

MSI Separator Sheet



MSI2010

1974-1975

AIMS COMMUNITY COLLEGE
1000 S. UNIVERSITY AVENUE
DENVER, CO 80202

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DENVER, CO 80202



AIMS COMMUNITY COLLEGE

CATALOG

74-75

Mayfield

AIMS COMMUNITY COLLEGE



Established 1967

1974-75 CATALOG

**A COLLEGE SERVING
NORTH-CENTRAL COLORADO**

P. O. BOX 69

GREELEY, COLORADO 80631

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ACADEMIC CALENDAR 1974-75

SUMMER QUARTER, 1974

June 17, 18	Advising/Registration
June 19	Classes Begin, first 4-wks. & 8 wks.
July 4-7	Independence Day Holiday (College Closed)
July 18	End of first 4 wks.
July 19	Classes begin, second 4 wks.
August 15	End of Summer Session

FALL QUARTER, 1974

September 16-20	New students' interviews (Diagnostic services available in Community Council)
September 23-25	Advising/Registration
September 26	Classes begin
October 28-31	Mid-Term Week
November 1	In-service/Activities Day
November 27- December 1	Thanksgiving Holidays (College Closed)
December 2	Pre-Registration, Winter Quarter
December 11	End of Fall Quarter
December 23-27	Christmas Holidays (College Closed)
December 31 (12:00 noon)-January 1	New Year's Holiday (College Closed)

WINTER QUARTER, 1975

January 2	Advising/Registration
January 3	Classes begin
February 5-7	Mid-Term Week
February 14	In-service/Activities Day
February 24	Pre-Registration, Spring Quarter
March 14	End of Winter Quarter

SPRING QUARTER, 1975

March 24	Advising/Registration
March 25	Classes begin
April 21-24	Mid-Term Week
April 25 Friday	In-service/Activities Day
May 30-June 1	Memorial Day Holiday (College Closed)
June 4	End of Spring 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, 1973, reached over 3,200. Diverse needs of students have resulted in an increased number of classes and programs, totalling 35 occupational programs, adult interest classes and the Associate Degree of Arts and Science.

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 Industrial Center, was constructed in 1971. The Office Occupations and Technical Building was completed in 1973. Another new facility, a skills and creative arts center, is now being planned.

PHILOSOPHY

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

1. College parallel courses to enable students to transfer credits earned to a four-year college or university.
2. Occupational education to help prepare students for initial employment, or advancement in their area of development.
3. General and developmental education for those who wish to achieve a higher educational level.
4. 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 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 persons 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 deficiencies.

Students may enroll in Aims College anytime 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 COLLEGE

If a student wishes to attend Aims 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 COLLEGE AND DEGREE PROGRAM

If a student wishes to attend Aims College in order to pursue a degree, he may meet the requirements for admission to Aims 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.
2. 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".
2. Submit TOEFL scores. Foreign students must have a minimum of 450 on the TOEFL to be considered for admission to Aims College.
3. Completed application and supporting credentials must be in the Office of Admissions and Records one full quarter before the date of anticipated enrollment.

REGISTRATION PROCESS

After the student has completed the admissions process, he must complete the following registration process at the beginning of each quarter. Consult the calendar in the front of this catalog for registration dates.

1. Academic advising
2. Financial Aids (only those students having completed the FFS)
3. Course registration
4. Pay tuition*

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

TUITION

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

In-State, In-District Students	\$ 4.00 per credit hour
In-State, Out-of-District Students	\$ 6.00 per credit hour
Out-of-State Students	\$24.00 per credit hour

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

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.

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 College have chosen to live in a variety of facilities. Many students commute daily from their family residence in the area. Others have rented private apartments available in the city of Greeley.

FINANCIAL AIDS

The Office of Financial Aid endeavors to help needy and deserving students obtain financial assistance in meeting their college related expenses. Aims College participates in several federal, state, and institutional financial aid programs, including loans, grants, work-study, and scholarships.

Most awards are made on the basis of financial need. Every effort is made to provide a financial aid program designed to best meet the particular needs of each eligible student. Each applicant will receive consideration for all types of available funds based on the information supplied by the student in his application for financial aid.

APPLICATION PROCEDURE

There is no deadline for submitting applications for student financial aid; however, those applicants who demonstrate financial need and have all application requirements complete and on file with the Office of Admissions and Records and the Office of Financial Aid by March 15 will receive priority.

After applying for admission, the student should complete and mail the American College Testing Program (ACT) Family Financial Statement. Directions for completing and mailing this form are included with the application. Mail the instruction/worksheet for the Family Financial Statement to the Financial Aid Office at Aims College. Be certain you have answered all questions on page 4 of the instruction/worksheet. Processing of the ACT Family Financial Statement takes approximately three to four weeks. It must be mailed to the ACT at least six weeks in advance of the beginning of the quarter for which aid is requested to insure consideration for an award for that quarter. These forms may be obtained from high school counselors, principals, or from the Financial Aid Office at Aims College. The following procedure must be completed before the applicant will be considered for financial aids:

1. Complete admissions procedures listed on page——.
2. Complete the American College Testing Program (ACT) Family Financial Statement (FFS). Mail the answer sheet with appropriate fee as instructed. Mail the instruction/worksheet of the FFS to the Financial Aids Office at Aims College. Page 4 of the FFS instruction/worksheet is used as the Aims College application.

GRANTS

Grants are available through the Supplemental Educational Opportunity Grant (SEOG) Program, the Colorado Student Grant (CSG) Program, and the Basic Educational Opportunity Grant (BEOG) Program. EOG's will be awarded to students from low income families demonstrating extreme financial need. CSG's are awarded to students from low to medium income families who demonstrate financial need. Each year Aims College awards to qualified students a limited number of scholarship grants contributed by civic organizations, school organizations, and private citizens. Recipients of these grants must demonstrate high scholastic ability as well as financial need. Students who apply for financial aid will be given consideration for these grants.

FEE WAIVERS

Fee 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 costs of tuition and textbooks.

LOANS

Student loans are available through the National Direct Loan (NDSL) Program and the Federal Insured Loan (FISL) Program. Each represents a long-term, low-interest loan repayable after the student completes his education or terminates his student status. Applications for the FISL are available in the Office of Financial Aid.

PART TIME WORK

Part time work is available for a limited number of applicants through the Federal College Work-Study and the Colorado College Work-Study Programs. A few part time jobs are also available for qualified students through institutional student employment programs. The work-study programs are primarily for students from low-income families. Consideration for awards of jobs under these two programs is based on financial need. The hiring of students under the institutional programs is based on the individual's qualifications in meeting the requirements of the department concerned.

TUITION DEFERMENTS

Under certain extenuating circumstances Aims 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.

VETERAN'S BENEFITS

The Veterans Administration has approved the program offerings at Aims College for those students who are eligible for VA benefits. All payments are made directly to the eligible student by the VA. It is the individual student's responsibility to make initial application for benefits to the Veterans Administration Regional Office. A student approved for educational benefits by the Veterans Administration will be issued a Certificate of Eligibility which he should bring to the Financial Aids office at the time of his initial registration. 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.

Aims College will waive tuition payment for qualified Vietnam Era Veterans who meet the following criteria: (1) Is a veteran of the Vietnam Era (beginning August 5, 1964); (2) Was discharged and certified eligible for veterans educational benefits; (3) Was a legal resident of Aims College district at the time of entering the armed services; (4) Enrolled at Aims College within five years of separation from service; (5) Maintain satisfactory grades (2.0 GPA).

Applications for the tuition waiver are available in the Office of Financial Aid. A photocopy of the DD-214 must be submitted to the

Financial Aid Officer with the completed application. Veterans may be eligible for tutorial assistance through the Veterans Administration. Contact the Office of Financial Aid for information.

ESTIMATED COLLEGE EXPENSE

The student should keep in mind that expenses can only be estimated; therefore, the estimated costs are presented in ranges from possible minimums to possible maximums:

Room Costs Per Quarter	\$220.00 to \$450.00
Food Costs Per Quarter	200.00 to 300.00
Books and Supplies Per Quarter	40.00 to 60.00
	<hr/>
	TOTAL \$460.00 to \$810.00

Costs such as fees, clothing, social activities, recreation, transportation to and from the college, and personal expenses will vary with the individual and will be in addition to the above costs.

COUNSELING AND GUIDANCE SERVICES

While attending Aims 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 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 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 Counseling Center.

The Counseling Center staff assists students in the following areas:

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

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 College. The college provides a testing program and general educational achievement. 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.

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 should accept the responsibility to:

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

THE INSTRUCTIONAL CENTER

The Instructional Center integrates the vestibule and individualized concept of learning for the student as a possible means of success in all types of career education. (A testing service to help the student determine his needs is offered through the Diagnostic Center). Policy for the Instructional Center is determined by a board, and this policy is implemented and services organized by a coordinator appointed by the board. Instructors staff the vestibules of Developmental Studies, Communication/Arts, Social Sciences, and Science/Mathematics. The Center provides 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 center. Print materials, filmstrips, tapes, slides, and television programs within the center offer a variety of learning experiences for the student.

STUDENT GOVERNMENT

The student body of Aims College elects student government officers 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 government include:

1. Participating in the decision making of the college community by providing student input into the areas of classroom education, student needs, school policies and community services.
2. Chartering student organizations which members of the Aims 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 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 re-chartered annually to assure continuing interest on the part of the students and to provide for re-evaluation of objectives and performance.

STUDENT I. D.

Student I.D. cards may be obtained at no cost during registration. All students are encouraged to secure an I.D. card.

STUDENT CODE OF CONDUCT

Aims 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 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 the 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.

HEALTH SERVICES

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

AUDIOVISUAL EQUIPMENT AND COPY CENTER SERVICES

The audiovisual equipment and copy center divisions of the Instructional Resources Center (IRC) provide equipment and materials in support of the total instructional program, servicing all of the day, evening, and extension classes. Graphic materials such as charts, graphs, posters, and overhead transparencies as well as other photographic materials are produced by the IRC for instructional purposes. Television production and distribution services are provided for the students and faculty. A centralized program distribution network, provides for easy access to a vast quantity of media materials both in the classroom and in individual study carrels. Spirit duplication, photocopy, and offset duplication are available for the duplication needs of the instructors and service areas of the college.

COMPUTER CENTER

Computing service is available to a variety of users at Aims College. Secondary, post-secondary vocational and general studies students have access to eight computer languages on the IBM 360 computer. The computer is equipped with magnetic tape and disk, and 65,000 characters of primary memory. Besides the instructional usage, the computer is used for administrative work in which student employees are involved in selected applications.

PUBLIC INFORMATION OFFICE

The Public Information Office is responsible for the collecting, editing, and disbursement of pertinent information regarding activities, programs and persons at Aims College to local news media. The Public Information Office also assists in the development of the majority of college-related publications, and organizes and coordinates public information functions for the college. The office maintains complete accessibility for all members of the student body, faculty, staff and administration to assist in a variety of projects and news-related information.

GRADES AND COURSE STATUS DESIGNATIONS

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

MID-MANAGEMENT

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

REQUIRED COURSES:

Credits

DE	101	Principles of Merchandising OR	5
DE	261	Principles of Marketing	5
DE	102	Salesmanship	5
DE	122	Personal Adjustment to Business)	5
DE	123	Personal Adjustment to Business) 15	5
DE	124	Personal Adjustment to Business)	5
DE	150	Principles of Advertising	5
DE	206	Credit Management	5
DE	221	Personnel Management	5
DE	225	Personal Adjustment to Business)	5
DE	226	Personal Adjustment to Business) 15	5
DE	227	Personal Adjustment to Business)	5
DE	262	Principles of Management	5
BUS	100	American Business Systems	5
BUS	115	Business Mathematics	5
BUS	157	Business English	3
BUS	158	Business Communications	3
BUS	159	Business Communications (Oral)	3
ACC	101	Principles of Accounting I	5
BUS	254	Business Law	5
GENERAL REQUIREMENTS			89
ELECTIVES			10
TOTAL			99

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
- "P" Passing—used for those students who have successfully challenged a course

Course Status

Designations

- "W" Withdrawal—grade points (Administrative and student initiated)
- "I" Incomplete work—no grade points
- "IP" In-Progress—no grade points
- "AU" Audit—no credit

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" does not qualify for benefits.) Learning accomplishment at a level judged to be inadequate receives no credit but is made a part of the permanent record. Additionally, all courses which receive course status designations of "W", "I", "AU", or "IP" are not calculated in a student's 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 to 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.

COURSE CANCELLATIONS

The college must retain the customary right to cancel course offerings where enrollments are insufficient to permit them on an educationally sound and economically efficient basis, or to alter them for other reasons.

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.

NEW TYPES OF COURSE FORMATS

Many Aims courses are being developed in new formats which will, in many cases, also explore new subject areas. Some will be offered during the 1974-75 academic year. A description of the above formats includes:

1. Contact Courses: to provide "direct" versus "classroom only" exposure to objects or processes to be studied, usually on the basis of full-time study (3 to 5 hours per day) of one subject for a three-week period.
2. Instructional Center Courses: For the student who seeks maximum flexibility in scheduling and likes to proceed at his own pace. Each week the instructor prepares a new set of materials for students to master, all of which are available in the Instructional Center for student use at any time during the day. Materials in the lab will usually include recordings, TV tapes, films or filmstrips, experiments or problems, and self-testing sessions.
3. Mini-Courses: Brief courses in either classroom, Instructional Center, or contact-course format which provide 1 to 3 hours credit in, for example, one week of intensive instruction or one quarter of Saturday morning classes.

AUDITING OF COURSES

Any person may elect to enroll in a class 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. All changes from audit to credit or credit to audit must be made prior to mid-term examination week of each quarter by contacting the instructor of the course. Veterans receiving benefits should be aware that audited courses do not qualify for benefits.

ADDING AND DROPPING COURSES

In instances where a student's program of study can be improved, adds and drops may be processed after classes begin with the approval

of the instructor or advisor. Program change forms may be obtained in the Office of Admissions and Records.

REFUND POLICY

During the first 10 class days of each quarter the student will receive a 100 percent refund for a complete withdrawal from school or for classes dropped. After the first 10 days of classes, the student will not receive a refund for complete withdrawal or dropping of classes. The student may drop and add an equal number of credit hours at anytime during the quarter without charge provided the drop/add cards are processed simultaneously.

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 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.

WITHDRAWAL

If for some reason a student must completely withdraw from the college (complete withdrawal means dropping all classes), the student's interests are served best if the appropriate withdrawal forms are completed for the Office of Admissions and Records. Students completely withdrawing from the college will receive a "W" for each course from which they withdraw prior to the end of each quarter.

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.

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.

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

GENERAL STUDIES

General Studies offerings are intended to provide educational opportunities in support of Occupational Education programs, a prebaccalaureate program, and in general and developmental education interests.

Students in Occupational Education Programs may enroll in General Studies courses to meet the specific requirement of a particular occupational curriculum and to select desired elective courses.

General requirements for the Associate Degree in Arts and Sciences represent a pattern of education aimed at developing attitudes, abilities, and behavior considered desirable and necessary for students seeking a broad background in general education.

Students working for an Associate in Arts and Sciences Degree are encouraged to fulfill elective requirements by taking courses which will relate directly to a career or an academic major at another school. After meeting the requirements for the degree, those students who intend to transfer are encouraged to complete elective courses compatible with the advanced program of their choice. Students are encouraged to check with the Career Center for assistance and information regarding the requirements of other colleges.

GENERAL STUDIES

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

	Credits
Communications	9
Humanities	15
Science and Mathematics	15
Social Science	15
Physical Education	5
Electives	37
	—
TOTAL	96

ASSOCIATE DEGREE IN ARTS AND SCIENCES TOTAL MINIMUM REQUIREMENTS

NOTE: Students who can submit evidence that their successful completion of 96 quarter credits of course work constitutes a complete transferable curriculum for transfer into a specific program at a four-year college or university need not complete the specific requirements below in order to be considered for the Associate Degree in Arts and Sciences.

COMMUNICATIONS

9 Credits

Six credits selected from two of the following three-hour courses:

	Credits
CON 101 Fundamentals of Language	3
CON 102 Fundamentals of Writing	3
CON 103 Intermediate Writing	3

Three credits selected from the following three-hour courses:

COMPOSITION

CON 103 Intermediate Writing	3
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LITERATURE

LIT 105 Introduction to Literature	3
LIT 106 Introduction to Fiction	3
LIT 107 Introduction to Drama	3
LIT 108 Introduction to Poetry	3
LIT 205 American West	3
LIT 206 Modern American Literature and Thought	3
LIT 207 The Romantic Movement	3
LIT 208 Foundations of Modern British Literature	3
LIT 209 Shakespeare	3
MAS 205 Survey of Mexican Literature in Translation	3
MAS 206 Survey of Contemporary Chicano Literature	3

SPEECH

SPE 115 Speech Essentials	3
SPE 116 Public Speaking	3

HUMANITIES

15 Credits

To complete the 15-credit requirement, students may select:

HUM 101 Introduction to the Greek and Roman Periods	5
HUM 102 Introduction to the Middle Ages and Renaissance	5

And ten credits selected from two of the following four areas:

ECONOMICS

ECO	100	Introduction to Economics	5
ECO	201	Principles of Economics	5
ECO	202	Principles of Economics	5

HISTORY

HIS	101	Hang-ups from Way Back—Ancient Civilization	5
HIS	102	Hang-ups from Way Back—Medieval Civilization	5
HIS	103	Hang-ups from Way Back—Modern Civilization	5
HIS	105	History of the United States to 1877	5
HIS	106	History of the United States Since 1865	5
HIS	107	History of the United States Since 1950	5
HIS	205	History of England	5
HIS	206	History of China—Modern Period	3
HIS	207	History of Japan—Modern Period	3
HIS	209	History of Colorado and the Rocky Mountain West	5
HIS	210	Twentieth Century Russia	5
MAS	161	Mexican History to Independence	3
MAS	162	Mexican History Since Independence	3

POLITICAL SCIENCE

POS	101	American Government	5
POS	102	Comparative Foreign Governments	5
POS	105	Contemporary Issues in State and Local Politics	5
POS	106	Metropolitan Government	3-5
POS	107	State Government	2
POS	108	County Government	2
POS	109	City Government	2
POS	115	Effective Campaigning	2
POS	116	International Politics Since 1945	5
POS	117	Contemporary Issues in American Politics	5
POS	118	State and Local Governments	5
POS	205	International Relations	5

GEOGRAPHY

GEO	105	World Regional Geography	5
GEO	205	Geography of North America	3
GEO	206	Geography of Colorado	3
GEO	207	Urban Geography	3

PHYSICAL EDUCATION

5 Credits

A minimum of five separate credits will be selected from any physical education activity offered. This will provide the student with adequate opportunity to be introduced to a variety of physical fitness and leisure time activities to round out his 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.

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, stained glass crafts, 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.

ETHNIC STUDIES

An Ethnic Studies Consortium of courses exists within the existing framework of academic divisions and departments. The following is a partial list of courses now being offered. Consult individual departmental listings for specific course offerings.

LIT	215	The Rhetoric of Social Protest	3
BIO	107	Biology of the Human Races	3
PSY	208	Social Psychology of Minority Groups	3
PSY	209	Psychology of Prejudice	3
CUS	105	Cultural Heritage of the American Southwest	3
CUS	106	Cultural Heritage of Africa and American Blacks	3
MUA	101	Origins and Rites	3

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 Mexican-American Studies	3
MAS	101	Elementary Spanish I	5
MAS	102	Elementary Spanish II	5
MAS	105	Music of Mexico and the Southwest	3
MAS	106	Mexican American Theatre	3
MAS	115	Art of Mexico and the Southwest	3
MAS	116	Bilingual Skills	3
MAS	120	Mexican-American Culture of the Southwest	3
MAS	125	The Contemporary Mexican-American	3
MAS	155	Mexican Dance	1
MAS	161	Mexican History to Independence	3
MAS	162	Mexican History Since Independence	3
MAS	165	Chicano History of the Southwest	3
MAS	205	Survey of Mexican Literature in Translation	3
MAS	206	Survey of Contemporary Chicano Literature	3

OCCUPATIONAL EDUCATION

Aims 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 to choose.

Many opportunities exist for the person who can perform essential semi-professional, technical and other tasks competently. As a community college, Aims College has adopted 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.

BUSINESS DIVISION

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

ACCOUNTING

Course Length: Usually 6 quarters for Certificate in Occupational Education.

FIRST YEAR:

ACC 101	Principles of Accounting I	5
ACC 102	Principles of Accounting II	5
ACC 201	Intermediate Accounting I	5
ACC 211	Cost Accounting I	5
BUS 115	Business Mathematics	5
BUS 249	Business Statistics	4
BUS 157	Business English	3
BUS 158	Business Communications	3
BUS 159	Business Communications (Oral)	3
BUS 161	Adding and Calculating Machines	3
EDP 130	Introduction to Data Processing	3
	Electives*	3-5

TOTAL FIRST YEAR 47-49

SECOND YEAR:

ACC 202	Intermediate Accounting II	5
ACC 203	Intermediate Accounting III	5
ACC 205	Accounting Systems	4
BUS 240	Financial Management	3
	Electives*	30-32

GENERAL REQUIREMENTS 47-49

TOTAL 96

* Electives will be chosen by the student after receiving counseling and guidance from a Business Division advisor. Occupational objectives, individual interests, and abilities will be considered.

CLERK-STENO

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

Desirable Characteristics: Possess above average English skills.

REQUIRED COURSES:

*BUS 101	Beginning Typewriting	3
*BUS 102	Intermediate Typewriting	3
BUS 103	Advanced Typing	3
*BUS 111	Second Quarter Gregg Shorthand**)	5
BUS 112	Third Quarter Gregg Shorthand**) 15	5
BUS 113	Advanced Gregg Shorthand**)	5
*BUS 120	Alphabet Shorthand**)	5
BUS 121	Alphabet Shorthand Speed Building**) 15	5
BUS 122	Alphabet Shorthand Transcription**)	5
BUS 115	Business Mathematics	5

CLERK-TYPIST

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

REQUIRED COURSES:

*BUS	102	Intermediate Typewriting	3
BUS	103	Advanced Typewriting	3
BUS	104	Production Typewriting	3
BUS	115	Business Mathematics	5
BUS	141	Office Procedures	5
BUS	142	Secretarial Procedures	3
BUS	143	Personal Development and Human Relations in Business	3
BUS	157	Business English	3
BUS	158	Business Communications	3
BUS	159	Business Communications (Oral)	3
BUS	161	Adding and Calculating Machines	3

GENERAL REQUIREMENTS	37
ELECTIVES**	13

TOTAL **50**

* Students entering Aims with high school credit in typing may substitute another course for BUS 102.

** 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.

ELECTRONIC DATA PROCESSING

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; business programming; and systems analysis and design.

Above average ability in mathematics is desirable. Logical reasoning, problem solving ability, perseverance, and inquisitiveness are definite assets. Women are increasingly successful in this field. 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:

BUS	100	American Business Systems	5
BUS	115	Business Mathematics	5
EDP	130	Introduction to Data Processing	3
EDP	140	Computer Concepts	3
BUS	143	Personal Development and Human Relations in Business	3
BUS	157	Business English	3
BUS	158	Business Communications	3
EDP	160	Assembler Language	5
EDP	161	COBOL	5
ACC	101	Principles of Accounting I	5

DE	227	Personal Adjustment to Business)	5
DE	262	Principles of Management	5
BUS	100	American Business Systems	5
BUS	115	Business Mathematics	5
BUS	157	Business English	3
BUS	158	Business Communications	3
BUS	159	Business Communications (Oral)	3
ACC	101	Principles of Accounting I	5
BUS	254	Business Law	5
			—
GENERAL REQUIREMENTS			89
ELECTIVES			10
			—
TOTAL			99

OFFICE CLERICAL

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

REQUIRED COURSES:

			Credits
BUS	100	American Business Systems	5
*BUS	101	Beginning Typewriting	3
*BUS	102	Intermediate Typewriting	3
BUS	103	Advanced Typewriting	3
BUS	104	Production Typewriting	3
*BUS	105	College Bookkeeping I	5
BUS	106	College Bookkeeping II	5
BUS	115	Business Mathematics	5
EDP	130	Introduction to Data Processing	3
BUS	141	Office Procedures	5
BUS	142	Secretarial Procedures	3
BUS	143	Personal Development and Human Relations in Business	3
BUS	157	Business English	3
BUS	158	Business Communications	3
BUS	159	Business Communications (Oral)	3
BUS	161	Adding and Calculating Machines	3
BUS	226	Cooperative Office Occupations I	5
BUS	227	Cooperative Office Occupations II	5
			—
GENERAL REQUIREMENTS			68
ELECTIVES**			28
			—
TOTAL			96

* Students entering Aims with high school credit in typing or bookkeeping may substitute other courses for BUS 101, BUS 102, BUS 105.

** 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

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

REQUIRED COURSES:

			Credits
BUS	100	American Business Systems	5
*BUS	101	Beginning Typewriting	3
*BUS	102	Intermediate Typewriting	3
BUS	115	Business Mathematics	5
EDP	130	Introduction to Data Processing	3
BUS	141	Office Procedures	5
BUS	143	Personal Development and Human Relations in Business	3
BUS	157	Business English	3
BUS	158	Business Communications	3
BUS	159	Business Communications (Oral)	3
BUS	161	Adding and Calculating Machines	3
BUS	201	Business and Banking	5
BUS	220	Office Management	3
BUS	226	Cooperative Office Occupations I	5
BUS	227	Cooperative Office Occupations II	5
ACC	101	Principles of Accounting I	5
ACC	102	Principles of Accounting II	5
BUS	254	Business Law I	5
DE	206	Credit Management	5
DE	221	Personnel Management	5
			—
GENERAL REQUIREMENTS			82
ELECTIVES**			14
			—

TOTAL

96

* Students entering Aims with high school credit in typing may substitute other courses for BUS 101, BUS 102.

** 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.

STENOGRAPHIC AND SECRETARIAL

Course Length: Usually 6 quarters for Associate in Applied Science Degree or Certificate in Occupational Education.

Desirable Characteristics: Possess above average English skills.

Potential Opportunities: This program has three different areas of specialty: Business, Medical Secretary or Judicial-Legal. The student would complete the Core Courses plus the Required Courses for his chosen area of specialty.

Business Secretary: Designed for persons interested in learning basic knowledge and skills necessary for a secretarial position in a business, education, or government office.

Judicial-Legal: Designed for persons interested in learning basic skills of judicial-legal secretarial personnel who work in law offices, savings and loan, real estate, and insurance offices with maintenance and custody of legal records.

Medical Secretary: The program for Medical Secretary will impart basic knowledge and develop the skills of medical secretaries who work in hospitals so they may better perform technical tasks associated with maintenance and custody of medical records. The program will also develop an attitude in trained medical secretaries which will lead to more constructive relationships with the medical staff and administrators. These students should receive training for filing clerks, transcriptionists and medical secretaries.

CORE COURSES:			Credits
BUS	100	American Business Systems	5
*BUS	101	Beginning Typewriting	3
*BUS	102	Intermediate Typewriting	3
BUS	103	Advanced Typewriting	3
*BUS	110	Beginning Gregg Shorthand**)	5
*BUS	111	Second Quarter Gregg Shorthand**) 15	5
BUS	112	Third Quarter Gregg Shorthand**))	5
*BUS	120	Alphabet Shorthand**)	5
BUS	121	Alphabet Shorthand Speed Building**) 10	5
BUS	115	Business Mathematics	5
BUS	142	Secretarial Procedures	3
BUS	143	Personal Development and Human Relations in Business	3
BUS	157	Business English	3
BUS	158	Business Communications	3
BUS	159	Business Communications (Oral)	3
BUS	226	Cooperative Office Occupations I	5
BUS	227	Cooperative Office Occupations II	5
TOTAL			54-59 Credits

BUSINESS SECRETARY: Core Courses plus the following courses are required to receive an Associate in Applied Science Degree.

CORE COURSES:			54-59 Credits
BUS	104	Production Typewriting	3
BUS	105	College Bookkeeping I	5
BUS	106	College Bookkeeping II	5
BUS	113	Advanced Gregg Shorthand**	5
		OR	
BUS	122	Alphabet Shorthand Transcription**	5
EDP	130	Introduction to Data Processing	3
BUS	141	Office Procedures	5
BUS	161	Adding and Calculating Machines	3
GENERAL REQUIREMENTS			83-88
ELECTIVES***			3-13
TOTAL			96

JUDICIAL-LEGAL: Core Courses plus the following courses are required to receive a Certificate in Occupational Education. Designed for persons interested in learning basic skills of judicial-legal secretarial personnel who work in law offices, savings and loan, real estate, and insurance offices with maintenance and custody of legal records.

to the limit of his capacities. There are over 2,000 active agriculture cooperatives in and around Colorado. Many of these need mid-managers and also some need top management. It will admittedly take several years of hard work and study after going on-the-job to become a manager of an agriculture cooperative. However, for the qualified person, the potential in agriculture cooperatives is only limited by that individual's ambition.

FIRST YEAR:

Fall Quarter:		Credits
AGR 111	Agriculture Co-op Careers I	5
AGR 116	Introduction to Cooperative Organization and Agri-business	5
BUS 143	Personal Development and Human Relations in Business	3
DE 101	Principles of Merchandising (service area) OR OR	5
ACC 101	Principles of Accounting I (credit area)	—
TOTAL Fall Quarter		18

Winter Quarter:		
AGR 115	Agricultural Economics	5
AGR 112	Agriculture Co-op Careers II	5
BUS 143	Personal Development and Human Relations in Business	3
DE 101	Principles of Merchandising (service area) OR	5
ACC 101	Principles of Accounting I (credit area)	—
TOTAL Winter Quarter		18

Spring Quarter:		
AGR 135	Agriculture on the job training— 10 lecture 325 OJT	10

Summer Quarter:		
AGR 136	Agriculture on the job training— 10 lecture 325 OJT	10

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	2)	
AGR 145	Bulk Blending	2)	8
AGR 146	Anhydrous Ammonia	2)	
AGR 147	Corn Production	2)	

*AVT 103	Primary Flight Lab	5
AVT 104	Commercial Requirements I	5
*AVT 105	Basic Flight Lab	3
*AVT 112	Conventional Gear Transition (Lab and classroom)	2
CON 101	Fundamentals of Language	3
CON 102	Fundamentals of Writing	3
PHY 100	Survey of Physics	5
PSY 101	General Psychology	5
	Physical Education	3
TOTAL First Year		50

SECOND YEAR:

*AVT 206	Advanced Flight Lab	5
AVT 207	Basic Instruments and Systems	5
*AVT 208	Commercial Flight Lab	4
AVT 209	Advanced Instrument Flying	5
*AVT 210	Advanced Commercial Flying Lab	5
*AVT 211	Multi-Engine Transition Lab	3
AVT 212	Commercial Requirements II	5
*AVT 213	Certified Flight Instructor (Lab, classroom)	5
*AVT 214	Instrument Flight Instructor (Lab, classroom)	3
	OR	
AVT 217	Instrument Ground Instructor	2
AVT 215	Basic Ground Instructor	2
	OR	
AVT 216	Advanced Ground Instructor	2
CHE 100	Survey of Chemistry	5
EAS 105	Earth Science	5
	Physical Education	2
TOTAL Second Year		55 or 56
TOTAL		105 or 106

* Conducted at Airport

CHEMICAL TESTING TECHNOLOGY

Course Length: Usually 6 quarters for Certificate in Occupational Education.

Potential Opportunities: The program is designed to give students necessary skill and knowledge to enter the field of laboratory testing, mainly in the chemical area, but some physical testing included.

FIRST YEAR:

Fall Quarter:		Credits
ELT 100	Introduction to Electronics I	4
CHT 101	Chemical Testing Technician	5
VTR 103	Industrial Communications	3
VTR 111	Technical Mathematics I	5
TOTAL Fall Quarter		17

VTR	152	Introduction to Industry	3
VTR	185	Industrial Physics II	5
VTR	186	Industrial Physics III	5
VTR	203	Industrial Psychology	3
TOTAL			100

DRAFTING

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

Potential Opportunities: Regardless of the specific assignment, the draftsman is continually representing, by drawing, the shapes of objects to be created, repaired, joined or manufactured. In most instances, work opportunities are associated with engineering groups in fields of planning, contracting, and maintaining facilities. Specifics will be associated with mechanical, civil, chemical, electrical, and electronics engineering. Basic mathematics and drafting backgrounds are helpful.

Fall Quarter:			Credits
DRA	121	Drafting I	7
VTR	103	Industrial Communications	3
VTR	111	Technical Mathematics I	5
VTR	151	Materials of Industry	3
TOTAL Fall Quarter			18
Winter Quarter:			
DRA	122	Drafting II	7
VTR	102	Elements of Technical Writing	3
VTR	112	Technical Mathematics II	5
VTR	202	Cost and Materials Estimation	3
TOTAL Winter Quarter			18
Spring Quarter:			
DRA	123	Drafting III	7
VTR	113	Technical Mathematics III	5
VTR	152	Introduction to Industry	3
VTR	153	Engineering Problems Analysis	3
TOTAL Spring Quarter			18
TOTAL			54

ELECTRONICS TECHNOLOGY

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

Potential Opportunities: Students should expect to secure entry level positions with progress toward research and development technician, engineering aide, field service representative, production test technician, electronic tooling maintenance technician, design and fabrication technician, metrology laboratory technician, systems technician for computers, controls, and communications. A good mathematics background through algebra is recommended. Advanced standing is possible if the applicant has had high school electronics, adult school

electronics, or military electronics schooling. Advanced standing is determined on an individual basis.

FIRST YEAR:			Credits
*ELT	131	AC and DC Fundamentals	9
*ELT	132	AC and DC Circuit Analysis	9
*ELT	133	Electronic Circuits and Applications	9
*ELT	134	Instruments and Measurements	5
VTR	102	Elements of Technical Writing	3
VTR	103	Industrial Communications	3
VTR	105	Industrial Organizations and Institutions	3
VTR	184	Industrial Physics I	5
VTR	185	Industrial Physics II	5
TOTAL First Year			51
SECOND YEAR:			
ELT	261	Industrial Electronics I	8
ELT	262	Communication Circuits	6
*ELT	263	Introduction to Digital Computers	8
ELT	264	Communications Systems	3
*ELT	265	Digital Computers II	6
ELT	266	Electronic Design and Fabrication	3
ELT	267	Introduction to New Electronic Industry Developments	3
*ELT	268	Practical Solid-State Troubleshooting	3
ELT	269	Industrial Electronics II	3
VTR	203	Industrial Psychology	3
VTR	204	Electronics Drafting	3
VTR	205	Industrial Economics	3
TOTAL Second Year			52
TOTAL			103

* Credit for substantial elements or all of the asterisked courses may be obtained via adult (evening) offerings. See the course descriptions for details. High school electronics programs (depending upon content) may also obtain substantial credit.

FIRE SCIENCE PROGRAM

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.

The Fire Science Program consists of courses totaling 104-106 credit hours. Forty-five credit hours relate to in-service training which will be taught by vocationally certified fire science instructors from the Greeley Fire Department to currently employed firemen. The remaining 59-61 hours are general courses.

GENERAL REQUIRED COURSES:			Credits
CON	101	Fundamentals of Language	3
CON	102	Fundamentals of Writing	3
CHE	100	Survey of Chemistry	5
FS	190	Administration of Justice and Court Procedures	5
MAT	100	Survey of Mathematics	5
POS	118	State and Local Governments	5
PHY	100	Survey of Physics	5
PSY	101	General Psychology	5
SOC	101	Introduction to Sociology	5
SPE	115	Speech Essentials	3
			—
TOTAL			44

A minimum of 15 credit hours of electives are to be selected from the following, with advisor approval:

BIO	101	Biological Concepts	5
HIS	105	History of the United States to 1877	5
HIS	106	History of the United States Since 1865	5
HLH	105	Emergency Medical Technician	7
POS	101	American Government	5
			—
TOTAL			15-17

Core Courses to be taken by students employed by the Greeley Fire Department are:

FS	100	Introduction to Company Discipline and Administration	2
FS	105	Ropes and Knots	2
FS	110	Forcible Entry	2
FS	115	Ladder Instruction	2
FS	120	Basic Operations	2
FS	125	Hose Layouts	2
FS	130	Water Hydraulics	5
FS	135	Ventilation	2
FS	140	Chemistry of Fire	5
FS	145	Gas and Smoke Masks	2
FS	150	Building Construction	2
FS	155	Motor Vehicles	2
FS	160	Electricity and the Fireman	2
FS	165	Salvage and Overhaul	2
FS	170	Arson and Incendiary Fires	2
FS	175	Portable Fire Extinguishers	2
FS	180	Rescue and First Aid	5
FS	185	City Codes and Ordinances	2
			—
TOTAL In-Service Courses			45
TOTAL			104-106

Spring Quarter:

MCE 266	Machine Design	5
MCE 271	Basic Surveying	3
MCE 272	Hydraulics and Pneumatics	5
MCE 273	Engineering Problems	5

TOTAL Spring Quarter	18
TOTAL Second Year	50
TOTAL	104

NURSE ASSISTING AND HOME HEALTH AIDE

Course Length: 1 quarter for Certificate in Occupational Education. New class offered each quarter. 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.

NA 100	Nurses Aide	Credits 17
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POLICE SCIENCE

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 officer 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 Police Science Program consists of courses totaling 102 hours. Fifty-seven credit hours will be taught by vocationally certified instructors of the Greeley Police Department, District Attorney's Office, Nineteenth Judicial District Court and other agencies. The remaining 44 credits are general courses.

CORE COURSES:

PS 105	Police Procedures	Credits 2
PS 115	Traffic Control Accident Investigation	4
PS 130	Community Relations	3
PS 135	Report Writing	3
PS 140	Juvenile Procedures	3
*PS 150	Law Enforcement Basic Training	20

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 and applying of the modern automotive finishes. This course is designed to give the student skill and knowledge for job entry-level employment.

FIRST YEAR:

Fall Quarter:

			Credits
AB	131	Auto Body Repair I	9
AB	134	Auto Refinishing I	3
VTR	101	First Aid and Safety	2
			—
TOTAL Fall Quarter			14

Winter Quarter:

AB	132	Auto Body Repair II	9
AB	135	Auto Refinishing II	3
VTR	121	Automotive Related Mathematics	3
			—
TOTAL Winter Quarter			15

Spring Quarter:

AB	133	Auto Body Service	9
AB	137	Wheel Alignment	3
AMT	233	Air Conditioning and Comfort Control	5
			—
TOTAL Spring Quarter			17
TOTAL First Year			46

SECOND YEAR:

Fall Quarter:

AB	234	Frame and Unit Straightening	3
AB	231	Major Body Repair I	9
VTR	105	Industrial Organizations and Institutions	3
			—
TOTAL Fall Quarter			15

Winter Quarter:

AB	232	Major Body Repair II	9
AB	235	Collision Estimating	3
VTR	132	Shop Management	3
			—
TOTAL Winter Quarter			15

Spring Quarter:

			Credits
AB	233	Body Rebuilding	9
AB	236	Frame and Unit Sectioning	3
VTR	130	Business Communications	3
			—
TOTAL Spring Quarter			15
TOTAL Second Year			45
TOTAL			91

BUILDING CONSTRUCTION

Course Length: Usually 6 quarters for Certificate in Occupational Education.

Potential Opportunities: "Variety" is the word that most nearly defines the work of the building construction craftsman. This program is geared to extensive training in all areas of carpentry pertaining to buildings. These include layout, framing, exterior and interior finish, and cabinet construction. Concrete construction is another major area of training, which includes essential layout, forming, handling, placing, and finishing of concrete. Masonry as it applies to residential foundations and veneer is presented. Plumbing and electrical are approached through practical application as required by the training project. Experience in drywall construction, painting, and finish are provided. Basic training in architectural plans and estimating is included. This program will provide an opportunity for the student to prepare for apprentice-type work in the general area of building construction.

Weld County and Colorado are in a period of building. It has been estimated that the 70's will produce more new buildings than all previous years of this century.

Previous construction experience is not necessary, but may enhance individual progress. Good hand and eye coordination and a background or potential ability in simplified mathematics is necessary to achieve the advanced objectives of this program.

FIRST YEAR:

Fall Quarter:			Credits
BC	110	Carpentry I	7
BC	120	Concrete and Masonry I	4
VTR	101	Industrial First Aid and Safety	2
BC	100	Tools and Materials	3
			—
TOTAL Fall Quarter			16
Winter Quarter:			
VTR	195	Trade Mathematics and Carpentry	3
BC	230	Residential Construction Drafting	3
BC	130	Carpentry II	6
BC	140	Concrete and Masonry II	4
			—
TOTAL Winter Quarter			16
Spring Quarter:			
VTR	103	Industrial Communications	3
BC	240	Residential Construction Estimating	3
BC	150	Carpentry III	10
			—
TOTAL Spring Quarter			16
TOTAL First Year			48

SECOND YEAR:

Fall Quarter:			
BC	200	Building Construction I	10
VTR	105	Industrial Organizations and Institutions	3
BC	250	Commercial Construction Drafting	5
			—
TOTAL Fall Quarter			18

SPE	117	Oral Interpretation	3
CCT	240	Supervised Student Participation II	5
			<hr/>
TOTAL Fall Quarter			15
Winter Quarter:			
CCT	245	Supervised Student Participation III	5
PSY	209	Psychology and Prejudice	3
THE	206	Children's Theatre	
			OR
THE	207	Puppet Theatre	3
ELECTIVES			5
			<hr/>
TOTAL Winter Quarter			16
Spring Quarter:			
SOC	101	Introduction to Sociology	
			OR
ANT	101	Introduction to Anthropology	5
CCT	250	Administration of Child Care Centers	5
MUE	205	Introduction to Elementary Music	3
ELECTIVES			3
			<hr/>
TOTAL Spring Quarter			16
TOTAL Second Year			47
TOTAL			94

GRAPHIC TECHNOLOGY

Course Length: Usually 3 quarters for Certificate in Occupational Education. Mechanical and artistic ability helpful.

Potential Opportunities: Persons completing the course should be able to work in print shops, bindery work, operate small presses, operate a copy center, plus operate duplicating machines in insurance companies, banks, photographic supply offices, educational institutions, and church office.

REQUIRED COURSES:

BUS	100	American Business Systems	5
*BUS	101	Beginning Typewriting	3
*BUS	102	Intermediate Typewriting	3
BUS	103	Advanced Typewriting	3
BUS	116	Introduction to Duplication Machines I	3
BUS	117	General Duplication Machines II	3
BUS	118	Duplication Machines III Publication Production	3
BUS	143	Personal Development and Human Relations in Business	3
BUS	157	Business English	3
BUS	158	Business Communications	3
BUS	222	Graphic Design and Duplication I	3
BUS	223	Graphic Design and Duplication II	3
BUS	224	Graphic Production III	3
			<hr/>

GENERAL REQUIREMENTS	41
ELECTIVES**	6-9
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TOTAL	47
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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 level skills in the art of welding, are prerequisites for this course.

FIRST YEAR:			Credits
Fall Quarter:			
WLT 131	Oxygen/Acetylene Welding		12
VTR 101	Industrial First Aid and Safety		2
VTR 105	Industrial Organizations and Institutions		3
			—
TOTAL Fall Quarter			17
Winter Quarter:			
WLT 132	Shielded, Metal, Arc I		12
VTR 181	Basic Blueprint Reading		3
			—
TOTAL Winter Quarter			15
Spring Quarter:			
WLT 133	Shielded, Metal, Arc II		12
VTR 103	Industrial Communications		3
VTR 182	Welding Layout		3
			—
TOTAL Spring Quarter			18
TOTAL First Year			50
SECOND YEAR:			
Fall Quarter:			
WLT 235	Pipe and Heavy Plate Welding		12
VTR 183	Welding Industry		3
			—
TOTAL Fall Quarter			15
Winter Quarter:			
WLT 234	Tig and Mig Welding		12
VTR 104	Oral Communications in Industry		3
WLT 135	Metallurgy		5
			—
TOTAL Winter Quarter			20

**GENERAL STUDIES
COURSE DESCRIPTIONS**

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. Mini-courses for college level credit are also offered through the Instructional Center. 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.

ART (ART)

ART 101 DESIGN—TWO DIMENSIONS

Study and work with the ways in which the visual elements are organized to express man's ideas or feelings. Emphasis is on two dimensional situations. **Three credits.**

ART 102 DESIGN—COLOR

Study and work with the ways in which the visual elements are organized to express man's ideas and feelings through color. **Three credits.**

ART 103 DESIGN—THREE DIMENSIONS

Study and work with the ways in which the visual elements are organized to express man's ideas and feelings through three dimensional conditions. **Three credits.**

ART 105 INTRODUCTION TO THE VISUAL ARTS AND DESIGN

An introduction to art, architecture, and the several fields of design. Through art history 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. **Five credits.**

ART 106 BASIC PHOTOGRAPHY

A course dealing with black and white photography, cameras, lenses, films, and papers. Lecture and studio. **Five credits.**

ART 107 ADVENT OF THE MOTION PICTURE

Fundamental aspects of the medium of the motion picture in order to allow a perspective that includes a critic's viewpoint. **Three credits.**

ART 205 ANCIENT ART HISTORY

Introduction of various forms of art and craft from pre-historic to medieval ages. **Three credits.**

ART 206 RENAISSANCE ART HISTORY

A study of art from the Renaissance in Italy and Flanders through the Romanticism of the 18th Century. **Three credits**

ART 207 CONTEMPORARY ART HISTORY

A study of various movements in art during the 19th and 20th Centuries. **Three credits.**

ART 295 INDEPENDENT STUDY IN ART

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 109 ETHNIC STUDIES IN ART: THE AMERICAN SOUTHWEST
Special studies of the art of the American southwest from pre-Columbian civilizations to present times as it relates to the Chicano culture.

MAS 115 ART OF MEXICO AND THE SOUTHWEST
Examination of artistic heritage of the Mexican American from pre-Columbian times to contemporary American setting. Topics include ancient Indian art, Spanish colonial art, Mexican art, and southwestern Hispanic art. Special attention is given to artistic trends being developed today by Chicanos in Anglo-American society. **Three credits.**

PAINTING (PAI)

PAI 105 WATERMEDIA I
Designed to introduce the student to water color medium and its varied uses. **Three credits.**

PAI 106 PAINTING I
Introduction of techniques of painting with oil and acrylic paints. **Three credits.**

PAI 205 WATER MEDIA II
Continuation of working with concepts and techniques of water color, water media paints, and related media. **Three credits.**

PAI 206 PAINTING II
The course will emphasize painting elements as they relate to the human figure. **Three credits.**

POTTERY (POT)

POT 105 POTTERY I
A basic course in pottery covering different techniques of hand-building; 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. **Three credits.**

POT 205 POTTERY II
Study of clay bodies, various construction techniques, and an introduction to glaze formulation. Increased emphasis is on thrown shapes. **Three credits.**

POT 206 SPECIAL PROBLEMS IN CERAMICS
Advanced glazing and firing procedures for stoneware, raku, and earthenware clays. Design principles relevant to pottery will be stressed. **Three credits.**

CRAFTS (CRA)

CRA 026 DECORATIVE WELDING
The course gives students an opportunity to create and to develop talent in welding creations. **Three credits.**

CRA 045 CROCHETING
Instructions in crocheting basic stitches, *reading instructions and making fashions for the family and home.* **Two credits.**

CRA 046 HOOKING

An introduction to techniques involving hooking with fibers. Emphasis is on design elements relating to creative pieces or functional works. **Three credits.**

CRA 047 KNITTING

Basic stitches of knitting, language of the art, and production of garments for family and home. **Two credits.**

CRA 048 MACRAME

Instruction in basic elements of macrame. **Three credits.**

CRA 055 WOOLSPINNING

Stitchery, weaving, knitting, crocheting, and hooking for basic fabrics. **One credit.**

CRA 078 FURNITURE REFINISHING AND WOODWORKING

Use of hand tools and machines in learning fundamental skills and processes necessary to complete a well-designed project for individual students. **Two credits.**

CRA 105 CRAFTS—FABRICS

An introduction to craft techniques and procedures involving yarns and fabrics, including hooking, stitchery and applique, weaving without a loom, batik, and tie-dye. Emphasis is on design problems with functional objects. **Three credits.**

CRA 106 CRAFTS—METALS

An introduction to techniques with metals including repousse, forming, forging, casting and enameling. Course will emphasize functional objects. **Three credits.**

CRA 107 JEWELRY I

Basic forming, forging, soldering, casting, and finishing techniques involved in creative jewelry. **Three credits.**

CRA 108 STAINED GLASS

A course stressing personal awareness of physical and aesthetic properties of glass. Studio work in basic concepts of stained glass, including design, layout, cutting, and leading emphasized. **Three credits.**

CRA 205 WEAVING

An introduction to basic techniques of weaving, stressing principles of design relevant to weaving. **Three credits.**

DRAWING (DRG)

DRG 111 DRAWING I

A study of the application of expressive medium of drawing. Students develop ability to visually record in a flexible and inventive manner. **Three credits.**

DRG 112 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. **Three credits.**

DRG 205 DRAWING II

Advanced study of expressive media of drawing. Students further develop craft of drawing as well as ability to transform ideas and experiences into drawing statements. **Three credits.**

SCULPTURE (SCU)

SCU 015 WOOD AND STONE CARVING

An introduction to basic techniques involving carving and finishing wood and stone, stressing the design of sculpture and functional objects. **Three credits.**

SCU 105 SCULPTURE I

Investigation into characteristics of traditional and contemporary sculptural forms and basic techniques of casting, carving, and constructing. Selected historical themes are considered. **Three credits.**

SCU 205 SCULPTURE II

Techniques such as plastic and metal casting, welding, and wood carving, and construction as a means of producing meaningful sculptural forms are covered. Presentations on history of selected techniques included. **Three credits.**

INTERIOR DESIGN (IND)

IND 015 INTERIOR DESIGN

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

IND 016 UPHOLSTERY

Course covers fundamentals of choosing fabrics, measuring, cutting, fitting, and sewing. Students supply their own fabrics, tools and furniture. **Three credits.**

COMPOSITION (CON)

CON 101 FUNDAMENTALS OF LANGUAGE

Designed to help the student to succeed in the college program. Emphasis is on communication skills, such as paragraph development, study skills, vocabulary, spelling, and other similar areas where the student needs individual attention. **Three credits.**

CON 102 FUNDAMENTALS OF WRITING

Individualized course within the classroom for developing language skills and essay writing. Prerequisite: CON 101 or diagnostic test. **Three credits.**

CON 103 INTERMEDIATE WRITING

Library skills and practice in research techniques are covered. Prerequisite: CON 102. **Three credits.**

CON 295 INDEPENDENT STUDY IN COMPOSITION

The 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 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.**

FOREIGN LANGUAGES

FRE 011 CONVERSATIONAL FRENCH I

Very basics of speaking French are presented, emphasizing vocabulary and sentence patterns, which a traveler might need in order to order meals, get a room in a hotel, shop, exchange money, or travel. **Three credits.**

FRE 012 CONVERSATIONAL FRENCH II

Continuation of FRE 011 emphasizing vocabulary expansion. Students also learn French culture, cuisine, and history of major points of interest. **Three credits.**

FRE 013 CONVERSATIONAL FRENCH III

Advanced study of conversational French. **Three credits.**

GER 015 CONVERSATIONAL GERMAN

A beginning course in conversational German intended to help the person who may be traveling in Germany. **Three credits.**

MAS 011 CONVERSATIONAL SPANISH I

A beginning course in conversational Spanish concerned with developing the ability to understand and speak regional Spanish. **Three credits.**

MAS 012 CONVERSATIONAL SPANISH II

A more advanced treatment of MAS 011. **Three credits.**

MAS 013 CONVERSATIONAL SPANISH III

Advanced study of conversational Spanish. **Three credits.**

MAS 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.**

MAS 102 ELEMENTARY SPANISH II

Continuation of MAS 101. **Five credits.**

HUMANITIES (HUM)

HUM 101 INTRODUCTION TO THE GREEK AND ROMAN PERIOD

Exploration of the ideas of civilization through philosophy and the arts, including music, literature, sculpture, and architecture. **Five credits.**

HUM 102 INTRODUCTION TO THE MIDDLE AGES AND RENAISSANCE

Continues the study of the development of the ideas of civilization. **Five credits.**

HUM 103 INTRODUCTION FROM THE SEVENTEENTH TO THE TWENTIETH CENTURIES.

Continues the study of ideas of civilization to the present. **Five credits.**

HUM 104 CONTEMPORARY CULTURE

Study of ideas, both Eastern and Western, in the 20th Century through firsthand experience of contemporary dramas, 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. They may take the course after the sequence

to study this area in depth. May be alternative to HUM 103. **Five credits.**

HUM 295 INDEPENDENT STUDY IN HUMANITIES

The 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.

CULTURAL STUDIES (CUS)

CUS 105 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. **Three credits.**

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 emergence in pre-Civil War and flowering in contemporary culture are included. **Three credits.**

JOURNALISM (JOU)

JOU 101 COLLEGE NEWSPAPER

Gives each student on-the-job training, through staff work on the college newspaper. Laboratory, three hours per week. **Two credits.**

JOU 102 COLLEGE NEWSPAPER

Continuation of JOU 101. **Two credits.**

JOU 103 COLLEGE NEWSPAPER

Continuation of JOU 102. **Two credits.**

JOU 105 PHOTOJOURNALISM

A practical, non-technical study of photography including the mechanics of cameras (both 35 mm and twin lens reflex), darkroom procedures, telling a picture story, composition, and use of the camera for school publications. **Five credits.**

JOU 111 NEWSWRITING I

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

JOU 112 NEWSWRITING II

Principles and practice in writing news stories, features, and editorials. Students must be enrolled in JOU 102 concurrently. **Three credits.**

JOU 113 NEWSWRITING III

Advanced news writing, editing, headline writing and page makeup. Students must be enrolled in JOU 103 concurrently. **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 BROADCASTING

Fundamental aspects of broadcasting media are covered, allowing an understanding of technical aspects of production, equipment, and actual production of several different kinds of radio and television programs. Prerequisite: SPE 115 or SPE 116. **Five credits.**

JOU 120 ADVERTISING

Introduction to functions of advertising as a merchandising tool, including study of copy, media, art work, and production. Will use the college newspaper as a practical outlet for student work. **Five credits.**

JOU 295 INDEPENDENT STUDY IN JOURNALISM

The 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.

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 relevance of literature in any society. **Three credits.**

LIT 106 INTRODUCTION TO FICTION

Practice in intensive analytical and interpretive reading to broaden and refine interests of students so that they may evaluate short stories and novels. **Three credits.**

LIT 107 INTRODUCTION TO DRAMA

Background history of the theatre and drama, including reading of masterpieces of dramatic literature from the classical period to the 20th Century. **Three credits.**

LIT 108 INTRODUCTION TO POETRY

Exploration of forms, types, language, and philosophies underlying the works of major American and British poets. **Three credits.**

LIT 109 CREATIVE WRITING

Instruction and practice in creative writing of types best suited to individual interest and talent. **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 205 THE AMERICAN WEST

Study of effects 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 LITERATURE AND THOUGHT

A study of modern American philosophy and the problems of modern culture since the 1920's as reflected in American literature. **Three credits.**

LIT 207 THE ROMANTIC MOVEMENT

A study of the social and philosophical background of this movement and its relationship to modern thought. **Three credits.**

LIT 208 FOUNDATIONS OF MODERN BRITISH LITERATURE

A study of the major British writers who formed foundations of modern literature, reflecting the society of their age, such as Charles Dickens, Robert Browning, and Thomas Hardy, to D. H. Lawrence. **Three credits.**

LIT 209 SHAKESPEARE

A basic course dealing with background material on Elizabethan theatre and a study of comedies, tragedies, and histories of Shakespeare. **Three credits.**

LIT 217 WOMEN IN LITERATURE

An exploration of varying images of women as found in literature, in various forms of literature, including poetry, drama, short story, and novels. **Three credits.**

LIT 295 INDEPENDENT STUDY IN LITERATURE

The 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 205 SURVEY OF MEXICAN LITERATURE IN TRANSLATION

A study of the great Mexican authors and poets which include first chroniclers of Mexico through current writers who have influenced contemporary Mexican American literature. **Three credits.**

MAS 206 SURVEY OF CONTEMPORARY 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, including examination through literature; Chicano image literature; analysis of Anglo literature about Chicanos and Chicano literature itself. **Three credits.**

MUSIC APPRECIATION (MUA)

MUA 101 ORIGINS AND RITES

Exploration of primitive rites, Oriental influences and Western beginnings including Blacks, American Indians, and Chicanos. **Three credits.**

MUA 102 MELODY AND MYTHS

Students explore medieval restrictions, Baroque conformity, Romantic revolution. Non-technical. **Three credits.**

MUA 103 NOW MUSIC

What's going on today? Where did it come from? Non-technical. **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 INTRODUCTION TO ELEMENTARY MUSIC

Workshop approach for prospective teachers of music on the 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 105 COMMUNITY SINGERS

Group singing: duet, quartet, madrigal, or mixed chorus, depending on class size and student desire. For anyone who likes to sing. **One credit.**

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 101 BEGINNING GUITAR I

Students will foster an intelligent understanding of the guitar as a legitimate musical medium, creating a firm foundation for further study and appreciation. At least six hours outside practice per week required. **Three credits.**

MPI 102 BEGINNING GUITAR II

Students begin development into musicians with a working knowledge of music history. Classroom contribution, participation, and initiative are emphasized. At least six hours outside practice per week required. **Three credits.**

MPI 105 EXPERIMENT IN MUSIC

Allows students with some degree of musical talent to share interests with others who are interested for the purpose of mutual enjoyment and development of musical expertise in impromptu group sessions. **Two credits.**

MUS 295 INDEPENDENT STUDY IN MUSIC

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.

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, causation, mind, human knowledge and its validity, the possession of free choice, value and its determination, and related subjects. **Five credits.**

PHI 106 HISTORY AND PHILOSOPHY OF RELIGION

A consideration of traditional doctrines and philosophical concepts of major religions. Emphasizes the impact of religious, philosophical qualities on value systems, and life styles of various Eastern and Western civilizations. Comparative elements are considered throughout developmental stages of various religions. **Three credits.**

PHI 107 INTRODUCTION TO LOGIC

An introduction to systems of logic which lie behind and support philosophical ideas. **Three credits.**

PHI 121 INTRODUCTION TO WALDORF EDUCATION

An introduction to anthroposophy, and Rudolph Steiner development of the child 1-4 years. History of educational theory included. **Three credits.**

PHI 122 ELEMENTS OF WALDORF EDUCATION I

An examination of fairy-tales and use in preparation for reading and writing. Effects of art and music in child development included. **Three credits.**

PHI 123 ELEMENTS OF WALDORF EDUCATION II

Continuing study of principles of Waldorf education with emphasis on implementation in home and school life. **Three credits.**

PHI 205 ETHICS

An examination of certain major systems of ethics from Aristotle's teleological naturalism through concepts of mathematics as presented by the analytical school. Moral predicates and judgments are explored for meaning and usage. **Three credits.**

PHI 206 UTOPIAS

Students are acquainted with Utopian concepts and evaluate how human behavior shapes and is shaped by these concepts, to help them evaluate the social environment they live in. **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 discussions 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.**

PHI 295 INDEPENDENT STUDY IN PHILOSOPHY

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.

READING (REA)

REA 101 DEVELOPMENTAL 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 105 STUDY SKILLS

Will aid students in all phases of study skills needed for mastery of

college textbooks, note taking, studying for tests, and test taking. **Two credits.**

REA 106 SPEED READING

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

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.**

SPE 117 ORAL INTERPRETATION

Concentration on teaching processes whereby a reader interprets and translates the meaning of written work for an audience, understands the selection, then projects meaning to the audience by use of the voice and suggested action to convey the author's meaning. **Three credits.**

THEATRE (THE)

THE 105 INTRODUCTION TO THEATRE

An introduction to theatre through discussion, lecture, field trips, and playmaking activities. Designed to expand awareness of dramatic activity in all aspects from interpersonal communication to live professional stage and cinema. **Three credits.**

THE 106 EVOLUTION IN PERFORMANCE

Designed to explore theatre from its beginnings and evolution in social consciousness to modern stage through performance from chief period of dramatic literature. **Three credits.**

THE 107 BEGINNING ACTING

An introduction to basics of dramatic art as an aid to inter-personal growth through exercises and group activities emphasizing relaxation and awareness of tools and environment of creating; specifically designed to awaken imagination and concentration. **Three credits.**

THE 108 STAGECRAFT

Primary attention is given to building and elements of theatrical design. Students will gain professionally in set building, painting, and lighting. Emphasis is given to job opportunities in the technical specialization field. **Three credits.**

THE 109 THE ART OF MOVEMENT

Designed to discipline the body and mind in performance of dance. Specific areas of study may include classical ballet, period ballroom dance, and modern interpretive dance. **Two credits.**

THE 115, 116, 117 COMMUNITY THEATRE PRODUCTION

An opportunity for students learning play production to work on an Aims College Theatre Department show. Auditions are open to everyone in the community. **One credit per course.**

THE 205 STUDIO THEATRE

Performance opportunity through study of theatrical media from small audiences, tour productions, and video-tape productions. Includes all modern staging techniques and styles. Emphasis is placed on development of recorded performance for classroom use. **Three credits.**

THE 206 CHILDREN'S THEATRE

An introduction to performance for children using techniques in creative dramatics and puppetry, to develop a children's theatre performance. Improvisation and awareness activities are emphasized. **Three credits.**

THE 207 PUPPET THEATRE

Students design and build puppets and create a performance situation using them. Study of history of puppetry and its unique theatrical environment is included. Prerequisite: THE 105. **Three credits.**

THE 209 SUMMER THEATRE WORKSHOP

A theatre repertoire company will perform a repertoire of plays for the community. Experience in all production facets. Members are required to act as well as work technical aspects. This is a tuition waiver program. Members are selected by the director. **Three credits.**

THE 295 INDEPENDENT STUDY IN THEATRE

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 106 MEXICAN AMERICAN THEATRE

History of Hispanic folk theatre in the southwest and fundamentals in actual presentation of the art form. It is hoped the course will create potential for forming a bilingual theatre group in the community. **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. Mini-courses 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, computa-

tion, 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— 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.

EDUCACIÓN FUNDAMENTARIA— INGLÉS COMO EL LENGUAJE SECUNDARIO

Esta clase es para estudiantes que quieren aprender inglés, o mejorar su habilidad de hablar inglés. Esta clase de inglés es para estudiantes que quieren transferir la habilidad de comunicarse en su idioma natal, al inglés, y para orientar personas a oficios, educación de agencias a las que pueden llamar en caso de apuros, y educación de la comunidad.

Aunque el énfasis de la clase será para que el estudiante pueda comunicarse verbalmente en inglés, también se enseñará lectura y escritura de acuerdo con lo que el estudiante haya aprendido verbalmente. Habrá viajes en la comunidad y fuera de la comunidad para aprender de las facilidades que están a nuestro servicio.

Completación con éxito de esta clase (educación hasta un cuarto grado) será necesario para poder avanzar a la clase de educación básica para adultos.

ADULT BASIC EDUCATION (ABE)

This class is designed to give the adult 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.

The class will function to prepare students either for a GED class or a vocational program. Curriculum is centered around individualized learning, allowing each student to work at his own rate.

GENERAL EDUCATION DEVELOPMENT (GED)

The GED course is designed to teach students the skills necessary to pass the GED examination in the content areas of mathematics, English, reading comprehension, social studies, science, and literature. The course is individualized so that each student works at his particular level and at his own rate until he is prepared to pass the GED test. Students are also given the option in the class to study any of the content areas in greater depth than is required for the GED in order to prepare themselves for future college or vocational goals.

The GED certificate is equivalent to the high school diploma and is accepted by both employers and schools of higher education. The GED certificate often provides increased opportunities for further education.

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 techniques and practices of demonolatry, witchcraft, white and black magic, and a comprehensive analysis of the paranormal (ESP, psychokinesis, telepathy, and precognition) from the ancient past to the present. **Three credits.**

PHYSICAL EDUCATION DIVISION

HEALTH EDUCATION (HEN)

HEN 105 PERSONAL HEALTH

A study of problems involved in personal and community health. Special emphasis is on actions an individual can take to maintain the highest degree of mental and physical health. **Three credits.**

HEN 106 SAFETY AND FIRST AID

Principles and practices of first aid to give immediate, temporary treatment in case of accident or sudden illness before the services of a physician can be secured. (The official First Aid Standard Senior Certificate is granted to students who satisfactorily pass the American Red Cross examination.) Three clock hours per week. **Three credits.**

CO-EDUCATIONAL ACTIVITIES (CAC)

CAC 101 YOGA I

Designed to teach students an old, practical and wise system to obtain health, alertness and spiritual strength. Two clock hours per week.

One credit.

CAC 102 YOGA II

Students further their health and knowledge of Yoga. Two clock hours per week.

One credit.

CAC 103 BEGINNING KARATE

Students learn basic blocks, kicks, and punches of Karate. Two clock hours per week.

One credit.

CAC 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.

CAC 105 FLAG FOOTBALL

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

One credit.

CAC 106 SOFTBALL

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

One credit.

CAC 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.

CAC 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.

CAC 112 ADVANCED VOLLEYBALL

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

One credit.

CAC 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.

CAC 122 INTERMEDIATE SWIMMING

Incorporation of basic sequence of skills taught in the American Red Cross intermediate and advanced swimmer classifications as taught by the Red Cross. Two clock hours per week.

One credit.

CAC 131 PHYSICAL FITNESS

A variety of exercises are taught to improve students' physical fitness. Students will also have the opportunity to jog a few miles each week. Two clock hours per week.

One credit.

CAC 132 ADVANCED PHYSICAL FITNESS

A systematic conditioning program to provide strength, endurance, and coordination. Special emphasis is on more vigorous exercises and jogging for longer periods of time. Two clock hours per week.

One credit.

CAC 141 GOLF

Designed to develop a knowledge of rules, courtesies, and skills in golf as well as instill an appreciation of the game. Two clock hours per week. **One credit.**

CAC 142 ADVANCED GOLF

Students develop advanced techniques of golf. Two clock hours per week. **One credit.**

CAC 161 BEGINNING BOWLING

Rules, skills, strategy, and courtesies of individual and team bowling covered. Two clock hours per week. **One credit.**

CAC 162 ADVANCED BOWLING

Designed for bowlers who wish to improve skills while working on rules, strategy, and techniques of team bowling. Two clock hours per week. **One credit.**

CAC 171 FUNDAMENTALS OF DANCE

A variety of exercises and dances are taught. Students are allowed to express their own ideas through dancing. Two clock hours per week. **One credit.**

CAC 172 ADVANCED FUNDAMENTALS OF DANCE

Further development of gracefulness and poise through exercise and dance. Two clock hours per week. **One credit.**

CAC 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.**

CAC 182 ADVANCED TENNIS

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

MAS 153 MEXICAN DANCE

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

MEN'S ACTIVITIES (MAC)

MAC 101 WEIGHT TRAINING

Instruction and practice in fundamentals of physical training through use of various weight apparatus. Two clock hours per week. **One credit.**

MAC 102 ADVANCED WEIGHT TRAINING

Continuation of MAC 101, including advanced techniques demonstrated in class. Two clock hours per week. **One credit.**

MAC 105 MEN'S 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.**

WOMEN'S ACTIVITIES (WAC)

WAC 105 WOMEN'S PHYSICAL EDUCATION

Designed to teach basic skills of team and individual games to develop

poise and attitudes toward physical activity, and improve physical fitness. Two clock hours per week. **One credit.**

WAC 106 SLIMNASTICS

Women develop a better figure, firm up, increase circulation, and better coordination using modern equipment. Two clock hours per week. **One credit.**

WAC 107 SELF DEFENSE FOR WOMEN

Designed to teach various skills and techniques of self defense. 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. Mini-courses 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 BIOLOGY

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 occurring 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 ADVANCED PLANT BIOLOGY

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

BIO 295 INDEPENDENT STUDY IN BIOLOGY

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.**

CHEMISTRY (CHE)

CHE 100 SURVEY 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, stoichiometry, 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 201 FUNDAMENTALS OF ORGANIC CHEMISTRY

Introductory basic principles 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. Three 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.

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. Four 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.

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.**

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 over-emphasis 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, solution of oblique triangles, and complex numbers. Prerequisite: MAT 111. **Five credits.**

MAT 113 CALCULUS WITH ANALYTIC GEOMETRY

Studies derivative of algebraic functions, anti-derivative, and definite integral of algebraic functions. An introduction to vectors and plane analytic geometry included. Prerequisite: MAT 112. **Five credits.**

MAT 201 CALCULUS WITH ANALYTIC GEOMETRY

Continuation of MAT 113 emphasizing transcendental functions, methods of integration, hyperbolic functions. **Five credits.**

MAT 202 CALCULUS WITH ANALYTIC GEOMETRY

Continuation of MAT 201 emphasizing limits and continuity, parametric equations, applications of derivative and integral, polar coordinates, and introduction to solid analytic geometry. **Five credits.**

MAT 203 MATHEMATICAL ANALYSIS

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.

PHYSICS (PHY)

PHY 100 SURVEY OF PHYSICS

A comprehensive but not highly technical presentation of fundamental principles of physics with practical applications. 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.

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 360 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

Continuation 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 heavy emphasis on development of arithmetic, geometry, algebra, and calculus. Will not apply toward the 15-credit Science and Mathematics requirement. **Three 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 360 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 360 computer will be used as aids in computation and analysis. Prerequisite: STA 101 or permission of instructor. **Five credits.**

SOCIAL SCIENCE DIVISION

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

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.**

ANT 295 INDEPENDENT STUDY IN ANTHROPOLOGY

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.

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 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 principles of production, distribution, and consumption of wealth. **Five credits.**

ECO 295 INDEPENDENT STUDY IN ECONOMICS

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.

GEOGRAPHY (GEO)

GEO 105 WORLD REGIONAL GEOGRAPHY

A study of the world's regions. Emphasis is on culture within regions as well as landforms, 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

Colorado's land forms, climate, flora and fauna, ethnic and cultural groups, and economy are examined and analyzed. Urban rural geography are also treated. Population and economic trends are examined. **Three credits.**

GEO 207 URBAN GEOGRAPHY

Introductory study of geographic factors related to development of modern urban areas; population growth, land use, environmental deterioration, and future planning. **Three credits.**

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

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. **Five credits.**

HIS 106 HISTORY OF THE UNITED STATES SINCE 1865

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 post-war 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 traders, mining, railroad, farming, and ranching frontiers. Field trips included.

Five credits.

HIS 210 20th CENTURY RUSSIA

A survey of Russian history from the revolutionary period. Contrasts the "new Soviet man" with the more traditional Russian in society and politics.

Five 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. **Credit hours (1-3)** must be arranged with the Division Chairman and instructor.

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 MEXICAN HISTORY TO INDEPENDENCE

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 1519, the Spanish conquest, significant events of the Colonial period, and the causes which led to independence.

Three credits.

MAS 162 MEXICAN HISTORY SINCE INDEPENDENCE

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 OF THE SOUTHWEST

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. **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 106 METROPOLITAN GOVERNMENT

A study of origin, structure, and current trends in metropolitan government, with particular emphasis on the Denver-Metro area. Course may be offered in mini-course or contact-course format. In contact-course format, brief "internships" in various city government positions will be available, and students will compare experiences in class discussions. **Three-five credits.**

POS 107 STATE GOVERNMENT

A study of origin, structure, and current trends in state government in the U. S. Mini-course, contact-course or learning lab format, "internships" available as in POS 106. **Two credits.**

POS 108 COUNTY GOVERNMENT

A study of the origin, structure, and current trends in county government in the U.S. Mini-course, contact-course or learning lab format, "internships" available as in POS 106. **Two credits.**

POS 109 CITY GOVERNMENT

A study of origins, structure, and current trends in various forms of municipal government in the U.S. Mini-course or contact-course format, "internships" available as in POS 106. **Two credits.**

POS 115 EFFECTIVE CAMPAIGNING

Explores the most effective means of mobilizing support for a particular local candidate or issue. Designed to assist community leaders and students of political science interested in more practical aspects of politics. Will be scheduled to precede or coincide with state and local elections, to offer the opportunity for some campaign experience with candidates or issues chosen by students. **Two 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 Viet-

nam 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 governmental 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 205 INTERNATIONAL RELATIONS

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

POS 295 INDEPENDENT STUDY IN POLITICAL 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.

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 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. **Five 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 208 SOCIAL PSYCHOLOGY OF MINORITY GROUPS

An examination of social and psychological aspects of minority-majority group relations in the U. S. **Three credits.**

PSY 209 PSYCHOLOGY OF PREJUDICE

A course designed to assist students so they understand in depth the basic causes of prejudice and the etiology of prejudicial behavior. Experiences are provided for greater understanding of people and pro-

cesses for abating and ameliorating the degree of prejudice by the individual. **Three credits.**

PSY 215 PARAPSYCHOLOGY

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

FAMILY LIFE EDUCATION (FAL)

FAL 115 PRE-NATAL INSTRUCTION I

Preparation for the expectant mother psychologically and physically for the process of pregnancy, labor, and delivery; initial care of newborn infants. **One credit.**

FAL 116 PRE-NATAL INSTRUCTION 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 women to cope with present pregnancy positively; and explores demand of new family relationships (sibling rivalry). Promotes better preparation for labor and delivery processes by teaching and practicing related exercise. **One credit.**

FAL 117 LAMAZE CHILDBIRTH EDUCATION

Training for couples in Lamaze techniques of labor and birth. Designed to help better prepare expectant parents psychologically and physically for processes of pregnancy, labor, and delivery; initial care of newborn infants. **Two credits.**

FAL 125 YOUR INFANT

Will acquaint mothers with growth and development and normal characteristics of infancy. Mothers develop ideas about handling childhood problems both physically and emotionally. Also helps mothers understand and cope with their feelings of motherhood and aids in anticipation and prevention of accidents. **One credit.**

FAL 127 YOUR TODDLER

Parents will become acquainted with normal characteristics of toddlers and understand and cope with their feelings concerning parenthood. Exploration of problem areas of development and ways of aiding growth and development of the toddler socially and emotionally included. **One credit.**

FAL 215 FAMILY COMMUNICATION SKILLS AND FAIR-FIGHT TRAINING

Enrichment of family life through study and application of contemporary approaches in psychology. Application of methods will be in the development of communication and conflict-resolution skills. **Three credits.**

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 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 within the family and society. **Three credits.**

SOC 106 CONTEMPORARY SOCIAL PROBLEMS

Analysis of processes of personal and social disorganization and re-organization in contemporary society. **Five 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 120 MEXICAN-AMERICAN CULTURE OF THE SOUTHWEST

An examination of the cultural aspects of the Chicano in the Southwest, especially the language, arts, folklore, and lifestyle. The Hispanic, Indian, and American elements in the culture will be analyzed. Special emphasis will be placed on the Mexican contribution to the Southwestern culture of today. **Three credits.**

MAS 125 THE CONTEMPORARY MEXICAN-AMERICAN

The course will concentrate on the position of the Mexican-American in the Anglo American economic, political, and social system from World War I to the present. Main emphasis will be on the Chicano movement from World War II to the new awareness of today. **Three credits.**

**OCCUPATIONAL EDUCATION
COURSE DESCRIPTIONS**

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 105 PAYROLL ACCOUNTING

An in-depth study of various payroll systems including law and government requirements. Includes projects in actual payroll preparation. **Three credits.**

ACC 121 INCOME TAX ACCOUNTING I

A study of the most important income tax code provisions as they affect business enterprise and situation. Emphasis on application of code provisions on accounting system for tax planning and minimization. **Five credits.**

ACC 122 INCOME TAX ACCOUNTING II

Continuation of ACC 121. **Five credits.**

ACC 201 INTERMEDIATE ACCOUNTING I

An advanced course in accounting principles dealing with underlying theory of statement preparation and valuation problems of current assets and liabilities. Prerequisite: ACC 102 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 203 INTERMEDIATE ACCOUNTING III

Continuation of ACC 201 and ACC 202 emphasizing capital accounts. **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 203 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 102 or permission of instructor. **Five credits.**

ACC 212 COST ACCOUNTING II

Continuation of ACC 211. **Three 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, tabulation, 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. Prerequisites: 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 104 PRODUCTION TYPEWRITING

Application of previously learned techniques and speed to integrated office situations including a unit in transcribing machines. Prerequisite: BUS 103 or permission of instructor. **Three credits.**

BUS 105 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 106 COLLEGE BOOKKEEPING II

Continuation of BUS 105 with further development of special journals, emphasizing partnership forms 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 105 or permission of instructor. **Five credits.**

BUS 110 BEGINNING GREGG SHORTHAND

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

BUS 111 SECOND QUARTER GREGG SHORTHAND

Review of theory to reinforce knowledge and skills; development of speed, vocabulary, and transcription skill. Prerequisite: BUS 110 or one year high school shorthand or permission of instructor. **Five credits.**

BUS 112 THIRD QUARTER GREGG SHORTHAND

Further development of dictation speed with dictation and transcription on new material emphasized. Prerequisite: BUS 111 or two years

high school shorthand or ability to take dictation at 80 wpm. **Five credits.**

BUS 113 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: BUS 112 or ability to take dictation at least 100 wpm. **Five credits.**

BUS 114 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 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 INTRODUCTION TO DUPLICATION MACHINES I

Introduction to duplication equipment found in modern business. Emphasis on planning and preparation of materials for duplication. Machines include fluid duplicators and typewriters. Typewriting and mechanical dexterity helpful. **Three credits.**

BUS 117 GENERAL DUPLICATION MACHINES II

Emphasis on planning and preparation of materials for printing on offset press. Students develop operational skill competencies on the offset press. Prerequisite: BUS 116. **Three credits.**

BUS 118 DUPLICATION MACHINES III — PUBLICATION PRODUCTION

Designed to provide students with a degree of vocational competency in operation of offset press and photographic process, including half-tone methods, use of contact screens, process camera, and plate making. Prerequisite: BUS 116 and BUS 117. **Three credits.**

BUS 120 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. Also designed for students interested in learning rapid writing for personal use (taking class notes, etc.). **Five credits.**

BUS 121 ALPHABET SHORTHAND SPEED BUILDING

Designed to develop speed in taking business letter dictation at employable levels and continuing to develop transcription skill. Prerequisite: BUS 120 or permission of instructor. **Five credits.**

BUS 122 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, type-writing, and business vocabulary; and prepare to enter an office position with adequate skill. **Five credits.**

BUS 130 MEDICAL TERMINOLOGY

Supervised learning through which students develop insight, understanding and skill in practicing use of medical terminology through

actual medical transcription. Assignment related so experience is obtained in all types of medical terminology previously studied. Prerequisite: Ability to type. **Two credits.**

BUS 131 ADVANCED MEDICAL TERMINOLOGY

A study of language of medicine as it applies to each biological system of the body. Practical application includes chart review, oral reading practices, and listening to medical dictation. A study of clinical lab terms for each system, oral reading practices, and directed practice and systems analysis included. Some introduction to anatomy and physiology. Prerequisite: Good typing ability. **Two credits.**

BUS 140 MEDICAL OFFICE PROCEDURES

A study of medical record department-receptionist techniques, medical records and files, and instruction in keeping financial records. Prerequisite: Typing ability or BUS 101. **Five credits.**

BUS 141 OFFICE PROCEDURES

A study of general business office duties and problems, sales, purchasing, payroll and financial procedures; filing procedures and equipment; mail handling; reception and messenger work; duplication; pulling together previously acquired office knowledge and skills. Prerequisite: Ability to type or BUS 101. **Five credits.**

BUS 142 SECRETARIAL PROCEDURES

Students gain simulated job experience similar to what they will encounter on an actual job while getting advanced training in techniques and procedures used in a secretarial capacity. Prerequisite: Good typing ability. **Three credits.**

**BUS 143 PERSONAL DEVELOPMENT AND HUMAN RELATIONS
IN BUSINESS**

A study of business psychology as related to personal development and adjustment in business. Also studies intergroup relations, collective behavior, one-to-one association, and relationships of these interactions in the business field. **Three credits.**

BUS 146 RISK AND INSURANCE

A comprehensive study of insurance including principles of risk bearing and kinds of insurance contracts. Intended to provide practical knowledge in purchasing and using insurance contracts for business purposes. **Three credits.**

BUS 147 INSURANCE TERMINOLOGY AND PROCEDURES

Basic principles of insurance and risk. Various kinds of insurance are discussed; the primary objective of the course is an orientation of the many kinds of insurance and purposes. **Three credits.**

BUS 148 CONSUMER ECONOMICS

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

BUS 149 REAL ESTATE AND FINANCIAL INSTITUTIONS

A fundamental real estate course covering the economic, legal, financial, marketing, managerial, and operational aspects of real estate. The analysis of real estate financing is emphasized. **Five credits.**

BUS 150 PERSONAL DEVELOPMENT FOR THE BUSINESSMAN

Assistance for the young person who wishes to launch a successful

business career in an age that demands a new depth of personal commitment, penetrating self-knowledge and perceptive goal-setting. **Two credits.**

BUS 157 BUSINESS ENGLISH

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.

Three credits.

BUS 158 BUSINESS COMMUNICATIONS

Planned to help students develop communication skills to function efficiently in business positions and write with clarity and confidence. Each students' ability to communicate facts, ideas and opinions improved. Students work toward precise, powerful business writing. Prerequisite: BUS 157 and ability to type. **Three credits.**

BUS 159 BUSINESS COMMUNICATIONS (ORAL)

Students prepare to orally transmit information to and from fellow employees and other persons in business situations. Students develop skill in listening and speaking forcefully, persuasively and convincingly. **Three credits.**

BUS 161 ADDING AND CALCULATING MACHINES

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

BUS 201 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 214 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. **Three credits.**

BUS 220 OFFICE MANAGEMENT

A study of basic principles of office management, office operations managers must understand to organize and plan, and tools to utilize to achieve efficiency and cost control. **Three credits.**

BUS 222 GRAPHIC DESIGN AND DUPLICATION I

An introduction of graphic arts technology including copy preparation, design layout, and advanced techniques of duplication. Concerned with materials, tools, and skill competencies necessary for preparation of materials to be duplicated. Prerequisites: BUS 102 and BUS 116. **Three credits.**

BUS 223 GRAPHIC DESIGN AND DUPLICATION II

Concentrated study of techniques, processes, and products of graphic arts industry. Students are involved in designing, reproducing, presenting, and managing of graphic materials. Prerequisites: BUS 222 and permission of instructor. **Three credits.**

BUS 224 GRAPHIC PRODUCTION III

Application of graphic skills and techniques to production tasks, stressing skills and knowledge for employability. Prerequisites: BUS 222, BUS 223, and permission of instructor. **Three credits.**

BUS 226, 227 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, develop salable office skills and be approved for admission by his advisor and supervising instructor in the quarter prior to enrollment. **Five credits per course.**

BUS 230 LEGAL TERMINOLOGY

Intensive practice in preparing many types of legal documents. Introduction of routine of a legal office. Designed for legal secretarial students, and attention is given to mastering meaning, spelling, and shorthand forms established for legal terms in preparation for legal dictating transcription. Lab hours may be required. Prerequisite: BUS 141. **Three credits.**

BUS 240 FINANCIAL MANAGEMENT

Deals with conceptual alternatives of financial management with emphasis on preparation and analysis of sources and uses of short- and long-term capital. Prerequisite: BUS 115 or permission of instructor. **Three credits.**

BUS 249 BUSINESS STATISTICS

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

BUS 254 BUSINESS LAW I

An introduction to law with analysis of its origin and development and interaction with business. **Five credits.**

HLH 215 ANATOMY AND PHYSIOLOGY

A study of the body (cells, tissues, organs, cavities and planes) plus systems of the body on a medical concept. Prerequisites: BUS 140, BIO 107. **Five credits.**

ELECTRONIC DATA PROCESSING (EDP)**EDP 130 INTRODUCTION TO DATA PROCESSING**

A survey of information processing systems and computer technology. Topics include a non-technical description of "how a computer works," business uses of computers; business system design process, and introduction to computer programming. **Three credits.**

EDP 140 COMPUTER CONCEPTS AND OPERATIONS

A study of computer hardware and software with emphasis on how components relate to an integrated processing system, and introduction to basic programming concepts. Intended to provide necessary background to effectively pursue programming language courses. Prerequisite: EDP 130 or permission of instructor. **Three credits.**

EDP 160 ASSEMBLER LANGUAGE

Programming concepts learned in EDP 140 are implemented using IBM 360 Assembler Language. Documentation techniques and programming standards stressed. College computer will be used to test programs written by students. Prerequisite: EDP 140. **Five credits.**

EDP 161 COBOL

Fundamentals of business-oriented programming language. Topics parallel those covered in EDP 160 with addition of debugging routines. Prerequisite: EDP 160. **Five credits.**

EDP 260 ADVANCED ASSEMBLER LANGUAGE

Continuation of EDP 160. Topics parallel EDP 140 with addition of program overlays and basic physical I/O/coding. Prerequisites: EDP 140, EDP 160. **Five credits.**

EDP 261 ADVANCED COBOL

Continuation of EDP 161. Topics parallel EDP 140 with addition of efficient COBOL programming techniques. Prerequisites: EDP 161, EDP 260. **Five credits.**

EDP 262 PL/1 (PROGRAMMING LANGUAGE I)

An elective course in PL/1 programming language and its application to both business and scientific problems. Topics parallel EDP 140. Prerequisites: EDP 140, EDP 161, or equivalent experience. **Five credits.**

EDP 263 REPORT PROGRAM GENERATOR (RPG)

An elective course in RPG programming language. Topics include printed report generation, file matching, control breaks and table search. Prior knowledge of fundamental programming logic required. Prerequisite: EDP 140 or equivalent experience. **Five credits.**

EDP 270, 271 COOPERATIVE WORK EXPERIENCE

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. Prerequisite: Students must be in the fifth and sixth quarters of a Data Processing Program, develop salable skills, and in the quarter prior to enrollment be approved for admission by his advisor and the supervising instructor. **Five credits per course.**

DISTRIBUTIVE EDUCATION (DE)

DE 101 PRINCIPLES OF MERCHANDISING

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.**

DE 102 SALESMANSHIP

An interpretation of psychological development of persons. Emphasis is on arts of making friends and development of successful relationships between customer and salesman. **Five credits.**

DE 122, 123, 124, 225, 226, 227 PERSONAL ADJUSTMENT TO BUSINESS

Supervised employment in positions related to field of merchandising. Intended to provide practical experience in operations and methods for

students preparing for a career in business. A minimum of 15 hours of qualified employment plus one hour each week in a seminar in human relations. **Five credits per course.**

DE 150 PRINCIPLES OF ADVERTISING

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

DE 206 CREDIT MANAGEMENT

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

DE 221 PERSONNEL MANAGEMENT

A survey of principles of personnel management and industrial relations policies, with emphasis on theories of work, organization, administration, manpower management, staffing, and work incentives. Special emphasis on art of supervision. **Five credits.**

DE 261 PRINCIPLES OF MARKETING

A study of fundamental organization of systems of distribution from manufacturer to consumer. Special emphasis at retail level. Prerequisite: Sophomore standing. **Five credits.**

DE 262 PRINCIPLES OF MANAGEMENT

A study of essentials of management of merchandising concerns in industry; organization structures, control of physical facilities, financing, production, planning and scheduling, purchasing, sales, office services, budgeting, and decision-making. **Five credits.**

TECHNICAL DIVISION

AGRICULTURE CO-OP PRE-MANAGEMENT

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 area they wish to concentrate. Feed and feed processing; petroleum; chemicals; 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. Fertilizers, tires, batteries, and accessories; office management; and grain handling will be covered. 50 clock hours. Field trips included. **Five 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; big business; 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 live-stock and feeding methods. Evaluation of 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 AND FERTILIZERS

Overview of more common chemicals used in agriculture, their makeup and uses, including soils, fertilizers, spray compounds, and medications. 50 clock hours. **Five 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.**

AVIATION TECHNOLOGY (AVT)

AVT 101 PRIVATE REQUIREMENTS I

Basic introduction to preflight facts, meteorology, and federal air regulations. 30 clock hours. **Three credits.**

AVT 102 PRIVATE REQUIREMENTS II

Aircraft weight and balance, flight computer, navigation, and radio navigation. Students should be able to pass FAA private written test at conclusion of course. 30 clock hours. **Three credits.**

AVT 103 PRIMARY FLIGHT LAB

Pre-solo and supervised solo; pre-cross-country, dual, and solo cross-country; preparation for course completion and flight check; and elementary instrument flying. **Five credits.**

AVT 104 COMMERCIAL REQUIREMENTS I

Advanced meteorology; commercial aircraft weight and balance. Prerequisite: Private pilot's license or permission of instructor. 50 clock hours. **Five credits.**

AVT 105 BASIC FLIGHT LAB

Review of primary flight, elementary instrument flying, full and partial panel, cross-country flying. Prerequisite: Private pilot's license, AVT 104. **Three credits.**

AVT 112 CONVENTIONAL GEAR TRANSITION

Principles of "P" factor and torque, aircraft orientation, and characteristics of high performance aircraft. Lab and classroom. **Two credits.**

AVT 206 ADVANCED FLIGHT LAB

Review instrument flying, night flying, cross-country flying. Prerequisites: Private pilot's license, AVT 105. AVT 212 may be taken concurrently. **Five credits.**

AVT 207 BASIC INSTRUMENTS AND SYSTEMS

Review basic instrument flying techniques, instrument components and operation, instrument flight rules (IFR), and very high frequency omni range (VOR planning). Prerequisite: Private pilot's license or permission of instructor. Students should be able to pass FAA instrument written test at conclusion of course. 50 clock hours. **Five credits.**

AVT 208 COMMERCIAL FLIGHT LAB

Complicated aircraft familiarization, commercial maneuvers, cross-country flying, high-altitude and mountain flying, flight in high density airport traffic areas. Prerequisite: AVT 212. **Four credits.**

AVT 209 ADVANCED INSTRUMENT FLYING

Instrument flight charts, instrument landing systems (ILS), automatic directional finding (ADF), approaches, and a minimum of 20 hours of instruction in an instrument trainer. **Five credits.**

AVT 210 ADVANCED COMMERCIAL FLYING LAB

Advanced commercial maneuvers, 10 hours advanced simulator training, advanced instruments in aircraft. IFR enroute procedures. Prerequisite: AVT 208 or permission of instructor. **Five credits.**

AVT 211 MULTI-ENGINE TRANSITION LAB

Principles and procedures of light twin-aircraft, complicated systems orientation and familiarization, emergency situations. Prerequisites: Private pilot's license and 100 hours flying time. **Three credits.**

AVT 212 COMMERCIAL REQUIREMENTS II

Commercial federal air regulations, advanced flight computer, advanced navigation and radio. Prerequisites: Private pilot's license, or permission of instructor, AVT 104. Students should be able to pass FAA commercial written test at conclusion of course. 50 clock hours. **Five credits.**

AVT 213 CERTIFIED FLIGHT INSTRUCTOR

Instructional methods, theory, and practice, effective communications, fundamentals of instruction, and preparing a lesson plan. 25 hours flight time. Prerequisites: Private pilot's license. Lab and classroom. **Five credits.**

AVT 214 INSTRUMENT FLIGHT INSTRUCTOR

Theory and practice of teaching basic pitch and bank instruments, instrument flight planning and instructional techniques. Prerequisite: AVT 207. AVT 209 may be taken concurrently. **Three credits.**

AVT 215 BASIC GROUND INSTRUCTOR

Fundamentals of instruction, theory, and practice of classroom presentation of study of all flight subjects. 20 clock hours. **Two credits.**

AVT 216 ADVANCED GROUND INSTRUCTOR

Students practice experience in classroom presentation, advanced theory, and practice of classroom presentation, advanced meteorology, weight balance, and transport-type aircraft. Prerequisite: AVT 215 or permission of instructor. 20 clock hours. **Two credits.**

AVT 217 INSTRUMENT GROUND INSTRUCTOR

Instruments and systems, instrument flight charts, IFR regulations, instrument instructing techniques. 20 clock hours. **Two credits.**

CHEMICAL TESTING TECHNOLOGY (CHT)

CHT 101 CHEMICAL TESTING TECHNICIAN

Principles of laboratory technology applying to safety in the lab, techniques of sampling, gravimetric analysis, and titrimetric analysis. Prerequisite: One unit high school algebra or concurrent beginning of MAT 016. 3 hours lecture, 4 hours lab. **Five credits.**

CHT 102 CHEMICAL TESTING TECHNICIAN

Principles of practical laboratory procedures including drying, physical testing, calculations using slide rule and electronic calculators, atomic structure, and nomenclature. Prerequisite: CHT 101. 3 hours lecture, 4 hours lab. **Five credits.**

CHT 103 CHEMICAL TESTING TECHNICIAN

Inorganic and organic chemicals, gas chromatography, ion exchange, qualitative analysis, redox titrations, reactions of organic compounds included. IR spectrometer and polarimeter and gas chromatography used. Prerequisite: CHT 102. 3 hours lecture, 4 hours lab. **Five credits.**

CHT 201 CHEMICAL TESTING TECHNICIAN

Practical laboratory experience in using literature in library, materials, and fabrication (glassblowing), liquids and solutions, formation of molecules and ions. Prerequisite: CHT 103. 3 hours lecture, 4 hours lab. **Five credits.**

CHT 202 CHEMICAL TESTING TECHNICIAN

Principles of laboratory technology applying to equilibrium and rates of chemical reactions, atomic absorption, synthetic polymers, carbohydrates, and natural products. Extraction and electrophoresis also presented. Prerequisite: CHT 201. 3 hours lecture, 4 hours lab. **Five credits.**

CHT 203 CHEMICAL TESTING TECHNICIAN

Electrochemistry, electrolytic cells, ion selective electrodes, thermal methods of analysis. Nuclear magnetic resonance and principles of mass spectrophotometry presented. Prerequisite: CHT 202. 3 hours lecture, 4 hours lab. **Five credits.**

DRAFTING (DRA)

DRA 121 DRAFTING I

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 II

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 III

Applied vocational drafting in areas of architectural drafting, structural drafting, mapping and topography, electrical and electronics drafting,

pipng 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. Magnetics 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 ELECTRONIC 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 experiments 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 relationship are covered. 50 clock hours. **Five credits.**

ELT 162 DIGITAL PRINCIPLES

Includes number system, 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 user 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 clock 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-system 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, serial 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 developments 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 COMPANY DISCIPLINE AND ADMINISTRATION
Instruction, methods and procedures for department discipline, company administration and details to public assembly. 20 clock hours. **Two credits.**

FS 105 ROPES AND KNOTS
Detailed study of ropes and knots used in fire department operations such as raising and lowering equipment and rescue procedures. 20 clock hours. **Two credits.**

FS 110 FORCIBLE ENTRY
Methods used in forcible entry in all types of building construction. 20 clock hours. **Two credits.**

FS 115 LADDER INSTRUCTION
Instruction, practice and study of types of ladders; construction of ladders and methods of use. 20 clock hours. **Two credits.**

FS 120 BASIC OPERATIONS
Basic operations for beginning firemen. 20 clock hours. **Two credits.**

FS 125 HOSE LAYOUTS
Elementary and advanced hose evolutions from hydrants, standpipes, fire department connections, and master streams on equipment. 20 clock hours. **Two credits.**

FS 130 WATER HYDRAULICS

A detailed study of water hydraulics in connection with pressure, friction, loss, range and reach, head or elevation, reaction and discharge, and volume. 50 clock hours. **Five credits.**

FS 135 VENTILATION

Proper methods of ventilating smoke and toxic gases from all types of buildings. 20 clock hours. **Two credits.**

FS 140 CHEMISTRY OF FIRE

Basic characteristics for makeup of fire with instruction on terms including explosive range, incipient fire, ignition temperature, thermodynamics, flash point, and spontaneous ignition. Instruction also given on hazardous chemicals in connection with department activities. 50 clock hours. **Five credits.**

FS 145 GAS AND SMOKE MASKS

Gas and smoke masks, methods of use, safety features and types of manufacturers. 20 clock hours. **Two credits.**

FS 150 BUILDING CONSTRUCTION

Instruction in all types of buildings as connected with fire prevention, inspection, and fire fighting. 20 clock hours. **Two credits.**

FS 155 MOTOR VEHICLES

A study of all types of department vehicles including manufacturers, maintenance, proper operating procedures, and driver training. 20 clock hours. **Two credits.**

FS 160 ELECTRICITY AND THE FIREMAN

A basic knowledge of electricity as used in conjunction with fire fighting and conformity of codes during fire inspection. 20 clock hours. **Two credits.**

FS 165 SALVAGE AND OVERHAUL

Complete instruction and study of use of salvage covers and methods of overhaul at fire scenes. 20 clock hours. **Two credits.**

FS 170 ARSON OR INCENDIARY FIRES

A detailed study of degrees of arson, methods of detection, surveillance, and collection of evidence. 20 clock hours. **Two credits.**

FS 175 PORTABLE FIRE EXTINGUISHERS

Instruction in all types of fire extinguishers, methods of use, and chemical makeup of each type as used in various fires. 20 clock hours. **Two credits.**

FS 180 RESCUE AND FIRST AID

Methods of rescue and study of use of equipment including resuscitators, cardiac compressors, inhalators, and first aid procedures used in emergencies. 50 clock hours. **Five credits.**

FS 185 CITY CODES AND ORDINANCES

A study of ordinances and codes used in conjunction with department activities. Instruction for understanding of city government included. 20 clock hours. **Two 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, rights of accused, motions, and appeals studied. 50 clock hours. **Five 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. 75 clock hours. **Seven credits.**

MECHANICAL AND CIVIL ENGINEERING TECHNOLOGY (MCE)

MCE 131 INTRODUCTORY DRAFTING

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 132 INTERMEDIATE DRAFTING

Continuation of MCE 131, emphasizing pictorial and multi-view drawing. Technical sketching, auxiliary views, shadow and shading, revolution and detail working drawings studied. 80 clock hours. **Five credits.**

MCE 133 MECHANICAL DRAFTING I

Continuation of MCE 132 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 261 MECHANICAL DRAFTING II

Continuation of MCE 133 emphasizing working drawings in architecture, structural, electronic and electrical, welding, and topographic areas. 80 clock hours. **Five credits.**

MCE 262 STATICS AND MECHANICS

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

MCE 263 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 264 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 265 APPLIED DESIGN AND DRAFTING

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 266 MACHINE DESIGN

Application of knowledge of mathematics, sciences and drafting to practical problems of machine component design. Elements designed are analyzed regarding function, geometry and cost of manufacture. 80 clock hours. **Five credits.**

MCE 271 BASIC SURVEYING

Basic surveying equipment and its uses presented. Compatible data gathering and presentation skills developed. Computations relative to surveying studied and practiced. 50 clock hours. **Three credits.**

MCE 272 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 273 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.**

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.**

POLICE SCIENCE (PS)

PS 105 POLICE PROCEDURES

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

PS 115 TRAFFIC CONTROL AND ACCIDENT INVESTIGATION

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

PS 130 COMMUNITY RELATIONS

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

PS 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.**

PS 140 JUVENILE PROCEDURES

A study of organization, functions and jurisdiction of juvenile agencies,

juvenile statutes, detention court procedure and case dispositions and Colorado Children's Code; methods to combat juvenile crime. 30 clock hours. **Three credits.**

***PS 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.**

PS 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.**

PS 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 credits.**

PS 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: PS 210 or permission of instructor. 40 clock hours. **Three credits.**

PS 225 EVIDENCE II

Continuation of PS 215. 40 clock hours. **Three credits.**

PS 231 COURT PROCEDURES

Procedural aspects of courts particularly as law enforcement officer 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: PS 215, PS 225 or permission of instructor. 50 clock hours. **Five credits.**

PS 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.**

PS 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.**

*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).

TRADES AND INDUSTRY DIVISION

AUTO BODY REPAIR (AB)

AB 131 AUTO BODY REPAIR I

Students become acquainted with tools and fundamental operations in metal repair and welding, identifying basic types of damage and repair minor damage using welding, brazing, solder filling, and metal finishing. 120 clock hours. **Nine credits.**

AB 132 AUTO BODY REPAIR II

Students remove, repair and replace interior and exterior trim as needed for repair or replacement and alignment of damaged panels and broken glass. Students use proper power tools, air electric or hydraulic, necessary for satisfactory completion of the job following safe work procedures. Prerequisite: AB 131. 120 clock hours. **Nine credits.**

AB 133 AUTO BODY SERVICE

Students safely discharge an air conditioning unit, identify major components, use a continuity light and check a circuit. They also will be able to sand, prime, seal, mask, and paint a complete car in any of the types of finishes used today in industry. Prerequisites: AB 131, AB 132. 120 clock hours. **Nine credits.**

AB 134 AUTO REFINISHING I

Students determine type of finish or surface to be refinished, and using proper procedure, prepare and apply primers, sealers and color, using safe procedures to obtain an acceptable job. 60 clock hours. **Three credits.**

AB 135 AUTO REFINISHING II

Students will be introduced to basic paint mixing, coloring, and baking theories, spot-repair panels and refinish complete panels. Prerequisite: AB 134. 60 clock hours. **Three credits.**

AB 137 WHEEL ALIGNMENT

Students perform wheel alignment, including equipment operating and maintenance for balancing, alignment of steering mechanisms, and suspension repairs. 50 clock hours. **Three credits.**

AB 231 MAJOR AUTO BODY REPAIR I

Students become familiar with use of frame machines and accessories. They will diagnose and repair common types of frame damage and associated body damage using frame equipment, power tools, and paint equipment to repair autos from start to the finished product. Prerequisites: AB 131, AB 132, AB 133, AB 134, AB 135, AB 137. Must be taken concurrently with AB 234. 120 clock hours. **Nine credits.**

AB 232 MAJOR AUTO BODY REPAIR II

Students diagnose and repair common types of frame damage and associated body damage and repair them using frame equipment, power tools, and paint equipment to do a complete job from start to finish. Prerequisite: AB 231. 120 clock hours. **Nine credits.**

AB 233 BODY REBUILDING

Students remove and replace damaged panels and glass, straighten sheet metal and frames, remove and repair or replace interior and ex-

terior trim and upholstery, refinish small areas, and complete repaints. Prerequisites: AB 232, AB 234. 120 clock hours. **Nine credits.**

AB 234 FRAME AND UNIT STRAIGHTENING

Students set up damaged autos and accurately check for and identify any misalignment, and apply proper tools and techniques to straighten the damage. Must be taken concurrently with AB 231. 50 clock hours. **Three credits.**

AB 235 COLLISION ESTIMATING

Students become familiar with estimating materials for collision estimating to find working times and prices of parts and materials, and accurately figure an appraisal of a damaged automobile. 30 clock hours. **Three credits.**

AB 236 FRAME AND UNIT SECTIONING

Students become familiar with methods of reinforcing repaired frames and techniques involved in sectioning frames, both unitized and conventional. They determine types of damage, repair both unitized and conventional frames and replace sections as needed and reinforce or replace damaged areas using proper and safe techniques of welding and/or heating. Prerequisites: AB 233, AB 234. 50 clock hours. **Three credits.**

AUTOMOTIVE MECHANICS TECHNOLOGY (AMT)

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 transmissions, 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 trunk 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 stroboscope, 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 CONTROL

Students learn basic theory of refrigeration system 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 (BC)

BC 100 TOOLS AND MATERIALS

Students identify many tools and equipment used by carpenters and other construction workers. They acquire knowledge necessary in development of safe and efficient skills with these tools and equipment. They identify various materials used in construction of buildings and gain knowledge toward selecting and working with these materials. They also acquire knowledge beneficial to estimating quantity and cost of materials. 30 clock hours. **Three credits.**

BC 110 CARPENTRY I

Students acquire knowledge and perform site and building layout, construct forms, assemble, and erect building frames, being safe and efficient in use of equipment and tools. Must be taken concurrently with BC 120. 100 clock hours. **Seven credits.**

BC 120 CONCRETE AND MASONRY I

Students form, place, and finish concrete, including reinforced concrete, for residential house foundations, using proper tools, materials, and practices. They will demonstrate that they have acquired knowledge of related information necessary to perform these jobs. Must be taken concurrently with BC 110. 60 clock hours. **Four credits.**

BC 130 CARPENTRY II

Students use proper tools, materials, and practices to install framing, exterior trim, and exterior finish for residential housing. They will demonstrate that they have acquired knowledge of related information necessary to perform these jobs. Must be taken concurrently with BC 140. 90 clock hours. **Six credits.**

BC 140 CONCRETE AND MASONRY II

Students form, place, and finish concrete for steps, porches, slab work,

and masonry walls, demonstrating they have acquired knowledge of related information necessary to perform these jobs. Must be taken concurrently with BC 130. 60 clock hours. **Four credits.**

BC 150 CARPENTRY III

Students install insulation, interior walls, ceilings, interior finish, floors, cabinets, and trim, demonstrating they have acquired knowledge of related information necessary to perform these jobs. 150 clock hours. **Ten credits.**

BC 200 BUILDING CONSTRUCTION I

Students acquire knowledge and training in building and site layout, foundations, and framing. Students will layout foundations, floor and wall frames, and work on roof construction. They will acquire knowledge of building and zoning codes. Under supervision of skilled craftsmen, they also have practical training in roughing, plumbing, heating, and electrical work. Prerequisites: BC 100, BC 110, BC 120, VTR 101. 150 clock hours. **Ten credits.**

BC 210 BUILDING CONSTRUCTION II

Students recognize applicable building codes and improve skills in exterior trim and finish, insulation, plumbing, heating, electrical, interior walls and ceilings, paneling, special built-ins, and cabinet making. Prerequisites: BC 100, BC 130, BC 140, VTR 101. 150 clock hours. **Ten credits.**

BC 220 BUILDING CONSTRUCTION III

Students develop a step-by-step procedure used in building construction. These procedures will be directly related to techniques and methods developed in preceding courses. Procedure reflects building code requirements, material estimating and buying, sub-contracting, and an orderly process of building construction. Students continue skill development in interior finish, cabinets, trim, floor and wall covering, painting, and final work in plumbing, heating, and electrical. Prerequisites: BC 100, BC 150, VTR 101. 150 clock hours. **Ten credits.**

BC 230 RESIDENTIAL CONSTRUCTION DRAFTING

Students make basic residential drawings and begin working on preliminary cost and estimating, demonstrating they have acquired knowledge of related information necessary to perform these jobs. 30 clock hours. **Three credits.**

BC 240 RESIDENTIAL CONSTRUCTION ESTIMATING

Students make quantitative surveys of residential building products required and complete resident building estimates, demonstrating they have acquired knowledge of related information necessary to perform these jobs. Prerequisites: BC 230, VTR 195. 30 clock hours. **Three credits.**

BC 250 COMMERCIAL CONSTRUCTION DRAFTING

Students reproduce complete working drawings and models of a commercial building, demonstrating they have acquired knowledge necessary of related information to perform these jobs. Prerequisites: BC 230. 70 clock hours. **Five credits.**

BC 260 COMMERCIAL ESTIMATING

Students develop specifications, a contract, and an estimate for a commercial building, demonstrating they have acquired knowledge of re-

lated information necessary to perform these jobs. Prerequisites: BC 250, VTR 195. 70 clock hours. **Five credits.**

CHILD CARE AND TEACHER AIDE (CCT)

CCT 100 FIRST AID

Students recall procedures required in the Standard American Red Cross First Aid Course and will review common communicable diseases in early childhood classrooms. 20 clock hours. **One credit.**

CCT 104 CHILD GROWTH AND DEVELOPMENT I

Students recognize human growth patterns from conception through five years. Emphasis on physical, mental, social and emotional growth. 30 clock hours. **Three credits.**

CCT 105 CHILD GROWTH AND DEVELOPMENT II

Students recognize human growth patterns from six years to adolescence, studying the child's physical, mental, social and emotional growth. Emphasis on parent-child, teacher-child, child-child, and child-group interactions. Prerequisites: CCT 104 or permission of instructor. 30 clock hours. **Three credits.**

CCT 106 PROGRAMS IN EARLY CHILDHOOD EDUCATION

Students recognize past and present methods of teaching young children and investigate different types of centers for young children, their goals, and activities. 30 clock hours. **Three credits.**

CCT 110 PLAY AND THE CREATIVE ENVIRONMENT

Students participate in practical lab experiences in creative expression and learn ways of creating an atmosphere that will enhance a child's potential through satisfying, sensory-type activities. Prerequisite: Permission of instructor. 40 clock hours. **Four credits.**

CCT 141 METHODS OF TEACHING THE YOUNG CHILD II

Students investigate methods of teaching young children, materials and equipment needed for programs, and role of staff in organizing a learning, living environment in an early childhood classroom. Prerequisite: Permission of instructor. 40 clock hours. **Four credits.**

CCT 145 NUTRITION FOR YOUNG CHILDREN

Students recognize essential nutrients and their function for a healthy child, evaluate menus and snacks for necessary food requirements, and understand value of nutrition education for children. Prerequisite: Permission of instructor. 40 clock hours. **Four credits.**

CCT 150 SEMINAR IN BUSINESS AND AUDIOVISUAL MACHINES

Students operate and maintain most commonly used office and audio-visual equipment. 30 clock hours. **Three credits.**

CCT 220 SUPERVISED STUDENT PARTICIPATION I

Students work as a teacher aide under direction of a qualified teacher in a setting for young children, closely supervised by an instructor. Prerequisite: Programs in Early Childhood or permission of instructor. 100 clock hours. **Five credits.**

CCT 240 SUPERVISED STUDENT PARTICIPATION II

Students work as a teacher assistant under direction of a qualified teacher in a setting for young children, closely supervised by an instructor.

tor. Students are responsible for learning teaching techniques and working with small groups of children. Prerequisite: CCT 220. 100 clock hours. **Five credits.**

CCT 245 SUPERVISED STUDENT PARTICIPATION III

Students participate in guided classroom teaching in a setting for young children. Students are placed with a qualified teacher, closely supervised by instructor. Prerequisites: CCT 220, CCT 240. 100 clock hours. **Five credits.**

CCT 250 ADMINISTRATION OF CHILD CARE CENTERS

Students acquire basic knowledge for organization and management of various child care programs. Prerequisite: Permission of instructor. 40 clock hours. **Four credits.**

SPORTSCRAFT AND SPECIALTY ENGINES (SET)

SET 100 SPORTSCRAFT AND SPECIALTY ENGINES I

Students will learn and understand how to use general hand tools and specialized shop equipment used in repair of sportscraft and specialty 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 sportscraft and specialty engines. 150 clock hours. **Twelve credits.**

SET 101 SPORTSCRAFT AND SPECIALTY 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 systems used on sportscraft and specialty engines, including conventional battery-contact point system flywheel and unit type magnetos, energy transfer system, and capacitor discharge ignition (CDI) systems. They will be able to service all types of sportscraft and specialty engine fuel systems including float and diaphragm carburetors, vacuum type fuel pumps, and/or different types of fuel tanks and lines. 150 clock hours. **Twelve credits.**

SET 102 SPORTSCRAFT AND SPECIALTY ENGINES III

Students service both AC and DC charging systems and electrical starting systems 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. Prerequisite: SET 101 or permission of instructor. 150 clock hours. **Twelve credits.**

TRUCK DRIVING (TDR)

TDR 100 TRUCK DRIVING PRACTICES

Students acquire skill and knowledge to prepare for actual driving training, observing other drivers, and drive under close supervision.

Prerequisites: Must qualify for chauffers' license and meet Department of Transportation qualification. 110 clock hours. **Ten credits.**

TDR 101 TRUCK DRIVING

Students observe an experienced truck driver at work, and obtain driving skills under "on-the-road" conditions. This is a cooperative class. Prerequisite: TDR 100. 60 clock hours. **Two credits.**

WELDING (WLT)

WLT 131 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 132 SHIELDED, METAL, ARC I

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. Prerequisite: WLT 131 or ten hours of oxygen/acetylene safety and cutting practice. 150 clock hours. **Twelve credits.**

WLT 133 SHIELDED, METAL, ARC II

Students weld butt joints on plate $\frac{1}{4}$ " to $\frac{1}{2}$ " in thickness. 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 131, WLT 132, or ten hours of oxygen/acetylene safety and cutting practice. 150 clock hours. **Twelve 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 234 TIG AND MIG WELDING

Students will weld all common beads and joints with MIG and TIG processes in all positions. They learn proper procedures in care and safe operation of equipment used. 150 clock hours. **Twelve credits.**

WLT 235 PIPE AND HEAVY PLATE WELDING

Students weld pipe in all positions and of various thicknesses and diameters. Transmission line and pressure pipe welding will be demonstrated, and students will select types of piping preferred for most practice. ASME and API standards will be criteria used to determine objective completion. Prerequisites: WLT 132, WLT 133 or ten hours oxygen/acetylene safety and cutting practice. 150 clock hours. **Twelve 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.**

VOCATIONAL-TECHNICAL RELATED (VTR)

VTR 101 INDUSTRIAL FIRST AID AND SAFETY

Students recognize importance of good safety practices and results of poor practices. They recall hazards and methods of accident prevention related to vocational area and basic first aid procedures. 20 clock hours. **Two credits.**

VTR 102 ELEMENTS OF TECHNICAL WRITING

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

VTR 103 INDUSTRIAL COMMUNICATIONS

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

VTR 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.**

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 111 TECHNICAL MATHEMATICS I

A basic arithmetic review with introduction to applied algebra, slide rule, and formula application. 50 clock hours. **Five credits.**

VTR 112 TECHNICAL MATHEMATICS II

Continuation of VTR 111 with treatment of applied algebra, geometry, and introducing applied trigonometry. 50 clock hours. **Five credits.**

VTR 113 TECHNICAL MATHEMATICS III

Continuation of VTR 112, applying trigonometric formulas and equations including vectors and graphing technical solutions. 50 clock hours. **Five credits.**

VTR 117 SMALL ENGINE RELATED MATH

Students solve problems related to small engines involving whole numbers, fractions, decimals, percentage, measurement, ratio-proportion, powers and roots, and formulas. 30 clock hours. **Three credits.**

VTR 118 SMALL ENGINE SCIENCE

Students recall concepts and solve problems in science relating to small engine work. 50 clock hours. **Five credits.**

VTR 119 SERVICE MANAGEMENT

Students develop basic concepts of management theory including functions, skills, leadership, human relations, and causes of failure. Students also recognize duties, problems, and methods of service department operations. 30 clock hours. **Three credits.**

VTR 121 AUTOMOTIVE RELATED MATHEMATICS

Students learn concepts and solve problems in science relating to automotive functions. 30 clock hours. **Three credits.**

VTR 122 AUTOMOTIVE DRAWING

Students read drawings involving different types of projection, sections and views to understand trade manuals. 30 clock hours. **Three credits.**

VTR 123 AUTOMOTIVE RELATED SCIENCE

Students recall concepts and solve problems in science relating to automotive work. 50 clock hours. **Five credits.**

VTR 124 AUTOMOTIVE SERVICE MANAGEMENT

Students develop basic management concepts relating to automotive service including theory, skills, leadership, human relations, and failures. Students learn duties, problems, and methods of management. 30 clock hours. **Three credits.**

VTR 125 COLORADO STATE SAFETY INSPECTION

Students develop understanding, ability, and skills to perform state motor vehicle inspection properly. 20 clock hours. **Two credits.**

VTR 130 BUSINESS COMMUNICATIONS

Students learn importance of good business communications, good and poor practices, and improvement of individual techniques. 30 clock hours. **Three credits.**

VTR 131 HUMAN RELATIONS

Principles and practice of management, human relation development, and employer-employee relations. 30 clock hours. **Three credits.**

VTR 132 SHOP MANAGEMENT

Students learn concepts of management theory including function, skill, leadership, human relations, and failures. They also recognize duties, problems, and methods of operations. Prerequisite: Sophomore standing. 30 clock hours. **Three credits.**

VTR 151 MATERIALS OF INDUSTRY

Study of modern materials of industry including ferrous- and non-ferrous metals, wood, plastic, and ceramic materials. 40 clock hours. **Three credits.**

VTR 152 INTRODUCTION TO INDUSTRY

Brief study of basic industrial and business practices relative to draftsmen and technicians. 30 clock hours. **Three credits.**

VTR 153 ENGINEERING PROBLEM ANALYSIS

Investigation of engineering approach to problem solutions. Manufacturing and construction problems are analyzed and solutions developed. 50 clock hours. **Three credits.**

VTR 175 WELDING CERTIFICATION AND EMPLOYMENT

Students are acquainted with certification requirement for different industries and possibilities in professions. Prerequisites: WLT 131, WLT 132, WLT 133, WLT 234, WLT 235. 50 clock hours. **Five credits.**

VTR 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.**

VTR 182 WELDING LAYOUT

Students learn layout for sheet metal, heavy plate, and pipe joints, using cardboard and plywood for simulation. Prerequisite: VTR 181. 30 clock hours. **Three credits.**

VTR 183 WELDING INDUSTRY

Students acquire understanding of importance of welding industry and its effect on everyday life. 30 clock hours. **Three credits.**

VTR 184 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 185 INDUSTRIAL PHYSICS II

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

VTR 186 INDUSTRIAL PHYSICS III

Applied physics concerning electricity, electronics and magnetism are studied, emphasizing industrial practices and applications. 70 clock hours. **Five credits.**

VTR 195 TRADE MATH CARPENTRY

Students solve problems relating to carpentry involving whole numbers, fractions, decimals, percentages, measurement, ratio-proportion, power and root, and formulas. 30 clock hours. **Three credits.**

VTR 202 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 203 INDUSTRIAL PSYCHOLOGY

Students evaluate industrial environments, problems and develop guidelines for working effectively with associates. 30 clock hours. **Three 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 205 INDUSTRIAL ECONOMICS

A study of basic practices of industrial management relating to economics, including relationship of economic factors in labor-management associations. 30 clock hours. **Three credits.**

VTR 206 INDUSTRIAL MANAGEMENT AND HUMAN RELATIONS

Basic principles and practices of management and development of human relations in industry are studied. 30 clock hours. **Three credits.**

VTR 207 PRINCIPLES OF PUBLICATION PROCEDURES

Students gain understanding of standards, procedures, and practices of technical and non-technical publications industry. 30 clock hours. **Three credits.**

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