action. Two clock hours per week. One credit.

# PED 174 ADVANCED RHYTHMIC ACTIVITIES

Designed for those who want to further their skills of movement for the graceful performance of body action. Two clock hours per week. One credit.

#### PED 181 BEGINNING TENNIS

Introduction to theory and practice of tennis play. Skills taught include serve, forehand and backhand drives, volleying, and footwork and scoring rules. Two clock hours per week. One credit.

# PED 182 INTERMEDIATE TENNIS

Designed to improve the player skills and strategies of Beginning Tennis. More individual play will be stressed. Two clock hours per week. One credit.

# PED 183 ADVANCED TENNIS

Designed for improvement and advancement of skills of tennis. Two clock hours per week. One credit.

# PED 185 BEGINNING RACQUETBALL

An activity class designed to teach the basic movements, skills, and rules of racquetball. Two clock hours per week. One credit.

# PED 186 INTERMEDIATE RACQUETBALL

Designed to improve the player skills and strategies of Beginning Racquetball. More individual play will be stressed. Two clock hours per week. One credit.

# PED 187 ADVANCED RACUETBALL

Designed for students who want to further their skills and knowledge of racquetball. Two clock hours per week. One credit.

# MAS 155 MEXICAN DANCE

Mexican dances and background on origin of dances are presented. Two clock hours per week. One credit.

# SCIENCE AND MATHEMATICS DIVISION

The Instructional Center, Science and Mathematics vestibule, is available for the student desiring assistance with any difficulty or activity related to science and mathematics. Minicourses for college level credit are also offered through the Instructional Center. The center is supervised by members of the Science and Mathematics staff. Students may avail themselves of this facility voluntarily or may be referred by an instructor.

# ASTRONOMY (AST)

# AST 100 INTRODUCTORY ASTRONOMY

For the non-science student. Covers methods of observation and analysis used by astronomers; astronomers' tools; solar system; stars, galaxies and constellations of 40 N. lat. Also includes observing with the telescope. Three credits.

# AST 295 INDEPENDENT STUDY IN ASTRONOMY

This course provides the 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. Credit hours (1-3) must be arranged with the Division Chairman and instructor.

# **BIOLOGICAL SCIENCES (BIO)**

## BIO 101 BIOLOGICAL CONCEPTS

A general survey of major concepts related to living organisms. Three hours lecture, four hours lab. Five credits.

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

Principles of animal biology are considered as they apply to animal phyla. Three hours lecture, four hours lab. Five credits.

# **BIO 103 PLANT BIOLOGY**

General physiology and anatomy of higher plants. Three hours lecture, four hours lab. Five credits.

# BIO 105 POLLUTION AND THE HUMAN ENVIRONMENT

A comprehensive examination of effects of pollution of the human environment. Emphasis is on effects of pollution on the human organism. Three hours lecture. Three credits.

# **BIO 106 FIELD BOTONY**

A study of methods of collecting, preserving, and identifying plants. Two hours lecture, two hours lab. Three credits.

# 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 hours lecture. Three credits.

# BIO 201 POPULATION AND COMMUNITY BIOLOGY

A study of interactions of various factors affecting composition of populations and communities or organisms. Included are principles of energy dynamics, population of dynamics, and community ecology. Three hours lecture, four hours lab. Field trips. Five credits.

# BIO 202 CELL BIOLOGY

A comprehensive examination of the cell, its components and their functions. Includes studies of physiochemical properties of living systems, organelles and their bioenergetics, macromolecular synthesis, and code transcription. Three hours lecture, four hours lab. Five credits.

# **BIO 203 DEVELOPMENTAL BIOLOGY**

An introduction to changes occuring during organism development and differentiation; gene action, biochemical regulation, and environmental factors stressed. Three hours lecture, four hours lab. Five credits.

# **BIO 205 ELEMENTARY RADIATION BIOLOGY**

A study of use of ionizing radiation in biological studies and effects of ionizing radiation on living tissues. Three hours lecture. Three credits.

# **BIO 206 ELEMENTARY CHROMATOGRAPHY**

A study of uses of paper, thin layer and column chromatography in biological studies. Three hours lecture. Three credits.

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

Biology of vertebrates with emphasis on adaptations of structure, function, and behavior for different habitats. Laboratory: Emphasis on major vertebrate systems. Three hours lecture, four hours lab. Five credits.

#### BIO 208 INTRODUCTION TO ENTOMOLOGY

Classification and representative life cycles considered with economic importance of insects and types of control discussed. Three hours lecture, four hours lab. Five credits.

## BIO 209 BIOLOGY OF ADVANCED PLANTS

Phylogenetic relationships, evolution, and genetics of plant kingdom. Three hours lecture, four hours lab. Five credits.

# BIO 211 HUMAN ANATOMY-PHYSIOLOGY I

This is a beginning class in human physiology with emphasis on broad general biological principles and anatomical structure of human body and relationship of structure to body functions. Five credits.

### BIO 212 HUMAN ANATOMY—PHYSIOLOGY II

Continuation of BIO 211, Five credits.

# **BIO 216 INTRODUCTION TO MICROBIOLOGY**

A foundation course in microbiology with emphasis on structure, function, development physiology, classification and identification of micro-organisms. Three hours lecture, four hours lab. Five credits.

# BIO 295 INDEPENDENT STUDY IN BIOLOGY

This course provides the opportunity for the serious-minded students to engage in intensive study and research on a specified topic under the direction of a qualified faculty member. Credit hours (1-3) must be arranged with the Division Chairman and instructor. Students must have had previous academic study or experience in the area.

# CHEMISTRY (CHE)

### CHE 100 FUNDAMENTALS OF CHEMISTRY

General introduction to basic principles of chemistry and a survey of application of chemistry to various professions. Designed for non-science majors and students preparing for the general chemistry sequence. Three hours lecture, four hours lab. Five credits.

# CHE 101, 102, 103 GENERAL CHEMISTRY

A series of courses designed for students who have requirements in nursing, veterinary medicine, engineering, and related disciplines. A balanced introduction to inorganic, physical, analytical, and organic chemistry is presented, covering electronic structures, chemical bonding, thermodynamic equilibrium acid-base theory, reactivity, stochiometry, and states of aggregation. Introduction to instrumental methods of analysis, nuclear chemistry, and polymer chemistry are included. The third quarter of lab is devoted to semi-micro qualitative analysis. Prerequisites: One year of high school algebra, one year high school chemistry or permission of instructor for starting CHE 101. Courses must be taken in sequence. Three hours lecture, four hours lab per course. Five credits per course.

### CHE 105 INTRODUCTORY NUTRITION

Basic prinicples adequate to enable students to discriminate the scientific from pseudo scientific and fact from fallacy in vast literature of both lay and scientific press. Five credits.

# CHE 201 FUNDAMENTALS OF ORGANIC CHEMISTRY

Introductory basic prinicples of organic chemistry. Prerequisite: CHE 102 or permission of instructor. Three hours lecture, four hours lab. Five credits.

# CHE 202 FUNDAMENTALS OF ORGANIC CHEMISTRY

Continuation of CHE 201 with broader treatment including reaction mechanisms and techniques useful in organic analysis. Prerequisite: CHE 201. Three hours lecture, four hours lab. Five credits.

#### CHE 205 GLASSBLOWING

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

Prerequisite: Permission of instructor. Four hours lab. Two credits.

#### CHE 295 INDEPENDENT STUDY IN CHEMISTRY

This course provides the 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. Credit hours (1-3) must be arranged with the Division Chairman and instructor. Students must have had previous academic study or experience in the area.

# COMPUTER SCIENCE (COS)

# COS 100 INTRODUCTION TO COMPUTERS AND THE BASIC LANGUAGE

Introduction to computer programming through uses of the BASIC language. Various concepts relating to computer hardware and software 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. Four clock hours per week. Three credits.

# COS 101 INTRODUCTION TO COMPUTER PROGRAMMING AND FORTRAN IV LANGUAGE

Introduction to computer programming through the use of FORTRAN IV. Various concepts relating to computer hardware and software will be presented. Students will attain necessary computing techniques which can be applied to their work in physical science, mathematics, business, biological science, social science, and engineering. Six clock hours per week. Four credits.

# COS 102 ADVANCED TOPICS IN COMPUTER PROGRAMMING

Continuation of BASIC and FORTRAN IV as they apply to more sophisticated and extensive problems. Concepts of permanent files, magnetic tape, control cards, and other selected topics presented. Six clock hours per week. Four credits.

# EARTH SCIENCE (EAS)

#### EAS 105 EARTH SCIENCE

Designed for non-science majors and prospective teachers. Depicts earth orientation in space and how weather results from this. 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. Three hours lecture, three hours lab. Five credits.

### EAS 295 INDEPENDENT STUDY IN EARTH SCIENCE

This course provides the 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. Credit hours (1-3) must be arranged with the Division Chairman and instructor. Students must have had previous academic study or experience in the area.

# GEOLOGY (GEY)

# **GEY 101 PHYSICAL GEOLOGY**

A study of rocks and minerals which make up the earth. Three hours lecture, four hours lab. Field trips. Five credits.

#### **GEY 102 HISTORICAL GEOLOGY**

A study of fundamental history of the earth. Three hours lecture. Four hours lab. Field trips. Five credits.

#### GEY 105 GEOLOGY OF NATIONAL PARKS

Uses National Parks as examples for appreciation of basic principles of physical science and basic concepts of Physical and Historical Geology. Four credits.

# MATHEMATICS (MAT)

### MAT 015 INTRODUCTORY MATHEMATICS

Provides the student with enough arithmetic skills to enter business mathematics courses or beginning-algebra. Three credits.

#### MAT 016 BEGINNING ALGEBRA

Studies in addition, subtraction, multiplication, and division as applied to real numbers, literal numbers, and polynomials, with introduction to integral exponents, factoring linear equations, systems of linear equations, and quadratic equations. Five credits.

# MAT 100 SURVEY OF MATHEMATICS

Designed for students not majoring in science or mathematics. Emphasis is on manipulations of rational and irrational numbers, fractions, decimals, percentages, and proportions. An introduction, without overemphasis on mechanical procedures, to the nature of algebra and basic concepts of plane geometry. Five credits.

### MAT 105 COLLEGE PLANE GEOMETRY

A study of plane geometry emphasizing definitions and properties of axioms, postulates, lines, angles, planes, and circles. An introduction to logic and polyhedrons, cylinders, cones, and spheres included. Prerequisite: MAT 016 or one year high school mathematics. Five credits.

# MAT 106 INTERMEDIATE ALGEBRA

Studies in development of real numbers using axioms and sets; equations (linear and quadratic); factoring; relations and functions; graphs and complex numbers. Prerequisite: MAT 016 or one year high school algebra. Five credits.

# MAT 109 METRIC SYSTEM

Provides a working knowledge of linear, liquid, and mass measures in the metric system. One credit.

# MAT 111 COLLEGE ALGEBRA

Emphasizes functions, graphs, quadratic equations, systems of equations, progressions, binomial theorem, and conic curves. Prerequisite: MAT 106 or one and a half years high school algebra. Five credits.

# MAT 112 COLLEGE TRIGONOMETRY

Presents trigonometric functions, logarithms applications of right triangles, trigonometric identities and equations, soultion of oblique triangles, and complex numbers. Prerequisite: MAT 111. Five credits.

#### MAT 113 CALCULUS WITH ANALYTIC GEOMETRY

Limits, continuity, definition of derivative, differentiation of algebraic functions, mean value theorem, and applications, applications of the derivative. Prerequisite: MAT 112. Five credits.

# MAT 115 SLIDE RULE AND CALCULATOR

A course designed to introduce students to the slide rule and to the calculator as instructional aids to Math and Science courses. One credit (Minicourse).

## MAT 201 CALCULUS WITH ANALYTIC GEOMETRY

Antiderivatives, definite integral, derivatives and integrals of transcendental function, application of definite integral. Five credits.

# MAT 202 CALCULUS WITH ANALYTIC GEOMETRY

Techniques of integration conics, polar coordinates, parametric equations, vectors in a plane, indeterminate forms, improper integrals. Five credits.

#### MAT 203 MATHEMATICAL ANALYSIS

Vector functions in three-three-dimension space, partial differentiation, multiple integrals, and infinite series. Five credits.

# MAT 204 DIFFERENTIAL EQUATIONS

Studies solutions to ordinary differential equations by elementary methods. Five credits.

# MAT 205 LINEAR ALGEBRA

Vector spaces, linear transformations matrices, determinants, solutions of linear equations, and characteristics roots. Five credits.

# MAT 295 INDEPENDENT STUDY IN MATHEMATICS

This course provides the 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. Credit hours (1-3) must be arranged with the Division Chairman and instructor. Students must have had previous academic study or experience in the area.

# PHYSICS (PHY)

### PHY 100 SURVEY OF PHYSICS

A comprehensive but not highly technical presentation of fundamental principles of physics with practical applicatins. Three hours lecture, three hours lab. Five credits.

# PHY 101, 102, 103 INTRODUCTORY COLLEGE PHYSICS

An introductory sequence of courses for students not majoring in physics or engineering. Three hours lecture, four hours lab. Five credits per course.

# PHY 201, 202, 203 GENERAL PHYSICS

Intended for students majoring in engineering, physics, or physical science. Elementary calculus is used in methods of analysis of practical and theoretical problems. Three hours lecture, four hours lab. Five credits per course.

#### PHY 295 INDEPENDENT STUDY IN PHYSICS

This course provides the 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. Credit hours (1-3) must be arranged with the Division Chairman and instructor. Students must have had previous academic study or experience in the area.

# SCIENCE (SCI)

#### SCI 100 MAN-HIS TECHNOLOGY AND HIS WORLD

Introduction to a series of significant current problems concerned with technology which surrounds students and influences their lives. In each case an attempt is made to determine the magnitude and nature of problems, ascertaining why they arose and discover positive alternatives available to society and government. IBM 370 computer is used as an instructional aid. Five credits.

### SCI 101 AEROSPACE EDUCATION I

General education course for students desiring a knowledge of aerospace topics. Includes navigation, weather, power of aircraft, aircraft in flight, airports and airways, airline transportation, aerospace industry, and the space age. Three credits.

#### SCI 102 AEROSPACE EDUCATION II

Continuatin of SCI 101. Three credits.

#### SCI 105 HISTORY OF SCIENCE

An introduction to history of science; role of science and its influence in civilization in past and present times. Will not apply toward the 15-credit Science and Mathematics requirement. Three credits.

#### SCI 106 HISTORY OF MATHEMATICS

Historical development of mathematics is presented from ancient to modern times, with havy emphasis on development of arithmetic, geometry, algebra, and calculus. Will not apply toward the 15-credit Science and Mathematics requirement. Three credits.

### SCI 205 INTRODUCTION TO ORNITHOLOGY

Classification, life history and museum and field identification of birds. Prerequisites: BIO 101, 102 or 207. Four credits.

# STATISTICS (STA)

# STA 101 STATISTICS FOR BUSINESS, SCIENCE AND SOCIAL SCIENCE I

Emphasis on concepts and applications of selected topics from descriptive and inferential statistics. Topics include organization of data, computation of descriptive measures, sampling, the normal, binomial and distributions, interval estimation, correlation, regression, and simple tests of statistical hypothesis. Calculators and IBM 370 computer are used as aids in computation and analysis. Five credits.

# STA 102 STATISTICS FOR BUSINESS, SCIENCE, AND SOCIAL SCIENCE II

Topics include probability, test of statistical hypothesis, T, CHI-SQUARE, F; practices in interpreting results and stating conclusions from sample study, selected topics involving curve fitting, correlation, regression, and analysis of variance. Calculators and the IBM 370 computer will be used as aids in computation and analysis. Prerequisite: STA 101 or permission of instructor Five credits.

# SOCIAL SCIENCE DIVISION

### ANTHROPOLOGY (ANT)

#### ANT 101 INTRODUCTION TO ANTHROPOLOGY

An introduction to nature and scope of anthropology, organic man, race, and the nature of culture. Five credits.

### ECONOMICS (ECO)

# **ECO 100 INTRODUCTION TO ECONOMICS**

A survey course designed to give a non-business major an introduction to basic economics. Five credits.

#### ECO 106 PRACTICAL ECONOMICS FOR WOMEN

A course dealing with many of the issues that women are required to face each day. Issues such as: real estate buying and selling, insurance, estate planning, taxes, employment, consumer credit, social security, car buying and car repair. Resource persons from the community will help in bringing realistic and relevant information that will meet the needs of the students. Three credits.

#### ECO 201 PRINCIPLES OF ECONOMICS

An introduction to American capitalism, national policy, economic stability, and economic growth. Five credits.

#### ECO 202 PRINCIPLES OF ECONOMICS

A study of problems and prinicples of production, distribution, and consumption of wealth. Five credits.

# FAMILY LIFE EDUCATION (FAL)

#### FAL 115 CHILDBIRTH EDUCATION I

Designed for those having their first child; an opportunity for group discussion of the physical and emotional aspects of pregnancy, and post partum period; explores new family relationships, 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. Labor and delivery film is shown and tour of the hospital obstetrical facilities is included. Two credits.

#### FAL 116 CHILDBIRTH EDUCATION II

Designed for those who have had one or more children; an opportunity for group discussion putting past experiences into proper perspective. Additional information provided enabling couples to cope with present pregnancy positively; explores demand of new family relationships (sibling rivalry); and sharing of ideas related to infant care. Promotes better preparation for labor and delivery processed by practicing conscious relaxation, related exercises and types of breathing techniques as taught in Childbirth Education I and III (Lamaze). Labor and delivery film is shown and tour of the hospital obstetrical facilities is included. Two credits.

#### FAL 117 CHILDBIRTH EDUCATION III

Designed for those having their first child. Relaxation, concentration, and breathing techniques for use as active participants during labor and delivery are taught, using the Lamaze method. Also included are topics of discussion outlined in Childbirth Education I (see above description). A Lamaze labor and delivery film is shown and a tour is taken of the hospital obstetrical facilities. Couples preferred. Two credits.

#### **FAL 125 YOUR INFANT**

Acquaints mothers and fathers with normal characteristics of infancy, growth and development, nutrition and feeding, safety, anticipating and preventing accidents and practice of infant resuscitation. Explores and helps with understanding and coping with feelings regarding parenthood. One credit.

#### FAL 126 EARLY INFANCY AND THE NEW MOTHER

Helps mothers develop their confidence in caring for their infant through group discussions about normal characteristics of infancy, growth and development, nutrition and feeding, safety, childhood illnesses, anticipating and preventing accidents. Practice infant resuscitation, learn to make baby foods, participate in mother-infant exercises. Develop ideas of how to identify and meet physical, social and emotional needs of infants. Explores and helps with understanding and coping of feelings regarding motherhood. Mothers will practice post partum exercises. Infants attend group with mothers. Two credits.

#### FAL 129 CREATIVE PARENTING

Parents will become acquainted with normal characteristics of toddlers and preschoolers. Helps with understanding and coping of parent and child interaction as well as feelings concerning parenthood. Exploration of areas of physical, emotional social and intellectual growth and development of children and ways of aiding their development through adequate nutrition, awareness of safety, childhood illnesses, anticipating and preventing accidents, physical activities, language development and toy stimulation. Practice mouth to mouth resuscitation on Resuscibaby. Two credits.

# **GEOGRAPHY (GEO)**

#### GEO 105 WORLD GEOGRAPHY

A study of the world's regions. Emphasis is on culture within regions as well as landform, climate, vegetation, and soils of each region, and how these factors influence man's economic activities. 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 are also treated. Population and economic trends are examined. Three credits.

#### GEO 207 URBAN GEOGRAPHY

Introductory study of geographical factors to development of modern urban areas population growth, land use, environmental deterioration, and future planning. Three crefits.

### GEO 295 INDEPENDENT STUDY IN GEOGRAPHY

This course provides the opportunity for the serious-minded student to engage in intensive research and study on a specified topic under the direction of a qualified faculty member. Two credits.

# HISTORY (HIS)

# HIS 101 HANGUPS FROM WAY BACK—ANCIENT CIVILIZATION

A study of political, social, and cultural development of the Western world and its relationship to the contemporary world. Roman and early Medieval 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 Renaissance, Reformation, absolutism, and early modern theories in politics, society, economics, and revolution, and their relationship to the world of today. Five credits.

# HIS 103 HANGUPS FROM WAY BACK-MODERN CIVILIZATION

Starting with the period after 1815, concentration focuses on modern political, economic, and social events in theory and practice 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.

Please consult a class schedule for both classroom and "individualized" offerings in this course. The individualized form of History of the United States to 1877 is generally available throughout the academic year. This format requires no class attendance, allows entry at anytime, and permits the student to proceed at his or her own pace. Check with the History Instructor or Para-professional for further details. Five credits.

#### HIS 106 HISTORY OF THE UNITED STATES FROM 1865-1950

Continuation of HIS 105 with primary emphasis on political and economic developments after the Civil War. Also surveys international and cultural phases of post-Civil War America. Five credits.

#### HIS 107 HISTORY OF THE UNITED STATES SINCE 1950

A survey of events in the United States since 1950 with emphasis on background to current social, cultural, and political changes. Five credits.

#### HIS 205 HISTORY OF ENGLAND

General survey of English history and England's role in European and world history. Five credits.

#### HIS 206 HISTORY OF CHINA-MODERN PERIOD

A survey of historical development of China in the modern period since 1800. Chinese culture, economy, government and society emphasized. Three credits.

#### HIS 207 HISTORY OF JAPAN—MODERN PERIOD

A survey of historical development of Japan in the modern period since 1800. Japanese culture, economy, government and society emphasized. Three credits.

### HIS 208 TWENTIETH CENTURY EUROPE

An examination of major events and developments of 20th Century Europe; and 19th Century background; origins, course and results of World War I; the Russian Revolution and Soviet regime; Mussolini and Italian Facism; the Weimar Republic in Germany; Adolph Hitler and national socialism; European diplomacy; World War II and Europe in the postwar world. Prerequisite: Sophomore standing or permission of instructor. Five credits.

### HIS 209 HISTORY OF COLORADO AND THE ROCKY MOUNTAIN WEST

A topical study of the Rocky Mountain West emphasizing study and development of Spanish and Indian influences and explorers, fur trading, mining, railroad, farming, and ranching frontiers. Field trips included. Five credits.

# HIS 210 REVOLUTIONARY RUSSIA (1900-PRESENT)

The course will survey Russian history leading to the revolutionary period and examine the changes in the Soviet state since. 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

This course provides the 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. Two credits.

### MAS 100 INTRODUCTION TO MEXICAN AMERICAN STUDIES

Designed to provide an understanding of background and philosophy of Mexican American studies. Also analyzes relative position, difference, and commonalities of the Mexican American community to the general American society. Three credits.

#### MAS 161 HISTORY OF MEXICO I

A study of the significant aspects of Mexican history and civilization from pre-Columbian times to the end of the colonial period. Emphasis will be on the diverse Indian civilizations in Mexico, especially the Aztecs, before 1619, the Spanish conquest, significant events of the Colonial period, and the causes which led to independence. Three credits.

#### MAS 162 HISTORY OF MEXICO II

A study of the historical events from 1821 to the present. Emphasis will be on the growth of the Mexican nation after independence, relations with the United States before and after the Mexican-American War, the Revolution of 1910 and its aftermath. Three credits.

#### MAS 165 CHICANO HISTORY

An examination of the historical events in the American Southwest from the indigenous origins, through the Spanish conquest and colonization and later Anglo Invasion. Emphasis will be on the circumstances which transformed the Mexican from a majority to a minority status. Three credits.

# POLITICAL SCIENCE (POS)

#### 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.

Please consult a class schedule for both classroom and "individualized" offerings in this course. The individualized form of American Government is generally available thoughout the academic year. This format requires no class attendance, allows entry at anytime, and permits the student to proceed at his or her own pace. Check with the Political Science Instructor or Para-professional for further details. Five credits.

# POS 102 COMPARATIVE FOREIGN GOVERNMENT

Governmental systems and political heritage of Great Britain, France, Germany, and the Soviet Union are surveyed. Five credits.

#### POS 105 CONTEMPORARY ISSUES IN STATE AND LOCAL POLITICS

Examination of a variety of political topics of current public interest in northeastern Colorado including tax reform, minority needs, campaign expenditures, county government structure, and others. Topics vary each quarter. Course will encourage contact with area leaders and groups familiar with problems being studied. Some familiarity with state, county, and city government is desirable. 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-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 117 CONTEMPORARY ISSUES IN AMERICAN POLITICS

Encourages students to examine a variety of controversial political topics of current public interest, including welfare and poverty, environment, minority politics, wealth, and political influence. Topics vary each quarter emphasizing reading and discussion. Some familiarity with American government structure desirable. 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 119 CONSUMER SURVIVAL

Community interest course reviewing the politics of the consumer movement coupled with activities designed to sharpen the consumer skills of the class member. Topics covered include a discussion of how the concerned consumer can use the political system to his own benefit, coping with inflation, tenant's rights, getting the most for the money on large-ticket purchases, the management of food, medical, legal, and automobile expenses, protection against unscrupulous business tactics, the handling of defective merchandise, useful consumer publications, and other topics. Three credits.

#### POS 205 INTERNATIONAL RELATIONS

An examination of theories of international politics with a view toward understanding current international problems. Five credits.

#### POS 206 AMERICAN FOREIGN POLICY

An examination of America's strategy in world politics viewed from both the historical and current perspective. Factors and institutions influencing the formation of foreign policy are analyzed and discussed. Five credits.

### PSYCHOLOGY (PSY)

#### PSY 101 GENERAL PSYCHOLOGY

Introduction of principles of human behavior, including personality development, emotions, learning, and other processes. Five credits.

#### PSY 102 PSYCHOLOGY OF ADJUSTMENT

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

#### PSY 103 CHILD DEVELOPMENT

A study of emotional and physical development of the normal child from infancy through childhood. 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 115 HUMANISTIC PSYCHOLOGY

A survey of the 3rd force in Psychology. Concentrating on Gestalt Therapy, Psychosynthesis, Reality Therapy, Bio-energetics, body movement, biofeedback and transactional analysis. Three credits.

#### PSY 205 PSYCHOLOGY OF ADOLESCENCE

A comprehensive study of 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 bio-feedback procedures; and limitations and applications of consciousness altering techniques. Three credits.

#### PSY 211 PARAPSYCHOLOGY I

A broad, experimental introduction to study of psychic phenomena, including ESP, psychokinesis, psychic healing and others. Three credits.

# PSY 212 PARAPSYCHOLOGY II—SEMINAR IN PARAPSYCHOLOGICAL ISSUES

A seminar in selected parapsychological issues including developing psychic awareness, paranormal healing, reincarnation. Students are required to do extensive outside reading and share their research with the class. Films and guest speakers will supplement the course. Prerequisite: Parapsychology I or approval of the instructor. Three credits.

# PSY 216 PSYCHOLOGICAL AND PRACTICAL ISSUES OF SEPARATION AND DIVORCE

This course is designed to assist people in sorting and working through creatively the psychological and practical issues related to separation and divorce. Prerequisite: enrollment limited to persons separated or divorced. Three credits.

#### PSY 227 PSYCHOLOGY OF DREAMS

An examination of Jungian, Freudian, Gestalt and experimental approaches to dream phenomena. Three credits.

#### PSY 237 ASSERTIVENESS TRAINING

Study and practice in asserting individual needs and feelings. Three credits.

# PSY 295 INDEPENDENT STUDY IN PSYCHOLOGY

This course provides the 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. Credit hours (1-3) must be arranged with the Division Chairman and instructor.

# SOCIOLOGY (SOC)

### SOC 101 INTRODUCTION TO SOCIOLOGY

An introduction to major forms of group life, nature of culture, foundations of personality and socialization of the individual member of society. Five credits.

### SOC 105 SOCIOLOGY OF MARRIAGE AND THE FAMILY

Consideration of meaning of marriage as an inter-personal partnership, consideration of factors important in mate selection, marriage readiness, and adjustment of factors important in mate selection, marriage readiness, and adjustment within the family and society. Five credits.

### SOC 106 CONTEMPORARY SOCIAL PROBLEMS

Analysis of process of personal and social disorganization and reorganization in contemporary society. Three credits.

#### SOC 115 SOCIOLOGY OF EDUCATION

Analysis and discussion of various learning situations; underlying values and norms; and organizational and 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 non-work behavior in relationship 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 295 INDEPENDENT STUDY IN SOCIOLOGY

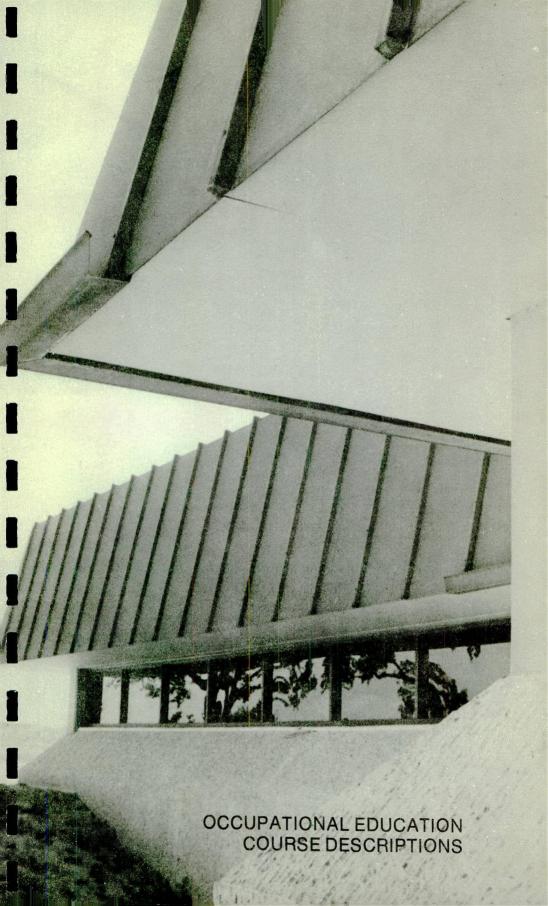
This course provides the opportunity for the serious-minded student to engage in intensive study and research on a specified topic under the direction of a qualified faculty member. Credit hours (1-3) must be arranged with the Division Chairman and instructor.

# MAS 100 INTRODUCTION TO MEXICAN AMERICAN STUDIES

A general course designed to provide an understanding of Mexican American Studies and the background and philosophy behind the department and its courses. Course will also analyze the relative position, differences, and commonalities of the Mexican American community to the general American society. Emphasis given to the relationship of the Chicano education system. Three credits.

# MAS 125 THE AMERICAN SYSTEM

The purpose of this course is the presentation of vital information dealing with citizenship. Special emphasis will be placed on current legislation dealing with Chicanos. Three credits.



# **BUSINESS DIVISION**

# ACCOUNTING (ACC)

#### ACC 101 PRINCIPLES OF ACCOUNTING I

Fundamentals of accounting theory and practice, including a study of the entire accounting cycle, the use of accounting in management decisions. Five credits.

# ACC 102 PRINCIPLES OF ACCOUNTING II

A continuation of ACC 101 emphasizing the study of assets and their valuation and an introduction to accounting for partnerships and corporations. Prerequisite: ACC 101. Five credits.

#### ACC 103 PRINCIPLES OF ACCOUNTING III

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

### ACC 105 PAYROLL ACCOUNTING

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

# ACC 121 INCOME TAX ACCOUNTING I

A study of the important income tax code provisions as they affect individuals and business enterprise. A study of code preparations for tax planning and minimization for individuals and business enterprise. Prerequisite: ACC 102 or permission of instructor. Five credits.

# ACC 201 INTERMEDIATE ACCOUNTING I

An in-depth study of the basic principles and concepts of accounting, giving special attention as to how they 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. Five credits.

#### ACC 205 ACCOUNTING SYSTEMS

A study of flow accounting information within an organization with special emphasis on integration of accounting sub-systems. Prerequisite: ACC 202 or permission of instructor. Four credits.

### ACC 211 COST ACCOUNTING I

A study of fundamental elements of direct and indirect costs of an organization. Emphasis on preparation of cost data for management use. Prerequisite: ACC 103 or permission of instructor. Five credits.

# ACC 245 BUSINESS STATISTICS

Designed to familiarize students with basic concepts of statistics as used in business. Emphasis is on using statistical technique for presentation and utilization of business data. Prerequisite: BUS 115 or permission of instructor. Four credits.

#### ACC 246 FINANCIAL MANAGEMENT

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

# **BUSINESS (BUS)**

#### **BUS 100 AMERICAN BUSINESS SYSTEMS**

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, emphasizing learning the keyboard and parts of the typewriter; proper technique; beginning speed and control development; 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 or one year high school typewriting or speed of at least 30 wpm. 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. Prerequisites: BUS 102 or two years high school typewriting or speed of at least 40 wpm. Three credits.

#### **BUS 106 KEYPUNCH**

Provides knowledge of keying operation as it relates to encoding data for automated processing. Primary emphasis will be placed on developing keying skills acceptable for employment. Prerequisite: BUS 101 or permission of instructor. Three credits.

#### **BUS 113 LEGAL TYPEWRITING**

Production practice in the preparation of legal documents. Typewriting and spelling accuracy of legal terminology are emphasized. Prerequisite: BUS 102. Three credits.

### **BUS 114 MEDICAL TYPEWRITING**

Production practice in the preparation of medical reports, articles, case histories, etc. Medical spelling and medical terminology are emphasized. Prerequisite: BUS 102. 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.). Five credits.

# **BUS 116 ADDING AND CALCULATING MACHINES**

Instruction in operating procedure for full keyboard adding machine, ten-key adding machine, printing calculator, and electronic calculator. Emphasis is on machine application of mathematical problem solving in business. Lab hours may be required. Prerequisite: BUS 115. Two credits.

#### **BUS 125 CONSUMER ECONOMICS**

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

Designed to assist 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 including 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, emphasizing partnership form of ownership. Study of consignment and installment sales, 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 relationship with co-workers and supervisors in order that the office can be organized and run in an efficient manner. Three credits.

# BUS 155 BUSINESS COMMUNICATIONS I

Students develop ability to communicate efficiently, spell, learn names of parts of speech, correct sentence structure, punctuation rules, and business rules for word division. Students develop more extensive vocabularies, and discuss ways these help achieve a successful career. Five credits.

# **BUS 156 BUSINESS COMMUNICATIONS II**

Students develop communication skills to function efficiently in business positions and 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: BUS 155. Three credits.

# **BUS 157 BUSINESS COMMUNICATIONS III**

Students prepare to transmit and receive oral information in business situations. Particular areas of oral communication skill improvement include one-to-one conversation, telephone technique, dictation expertise, group leadership, and listening. Prerequisite: BUS 155. Three credits.

# **BUS 165 FILING AND RECORDS MANAGEMENT**

The course 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. Prerequisite: Ability to type or BUS 101. 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 with analysis of its origin and development and interaction with business. Five credits.

# BUS 275 REAL ESTATE OFFICE PROCEDURES

Designed to acquaint the student 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 102. Three credits.

# EDP 127 PL/I (PROGRAMMING LANGUAGE I)

An elective course in PL/I programming language and its application to both business and scientific problems. Topics parallel EDP 102. Prerequisites: 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 202 ADVANCED ASSEMBLER LANGUAGE PROGRAMMING

Continuation of EDP 201. Topics parallel EDP 102 with addition of program overlays and basic physical I/O coding. Prerequisite: EDP 201. Five credits.

# EDP 237 SYSTEMS ANALYSIS AND DATA MANAGEMENT

To familiarize the student with the organization of data files utilized in business data processing, the physical characteristics of the storage media, and information flows. Additionally 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, 282 COOPERATIVE WORK EXPERIENCE I AND 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 per course.

# MID-MANAGEMENT (MGT)

# MGT 105 SALESMANSHIP

An interpretation of psychological development of persons. Emphásis is on arts of making friends and development of successful relationship between customer and salesman. Five credits.

# MGT 106 PRINCIPLES OF RETAILING

A study of fundamental principles and practices of retail merchandising, including displays. Organization and methods of retail outlets, including independent, department and chain stores. Five credits.

# MGT 107 PRINCIPLES OF ADVERTISING

An introduction to functions of advertising as a merchandising tool including study of copy, media, art work and production. Five credits.

# MGT 116,117,118 MANAGEMENT ACTIVITIES

Designed to encourage growth and development through activities in a professional organization. Two credits per course.

# 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. This course is basic to the preparation of the secretary training for work in a legal office. Emphasis is placed on understanding terminology as well as being able to spell and use the terms correctly. Three credits.

# SEC 111 BEGINNING GREGG SHORTHAND

A beginning course in theory of Gregg Shorthand, Diamond Jubilee Series. Five credits.

### SEC 112 SECOND QUARTER GREGG SHORTHAND

Review of theory to reinforce knowledge and skills; development of speed, vocabulary, and transcription skill. Prerequisite: SEC 111 or one year high school shorthand or permission of instructor. Five credits.

# SEC 113 THIRD QUARTER GREGG SHORTHAND

Further development of dictation speed with dictation and transcription on new material emphasized. Prerequisite: SEC 112 or two years high school shorthand. Five credits.

### SEC 114 ADVANCED GREGG SHORTHAND

Designed to build a shorthand speed to expert levels, plus rapid and accurate transcription, office style dictation, and mailable letter production. Prerequisite: SEC 113. Five credits.

### SEC 121 ALPHABET SHORTHAND

A beginning course in theory of Forkner Alphabet Shorthand, a scientific combination of longhand letters and few symbols to form a system of rapid writing. Designed to develop rapid writing from dictation; transcription skills including spelling, English, and punctuation. Five credits.

# SEC 122 ALPHABET SHORTHAND SPEED BUILDING

Designed to develop speed in taking business letter dictation at employable levels and continuing to develop transcription skill. Prerequisite: SEC 121 or permission of instructor. Five credits.

# SEC 123 ALPHABET SHORTHAND TRANSCRIPTION

Students develop shorthand dictation and reading speed to the highest individual level possible; transcribe rapidly and accurately; extend knowledge of English usage, punctuation, word division, spelling, typewriting, and business vocabulary; and prepare to enter an office position with adequate skill. Prerequisite: SEC 122. Five credits.

# SEC 131 MEDICAL TERMINOLOGY

Students will study basic medical root words, combining forms, prefixes and suffixes and how to relate them anatomically. Oral instruction is given in pronunciation and spelling is emphasized. Three credits.

# SEC 132 ADVANCED MEDICAL TERMINOLOGY

Students will continue to build mastery of medical terminology. Terminology of diseases and operations, symptomatology, drug terms, anesthesia terms, and general hospital terminology will be emphasized. Prerequisite: SEC 131. Three credits.

# SEC 135 ANATOMY AND PHYSIOLOGY

A study of the body, (cells, tissues, organs, cavities and planes) plus sytems of the body on a medical concept. Prerequisite: SEC 131. Three credits.

# SEC 141 LEGAL MACHINE TRANSCRIPTION I

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

# SEC 142 LEGAL MACHINE TRANSCRIPTION II

A continuation of Legal Machine Transcription I. Prerequisite: SEC 141. Three credits.

# SEC 143 MEDICAL MACHINE TRANSCRIPTION I

Accuracy and speed in transcribing medical dictation and the ability to produce accurate medical data through a broad knowledge of medical terms. Prerequisites: BUS 102, BUS 155, SEC 131. Three credits.

# SEC 144 MEDICAL MACHINE TRANSCRIPTION II

A continuation of Medical Machine Transcription I. Prerequisite: SEC 143. Three credits.

# SEC 176 MEDICAL INSURANCE PROCEDURES

Students will complete and file insurance claim forms of all types and learn how to read and follow guidelines. Prerequisites: BUS 102, SEC 131. Three credits.

# SEC 177 INSURANCE TERMINOLOGY AND PROCEDURES

Designed to acquaint the student 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, canceled policies, claims, etc. Primarily for legal secretarial students. Prerequisite: BUS 102. Three credits.

# SEC 215 LEGAL DICTATION AND TRANSCRIPTION

Specialized course for legal reporting and transcription. Students continue to build mastery of legal terminology and forms. Individual tape, programmed dictation is used extensively. Lab hours may be required. Prerequisites: SEC 112 or SEC 122. Five credits.

# SEC 216 MEDICAL DICTATION AND TRANSCRIPTION

Students build mastery of shorthand medical terminology. Medical tapes and programmed dictation are used extensively. Prerequisites: SEC 112, or SEC 122. 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 economics of business. Designed to prepare the student for Certified Professional Secretary test. Two credits.

### SEC 232 CPS REVIEW II

A continuation of CPS Review I. Prerequisite: SEC 231. Two credits.

# SEC 276 MEDICAL OFFICE PROCEDURES

Introduction to routine of a medical office. A study of medical receptionist techniques, medical records and files, and instruction in billing. Designed for medical secretarial students. Prerequisites: BUS 102, SEC 131. 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. Designed for legal secretarial students. Prerequisites: BUS 102, SEC 106. Five credits.

# SEC 281, 282 COOPERATIVE OFFICE OCCUPATIONS I AND II

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

# TECHNICAL DIVISION

# AGRICULTURE CO-OP PRE-MANAGEMENT (AGR)

# AGR 111 AGRICULTURE CO-OP CAREERS I

Designed to give students basic knowledge about various areas in cooperative business, to help students decide in which way they wish to concentrate. Fertilizer and agriculture credit will be covered. 50 clock hours. Field trips included. Five credits.

# AGR 112 AGRICULTURE CO-OP CAREERS II

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. 50 clock hours. 5 credits.

# 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; buy-sell; futures hedging, etc.; and land banks and other credit organizations. 50 clock hours. Field trips included. Five credits.

# 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. 50 clock hours. Field trips included. Five credits.

### AGR 117 FEEDS AND FEEDING

General introduction to basic feeds and their properties and basic livestock and feeding methods. Evaluation on animals relative to weight gain, health, etc. 50 clock hours. Five credits.

# AGR 118 FERTILIZATION AND SOIL

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

# AGR 119 FEED PROCESSING AND GRAIN HANDLING

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

# AGR 125 CHEMICALS

Overview of more common chemicals used in agriculture, their makeup and uses, including sprayer calibrations, spray compounds, and medications. 50 clock hours. Five credits.

# AGR 126 PETROLEUM

This course covers petroleum products sold by most co-ops. It 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. The course mainly covers product information, storage, care and operation of equipment and plant, warranties and selling. Two credits.

# AGR 127 TIRES, BATTERIES AND ACCESSORIES

Product knowledge is a very important part of a good employee's training. This gives the product knowledge needed in tires, batteries, belts, hoses, shocks needed by a service center or station operator. Replacement warranties and customer relations are also covered. Two credits.

### AGR 129 LP CARBURATION

This course provides an overview of the nature, origin and use of LP gas. The carburation system is taught beginning with engine operation covering fuel and combustion. The carburation system covered is: air cleaner, ventilation systems, governors, ignition circuit, adjustments, tests and trouble shooting. Two credits.

# AGR 135, 136, 235 AGRICULTURE ON THE JOB TRAINING

Students work a minimum of 325 hours in an approved work program. Ten credits per course.

# AGR 137 AGRICULTURE CHEMICALS

Agriculture Chemicals is designed to give students a basic understanding of Farm Chemical Terminology, contents of a chemical label, safety rules and factors which influence the performance of some chemicals. 2 or 3 credits. 20 or 30 clock hours.

Students completing this course for Lab Testing Technician (chemistry) must sign up for 3 credit hours. The student will contract with the instructor for one additional hour of credit.

#### AGR 139 FERTILIZER

This course is 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. This course makes use of filmstrip, cassete, and student manual. 3 credits. 30 clock hours.

# AGR 145 FERTILIZER BULK BLENDING

This course covers the blending of fertilizer to use on a per acre basis, blending 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 is Agriculture 139. 2 or 3 credits. 20 or 30 clock hours.

Students completing this course for Lab Testing Technician (chemistry) must sign up for 3 credit hours. The student will contract with the instructor for one additional hour of credit.

# AGR 146 ANHYDROUS AMMONIA

This course 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 is also covered. Prerequisite is Understanding of Soils or Agriculture 139. 2 or 3 credits. 20 or 30 clock hours.

Students completing this course for Lab Testing Technician (chemistry) must sign up for 3 credit hours. The student will contract with the instructor for one additional hour of credit.

# AGR 147 CORN PRODUCTION

Designed to give the student an understanding of how the corn plant grows and how it fits into the farming system. Seed selection and seedbed preparation are also covered. Application of fertilizer or maximum yields coupled with water and soil fertility management gives the student a basic understanding of production of corn for profit. Use of corn as a feed and protection from insects and diseases are also covered. 3 credits. 30 clock hours.

# AGR 148 FEED

This course makes use of cassette and filmstrips to cover basic feed use. Feed utilization and basic rations for livestock are figured using the pearson square method. The correct use of minerals and additives marketed by most co-ops are covered. Two credits.

# AGR 149 PROFITABLE PORK PRODUCTION

This course covers the overall swine program. Special emphases are given to economics, facilities and herd management. The capital needed to conduct a swine enterprise is figured by the student. Two credits.

#### AGR 155 COOPERATIVE ORGANIZATION

This is a beginning course study of 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. The course requires a text and completion of ten unit tests and a final. Two credits.

#### 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.

#### AGR 159 ANIMAL HEALTH

This course 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 of animal health covered. Two credits.

# AVIATION TECHNOLOGY (AVT)

### **AVT 105 AVIATION SEMINAR**

A general study of the field of Aviation which includes theory of flight, history of Aviation, Radio Communication, Aviation in today's economy and Aviation Careers. Designed for students who wish to be commercial pilots. 20 clock hours. Two credits.

# AVT 106 PRIVATE GROUND SCHOOL I

AVT 106 and 107 make up the FAA private pilot ground school. Includes Basic Aerodynamics, Airplane Systems, Air Traffic Control & Communications, Aircraft Weight and Balance, Meteorology, and Federal Air regulations. 30 clock hours. Three credits.

# AVT 107 PRIVATE GROUND SCHOOL II

By the end of this course the student should be able to pass FAA Private Written test. Includes: Basic Navigations & Radio Navigation, Airman's Information Manual, Medical Factors of Flight and review for the FAA test. 30 clock hours. Three credits.

# AVT 115 PRIVATE FLIGHT SIMULATOR

The student will be able to demonstrate a high level of skill in basic attitude instrument flying in the flight simulator upon completion of the course. 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: pre-solo and supervised solo, cross country, emergency procedures and basic instrument flying. The student will have necessary skill and knowledge to pas FFA private check ride upon successful completion of course. 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. The student will have necessary skill and knowledge to pass a phase I flight check upon successful completion of the course. Five credits.

# AVT 219 INSTRUMENT FLIGHT INSTRUCTOR

Theory and practice of teaching basic attitude instrument flying. Instrument flight planning and instructional techniques. The student will be able to the FAA IFI check ride upon successful completion of the course. Three credits.

# AVT 225 MULTI-ENGINE TRANSITION LAB

Principles and procedures of light twin-aircraft, complicated systems, orientation and familiarization, emergency situations. The student will have the necessary skill and knowledge to pass the multi-engine check ride upon successful completion of the course. Three credits.

# CRIMINAL JUSTICE (CRJ)

#### CRJ 105 POLICE PROCEDURES

Study of report forms, department records, use of teletype, crime lab, and orientation to city ordinances. 20 clock hours. Two credits.

# CRJ 115 TRAFFIC CONTROL AND ACCIDENT INVESTIGATION

Model traffic ordinance, state laws enforcement, selective enforcement, parking problems, types of traffic accidents, injuries, fire aid, facts, measurements, citations, court procedures, control, pedestrian, etc. 50 clock hours. Four credits.

# CRJ 130 COMMUNITY RELATIONS

Public relations, minority groups, rumors, prejudice, public support, problem areas, meetings, parades, maches, gatherings. 30 clock hours. Three credits.

# CRJ 135 REPORT WRITING

Importance of note taking, accurate typewritten reports, forms; uses of sketches, diagrams, charts, photos; modus operandi, basic essentials of notes, labeling. 30 clock hours. Three credits.

# CRJ 140 JUVENILE PROCEDURES

A study of organization, functions and jurisdiction of juvenile agencies, juvenile statutes, detension court procedure and case dispostions and Colorado Children's Code; methods to combat juvenile crime. 30 clock hours. Three credits.

# \*CRJ 150 LAW ENFORCEMENT BASIC TRAINING

An intensive introduction to law enforcement: criminal law, evidence, administration of justice, criminal investigation, community relations, patrol procedures, traffic control, juvenile procedures, defensive tactics, firearms, Spanish for officers, and first aid. A certificate of completion is awarded to successful candidates requesting one. 230 clock hours. Twenty credits.

\*The requirement for this course can be alternately met by certification of successful completion of the basic recruit seminar at the Colorado Law Enforcement Training Academy (CLETA).

# 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. 60 clock hours. Five credits.

# 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. 40 clock hours. Three cr

### CRJ 215 EVIDENCE I

A study of law evidence; matters of opinion, fact, expert opinion, physical and oral evidence; rules of evidence including relevancy, competency, direct and circumstantial evidence; hearsay; exception of recognition; collection, identification, and preservation of evidence; and submissions of evidence for lab examination and presentation in court. Prerequisite: CRJ 210 or permission of instructor. 40 clock hours. Three credits.

# CRJ 225 EVIDENCE II

Continuation of CRJ 215. 40 clock hours. Three credits.

# CRJ 231 COURT PROCEDURES

Procedural aspects of courts particularly as law enforcement office is involved. A courtroom setting is employed for presentation of evidence. Includes testifying in court, court practices, cross-examination by defense attorneys, court rulings on admissions of evidence, testimony; execution of search warrants; affidavits, etc. Prerequisite: CRJ 215, CRJ 225 or permission of instructor. 50 clock hours. Five credits.

# CRJ 240 CONSTITUTIONAL LAW SEMINAR

A review of recent Supreme Court rulings relating to performance and responsibilities of law enforcement functions. 30 clock hours. Three credits.

# CRJ 251-255 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-five credits.

# DRAFTING (DRA)

### DRA 121 DRAFTING A

Designed to develop basic drafting skills. Drawing fundamentals (linework, lettering), geometric construction, dimensioning, orthographic projection, sketching, working drawings, and oblique pictorials studied and rendered. 100 clock hours. Seven credits.

### DRA 122 DRAFTING B

Continuation of development of basic skills with emphasis on pictorial drafting, auxiliary views, shadow and shading, sectioning, mechanical fasteners, and production drawings. 100 clock hours. Seven credits.

#### DRA 123 DRAFTING C

Applied vocational drafting in areas of architectural drafting, structural drafting, mapping and topography, electrical and electronics drafting, piping and vessel construction, intersection and development, charts and graphs. 100 clock hours. Seven credits.

# **ELECTRONICS (ELT)**

# ELT 100 INTRODUCTION TO ELECTRONICS

For students who have no previous courses in electricity. Includes electricity; Ohm's law; series, parallel and series-parallel circuits; network theorems; direct-current meters, conductors and insulators, resistors, batteries; magnetism, electromagnetic induction. Lab experiments performed. Obtains partial credit toward ELT 131. 60 clock hours. Four credits.

#### ELT 101 INTRODUCTION TO ELECTRONICS

Second quarter of an introductory series investigating basic principles. Includes alternating voltage and current; inductance, inductive reactance, inductive circuits; capacitance, capacitive reactance, capacitive circuits; alternating current circuits; complex numbers; resonance; filters; electron tubes; transistors. Lab experiments performed. Obtains partial credit toward ELT 132. 60 clock hours. Four credits.

# ELT 103 FCC COMMERCIAL LICENSE REQUIREMENTS

Designed to prepare students for FCC exams for Second Class and Third Class radiotelephone licenses. Also beneficial for students interested in First Class and Amateur ratings. Communications normally covered in FCC licensing exams are studied. Obtains partial credit toward ELT 262. 30 clock hours. Two credits.

#### ELT 105 ELECTRONIC DEVICES

Operating characteristics of active electronic devices and some circuit applications. Emphasizes solid-state including JFET, IGFET, UJT, SCR, DIAC, TRIAC, integrated circuits. LED's, etc., and some coverage of electron tubes. Obtains partial credit toward ELT 132. 60 clock hours. Four credits.

#### ELT 106 ELECTRONICS MATH I

Designed to build proficiency in solving basic math problems associated with electronics. Obtains partial credit toward ELT 131, 40 clock hours. Three credits.

#### ELT 107 ELECTRONICS MATH II

Continuation of ELT 106. Reviews basic algebraic operations, equations, applications, determinants, quadratic equations, graphic relationships, j-operator, exponentials, logarithms, sets, logic, trigonometry, vectors, and phasors. Obtains partial credit toward ELT 132. 40 clock hours. Three credits.

#### **ELT 109 INTRODUCTION TO TRANSISTORS**

First course in transistor characteristics bias and circuit considerations. Common-emitter and common-collector modes stressed. Some discussion of related solid-state devices provided. Obtains partial credit toward ELT 133. 20 clock hours. One credit.

#### ELT 110 SOLID-STATE CIRCUITS I

Introduction of solid-state circuit concepts. Development of analytical and graphic tools for practical application to commonly encountered transistorized circuits. Obtains partial credit toward ELT 133. 60 clock hours. Four credits.

#### ELT 111 SOLID-STATE CIRCUITS II

Continuation of ELT 110. A simplified approach to analyzing solid-state circuits. When preceded by ELT 110, meets requirements for ELT 133. 60 clock hours. Five credits.

### ELT 112 SOLID-STATE PULSE AND LOGIC CIRCUITS

Treatment of pulse and logic fundamentals; passive logic circuitry; switching circuitry; and matrix, counting, and registry circuitry. Designed for electronics technicians who may encounter circuits in television, radar, test equipment, computers and instrumentation. Obtains partial credit toward ELT 263, ELT 265. 60 clock hours. Five credits.

### ELT 113 TRANSISTOR CIRCUIT APPROXIMATIONS I

Deals with semi-conductor circuits using diodes under varying conditions, transistor operations, bias, common-emitter, common base, common collector circuit approximations, graphic analysis, low and high frequency effects, feedback, and multi-stage amplifiers. Obtains partial credit toward ELT 133. 50 clock hours. Four credits.

### ELT 114 Transistor CIRCUIT APPROXIMATIONS II

Continuation of ELT 113. Obtains partial credit toward ELT 133. 50 clock hours. Four credits.

#### ELT 131 AC AND DC FUNDAMENTALS

Physics of electricity, current flow, and direct current circuits. Magnetic and time varying currents introduced. Strongly mathematics oriented and technical math is integrated with study of fundamental principles of basic circuits. Electron devices introduced and lab experiments progress to study of moderately complex circuits. NOTE: ELT 100, ELT 101, ELT 105, ELT 106, AND ELT 107 are an alternative way to meet requirements for ELT 131, ELT 132. 120 clock hours. Nine credits.

### ELT 132 AC AND DC CIRCUIT ANALYSIS

Continuation of AC and DC circuit study. Transient waveform analysis and application of network theorems to complex AC and DC circuits practiced. Circuit simplification through employment of equivalent circuits covered. Technical mathematics is provided as an integral part. Additional electron devices introduced and a number of special circuits are studied to illustrate principles of circuits. Lab experiments provided. Prerequisites: ELT 131 or permission of instructor. NOTE: ELT 100, ELT 101, ELT 105, ELT 106, AND ELT 107 are an alternative way of meeting requirements for ELT 131, ELT 132, 120 clock hours. Nine credits.

# **ELT 133 ELCTRONIC CIRCUITS AND APPLICATIONS**

Analytical and experimental application of active electron devices to various circuits, Solid-state applications emphasized; equivalent circuits, bias, and applications to amplifiers, oscillators, etc. covered. Technical mathematics continues. Lab experiements performed utilizing solid-state devices in both single and cascaded circuits. Prerequisite: ELT 132 or permission of instructor. NOTE: Alternate methods of meeting degree requirements for ELT 133 are either ELT 110 and ELT 111, or ELT 109, ELT 113, and ELT 114, 120 clock hours. Nine credits.

#### ELT 134 INSTRUMENTS AND MEASUREMENTS

Electrical measurements and instrumentation devices studied. Measurement accuracies, techniques, equipments, and principles of design, use and relationships are covered. 50 clock hours. Five credits.

#### **ELT 162 DIGITAL PRINCIPLES**

Includes number systems, Boolean Algebra, and logic circuits including integrated circuits. Obtains partial credit toward ELT 263, ELT 265. 60 clock hours. Five credits.

#### ELT 163 DIGITAL COMPUTER PRINCIPLES

An overview of characteristics and uses of digital computers, and development of understanding of internal works. Includes computer history, uses of computers, types of digital computers, programs, number systems, basic logical circuits, and logical design. Obtains partial credit toward ELT 263, ELT 265. 60 clock hours. Five credits.

### ELT 165 LOGIC DESIGN OF DIGITAL EQUIPMENT

Oriented for use of digital integrated circuits; reviews basic tools of logic designer and builds high proficiency in their use. A review of number systems and Boolean algebra; minimization aids, digital integrated circuits, combinational logic, sequential networks; pulsed sequential networks; flip-flop programming, flip-flop counters, special purpose functions. Obtains partial credit toward ELT 263, ELT 265. 60 clock hours. Five credits.

### ELT 261 INDUSTRIAL ELECTRONICS I

A study of circuits and systems commonly employed in industry. Mathematical orientation continues. Transfer functions of circuits and systems developed. 100 clock hours. Eight credits.

#### ELT 262 COMMUNICATION CIRCUITS

Continuation of ELT 133, covering receiver and transmitter circuits. Transistor use in communication circuits and principles of operation of various classes of circuits emphasized. Prerequisite: ELT 133 or permission of instructor. Partial credit may be obtained by ELT 103. 80 slock hours. Six credits.

### ELT 263 INTRODUCTION TO DIGITAL COMPUTERS

Emphasis on principles of operation and circuitry in digital computers, binary number system, and Boolean algebra. Computer circuit and sub-systems stressed. Prerequisite: ELT 133 or permission of instructor. NOTE: Degree requirements for ELT 263, ELT 265 may be alternately met by ELT 112, ELT 162, and ELT 165; or ELT 112, ELT 163, AND ELT 165. 100 clock hours. Eight credits.

### **ELT 264 COMMUNICATION SYSTEMS**

Continuation of ELT 262 covering transmission methods, transmission lines, antennas and introducing microwave systems. Systems used to transmit information from one point to another and using radio frequency techniques emphasized. Prerequisites: ELT 262 or permission of instructor. 40 clock hours. Three credits.

#### ELT 265 DIGITAL COMPUTERS II

Review of binary arithmetic; study of Boolean algebra and digital logic; mechanizing logical functions in terms of computer hardware. Experiments conducted where gating, counting, series and parallel operations, encoding, decoding, and software are studied and practiced. Prerequisite: ELT 263 or permission of instructor. NOTE: Degree requirements for ELT 263, ELT 265 may be alternately met by ELT 112, ELT 162 and ELT 165; or ELT 112, ELT 163 and ELT 165. 80 clock hours. Six credits.

# ELT 266 ELECTRONIC DESIGN AND FABRICATION

Proper chassis layout and equipment arrangements (packaging); building a functional electronic unit of an approved type is undertaken. 40 clock hours. Three credits.

# ELT 267 INTRODUCTION TO NEW ELECTRONIC INDUSTRY DEVELOPMENTS

New devices, including development in general. Students are encouraged to assist in literature searches for information on new developments and devices, and make class presentations. Current hiring practices and conditions, desirable employee attitudes, proper conduct during an interview, typical entrance exam questions, etc. are discussed. 30 clock hours. Three credits.

# 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. 30 clock hours. Three credits.

### ELT 269 INDUSTRIAL ELECTRONICS II

Industrial electronics application continued; additional considerations of motor controllers, process control, closed-loop systems, and analytical methods presented. 40 clock hours. Three 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. 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.

# FS 104 FIRE COMPANY ORGANIZATION AND PROCEUDRE

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

# FS 106 FIRE FIGHTING TACTICS AND STRATEGY

Review of fire chemistry, equipment and manpower; basic fire fighting tactics and strategy; methods of attack; preplanning fire problems. Three credits.

#### FS 108 FIRE HYDRAULICS

Review of basic mathematics; hydraulic laws and formulas as applied to the fire service; application of formulas and mental calculation to hydraulic problems; water supply problems; underwriters' requirements for pumps. Three credits.

# 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.

### FS 112 DEFENSIVE DRIVING FOR FIREMEN

Familiarization with national, state and local driving laws; emergency vehicle driving techiques with emphasis on safety. Three credits.

# FS 190 ADMINISTRATION OF JUSTICE AND COURT PROCEDURES

Study of processes of criminal justice and procedures of local, state and federal courts; organization and jurisdiction. Criminal justice in Colorado, conduct of trials, right of accused, motions and appeals studied. Five credits.

# FS 199 FIRE COMMAND OFFICER TRAINING SCHOOL

A comprehensive three-day Commad Officer Training Seminar and Workshop. Conducted during the summer quarter utilizing nationally known speakers in Fire Service Management, Comand Strategy and Company Operations. Three credits.

# FS 202 FUNDAMENTALS OF FIRE PREVENTION

Prerequisite: FS100 Introduction to Fire Science and Suppression. Organization and function of the fire prevention organization; inspections; surveying and mapping procedures; recognition of fire hazards; engineering a solution of the hazard; enforcement of the solution; public relations as affected by fire prevention. Three credits.

#### FS 204 RELATED CODES AND ORDINANCES I

Familiarization with national, state and local laws and ordinances which influence the field of fire prevention, with emphasis on building codes. Three credits.

### FS 205 RELATED CODES AND ORDINANCES II

Prerequisite: FS 204 Related Codes and Ordinances I. Continuation of Related Codes and Ordinances I with an emphasis on life safety and fire prevention codes. Three credits.

#### FS 206 RESCUE PRACTICE

Rescue practices, rescue skills and techniques; rescue tools and equipment with emphasis on auto accident extraction; building collapse, cave-in and landslide and other rescue problem procedures. Three credits.

# FS 207 APPLIED CHEMISTRY FOR FIREMEN

A basic practical course in chemistry designed specifically for firemen. Various materials which the firemen encounter will be discussed. Three credits.

### FS 208 HAZARDOUS MATERIALS I

Prerequisite: FS 207 Applied Chemistry for Firemen. A review of basic chemistry, storage, handling, laws, standards and fire fighting practices pertaining to hazardous materials. Three credits.

# FS 209 HAZARDOUS MATERIALS II

Prerequisite: FS 208 Hazardous Materials I. Continuation of the study of hazardous materials covering storage, handling laws, standards and fire fighting practices with emphasis on fire fighting and control at the company officer level. Three credits.

# FS 212 FIRE PROTECTION EQUIPMENT AND SYSTEMS.

Portable fire extinguishing equipment requirements. Sprinkler systems, types, installation and maintenance and special protection systems for various hazards. Three credits.

# FS 214 FIRE DEPARTMENT ADMINISTRATION

Prerequisite: FS 104 Fire Company Organization and Procedure. Consideration of basic concepts and principles of administration applicable to the organization and administration of an efficient fire department. Three credits.

# FS 216 PRIVATE FIRE PROTECTION SYSTEMS

Prerequisite: FS 212 Fire Protection Equipment and Systems. An analysis of private protection and alarm systems. Course covers organization and operation of private Fire Brigades, complete water system layouts. A study and evaluation of Fire Detection, Alarm and Supervisory Systems. Three credits.

#### FS 218 FIRE INVESTIGATION

Introduction to arson and incendiarism, arson laws 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.

#### FS 220 FIRE INSURANCE

An anlaysis of the fire insurance rating structure. Elements involved in establishing insurance rates. The grading system for cities and town, the classification of cities and town, and hazard factors in occupancy, construction and exposures. Three credits.

# FS 222 FIRE SERVICE TRAINING TECHNIQUES

Familiarization with the modern concepts of instruction; methods of organizing, planning and conducting fire service training. Study and evaluation of objective writing and student motivation. Introduction to audiovisual teaching techniques. Three credits.

#### FS 230 BLUEPRINT READING FOR FIREMEN

This course will give the student a working knowledge of blueprint reading and sketching as applied to the construction industry. Building terms and abbreviations are taught along with symbols and conventions for other major trades. Construction features, beginning with details of component parts and advancing to a complete set of working drawings. Three credits.

### FS 297 COOPERATIVE WORK EXPERIENCE (Elective)

In the Fire Science Technology program, cooperative work experience is a part of the course of study. The student is placed at a work station, somewhere in the Metropolitan Denver area, which is related to his educational program and occupational objective. He works under the immediate supervision of experienced personnel at the business, industry or agency involved, with a college instructor providing coordination. Prerequisites for enrollment in Cooperative Work Experience are permission of the instructor and approval of the Division Director. The amount of time spent in Cooperative Work Experience will vary to meet student's individual needs. One to six credits.

# FS 299 INDEPENDENT STUDY (Elective)

This course provides opportunity for a student to study intensively a specific topic of interest under the direction of a qualified faculty member. Permission to enroll for independent study must be obtained from the Division Director and the assigned instructor. The number of credit hours to be allowed for successful completion of the course will be determined cooperatively by the instructor and the Division Director. One to six credits.

# LABORATORY TESTING TECHNOLOGY (CHT)

### CHT 101 CHEMICAL TESTING TECHNOLOGY I

Review of basic precautions, laboratory hazards and first aid, proper record keeping, how to use analytical balances, burners, other equipment and laboratory glassware. Some standard ASTM techniques and methods will also be used. Lecture: 30 hrs. Lab: 40 hrs. Five credits.

# CHT 102 CHEMICAL TESTING TECHNOLOGY II

Designed to develop basic laboratory skills in drying operations, physical property determination, colorimetric and radiological instrumentation, and to develop skills with chemical calculations, slide rule and electronic calculators. Lecture: 30 hrs. Lab: 40 hrs. Five credits.

# CHT 103 CHEMICAL TESTING TECHNOLOGY III

Oriented toward separations and naming of chemical compounds, detection of compounds by spot plate, spectrophotometer, polarimeter and gas chromatograph. Lecture: 30 hrs. Lab: 40 hrs. Five credits.

#### CHT 201 CHEMICAL TESTING TECHNOLOGY IV

Designed to teach use of technical libraries, repair of simple glassware, perform analytical titrations, volumetric and electrometric. Water analysis procedures will also be performed. Lecture: 30 hrs. Lab: 40 hrs. Five credits.

#### CHT 202 CHEMICAL TESTING TECHNOLOGY V

Intensive training in use of gas chromatograph—UV-Vis and AA spectrophotometer. Electrophoresis methods. Natural organic products and synthetic polymers will be analyzed. Lecture: 30 hrs. Lab: 40 hrs. Five credits.

### CHT 203 CHEMICAL TESTING TECHNOLOGY VI

Deals with electrochemistry, electrometers, NMR spectrophotometer and mass spectrophotometer and analytical methods associated with these instruments. Lecture: 30 hrs. Lab: 40 hrs. Five credits.

# MECHANICAL AND CIVIL ENGINEERING TECHNOLOGY (MCE)

The block of courses MCE 101, 102, 103 and 104 (16 credits) is equivalent to the block of MCE 111, 112 and 113 (15 credits).

#### MCE 101 DRAFTING FUNDAMENTALS (EVENING)

Initial development of basic drafting skills i.e., lettering, understanding and display of line symbols in pencil and ink, use of scales and conventional instruments. 60 clock hours. Four credits.

#### MCE 102 DIMENSIONING AND PICTORIAL DRAFTING

Continuation of basic skill development (MCE 101), i.e., line symbols, lettering, etc. Primary purpose is introduction and practice of pictorial drawing, when combined with auxiliaries and associated dimensioning and detailing. Shadow and shading are introduced, 60 clock hours. Four credits.

#### MCE 103 DRAFTING GRAPHICS

Continuation of basic skill development (MCE 102) within the following areas of concentration: sectioning, auxiliary views, revolution and rotation and working drawings. 60 clock hours. Four credits.

#### MCE 104 TECHNICAL DRAFTING

Continuation of basic skill development (MCE 103) within the following areas of concentration: mechanical posture, intersection and development, and charts and graphs. 60 clock hours. Four credits.

### MCE 105 STATICS AND MECHANICS

Basic principles of analytic mechanics. Simple stresses analyzed with reference to design criteria. Structures and joining members studies relative to available strength. 60 clock hours. Five credits.

#### MCE 111 DRAFTING I

Development of basic drafting skills, emphasizing elementary care and use of instruments and equipment. Principles of descriptive geometry emphasizing accepted industrial practices and applications in orthographic multi-view engineering drawings studied. 80 clock hours. Five credits.

#### MCE 112 DRAFTING II

Continuation of MCE 111, emphasizing pictorial and multi-view drawing. Technical sketching, auxiliary views, shadow and shading, revolution and detail working drawings studies. 80 clock hours. Five credits.

#### MCE 113 DRAFTING III

Continuation of MCE 112 emphasizing sectioning, mechanical fasteners, intersections and developments, charts and graphs, and applications of these in working and production drawings. 80 clock hours. Five credits.

#### MCE 201 DRAFTING IV

Continuation of MCE 113 or MCE 104 emphasizing working drawings in architecture, structural, electronic and electrical, welding and topographic areas. 80 clock hours. Five credits.

#### MCE 202 DRAFTING V

Continuation of MCE 201 emphasizing basic engineering design problems primarily of a civil and mechanical nature developed and solved. Emphasis is on design and procedures and graphic solutions to production drawing. 80 clock hours. Five credits.

#### MCE 203 DRAFTING VI

Continuation of MCE 202 utilizing knowledge of mathematics, sciences and to some practical problems of machine component design (gears, cams, shafts, etc). Elements designed are analyzed regrading function, geometry and cost of manufacture. 80 clock hours. Five credits.

### MCE 206 HYDRAULICS AND PNEUMATICS

Basic study of components of hydraulic and pneumatic systems. Emphasis on application of power transmission and control. Subject areas treated scientifically emphasizing mathematical analysis required for practical application. 60 clock hours. Five credits.

### MCE 207 MATERIALS AND PROCESSES

Ferrous and non-ferrous materials in industry studied from manufacturing and application standpoints. Processing and manufacturing backgrounds developed. 60 clock hours. Four credits.

# MCE 208 STRENGTH OF MATERIALS

A study of physical properties of material, stress and strain, tension, compression and shear, and their effects. 50 clock hours. Four credits,

### MCE 209 ENGINEERING PROBLEMS

Practical solutions to various manufacturing and construction problems developed. Investigative techniques determinant in problem solutions developed. Multi-industry concern emphasized with applicable engineering approaches developed. 50 clock hours. Five credits.

#### MCE 211 BASIC FIELD SURVEYING I

Basic surveying equipment and its uses presented. Compatible data gathering and presentation skills developed. Computations relative to surveying studied and practiced. 30 clock hours. Two credits.

### MCE 212 BASIC FIELD SURVEYING II

This course is a continuation of MCE 211. The student will become proficient in fundamental surveying techniques, as well as in care and maintenance of equipment involved. Prerequisite: MCE 211 or permission of instructor. 60 clock hours. Four credits.

# NURSE ASSISTING AND HOME HEALTH AIDE (NA)

### NA 100 NURSES' 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. 210 clock hours, theory and clinical application. Seventeen credits.

#### 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; and legal aspects of emergency care, the ambulance and its equipment. 81 clock hours. Seven credits.

# WARD CLERK (WCL)

#### WCL 106 WARD CLERK

The successful student will be able to function effectively as a unit receptionist, assist in maintaining patient's records, accurately transcribe physician's orders, maintain supplies, and coordinate services to the patient and communicate effectively with patients, visitors and staff. 170 clock hours, theory and clinical application. Fourteen credits.

# VOCATIONAL TECHNICAL RELATED (VTR)

#### VTR 101 BASIC TECHNICAL MATHEMATICS

A basic arithmetic review with introduction to applied algebra and formula application.

70 clock hours. Six credits.

#### VTR 102 APPLIED TECHNICAL MATHEMATICS

Continuation of VTR 101 with treatment of applied algebra, geometry and introduction of applied trigonometry, 70 clock hours. Six credits.

### VTR 103 INDUSTRIAL COMMUNICATIONS

Students recognize importance of communication in industry, good and poor practices and improvement of communications abilities with emphasis on oral communications. 30 clock hours. Three credits.

# VTR 105 INDUSTRIAL ORGANIZATIONS AND INSTITUTIONS

Students gain an overall view of development of American business and industry, recognizing relationships with companies, unions, government, and financial institutions. 30 clock hours. Three credits.

#### VTR 106 INDUSTRIAL ECONOMICS

A study of basic practices of industrial management relating to economics, with emphasis on practical applications in business and industry. 30 clock hours. Three credits.

#### VTR 107 ELEMENTS OF TECHNICAL WRITING

Effective technical communication is stressed in proper maintenance of engineering notebooks, trip reports, experimental findings, technical procedures, specifications, resumes, applications and formal technical reports. 30 clock hours. Three credits.

### VTR 108 INDUSTRIAL PHYSICS I

Principles of precision measurement and applied mechanics are studied. Properties of materials (solids, liquids, gases), forces and motion, work, energy, power, friction and rotation and their applications are presented. Mathematical proficiency in solving problems involving all principles examined is developed. Two hours lab. 70 clock hours. Five credits.

#### VTR 109 INDUSTRIAL PHYSICS II

Fundamentals of heat, light and sound are studied, emphasizing understanding principles involved and mathematics proficiency in industrial applications. 70 clock hours. Five credits.

#### VTR 204 ELECTRONICS DRAFTING

Initial development of basic electronic drafting skills: lettering, line symbols, component outlines. electrical diagrams, pictorials and electro-mechanical design, and scales and drawing instruments use. 40 clock hours. Three credits.

#### VTR 206 INDUSTRIAL RELATIONS

Basic industrial relations examined from the employee perspective relative to management expectations as well as the responsibilities of front line supervision. 30 clock hours. Three credits.

#### VTR 207 COST AND MATERIAL ESTIMATING

Techniques and procedures are studied and applied relative to technical projects for construction and manufacturing. 30 clock hours. Three credits.

# VTR 208 COMPUTER SYSTEMS AND APPLICATIONS

A study of 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: Sophomore preferred or permission of instructor. 50 clock hours. Four credits.

# TRADES AND INDUSTRY DIVISION

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

#### ABR 190 INTRODUCTION TO AUTO BODY

The course will introduce the student to modern shop tools, methods and procedures. Emphasis will be on safety and an understanding of the automobile body repair profession. Upon completion the student will have a basic Auto Body Skill. 30 clock hours. Two credits.

#### ABR 101 AUTO BODY WELDING

The student will be able to properly set up a gas welding unit and be able to make lap, butt, T joints, flat, and lap, butt vertically. 60 clock hours. Four credits. Prerequisites: None.

#### ABR 102 BASIC STRAIGHTENING

The students will be able to identify types of damage and use the hand tool and power equipment necessary for repairing minor damage and major door damage. They will use plastic filler on the larger areas of repair. 60 clock hours. Four credits. Prerequisites: ABR 101 or instructor approval.

#### ABR 103 BASIC REFINISHING

The student will become familiar with refinish material, equipment, and their uses. They will prime, sand, and apply top coats using proper methods. 60 clock hours. Four credits. Prerequisites: None.

#### ABR 111 DAMAGE REPAIR

The students will be able to identify auto panels and use power tools and equipment necessary to repair the damage on an auto. The will remove and replace interior and exterior trim as needed to complete the repair. 60 clock hours. Four credits. Prerequisites: ABR 102, ABR 141, or instructor approval.

### ABR 112 PANEL REPLACEMENT

The students will remove, replace and align damaged panels using proper tools and equipment. 60 clock hours. Four credits. Prerequisites: ABR 111 or instructor approval.

#### ABR 121 ELECTRICAL AND ALIGNMENT

The student will be able to diagnose minor electrical malfunctions resulting from collision damage using a continuity light. They will also be familiar with the use of the front end alignment equipment and methods of aligning a front end. 60 clock hours. Four credits. Prerequisites: None.

#### ABR 122 ADVANCED REFINISHING

The students will properly sand and prime, mask and seal and refinish a car using any of the finishes used today. 60 clock hours. Four Credits. Prerequisites: ABR 103 or instructor approval.

# ABR 123 DAMAGE APPRAISAL (ESTIMATING)

The students will become familiar with the manuals, forms and procedures of writing estimates. 40 clock hours. Four credits. Prerequisites: ABR 121.

#### ABR 141 AUTO BODY REPAIR I

The student will be able to weld lap, butt, and tee joints, flat and vertically. He will be able to remove small dents with pick and file method without the use of fillers, progressing to a severe or major door damage using power equipment and fillers to repair damage. He will also repair damage area using proper priming, sanding and color application techniques. 150 clock hours. Twelve credits.

#### ABR 142 AUTO BODY REPAIR II

The students will be able to identify the panels on an auto and to use power tools in the repair, replacement, and alignment of damaged panels. He will remove and replace interior and exterior trim as necessary for completion of the repair. The student will also refinish partial and complete panels. 150 clock hours. Twelve credits.

#### ABR 143 AUTO BODY III

The student will be able to diagnose minor electrical malfunctions in circuits using continuity lites. The student will also properly sand, prime, mask, and seal and refinish a car using any of the types of finishes used today. He will become familiary with the use of the front end alignment equipment and methods used in aligning the front end while becoming familiar with the manuals and procedures of writing estimates. 150 clock hours. Twelve credits.

#### ABR 151 AUTO REFINISH I

The students will become familiar with the refinish materials, solvents, primers, sand papers, top coats and the uses of each. They will become familiar with the tools, spray gun, sanders, transformers, air compressors and accessories. 150 clock hours. Twelve credits.

### ABR 152 AUTO REFINISH II

The student will sand, prime, mask, seal and apply top coats to partial and complete panels with proper color matching using acrylic enamels and acrylic lacquer paints. 150 clock hours. Twelve credits.

#### ABR 153 AUTO REFINISH III

The student will do prep and application of top coats on complete autos in both lacquers and enamels. 150 clock hours Twelve credits.

#### ABR 201 QUARTER PANEL REPLACEMENT

The students will be able to remove and replace a quarter panel, repair inner panels and reinforcements. They will align the sheet metal and complete the job including refinishing. 60 clock hours. Four credits. Prerequisites: ABR 123, ABR 143, or instructor approval.

#### ABR 202 BASIC SHEET METAL RELACEMENT

The students will be able to remove and replace a door skin, and front sheet metal including alignment and refinishing: 60 clock hours. Four credits. Prerequisites: ABR 201 or instructor approval.

# ABR 203 ADVANCED SHEET METAL REPLACEMENT (continuation of ABR 202 and ABR 201)

The students will be able to remove and replace door skin, and front sheet metal including alignment and refinishing. The will also be able to remove and replace a quarter panel, repair inner panels and reinforcements. They will align the sheet metal and complete the job including refinishing. 60 clock hours. Four credits.

Prerequisites: ABR 202, or ABR 201 or instructor approval.

#### ABR 211 BASIC FRAME REPAIR

The student will be able to identify and diagnose types of frames and damage. They will be familiar with reinforcement and replacement methods. 60 clock hours. Four credits. Prerequisites: ABR 203, ABR 242 or instructor approval.

#### ABR 212 CONVENTIONAL FRAME REPAIR

The students will be familiar with the equipment and methods used to repair and align conventional frames. 60 clock hours. Four credits. Prerequisites: ABR 211 or instructor approval.

#### ABR 213 UNITIZED FRAME REPAIR

The students will be familiar with the equipment and repair methods used in the alignment of the unitized body. 60 clock hours. Four credits. Prerequisites: ABR 212 or instructor approval.

#### ABR 221 AUTO BODY REBUILDING I

The students will be able to repair an auto with severe damage "total" and do all required operations to completely finish the auto making it road worthy. 60 clock hours. Four credits. Prerequisites: ABR 213, ABR 242, or instructor approval.

#### ABR 222 AUTO BODY REBUILDING II

The students will be able to repair an auto with severe damage "total" and do all required operations to completely finish the auto making it road worthy. 60 clock hours. Four credits. Prerequisites: ABR 221.

# ABR 223 AUTO BODY REBUILDING III (continuation of ABR 222)

The students will be able to repair an auto with severe damage "total" and do all required operations to completely finish the auto making it road worthy. 60 clock hours. Four credits.

#### ABR 241 AUTO BODY REPAIR IV

The student will be able to remove, replace, and align weld on body panels such as quarter panels, door skins, rear body panels and the complete replacement of front sheet metal and its alignment. They will be able to straighten or repair damaged inner structures using power equipment and tools. The job will be completed including refinish work, by the student. 150 clock hours. Twelve credits.

#### ABR 242 AUTO BODY REPAIR V

The student will be able to identify and diagnose types of frames and damages. They will be familiar with the repair methods and equipment used in the alignment of conventional and unitized frames and bodies. 150 clock hours. Twelve credits.

#### ABR 243 AUTO BODY REPAIR VI

The student will be able to repair an auto with sever damage "total" and do all required operations to completely finish the auto having it road worthy. 150 clock hours. Twelve credits.

# AUTOMOTIVE MECHANICS TECHNOLOGY (AMT)

# AMT 190 INTRODUCTION TO AUTOMOBILE MECHANICS

The course will introduce the student to modern shop tools, methods and procedures. Emphasis will be on safety and an understanding of the automotive mechanics profession. Upon completion the student will have a basic knowledge of Automobile Mechanics. 30 clock hours. Two credits.

# AMT 125 AUTO CERTIFICATION REFRESHER

To prepare professional auto mechanics for certification tests given by National Institute for Automobile Service Excellence. 16 clock hours. One credit.

# AMT 131 BRAKES, TRANSMISSIONS AND FINAL DRIVES

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 they will overhaul standard transmission, clutches, drive shafts, and differentials. 150 clock hours. Twelve credits.

#### AMT 132 STEERING AND SUSPENSION SYSTEMS

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. They also perform complete chassis lubrication and make car body service adjustments such as doors, hoods, and truck lids normally performed by automotive mechanics. 150 clock hours. Twelve credits.

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

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 systems, and ignition systems are covered. Use of modern scientific test equipment in diagnosis of performance problems is stressed. Equipment such as vacuum gauge, tachometer, dwell meter, ohmmeter, distributor strobscope, oscilloscope, exhaust analyzer, and all types of engine testers are used. 150 clock hours. Twelve credits.

#### AMT 231 AUTOMOTIVE ENGINES

Students learn construction, operation, parts identification, and service procedures on all types of modern automotive engines. Study of cooling and lubricating systems included. Students begin on mock-up units and progress to actual automobiles. They begin with minor jobs like valve adjustment or gasket replacement and progress to a complete engine overhaul. 150 clock hours. Twelve credits.

### AMT 232 ADVANCED ELECTRICAL AND SHOP PRACTICE

Students learn theory, diagnosis, and repair of all automotive electrical units including batteries, starters, generators, alternators, regulators, electrical accessories, wiring, and instruments. Students learn how to use latest electrical testing equipment to diagnose problems in automotive electrical units and circuits. 150 clock hours. Twelve credits.

#### AMT 233 AIR CONDITIONING AND COMFORT CONTROLS

Students learn basic theory of refrigeration systems components, and evacuation, charging, and testing automobile air conditioners. They solve simulated problems on late model air conditioners. Heaters and defrosters are also covered. 50 clock hours. Five credits.

#### AMT 234 AUTOMATIC TRANSMISSIONS AND ADVANCED SERVICE PRACTICE

Students learn principles of hydraulics, planetary gear sets, and power flow through modern automatic transmissions. Students gain experience in disassembly, inspection, replacement or simulated replacement of defective parts, and complete diagnosis of functions of each component. All late model types of automobile transmission covered. 150 clock hours. Twelve credits.

# BUILDING CONSTRUCTION (BCS) & (BCT)

### BCS 190 INTRODUCTION TO BUILDING CONSTRUCTION

The course will introduce the student to the Building Trades profession. Emphasis will be on safety and an introduction to building trades tools and equipment, methods and procedures. Upon completion the student will have a basic knowledge of Building Construction. 30 clock hours. Two credits.

# BCS 111 BUILDING CONSTRUCTION I

Upon completion of this course the student will be proficient in the use of tools as required in the following areas. The student will be able to cut and assemble concrete forms as well as place and finish the concrete. He will be able to cut, assemble, erect, and brace various members of sections of floor frames, stud walls, and roof frames. He should be able to layout and cut common rafters. The student will be able to cut and install cornice members, set windows, and lay shingles. 120 clock hours. Nine credits.

#### **BCT 115 CONCRETE**

Upon completion of this course the student will be able to define concrete and list the materials and proportions of a workable mix; define placing and finishing terms; identify the methods and tools used in both formed and flat work. He will be able to define and give the purposes for foundation and forming terms; identify the parts of a form and the types of foundations with different footings. 20 clock hours. Two credits.

#### BCT 117 BASIC TOOLS AND MATERIALS

Upon completion of this course the student will be able to recognize various tools and make selections for their general use, maintain safe efficient storage habits; be able to sharpen chisels, bits, and planes, and retip screwdrivers. He will be able to identify various work products and describe their general uses according to grade and quality; identify the various builders hardware and describe their uses; identify and give general uses of construction adhesives and glue. 20 clock hours. Two Credits.

#### BCT 121 FRAMING I

Upon completion of this course the student will be able to identify the various framing members of a house and the most commonly used materials for these members. He will possess the knowledge necessary to list materials, measure, cut, and install any member of a floor or wall frame, common to residential construction. He will possess the knowledge required to measure and layout a common rafter in the construction of a roof. 30 clock hours. Three credits.

#### BCS 122 BUILDING CONSTRUCTION II

Upon completion of this course the student will be able to apply siding; install insulation; hang and finish gypsum wall boards; lay masonry units as a part of the exterior finish; lay concrete walls and other exterior surfaces. He will be able to paint and finish the exterior trim and siding of a house. 120 clock hours. Nine credits.

#### **BCT 125 EXTERIOR**

Upon completion of this course the student will be able to identify the different cornices and their members and list the materials needed for a cornice; recall various roofing materials and determine the proper roofing to use; list the materials needed for a roof; identify various siding materials and list the siding materials for a house. He will be able to identify the basic styles of windows and their purposes; determine the rough opening sizes of windows according to manufacturer's specifications, and be familiar with the methods of installing windows. He will be required to identify the styles, uses, and sizes of doors with rough opening sizes for each. 20 clock hours. Two credits.

#### BCT 126 MASONRY

The student will learn the types of masonry and be able to list the uses of each. He will know the mortar requirements and mixes for various masonry units or jobs, be able to list the methods and techniques involved in laying bonds with various materials and units. The student will have knowledge relating to the use and care of masonry tools. He will be required to list the masonry materials needed for a building project. 20 clock hours. Two credits.

### **BCT 127 INTERIOR FINISH**

The student will be able to define terms used in insulation, drywall, and interior flooring. He will identify the materials and their purposes in these three areas. He will become familiar with the tools and techniques used in installing insulation, doing drywall work, and laying interior floors. He will list the materials needed in each of these three areas for a construction project. 20 clock hours. Two credits.

### BCT 131 BASIC MATH AND ESTIMATING

The student will cover basic math in whole numbers, fractions, decimals, percentages, and measurements. He will solve problems relating to carpentry and other construction trades continuing into material estimating for various phases of residential construction. 30 clock hours. Three credits.

#### BCS 133 BUILDING CONSTRUCTION III

Upon completion of this course the student will be able to set door jambs, hang doors, install hardware, install paneling, case openings and install base trim, cut, assemble, and install cabinets and built-ins, paint and finish interior walls and trim. He will be able to do final touch up to the exterior portions of a building. 120 clock hours. Nine credits.

#### BCT 135 INTERIOR TRIM AND CABINETS

The student will list the materials needed in the following areas. He will know the various styles and purposes of interior doors, be able to determine rough opening sizes, and become familiar with the techniques of installing doors and hardware. He will be required to identify various moldings and trim, and be familiar with the techniques of fitting them. He will know the basic measurements used in closets, cabinets, and other built-ins. The student will sketch and give detailed measurements for various cabinets. He will become familiar with the styles and methods used in cabinet design and construction. 20 clock hours. Two credits.

#### BCT 136 PAINTING AND FINISHING

The student will learn the types of paints and finishes to be used and will list the materials needed for both exterior and interior work in this area. He will learn proper mixing and application techniques, as well as proper use and care of equipment. 10 clock hours. One credit.

#### BCT 141 BASIC ARCHITECTURAL DRAFTING AND PRINT READING

The student will be able to analyze building plans and their requirements; learn basic drafting procedures including lettering line work, methods of projection, dimensioning systems and graphic symbols; sketch floor plans and elevations; do instrument drawings. 30 clock hours. Two credits.

#### BCT 160 ORIENTATION TO BUILDING CONSTRUCTION

Upon completion of this course a new student in the Building Construction Program will be aware of the intent and areas of training to be covered. He will be aware of the purposes and objectives of the Building Construction Program, and know the student requirements and the procedure which his training will follow. The student in this course will be required to score at least 85% on a written test in the knowledge of safety basic to the training program. Upon completion the student will be assigned to a training class which best suits his individual needs. 10 clock hours. One credit.

#### BCS 211 BUILDING CONSTRUCTION IV

Upon completion of this course the student will be proficient in laying out a building site, locating foundations and setting elevations. He will be able to layout, set, and align concrete forms as well as being proficient in the placement and finishing of concrete. The student will be able to locate, layout, cut, assemble, erect and align floor, wall, and roof frames. He will be able to layout and build a roof cornice, lay shingles and set exterior doors and windows. He will be able to list, layout, and cut materials with the least possible waste. 120 clock hours. Nine credits.

#### **BCT 215 PREPARATION AND LAYOUT**

Upon completion of this course the student will be able to make judgements in the selection of building sites; proceed with the necessary preparation for building plans, permit application, and sub-bid information. He will possess the knowledge necessary to locate a building on a site; set elevations with a builders level, and locate position of the foundation forms. 20 clock hours. Two credits.

#### BCT 221 FRAMING II

The student will gain the knowledge necessary to layout, cut, and assemble: floor frames, stud walls, and roof frames. He will be able to list the materials needed in each area of framing. He will possess the knowledge necessary in the measurement and layout of stairs, any rafter or simple roof truss; as well as locating walls, openings, and other special features in the framing of a house. 30 clock hours. Three credits.

#### BCS 222 BUILDING CONSTRUCTION V

After completion of this course the student will be able to layout and cut siding with the least possible waste. He will be able to form, place and finish concrete steps. He will be able to layout, cut, and install stair horses. He will be able to layout masonry veneer and build leads as well as lay caps and sills. He will be familiar with electrical and plumbing installation practices. He will be able to hang and finish gypsum wall board at an advanced level. 100 clock hours. Seven credits.

#### BCT 231 CONSTRUCTION ESTIMATING

This coures is for the advanced student in Building Construction in which he will estimate the amount of material, time, and equipment required to complete a building construction project. He will study specifications plans and codes in preparing these estimates. He will calculate the cost involved for the material, labor and special equipment in each phase of construction. 40 clock hours. Four credits.

#### BCS 233 BUILDING CONSTRUCTION VI

Upon completion of this course the student will know how to select interior finishes install special interior doors and trim; install stair risers, treads, and trim; layout, build, and install kitchen cabinets, vanities, and linen closets. He will be able to lay counter tops and back splash, as well as do the final interior detail and catch up work. 100 clock hours. Seven credits.

#### BCT 236 BUILDING CODES

Upon completion of this course the student will know how to use the Uniform Building Code as a reference in light construction. He will be able to determine the occupancy of a building; recall general requirements of residential structures as to site, size, foundation, framing, ventilation, and other general requirements. He will be able to use the code in determining specific building requirements. 20 clock hours. Two credits.

#### BCT 237 LEGAL PROCEDURES AND PRACTICES

The student in this course will identify the legal procedures and responsibilities, employment practices, vocabulary, and documents used in construction and business. Basic terms in real property, and also types and procedures in loans and financing as related to proper business management. 30 clock hours. Three credits.

#### BCT 241 ARCHITECTURAL DRAFTING II

The student will be introduced to the techniques encountered in the preparation of working drawings for a residential or commercial structure. Students will be able to prepare floor plans, building sections, elevations, wall sections, schedules and details, building orientation and site development. 60 clock hours. Four credits.

# CHILD CARE TEACHER (CCT)

### CCT 100 FIRST AID

Follows the Standard American Red Cross First Aid Course and emphasizes health and safety procedures with young children. 20 clock hours. Two credits.

#### CCT 104 CHILD GROWTH AND DEVELOPMENT I

A study of human growth patterns from prenatal influences and conception to five years of age. The emphasis is on physical, social, emotional, and psychological growth. 30 clock hours. Three credits.

#### CCT 105 CHILD GROWTH AND DEVELOPMENT II

Continuation of Child Development I. Study of human growth patterns from kindergarten to pre-adolescence with an emphasis on the child's learning environment. Prerequisite: CCT 104 or permission of instructor. 30 clock hours. Three credits.

#### CCT 106 INTRODUCTION TO EARLY CHILDHOOD EDUCATION

An orientation to the field of early childhood education. The student will investigage the different types of centers available for young children in relation to his own career goals. 20 clock hours. Two credits.

#### CCT 110 ACTIVITIES FOR YOUNG CHILDREN

Practical laboratory experiences in science, music, art and creative movement. A study of practical materials which will enhance a child's potential through satisfying, sensory-type activities. 40 clock hours. Four credits.

#### CCT 130 PRACTICE TEACHING I

A practical experience in a child care center. The techniques of child study are applied to real life setting through observations and recordings. 80 clock hours. Four credits.

#### CCT 141 METHODS OF TEACHING THE YOUNG CHILD

Students learn to prepare daily schedules and materials, specific techniques of teaching in a living-learning environment. Prerequisite: CCT 110 or permission of the instructor. 40 clock hours. Four credits.

#### CCT 145 NUTRITION FOR YOUNG CHILDREN

The study of the essential nutrients and their function for a growing child. Learning to evaluate menus and snacks in home and institutional food services. Applications of nutrition education in the classroom, 40 clock hours. Four credits.

#### CCT 150 SKILLS IN CLASSROOM EQUIPMENT

A laboratory experience designed to acquaint the student with the most commonly used types of duplicating, mimeograph, and audiovisual equipment used in most school settings, 30 clock hours. Three credits.

#### CCT 200 HUMAN RELATIONS IN THE CLASSROOM

An assessment of the teacher's role in the classroom. The emphasis of this team teaching experience is the development of a positive and constructive attitude towards self appraisal and the appraisals of others. 100 clock hours. Five credits.

#### CCT 205 BUSINESS MANAGEMENT AND CHILD CARE CENTERS

A study of federal, state and local regulations, record keeping, funding, legislation and other factors related to the business operation of a child care center. 30 clock hours. Three credits.

#### CCT 210 CHILDREN'S LITERATURE

A study of the various forms of literature available for young children, with an emphasis on skills in presenting stories to children. 30 clock hours. Three credits.

### CCT 220 VOCATIONAL TEACHING EXPERIENCE

Course designed for the student to work as a teacher aide under the direction of a qualified teacher aide in a setting for young children, closely supervised by an instructor. Prerequisite: CCT 130. 80 clock hours. Four credits.

### CCT 230 FAMILY AND COMMUNITY RELATIONS

A team teaching experience with an emphasis on the effects of family, class and ethnic value systems on the young child's personality. 100 clock hours. Five credits.

#### CCT 240 PRACTICE TEACHING II

Continuation of Practice Teaching I. Student will be responsible for making plans and working with small groups of children. Prerequisite: CCT 130, 80 clock hours. Four credits.

### CCT 245 PRACTICE TEACHING III

Continuation of Practice Teaching II. Students will develop skills in a guided classroom teaching experience in a setting for young children. Prerequisite: CCT 240. 80 clock hours. Four credits.

#### CCT 250 ADMINISTRATION OF CHILD CARE CENTERS

A study of the organization and management of the various child care programs; goals, staffing, planning, equipment, parent participation, community resources and administrative procedures. 40 clock hours. Four credits.

### CCT 255 SCIENCE FOR PRESCHOOL TEACHERS

A practical course designed to assist teachers in extending children's understanding in both natural and applied science. 50 clock hours. Five credits.

### **GRAPHIC TECHNOLOGY (GRT)**

### GRT 101 INTRODUCTION TO DUPLICATING MACHINES I

Upon completion of this course the student will be able to demonstrate a general knowledge of the kinds of office duplicating methods in use and will be able to produce materials with employable skill by the copier, spirit duplicator and stencil duplicator methods. 50 clock hours. Four credits.

#### GRT 102 DUPLICATING MACHINES II

Upon completion of this course the student will be able to demonstrate a knowledge and employable skills in the production of paste-ups, electronic stencil imaging techniques and basic office bindery operations such as folding, collating, stitching and drilling. 50 clock hours. Four credits.

#### GRT 103 DUPLICATING MACHINES III

Upon completion of this course the student will be able to demonstrate a knowledge of basic off-set printing and employable skills in the preparation of paste-ups for reproduction by off-set, electrostatice plate making and press operation. 50 clock hours. Four credits.

#### GRT 121 INTRODUCTION TO GRAPHIC TECHNOLOGY I

Upon completion of this course the student will be able to demonstrate a knowledge of basic off-set printing and skills as an employable duplicator operator by being able to produce from a rough draft, a layout, composition, paste-up, line negative, flat, plate and press production in one color to the users specification and satisfaction. 100 clock hours. Eight credits.

#### GRT 122 GRAPHIC TECHNOLOGY II

Upon completion of this course the student will be able to demonstrate knowledge and employable skills in copy mark-up for photo composition, paste-up, camera, plate making and press work of multiple layouts and in multiple color, to the users specifications and satisfaction. 100 clock hours. Eight credits.

# GRT 123 GRAPHIC TECHNOLOGY III

Upon completion of this course the student will be able to demonstrate knowledge and employable skills in copy mark-up for programmed photo composition as well as prepress, press and finishing techniques used in the production of multiple page books. 100 clock hours. Eight credits.

# MOTORCYCLE AND SPORTSCRAFT ENGINES (MSE)

# MSE 190 INTRODUCTION TO MOTORCYCLE AND SPORTSCRAFT ENGINES

The course will introduce the student to motorcycle and sportscraft engines. Emphasis will be on safety and a knowledge of the motorcycle and sportscraft mechanics. Upon completion the student will have a basic understanding of power mechanics and other mechanical and electrical systems as applied to modern motorcycles and sportscraft. 30 clock hours. Two credits.

#### MSE 100 MOTORCYCLE AND SPORTSCRAFT ENGINES I

Students will learn and understand how to use general hand tools and specialized shop equipment used in repair of motorcycle and sportscraft engines. They will understand power mechanics as it applies to both four-stroke cycle and two-stroke cycle engines. They will perform various services and repairs, including complete engine overhaul on all types of four-and two-stroke motorcycle and sportscraft engines. 150 clock hours. Twelve credits.

#### MSE 101 MOTORCYCLE AND SPORTSCRAFT ENGINES II

Students obtain an understanding and working knowledge of basic electricity (DC) in areas of electron theory, magnetism, magnetic induction, electrical terms and properties, conductors, insulators, and batteries. They will understand principles of operation and service all types of ignition system used on motorcycles and sportscraft engines, including conventional battery-contact point system flywheel and unit type magnetos, energy transfer system, and capacitor discharge igniion (CD) systems. They will be able to service all types of motorcycle and sportscraft engine fuel systems including float and diaphram carburetors, vacuum type fuel pumps, and/or different types of fuel tanks and line. 150 clock hours. Twelve credits.

#### MSE 102 MOTORCYCLE AND SPORTSCRAFT ENGINES III

Students service both AC and DC charging systems and electrical starting system as used on motorcycles, outboards, snowmobiles, and other units. They develop skill necessary to service outboard power head (special features) and lower units, diagnose boat performance problems, and tank test outboard engines. Other skills developed include servicing motorcycle wheels and brakes, clutches, and transmissions. They will also understand basic design and operation of rotary engines. 150 clock hours. 12 credits.

#### OMR 105 OUTBOARD MOTOR REPAIR

The course will introduce the student to the basic terms and concepts of automotive electricity; the principles of operation of battery and magneto type ignition systems and ignition tuneup procedures; checking and testing the electric starter and charging system; principles of carburetion and carburetor adjustments cooling systems; gear housing; propeller selection; boat performance; and power head tests and repairs. 30 clock hours. 2 credits.

#### MSE 107 MOTORCYCLE REPAIR I

The course will introduce the student to modern shop tools, methods, and procedures. A study of power mechanics and treatment of the complete engine overhaul is covered. The activities will involve work in the lab on training engines and actual live work on patron owned units. 30 clock hours. 2 credits.

#### MSE 108 MOTORCYCLE REPAIR II

A brief review of basic electrical terms and electrical concepts. The operation and servicing of battery operated, magneto, and energy transfer ignition systems. A study of the principles of carburetion, and the servicing of motorcycle carburetors. The student will perform lab assignments and work on live units in the shop. 30 clock hours. 2 credits.

# WELDING (WLT)

#### WLT 190 INTRODUCTION TO WELDING

The course will introduce the student to oxy-acetylene and arc welding. Emphasis will be on safety and a knowledge of the welding profession. Upon satisfactory completion the student will have a basic understanding of oxy-acetylene and arc welding. 30 clock hours. Two credits.

#### WLT 101 OXY-ACETYLENE WELDING I

After successful completion of this course the participant will be trained to safely operate oxy-acetylene equipment and to weld the common joints used in industry in the flat, horizontal, vertical and over head positions. 60 clock hours. Four credits.

#### WLT 102 OXY-ACETYLENE WELDING II

After successful completion of this course the participant will be able to weld all the joints used in industry, in the horizontal and overhead positions. 60 clock hours. Four credits.

#### WLT 103 OXY ACETYLENE WELDING III

After successful completion of this course the participant will be able to weld 3/16" mild steel, pipe and tubing, cast iron, and braze cast iron, mild steel in all positions—silver braze and hard surface. 60 clock hours. Four credits.

#### WLT 111 SHIELDED METAL ARC I-A

Upon successful completion of the course the participant will be able to make multiple pass fillet welds in the horizontal and vertical positions to meet American Welding Society specifications. 60 clock hours. Four credits.

#### WLT 112 SHIELDED METAL ARC I-B

Upon successful completion of the course the participant will be able to make multiple pass fillet welds in the vertical position using E-6010 and E-7018 electrodes to meet American Welding Society specifications. 60 clock hours. Four credits.

#### WLT 113 SHIELDED METAL ARC I-C

Upon successful completion of the course the participant will be able to make multiple pass fillet welds in the overhead position using various electrodes and meeting American Welding Society specifications. 60 clock hours. Four credits.

#### WLT 121 SHIELDED METAL ARC II-A

Upon successful completion of the course the participant will be able to weld beveled butt joints in the vertical and horizontal positions using E-6010 electrodes to meet American Welding Society specifications. 60 clock hous. Four credits.

# WLT 122 SHIELDED METAL ARC II-B

Upon successful completion of the course the participant will be able to weld beveled butt joints in the overhead position using E-6010 electrodes and in the vertical position using E-7018 electrodes and meeting the American Welding Society specifications. 60 clock hours. Four credits.

#### WLT 123 SHIELDED METAL ARC II-C

Upon successful completion of the course the participant will be able to weld beveled butt joints in the horizontal and overhead welding positions using E-7018 electrodes and meeting American Weld Society specifications. 60 clock hours. Four credits.

## WLT 135 METALLURGY

Students recognize raw materials, equipment and changes that occur when metals are manufactured, heat-treated, and welded. 50 clock hours. Five credits.

# WLT 141 OXYGEN/ACETYLENE WELDING

Students weld and bronze all common fillet and butt joints in all positions normally used by industry; proper oxygen/acetylene cutting techniques of various thicknesses of metal will also be practiced. Proper use of equipment will be demonstrated by each participant at all times. American Welding Society standards will be criteria used to judge objectives. 150 clock hours. Twelve credits.

#### WLT 142 SHIELDED METAL ARC I

Upon successful completion of the course the participant will have very basic welding skills, in all positions, using all common welding electrodes. 150 clock hours. 12 credits.

#### WLT 143 SHIELDED, METAL ARC II

Students weld all common fillets in all positions normally used by industry, accomplished by using various types of electrodes and thicknesses of carbon steel. Students use proper and safe work habits in cutting and preparing metal. American Welding Society standards will be criteria used to determine objective completion and cutting practice. 150 clock hours. Twelve credits.

#### WLT 201 SHIELDED METAL ARC PIPE-A

Upon successful completion of courses number 201, 202, and 203 the participant will be able to properly bevel fit up and weld pipe with E-6010 and 7018 electrodes in 2G, 5G, and 6G positions in accordance with American Welding Society specifications. 60 clock hours. Four credits.

#### WLT 202 SHIELDED METAL ARC PIPE-B

Upon successful completion of course 201, 202, and 203 the participant will be able to properly bevel fit up and weld pipe with E-6010 and E-7018 electrodes in 2G, 5G, and 6G positions in accordance with American Welding Society specifications. 60 clock hours. Four credits.

#### WLT 203 SHIELDED METAL ARC PIPE-C

Upon successful completion of course 201, 202, and 203 the participant will be able to properly bevel fit up and weld pipe with E-6010 and E-7018 electrodes in 2G, 5G, and 6G positions in accordance with American Welding Society specifications. 60 clock hours. Four credits.

#### WLT 236 SPECIAL PROBLEMS IN WELDING

Students improve skills in welding processes and positions as they and instructors feel necessary to meet students' vocational goals. 150 clock hours. Twelve credits.

#### WLT 241 SHIELDED, METAL, ARC III

Students weld butt joints on plate ¼" to ½" in thickness. Prerequisite: WLT 141 or ten hours of oxygen/acetylene safety joints are of common use in industry, and with various electrodes used in industry. American Welding Society standards will be criteria used to determine objective completion. Prerequisite: WLT 142, WLT 143, or ten hours of oxygen/acetylene safety and cutting practice. 150 clock hours. Twelve credits.

#### WLT 242 SHIELDED METAL ARC PIPE WELDING

Upon successful completion of the course the participant will be able to properly bevel fit up and weld pipe with E-6010 and 7018 electrodes in 2G, 5G and 6G positions in accordance with American Welding Society specifications. 150 clock hours. Twelve American Welding Society specifications. 150 clock hours. Twelve credits.

#### WLT 243 TIG AND MIG WELDING

Students will weld all common beads and joints with MIG and TIG processes in all position. They learn proper procedures in care and safe operation of equipment used. 150 clock hours. Twelve credits.

# VOCATIONAL: TRADES AND INDUSTRY (VTI)

## VTL 101 SAFETY AND FIRST AID

Student recognizes importance of good safety practices and results of poor practices. They recall hazard and methods of accident prevention related to vocational area and basic first aid procedures. 20 clock hours. Two credits.

#### VTI 103 INDUSTRIAL COMMUNICATIONS

Students recognize importance of communication in industry, good and poor practices, and improvement of communications abilities. 30 clock hours. Three credits.

#### VTI 104 ORAL COMMUNICATIONS IN INDUSTRY

Students recognize importance of oral communications, good and poor practices, and improvement of individual abilities. 30 clock hours. Three credits.

#### VTI 105 INDUSTRIAL ORGANIZATIONS AND INSTITUTIONS

Students gain an overall view of development of American business and industry, recognizing relationships with companies, unions, government, and financial institutions. 30 clock hours. Three credits.

#### VTI 121 SHOP MATH

Student will recall concepts and solve problems relating to his vocational area of study. 30 clock hours. Three credits.

#### VTI 122 AUTOMOTIVE DRAWING

Students read drawings involving different types of projection, sections, and views to understand trade manuals. 30 clock hours. Three credits.

#### VTI 123 INDUSTRIAL SCIENCE

Student recalls concepts and solve problems in science relating to his vocational area of study. 50 clock hours. Five credits.

#### VTI 124 SERVICE MANAGEMENT

Students develop basic management concepts relating to automotive service including theory, skills, leadership, human relations, and failures. Students learn duties, problems, and methods of management. 30 clock hours. Three credits.

## VTI 125 COLORADO STATE SAFETY INSPECTION

Students develop understanding, ability, and skills to perform state motor vehicle inspection properly. 20 clock hours. Two credits.

#### VTI 175 WELDING CERTIFICATION AND EMPLOYMENT

Students are acquainted with certification requirement for different industries and possibilities in professions. Prerequisites: WLT 141, WLT 142, LWT 143, WLT 241, WLT 242. 50 clock hours. Five credits.

#### VTI 181 BASIC BLUEPRINT READING

Students learn to read shop drawings and standard welding symbols. Prerequisite: Welding student standing or permission of instructor. 30 clock hours. Three credits.

#### VTI 182 WELDING LAYOUT

Students learn layout for sheet metal, heavy plate, and pipe joints, using cardboard and plywood for simulation. Prerequisite: VTI 181. 30 clock hours. Three credits.

#### VTI 183 WELDING INDUSTRY

Students acquire understanding of importance of welding industry and its effect on everyday life. 30 clock hours. Three credits.

# FACULTY AND STAFF

# AIMS JUNIOR COLLEGE DISTRICT COMMITTEE

Margaret C. Houtchens Victor R. Nottingham Lynn Pitcher Wayne Foster Burl Van Buskirk President Secretary Treasurer Member Member

# AIMS COMMUNITY COLLEGE FACULTY

JAMES R. ADAMS (Distributive Education)

B.A., University of Northern Colorado; Graduate Study, University of Northern Colorado; Eighteen years business experience.

WILLIAM H. ADAMSON (Electronics)

B.S.E.E., University of Southern California; Graduate Study, University of California, Los Angeles, Colorado State University; Eighteen years industrial and military experience.

CHARLES W. ANDERSON (Computer Programmer) B.A., Colorado State University.

CHARLOTTE ANDRADE (Counselor)

Undergraduate and Graduate Study, University of Northern Colorado; Two years social work.

GLEN E. BAILEY (Building Trades)
Eighteen years construction experience.

LARRY G. BATMAN (Mathematics)

B.A., University of Northern Colorado; M.A., University of Northern Colorado; Advanced Graduate Study, Colorado State University.

MARVIN L. BAY (Division Chairperson, Technical)

B.S., Colorado State University; M.A., University of Northern Colorado; Advanced Graduate Study, University of Northern Colorado; Eight years experience in aviation industry.

WILLIAM R. BINGER (Building Trades)
Twenty years industrial experience.

DALE A. BONAR (Coordinator of Materials, Acquisition, Distribution, and Maintenance)

Twenty-four years electronic experience.

- J. PHILLIP EDWARDS (Electronic Technology)
  - B.A., University of Northern Colorado; Graduate Study, University of Northern Colorado, Colorado State University; Nine years military and industrial experience.
- JOSEPH S. FAJARDO (Coordinator of Mexican American Studies) B.A., University of Denver; M.A., University of Colorado.
- CHARLES W. FLETCHER (Veteran and Career Guidance Counselor)
  A.A. Aims Community College; B.A. University of Northern Colorado;
  M.A. University of Northern Colorado.
- GENE R. FREDERICK (Social Science)

B.S., University of Missouri; M.A., Adams State College; Advanced Graduate Study, Purdue University, University of Northern Colorado, University of New York.

- LESLIE L. FRENCH (Director of Plant and Services)
  - A.S., Barnes School of Commerce; Graduate Study, Denver University, Punjab University (Lahore, Pakistan), American Institute of Foreign Trade (Phoenix).
- R. ARTHUR GIESICK (Engineering Technology)

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.

JERRY F. GODDARD (Business)

A.A., Graceland College; A.B., University of Northern Colorado; M.A., Colorado State University.

RUTH GOMEZ (Developmental Studies)

Undergraduate and Graduate Study, University of Northern Colorado.

DAVID GONZALES (Developmental Studies)

B.A., University of Northern Colorado; Two years experience in Head Start Program.

- LAWRENCE A. GORGEN (Division Chairperson, Communication/Arts)
  B.A., Kearney State College; M.A.T., Washington State University; Ed.
  S., University of Northern Colorado; Advanced Graduate Study,
  University of Edinburgh.
- RALPH H. GREEN (Electronics Engineering)

B.S., Colorado State University; M.Ed., Colorado State University; Advanced Graduate Study, Colorado State University; Eighteen years business and industrial experience.

- JAMES H. HALLOCK (Director of Computer Center)
  - B.S., Southern Colorado State College; Graduate Study, University of Colorado; Special Training, IBM Education Center, Denver.

MELBA E. KRIEGEL (Business)

B.B.A., Texas Technological University; M.A., University of Northern Colorado; Advanced Graduate Study, Colorado State University.

BRUCE F. KUHN (Automotive Coordinator)
Fifteen years automotive experience.

E. KEITH LANE (Mathematics)

B.S., West Texas State University; M.S., West Texas State University.

SANDIE L. LA RUSSO (Director of Health Services)
Undergraduate Study, Morningside College (Sioux City, Iowa); A.A.,
Community College of Denver; Graduate Study University of Northern
Colorado; RN, Colorado.

RICHARD A. LAUGHLIN (Acting President)

B.S., University of Colorado; M.P.S., University of Colorado; Ed.D.,
University of Colorado.

SHERI LINNELL (Developmental Studies)

B.A., Wellesley College; M.A.T., Harvard University.

ANNETTE M. LOPEZ (Associate Dean of General Studies)
A.A., Los Angeles Valley College; B.A., San Fernando Valley; M.A.,
California State University.

M. RUTH LORENSON (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.

ROBERT D. McCHESNEY (Auto Body) Eighteen years industrial experience.

MAXINE F. MARQUEZ (Business)

B.A., University of Northern Colorado; M.A., Colorado State University.

RALPH D. MARTINEZ (Director of Financial Aids and Veterans Affairs)

B.S., Colorado State University; Advanced Graduate Study, University of Denver.

NANCY SUE MARTZ (Communication/Arts)

B.A., University of Northern Iowa; M.S.T., Wisconsin State University; Advanced Graduate Study, University of Northern Colorado.

DICK H. MASIKER (Welding)

Fifteen years industrial experience; Attended Colorado State University.

WARREN P. PTACEK (Auto Body)

Attended Colorado State University, Dunwoody Institute (Minneapolis); Four years trade experience.

DWANE D. RAILE (Dean of General Studies)

B.S., Western New Mexico University; M.S., Western New Mexico University.

ROBERT N. RANGEL, JR. (Acting Dean of Student Services)

B.A., University of Northern Colorado; M.A., University of Northern Colorado; Fifteen years work experience with migrant education.

JAMES G. RAYMOND, JR. (Counselor)

B.A., Colorado College; B.A., St. Benedict's College; M.A., University of Northern Colorado; Advanced Graduate Study, University of Northern Colorado.

BARBARA G. REALE (Communication/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.

- VICTOR E. RIBICH (Director of Placement Services)

  Twenty-four years sales and industrial experience.
- DONALD B. RITTER (Communication/Arts)

B.A., Michigan State University; M.A., Michigan State University; M.A., University of Northern Colorado.

JAMES (LYN) ROBINSON (Science/Mathematics)

B.S., University of New Mexico; M.S., University of New Mexico; Advanced Graduate Study, University of Kansas, University of Denver, Colorado State University.

- JAMES K. ROORDA (Associate Dean of Occupational Education)
  B.A., University of Northern Colorado; M.A., Colorado State University.
- WILLIAM B. SANDERS (Director of Accounts and Budgets)

  A.A., Aims Community College; B.S., University of Northern Colorado.
- CHRISTOPHER J. SHEATS, JR. (Division Chairperson, Science/Mathematics)

B.E., University of Southern California; U.S.A.F. Air War College; M.A.T., Adams State College; Twenty-five years military and industrial experience, U.S.A.F. Meterology School.

WILLIAM L. SHELL (Social Science)

B.A., Trinity University (San Antonio); M.A., John Hopkins University; Advanced Study, University of Heidelberg, University of Munich, Goethe Institute (Germany).

MARIA B. VELASQUEZ (Division Chairperson, Developmental Studies)
Undergraduate work at University of Northern Colorado; Five years
teaching and business experience.

DAVID D. WERNER (Communication/Arts)

B.A., University of Montana; M.A., University of Montana; M.A.L.,
University of Denver.

WILLIAM F. WIBBING (Engineering/Technical)

B.S., University of Missouri at Rolla; M.B.A., Arizona State University;

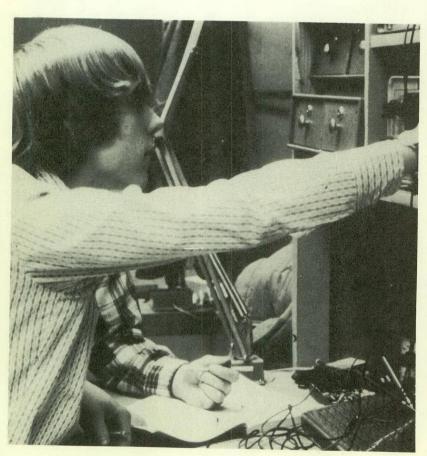
Advanced Graduate Study, Colorado State University, University of Northern Colorado; Twenty-two years industrial experience.

DONNA A. WRIGHT (Counselor)

B.S., Colorado State University; M.S., University of Northern Colorado; Advanced Graduate Study, University of Northern Colorado (Glenhaven Achievement Center).

RICHARD L. WRIGHT (Director of Admissions and Records)

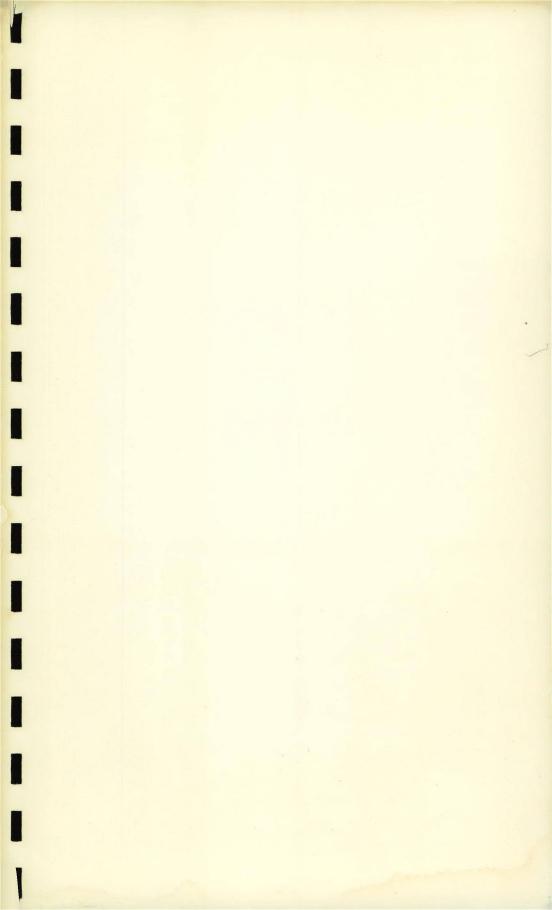
B.A., Kent State University; M.A., Kent State University; Ph.D., University of Northern Colorado; Post-doctoral work, University of Northern Colorado.



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