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aims community college

AIMS COMMUNITY COLLEGE

Established 1967

1978-1979 CATALOG

A COLLEGE SERVING NORTH-CENTRAL COLORADO

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Vol. XII

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ACADEMIC CALENDAR
1978-79

SUMMER QUARTER, 1978

June 19	Registration
June 20	Classes Begin
July 4	Holiday (College closed)
July 17-21	Mid-Term Week
August 18	End of Quarter
September 4	Labor Day Holiday (College closed)

FALL QUARTER, 1978

September 18	Returning Student Orientation, Advising and Registration
September 19-20	New Student Orientation, Advising and Registration
September 21	Classes Begin
October 16-20	Mid-Term Week
October 27	Staff Development
November 20	Pre-Registration
November 22-24	Thanksgiving Holiday (College closed)
December 6-7	Student Evaluation
December 7	End of Quarter
December 25-29	Christmas Holiday (College closed)

WINTER QUARTER, 1979

January 1	New Year's Holiday (College closed)
January 2-3	Registration
January 4	Classes Begin
February 5-9	Mid-Term Week
March 5	Pre-Registration
March 15-16	Student Evaluation
March 16	End of Quarter

SPRING QUARTER, 1979

March 26-27	Registration
March 28	Classes Begin
April 30-May 4	Mid-Term Week
May 11	Staff Development
May 28	Memorial Day Holiday (College closed)
June 8-9	Student Evaluation
June 9	Graduation
June 9	End of Quarter

GENERAL INFORMATION

HISTORY

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

Enrollment during Fall Quarter 1977 reached over 4,500. Diverse needs of students have resulted in an increased number of classes and programs: the college offers the Associate Degree in Arts and Sciences, the Associate Degree in Applied Science in eighteen program areas and the Certificate in Occupational Education in twelve program areas, as well as a variety of developmental, public service, adult interest and Area Vocational School programs.

The Aims Community College 175 acre campus site was purchased in 1970. In 1971, the college purchased a 50,000 square-foot industrial building on ten acres adjacent to the campus, bringing the present campus size to 185 acres. This building serves as the college's General Studies Building.

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

In 1975 Aims Community College completed a Five-year Educational Master Plan, and in 1976 a comprehensive facilities study.

The first building constructed under the new facilities plan opened for Fall Quarter 1978. This facility provides over 60,000 square feet of laboratory and classroom space for the college.

Dr. Richard A. Laughlin was appointed President of Aims Community College in May, 1976, following the death of Dr. Beaty in September of 1975.

PHILOSOPHY

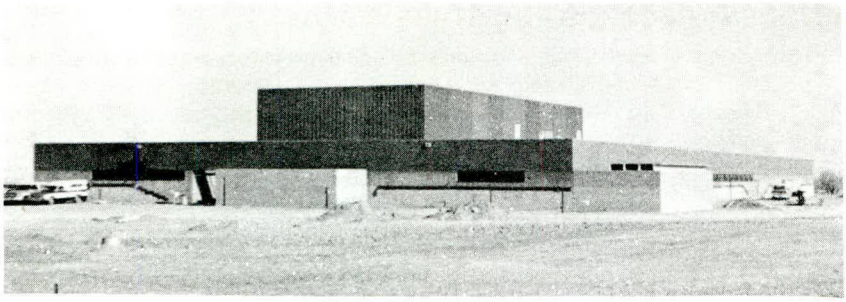
Three concepts are fundamental to the educational philosophy of Aims Community College: Every individual possesses intrinsic worth; an educational environment should foster development of intellectual, social and physical skills appropriate to the individual's abilities; and in our complex and dynamic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

PURPOSES

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

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 areas 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 Community College has adopted an "open door" admissions policy.

The college will admit high school graduates, non-graduates of high school who are 18 years of age or older, and any other person who can profit from the instruction for which he enrolls. However, admission to the college does not assure acceptance of an individual student in a particular course or program. Some students may be requested to enroll in special courses for correction of scholastic or other deficiencies.

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

APPLICATION FOR ADMISSION TO AIMS COMMUNITY COLLEGE

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

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

Transcripts

Official transcripts covering a student's previous secondary and college education, submitted to the College as part of the admissions procedures, become part of the official file and cannot be returned to the student. The College does not issue or certify copies of transcripts from other institutions.

Transcripts, documented military experience, and testing scores of approved programs are evaluated in accordance with College policy, and the acceptance of this credit is documented on the College transcripts.

ADMISSION REQUIREMENTS FOR FOREIGN STUDENTS.

1. Complete all steps in "Application for Admission to a Degree Program."
2. Submit TOEFL scores. To be considered for admission to Aims Community College, foreign students must have a minimum of 500 on the TOEFL or Level 109 at a certified ELS Language Center.
3. Completed application and supporting credentials must be in the Office of Admissions and Records one full quarter before the date of anticipated enrollment.

STUDENT RECORDS AND STUDENT RIGHTS

The Office of Admissions and Records, under the direction of the Director of Admissions and Records, keeps the following student records:

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

A cumulative record of each student's college application, correspondence, and other miscellaneous forms is kept active while the student is enrolled in the college.

All students in attendance, and students who have previously attended Aims Community College, are provided access to their records in compliance with the requirements under the Federal Family Educational Rights and Privacy Act of 1974 (Public Law 93-380 Subsection 513, 88 Stat. 571; 20 U.S.C. 1232 q).

Students may review their records upon request in the Admissions and Records Office. In the event students feel their records are in error, they may initiate the following appeal procedure:

1. Appeal to the Director of Admissions and Records to review the records.
2. If needed, appeal to the Dean of Student Personnel Services.

The college will not permit access to or the release of student educational records, or personally identifiable information contained therein, **other than Public Information,** without the written consent of the student.

Public Information

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

1. Name.
2. Affirmation of whether currently enrolled.

REGISTRATION

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

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

CHANGE OF REGISTRATION

Course Cancellations

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

Withdrawal

A course status designation of WITHDRAWAL can be student or administrative initiated if a student's best interest so warrant when he or she is unable to attend class regularly.

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 eight (8) 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 8 days of classes, the student will not receive a refund for complete withdrawals or dropping of classes. The student may drop and add an equal number of credit hours at any time during the quarter without charge provided the drop/add cards are processed simultaneously.

Special Refund Policy for Veterans

The government through VA Regulation 14254 (C) (13) has established a special refund policy for veterans which has been adopted by Aims Community College. This policy states that the amount charged to the veteran for tuition, fees and other charges for a portion of a course shall not exceed the approximate prorated portion of the total charges for tuition, fees and other charges. This policy is subject to the following limitations:

1. An established registration fee in an amount not to exceed $10.00 is not subject to proration;
2. A breakage fee and consumable instructional supplies which the student might buy will not be prorated;
3. All books and equipment bought personally by the student will not be prorated as part of the refund.

The percentage refund policy for veterans based on the guidelines provided above is as follows:

1st two weeks of quarter	100%
3rd week of quarter	60%
4th week of quarter	40%
5th week of quarter	20%

TUITION

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

In-State, In-District Students ..... $5.00 per credit hour
In-State, Out-of-District Students ..... $7.00 per credit hour
Out-of-State Students ..... $30.00 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.

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

TUITION DEFERMENTS

Under certain extenuating circumstances, Aims Community College will defer a student's tuition payment. This deferment privilege will be extended only to students who are residents of the State of Colorado and who are enrolled for 12 or more credit hours. A down payment of one-third of the total tuition costs plus insurance fee of $1.75, 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.

STUDENT INSURANCE FEE

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

ESTIMATED ACADEMIC YEAR BUDGETS (9 Mo.)

Single Resident

Tuition & Fees	$ 250
Room & Board	$1750
Books & Supplies	$ 175
Personal Expenses	$ 461
Transportation	$ 339
	$2975

Single Non-Resident

Tuition & Fees	$1350
Room & Board	$1750
Books & Supplies	$ 175
Personal Expenses	$ 461
Transportation	$ 439
	$4175

Married Resident

Tuition & Fees	$ 250
Room & Board	$2700
Book & Supplies	$ 175
Personal Expenses	$ 667
Transportation	$ 505
	$4297

Married Non-Resident

Tuition & Fees	$1350
Room & Board	$2700
Books & Supplies	$ 175
Personal Expenses	$ 667
Transportation	$ 505
	$5397

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.

STUDENT FINANCIAL AIDS

Aims Community College participates in a wide variety of federal, state and local programs designed to assist students in meeting the costs of education. Applications and information concerning all the programs described below are available in the Financial Aid Office, General Studies Room 217.

ELIGIBILITY

Financial Aid is awarded to students on the basis of NEED. In determining NEED in a consistent way for all aid candidates, Aims Community College requires all financial aid applicants to submit the ACT Family Financial Statement to the ACT Program in Iowa City. The ACT Family Financial Statement and information about financial aid may be obtained from the high school guidance counselors. Students currently enrolled at Aims can obtain the ACT and IDS forms from the Financial Aid Office.

APPLICATION PROCEDURES

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

1. Colorado Student Data Form.
2. Family Financial Statement (FFS) of the American College Testing Program (A.C.T.).
3. Affidavit of Nonsupport (Independent Students only).

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

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

Summer Quarter	April 14, 1978
Fall Quarter	June 9, 1978
Winter Quarter	October 31, 1978
Spring Quarter	January 31, 1979

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

STUDENT FINANCIAL ASSISTANCE PROGRAMS

Loans

National Direct Student Loans (NDSL)

Undergraduate students may borrow up to $5,000 during their undergraduate career. Total loans for the first two years of school may not exceed $2,500. Repayment of the NDSL begins nine months after the student ceases to be a half-time (6 hours) student. NDSL funds are to be repaid at a minimum of $30 per month. The period of repayment cannot exceed ten years. The NDSL has cancellation provisions. Information regarding cancellation may be obtained from the Student Financial Aid Office.

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

Federally Insured Student Loans (FISL)

The College cooperates with banks in making information available to students. Undergraduates may borrow up to $2,500 in a single year, but not more than $7,500 during their undergraduate career. A student not already on full financial aid may apply through his own or local banks. Applications are accepted throughout the school year. Forms and information are available at the Office of Financial Aid.

Grants

Basic Educational Opportunity Grant (BEOG):

Available to **all undergraduate** students. All Basic Educational Opportunity Grant awards are preliminary and may be adjusted, depending upon place of residence while attending the College, number of class hours carried and the final payment schedule developed by the Office of Education. The Office of Financial Aids **must** have the original set of the Eligibility Report Forms (not just one copy or a xeroxed copy) on hand before payment can be made. All financial aid applicants must establish their eligibility for this program before other aid can be awarded.

Supplemental Educational Opportunity Grant (SEOG):

Available to the most "needy" **undergraduate** students. Allocated after all other sources of aid are awarded and the applicant still has unmet need. SEOG awards must be matched with an equal or greater award from another source.

Colorado State Grant:

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

State Student Incentive Grant (SSIG):

Grant of up to $750 are made to exceptionally financially eedy students. SSIG awards must be matched by an equal or greater award from the Colorado State Grant Program; therefore, recipients must be residents.

Student Employment

Federal College Work-Study Program:

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

State College Work-Study Program:

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

Campus Employment Program:

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

Tuition Waivers

Tuition waivers are available to in-district students whose financial status is such that they qualify as low-income individuals as determined by the Financial Aids Office. Waivers are made to cover the costs of tuition and textbooks.

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

Scholarships

Aims Program of Scholars:

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

Roy L. Smith Memorial Fund Award:

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

Dr. Edward Beaty Memorial Fund:

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

Eastman Kodak Scholarships:

Monies for this program are forthcoming if graduates from Aims Community College joined Kodak within five years of completion of their degree and complete five years of employment at Kodak. Funds received for the scholarships are designated for use within the department indicated by the Kodak's employee degree. Grants from Kodak for this program have ranged from $250.00 to $1,500.00 per year. Further information may be obtained from the Financial Aids Office.

Faculty Association Scholarship:

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

Additional Scholarships:

Other scholarships are made available through local clubs and organizations in the Weld County area.

VETERANS' BENEFITS

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

Veterans who are eligible for Veterans Benefits should contact the Office of Veterans Affairs in the Financial Aids Office, preferably six weeks before actual enrollment to assure timely payment of benefits.

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

MONTHLY RATES -- G.I. Bill

Course Load	No Deps.	1 Dep.	2 Deps.	Ea. Add. Dep.
Full-Time (12 credit hrs.)	311	370	422	26
Three-Quarter (9-11 credit hrs.)	233	277	317	19
Half-Time (6-8 credit hrs.)	156	185	211	13

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

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

Colorado Veterans Tuition Assistance Program

The Colorado Veterans Tuition Assistance Program represents a commitment by the State of Colorado to provide assistance to qualified students who have served on active military duty during the Vietnam Era, August 5, 1964, to August 5, 1973. The program intent is to give tuition assistance to Colorado veterans enrolled for post-secondary education in specified institutions. Aims students who are eligible for a tuition assistance are those who are veterans of the military services, who are currently Colorado residents and were Colorado residents prior to entry into active military service. Student veterans who apply for the tuition assistance and are determined to be eligible, may receive up to an amount of seventy-three ($73) dollars per quarter. Both full and part-time students will be eligible for assistance. Veterans will accrue eligibility for assistance at a rate of 11 quarter credit hours or its equivalent (7.33 semester) for each month of active duty between August 5, 1964, and August 5, 1973.

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

Aims Veterans Tuition Waiver

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

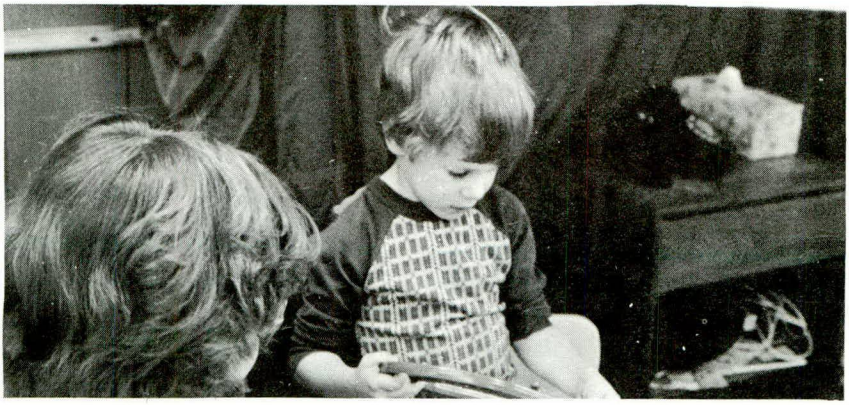
1. Is a veteran of the Vietnam Era (Aug. 5, 1964 - Aug. 5, 1973).
2. Was discharged and certified eligible for veterans educational benefits.
3. Was a legal resident of Aims Junior College District at the time of entering the armed services.
4. Enrolled at Aims Community College within five (5) years of separation from service.
5. Maintains satisfactory progress (2.0 GPA).

SATISFACTORY PROGRESS

During each quarter of enrollment, the student must:

a. Complete 50% of all courses for which he/she registered.
b. First year (1 to 44 credit hours) earn a grade point average of 1.75 or better based on ALL courses for which he/she registered.
c. Second year (45 hours to completion of program) earn a grade point average of 2.0 or better based on ALL courses for which he/she registered.

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



ACADEMIC INFORMATION

GRADES AND COURSE STATUS DESIGNATIONS

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

Grades

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

Course Status Designations

W Withdrawal -- no grade points (Administrative and/or student initiated)
I Incomplete work -- no grade points
IP In-Progress -- no grade points
AUAudit -- non-credit courses only

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

INCOMPLETES are to be made up according to an agreement between the instructor and the student which is to be filed with the registrar who will place the agreement in the student's permanent file. An INCOMPLETE designation will be changed to an IN-PROGRESS designation if the student fails to complete the course requirements within the subsequent four academic quarters.

IN-PROGRESS means the student must re-enroll in the class to achieve a grade. The student must re-enroll in the course if he wishes to receive credit. (Veterans receiving benefits should be aware that re-enrollment in a course for which he initially received an IP or I does not normally qualify for benefits.)

Learning accomplishment at a level judged to be inadequate receives no credit but is made a part of the permanent record. Additionally, all courses which receive course status designations of I, AU, or 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, but less than 4.0, will be listed on the Dean's List. The President's List and the Dean's List will be published at the end of each quarter.

ADVANCED STANDING

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

ATTENDANCE

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

Students listed on the class roster during the first eight class days of the quarter, and identified by the instructor as non-attenders during that time, are subject to disenrollment from the class without prior notice.

COURSE CHALLENGING

A student may challenge a course for which he believes his training and study are adequate to meet the instructor's requirements for successful completion. The student is not required to attend class but must gain approval of the instructor, obtain a challenge form from the Office of Admissions and Records and pay in advance the challenge fee of $5.00 per challenged course at the Business Office. Whether or not credit is allowable for challenged courses will be determined by the instructor.

COURSE LOAD

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

COURSE NUMBERING

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

AUDITING OF COURSES

Any person may elect to enroll in a non-credit course on an audit basis if space is available. Such individuals will pay the regular tuition assessed for courses taken under this option. Auditors need not take examinations nor do they receive college credit.

GRADUATION REQUIREMENTS

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

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

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

ADVISING

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

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

LEARNING DEVELOPMENT CENTER

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

INSTRUCTIONAL CENTERS

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

MEDIA PRODUCTION CENTER

The Media Production component of the Learning Development Center supports through its services the total instructional program at Aims Community College. Instructional materials are produced utilizing such graphics as charts, posters, graphs and overhead transparencies; other graphics are employed for video, film, and slide productions. Non-graphic materials vary from photograph print, slide and film strip production, to instructional television. Also available for the production and duplication of instructional materials are a two-camera black and white television studio and an audio production board.

AUDIO VISUAL EQUIPMENT CENTER

The Audio Visual Equipment Center provides preventive maintenance and repair service for the college's visual equipment. The Center has also designed the media delivery systems which provide students and staff better access to learning media for both group and individualized instruction. Equipment is made available for both day and evening classes through a centralized distribution program. Through an efficient checkout system users have easy access to a variety of equipment in order to review audio tapes, video tapes, films, film strips, slides and other instructional media. Instruction is given to any person who requires assistance in the operation of audio visual equipment with which he or she is not familiar. The Audio Visual Equipment Center functions in close harmony with the Media Production Center to ensure the availability of compatible equipment in sufficient quantity.

LIBRARY

The LDC Library houses a collection of both print and non-print materials which complement the curricula of Aims Community College. The collection consists of more than 29,000 items and more than 200 subscriptions to periodicals and newspapers. Non-print materials include audio tapes, records, 16mm and 8mm films, videotapes, filmstrips and microfilm. Microfilm readers, self-service copy equipment and audio-visual equipment are available. The Library uses a computerized circulation system for checking out materials. Students may obtain a library card at the main desk in the Library. The Library is open 8:00 a.m. to 9:00 p.m. Mondays through Thursdays and from 8:00 to 5:00 p.m. on Fridays. The Library is closed on weekends.

DIAGNOSTIC CENTER

Located within the Learning Development Center, the Diagnostic Center has the services of two staff members who have received special training in diagnostic testing and remediation. The Center is based upon a three-area approach: 1) the cognitive, which includes academic, achievement and aptitude testing; 2) the affective, which includes testing to aid students to better understand themselves and their needs; and 3) the perceptual-motor, which includes the assessment of those learning difficulties which interfere with the student's academic progress.

COUNSELING AND GUIDANCE SERVICES

While attending Aims Community College, students will discover that many new and important decisions confront them. In general, counseling provides students with the opportunity for assistance in making more objective and adequate decisions relative to vocational and educational plans, including personal-social concerns related to these decisions. The Aims Community College Counseling Center provides a setting in which students may discuss in confidence with a qualified professional counselor any problems which may be important to them.

The Counseling Center is an entirely confidential service and operates under ethical codes established by the American Psychological Association and the American Personnel and Guidance Association. Confidential information is never given to anyone without consent from the student. Any student enrolled at Aims Community College may avail himelf of these services. Emphasis is placed on helping all students with any problems that interfere with achieving success at the college. Since the service is entirely voluntary, the student must initiate contact, or be referred by a member of the professional staff, in order to receive assistance. Students seeking assistance may contact the LDC.

The counseling staff assists students in the following areas:

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

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

STUDENT GOVERNMENT

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

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

STUDENT ACTIVITIES

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

STUDENT ORGANIZATIONS

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

ASSOCIATED STUDENTS FEES

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

MISCELLANEOUS INFORMATION

STUDENT CODE OF CONDUCT

Aims Community College does not deem it necessary to set forth a negative code of conduct as is typical of criminal law. It is expected, however, that the students of Aims Community College will obey federal, state and local laws and respect the right, privileges, and property of others. They are expected to conduct themselves in a manner which is not disruptive of college functions, does not interfere with free movement of students, school personnel, or invited guests, and does not cause injury to persons or damage to property. Any such interference, damage, or threat to persons or property will not be tolerated. In situations which he feels warrants such action, the college president may summarily suspend all persons involved in a violation of these standards, pending final dispensation of the case by the appropriate body. Peaceful assembly is defined as the purposeful gathering on campus, either within or outside campus buildings, of two or more persons whose conduct is peaceful. Students are encouraged to hold informal discussion groups anywhere on campus and are obligated to live up to the standard of conduct adopted by the college.

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

DISMISSAL

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

HEALTH SERVICES

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

CHILD DEVELOPMENT CENTER

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

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

The Center is staffed by a licensed Day Care Director, as well as serving as a laboratory for Aims students enrolled in the Child Care Program.

HOUSING

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

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

PLACEMENT SERVICE

Aims Community College maintains a placement service for students who wish to secure part-time or full-time employment while attending college, during vacations, or after graduation. Contact the Placement Officer in the Trades and Industry Building.

PART-TIME EMPLOYMENT

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

REQUESTS FOR TRANSCRIPTS

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

BOOKSTORE

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

GENERAL STUDIES

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

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

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

For the student who desires to begin work towards a particular major while at Aims Community College, the General Studies instructional divisions have developed programs which offer "areas of emphasis." Some of these programs are described within this section of the catalogue.

Aims General Studies also provides specific developmental course offerings which make available educational options for adults in the areas of language and communication skills; reading, computation, science, consumer economics and social studies.

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

ASSOCIATE DEGREE IN ARTS AND SCIENCES

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

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

ALTERNATIVE ASSOCIATE DEGREE PROGRAM

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

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

ASSOCIATE DEGREE IN ARTS AND SCIENCES TOTAL MINIMUM REQUIREMENTS

COMMUNICATIONS ..... 15 Credits

Five credits selected from the following:

		Credits
CON 101	Fundamentals of Composition	5
CON 102	Introduction to Writing	5

As a result of a diagnostic test, the student, depending on his/her writing ability, will be placed in one of the above courses and, in addition, may be required to take one or more one credit hour individualized mini-courses in language skills depending on his/her writing deficiency.

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

Five credits selected from the following:

SPE 115	Speech Communications	5
SPE 116	Public Speaking	3
SPE 117	Oral Interpretation	3
SPE 118	Interpersonal Communications	3
SPE 119	Introduction to Semantics	2

Five credits selected from any combination of courses listed in the COMMUNICATIONS Section are acceptable except any course below the 100 level. 5

POLITICAL SCIENCE

POS	100	Introduction to Political Science	.5
POS	101	American Government	.5
POS	102	Comparative Foreign Government	.5
POS	107	State Government	.2-5
POS	108	The American Presidency	.5
POS	109	Contemporary Political Issues	.5
POS	116	International Politics since 1945	.5
POS	118	State and Local Governments	.5
POS	205	International Relations	.5
POS	206	American Foreign Policy	.5

GEOGRAPHY

GEO	105	World Geography	.5
GEO	205	Geography of North America	.3
GEO	206	Geography of Colorado	.3
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.

BEHAVIORAL AND SOCIAL SCIENCE DIVISION

EMPHASIS IN HUMANISTIC PSYCHOLOGY

Basic requirements in the following areas:

	Credits
Humanities	15
Science & Mathematics	15
Social Science (to include General Psychology, 5 credits)	15
Communications	15
Physical Education	5

In addition to the basic requirements, 31 hours of electives to include the following courses:

PSY	115	Humanistic Psychology	5
PSY	248	Human Growth & Development	5
PSY	207	Principles of Meditation & Consciousness Alteration	3
PSY	211	Parapsychology I	3
SOC	105	Sociology of Marriage and the Family	5
PSY	241	Biofeedback I: Biofeedback & the Psychology of Health	3

Three credits selected from the following:

PSY	107	I'm OK, You're OK -- Psychology of Personal Relations	3
		or	
PSY	111	Basic Human Potential Seminar	3

Three credits selected from the following:

SOC	106	Contemporary Social Problems	3
SOC	115	Sociology of Education	3
SOC	117	Sociology of Leisure	3
PSY	242	Biofeedback II: EEG & EMG	4

PARAPROFESSIONAL COUNSELING EMPHASIS

Basic requirements in the following areas:

	Credits
Humanities	15
Science & Mathematics	15
Social Science (to include General Psychology, 5 credits)	15
Communications	15
Physical Education	5

In addition to the basic requirements, 31 hours of electives to include the following courses:

PSY	249	Counseling and Crisis Intervention	3
PSY	248	Human Growth & Development	5
PSY	221	Abnormal Psychology	3
PSY	111	Basic Human Potential Seminar	3
PSY	241	Biofeedback I: Biofeedback & the Psychology of Health	3
PSY	107	I'm OK, You're OK -- Psychology of Personal Relations	3
SOC	111	Social Services I	3

Three credits selected from the following:

PSY	231	Psychology of Dreams	3
PSY	237	Assertiveness Training	3
PSY	205	Psychology of Adolescence	3
PSY	242	Biofeedback II: EEG & EMG	4

JUDICIAL-LEGAL ADMINISTRATION EMPHASIS

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

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

Students completing a JLA emphasis may choose to move directly into jobs in those fields upon receipt of the A.A. Degree, or may wish to transfer into similar programs in four-year institutions, such as the Judicial-Legal Administration Concentration at Colorado State University. Further information on careers and study in this area may be obtained from Bill Shell, Political Science, 353-8008, ext. 213.

Students emphasizing JLA should select and complete the following courses to fulfill requirements in Math-Science, Communications, Social Science and Electives for the A.A. Degree:

Math-Science:			**Credits**
MAT	112	College Algebra	5
		(Preceded by MATIII, Intermediate Algebra, if necessary)	
STA	201	Statistics for Business, Science and Social Science I	5
STA	202	Statistics for Business, Science and Social Science II	5

Communications:			
SPE	116	Public Speaking	3
		Additional hours as required	12

Social Science:			
PSY	101	General Psychology	5
		or	
SOC	101	Introduction to Sociology	5
		and	
POS	101	American Government	5
		and	
ECO	201	Principles of Economics	5

Electives:			
ACC	101	Principles of Accounting I	5
ACC	102	Principles of Accounting II	5
POS	118	State and Local Governments	5
EDP	101	Introduction to Data Processing	5
BUS	255	Business Law	5
ECO	202	Principles of Economics	5
		Additional hours as desired	2

Students preparing for a major in this field should insure proper preparation in writing and composition skills. Students lacking such skills, which are essential to careers in this major area, can expect to be required to successfully complete remedial programs in grammar, punctuation, spelling, and essay writing before receiving certification as a major in Judicial-Legal Administration.

POLITICAL SCIENCE EMPHASIS

Leads graduates directly or through university transfer to a wide variety of careers in governmental service, teaching, law practice, or journalism. For further information on career or transfer possibilities, call Bill Shell, 353-8008, ext. 213.

Students choosing this emphasis should structure the fifteen hours of required social science credits taken as follows:

			Credits
PSY	101	General Psychology	.5
		or	
SOC	101	Introduction to Sociology	.5
HIS	103	Hang-ups from Way Back -- Modern Civilization	.5
ECO	100	Introduction to Economics	.5
		or	
ECO	201	Principles of Economics	.5

In addition, from the thirty-one elective hours to be taken for the A.A. Degree, required credits totaling twenty hours are to be taken in the following courses:

HIS	105	History of the United States to 1877	.5
HIS	106	History of the United States from 1865-1945	.5
POS	101	American Government	.5
POS	118	State and Local Governments	.5

Finally, two additional courses are to be chosen from any of the following:

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

The remaining hours of electives required for graduation (1 to 4 credit hours) may be slected as desired.

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

SOCIAL SCIENCE EMPHASIS

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

Required Courses:

			Credits
PSY	101	General Psychology	.5
POS	101	American Government	.5
POS	118	State and Local Government	.5
SOC	101	Introduction to Sociology	.5
SOC	111	Social Services I	.3
HIS	107	History of the U.S. since 1945	.5
GEO	105	World Geography	.5
GEO	206	Geography of Colorado	.3
ECO	201	Principles of Economics	.5

GOVERNMENTAL CAREER EMPHASIS

Designed for those students interested in city, county, state or federal civil service or political careers immediately upon graduation from Aims, or following further study at a four-year institution in such major areas as Political Science, Public Administration and related fields. For further information on career or transfer possibilities, contact Bill Shell, 353-8008, ext. 213.

Students choosing this program should structure the fifteen hours of required social science credits taken as follows:

			Credits
POS	101	American Government	5
POS	118	State and Local Governments	5
		and either	
PSY	101	General Psychology	5
		or	
SOC	101	Introduction to Sociology	5

In addition, from the thirty-one hours to be taken for the A.A. degree, required credits totaling twenty-five hours are to be taken in the following courses:

ACC	101	Principles of Accounting I	5
ACC	102	Principles of Accounting II	5
EDP	101	Introduction to Data Processing	5
ECO	201	Principles of Economics	5
MGT	215	Personnel Management	5

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

DESIGN AND CREATIVE STUDIES

(Design, Fine Arts, Music, Theatre and Movement, Textiles and Clothing)

The A.A. Degree includes 96 credits. Sixty-five credits are required in several academic areas and are outlined in the catalogue. (Students choosing a Fine Arts Emphasis are advised to complete the humanities requirement with HUM 100 and selections from ART 100, or MUS 100, or THE 100, as appropriate.)

Students may emphasize areas of study from the remaining 31 credits. Two such areas of concentration are available within the Design and Creative Studies curriculum: Fine Arts (including teacher preparation) and Design and Visual Communication. The curriculum for each concentration is developed with the aid of advisory committees representing the University level programs to which students may transfer, and firms in Northern Colorado involved in work related to the offerings.

Those students who have specific plans for transfer should consult with faculty in the Design and Creative Studies to choose the combination of courses most appropriate for them. These emphases are intended as guides and should not be viewed as designating major requirements in a specific four year program.

FINE ARTS EMPHASIS

The emphasis in Fine Arts (may be directed towards teacher preparation) may be completed in the following ways:

(Students may emphasize Art, Music, or Theatre.)

ART — 30 Credits

Three courses for a total of 15 hours of credit to be selected from the following:

			Credits
AAD	101,102,103	Fundamentals of Art & Design I, II, III	(each) 5
ART	111,112	Art History I, II	(each) 5

Five courses for a total of 15 hours of credit to be selected from the following:

ARS	131,132	Drawing I, II	(each) 3
ARS	231	Figure Drawing	3
ARS	241	Painting I	3
ARS	243	Water Media I	3
ARS	251	Sculpture I	3
ARS	261	Jewelry and Metalwork I	3
ARS	271	Pottery and Ceramic Design I	3
ARS	281	Weaving and Textile Design I	3

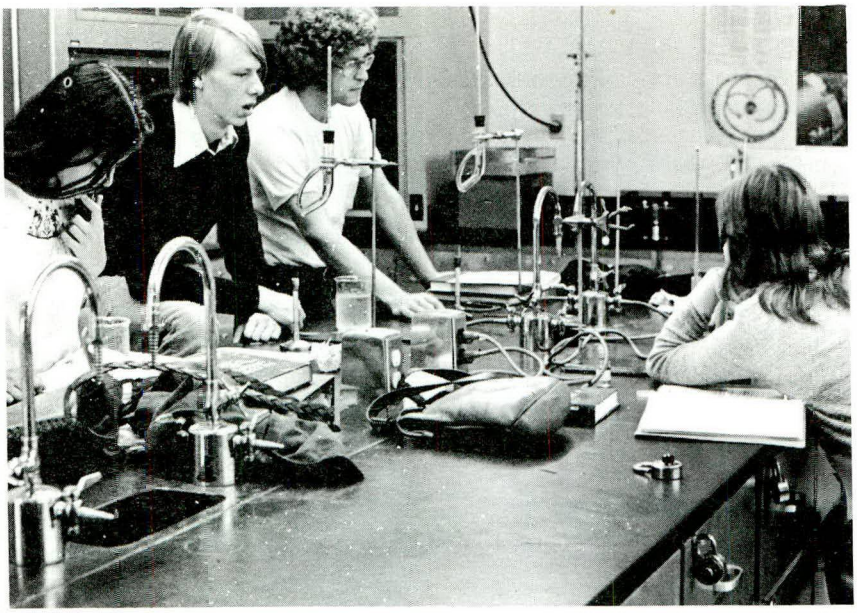
MUSIC — 30 Credits

Complete a total of 14 hours of credit from the following courses:

			Credits
MUS	105	Fundamentals of Music	5
MUS	106	Music Theory	4
MUS	111,112	Introduction to Music I, II	(each) 3
MUS	220	Children's Music	3
MUS	299	Music Practicum	Variable

Complete a total of 7-8 hours of credit from the following courses:

MUP	131	Beginning Piano	3
MUP	171,172,173	Classical Guitar I, II, III	(each) 3
MUP	151,152,153	Applied Voice I, II, III	(each) 1
MUP	299	Music Practicum	Variable



MATHEMATICS AND SCIENCE DIVISION

The Division of Mathematics and Science is committed to making available quality offerings for the non-science oriented enrollee and the student in need of background improvement as well as community service programs. The division also offers more formal freshman and sophomore course work for those students who wish to begin work toward a typical major in biological sciences, chemistry, engineering, computer science, or mathematics. Preparatory course work is also offered in many pre-professional programs that are based upon the life-science and health-science disciplines. Each student may enjoy opportunities to conduct experiments in an open laboratory environment. Well-trained para-professional faculty and tutors are available for the supplemental and reinforcement modes of instruction.

Areas of Emphasis: The Division of Mathematics and Science offers students the option of an Area of Emphasis in life science, chemistry, chemical testing technology, computer science, mathematics, or science and mathematics. An Area of emphasis requires divisional approval and a minimum of 30 quarter hours (45 quarter hours in the case of a Science and Mathematics Area of Emphasis) of courses selected from the appropriate discipline(s).

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

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

1. Strengthen and/or broaden the student's background in one or more disciplines relative to individual needs.
2. Satisfy the general requirements for the A.A. Degree program. Fifteen credit hours of any combination are acceptable. None can be numbered below the 100 level.
3. Satisfy the specific requirements for the alternative A.A. Degree program. This is generally a contractual arrangement with a receiving four-year institution.
4. Satisfy the specific requirements for an Area of Emphasis in the Math/Science Division. This is in conjunction with the A.A. Degree.

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

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

Typical Programs: These are typical programs which may be followed by students wishing to transfer to a four-year institution, complete an Area of Emphasis in the division, or strengthen and broaden their academic background. Many variations are possible within each program.

CHEMISTRY EMPHASIS

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

Initial Course Block: **Credits**

CHE	101,102,103	General Chemistry I, II, III	15
MAT	112,113	College Algebra, Trigonometry	10
MAT	161	Calculus with Analytic Geometry I	5
		Electives (as appropriate)	

Terminal Course Block:

CHE	201,202,203	Organic Chemistry I, II, III	15
MAT	162,163,262	Calculus with Analytic Geometry II, III,IV	15
PHY	201,202,203	General Physics Courses	15
COS	101	Introduction to Computer Programming and the Fortran IV Language	4
		Electives (as appropriate)	

Note: This program includes College Algebra and Trigonometry which may transfer as electives only. Consequently, students entering at this level may require a longer period for completion of the baccalaureate degree.

CHEMICAL TESTING TECHNOLOGY EMPHASIS

Potential opportunities: This program is designed to train chemical laboratory testing technicians who will be qualified for immediate employment as chemical technicians or research assistants in area industries. They may enter such diverse fields as film processing, soil testing, sugar and associated product manufacture, animal assay, cement manufacture and research, and general laboratory testing involving physical and chemical analysis. If desired, students may transfer to universities or to the University of Wyoming to obtain a Bachelor of Science degree in Chemical Technology.

Initial Course Block: **Credits**

CHE	101,102,103	General Chemistry I, II, III	15
CHE	205	Glassblowing	2
GEY	101	Physical Geology	5
PHY	100	Fundamentals of Physics	5
MAT	111	Intermediate Algebra	5
HEN	106	Safety and First-Aid	3
		Electives (as appropriate)	

Terminal Course Block: **Credits**

CHE	201,202,203	Organic Chemistry I, II, III	15
CHE	215,216,217	Instrumental Analysis I	3
CHE	225,226,227	Instrumental Analysis II	3
CHE	235,236,237	Instrumental Analysis III	3
STA	201	Statistics for Business, Science and Social Science I	5
COS	101	Introduction to Computer Programming and the FORTRAN IV Language	4
*MAT	161	Calculus with Analytic Geometry I	5
		Electives (as appropriate)	

*For students transferring to the University of Wyoming

ADVISORY COMMITTEE FOR CHEMICAL TESTING TECHNOLOGY:

Bob Carpenter
Dow Chemical

Ed Lee
Monfort of Colorado

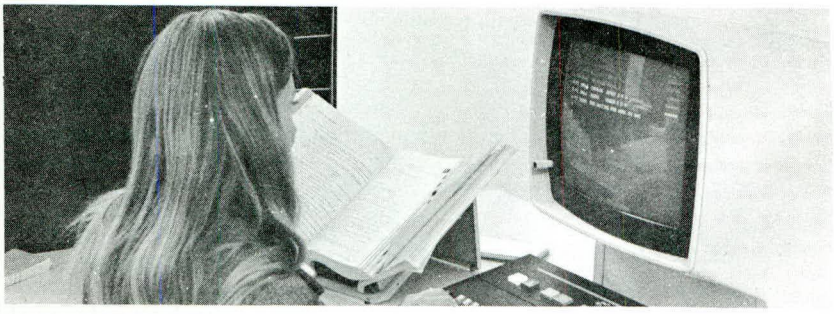
John Yule
Ideal Cement Research

Bob Steener
Eastman Kodak

John Hatchman
IBM

Larry Mounce
Colorado State Univ.

Larry Scott
Triple S. Labs, Inc.



COMPUTER SCIENCE EMPHASIS

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

Initial Course Block: **Credits**

MAT	113, 113	College Algebra, Trigonometry	10
COS	100	Introduction to Computers and the BASIC Language	3
COS	101	Introduction to Computer Programming and the FORTRAN IV Language	4
COS	102	Advanced Topics in Computer Programming	4
EDP	102,103	Computer Concepts I, II	10
		Electives (as appropriate)	

Terminal Course Block:

MAT	161,162,163	Calculus with Analytic Geometry I, II, III	15
MAT	261	Linear Algebra	5
STA	201,202	Statistics for Business, Science and Social Science I, II	10
EDP	201,202	Assembler Language Programming I, II	10
		Electives (as appropriate)	

MATHEMATICS EMPHASIS

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

Initial Course Block: **Credits**

MAT	112,113	College Algebra, Trigonometry	10
MAT	161,162,163	Calculus with Analytic Geometry I, II, III	15
COS	100	Introduction to Computers and the BASIC Language	3
COS	101	Introduction to Computer Programming and the FORTRAN IV Language	4
STA	201,202	Statistics for Business, Science and Social Science I, II	10
		Electives (as appropriate)	

Terminal Course Block:

MAT	261	Linear Algebra	5
MAT	262	Calculus with Analytic Geometry IV	5
MAT	263	Elementary Differential Equations	5
PHY	201,202,203	General Physics Courses	15
		Electives (as appropriate)	

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

PRE-HEALTH PROFESSION EMPHASIS

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

Initial Course Block: **Credits**

BIO	101	Biology Concepts	5
BIO	102	Animal Biology	5
BIO	103	Plant Biology	5
BIO	207	Vertebrate Biology	5
CHE	101,102,103	General Chemistry I, II, III	15
STA	201	Statistics for Business, Science and Social Science I	5
PHY	101,102,103	Introduction to College Physics Courses	15
		Electives (as appropriate)	

Terminal Course Block:

BIO	202	Cell Biology	5
BIO	203	Developmental Biology	5
BIO	211,212	Human Anatomy -- Physiology I, II	10
BIO	216	Introduction to Microbiology	5
CHE	201,202,203	Organic Chemistry Courses	15
		Electives (as appropriate)	

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.

			Credits
MAS	100	Introduction to Mexican American Studies	3
SPA	101	Elementary Spanish I	5
SPA	102	Elementary Spanish II	5
SPA	103	Elementary Spanish III	5
SPA	111	Intermediate Spanish	2
MAS	105	Mexican Music	3
MAS	116	Bilingual Skills	3
MAS	120	Cultural Heritage of Mexico and South America	5
MAS	125	The American System	3
MAS	155	Mexican Dance	1
MAS	161	History of Mexico I	3
MAS	162	History of Mexico II	3
MAS	165	Chicano History	3
MAS	206	Chicano Literature	3

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 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, Conversational Spanish, Conversational German, Community Pottery, Community Guitar, Social Dance ,and Community Photography.

Persons interested in further information should contact the Dean of General Studies and Community Service.

EVENING DIVISION

Aims Community 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 interest.

Evening classes are generally held Monday through Thursday between 5 and 10 p.m. Schedules for each quarter are available four to five weeks prior to the quarterly registration. Tuition for evening classes is at the same rate as for day classes.

OCCUPATIONAL EDUCATION

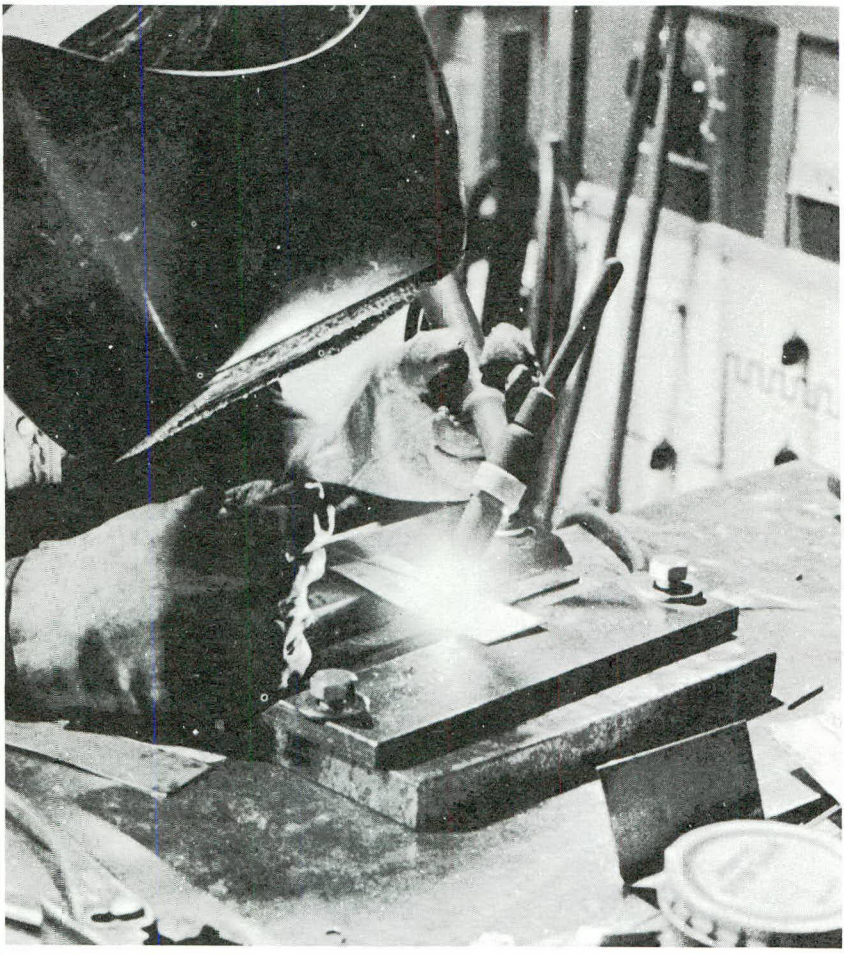
Aims Community College offers selected vocational-technical education curricula designed to prepare high school and post-high school youth and adults for useful and gainful employment. Persons seeking to prepare for initial employment, persons who are employed but may need to improve their skills, and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

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

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

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

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



VOCATIONAL GUIDANCE

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

JOB PLACEMENT

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

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

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

BUSINESS DIVISION

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

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

The Business Division offers the following programs:

Accounting/Data Processing Department:

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

Business/Office Department:

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

Mid-Management Department:

(two-year AAS Degree)

Specialties: Industrial/Institutional Management; Small Business Management; Sales.

ACCOUNTING

(Betty Buxman, Marilyn Mathews, Kerry Colton -- 353-8008)

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

Required Courses:			**Credits**
ACC	101	Principles of Accounting I	.5
ACC	102	Principles of Accounting II	.5
ACC	103	Principles of Accounting III	.5
ACC	105	Payroll Accounting	.3
ACC	201	Intermediate Accounting I	.5
ACC	202	Intermediate Accounting II	.5
ACC	205	Accounting Systems	.4
ACC	211	Cost Accounting I	.5
*BUS	115	Business Mathematics	.5
BUS	116	Adding and Calculating Machines	.2
****BUS	155	Business Communications I	.5
BUS	156	Business Communications II	.3
BUS	157	Business Communications III	.3
ACC	246	Financial Management	.5
BUS	255	Business Law	.5
EDP	101	Introduction to Data Processing	.5
		General Requirements	.70
		***Electives (As agreed by student and advisor)	.26
		TOTAL	**.96**

(For Asterisked Courses, See End Of Business Division Section.)

ADVISORY COMMITTEE FOR ACCOUNTING

Arlin Disselkoen
Greeley National Bank

Jon Ewert
Agland, Incorporated

Larry Heinze
Monfort of Colorado

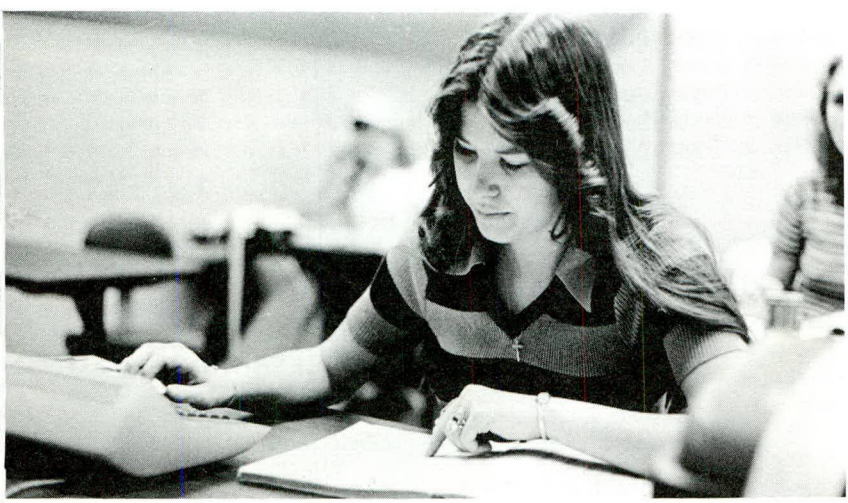
Edward J. Nusbaum
State Farm Insurance Company

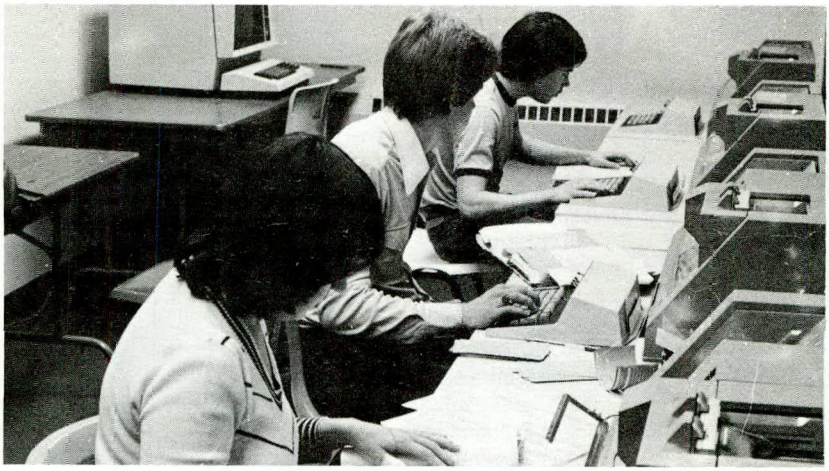
Bill Sleigh
Eastman Kodak

Paul Thompson
Hoover-Thompson

Ken Whitney
Anderson & Whitney

Linda Kadlecek
Kruchten and Company





ELECTRONIC DATA PROCESSING

(Thelma Stephenson, Sandra Neary -- 353-8008)

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

Potential Opportunities: The two-year program is designed to prepare the student for employment in three major areas: computer operations; computer programming; and systems analysis and design.

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

Required Courses:			**Credits**
EDP	101	Introduction to Data Processing	.5
EDP	102	Computer Concepts I	.5
EDP	103	Computer Concepts II	.5
EDP	105	Computer Operations	.5
EDP	121	COBOL Programming	.5
EDP	122	Advanced COBOL Programming	.5
EDP	201	Assembler Language Programming	.5
EDP	202	Advanced Assembler Language Programming	.5
EDP	237	Systems Analysis and Data Management	.5
ACC	101	Principles of Accounting I	.5
ACC	102	Principles of Accounting II	.5
ACC	103	Principles of Accounting III	.5
*BUS	115	Business Mathematics	.5
****BUS	155	Business Communications I	.5
BUS	156	Business Communications II	.3
		General Requirements	.73
		***Electives (As agreed by student and advisor)	.23
		Total	**.96**

(For Asterisked Courses, See End Of Business Division Section.)

ADVISORY COMMITTEE FOR ELECTRONIC DATA PROCESSING

Larry Bohlender
Greeley National Bank

Leon Overbeck
State Farm Insurance Co.

Bill Stitt
Hensel Phelps Construction

Bill Hoffman
District 6 Administration

MID-MANAGEMENT

(Jim Adams, Elmer Kiekhaefer, Cal McKibbin -- 353-8008)

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

The Mid-Management degree (Associate in Applied Science) requires 99 credits. To meet these requirements, the student must complete 38 credit hours of required core courses. The remaining 61 credit hours may be selected from one of the suggested programs described below.

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

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

Required Core Courses:

The following courses are required for all management students:

			Credits
*BUS	115	Business Mathematics	.5
****BUS	155	Business Communications I	.5
BUS	156	Business Communications II	.3
MGT	101	Salesmanship	.5
MGT	215	Personnel Management	.5
MGT	235	Principles of Management	.5
MGT	145	Management Human Relations	.5
ACC	101	Principles of Accounting I	.5
		Total	**.38**

Upon completion of the required core courses, the management student has three options from which to choose:

(1) Industrial/Institutional Management

(2) Business Management

(3) Sales

INDUSTRIAL/INSTITUTIONAL MANAGEMENT

			Credits
Required Core Courses			.38
MGT	255	Labor Law	.5
MGT	256	Supervisory Management	.5
MGT	257	Labor Relations	.5
MGT	258	Production Management	.5
MGT	245	Organizational Environment	.5
MGT	281	Personal Adjustment to Business	.5
MGT	282	Personal Adjustment to Business	.5
MGT	283	Personal Adjustment to Business	.5
		General Requirements	.78
		Electives	.21
		Total	**.99**

SALES

			Credits
Required Core Courses			38
MGT	102	Advanced Salesmanship	5
MGT	107	Principles of Advertising	5
MGT	116	Management Activity I	2
MGT	117	Management Activity II	2
MGT	118	Management Activity III	2
MGT	201	Sales Management	5
MGT	221	Principles of Marketing	5
MGT	245	Organizational Environment	5
MGT	281	Personal Adjustment to Business	5
MGT	282	Personal Adjustment to Business	5
MGT	283	Personal Adjustment to Business	5
BUS	255	Business Law	5
BUS	157	Business Communications III	3
		General Requirements	92
		Electives	7
		Total	**99**

Suggested Electives:

ECO	201	Principles of Economics	5
ECO	202	Principles of Economics	5
EDP	105	Computer Operations	5
MGT	106	Principles of Retailing	5
MGT	108	Small Business Management	5
MGT	205	Credit Management	5
PSY	101	General Psychology	5
PSY	107	I'm OK, You're OK	3
PSY	237	Assertive Training	3

ADVISORY COMMITTEE FOR MID-MANAGEMENT

Richard Erwin
Denver Dry Goods Co.

George Evans
Northwestern Mutual Life

Rolland Higgins
Welch True Value Hardware

Jack Jerome
Jerome Company

Bill Walters
Sears Realty

Jack Weber
Woolco Department Store

Herb Zimmerman
Hewlett-Packard

ADVISORY COMMITTEE FOR REAL ESTATE

Edwin Dyer
Wheeler Realty Company

Richard Gazley
Realty World

Paul Haugen
Scott Realty Company

Roland McKinley
Scott Realty Company

Chuck Neal
Ken Johnson & Company

JUDICIAL/LEGAL SECRETARY

(Maxine Marquez, Trulene Page, Judy Leusink -- 353-8008)

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

Desirable Characteristics: Possess above average English skills.

Potential Opportunities: This program is designed for persons interested in learning basic 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.

Required Courses:			**Credits**
BUS	100	Introduction to Business	5
**BUS	102	Intermediate Typewriting	3
BUS	113	Legal Typewriting	3
SEC	106	Legal Terminology	3
SEC	141	Legal Machine Transcription I	3
**SEC	151	Gregg Shorthand Theory I (5)	
		or	5
**SEC	161	Alphabet Shorthand Theory I (5)	
**SEC	152	Gregg Shorthand Theory II (5)	
		or	5
**SEC	162	Alphabet Shorthand Theory II (5)	
SEC	153	Intermediate Shorthand	5
SEC	215	Legal Shorthand	5
*BUS	115	Business Mathematics	5
BUS	116	Adding/Calculating Machines	2
BUS	141	College Bookkeeping I	5
BUS	145	Human Relations and Supervision	3
BUS	165	Filing	3
****BUS	155	Business Communications I	5
BUS	156	Business Communications II	3
BUS	157	Business Communications III	3
SEC	277	Legal Office Procedures	5
***SEC	281	Cooperative Office Occupations I	5
***SEC	282	Cooperative Office Occupations II	5
		General Requirements	81
		Electives (As agreed by student and advisor)	15
		Total	**96**

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

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

(For Asterisked Courses, See End Of Business Division Section.)

BUSINESS SECRETARY

(Trulene Page, Maxine Marquez, Judy Leusink -- 353-8008)

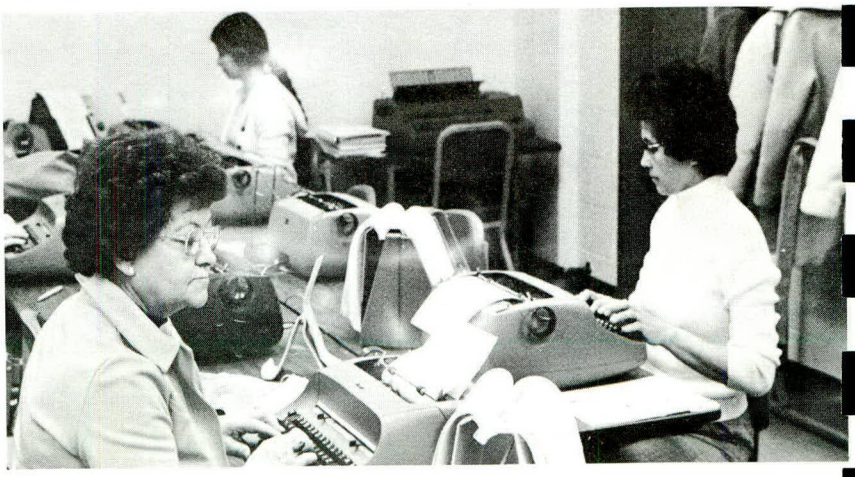
Course Length: Usually 6 quarters for Associate in Applied Science Degree.

Desirable Characteristics: Possess above average English skills.

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

Required Courses:			**Credits**
BUS	100	Introduction to Business	.5
**BUS	101	Beginning Typewriting	.3
**BUS	102	Intermediate Typewriting	.3
BUS	103	Advanced Typewriting	.3
SEC	105	Machine Transcription	.3
**SEC	151	Gregg Shorthand Theory I (5)	
		or	5
**SEC	161	Alphabet Shorthand Theory I (5)	
**SEC	152	Gregg Shorthand Theory II (5)	
		or	5
**SEC	162	Alphabet Shorthand Theory II (5)	
SEC	153	Intermediate Shorthand	.5
SEC	154	Advanced Shorthand	.5
*BUS	115	Business Mathematics	.5
BUS	116	Adding and Calculating Machines	.2
**BUS	141	College Bookkeeping I	.5
BUS	142	College Bookkeeping II	.5
BUS	145	Human Relations and Supervision	.3
****BUS	155	Business Communications I	.5
BUS	156	Business Communications II	.3
BUS	157	Business Communications III	.3
BUS	165	Filing	.3
BUS	175	Office Procedures	.5
EDP	101	Introduction to Data Processing	.5
***SEC	281	Cooperative Office Occupations I	.5
***SEC	282	Cooperative Office Occupations II	.5
		General Requirements	.91
		Electives (As agreed by student and advisor)	.5
		Total	**.96**

(For Asterisked Courses, See End Of Business Division Section.)



OFFICE SUPERVISION

(Melba Kriegel -- 353-8008)

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

Required Courses:			**Credits**
BUS	100	Introduction to Business	.5
**BUS	101	Beginning Typewriting	.3
**BUS	102	Intermediate Typewriting	.3
*BUS	115	Business Mathematics	.5
BUS	116	Adding and Calculating Machines	.2
BUS	145	Human Relations and Supervision	.3
****BUS	155	Business Communications I	.5
BUS	156	Business Communications II	.3
BUS	157	Business Communications III	.3
BUS	165	Filing	.3
BUS	175	Office Procedures	.5
ACC	246	Financial Management (5) or (Selection with approval of advisor)	5
BUS	247	Business and Banking (5)	
BUS	255	Business Law	.5
***BUS	281	Cooperative Office Occupations I	.5
***BUS	282	Cooperative Office Occupations II	.5
ACC	101	Principles of Accounting I	.5
ACC	102	Principles of Accounting II	.5
ACC	105	Payroll Accounting	.3
EDP	101	Introduction to Data Processing	.5
MGT	205	Credit Management	.5
MGT	215	Personnel Management	.5
		General Requirements	.88
		Electives (As agreed by student and advisor)	.8
		Total	**.96**

(For Asterisked Courses, See End Of Business Division Section.)

CLERK-TYPIST

(Jerry Goddard -- 353-8008)

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

Required Courses:			**Credits**
**BUS	101	Beginning Typewriting	.3
**BUS	102	Intermediate Typewriting	.3
BUS	103	Advanced Typewriting	.3
SEC	105	Machine Transcription	.3
*BUS	115	Business Mathematics	.5
BUS	116	Adding and Calculating Machines	.2
BUS	145	Human Relations and Supervision	.3
****BUS	155	Business Communications I	.5
BUS	156	Business Communications II	.3
BUS	157	Business Communications III	.3
BUS	165	Filing	.3
BUS	175	Office Procedures	.5
		General Requirements	.41
		Electives (As agreed by student and advisor)	.9
		Total	**.50**

(For Asterisked Courses, See End Of Business Division Section.)

PUBLIC SERVICE DIVISION

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

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

The Public Service Division offers the following programs:

Criminal Justice	(two-year AAS Degree)
Fire Science	(two-year AAS Degree)
Respiratory Therapy	(one-year certificate)
Nurse Aide	(one-quarter certificate)
Other Health Services	

CRIMINAL JUSTICE

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

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

The Criminal Justice Program consists of courses totaling 102 hours. Fifty-seven credit hours will be taught by vocationally certified instructors from Sheriff and Police Departments, District Attorney's Office, Nineteenth Judicial District Court and other agencies. The remaining 45 credits are general courses.

Core Courses:

			Credits
CRJ	101	Introduction to Criminal Justice	2
CRJ	115	Traffic Control and Accident Investigation	4
CRJ	130	Community Relations	3
CRJ	135	Report Writing	3
CRJ	140	Juvenile Procedures	3
*CRJ	150	Law Enforcement Basic Training	20
CRJ	200	Criminal Law and Procedures	5
CRJ	210	Criminal Investigation	3
***CRJ	215	Evidence I	3
***CRJ	225	Evidence II	3
***CRJ	231	Court Procedures	5
CRJ	240	Constitutional Law Seminar	3
		Total Core Courses	**57**

Recommended Electives for Candidates:

CRJ	158	Forensic Photography	3
CRJ	251-255	Police Cadet Co-operatives	1-5

FIRE SCIENCE

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

Potential Opportunities: The protection of life and property from fire is the primary function of a fireman; however, with today's sophisticated techniques, training, and equipment, modern fire-fighters must be well educated in physics, chemistry, other sciences, and state and city laws and codes applicable to fire science. High school diploma or equivalent is a prerequisite. Sound health, good physical condition, the ability to give and take orders, and common sense are helpful. Civil Service requirements for height, weight and vision may be obtained from the College Counseling Center.

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

			Credits
FS	100	Introduction to Fire Science and Suppression	3
FS	104	Fire Company Organization and Procedure	3
FS	106	Fire Fighting Tactics and Strategy	3
FS	108	Fire Hydraulics	3
FS	110	Fire Apparatus and Equipment	3
FS	190	Administration of Justice and Court Procedures	3
FS	202	Fundamentals of Fire Prevention	3
FS	204	Related Codes and Ordinances I	3
FS	205	Related Codes and Ordinances II	3
FS	206	Rescue Practices	3
FS	207	Applied Chemistry for Firemen	5
FS	208	Hazardous Materials I	3
FS	209	Hazardous Materials II	3
FS	212	Fire Protection Equipment and Systems	3
FS	214	Fire Department Administration	3
FS	216	Private Fire Protection Systems	3
FS	218	Fire Investigation	3
FS	220	Fire Insurance	3
FS	230	Building Construction/Blueprint Reading for Firefighters	3
BUS	101	Beginning Typewriting (will be waived if student can type 40 wpm.)	3
SPE	115	Speech Communications	5
BUS	155	Business Communications I	5
BUS	156	Business Communications II	3
VTR	101	Basic Technical Math	6
VTR	108	Industrial Physics I	5
VTR	109	Industrial Physics II	5
POS	118	State and Local Governments	5

Select two of the following courses with advisor approval.

VTR	106	Industrial Economics	(3)
HLH	105	Emergency Medical Technician	(9)
PSY	101	General Psychology	(5)
POS	101	American Government	(5)
SOC	101	Introduction to Sociology	(5)
		Total	**102-108**

ADVISORY COMMITTEE FOR FIRE SCIENCE

Jack Cochran
Kodak Colorado

Vern Einspahr
Greeley Fire Department

James Edwards
Western Hills Fire Protection District

Bruce Forbes
Greeley Fire Department

HEALTH OCCUPATIONS: NURSE ASSISTING

Course Length: 1 quarter for Certificate in Occupational Education. 15 credit hours. 180 clock hours.

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

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

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

			Credits
NA	100	Nurse Aide	15

ADVISORY COMMITTEE FOR NURSE ASSISTING

Mrs. Peggy Davis, R.N.
Bonnell Retirement Community

Mrs. Ethel DiGregario, R.N.
Eventide of Windsor

Mary L. Snow
Kenton Nursing Home

Mrs. Jeannette Morrell, R.N.
Fairacres Manor

Jean Kidd, R.N.
Memorial Hospital

Mrs. Myra Ekrem, R.N.
Weld County General Hospital

Mrs. Trudy Collier, R.N.
Eventide of Greeley

Mrs. Louise Warner
Birch Avenue Manor

La Vern Weber
Fairacres Manor

RESPIRATORY THERAPY TECHNICIAN PROGRAM

Course Length: 4 quarters for Certification of Completion.

Course Description: Respiratory Therapy is an allied health speciality that deals with the treatment, control and care of patients with problems associated with the process of breathing. The technician must be an expert in the therapeutic uses of such things as medical gases, oxygen administering apparatus, aerosols, mechanical ventilators, chest physio-therapy, resuscitation and artifical airways.

Potential Opportunities: The technician will be working in small and large respiratory therapy departments in hospitals. Also there is an increasing employment opportunity as home care consultants.

Fall Quarter			**Credits**
INT	105	Respiratory Therapy Pharmacology	2
INT	106	Respiratory Therapy Orientation	6
BIO	216	Microbiology	5
BIO	218	Special Topics in Human Anatomy and Physiology	4
MAT	109	Metric System	1
			18
Winter Quarter			
INT	108	CardioPulmonary Anatomy and Physiology	4
INT	109	Gas, Aerosol, and Humidity Therapy	4
INT	107	Respiratory Science	4
INT	115	Airway Management and CardioPulmonary Resuscitation	1
INT	101	Clinical Practice I	5
INT	126	Basic E.K.G.	2
			20
Spring Quarter			
INT	111	Clinical Medicine I	4
INT	116	Pulmonary Rehabilitation	1
INT	117	Artifical Ventilation	4
INT	118	Acid Base Balance	2
INT	102	Clinical Practice II	6
			17
Summer Quarter			
INT	112	Clinical Medicine II	4
INT	119	Pulmonary Function Testing	1
INT	103	Clinical Practice III	12
			17
		Total	**72**

ADVISORY COMMITTEE FOR RESPIRATORY THERAPY TECHNICIAN PROGRAM

Mike Arndt, CRTT, BS
Weld County General Hospital

Robert Cash, M.D.
Weld County General Hospital

John Guy
Weld County General Hospital

Dora Johnson
University of Northern Colorado

Diann Lemon, RRT
Poudre Valley Memorial Hospital

Mike Renfrow, CRTT
Weld County General Hospital

Mike Sanderlin
McKee Medical Center, Loveland

Hank Hipple, CRTT
Longmont United Hospital

Tom Soggs, CRTT
Brighton Community Hospital

Summer Quarter

AGR	136	Agriculture on-the-job training -- 10 Lecture, 325 OJT ..... .10
		3 Individualized Courses 6
		Total First Year ..... .64

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. Carburetion ..... .(2)
AGR	137	Agriculture Chemicals ..... .(2)
AGR	138	Paint ..... .(2)
AGR	139	Fertilizer ..... .(2)
AGR	145	Fertilizer Bulk Blending ..... .(2)
AGR	146	Anhydrous Ammonia ..... .(2)
AGR	147	Corn Production ..... .(3)
AGR	148	Feed ..... .(2)
AGR	149	Profitable Pork Production ..... .(2)
AGR	155	Cooperative Organizations ..... .(2)
AGR	156	Basic Management ..... .(2)
AGR	157	Modern Salesmanship ..... .(2)
AGR	159	Animal Health ..... .(2)

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

Second Year **Credits**

AGR	118	Fertilization and Soils 5	
MGT	205	Credit Management 5	
MGT	215	Personnel Management 5	
MGT	221	Principles of Marketing (service area) ..... .(5)	
		or	5
BUS	247	Business and Banking (credit area) ..... .(5)	
MGT	235	Principles of Management 5	
AGR	235	Agriculture on-the-job training ..... .10	
		Additional 2 individualized courses 5	

Two courses to be selected from the following with advisor approval:

EDP	101	Introduction to Data Proc. ..... .(5)	
ACC	101	Principles of Accounting I ..... .(5)	
ACC	102	Principles of Accounting II ..... .(5)	
AGR	117	Feeds and Feeding ..... .(5)	10
AGR	119	Feed Processing and Grain Handling ..... .(5)	
AGR	125	Farm Chemicals ..... .(5)	
BUS	255	Business Law ..... .(5)	
ACC	246	Financial Management ..... .(5)	
		Total Second Year ..... .50	

ADVISORY COMMITTEE FOR AGRICULTURE CO-OP PRE-MANAGEMENT

Doug Burr
Agland, Inc.

Clarence Carlson, Director
Adams County Co-op

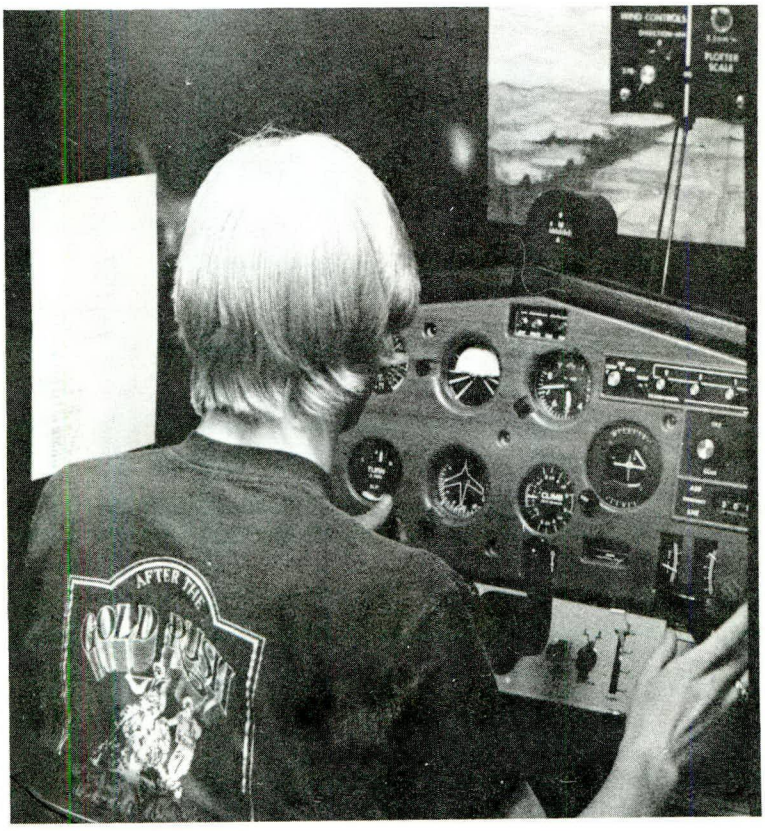
Don Dreyer, Director
Adams County Co-op

Darrell Johnson
Hutchinson , Kans.
Far Mar Co.

Gerald Mueller
Farmland Industries

Z.G. Spaulding
Agland, Inc.

Bob Wilcox
Agland, Inc.



AVIATION TECHNOLOGY

Course Length: Usually 3 quarters for Certificate Program or 6 quarter for Associate in Applied Science Degree. (May be shorter if student is eligible for credit for previous flying experience.)

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

Note: Additional charges are made for rental of aircraft for flight labs. Aims Community College does not own airplanes but makes arrangement for flight experience at the Weld County Airport. (See Course Descriptions for the various flight labs.) The Aviation Department will have information detailing the flying expense of the courses.

Credit for previous flying experience:

With the approval of the Aviation Department credit may be awarded as listed below:

FAA License	Aims Course
Private Pilot License	AVT 105 Aviation Seminar AVT 106 Private Ground School I AVT 107 Private Ground School II AVT 115 Private Flight Simulator AVT 116 Private Flight Lab
Instrument Rating	AVT 117 Commercial Flight Lab I AVT 118 Commercial Flight Lab II AVT 205 Instrument Ground School AVT 215 Instrument Flight Simulator AVT 216 Instrument Flight Lab
Commercial Pilot License	AVT 206 Commercial Ground School AVT 217 Commercial Flight Lab III
Certified Flight Instructor	AVT 218 Certified Flight Instructor
Instrument Flight Instructor	AVT 219 Instrument Flight Instructor
Multi-Engine Rating	AVT 225 Multi-Engine Transition Lab
Basic Ground Instructor	AVT 207 Basic Ground Instructor
Advanced Ground Instructor	AVT 208 Advanced Ground Instructor
Instrument Ground Instructor	AVT 209 Instrument Ground Instructor

ONE YEAR CERTIFICATE IN AVIATION

Classroom: (3 quarters)

			Credits
AVT	105	Aviation Seminar	2
AVT	106	Private Ground School I	3
AVT	107	Private Ground School II	3
AVT	205	Instrument Ground School	6
AVT	206	Commercial Ground School	3

Flight Courses (Conducted at Airport)

AVT	116	Private Flight Lab	5
AVT	117	Commercial Flight Lab I	5
AVT	118	Commercial Flight Lab II	5
AVT	216	Instrument Flight Lab	5
AVT	217	Commercial Flight Lab III	5
AVT	218	Certified Flight Instructor	5

Flight Simulator Courses

AVT	115	Private Flight Simulator	5
AVT	215	Instrument Flight Simulator	5
		Total	**57**

ADVISORY COMMITTEE FOR AVIATION TECHNOLOGY

Robert Anderson
Greeley National Bank

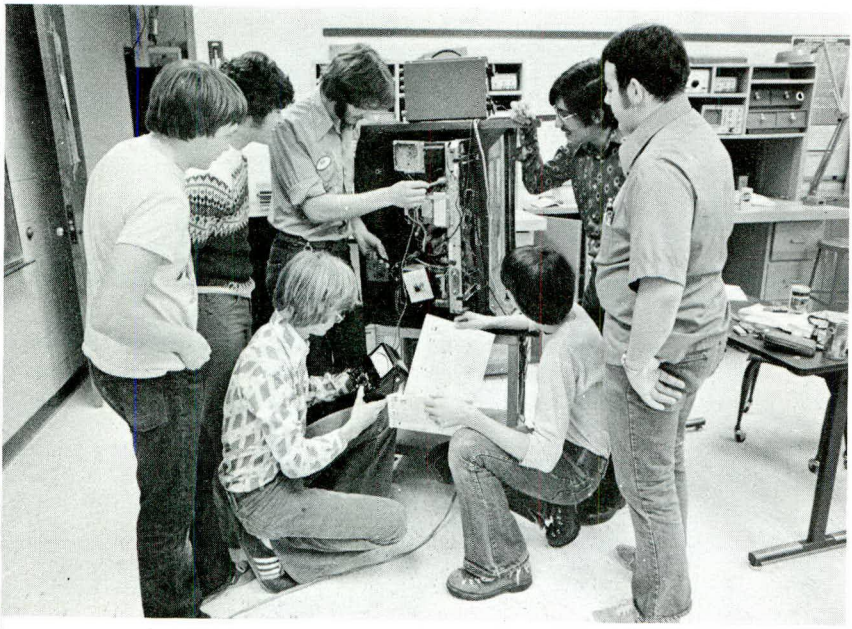
Edward Beegles
Beegles Aircraft

George Hopper
FAA Designated Pilot Examiner

Bud Johnson
United Airlines

Dr. Roy Shore, M.D.
FAA Medical Examiner

Joe Thompson
Top Notch Aerial Applicator



ELECTRO-MECHANICAL TECHNOLOGY

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

Potential Opportunities: This program is designed to produce an employable electro-mechanically trained person who can work effectively with tradesmen, engineers, production and customer service personnel in business and industry. Primary emphasis will be to prepare the graduate for activities relating to installation, troubleshooting and maintenance or electrical/electronic devices and their associated mechanical devices. Previous experience with mathematics will be helpful, but may be obtained through preparatory classes within the college. This program is intended as an option to the Electronics Technology program, but includes courses offered from the Mechanical and Civil Engineering Technology program and courses unique to either of the aforementioned programs.

First Year

			Credits
ELT	121	DC Circuits	.5
ELT	123	AC Circuits	.5
*ELT	143	Electronic Circuits and Applications	.10
ELM	101	Print Reading I	.3
ELM	102	Print Reading II	.3
VTR	101	Basic Technical Mathematics	.6
VTR	102	Applied Technical Mathematics	.6
ELM	105	Mechanisms and Components	.6
VTR	107	Elements of Technical Writing	.3
VTR	108	Industrial Physics I	.5
VTR	109	Industrial Physics II	.5
		Total First Year	**.57**

Second Year			Credits
MCE	206	Hydraulics and Pneumatics	.5
ELM	205	AC-DC Machinery and Controls	.5
MCE	207	Materials and Processes	.4
*ELT	281	Digital Computers I	.5
ELM	206	Instrumentation and Controls	.5
ELM	207	Electro-Mechanical Machines and Systems	.8
ELT	266	Electronic Design and Fabrication	.3
ELT	267	Introduction to New Electronic Industry Developments	.3
VTR	106	Industrial Economics	.3
VTR	206	Industrial Relations	.3
VTR	208	Computer Systems and Applications	(4)
		or	4 or 5
*ELT	282	Computers II (Student may take this course in lieu of VTR 208)	(5)
		Total Second Year	**48 or 49**
		Total	**105 or 106**

*Credit for 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 credit.

ADVISORY COMMITTEE FOR ELECTRO-MECHANICAL TECHNOLOGY

Robert Anderson
Woodward Governor

Russ Dieterle
Eastman Kodak

Ron Fazzio
Hewlett-Packard

Lloyd McConnel
Raincat Irrigation

Robert Shey
Hydraulics Unlimited

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	141	Introduction to Electronics (or ELT 120, 121)	10
ELT	142	AC/DC CKT Analysis (or ELT 122, 123)	10
ELT	143	Circuits and Applications (or ELT 124, 125)	10
ELT	146	Electronics Print Reading & Sketching	3
*VTR	105	Industrial Communications	3
VTR	107	Elements of Technical Writing	3
COS	100	Introductions to Computers/Basic Language	3
		Electives (Advisor approved Math/Science, Physics generally recommended.)	10
		Total First Year	**52**

Second Year			
ELT	255	Linear IC's and Sensors	5
*ELT	266	Electronic Design and Fabrication	3
*ELT	267	Introduction to New Electronic Industry Developments	3
*ELT	268	Practical Solid State Troubleshooting	3
ELT	271	Communcations I	5
ELT	272	Communications II	5
ELT	281	Computers I	5
ELT	282	Computers II	5
*VTR	106	Industrial Economics	3
*VTR	206	Industrial Relations	3
		Electives (May be Computers III, Communications III, Math/Science, other ELT, ELM, MCE, EDP offerings with advisor approval.)	10
		Total Second Year	**50**
		Total	**102**

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

ADVISORY COMMITTEE FOR ELECTRONICS TECHNOLOGY

Howard Coffman
Woodward Governor Co.

Conrad J. Druzynski
Kodak of Colorado

Clarence Laber
Hewlett-Packard Co.

Harold Swanson
Mountain Bell

Cuy Collodi
International Business Machines (IBM)

DRAFTING

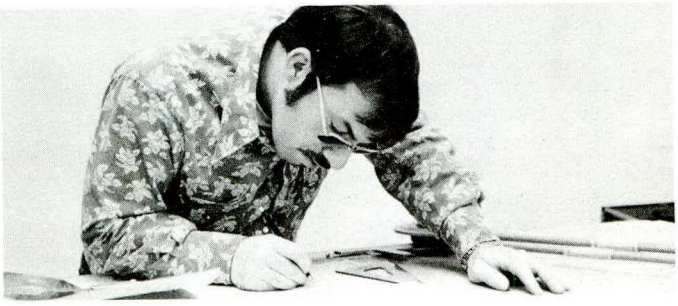
Drafting courses at Aims Community College are offered in a variety of areas with course content emphasis on meeting the needs of the students within the College district.

A series of six (6) courses are offered as part of the two-year Mechanical-Civil Engineering Technology degree program. A student who is interested in developing drafting skills may enroll in these courses for skill development. It is emphasized that the student should consider his basic skills and his subject matter objective before selecting a particular course. These particular courses have equal counterparts in evening course offerings. Descriptions of these courses may be found in the MCE program section of the catalog.

Specialty offerings are available in the area of Architectural Drafting. There are three architectural courses, DRA 107, DRA 110, and DRA 113 usually conducted during the evening hours. By meeting minimum enrollment requirements, many courses may be offered during evening hours.

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

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



MECHANICAL AND CIVIL ENGINEERING TECHNOLOGY

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

Potential Opportunities: The program is designed to prepare a student for activities of a technical nature, usually associated with civil and mechanical engineering. These activities may include drafting, estimating, data gathering, technical reports, structural systems design, surveying, laboratory testing, and other engineering assistance skills. The student will develop design skills, understanding of mathematics and materials, and techniques relative to human relations, leadership, and obtaining a position. Previous experience in mathematics is helpful, but may be obtained through preparatory courses within the college. Good eyesight, hand dexterity, and a sense of size and shape are also helpful.

Note: The block of Evening Courses, MCE 101, 102, 103 and 104 (16 credits), is equivalent to the block, MCE 111, 112, and 113 (15 credits). MCE 221, 222, 223 and 224 (16 credits) is equivalent to the block MCE 201, 202, and 203 (15 credits).

First Year

Fall Quarter			**Credits**
MCE	111	Drafting I	5
VTR	105	Industrial Communications	3
VTR	106	Industrial Economics	3
VTR	101	Basic Technical Mathematics	6
		Total Fall Quarter	**17**

Winter Quarter

MCE	112	Drafting II	5
VTR	107	Elements of Technical Writing	3
VTR	108	Industrial Physics I	5
VTR	102	Applied Technical Mathematics	6
		Total Winter Quarter	**19**

Spring Quarter

MCE	113	Drafting III	5
MCE	105	Statics & Mechanics	5
VTR	115	Basic Quality Control	3
VTR	109	Industrial Physics II	5
		Total Spring Quarter	**18**
		Total First Year	**54**

Second Year

Fall Quarter

MCE	201	Drafting IV	5
MCE	206	Hydraulics & Pneumatics	5
MCE	207	Materials and Processes	4
VTR	205	Industrial Electricity	3
		Total Fall Quarter	**17**

Winter Quarter

MCE	202	Drafting V	5
MCE	208	Strength of Materials	4
MCE	211	Basic Field Surveying I	2
VTR	206	Industrial Relations	3
VTR	207	Cost & Material Estimating	3
		Total Winter Quarter	**17**

Spring Quarter

MCE	203	Drafting VI	5
MCE	209	Engineering Problems	5
MCE	212	Basic Field Surveying II	4
VTR	208	Computer Systems & Applications	4
		Total Spring Quarter	**18**
		Total Second Year	**52**
		Total	**106**

ADVISORY COMMITTEE FOR MECHANICAL AND CIVIL ENGINEERING TECHNOLOGY

James Moore
Kodak of Colorado

Herb Davidson
Sage Engineers

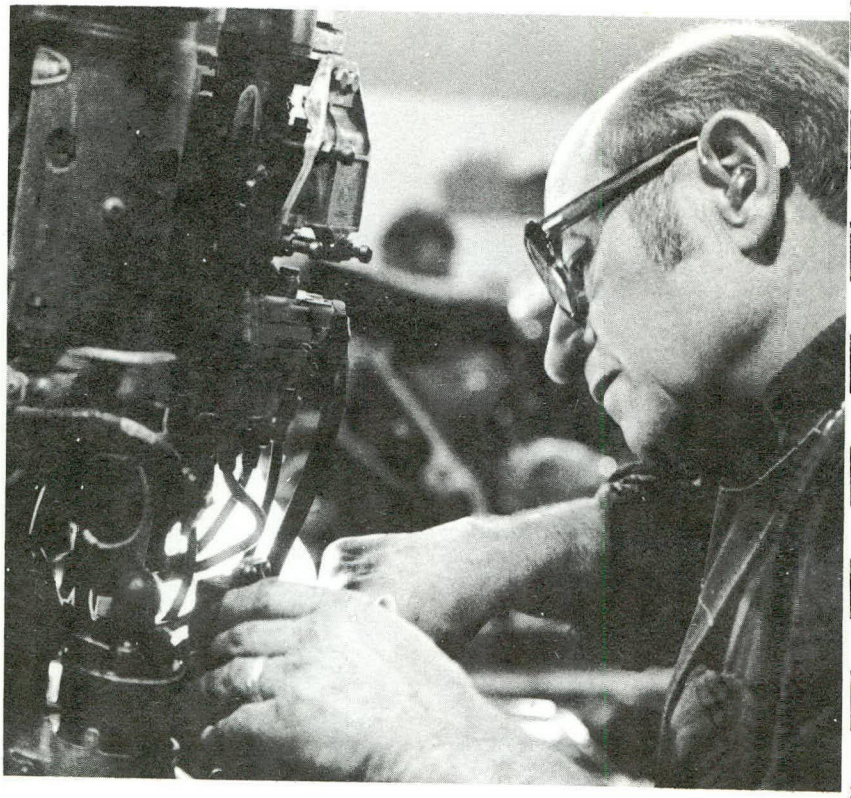
Danny Graham
Colorado Highway Dept.

Herb Peralez
Miner & Miner Consulting Engineers

Art Uhrich
C-E Maguire

Mike Robnett
Miner & Miner Consulting Engineers

Bob Thomas
C-E Maguire



TRADES AND INDUSTRY DIVISION

The Trades and Industry Division is committed to help the students acquire job required skills through demonstration and hands-on practice. We are also committed to provide advanced training for students who are already working in a trade. The Trades and Industry Skill Center provides the student who falls behind the class with the opportunity to catch up, and provides introductory classes for the student who needs training prior to enrollment in the regular programs.

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

The Trades and Industry Division offers the following programs:

Auto Body Repair	(two-year AAS Degree)
Auto Body Refinishing	(one-year Occupational Certificate)
Automotive Mechanics	(two-year AAS Degree)
Building Construction	(two-year AAS Degree)
Child Care Teacher	(two-year AAS Degree or one-year Occupational Certificate)
Graphic Technology	(two-year AAS Degree or one-year Occupational Certificate)
Motorcycle and Sportscraft Engines	(one-year Occupational Certificate)
Welding	(two-year AAS Degree)

AUTO BODY REFINISHING

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

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

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

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

			Credits
Fall Quarter			
ABR	151	Auto Refinish I	12
VTI	101	Safety and First Aid	2
		Total Fall Quarter	**14**
Winter Quarter			
ABR	152	Auto Refinish II	12
VTI	124	Service Management	3
		Total Winter Quarter	**15**
Spring Quarter			
ABR	153	Auto Refinish III	12
VTI	103	Industrial Communications	3
		Total Spring Quarter	**15**
		Total	**44**

Evening Class Offerings:

ABR	101	Auto Body Welding	4
ABR	102	Basic Straightening	4
ABR	103	Basic Refinishing	4
		Total	**12**

Note: ABR 101, ABR 102, and ABR 103 are the equivalent of ABR 141.

ABR	111	Damage Repair	4
ABR	112	Panel Replacement	4
		Total	**8**

Note: ABR 111, and ABR 112 are the equivalent of ABR 142.

ABR	121	Electrical and Alignment	4
ABR	122	Advanced Refinishing	4
ABR	123	Damage Appraisal (Estimating)	4
		Total	**12**

Note: ABR 121, ABR 122, and ABR 123 are the equivalent of ABR 143.

ABR	201	Quarter Panel Replacement	4
ABR	202	Basic Sheet Metal Replacement	4
ABR	203	Advanced Sheet Metal Replacement	4
		Total	**12**

Note: ABR 201, ABR 202, and ABR 203 are the equivalent of ABR 241.

ABR	211	Basic Frame Repair	4
ABR	212	Conventional Frame Repair	4
ABR	213	Unitized Frame Repair	4
		Total	**12**

Note: ABR 211, ABR 212, and ABR 213 are the equivalent of ABR 242.

ABR	221	Auto Body Rebuilding I	4
ABR	222	Auto Body Rebuilding II	4
ABR	223	Auto Body Rebuilding III	4
		Total	**12**

Note: ABR 221, ABR 222, ABR 223 are the equivalent of ABR 243.

Total **68**

Supporting Course

ABR	190	Introduction to Auto Body	2

ADVISORY COMMITTEE FOR AUTO BODY

Harly Bjoralt
Auto Alignment & Frame Ser.

Art Butheras
State Farm Insurance Co.

Mike Gundes
Garnsey & Wheeler Co.

Harold Mothershed
Garnsey & Wheeler Co.

Earl Nicks
Edwards Chevrolet

On-the-Job Training Courses

AMT	141	Brakes, Transmissions and Final Drives -- B (is equivalent to AMT 131 -- A)	12
AMT	142	Steering and Suspension Systems -- B (is equivalent to AMT 132 -- A)	12
AMT	143	Fuel Systems and Tune-Up -- B (is equivalent to AMT 133 -- A)	12
AMT	241	Automotive Engines -- B	12
		(is equivalent to AMT 231 -- A)	12
AMT	242	Advanced Electrical -- B (is equivalent to AMT 232 -- A)	12
AMT	244	Automotive Transmissions and Service Practice -- B (is equivalent to AMT 234 -- A)	12

Evening Class Offerings **Credits**

AMT	104	Brake Repair	4
AMT	105	Advanced Electrical	4
AMT	106	Tune Up	4
AMT	107	Advanced Engine Tune Up	4
AMT	108	Automatic Transmissions	4
AMT	115	Foreign Car Tune Up	4
AMT	116	Auto Emissions Control	4
AMT	206	Advanced Diagnosis	12

Supporting Courses

AMT	190	Introduction to Automobile Mechanics	2
AMT	125	Auto Certification Refresher	2

ADVISORY COMMITTEE FOR AUTOMOTIVE MECHANICS

Joe Armstrong
Ted Nieters Motor Co.

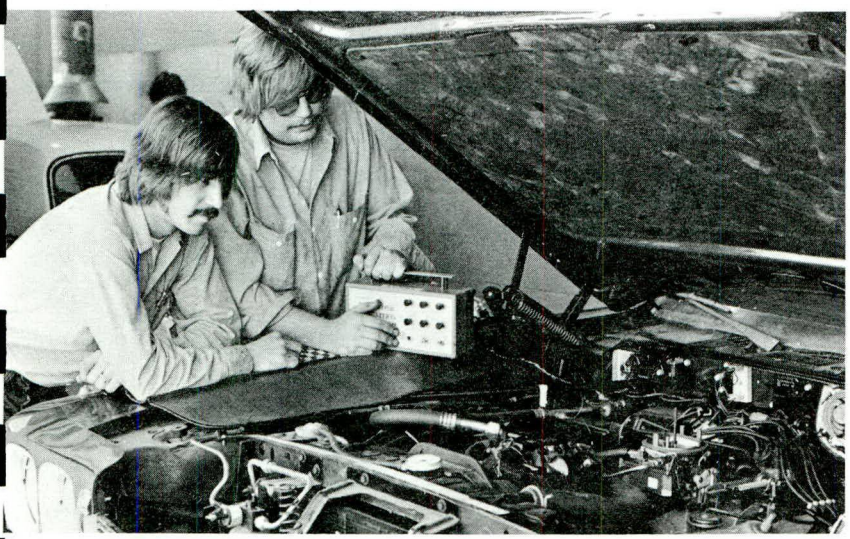
George Edwards
Edwards Chevrolet

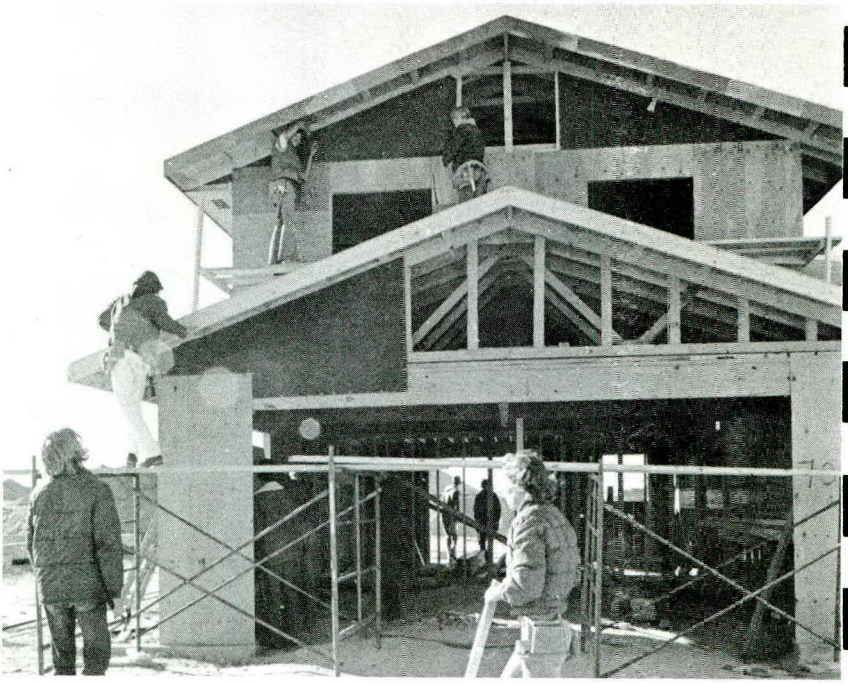
Walt Loftus
Ted Nieters Motor Co.

Jerry Park
Silver Star Service

Dale Rowe
Dale's Texaco

Bill Waller
16th Street Conoco





BUILDING CONSTRUCTION

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

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 building 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 finishing 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.

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 course.

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

Course content of all skill classes may vary depending upon projects, but in the 6 quarters the student will acquire skills in all phases indicated in the course description.

First Year:

Fall Quarter		**Credits**
BCS 111	Building Construction I	9
BCT 121	Framing I	3
BCT 160	Orientation to Building Construction	1
BCT 117	Basic Tools and Materials	2
BCT 141	Basic Architectural Drafting and Print Reading	2
	Total Fall Quarter	17

Winter Quarter

BCS	122	Building Construction II	.9
BCT	125	Exterior	.2
BCT	126	Masonry	.2
BCT	127	Interior Finish	.2
VTI	101	Safety and First Aid	.2
		Total Winter Quarter	**.17**

Spring Quarter

BCT	115	Concrete	.2
BCS	133	Building Construction III	.9
BCT	135	Interior Trim and Cabinets	.2
BCT	136	Painting and Finishing	.1
BCT	131	Basic Math and Estimating	.3
		Total Spring Quarter	**.17**
		Total First Year	**.51**

Second Year:

Fall Quarter

BCS	211	Building Construction IV	.9
BCT	215	Preparation and Layout	.2
BCT	221	Framing II	.3
VTI	105	Industrial Organizations & Institutions	.3
		Total Fall Quarter	**.17**

Winter Quarter

BCS	222	Building Construction V	.7
BCT	236	Building Codes	.2
BCT	241	Architectural Drafting II	.4
BCT	230	Construction Estimating I	.3
		Total Winter Quarter	**.16**

Spring Quarter

BCS	233	Building Construction VI	.7
BCT	237	Legal Procedures and Practices	.3
BCT	231	Construction Estimating II	.4
VTI	103	Industrial Communications	.3
		Total Spring Quarter	**.17**
		Total Second Year	**.50**
		Total	**.101**

Evening Class Offerings **Credits**

BCS	102	Basic Cabinetry	.4
BCS	104	Cabinetry II	.4

Supporting Course

BCS	190	Introduction to Building Construction	.2

ADVISORY COMMITTEE FOR BUILDING CONSTRUCTION

Ernie Austin
Austin & Austin

Mel Geist
Geist Homes

Jack Coy
Realtor

Winter Quarter

CCT	232	Human Relations in the Classroom	.5
CCT	201	Business Management for Child Care Centers	.3
CCT	251	Creative Foods and Nutrition	.3
		Electives	.3
		Total Winter Quarter	**.14**

Spring Quarter

CCT	255	Science for Preschool Teachers	.5
CCT	233	Family and Community Relations	.5
CCT	202	Administration of Child Care Centers	.4
		Electives	.3
		Total Spring Quarter	**.17**
		Total Second Year	**.47**
		Total	**.96**

Recommended Electives:

CCT	265	Playground Development	.4
SOC	105	Marriage and the Family	.5

Educational courses necessary for State Social Services Certification for Director of a Child Care Center, Child Development and Nursery Education:

CCT	105	First Aid	.2
CCT	161	Child Growth and Development I	.3
CCT	162	Child Growth and Development II	.3
CCT	100	Intro to Early Childhood Education	.2
CCT	141	Activities for Young Children	.4
CCT	241	Methods of Teaching the Young Child	.4
CCT	106	Children's Literature	.3
		Total	**.21**

Related Subjects:

SOC	101	Introduction to Sociology	.5
PSY	101	General Psychology	.5
CCT	151	Nutrition for Young Children	.4
CCT	201	Business Management for Child Care Centers	.3
CCT	202	Administration of Child Care Centers	.4
CCT	251	Creative Foods and Nutrition	.3
		Total	**.24**
		Total	**.45**

ADVISORY COMMITTEE FOR CHILD CARE/TEACHER AIDE

Mrs. John Althoff
First Congregational Church

Ann Heiman
Greeley Parent-Child Center

Keith McNeil
Head Start Director

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

GRAPHIC TECHNOLOGY

Course Length: Usually three quarters for Certificate in Occupational Education. Usually six quarters for Associate in Applied Science Degree.

Potential Opportunities: This two year program is designed to provide a student with two options, either one year of training leading to a Certificate in Occupational Education or two years of training leading to an Associate in Applied Science Degree.

The first year of the program provides the student with a basic core of fundamental knowledge and machine skills in all phases of the offset printing process. Included in this core of training is photo and strike-on copy composition, paste-up, process camera production of line and halftone negatives, offset plate making techniques, duplicator size offset press operation and bindery functions.

All students entering the second year of the program must have completed this first year core program or have had work experience equal to the scope of the first year program.

During the second year of training the student has an option to specialize in either pre-press or production work. The pre-press specialization emphasizes advanced techniques of photo composition, process camera, layout and design. The production specialization emphasizes press and advanced bindery equipment operation and techniques which will provide the student with entry level skills for apprentice-type work in commercial print shops or in-house copy centers.

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

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

First Year: -- Core Program - Vocational Certificate

Fall Quarter **Credits**

*GRT	111	Graphic Technology I 10
VTR	106	Industrial Economics 3
BUS	101	Beginning Typewriting ..... (3)
		or 3
BUS	105	Speed and Accuracy Development in Typewriting ..... (3)
		Total Fall Quarter 16

Winter Quarter

GRT	112	Graphic Technology II 10
VTI	103	Industrial Communications 3
VTR	206	Industrial Relations 3
		Total Winter Quarter 16

Spring Quarter

GRT	113	Graphic Technology III 10
VTI	105	Industrial Organizations and Institutions 3
		Electives 5
		Total Spring Quarter 18
		Total First Year 50

Recommended Electives:

GRT	190	Introduction to Graphic Technology 2
BUS	107	Memory Typewriting 2
MCE	111	Drafting I 5
DRA	190	Introduction to Drafting 2
AAD	101	Fundamentals of Art and Design I 5
ART	100	Survey of Visual Arts and Design 5

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

Second Year: -- Production Option - AAS Degree

Fall Quarter

GRT	214	Graphic Technology VII 10
MGT	108	Small Business Management 5
		Electives 3
		Total Fall Quarter 18

Winter Quarter

GRT	212	Graphic Technology V 10
GRT	210	Graphic Materials Acquisition 3
		Electives 3
		Total Winter Quarter 16

Spring Quarter

GRT	215	Graphic Technology VIII 10
		Electives 6
		Total Spring Quarter 16
		Total Second Year 50

MOTORCYCLE AND SPORTSCRAFT ENGINES MECHANICS

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

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

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

Fall Quarter **Credits**

MSE	100	Motorcycle and Sportscraft Engines I	12
VTI	101	Safety and First Aid	2
VTI	137	Parts Managing Fundamentals	3
		Total Fall Quarter	**17**

Winter Quarter

MSE	101	Motorcycle and Sportscraft Engines II	12
VTI	103	Industrial Communications	3
VTI	124	Service Management	3
		Total Winter Quarter	**18**

Spring Quarter

MSE	102	Motorcycle and Sportscraft Engines III	12
VTI	135	Industrial Math and Science	5
		Total Spring Quarter	**17**
		Total	**52**

Evening Class Offerings

MSE	107	Motorcycle Repair I	2
MSE	108	Motorcycle Repair II	2
MSE	105	Outboard Motor Repair	2

Supporting Course

MSE	190	Introduction to Motorcycle and Sportscraft Engines	2

ADVISORY COMMITTEE FOR MOTORCYCLE AND SPORTSCRAFT ENGINES

Larry Brackle
Boyd Lake Marina

Don Eckhardt
George's Repair Shop

Bill Hoff
Hoff Motor Co.

Carl Mekelburg
Golf Course Supt.

Carl Minnig
Minnig Cycle Center

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

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

First Year:

Fall Quarter			**Credits**
WLT	141	Oxygen/Acetylene Welding	12
VTI	101	Safety and First Aid	2
VTI	105	Industrial Organizations & Institutions	3
		Total Fall Quarter	**17**
Winter Quarter			
WLT	142	Shielded Metal Arc I	12
VTI	181	Basic Blueprint Reading	3
		Total Winter Quarter	**15**
Spring Quarter			
WLT	143	Shielded Metal Arc II	12
VTI	103	Industrial Communications	3
VTI	182	Welding Layout	3
		Total Spring Quarter	**18**
		Total First Year	**50**

Second Year:

Fall Quarter			
WLT	241	Shielded Metal Arc III	12
VTI	183	Welding Industry	3
		Total Fall Quarter	**15**
Winter Quarter			
WLT	242	Shielded Metal Arc Pipe Welding	12
VTI	121	Shop Math	3
WLT	135	Metallurgy	5
		Total Winter Quarter	**20**
Spring Quarter			
WLT	243	Tig & Mig Welding	12
VTI	175	Welding Certification and Employment	5
		Total Spring Quarter	**17**
		Total Second Year	**52**
		Total	**102**

Evening Class Offerings

WLT	101	Oxy-Acetylene Welding I 4
WLT	102	Oxy-Acetylene Welding II 4
WLT	103	Oxy-Acetylene Welding III 4
		Total 12

Note: WLT 101, WLT 102, and WLT 103 are the equivalent of WLT 141.

WLT	111	Shielded Metal Arc I-A 4
WLT	112	Shielded Metal Arc I-B 4
WLT	113	Shielded Metal Arc I-C 4
		Total 12

Note: WLT 111, WLT 112, and WLT 113 are the equivalent of WLT 142.

WLT	121	Shielded Metal Arc II-A 4
WLT	122	Shielded Metal Arc II-B 4
WLT	123	Shielded Metal Arc II-C 4
		Total 12

Note: WLT 121, WLT 122, and WLT 123 are the equivalent of WLT 143.

WLT	201	Shielded Metal Arc Pipe-A 4
WLT	202	Shielded Metal Arc Pipe-B 4
WLT	203	Shielded Metal Arc Pipe-C 4
		Total 12

Note: WLT 201, WLT 202, and WLT 203 are the equivalent of WLT 242.

WLT	211	Shielded Metal Arc III-A 4
WLT	212	Shielded Metal Arc III-B 4
WLT	213	Shielded Metal Arc III-C 4
		Total 12

Note: WLT 211, WLT 212, and WLT 213 are the equivalent of WLT 241.

WLT	221	Mig Welding I 4
WLT	222	Mig Welding II 4
WLT	223	Mig Welding III and Tig Welding 4
		Total 12

Note: WLT 221, WLT 222, and WLT 223 are the equivalent of WLT 243.

Total 48

Supporting Courses

WLT	190	Introduction to Welding 2
WLT	236	Special Problems in Welding 12

ADVISORY COMMITTEE FOR WELDING

Dr. R. Joe Goddard
Self Employed

Murray Hill
Lundvall Manufacturing

Free W. Hine
Farmhand, Inc.

Gene Terry
Self-employed Welder

Gene Johnson
Eastman Kodak

Dale Majors
Majors Welding Supply

Floyd Scofield
Hensel Phelps Construction Co.

Bob Shear
Hydraulics Unlimited

GENERAL STUDIES
COURSE DESCRIPTIONS

AEROSPACE STUDIES

In cooperation with the University of Northern Colorado, Aims Community College offers students the opportunity to enroll in the first two years of the Air Force ROTC program. Students enroll through Aims and attend classes at UNC.

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

For additional information, contact the AFROTC Chairperson, McKee Hall, University of Northern Colorado.

BEHAVIORAL AND SOCIAL SCIENCE DIVISION

ANTHROPOLOGY (ANT)

ANT 101 INTRODUCTION TO ANTHROPOLOGY
An introduction to nature and scope of anthropology, organic man, race, and the nature of culture. Five credits.

ANT 106 INTRODUCTION TO ARCHAEOLOGY
A survey of the prehistory of man, his technology, and contributions to the modern world. Examines major archaeological groups and sites, methods of excavation, dating of artifacts, and analysis of data. Five credits.

ANT 205 ENVIRONMENT AND CULTURE BEHAVIOR
It is the purpose of the course to examine possible interrelationships between environmental phenomena and cultural behavior. Five credits.

ECONOMICS (ECO)

ECO 100 INTRODUCTION TO ECONOMICS
A survey course designed to give a non-business major an introduction to basic economics.

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

ECO 201 PRINCIPLES OF ECONOMICS
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.

FAL 114 EARLY PREGNANCY

Designed for those couples in the first 5 months of pregnancy. Learn about proper care of the body for optimum development of the fetus, basic nutrition, fetal development, explore changes in feelings and family relationships. Body conditioning, proper body mechanics and relaxation are taught. One credit.

FAL 115 CHILDBIRTH EDUCATION I

Designed for those having their first child: an opportunity for group discussion of the physical and emotional aspects of pregnancy and post partum period; explores new family relationships, unique role of the father, basic nutrition, and initial newborn care. Promotes better preparation for labor and delivery processes by teaching and practicing related exercises and breathing techniques. Labor and delivery film is shown and tour of the hospital obstetrical facilities is included. Two credits.

FAL 116 CHILDBIRTH EDUCATION II

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

FAL 117 CHILDBIRTH EDUCATION III

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

FAL 119 CESAREAN BIRTH

Designed for those who are having a planned Cesarean Birth. The main goal is to make the Cesarean delivery a good and meaningful childbirth experience. Also included are topics as outlined in the basic Childbirth Education courses as listed above. Two credits.

FAL 126 YOUR AMAZING INFANT

Helps parent/parents develop their confidence in caring for their infant through group discussion about normal characteristics of infancy, growth and development, nutrition and feeding, safety, childhood illnesses, anticipating and preventing accidents. Develops ideas of how to identify and meet physical, social, and emotional needs of infants. Explores and helps with understanding and coping of feelings regarding parenthood. Practice infant resuscitation, learn to make baby food, participate in parent-infant exercises. Post partum exercises will be taught. Infants attend group with parents. Two credits.

FAL 127 COPING WITH YOUR ACTIVE TODDLER

Parents will become acquainted with normal characteristics of toddlers. Helps with understanding and coping of parent and child interactions as well as feelings concerning parenthood. Discuss ways of developing your child's self esteem, language, and motor skills. Explore areas of adequate nutrition, childhood illnesses, anticipating and preventing accidents. Two credits.

FAL 128 GROWING WITH YOUR PRESCHOOLER

Parents will become acquainted with the normal characteristics of preschoolers. Explores philosophy of parenthood and various alternatives in family communication and discipline. Discuss ways of fostering your preschooler's development. Explore new ideas for nutrition, play activities and preparing your child for school. Two credits.

FAL 145 FAMILY COMMUNICATIONS I - FOR PARENTS OF PRE-SCHOOLERS

This class is designed to help parents of preschoolers explore effective ways of interacting with their children in hopes of enhancing the total Child-parent relationship. Discussions will include typical responses to family problems and examination of more effective alternatives, the sharing of experiences of common concern and the practice of specific communication skills and techniques. Three credits.

FAL 146 FAMILY COMMUNICATIONS II - FOR PARENTS OF ELEMENTARY AGE CHILDREN

This class is designed to help parents of elementary age children explore effective ways of interacting with their children in hopes of enhancing the total Child-parent relationship. Discussions will include typical responses to family problems and examination of more effective alternatives, the sharing of experiences of common concern and the practice of specific communication skills and techniques. Three credits.

FAL 147 FAMILY COMMUNICATIONS III - FOR PARENTS OF ADOLESCENTS

This class is designed to help parents of adolescents explore effective ways of interacting with their children in hopes of enhancing the total Child-parent relationship. Discussions will include typical responses to family problems and examination of more effective alternatives, the sharing of experiences of common concern and the practice of specific communication skills and techniques. Three credits.

FAL 156 FOOD, FACTS, FADS AND YOUR HEALTH

Designed to help the individual make wise food choices for good health and ultimate well being by utilizing basic principles of sound nutrition. Application of these principles will be made through class activities. Two credits.

FAL 157 NUTRITION AND WEIGHT CONTROL

Designed to provide a basic knowledge in nutrition so that people may diet reasonably as opposed to crash and fad diets. Discussion of the frustrations involved in weight reduction and ways to cope with these frustrations. Two credits.

GEOGRAPHY (GEO)

GEO 105 WORLD OF GEOGRAPHY

A study of the world's regions. Emphasis is on culture with regions as well as landform, climate, vegetation, and soils of each region, and how these factors influence man's economic activities. Five credits.

GEO 205 GEOGRAPHY OF NORTH AMERICA

Survey of physical, cultural, and economic features of the United States and Canada. Dynamic processes (as opposed to static) are studied and analyzed. Three credits.

GEO 206 GEOGRAPHY OF COLORADO

Cultural groups and economy are examined and analyzed. Urban and rural geography are also treated. Population and economic trends are examined. Three credits.

GEO 207 URBAN GEOGRAPHY

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

HISTORY (HIS)

HIS 101 HANGUPS FROM WAY BACK - ANCIENT CIVILIZATION

A study of political, social, and cultural development of the Western world and its relationship to the contemporary world. Roman and early Medieval civilizations. Study methods historical research and interpretations are integrated throughout. Five credits.

HIS 102 HANGUPS FROM WAY BACK - MEDIEVAL CIVILIZATION

Continuation of HIS 101 emphasizing the Renaissance, Reformation, absolutism, and early modern theories in politics, society, economics, and revolution, and their relationship to the world of today. Five credits.

HIS 103 HANGUPS FROM WAY BACK - MODERN CIVILIZATION

Starting with the period after 1815, concentration focuses on modern political, economic, and social events in theory and practice and their effect on today's world. Five credits.

HIS 105 HISTORY OF THE UNITED STATES TO 1877

American history from the colonial period through the Civil War and Reconstruction, emphasizing economic, political, and constitutional development of the United States.

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

HIS 106 HISTORY OF THE UNITED STATES FROM 1865-1945

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 1945

A survey of events in the United States since 1945 with emphasis on background to current social, cultural, and political changes. Five credits.

HIS 115 OCCULT SCIENCES

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

HIS 205 HISTORY OF ENGLAND

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

HIS 208 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 trading, mining, railroad, farming, and ranching frontiers. Field trips included. Five credits.

HIS 210 REVOLUTIONARY RUSSIA (1900-PRESENT)

The course will survey Russian history leading to the revolutionary period and examine the changes in the Soviet state since. Special emphasis will be on modern cultural, economic and political theories and institutions as they pertain to the Soviet Union. Three credits.

HIS 295 INDEPENDENT STUDY IN HISTORY

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

MAS 161 HISTORY OF MEXICO I

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

MAS 162 HISTORY OF MEXICO II

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

MAS 165 CHICANO HISTORY

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

POLITICAL SCIENCE (POS)

POS 100 INTRODUCTION TO POLITICAL SCIENCE

Examines the nature of the state, basic forms of government, and the major political ideologies. Surveys the field of political science and gives the student a broad understanding of major subdivisions such as international relations and public administration. Five credits.

POS 101 AMERICAN GOVERNMENT

A study of American national government, political activities, political parties, separation of powers and purposes, philosophy and problems of the American system.

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

POS 102 COMPARATIVE FOREIGN GOVERNMENT

The governmental systems and political cultures of several representative countries outside the United States are surveyed. Five credits.

POS 107 STATE GOVERNMENT

A study of the origins, structure, and current trends in state government in the U.S. with emphasis on Colorado government. Usually offered between quarters in the Spring to allow students to spend some time at the capitol while the legislature is in session. Two-five credits.

POS 108 THE AMERICAN PRESIDENCY

An examination of America's highest elective office from Washington to Watergate. Philosophical origins, crisis, successes and failures are examined. Offered every quarter in individualized form as described under POS 101. Lectures on video- or audio-tape by Professor Walt Rostow, former advisor to Lyndon B. Johnson. Five credits.

POS 109 CONTEMPORARY POLITICAL ISSUES

Encourages students to engage in a lively examination of a variety of controversial political topics of current public interest. The course will touch on national and/or international impact. Topics vary each quarter emphasizing reading and discussion. Five credits.

POS 116 INTERNATIONAL POLITICS SINCE 1945

A study of trends in world politics and an examination of a number of major crises in the postwar era, including the Cold War and the Vietnam conflict. Purposely designed to avoid prerequisites of any kind. Five credits.

POS 118 STATE AND LOCAL GOVERNMENTS

Study of structure and function of municipal, state, and county governments in the United States. Five credits.

POS 205 INTERNATIONAL RELATIONS

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

POS 206 AMERICAN FOREIGN POLICY

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

PSYCHOLOGY (PSY)

PSY 101 GENERAL PSYCHOLOGY

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

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

PSY 102 PSYCHOLOGY OF ADJUSTMENT

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

PSY 107 I'M OK, YOU'RE OK - PSYCHOLOGY OF PERSONAL RELATIONS

Enrichment of personal and family life through the application of transactional analysis. Three credits.

PSY 111 BASIC HUMAN POTENTIAL SEMINAR

A personal growth workshop based on the self-actualization principles of psychologists Abraham Maslow and Herbert Otto. The activities of the Basic Seminar are designed to help people tap their potential for becoming more self-determining, self-motivating and self-affirming, and more understanding of others. Three credits.

PSY 112 ADVANCED HUMAN POTENTIAL SEMINAR

The Advanced Seminar is designed to further participant's identification of his/her personal resources and potentialities and to explore their use in setting and meeting life goals. Methods for resolving personal conflict, for long-range goal setting, and for life-style planning are developed. Prerequisite: PSY 111. Three credits.

PSY 115 HUMANISTIC PSYCHOLOGY

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

PSY 117 CAREER PLANNING SEMINAR

A course designed to help in clarifying abilities, interests, values; and to help with job information, vocational planning and decision making. Three credits.

PSY 205 PSYCHOLOGY OF ADOLESCENCE

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

PSY 206 PSYCHOLOGY OF WOMEN

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

PSY 207 PRINCIPLES OF MEDITATION AND CONSCIOUSNESS-ALTERATION

A survey of Eastern meditational systems; meditational and bio-feedback procedures; and limitations and applications of consciousness altering techniques. Three credits.

PSY 211 PARAPSYCHOLOGY I

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

PSY 212 PARAPSYCHOLOGY II - PSYCHIC HEALING

An intensive investigation into the realm of psychic healing. Topics to be covered include: self-healing through mental visualization; the role of the attitude in health; faith healing; aura healing; psychi surgery. Guest lectures will be invited to share their experiences as healers. Prerequisite: Parapsychology I. Three credits.

PSY 216 PSYCHOLOGICAL AND PRACTICAL ISSUES OF SEPARATION AND DIVORCE

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

PSY 221 ABNORMAL PSYCHOLOGY

To concentrate on the organic factors in mental illness, brain tumors, mental retardation, senility, head injuries, etc. Three credits.

PSY 231 PSYCHOLOGY OF DREAMS

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

PSY 237 ASSERTIVENESS TRAINING

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

PSY 241 BIOFEEDBACK I: BIOFEEDBACK AND THE PSYCHOLOGY OF HEALTH

An introduction to the principles and applications of biofeedback in health, education and psychology. There will be utilization and demonstration of temperature training, EMG, EEG, and GSR. Three credits.

PSY 242 BIOFEEDBACK II: EEG & EMG

An advanced seminar in biofeedback utilizing the EMG and EEG in education and health. Two hours of laboratory experience are required each week. Four credits.

PSY 248 HUMAN GROWTH AND DEVELOPMENT

A study of emotional and physical development of the normal child from infancy through childhood. Five credits.

PSY 249 COUNSELING AND CRISIS INTERVENTION

The course consists of: para-professional skill-building exercises in communication, empathy training, core-dimensions of counseling, be presented with crisis intervention information and models, suicide information and community emergency resources. Actual integration of skill-building and knowledge of paraprofessional helping skills into practical experience through on-site work with the In Touch Helpline is also provided. Three credits.

PSY 295 INDEPENDENT STUDY IN PSYCHOLOGY

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

SOCIOLOGY (SOC)

SOC 101 INTRODUCTION TO SOCIOLOGY

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

SOC 105 SOCIOLOGY OF MARRIAGE AND THE FAMILY

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

SOC 106 CONTEMPORARY SOCIAL PROBLEMS

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

SOC 111 SOCIAL SERVICES I

To introduce and familiarize the student with the human services field in the areas of social policy, social agencies and programs in the community and the utilization of their services. To interrelate social and other sciences and to assist students to strengthen and integrate knowledge of human behavior and development. Three credits.

SOC 112 SOCIAL SERVICES II

This is the second in a sequence of three courses in which students will be given an opportunity to explore the human services fields. Three credits.

SOC 113 SOCIAL SERVICES III

This is the third in a sequence of three course in which students will be given an opportunity to explore the human services fields. Objectives will be to provide students with on the job experiences in one or more human services as part of becoming familiar first-hand with skills and techniques involved. Five credits.

SOC 115 SOCIOLOGY OF EDUCATION

Analysis and discussion of various learning situations; underlying values and norms; and organizational bureaucratic structures: Analysis of the interrelationship of social and educational systems and expectations. Prerequisite: SOC 101. Three credits.

SOC 117 SOCIOLOGY OF LEISURE

Analysis and discussion of non-work behavior in relationship to other social, recreational, and economic variables. New occupations, new patterns of behavior, and new opportunities may continually be created due to leisure time. Prerequisite: SOC 101. Three credits.

SOC 295 INDEPENDENT STUDY IN SOCIOLOGY

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

MAS 100 INTRODUCTION TO MEXICAN AMERICAN STUDIES

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

MAS 125 THE AMERICAN SYSTEM

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

COMMUNICATIONS AND ARTS DIVISION

COMMUNICATIONS

CON 101 FUNDAMENTALS OF COMPOSITION

Designed to prepare the student for CON 102. Emphasis is on sentence building and paragraph development, culminating in short theme writing. Special areas of need such as spelling and punctuation are also treated with additional work in the Instructional Center through individualized mini-courses. Five credits.

CON 102 INTRODUCTION TO WRITING

Designed for developing communication skills and college essay writing. Emphasis is on the writing of various types of essays about themes in literature or in other expressions of the instructor or student's choice. Individualized attention may be given in the classroom. Five credits.

CON 103 COMMUNICATION AND RESEARCH

This course introduces students to the fundamentals of communication based on research, which will culminate in a series of short essays or a longer paper. Three credits.

CON 106 INTRODUCTION TO LIBRARY RESOURCES

This course introduces students to the resources of a college library and provides instruction in the use of indexes, card catalog, and the reference collection. One credit.

CON 107 INTRODUCTION TO LOGIC

An introduction to the principles of logic used in the construction and appraisal of arguments. Three credits.

CON 109 CREATIVE WRITING

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

CON 202 ADVANCED COMPOSITION

Further develops the analytical, critical review, and literary papers. The course also includes an introduction to persuasive papers and the reading and discussion of model essays and fictional works. 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 treated. Three credits.

JOU 101 COLLEGE PUBLICATION

Gives each student on-the-job training through staff work on an instructional publication. Must be enrolled in JOU 111 concurrently. Two additional lab hours arranged per week. Two credits.

JOU 102 COLLEGE PUBLICATION

Continuation of JOU 101. Must be enrolled in JOU 112 concurrently. Two additional lab hours arranged per week. Two credits.

JOU 103 COLLEGE PUBLICATION

Continuation of JOU 102. Two additional lab hours arranged per week. Two credits.

JOU 105 PHOTOGRAPHY

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

JOU 106 PHOTOJOURNALISM

A practical, non-technical study of photography including the mechanics of cameras (both 35mm and twin lens reflex), darkroom procedures, telling a picture story, composition, and use of the camera for school publications. Prerequisite: JOU 105 Photography or permission of the instructor. Two additional lab hours arranged per week. Three credits.

JOU 111 NEWSWRITING I

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

JOU 112 NEWSWRITING II

Principles and practice in writing news stories with emphasis on feature and editorial writing. Some typing ability is needed. Five credits.

JOU 113 MAGAZINE WRITING

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

JOU 114 INTRODUCTION TO MASS COMMUNICATION

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

JOU 115 INTRODUCTION TO RADIO BROADCASTING

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

JOU 116 INTRODUCTION TO TELEVISION BROADCASTING

A basic introduction to the use of video production equipment and processes. Emphasis will be on giving students hands-on experience with microphones. TV cameras, lights, sets, audio equipment, and the control board. Five credits.

JOU 117 MEDIA GRAPHICS

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

JOU 120 ADVERTISING

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

JOU 205 COOPERATIVE JOURNALISM

Student works 15 hours a week on the job under supervision. Intended to provide practical experience for students in the mass media. Must be arranged one quarter in advance with instructor and division chairman. Five credits.

JOU 299 JOURNALISM PRACTICUM

The practicum provides the opportunity for the serious-minded student to develop his skills in writing and producing a publication or in writing and producing a broadcast program under the direction of a qualified faculty member. Credit hours 1-3 per term. May be repeated at different levels of proficiency. Must be arranged with instructor and Division Chairman.

LIT 106 INTRODUCTION TO FICTION

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

LIT 107 INTRODUCTION TO POETRY

Exploration of forms, types, language, and philosophies underlying the works of major American and British poets in order that students may better understand humanity and themselves. Four 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 116 DETECTIVE FICTION

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

LIT 125 READING OF MASTERPIECES

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

LIT 205 THE AMERICAN WEST

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

LIT 208 FOUNDATIONS OF MODERN BRITISH LITERATURE

A study of major British writers with an emphasis on their correlation to history and the arts. The course fulfills a humanities requirement. Five credits.

LIT 217 SEXUALITY IN LITERATURE

An exploration of the relevant relationships between the sexes as found in serious works of fiction, poetry, and drama; an exploration of good literature as a vehicle for insights into the subtleties and complexities of human behavior. Three credits.

LIT 296 SEMINAR IN LITERATURE

This course is for the student who wishes to pursue a special idea, mode, or topic of interest in literature. Students meet informally with the instructor for discussion of the subject chosen by them or by the faculty member. Two credits.

MAS 206 CHICANO LITERATURE

A survey of contemporary Mexican literature of social protest from "Corky" Gonzales to Ramon Barrio and other authors who have contributed to the literary heritage of the present-day Chicano. Three credits.

REA 090 READING ESSENTIALS

A review of basic reading skills such as vowels, consonants, syllabic patterns, and dictionary skills. Prepares the student for college and vocational courses. Two credits.

REA 101 READING AND STUDY SKILLS FOR COLLEGE

The course is designed to help the student read college level texts and to give him skills necessary for success in all content areas and study situations. Five credits.

REA 106 SPEED READING

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

REA 115 INDIVIDUALIZED PROGRAM IN VOCABULARY

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

REA 116 INDIVIDUALIZED PROGRAM IN SPELLING

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

REA 117 INDIVIDUALIZED PROGRAM IN SPEED READING

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

REA 118 INDIVIDUALIZED PROGRAM IN BASIC LANGUAGE SKILLS

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

REA 119 INDIVIDUALIZED PROGRAM IN WORD ANALYSIS AND DICTIONARY SKILLS

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

REA 120 INDIVIDUALIZED PROGRAM IN COMPREHENSION

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

REA 121 PUNCTUATION

A multi-media efficiency course to aid the individual student in punctuation skills. One credit.

REA 295 INDEPENDENT STUDY IN READING

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

SPE 115 SPEECH COMMUNICATIONS

The course provides students with practical experience in everyday oral communications, such as group discussion, interpersonal communications, listening skills, and certain fundamentals of public speaking. Five credits.

SPE 116 PUBLIC SPEAKING

Emphasizes organization, preparation, and presentation of various types of speeches. Three 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, and then projects meaning to the audience by use of the voice and suggested action to convey the author's meaning. Three credits.

SPE 118 INTERPERSONAL COMMUNICATIONS

Designed to acquaint the student with two-way communication. Special emphasis is given to the process of creating meaningful small group discussion. Three credits.

SPE 119 INTRODUCTION TO SEMANTICS

This course is an introductory study of how persons respond to words and other symbols. The student not only looks at words and things but at the human behavior that results from using various types of symbols in different ways. Two credits.

SPE 211 MANUAL COMMUNICATIONS: SIGN LANGUAGE OF THE DEAF I

To acquaint the student with the alphabet, signs and skills necessary to communicate with the deaf and hard-of-hearing population. Basic aspects of the deaf will be covered. Two credits.

SPE 212 ADVANCED COMMUNICATIONS: SIGN LANGUAGE OF THE DEAF II

To acquaint the student with more advanced techniques of effectively communicating with the deaf population through the use of deaf idioms, expressions, and signs. A portion of this class will be a more detailed discussion of psychological aspects of the deaf. Prerequisite: SPE 211 or demonstration of a knowledge of sign language. Two credits.

SPE 213 ADVANCED COMMUNICATIONS: SIGN LANGUAGE OF THE DEAF III

This course is a continuation of SPE 212. Two credits.

FOREIGN LANGUAGES

FRE 011 CONVERSATIONAL FRENCH

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. No credit.

GER 015 CONVERSATIONAL GERMAN

A course in conversational German intended to help the person who may be traveling in Germany. No credit.

GER 101 ELEMENTARY GERMAN I

Students develop the ability to learn German through listening, reading, writing, and speaking it. The German in this course is standard or High German. The primary aim of this course is to give students an elementary conversational and grammatical knowledge of the language and an exposure to German culture and habits. Five credits.

GER 102 ELEMENTARY GERMAN II

Continuation of Elementary German I. Prerequisite: Elementary German I or equivalent knowledge. Five credits.

GER 103 ELEMENTARY GERMAN III

Continuation of Elementary German II. Prerequisite: Elementary German II or equivalent knowledge. Five credits.

MAS 011 CONVERSATIONAL SPANISH

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

NOR 011 CONVERSATIONAL NORWEGIAN

This course gives a practical introduction to reading and speaking Norwegian for purposes of everyday usage, for travel, and for general interest. No credit.

SPA 101 ELEMENTARY SPANISH I

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

SPA 102 ELEMENTARY SPANISH II

Continuation of SPA 101. Five credits.

SPA 103 ELEMENTARY SPANISH III

Continuation of SPA 102. Five credits.

SPA 111 INTERMEDIATE SPANISH

The purpose of this course is to give those students who have taken their first year of elementary Spanish or those with an adequate background, either from high school or the home, an opportunity to continue their study of the language. The course will deal principally with developing oral or audible skills as well as improving their grammatical and written abilities. Two credits.

SWE 011 CONVERSATIONAL SWEDISH

A beginning course in conversational Swedish intended to give a practical introduction to the reading and speaking of Swedish and to help the person who may be traveling in the Scandinavian countries. No credit.

HUMANITIES

HUM 100 INTRODUCTION TO THE HUMANITIES

To introduce students to the creative and speculative nature of man through reading, viewing, hearing, and discussing works of art, drama, literature, music, and philosophy and the critical and ethical approaches to these areas as reflected in all cultures. Five credits.

HUM 101 WORLD LITERATURE AND THE ARTS, THE GREEK AND ROMAN PERIOD

Introduces students to the Classical Origins of Western Culture through reading and discussing in translation Classical or Greek and Roman drama, literature, and philosophy. Students also explore other Greek and Roman art forms such as architecture and sculpture. Five credits.

HUM 102 WORLD LITERATURE AND THE ARTS, THE MIDDLE AGES AND RENAISSANCE

Introduces students to the literature and philosophy in translation of the Middle Ages and Renaissance. Students also examine actual works of the artists in architecture, music, and painting. Five credits.

HUM 103 WORLD LITERATURE AND THE ARTS, 17TH - 20TH CENTURY

Introduces students to the literature and philosophy in translation from the 17th through the 20th Centuries from the Age of Reason through the Modern Period. Students also view or listen to the works of the artists in architecture, music, and painting. Five credits.

HUM 104 CONTEMPORARY CULTURE

Study of ideas, both Eastern and Western, in the 20th Century through firsthand experience of contemporary drama, live concert performance, local films, and viewing of painting and sculpture. Five credits.

HUM 105 MYTH, LEGEND, AND FOLK TALES

Students are acquainted with myth, legend, and folk tales from many areas of world culture. Five credits.

HUM 106 INTRODUCTION TO WORLD RELIGIONS

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

HUM 107 MAN AS SELF AND SOCIETY

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

HUM 108 ORIENTAL CULTURE

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

HUM 109 MODERN AMERICAN CULTURE

A study of American thought and the problems of modern culture since the 1920's as reflected in the arts of America. Five credits.

HUM 296 SEMINAR IN HUMANISTIC STUDIES

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

MAS 120 CULTURAL HERITAGE OF MEXICO AND SOUTH AMERICA

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

PHI 105 INTRODUCTION TO PHILOSOPHY

A study of the fundamental questions concerning man and the universe that recur in the history of human thought -- the nature of reality, the possession of free choice, value and its determination, and related subjects. This course fulfills a humanities requirement. Five credits.

PHI 121 INTRODUCTION TO WALDORF EDUCATION

How does a child encounter the world? What are the problems it is going to be confronted with? Child development and child psychology based on Rudolf Steinter's philosophy is stressed such as in education at home, in preschool and kindergarten. Included are home and class environment; nutrition, books, toys -- artistic and physical activities. Three credits.

PHI 122 WALDORF EDUCATION I

Learning through living. Demonstration and discussion of work in the elementary grades: Fairy tales; fables and mythology; history -- the three R's; the sciences -- anatomy, zoology, botany, mineralogy, geography, geometry, physics, chemistry, meteorology, astronomy, and arts and crafts. Three credits.

PHI 123 WALDORF EDUCATION II

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

DESIGN AND CREATIVE STUDIES

(DESIGN, FINE ARTS, MUSIC, THEATRE AND MOVEMENT, TEXTILES AND CLOTHING)

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

The transfer level courses may be taken as rewarding electives within a program of general education, or as work toward a four year program that involves course work in Design, Fine Art, Music, Theatre and Movement, or Textiles and Clothing. Prospective majors (or minors) meet each term with their instructor to plan course requirements appropriate to their educational goals.

Students wishing to enroll in art, music, or theatre courses solely for recreational purposes are advised to register for one of the self-supporting, non-transferable "community" classes. These courses are not applicable to the degree programs of the College.

ART 100 SURVEY OF VISUAL ARTS AND DESIGN

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

ART 111 ART HISTORY I
ART 112 ART HISTORY II

The goal of these courses is to provide students with a basic historical understanding of western art forms, architecture, and relevant crafts. Art History I covers the prehistoric through the Medieval periods and Art History II covers the renaissance through contemporary movements. Each course five credits.

ART 299 ARTS PRACTICUM

This learning structure is designed to facilitate the development of creative talents (an interrelation of motor, affective, and cognitive skills). The particular format and content of each practicum is determined by the art form the student is working in and his level of proficiency. This practicum may be repeated - at different levels of proficiency. Credits variable from 1-3.

HUD 101 SENSORY EXPERIENCES FOR HUMAN DEVELOPMENT

The objective of this course structure is to develop or extend learning capabilities through individually designed visual, spatial, auditory, and kenesthetic sensory-motor exercises. This learning structure is developmental in nature. The course may be repeated at different levels of development. S Grade only available. One credit - two studio hours per week.

AAD 100 SURVEY OF ARCHITECTURAL DESIGN

This course includes an historical survey of architectural and interior styles, study of architectural design forms, materials and methods of construction, and a survey of environmental and urban planning. Three credits.

AAD 101 FUNDAMENTALS OF ART AND DESIGN I
AAD 102 FUNDAMENTALS OF ART AND DESIGN II

These courses include the study of light, space, and perception, study and work with the process of creative thinking and expression, work with the fundamental visual elements and principles of organization, and a survey of the application of these fundamentals to problems in the fine arts and design fields. The first course concentrates on two-dimensional situations and the second course focuses on three-dimensional conditions. Each course is five credits.

AAD 103 FUNDAMENTALS OF ART AND DESIGN III

This course is designed to provide the serious student of fine arts or design, an opportunity to apply the principles of perception, invention, and design to problems in selected design and fine arts fields. Students select projects from areas such as graphic design, advertising, interior design, industrial design and packaging, landscape, and environmental design, and fine arts and crafts. Five credits - eight studio hours per week.

AAD 221 GRAPHIC DESIGN I
AAD 222 GRAPHIC DESIGN II

The purpose of these courses is to introduce students to graphic applications of drawing, painting and photographic techniques and creative design with letter forms and composition. Graphics Design I also surveys the application of visual arts techniques to several practical or applied situations (e.g. illustrations, architectural rendering, advertising and product design, interior design, and the crafts). Graphics Design II gives students an opportunity to apply, within a structured course setting, graphic design techniques to specific problems (e.g. architectural rendering, fashion illustration, advertising design and packaging, display, signs and posters). Each course three credits - six studio hours.

AAD 223 DESIGN III

This course includes a survey of graphic preparations for packaging, product design, and interior and architectural planning, the study of elements and principles relevant to the visual design of functional objects, and experiences with the processes of planning for and the execution of quality packaging, product, and interior or architectural concepts. Three credits - six studio hours.

AAD 225 PHOTOGRAPHY I
AAD 226 PHOTOGRAPHY II

Photo I includes a survey of historical and contemporary photographic styles, the study of relevant design elements and principles of organization, camera mechanics and darkroom techniques, and emphasis on the planning and execution of photographs of expressive and creative visual content. Photo II includes a survey of functional applications of photography (e.g. photo illustration, portraiture), and work with relevant design principles and photographic techniques. Each course three credits - six studio hours.

AAD 227 INTERIOR DESIGN I
AAD 228 INTERIOR DESIGN II

Interior Design I covers interior visual and spatial elements, organizing principles, materials, and their relationship to architecture. The emphasis is on the process of studying and designing for interior spaces. Interior Design II gives students an opportunity to apply, within a structured course setting, interior design concepts to specific problems (e.g. residential interiors, display spaces). Each course three credits - six studio hours.

AAD 131 DRAWING I
AAD 132 DRAWING II

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

ARS 231 FIGURE DRAWING

This course includes a survey of figure drawing, study of anatomy in terms of drawing, and instruction in the basic techniques of drawing the human figure. Three credits - six studio hours.

ARS 235 RELIEF PRINTMAKING

This course includes a survey of relief printmaking as an aesthetic form, study of relevant design principles, and instruction in several methods of relief printmaking. Three credits - six studio hours.

ARS 241 PAINTING I
ARS 242 PAINTING II

The purpose of these courses is to introduce students to the design principles, technical information and skill necessary to express ideas and feelings through painting. Painting II emphasizes the study of the figure in terms of painting, and further development of individual approaches to painting.
Each class three credits - six studio hours.

ARS 243 WATER MEDIA I
ARS 244 WATER MEDIA II

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

ARS 251 SCULPTURE I
ARS 252 SCULPTURE II

These courses include a survey of traditional and contemporary sculptural forms, the study of sculptural elements, organization and imagery, experience in designing for sculpture, and instruction in the basic techniques of modeling, carving, and construction. Sculpture II emphasizes the figure, further work in designing for sculpture, and further instruction in the techniques of modeling, bronze casting, and construction.
Each class three credits - six studio hours.

ARS 261 JEWELRY AND METALWORK I
ARS 262 JEWELRY AND METALWORK II

Jewelry and Metal Work I includes a study and survey of jewelry and related metal forms, experience in designing for jewelry and metalwork, and instruction in the basic techniques of cutting, forming, soldering, finishing, and stone setting. Jewelry and Metalwork II emphasizes conceptual design development and specialized techniques (e.g. casting, raising, enamelling, stone cutting).
Each class three credits - six studio hours.

ARS 271 POTTERY AND CERAMIC DESIGN I
ARS 272 POTTERY AND CERAMIC DESIGN II

The first course includes a survey of traditional and contemporary pottery and ceramic forms, the study of functional and decorative design elements and principles of organization, experience in designing for ceramic objects, and instruction in the several techniques of handbuilding. The second course includes a survey of wheel thrown pottery, continued instruction in the various aspects of throwing, the study of the essentials of glaze formulation, and work with creative design for wheel thrown forms. Each course three credits - six studio hours.

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

These courses include a basic study of several textile design processes, instruction in weaving and the related processes of stitchery, hooking, batik, and silk screen, and experience with creative design processes for textiles. Weaving and Textile Design II covers the continuation of instruction on the four harness loom with an emphasis on the basic weaves. The emphasis is on experimental and creative design within the weaving process. Each class three credits - six studio hours.

ARS 285 ELEMENTARY CRAFT TECHNIQUES

This course includes a survey of primitive craft techniques; for example, work with clay processing and elementary earthenware firing techniques, and when appropriate, experience with other craft materials for use in programs with children. Three credits - six studio hours.

FTC 100 SURVEY OF CLOTHING DESIGN AND SELECTION

This course includes the study of physical, cultural, psychological and aesthetic factors involved in the design, selection and use of clothing. Three credits.

FTC 105 INTRODUCTION TO TEXTILES

This course includes an historical survey of fiber materials, study of uses of selected contemporary fibers, and implication for the construction of cloth products such as clothing, drapes, and upholstery. Three credits.

MUS 100 MUSIC APPRECIATION

This is a non-technical course for the beginner, emphasizing listening and discussion for enjoyment and appreciation of music. This course fulfills a humanities requirement. Five credits.

MUS 105 FUNDAMENTALS OF MUSIC

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

MUS 106 MUSIC THEORY

Analysis of musical composition, sight singing, and ear training for potential music majors, minors, or students with musical backgrounds. Four credits.

MUS 111 INTRODUCTION TO MUSIC I
MUS 112 INTRODUCTION TO MUSIC II

These are non-technical courses involving a biographical, stylistic, and chronological survey of music. The first course covers early music to the beginning of the Romantic Period. The second course covers the music of the Romantic Period to the music of today. Each course three credits.

MUS 220 CHILDREN'S MUSIC

This course includes a survey of musical materials appropriate to pre-school and elementary aged children, study and work with listening, rhythm, and creative activities, and experiences in singing and playing instruments applicable to children of their age. Students will develop a repertory for children of songs and guided listening. Three credits.

MUS 299 MUSIC PRACTICUM

This learning structure is designed to facilitate the development of creative talents (an interrelation of motor, affective and cognitive skills). The particular format and content of each practicum is determined by the musical form the student is working in and his level of proficiency. This practicum may be repeated - at different levels of proficiency. Credits variable from 1-3.

MUP 131 BEGINNING PIANO

This course is designed for the student who does not have a background in piano. It includes reading skills and techniques necessary to play simple songs and accompaniments.
Three credits - eight studio hours.

MUP 151 APPLIED VOICE I
MUP 152 APPLIED VOICE II
MUP 153 APPLIED VOICE III

Individualized or group instruction in vocal techniques for beginners or more advanced students. Each course one credit - three practice hours.

MUP 171 CLASSICAL GUITAR I
MUP 172 CLASSICAL GUITAR II
MUP 173 CLASSICAL GUITAR III

These courses will develop a basic technical and musical foundation through classical guitar, covering sight reading, technical exercises, and study of selected guitar literature.
Each course three credits - eight practice hours.

THE 100 SURVEY OF DRAMA

Designed to explore dramatic literature and its presentations from its beginnings and evolution in social consciousness to the present time. Emphasis is placed on the reading of plays and on performance from the standpoint of Readers Theatre. This course fulfills a humanities requirement. Five credits.

THE 135 STAGECRAFT

This course is a study of the various facets of the technical production of theatre; stagecraft, costume and scene design, make-up, stage lighting, sound, stage rigging, properties, and painting. Three credits - four studio hours.

THE 145 ACTING

This course includes an introduction to basic principles of acting and dramatic production; development of characterization skills, increased understanding of human behavior and relationships, imaginative encounters with one's self and others to build confidence and cooperation, and familiarization with dramatic literature.
Three credits - four studio hours.

THE 220 CHILDREN'S THEATRE

This course includes a survey of Children's Theatre productions, study of activities ranging from storytelling and creative playmaking to puppetry, and work with a Children's Theatre production. Three credits.

THE 255 DIRECTING

This course includes a survey of acting styles, study of the development of directing concepts, and work with blocking, actor coaching, and the direction of one act plays or scenes.
Three credits - five studio hours.

THE 275 THE ART OF MOVEMENT AND DANCE

This course covers the appreciation of the art of dramatic movement and dance as highly developed forms of expression in terms of selected dance forms. Three credits.

THE 299 THEATRE PRACTICUM

This learning structure is designed to facilitate the development of creative talents (an interrelation of motor, affective, and cognitive skills). The particular format and content of each practicum is determined by the theatrical form the student is working in and his level of proficiency. This practicum may be repeated - at different levels of proficiency. Credits variable from 1-3.

COMMUNITY NON-CREDIT (CNC)

The following classes in Art, Music, and Theatre are designed to provide non-academic, recreational experience for the citizens of the community. They are financially self supporting, and are not applicable to the degree programs of the College.

CNC 011 COMMUNITY POTTERY

This class includes instruction in the various hand building techniques and an introduction to throwing on the potter's wheel. No credit.

CNC 015 COMMUNITY DRAWING AND PAINTING

This recreational class covers a variety of drawing and painting techniques. No credit.

CNC 016 COMMUNITY JEWELRY AND SCULPTURE

This recreational class covers selected techniques of jewelry and stained glass design and small sculpture. No credit.

CNC 017 COMMUNITY FABRIC CRAFTS

This recreational class covers selected techniques of fabric design (e.g. batik, macrame, hooking, silk screen, stitchery and applique, and hand weaving). No credit.

CNC 018 COMMUNITY PHOTOGRAPHY

This recreational class covers black and white photography, cameras, lenses, film, and papers. No credit.

CNC 019 COMMUNITY HOME DECORATING

This recreational class covers the visual design and aesthetic aspects of remodeling and interior decorating. No credit.

CNC 051 COMMUNITY GUITAR

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

CNC 075 COMMUNITY THEATRE APPRECIATION

This recreational class covers the study and appreciation of drama for the citizens of the community. No credit.

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, computation, science, consumer economics, and social studies. These subject areas range from beginning skills levels to twelfth grade. Upon entering the program, a student's academic skills are analyzed in terms of the student's educational and occupational goals as well as social living needs and an individualized program of instruction is designed to meet that student's special situation.

FUNDAMENTAL EDUCATION — (ESL) ENGLISH AS A SECOND LANGUAGE

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

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

EDUCACIÓN FUNDAMENTARIA — (ESL) INGLES COMO LA SEGUNDA LENGUA

Esta clase es para estudiantes que quieren aprender inglés, o mejorar su habilidad de hablar inglés. La clase de Inglés Como La Segunda Lengua se ofrece para auydar al estudiante pasa (transferir) su habilidad de hablar en su idioma al inglés. La clase pretará mucha atención a la habilidad de comunicarse oralmente, y la clase sera para orientar personas a oficios, educación de la comunidad, y educación de agencias a las que pueden llamar en caso de apuros.

Aunque la clase prestará mucha atención a la habiladad de comunicarse oralmente, tambien se enseñera matemática elementaria (cuentas). Habrán viajes en la communidad y fuera de la comunidad par aprender de las facilidades que están a nuestro servicio.

Completación con exito de esta clase de 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.

ABE READING

Emphasis is on reading comprehension skills: vocabulary, word meaning, context clues. Vowels, consonants, dipthongs and syllabication will also be studied.

ABE GOVERNMENT

The purpose of the course is to aid students to increase their knowledge of community, state and federal government, especially in the areas of voting, consumer economics, welfare and civil law.

ABE ENGLISH

In this course the student studies the fundamentals of English, including basic sentence structure, grammar, usage and punctuation.

ABE MATH

Instruction in the course will include addition, subtraction, multiplication and division of whole numbers, fractions and decimaly. Measurement, formula and word problems will also be studied.

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 doploma and is accepted by both employers and schools of higher education. The GED certificate often provides increased opportunities for future education.

GED READING

The course will aid students in gaining skills in the areas of vocabulary context clues, main idea, sequence and meaning comprehension sufficient for passing the GED test.

GED SCIENCE

The course will provide students with vocabulary, main idea and comprehension skills in science reading exercises sufficient for passing the GED test.

GED SOCIAL STUDIES

The course will provide student with vocabulary and reading skills in social studies sufficient for passing the GED test.

GED MATH

The course will provide students with math skills in fractions, decimals, formula and word problems, algebra and geometry sufficient for passing the GED test.

GED ENGLISH

The course will provide the student with skills in the areas of grammar usage, punctuation and spelling sufficient for passing the GED test.

GED LITERATURE

The course will provide instruction in the definition of terminology in the interpretation of prose, poetry and drama.

SPECIAL PROGRAMS (DST)

DST 025 BILINGUAL CITIZENSHIP

This class is designed to prepare students with a bilingual background to successfully pass the test for obtaining United States Citizenship. Local, State, and National Government functions and procedures will be emphasized.

DST 065 BILINGUAL DRIVER'S EDUCATION

This class is designed to prepare non-English speaking persons to understand and pass the Driver's License Examination. The course is aimed primarily at Spanish-speaking migrant workers. Emphasis will be on verbal understanding of sign and rules.

DST 073 JOB APPLICATION TECHNIQUES

This class is designed to introduce the basics involved in obtaining and holding a job. Covered will be a basic orientation and overview of various approaches to responding to a position opening notice. Also to be covered will be interviewing skills, resume writing, personal hygiene, and attitudes.

DST 115 FIELD EXPERIENCE IN TEACHER AIDE EDUCATION

Provides an opportunity for future teacher aides to receive supervised practical, on-site experience in the classroom under the direction of professional teachers. Five credits.

DST 116 METHODS FOR TEACHING THE BILINGUAL I

Techniques used in reading, writing, spelling, language arts, arithmetic, social studies, and science will be emphasized as they relate to the role of the teacher aide. Familiarization with typical materials used in the classroom will also be covered. Five credits.

DST 117 INTRODUCTION TO TEACHER AIDE TRAINING PROGRAM

This course is designed to help teacher aides understand the role of para-professionals in the classroom. Class discussion will include educational procedures, responsibility and classroom operations, as related to the teacher aide. Three credits.

DST 119 CONCEPTS OF BILINGUAL EDUCATION

The historical and philosophical concepts of bilingual/bicultural education are reviewed and related to bilingual curriculum, materials, and program. Three credits.

MATHEMATICS AND SCIENCE DIVISION

ASTRONOMY (AST)

AST 101 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 degrees north latitude. Also includes observing with the telescope. Three hours lecture. Three credits.

AST 102 ASTRONOMY SEMINAR

An approach to more advanced topics in Astronomy that allows students the opportunity to explore an area of this subject in depth. Students will write a paper, determine the method of exposition and present the special information to the class. Three credits.

AST 295 INDEPENDENT STUDY IN ASTRONOMY

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

BIOLOGICAL SCIENCES (BIO)

BIO 101 BIOLOGICAL CONCEPTS

A general survey of the characteristics of life with emphasis on the basic concepts and theories in the field of biology and related disciplines. Attention is given to the levels of organization, energy flow, and changes within living organisms. Offered each quarter. Three hours lecture, four hours lab. Five credits.

BIO 102 ANIMAL BIOLOGY

A phylogentic approach to the Animal Kingdom with emphasis on the invertebrate phyla. The role of these organisms in ecological, economic, and medical relationships to humans is emphasized. Prerequisite: BIO 101. Three hours lecture, four hours lab. Five credits.

BIO 103 PLANT BIOLOGY

A study of the structure of plants as related to the function of each part, of the whole organism, and of the interactions with its environment. Prerequisite: BIO 101 or permission of the instructor. Three hours lecture, four hours lab. Five credits.

BIO 105 POLLUTION AND THE HUMAN ENVIRONMENT

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

BIO 106 FIELD BOTANY

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 ECOSYSTEMS BIOLOGY

A study of interactions of various factors affecting composition and density of populations and communities of organisms. Included are principles of energy dynamics, populations and communities of organisms and their interactions, and population genetics. Materials developed through Bio-Co-Tie are utilized. Field trips to visit various ecosystems are required. Offered Fall Quarter only. 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, code transcription, and structure and function of specialized cells. Offered Winter Quarter only. Prerequisites: BIO 101, CHE 101. Three hours lecture, four hours lab. Five credits.

BIO 203 DEVELOPMENTAL BIOLOGY

An introduction to changes, occurring during higher plant and animal development and differentiation; gene action, biochemical regulation, and environmental factors stressed. Offered Spring Quarter only. Prerequisites: BIO 101, BIO 102. 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 207 VERTEBRATE BIOLOGY

A continuation of BIO 102, this course emphasizes the comparative morphology, ecology, and economic importance of the vertebrate classes. Adult morphology of lampreys through mammals is considered for laboratory study. Prerequisites: BIO 101,102. Three hours lecture, four hours lab. Five credits.

BIO 208 INTRODUCTION TO ENTOMOLOGY

An introduction to the study of insects. Insect morphology, classification, life cycles, economic importance and controls are discussed. Laboratory emphasis is on the use of taxonomic keys in the identification of insects. An insect collection, field trips and a term paper are required. Prerequisites: BIO 101, 102. Three hours lecture, four hours lab. Five credits.

BIO 209 BIOLOGY OF VASCULAR PLANTS

A study of the evolution of plants using embryological and phylogenetic relationships. Included are the basic aspects of plant genetics, plant ecology, and the relationships of these mechanisms in the evolutionary process. Prerequisites: BIO 101 or permission of the instructor. Three hours lecture, four hours lab. Five credits.

BIO 211 HUMAN ANATOMY -- PHYSIOLOGY I

This is a beginning class in human physiology with emphasis on broad general biological principles and anatomical structures of human body and the relationship of structure to body functions. Part I will cover the following: chemical composition, cellular and tissue organization, and integumentary skeletal, muscular, and nervous systems. Offered Winter Quarter only. Three hours lecture, four hours lab. Five credits.

BIO 212 HUMAN ANATOMY -- PHYSIOLOGY II

This is a beginning class in human physiology with emphasis on broad general biological principles and anatomical structures of the human body and the relationship of structure to body functions. Part II will cover the following: digestine, urinary, reproductive, endocrine, respiratory, and circulatory systems. Offered Spring Quarter only. Prerequisite: BIO 211 or permission of the instructor. Three hours lecture, four hours lab. Five credits.

BIO 216 INTRODUCTION TO MICROBIOLOGY

A foundation course in microbiology with emphasis on structure, function, development and classification of protists, including both protocaryotic and eucaryotic micro-organisms. Emphasis is on organisms with medical and economic impact on human populations. Major laboratory emphasis is on laboratory safety in the study of micro-organisms and staining techniques. Prerequisites: BIO 101, 102. Offered Fall Quarter only. Three hours lecture, four hours lab. Five credits.

BIO 217 INTRODUCTION TO ORNITHOLOGY

An introduction to the study of birds. Lecture on the classification and natural history of birds. Field identification of birds is emphasized with field trips to different habitats to observe behavior and adaptations. Offered Spring or Summer Quarters. Prerequisites: BIO 101, 102 or 207. Field trips required. Six clock hours. Four credits.

BIO 218 SPECIAL TOPICS IN ANATOMY AND PHYSIOLOGY

The course will introduce students in certain occupational programs to the anatomy and physiology of the following systems: skeletal, muscular, nervous, endocrine, circulatory, respiratory, and integumentary. Lecture, two hours laboratory. Four credits.

BIO 295 INDEPENDENT STUDY IN BIOLOGY

This course provides an opportunity for the highly motivated student with previous academic experience or work in an area to engage in intensive study and research in a specified topic under the direction of a qualified faculty member. Prerequisites: Permission of the instructor and the Division Chairman. One to three credits. The student will be limited as to the number of independent study credits taken per quarter.

CHEMISTRY (CHE)

CHE 100 FUNDAMENTALS OF CHEMISTRY

A preliminary college chemistry course designed to be the basis of a thorough preparation for the higher level college chemistry courses required of science and engineering majors (CHE 101, 102, 103). Basic principles of chemistry are studied, including measurements, matter, compounds, energy, elements, conversion, mole concept, behavior of gases, atomic structure, periodic table, chemical bonds, formulas, nomenclature, chemical equations, chemical arithmetic, and nuclear chemistry. Prerequisite: One year of high school algebra or MAT 016. Three hours of lecture, four hours lab. Five credits.

CHE 101 GENERAL CHEMISTRY I

Students planning to major in chemistry, engineering, veterinary medicine, premed, and related disciplines should complete CHE 101, 102, and 103 as a minimum requirement in these areas. This course includes a study of the chemical principles and mathematical operations involving chemical stochiometry, the atom, the molecule, chemical formulas, chemical equations, thermochemistry, gases, gas laws, kinetic theory, electronic structure of atoms, solutions, water, and chemical bonding. Prerequisite: One year of high school chemistry or one year of college chemistry, or CHE 100, or written permission of instructor. Corequisite: MAT 111 or MAT 112 or written permission of instructor. Three hours lecture, four hours lab. Five credits.

CHE 102 GENERAL CHEMISTRY

This course is a continuation of CHE 101 and includes a study of the chemical principles and mathematical operations involving chemical equilibrium, properties of covalent species (organic chemistry) ionic solutions, oxidation and reduction, water pollution problems, thermodynamics, ionic equilibrium, rates of reaction, the atmosphere, air pollution problems, and acids and bases. Prerequisites: CHE 101 or written permission of instructor. Three hours lecture, four hours lab. Five credits.

CHE 103 GENERAL CHEMISTRY III

This course is a continuation of CHE 102 and includes a study of the chemical principles and mathematical operations involving precipitation reaction, complex ions (coordination compounds), electrochemistry, transiton metals, non-metallic elements, nuclear reactions, olymers and proteins, and instrumental analysis; laboratory is predominantly semi-micro qualitative analysis and instrumental analysis. Prerequisite: CHE 102. Three hours lecture, four hours lab. Five credits.

CHE 105 INTRODUCTORY NUTRITION

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

CHE 201 ORGANIC CHEMISTRY I

This course includes a study of atomic and molecular structures, nomenclature, chemical bonding reactions and reaction mechanisms of hydrocarbons, aromatics, alcohols, phenols, and organic reactions, structural and geometric isomers, electrophilic and neucleophlic reactions and stereochemistry is also included with industrial and biological applications. The laboratory will cover fundamental operations of simple and fractional distillation, melting points, recrystallization, nitration of aromatic compounds, hydrocarbon reactions, Grignard and alkyl halide reactions. Prerequisite: CHE 102 or CHE 100 with written permission of instructor after successful completion of a pretest. Three hours lecture, four hours lab. Five credits.

CHE 202 ORGANIC CHEMISTRY II

This course will examine the structure, nomenclature, reaction mechanisms and applications of ethers, epoxides, carboxylic acids, aldehydes and ketones and organic nitrogen compounds. Identification of structure of organic compounds by classical and modern techniques will be covered. The laboratory will examine the Williamson ether synthesis, esterification and other carbonyl reactions, reactions of amines, Infra Red and Nuclear Magnetic Resonance Spectroscopy. Prerequisite: CHE 201 or written permission of instructor after successful completion of a lecture and a laboratory pretest. Three hours lecture, four hours lab. Five credits.

CHE 203 ORGANIC CHEMISTRY III

This course is the third quarter of the organic chemistry sequence and deals with the structure, nomenclature, reaction mechanisms, industrial and biological applications of fats and other lipids, terpense, carbohydrates, proteins, amino acids, catalysis and enzymes, metobolism of carbohydrates, lipids and proteins. The laboratory consists of an examination of sugars and amino acids with synthesis, qualitative organic chemistry and structural determination of known and "unknown" compounds. Prerequisite: CHE 202 or written permission of instructor after successful completion of a pretest. Three hours lecture, four hours lab. Five credits.

CHE 205 GLASSBLOWING

Instruction and practice in methods of repair and construction of laboratory apparatus. Prerequisite: Permission of instructor. Four hours lab. Two credits.

INSTRUMENTAL ANALYSIS (1-3 credit hours)

This course consists of modules which may be taken separately.

CHE 215 UV-VISIBLE SPECTROSCOPY

A concentrated study of instrumentation, applications and analysis in Ultra Violet and visible absorption spectra. Prerequisite: CHE 102. Twenty hours lab. One credit.

CHE 216 INFRA RED SPECTROSCOPY

A concentrated study of instrumentation, sample preparation, applications and interpretation of infra-red absorption spectra. Prerequisite: CHE 102. Twenty hours lab. One credit.

CHE 217 ATOMIC ABSORPTION SPECTROSCOPY

A concentrated study of instrumentation, theory, operation and adjustment of instrumentation preparation of solutions and interpretation of analytical data. Prerequisite: CHE 102. Twenty hours lab. One credit.

INSTRUMENTAL ANALYSIS II (1-3 credit hours)

This course consists of three modules which may be taken separately.

CHE 225 VISCOSIMETRY

A laboratory course in the use of calibration and applications of viscosity measuring devices. Prerequisite: CHE 201. Twenty hours lab. One credit.

CHE 226 REFRACTOMETRY, RADIOACTIVITY MEASURING

A laboratory course of study concentrating on scaler and scintillater monitoring, refractice indices of liquid, solid and molten substances, applications, analysis and interpretation of analytical data. Prerequisite: CHE 201. Twenty hours lab. One credit.

CHE 227 POLARGRAPHY AND ELECTROPHORESIS

Electrophoretic separations will be studied. Use of a polorimeter in the study of optically active compounds will also be covered. Prerequisite: CHE 201. Twenty hours lab. One credit.

INSTRUMENTAL ANALYSIS III (1-3 credit hours)

This course consists of three modules which may be taken separately.

CHE 235 GAS CHROMOTOGRAPHY

Column preparation, instrumentation and applications will be investigated using thermoconductivity detection on single and multicolumn instruments. Prerequisite: CHE 201. Twenty hours lab. One credit.

CHE 236 PH, MILLIVOLT RECORDERS AND SPECIFIC ION ELECTRODES

An intensive investigation of pH meters electrode construction and use for acid-base and redox titrimetry. Theory and application of specifics in electrodes will be investigated. Prerequisite: CHE 102. Twenty hours lab. One credit.

CHE 237 NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY

A concentrated study of instrumentation, theory, instrument operation and adjustment, sample preparation, application and interpretation of analytical data. Prerequisite: CHE 201. Twenty hours lab. One credit.

CHE 295 INDEPENDENT STUDY IN CHEMISTRY

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

COMPUTER SCIENCE (COS)

COS 100 INTRODUCTION TO COMPUTERS AND THE BASIC LANGUAGE

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

COS 101 INTRODUCTION TO COMPUTER PROGRAMMING AND THE FORTRAN IV LANGUAGE

Introduction to computer programming through the use of FORTRAN IV. Various concepts relating to computer hardware and software will be presented. Students will attain necessary computing techniques which can be applied to their work in physical science, mathematics, business, biological science, social science, and engineering. Five 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 pemanent files, magnetic tape, JCL cards, and other selected topics will also be presented. Prerequisite: COS 100 or COS 101, or permission of instructor. Five 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. Four hours lecture. Two hours lab. Five credits.

EAS 295 INDEPENDENT STUDY IN EARTH SCIENCE

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

GEOLOGY (GEY)

GEY 101 PHYSICAL GEOLOGY

This course is designed to promote the physical awareness and observations of the student by a study of our physical surroundings, including the rocks, minerals, and landforms. Emphasis is placed on the processes that shape our ever-changing landscape. Field trips required. Offered Fall Quarter only. Three hours lecture. Four hours lab. Five credits.

GEY 102 HISTORICAL GEOLOGY

A course designed to study the prehistorical earth and prehistoric life, using influences from the physical geology of the earth to determine the paleogeograph, paleoclimate, and paleo-ology of past ages. Prerequisite: Physical Geology or permission of instructor. Field trips required. Offered Spring Quarter only. Three hours lecture. Four hours lab. Five credits.

GEY 105 GEOLOGY OF NATIONAL PARKS

Empirical study of the basic geology of the National parks. National parks are used as examples to develop an appreciation for the basic principles of physical science and basic concepts of Physical and Historical Geology. A short term paper on a park or monument required. Offered Winter Quarter only. Four hours lecture. Four credits.

MATHEMATICS (MAT)

MAT 015 INTRODUCTORY MATHEMATICS

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

MAT 016 BEGINNING ALGEBRA

The student will be exposed to integer arithmetic and linear equations with applications. He will also learn how to perform the arithmetic of polynomials and fractions along with the techniques of factoring. Graphing of linear equations in two variables will be covered as well as the solving of systems of linear equations in two variables by graphing as well as the algebraic techniques. If time allows quadratic equations and radicals will be studied. Prequisite: A good knowledge of basic arithmetic. An entrance exam may be requested. Five credits.

MAT 100 SURVEY OF MATHEMATICS

This course is designed for students not majoring in science or mathematics. The student will study addition, subtraction, multiplication, and division of whole numbers as well as fractions. Further study will cover decimals, percentages, proportions and some coverage of the metric system. The solution of linear equations and basic concepts of plane Geometry will be covered and if time permits, additional topics of various interests will be included. Prequisite: A knowledge of basic arithmetic. An entrance exam may be requested. Five credits.

MAT 105 COLLEGE PLANE GEOMETRY

This course is designed for students with little or no background in plane Geometry. The students will study some logic and deductive reasoning as well as congruent triangles, parallel and perpendicular lines and parallelograms. Emphasis will be placed on the properties of circles, similarity of triangles, areas and volumes with introductions to inequalities, constructions and loci. Prerequisite: MAT 016 or one year of high school Algebra. Five credits.

MAT 109 METRIC SYSTEM

This course is designed for the student who desires a working knowledge of metric measurements of length, area, volume, mass, and temperature. This is a self study, individualized course to be completed in an average of 10-15 hours. Help is provided on request. One credit.

MAT 111 INTERMEDIATE ALGEBRA

The system of real numbers is developed through use of axioms and sets. The mechanics of factoring, fractions, exponents, and radicals will be emphasized. Solutions of equalities and inequalities (linear, quadratic, radical, absolute value, and fractional) will be included. If time allows functions and systems of equations with graphing will be included. Prerequisite: MAT 016 or one year of high school algebra. An entrance exam may be requested. Five credits.

MAT 112 COLLEGE ALGEBRA

A short review is given covering fractions, factoring, laws of exponents, radicals, and the development of the real number system. The student is then exposed to relations, functions, inequalities in one and two variables, absolute value and progressions -- both arithmetic and geometric. Second degree functions, relations, graphing, inequalities, variation, and conic sections are covered in depth. The remainder of the time is spent studying systems of equations and inequalities, permutations, combinations, binomial theorem, mathematical induction, complex numbers and polynomial functions of degree. If time permits, an introduction to matrix theory is presented. Prerequisite: MAT 111 or consent of instructor. An extrance exam may be requested. Five credits.

MAT 113 COLLEGE TRIGONOMETRY

The wrapping function is used to develop the trigonometric functions and identities with applications to both right and oblique triangles. The student will also study the exponential and logarithmetic functions and trigonometric applications to complex numbers. Graphing of all the above will be included. Prerequisite: MAT 112 or consent of the instructor. An entrance exam may be requested. Five credits.

MAT 115 SLIDE RULE/CALCULATOR

This course is an independent study on Slide Rule and Calculator operation with assistance available in the Aims College Math Laboratory. Students will be tested on ordinary multiplication and division. Square and cube roots, mixed multiplication and division by decimals, powers and roots are also covered. Applications using logs are also available. One credit.

MAT 161 CALCULUS WITH ANALYTIC GEOMETRY I

This course begins with an introduction to functions and functional notation, and continues on with the development of the derivative. The anti-derivative is introduced and the definite integral is developed using an intuitive approach to the concept of limit. The student is then introduced to some of the many applications of the definite integral such as area, volume, displacement and work. The remainder of the course is devoted to the study of vectors, curve sketching, the conic sections, rotation and translation of axis. Prerequisite: MAT 112 or consent of instructor. An entrance exam may be requested. Five credits.

MAT 162 CALCULUS WITH ANALYTIC GEOMETRY II

Trignometric functions are reviewed and then the derivatives of the trigonometric functions and their inverses are developed. The development of the derivatives for the logarthimic and exponential functions follows with a coverage of hyperbolic functions and their derivatives. Heavy emphasis is placed upon the evaluation of integrals by substitution, partial fractions, parts, and numerical methods. Prerequisites: MAT 161 and MAT 113. Five credits.

MAT 163 CALCULUS WITH ANALYTIC GEOMETRY III

The theory of limits, continuity, the Mean Value Theorem, and the Fundamental Theorem of Integral Calculus are covered. The applications of derivatives and integrals as applied to maximum and minimum problem, related rates, arc length, curvature, forces, work and moments will be studied. Polar coordinates are also included. Prerequisite: MAT 162. Five credits.

MAT 261 LINEAR ALGEBRA

This course shall include an introduction to matrices and determinants with solutions to systems of equations by matrix methods. Emphasis is placed on vector spaces and linear transformations. Eigenvalues, eigenvectors, quadratic forms and some numerical methods of linear algebra are included as time permits. Prerequisite: MAT 163 or consent of instructor. Five credits.

MAT 262 CALCULUS WITH ANALYTIC GEOMETRY IV

Partial differentiation, multiple integrals and infinite series are included in this course. Prequisites: MAT 163 and 261. Five credits.

MAT 263 ELEMENTARY DIFFERENTIAL EQUATIONS

Those ordinary differential equations which fall into the categories of variable separable, homogeneous coefficients, exact equations and those to be made exact with simple integration factors are treated along with some applications. The solutions of linear equations by the methods of undetermined coefficients, variation of parameters, differential and inverse differential operators and Laplace transforms are studied. Systems of equations and nonlinear equations are included if time permits. Prerequisite: MAT 262. Five credits.

MAT 295 INDEPENDENT STUDY IN MATHEMATICS

This course provides the opportunity for the highly motivated student to engage in intensive study and research on a specified topic under the direction of a qualified faculty member. Credit hours must be arranged with the Division Chairman and the instructor. One to three credits.

PHYSICS (PHY)

PHY 100 FUNDAMENTALS OF PHYSICS

A qualitative survey of the basic conceptual aspects of physics. Designed for the non-science student who has minimal mathematical preparation and wants to explore the field of physical science including basic mechanics, thermal dynamics, sound, light, electricity and magnetism. Four hours lecture, two hours lab. Five hours credit.

INTRODUCTORY COLLEGE PHYSICS COURSES

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

PHY 101 INTRODUCTORY COLLEGE PHYSICS -- MECHANICS

This course is a study of the concepts of mechanics and relativity. Prequisite: Two years of high school algebra or MAT 111 or permission of instuctor. Three hours lecture, four hours lab. Five credits.

PHY 102 INTRODUCTORY COLLEGE PHYSICS -- ELECTRICITY AND MAGNETISM

A study of the concepts of electricity and magnetism and nuclear physics. Prerequisite: PHY 101 or permission of instructor. Three hours lecture. Four hours lab. Five credits.

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

A study of the concepts of thermal dynamics, light and sound. Prerequisite: PHY 102 or permission of instructor. Three hours lecture, four hours lab. Five credits.

GENERAL PHYSICS COURSES

The purpose of this sequence of courses is to provide a thorough understanding in basic physics for students majoring in engineering, physical science, or related disciplines. The student will acquire a working knowledge of fundamental laws and principles in preparation for advanced study. It is recommended that this sequence be transferred to other academic institutions as a block of three quarters.

PHY 201 GENERAL PHYSICS -- MECHANICS

The first quarter is an analytical and comprehensive treatment of mechanics, mechanical waves and heat, including basics of relativistic mechanics. Prerequisite or Corequisite: MAT 161 or permission of instructor. Three hours lecture. Four hours lab. Five credits.

PHY 202 GENERAL PHYSICS -- ELECTRICITY AND MAGNETISM

The second quarter is an analytical and comprehensive treatment of electricity and magnetism. Prerequisites: PHY 201, MAT 162 or Corequisite, MAT 162 or permission of instructor. Three hours lecture. Four hours lab. Five credits.

PHY 203 GENERAL PHYSICS -- HEAT, LIGHT AND SOUND

The third quarter is an analytical and comprehensive treatment of heat, light and sound, quantum effects and basics of nuclear physics. Prerequisite: PHY 202 or permission of the instructor. Three hours lecture, four hours lab. Five credits.

PHY 295 INDEPENDENT STUDY IN PHYSICS

This course provides the opportunity for the highly-motivated 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 the instructor. Students must have had previous academic study or experience in the area.

SCIENCE (SCI)

SCI 100 MAN -- HIS TECHNOLOGY AND HIS WORLD

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

SCI 101 AEROSPACE EDUCATION I

General education course for students desiring knowledge of aerospace topics. Includes airports, and airways, airline transportation, aerospace industry, and the space age. Three credits.

SCI 102 AEROSPACE EDUCATION II

General education for students desiring a knowledge of aerospace topics. Includes navigation, weather, power of aircraft in flight. Prerequisite: SCI 101. Three credits.

STATISTICS (STA)

STA 201 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 and interpretation of descriptive measures, linear correlation and regression, simple aspects of probability, the normal and binomial distributions and sampling distributions. Calculators and the IBM 370 Computer are used as aids in computation. Prerequisite: MAT 111 is highly recommended. Five credits.

STA 202 STATISTICS FOR BUSINESS, SCIENCE AND SOCIAL SCIENCE II

Topics include tests of statistical hypothesis based upon the z, t, chi-square and F distributions. Other selected topics may include curve fitting, the relationship between correlation and regression, and analysis of variance. Calculators and the IBM 370 will be used as aids in computation. Prerequisite: STA 201 or consent of instructor. Five credits.

MEXICAN AMERICAN STUDIES (MAS & SPA)

MAS 011 CONVERSATIONAL SPANISH

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

MAS 100 INTRODUCTION TO MEXICAN AMERICAN STUDIES

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

SPA 101 ELEMENTARY SPANISH I

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

SPA 102 ELEMENTARY SPANISH II

Continuation of SPA 101. Five credits.

SPA 103 ELEMENTARY SPANISH III

Continuation of SPA 101 & 102. Five credits.

MAS 105 MEXICAN MUSIC

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

SPA 111 INTERMEDIATE SPANISH

The first two weeks will consist of a review of Elementary Spanish I, II, and III. The final eight weeks will be concerned with improving oral conversation and written composition. Prerequisite: One year of College Spanish, two years of High School Spanish, or consent of the instructor. Two credits.

MAS 116 BILINGUAL SKILLS

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

MAS 120 CULTURAL HERITAGE OF MEXICO AND SOUTH AMERICA

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

MAS 125 THE AMERICAN SYSTEM

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

MAS 155 MEXICAN DANCE

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

MAS 161 HISTORY OF MEXICO I

A study of the significant aspects of Mexican history and civilization from pre-Columbian times to the end of the colonial period. Emphasis will be on the diverse Indian civilization 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 HISTORY OF MEXICO II

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

MAS 165 CHICANO HISTORY

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

MAS 206 CHICANO LITERATURE

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

HEN 107 WILDERNESS FIRST AID

To enable the student to obtain a standard first aid card (A.R.C. certification) along with the knowledge of treatment of first aid in regions beyond the trailhead. Objectives include preventive and support techniques for accidents frequent to the remote regions. 3 clock hours per week. Three credits.

PHYSICAL EDUCATION (PED)

PED 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.

PED 102 YOGA II

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

PED 103 BEGINNING KARATE

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

PED 104 ADVANCED KARATE

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

PED 106 SOFTBALL

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

PED 107 SKIING

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

PED 108 PHYSICAL EDUCATION

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

PED 109 SELF DEFENSE

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

PED 111 BEGINNING VOLLEYBALL

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

PED 112 INTERMEDIATE VOLLEYBALL

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

PED 113 ADVANCED VOLLEYBALL

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

PED 115 BEGINNING SLIMNASTICS

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

PED 116 INTERMEDIATE SLIMNASTICS

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

PED 117 ADVANCED SLIMNASTICS

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

PED 118 BASKETBALL

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

PED 119 ADVANCED BASKETBALL

A class designed to give the student additional training in the skills, fundamentals, and the team play of Basketball. Two clock hours per week. One credit.

PED 121 BEGINNING SWIMMING

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

PED 122 INTERMEDIATE SWIMMING

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

PED 123 BEGINNING ARCHERY

Designed to teach the techniques and fundamentals of a beginning archery class. Two clock hours per week. One credit.

PED 124 ADVANCED ARCHERY

Designed for those who want to continue their improvement in the skills and techniques of archery. Two clock hours per week. One credit.

PED 125 BEGINNING SOCCER

To expose the student to a popular team sport which demands skill, endurance, teamwork, and fast thinking. Two clock hours per week. One credit.

PED 126 INTERMEDIATE SOCCER

Designed to teach additional skills, strategies, rules, regulations and game tactics, basic coaching and referee techniques will be introduced. Two clock hours per week. One credit.

PED 127 ADVANCED SOCCER

Teaching of advanced methods of game planning, strategy and tactics, rule interpretation and application will be stressed. More advanced coaching and referree techniques will be studied. Two clock hours per week. One credit.

PED 128 JUDO

Designed to teach the basic fundamentals, movements, skills and rules of Judo. Mannerisms and terminology of Judo, and the proper techniques of falling. Two clock hours per week. One credit.

PED 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.

PED 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 period of time. Two clock hours per week. One credit.

PED 133 SOCIAL DANCE I

To learn a variety of social dances such as the Rumba, Cha Cha, and waltzes. To experience pleasure in dance with others and develop the ability to lead as well as to follow your partner. Two clock hours per week. One credit.

PED 134 SOCIAL DANCE II

An advanced class in social dance for those students who desire to further their skills and abilities in social dancing. Two clock hours per week. One credit.

PED 135 SQUARE DANCING

Teaching the basic steps and other dancing skills that formulate a reasonably comprehensive introduction to square dancing. Two clock hours per week. One credit.

PED 136 ADVANCED SQUARE DANCING

Advanced square dancing patterns and fundamentals will be taught along with square dances past and present. Two clock hours per week. One credit.

PED 137 FUNDAMENTALS OF DANCE I

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.

PED 138 FUNDAMENTALS OF DANCE II

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

PED 141 BEGINNING 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.

PED 142 INTERMEDIATE GOLF

Designed to further develop the techniques of grip, stance, swing, and follow through. Individual play and putting will be stressed. Two clock hours per week. One credit.

PED 143 ADVANCED GOLF

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

PED 151 BEGINNING WEIGHT TRAINING

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

PED 152 INTERMEDIATE WEIGHT TRAINING

Designed for those who want to continue their improvement in weight training skills and techniques and to reach a higher level of physical fitness. Two clock hours per week. One credit.

PED 153 ADVANCED WEIGHT TRAINING

Continuation of PED 151, including advanced techniques demonstrated in class. Two clock hours per week. One credit.

PED 157 BEGINNING BADMINTON

To introduce the basic skills of badminton plus the rules of play and score keeping. Two clock hours per week. One credit.

PED 158 INTERMEDIATE BADMINTON

To further advance the students skills and techniques of Badminton. Two clock hours per week. One credit.

PED 159 ADVANCED BADMINTON

A class designed for those students who desire advanced knowledge, skill and technique in Badminton. Two clock hours. One credit.

PED 161 BEGINNING BOWLING

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

PED 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.

PED 165 BEGINNING HANDBALL

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

PED 166 INTERMEDIATE HANDBALL

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

PED 167 ADVANCED HANDBALL

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

PED 171 FLAG FOOTBALL

A class designed to allow students to participate on a team level basis. Participants are divided into teams and records are maintained throughout the season. Two clock hours per week. One credit.

PED 172 ADVANCED FLAG FOOTBALL

A class designed to allow students to participate on a team level basis and to give them additional opportunities in leadership experience. Two clock hours per week. One credit.

PED 173 MIDDLE-EASTERN DANCE I

Designed to teach the skills and techniques of movements for the graceful performance of body action. The course will also include body movements of middle eastern dancing. Two clock hours per week. One credit.

PED 174 MIDDLE-EASTERN DANCE II

Designed for those who want to further their skills of movement for the graceful performance of body action. The course will include more complex movements of middle eastern dancing. Two clock hours per week. One credit.

PED 175 CLASSICAL BALLET I

To develop poise, grace, agility and rhythm to classic Cecchette form of ballet. Two clock hours per week. One credit.

PED 176 CLASSICAL BALLET II

To increase the students' poise, agility, and rhythm that they achieved in Ballet. To develop an appreciation of ballet as an art form. Two clock hours per week. One credit.

PED 177 CLASSICAL BALLET III

To further develop the students poise, grace, agility and rhythm, and providing the student the personal enjoyment of Ballet. Two clock hours per week. One credit.

PED 178 JAZZ DANCE I

Introduction of the basic jazz techniques. Teaching of terminology, jazz movement, and routines. Two clock hours per week. One credit.

PED 179 JAZZ DANCE II

To continue exposing the student to the indigenous dance form of the United States. Providing a rewarding and satisfying pleasure of movement experienced in Jazz dance. Two clock hours. One credit.

PED 181 BEGINNING TENNIS

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

PED 182 INTERMEDIATE TENNIS

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

PED 183 ADVANCED TENNIS

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

PED 185 BEGINNING RACQUETBALL

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

PED 186 INTERMEDIATE RACQUETBALL

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

PED 187 ADVANCED RACQUETBALL

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

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 decision. Five credits.

ACC 102 PRINCIPLES OF ACCOUNTING II

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

ACC 103 PRINCIPLES OF ACCOUNTING III

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

ACC 105 PAYROLL ACCOUNTING

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

ACC 106 CAREERS IN ACCOUNTING

An exploratory class for accounting students who wish to learn of the specific job opportunities in accounting, the entry level skills needed, and the possibilities for advancement. Prerequisite: ACC 102 or permission of instructor. One credit.

ACC 107 MANAGERIAL USE OF ACCOUNTING

Using financial statements to develop ratios and comparisons to train the student in the use of accounting information for making managerial decisions. Prerequisite: ACC 101 or permission of instructor. Five credits.

ACC 109 CREDIT COLLECTING

To give information to small business employees for extension of credit, the rules that enhance or limit collections, and the methods used to collect accounts. One credit.

ACC 115 FARM RECORDS AND TAX

To give guidelines on keeping farm records and using them for filing tax forms. To give information on determining the need for increasing capital assets and methods of financing them. Depreciation and investment credit will be discussed. Five credits.

ACC 121 INCOME TAX ACCOUNTING

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

ACC 201 INTERMEDIATE ACCOUNTING I

An in-depth study of the basic principles and concepts of accounting, giving special attention as to how they apply to cash and temporary investments, receivables, and cost and valuation procedures for inventories. Prerequisite: ACC 103 or permission of instructor. Five credits.

ACC 202 INTERMEDIATE ACCOUNTING II

Continuation of ACC 201 with emphasis on long-term assets and liabilities. Five credits.

ACC 205 ACCOUNTING SYSTEMS

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

ACC 211 COST ACCOUNTING I

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

ACC 246 FINANCIAL MANAGEMENT

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

BUSINESS (BUS)

BUS 100 INTRODUCTION TO BUSINESS

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

BUS 101 BEGINNING TYPEWRITING

An introduction to typewriting, emphasizing learning the keyboard and parts of the typewriter; proper technique; beginning speed and control development; and basic typewritten applications such as copy placement, business letters, tabulations, and simple reports. For students with no typing background. Three credits.

BUS 102 INTERMEDIATE TYPEWRITING

Further development of typing techniques for building speed and control. Production emphasis on basic business letters, business letters with special features, communications forms, tabulated reports, business forms, and special reports. Prerequisite: BUS 101 or one year of 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. Additional lab hours may be needed. Prerequisites: BUS 102 or two years of high school typewriting or speed of at least 40 wpm. Three credits.

BUS 105 SPEED AND ACCURACY DEVELOPMENT IN TYPEWRITING

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

BUS 106 KEYPUNCH

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

BUS 107 MEMORY TYPEWRITING

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

BUS 109 INTRODUCTION TO BUSINESS MATHEMATICS

A class designed to help the student develop the ability to perform accurately the fundamental operations in mathematics required in business activities. Five credits.

BUS 113 LEGAL TYPEWRITING

Production practice in the preparation of legal documents. Typewriting and spelling accuracy of legal terminology are emphasized. Prerequisite: Bus 102 and 60 wpm. Three credits.

BUS 114 MEDICAL TYPEWRITING

Production practice in the preparation of medical reports, articles, case histories, etc. Medical spelling and medical terminology are emphasized. Prerequisite: Bus 102 and 50 wpm. Three credits.

BUS 115 BUSINESS MATHEMATICS

A study of mathematical procedures in business and aspects of personal activities (percent, checkbook records, payroll, discounts, markup, interest, depreciation, overhead, taxes, insurance, etc.). Five credits.

BUS 116 ADDING AND CALCULATING MACHINES

Instruction in operating procedure for printing and electronic calculator. Emphasis is on machine application of mathematical problem solving in business. Lab hours are required. Prerequisite: BUS 115. Two credits.

BUS 125 MONEY MANAGEMENT

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

BUS 127 PERSONAL DEVELOPMENT FOR CAREER WOMEN

Designed to assist women in realizing their potential in both career and personal life by developing poise, confidence, and an attractive appearance. Two credits.

BUS 141 COLLEGE BOOKKEEPING I

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

BUS 142 COLLEGE BOOKKEEPING II

Continuation of BUS 141 with further development of special journals, emphasizing partnership form of ownership. Study of inventory valuation, prepaid expenses, long-lived assets, owner's equity for single proprietorships, partnerships and corporations, annual reports, and interim financial statements. Prerequisite: BUS 141 or permission of instructor. Five credits.

BUS 145 HUMAN RELATIONS AND SUPERVISION

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

BUS 153 PRINCIPLES OF BUSINESS COMMUNICATIONS A

This course helps students learn correct grammar usage as it should be applied to business communications. Five credits.

BUS 154 PRINCIPLES OF BUSINESS COMMUNICATIONS B

Punctuation, spelling, capitalization, word division -- correct and effective use of each in business correspondence is learned in this class. Major emphasis is given to development of business vocabulary. Five credits.

BUS 155 BUSINESS COMMUNICATIONS I

Students develop more extensive vocabularies with emphasis on business terminology. They learn parts of speech, sentence structure, punctuation, spelling and word division as are used in current business usage. Five credits.

BUS 156 BUSINESS COMMUNICATIONS II

Students develop communication skills to function efficiently in business positions and write with clarity and confidence. Each student's ability to communicate facts, ideas and opinions is improved. Students work toward precise, powerful business writing. Prerequisite: BUS 155. Three credits.

BUS 157 BUSINESS COMMUNICATIONS III

Students prepare to transmit and receive oral information in business situations. Particular areas of oral communication skill improvement include one-to-one conversation, telephone technique, dictation expertise, group leadership, and listening. (A special section of Business Communications III will be offered for Mid-Management majors selecting the Sales option. Persuasive communication will be emphasized on a one-to-one basis, in small group sessions, and before an audience.) Prerequisite: BUS 155. Three credits.

BUS 165 FILING

The course acquaints students with the rules, procedures, techniques, and control of filing. Three credits.

BUS 175 OFFICE PROCEDURES

A study of general business office duties and problems, job interviewing and application, purchasing office supplies, payroll and financial procedures, reception and messenger work, mail handling, pulling together previously acquired office knowledge and skills. Prerequisite: Ability to type or BUS 101. Five credits.

BUS 247 BUSINESS AND BANKING

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

BUS 255 BUSINESS LAW

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

BUS 275 REAL ESTATE OFFICE PROCEDURES

Designed to acquaint the student with the routine of a real estate office. A study of real estate terminology and basic legal forms required in real estate transactions. Prerequisite: BUS 102. Three credits.

BUS 281, 282 COOPERATIVE OFFICE OCCUPATIONS I & II

Supervised employment in an office occupations position. Intended to provide practical experience for students preparing for careers in a business office. It is the responsibility of the student to secure employment in approved work station for minimum of 15 hours per week during the two quarters of enrollment. Prerequisite: Student must be in fifth and sixth quarters of an Office Occupations program, have salable office skills, and be approved for admission by his advisor and supervising instructor in the quarter prior to enrollment. Five credits per course.

BUS 295 OFFICE INDEPENDENT STUDY

A course providing the opportunity for the student to study a specific area or skill under the direction of a qualified faculty member. One to three credits.

ELECTRONIC DATA PROCESSING (EDP)

EDP 101 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. Five credits.

EDP 102 COMPUTER CONCEPTS I

A study of the basic computer concepts to provide the proper framework for the further study of computer systems and programming languages. Topics include internal storage, "computer math" operating systems and program flowcharting. Prerequisite: EDP 101 or permission of instructor. Five credits.

EDP 103 COMPUTER CONCEPTS II

A study of advanced computer concepts with emphasis on how components relate to an integrated data processing system. Topics will include software components and their functions, computer design and virtual computing systems. Prerequisite: EDP 102 or permission of instructor. Five credits.

EDP 105 COMPUTER OPERATIONS

A study of the hardware and software components of a computing system relative to the actual operations of the system. Both conceptual and hands-on exposure to topics are included. Five credits.

EDP 121 COBOL PROGRAMMING

Fundamentals of business-oriented programming language. Topics parallel those covered in EDP 201 with addition of debugging routines. Prerequisite: EDP 102 or permission of instructor. Five credits.

EDP 122 ADVANCED COBOL PROGRAMMING

Continuation of EDP 121. Students will learn advanced COBOL techniques and efficiencies and will utilize magnetic tape and disk storage media. Prerequisite: EDP 121. Five credits.

EDP 126 REPORT PROGRAM GENERATOR (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 102 or permission of instructor. Five credits.

EDP 127 PL/I (PROGRAMMING LANGUAGE I)

An elective course in PL/I programming language and its application to both business and scientific problems. Topics parallel EDP 102. Prerequisites: EDP 102 or permission of instructor. Five credits.

EDP 201 ASSEMBLER LANGUAGE PROGRAMMING

Programming concepts learned in EDP 102 are implemented using IBM 370 Assembler Language. Documentation techniques and programming standards stressed. College computer will be used to test programs written by students. Prerequiste: EDP 121. Five credits.

EDP 202 ADVANCED ASSEMBLER LANGUAGE PROGRAMMING

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

EDP 237 SYSTEMS ANALYSIS AND DATA MANAGEMENT

To familiarize the student with the organization of data files utilized in business data processing, the physical characteristics of the storage media, and information flows. Additionally these topics will be incorporated into practical student projects in the area of systems analysis and design. Prerequisite: EDP 122 or permission of instructor. Five credits.

EDP 281, 282 COOPERATIVE WORK EXPERIENCE I AND II

Supervised employment in a data processing position. Intended to provide practical experience for students preparing for a career in electronic data processing. It is the responsibility of the student to secure employment in an approved work station for a minimum of 15 hours per week during the two quarters of enrollment. Prerequisites: Student must be in the fifth and sixth quarters of a Data Processing Program, must have salable skills, and in the quarter prior to enrollment be approved for admission by his advisor and the supervising instructor. Five credits per course.

MID-MANAGEMENT (MGT)

MGT 101 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.

MGT 102 ADVANCED SALESMANSHIP

The course is designed to further the skills of the professional salesperson through role playing situations and studies of advanced closing techniques. Prerequisites: MGT 101 and employment in a sales position. Five credits.

MGT 106 PRINCIPLES OF RETAILING

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

MGT 107 PRINCIPLES OF ADVERTISING

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

MGT 108 SMALL BUSINESS MANAGEMENT

A study of the environment, management policies, marketing and control problems in small business. Emphasis will be on solving problems and recognizing and evaluating business opportunities. Practice will be given in making decisions under conditions of uncertainty and incomplete knowledge. Five credits.

MGT 116, 117, 118 MANAGEMENT ACTIVITIES

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

MGT 145 MANAGEMENT HUMAN RELATIONS

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

MGT 201 SALES MANAGEMENT

A study of the organizational framework for sales strategy formulation, the administration of sales manpower, and evaluation and control of the sales program. Prequisites: MGT 102 and MGT 225. Five credits.

MGT 205 CREDIT MANAGEMENT

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

MGT 215 PERSONNEL MANAGEMENT

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

MGT 216, 217, 218 MID-MANAGEMENT SEMINAR

Contemporary problems are explored as they relate to students' goals and aspirations. One credit per course.

MGT 221 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.

MGT 222 MARKETING MANAGEMENT

The study of marketing decision making by computer simulation using various combinations of the "marketing mix." Prerequisite: MGT 221.Five credits.

MGT 226, 227, 228 INDIVIDUAL STUDIES IN MARKETING

These courses provide the opportunity for students to engage in intensive study and research beyond the stated prerequisites. Course must be arranged with a Mid-Management instructor. Prerequisite: MGT 225. Principles of Marketing. One-three credits.

MGT 235 PRINCIPLES OF MANAGEMENT

A study of the management process, the decision making process, and the science and art of management. The functions of management: planning, coordinating, organizing, testing, and controlling studied in formulating and carrying out the objectives, policies, methods and procedures in managing a successful business enterprise. Five credits.

MGT 236, 237, 238 INDIVIDUAL STUDIES IN MANAGEMENT

These courses provide the opportunity for students to engage in intensive study and research beyond the stated prerequisites. Course must be arranged with a Mid-Management instructor. Prerequisite: MGT 235, Principles of Management. One-three credits.

MGT 245 ORGANIZATIONAL ENVIRONMENT

To provide an understanding of human behavior, management theory, and leadership as they relate to student's success in the work environment. Prerequisites: MGT 215 and MGT 235. Five credits.

MGT 255 LABOR LAW

This course is designed to give the student an understanding of the various laws that govern employer/employee relationships, unfair labor practices, strikes, boycotts, bargaining units, anti-trust, anti-junction, etc. Five credits.

MGT 256 SUPERVISORY MANAGEMENT

A course designed to assist the potential or newly appointed supervisor in becoming acquainted with the many problems which will confront him, and to offer practical advice for their solution. The experienced supervisor should benefit by a re-examination of his position and how it relates to other levels in the organization. Five credits.

MGT 257 LABOR RELATIONS

A study of the rise of the labor movement in the United States, how unions are structured and how they operate. Emphasis will be upon reasons for management/labor conflicts and the role of the supervisor during union organizing, during organizing, during strikes and negotiations, and in day-to-day relations with union representatives. Five credits.

MGT 258 PRODUCTION MANAGEMENT

This course is designed to show the relationship of the production function to the fundamental business functions; help the student gain experience in solving production problems; give the student an understanding of some of the problems in industry management; and give the student exposure to the theory of industrial management a a 'systems concept''. Five credits.

MGT 259 PURCHASING

A study of the many parts of the purchasing job: costs, vendor selection, quality determination, bidding versus negotiated contracts, ethics, and inventory control methods. The course will follow the recommendations of the National Association of Purchasing Management, and will stress the significance of purchasing as a management function. Prerequisite: Approval of instructor. Five credits.

MGT 281, 282, 283 PERSONAL ADJUSTMENT TO BUSINESS

Designed to bridge the gap between classroom instruction and work experience for the management-oriented student. Attention is given to specific on-the-job problems encountered by the student. Student will formulate work objectives and attend a weekly one-hour seminar. Prerequisite: (1) declared Mid-Management Major, (2) consent of a Mid-Management advisor, (3) enrolled in one or more of the Mid-Management program courses each quarter, (4) enrollment permitted only after successful completion of all Freshman level courses in Mid-Management program, (5) employed part-time or seeking part-time employment in an acceptable job, (6) application for enrollment in this course must be made to the Mid-Management advisory the quarter before actual enrollment. Five credits per course.

REAL ESTATE (RES)

RES 105 REAL ESTATE PRACTICE

This course is designed to provide the student with an understanding of real estate principles and practices and the basic skills necessary to work in the field of real estate. Three credits.

RES 106 REAL ESTATE LAW

This course is designed to provide the student with an understanding of the rights and obligations of the real estate agent regarding his contractual and fiduciary duties owed to the parties he represents. Prerequisite: RES 105 or employment in realty field. Three credits.

RES 107 INTERNSHIP IN REAL ESTATE

This course is designed to provide the student with the opportunity to explore and observe the practices and procedures carried on in an active real estate office, to become familiar with the flow of paper and work common to real estate agents, and to work with practicing agents in all areas of real estate practice, excluding actual sales. Prerequisite: RES 105. Five credits.

RES 108 REAL ESTATE LICENSE PREPARATION

This course is designed to assist students in preparation for the Colorado Real Estate License Examinations in order that they may enter the field of real estate sales. Prerequisite: RES 105, RES 106. Three credits.

RES 205 REAL ESTATE FINANCE

This course is designed to provide the student with a history and development of real estate financing; an economic overview of the federal government's monetary and fiscal policy; a working knowledge of both primary and secondary money markets, of the contracts used in financing. Prerequisites: RES 105, RES 106 or permission of instructor. Three credits.

RES 206 REAL ESTATE APPRAISAL

This course is designed to assist the student to understand and arrive at an estimate of real property value for his principals. The course will emphasize the three traditional approaches to value and the rationale of the three approaches. Prerequisites: RES 105, RES 106, or permission of instructor. Three credits.

TRANSPORTATION (TRA)

TRA 101 TRANSPORTATION TERMS & DOCUMENTATION

This course is designed to assist the student in understanding the meanings and terms used in transportation such as SL & C, FOB, etc.; understanding the Bill of Lading contractual obligations; learning to read and interpret the National Motor Freight Classification rules and regulations. Prerequisite: Interest in transportation. Four credits.

TRA 102 TRANSPORTATION FUNCTIONS AND REGULATIONS

This course is designed to examine loss and damage and the responsibilities and duties of both the shipper and carrier when loss and damage occur, to trace and expedite shipment by the different modes of transportation, to understand the differences between private, contract and common carriage, and to understand the federal and state regulations which control common carriers. Prerequisites: TRA 101 or work experience and permission of instructor. Four credits.

TRA 103 TRANSPORTATION FREIGHT RATES AND TARIFFS

This course is designed to identify the rate bureaus and see how they function in the rail and motor industry; to check rail and motor rates by using actual published rail and motor tariffs; and to understand the basic considerations used to determine transportation rates. Four credits.

SECRETARIAL (SEC)

SEC 105 MACHINE TRANSCRIPTION

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

SEC 106 LEGAL TERMINOLOGY

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

SEC 136 APPLIED MEDICAL TERMINOLOGY

A course designed to prepare the student to apply basic medical words by reading, discussing, and transcribing medical records, such as, case histories, medical letters, surgical reports, hospital admission and discharge summaries, and xray reports. Prerequisites: BUS 102 (or concurrent enrollment), BUS 155, HLH 131. Three credits.

SEC 141 LEGAL MACHINE TRANSCRIPTION I

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

SEC 142 LEGAL MACHINE TRANSCRIPTION II

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

SEC 143 MEDICAL MACHINE TRANSCRIPTION I

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

SEC 144 MEDICAL MACHINE TRANSCRIPTION II

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

SEC 151 GREGG SHORTHAND THEORY I

Introduces the first half of the theory of Gregg Shorthand, Diamond Jubilee Series; develops reading speeds from book plates and handwritten notes; develops shorthand writing of familiar and unfamiliar material to speeds of 50-60 words a minute; develops the ability to transcribe at the typewriter. This course is intended for students who have had no previous Gree Shorthand instruction. Prerequisites: BUS 101 or equivalent. Five credits.

SEC 152 GREGG SHORTHAND THEORY II

Thorough review of the first half of the theory of Gregg Shorthand, Diamond Jubilee Series. Introduces the last half of the theory of Gregg Shorthand; develops reading speed from handwritten notes; develops shorthand writing of familiar and unfamiliar material to speeds of 60-80 words a minute; further develops the ability to transcribe at the typewriter. Prerequisites: SEC 151 or previous Gregg Shorthand instruction. Five credits.

SEC 153 INTERMEDIATE SHORTHAND

Develops shorthand writing of unfamiliar material to speeds of 80-100 words a minute. A review is provided in punctuation, spelling, letter styles, and business vocabulary improvement. Emphasis is on production of mailable letters. Prerequisites: SEC 152 or SEC 162 or two years of high school shorthand and the ability to write at 60 words a minute, plus a thorough knowledge of all Gregg Shorthand theory or Alpha Shorthand theory. Five credits.

SEC 154 ADVANCED SHORTHAND

Develops shorthand writing of unfamiliar material to speeds of 80-120 words a minute. Total business proficiency is expected, and attention is directed to the ability to transcribe mailable letters at employable production rates. Prerequisites: SEC 153 or two years of high school shorthand, a thorough knowledge of all Gregg Shorthand theory or all Alpha Shorthand theory, and knowledge of punctuation, spelling, letter styles, and business vocabulary. Five credits.

SEC 161 ALPHABET SHORTHAND THEORY I

A beginning course introducing the first half of the system of rapid writing using longhand letters and a few symbols. This is for those students preferring an alphabetic rather than a symbol system. Develops reading speeds from handwritten notes; develops shorthand writing of familiar and unfamiliar material to speeds of 50-60 words a minute; develops the ability to transcribe at the typewriter. Prerequisites: BUS 101 (or be enrolled concurrently). Five credits.

SEC 162 ALPHABET SHORTHAND THEORY II

Thorough review of the first half of the theory of Forkner Alphabet Shorthand; introduces the last half of the theory of Forkner Alphabet Shorthand; develops reading speed from handwritten notes; develops shorthand writing of familiar and unfamiliar material to speeds of 60-80 words a minute; further develops the ability to transcribe at the typewriter. Prerequisite: SEC 161. Five credits.

SEC 177 INSURANCE TERMINOLOGY AND PROCEDURES

Designed to acquaint the student with the routine of an insurance office. A study of basic principles in insurance terminology, kinds of insurance, daily reports, policies, agency files and records, expiration notices, cancelled policies, claims, etc. Primarily for legal secretarial students. Prerequisite: BUS 102. Three credits.

SEC 215 LEGAL SHORTHAND

Specialized course for legal reporting and transcription. Students continue to build mastery of legal terminology and forms. Individual tape, programmed dictation is used extensively. Lab hours may be required. Prerequisites: SEC 153. Five credits.

SEC 231 CPS REVIEW I

A review course highlighting six areas of business, business law, accounting, typing and shorthand, office procedures, management, and economics of business. Designed to prepare the student for Certified Professional Secretary test. Two credits.

SEC 232 CPS REVIEW II

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

SEC 276 MEDICAL OFFICE PROCEDURES

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

SEC 277 LEGAL OFFICE PROCEDURES

A study of the routines common to legal offices. Intensive practice in preparing many types of legal documents. Designed for legal secretarial students. Prerequisites: BUS 102, SEC 106. Five credits.

SEC 281, 282 COOPERATIVE OFFICE OCCUPATIONS I AND II

Supervised employment in an office occupation position. Intended to provide practical experience for students preparing for careers in a business office. It is the responsibility of the student to secure employment in approved work station for a minimum of 15 hours per week during the two quarters of enrollment. Prerequisite: Student must be in the fifth and sixth quarters of an Office Occupations program, have salable office skills, and be approved for admission by his advisor and supervising instructor in the quarter prior to enrollment. Five credits per course.

SEC 295 SECRETARIAL INDEPENDENT STUDY

A course providing the opportunity for the student to study a specific knowledge or skill under the direction of a qualified faculty member. One to three credits.

CRIMINAL JUSTICE (CRJ)

CRJ 101 INTRODUCTION TO CRIMINAL JUSTICE
An overview of functions and jurisdictions of law enforcement agencies, career opportunities and requirements, curriculum and requirements of program; study and practice in application for employment process. 20 clock hours. Two credits.

CRJ 115 TRAFFIC CONTROL AND ACCIDENT INVESTIGATION
Model traffic ordinance, state laws enforcement, selective enforcement, parking problems, types of traffic accidents, injuries, fire aid, facts, measurements, citations, court procedures, control, pedestrian, etc. Prerequisite: CRJ 135, CRJ 150 or permission of instructor. 50 clock hours. Four credits.

CRJ 130 COMMUNITY RELATIONS
Public relations, minority groups, rumors, prejudice, public support, problem areas, meetings, parades, marches, gatherings. 30 clock hours. Three credits.

CRJ 135 REPORT WRITING
Importance of note taking, accurate typewritten reports, forms; use of sketches, diagrams, charts, photos; modus operandi, basic essentials of notes, labeling. 30 clock hours. Three credits.

CRJ 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.

***CRJ 150 LAW ENFORCEMENT BASIC TRAINING**
An intensive introduction to law enforcement: history and orientation, basic law, police procedure, skill training, community relations. A certificate of completion is awarded to successful candidates requesting one. 228 clock hours. Twenty credits.
*The requirement for this course can be alternately met by certification of successful completion of the basic recruit seminar at the Colorado Law Enforcement Training Academy (CLETA).

CRJ 158 FORENSIC PHOTOGRAPHY
Study of basic principles of photography, application of principles of photography to traffic accidents, fire, crimes against persons, crimes against property. Infra-red and video tape techniques, and preparation of photographic evidence for court testimony are included. 40 clock hours. Three credits.

CRJ 200 CRIMINAL LAW AND PROCEDURES
An analysis of origin and structure of common law crimes; federal, state, and local laws and ordinances; recognition and elements of criminal acts; Colorado criminal statutes; interrogation, arrest, search and seizure. 60 clock hours. Five credits.

CRJ 210 CRIMINAL INVESTIGATION
A study of investigation from receipt of complaint through approach to scene, search, collection, and preservation of evidence; recording of data, preparation of reports, and case follow-up. Includes surveillance, sources of information, methods of tracing and locating alleged fugitives, and case investigations. Prerequisite: CRJ 225. 40 clock hours. Three credits.

CRJ 215 EVIDENCE I

A study of law evidence; matters of expert opinion, fact, expert opinion, physical and oral evidence; rules of evidence including relevancy, competency, direct and circumstantial evidence; hearsay. Prerequisite: CRJ 150, CRJ 200 or permission of instructor. 40 clock hours. Three credits.

CRJ 225 EVIDENCE II

Continuation of CRJ 215, collection, identification, and preservation of evidence; and submissions of evidence for lab examination and presentation in court. 40 clock hours. Three credits.

CRJ 231 COURT PROCEDURES

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

CRJ 240 CONSTITUTIONAL LAW SEMINAR

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

CRJ 251-255 POLICE CADET COPERATIVE

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.

FIRE SCIENCE (FS)

FS 100 INTRODUCTION TO FIRE SCIENCE AND SUPRESSION

Philosophy and history of fire protection; history of loss of life and property by fire; review of municipal fire defenses; study of the organization and function of federal, state, county and private fire protection agencies; survey of professional fire protection career opportunities. Fire suppression organization; fire suppression equipment; characteristics and behavior of fire; fire hazard properties of ordinary materials; building design and construction; extinguishing agents; basic fire fighting tactics; public relations. 30 clock hours. Three credits.

FS 104 FIRE COMPANY ORGANIZATION AND PROCEDURE

Review of fire department organization; fire company organization; the company officer; personnel administration; communications; fire equipment; maintenance; training; fire prevention; fire fighting; company fire fighting capability; records and reports. 30 clock hours. Three credits.

FS 106 FIRE FIGHTING TACTICS AND STRATEGY

Review of fire chemistry, equipment and manpower; basic fire fighting tactics and strategy; methods of attack, preplanning fire problems. 30 clock hours. Three credits.

FS 108 FIRE HYDRAULICS

Review of basic mathematics; hydraulic laws and formulas as applied to the fire service; application of formulas and mental calculation to hydraulic problems; water supply problems; underwriters' requirements for pumps. 30 clock hours. Three credits.

FS 110 FIRE APPARATUS AND EQUIPMENT

Driving laws, driving techniques, construction and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment; apparatus maintenance. 30 clock hours. Three credits.

FS 190 ADMINISTRATION OF JUSTICE AND COURT PROCEDURES

Study of processes of criminal justice and procedures of local, state, and federal courts; organization and jurisdiction. Criminal justice in Colorado, conduct of trials, right of accused, motions and appeals studied. 30 clock hours. Three credits.

FS 202 FUNDAMENTALS OF FIRE PREVENTION

Prerequisite: FS 100, Introduction to Fire Science and Suppression. Organization and function of the fire prevention organization; inspections; surveying and mapping procedures; recognition of fire hazards; engineering a solution to the hazard; enforcement of the solution; public relations as affected by fire prevention. 30 clock hours. Three credits.

FS 204 RELATED CODES AND ORDINANCES I

Familiarization with national, state, and local laws and ordinances which influence the field of fire prevention, with emphasis on building codes. 30 clock hours. Three credits.

FS 205 RELATED CODES AND ORDINANCES II

Prerequisite: FS 204, Related Codes and Ordinances I. Continuation of Related Codes and Ordinances I with an emphasis in life safety and fire prevention codes. 30 clock hours. Three credits.

FS 206 RESCUE PRACTICES

Rescue practices, rescue skills and techniques; rescue tools and equipment with emphasis on auto accident extraction; building collapse, cave-in and landslide and other rescue problem procedures. 30 clock hours. Three credits.

FS 207 APPLIED CHEMISTRY FOR FIREMEN

A basic practical course in chemistry designed specifically for firemen. Various materials which the firemen encounter will be discussed. 50 clock hours. Five credits.

FS 208 HAZARDOUS MATERIALS I

Prerequisite: FS 207 Applied Chemistry for Firemen. A review of basic chemistry, storage, handling, laws, standards and fire fighting practices pertaining to hazardous materials. 30 clock hours. Three credits.

FS 209 HAZARDOUS MATERIALS II

Prerequisite: FS 208 Hazardous Materials I. Continuation of the study of hazardous materials covering storage, handling laws, standards and fire fighting practices with emphasis on fire fighting and control at the company officer level. 30 clock hours. Three credits.

FS 212 FIRE PROTECTION EQUIPMENT AND SYSTEMS

Portable fire extinguishing equipment requirements. Sprinkler systems, types, installation and maintenance and special protection systems for various hazards. 30 clock hours. Three credits.

FS 214 FIRE DEPARTMENT ADMINISTRATION

Prerequisite: FS 104 Fire Company Organization and Procedure. Consideration of basic concepts and principles of administration applicable to the organization and administration of an efficient fire department. 30 clock hours. Three credits.

FS 216 PRIVATE FIRE PROTECTION ALARM SYSTEM

Prerequisite: Fire Protection Equipment and Systems. An analysis of private protection and alarm systems. Course covers organization and operation of private Fire Brigades, complete water system layouts. A study and evaluation of Fire Detection, Alarm and Supervisory Systems. 30 clock hours. Three credits.

FS 218 FIRE INVESTIGATION

Introduction to arson and incendiarism, arson laws and types of incendiary fires. Methods of determining fire cause, recognizing and preservice evidence, interviewing and detaining witnesses. Procedures in handling juveniles, court procedures and giving court testimony. 30 clock hours. Three credits.

FS 220 FIRE INSURANCE

An analysis of the fire insurance rating structure. Elements involved in establishing insurance rates. The grading system for cities and town, the classification of cities and town, hazard factors in occupancy, construction and exposures. 30 clock hours. Three credits.

FS 230 BUILDING CONSTRUCTION/BLUEPRINT READING FOR FIREFIGHTERS

This course will give the student a working knowledge of blueprint reading and sketching as applied to the construction industry. Building terms and abbreviations are taught along with symbols and conventions for other major trades. Construction features, beginning with details of component parts and advancing to a complete set of working drawings. Load principles, shear forces, stress and weakening due to fires are discussed. 30 clock hours. Three credits.

HEALTH OCCUPATIONS

NA 100 NURSES' AIDE

Designed to cover a basic core of knowledge and skills to prepare students for hospital, nursing home, and private homes employment. Basic personal care stressed emphasizing meeting physical and emotional needs of patients; orientation to advanced patient care, and home health aide duties. 180 clock hours, theory and clinical application. Fifteen 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, cardiopulmonary resuscitation. 93 clock hours. Nine credits.

HLH 131 MEDICAL TERMINOLOGY

Builds skills in verbal and written communication of medical terms. A basic study of medical words, including defining, spelling, pronouncing, and analysis of component parts. Practical use of words developed through audio-visual aids and discussion. 30 clock hours. Three credits.

RESPIRATORY THERAPY (INT)

INT 101 CLINICAL PRACTICE I

To demonstrate physiologic rationale and indications for gas, aerosol, and humidity therapy. Also to know safe, effective, sterile endotracheal and nasotracheal suctioning techniques, and to acquire skills necessary to artificially ventilate and circulate patients in respiratory-cardia failure. Prerequisite: INT 106. 150 clock hours. Five credits.

INT 102 CLINICAL PRACTICE II

Students will acquire skills and understanding necessary to administer proper and effective artificial ventilation. They will be able to give assistance to medical staff in initiation and maintaining continuous ventilation therapy. Students will be able to do proper arterial blood gas punctures and know the possible contraindications, complications and adverse reactions. Prerequisite: INT 101. 180 clock hours. Six credits.

INT 103 CLINICAL PRACTICE III

Continuation of Clinical Practice II. Prerequisite: INT 102. 360 clock hours. Twelve credits.

INT 105 RESPIRATORY THERAPY PHARMACOLOGY

Designed to acquaint students with the awareness of primary pharmacological effects, adverse reactions and administration of R.T. drugs. 20 clock hours. Two credits.

INT 106 RESPIRATORY THERAPY ORIENTATION

Students will be able to give basic care to in-hospital patients, and be aware of techniques and vocabulary in communicating. 140 clock hours. Six credits.

INT 107 RESPIRATORY SCIENCE

Students will be able to achieve an understanding of methods of measurements, preparation of solutions, and interpretation of statistical terms used in the practice of Respiratory Therapy. The student will also demonstrate an understanding of applied math, physics and chemistry relating to Respiratory Therapy. Prerequisites: MAT 109, INT 105. 40 clock hours. Four credits.

INT 108 CARDIOPULMONARY ANATOMY AND PHYSIOLOGY

Specialized course for knowing and applying the anatomy and physiological functions of the heart, lungs, and circulatory systems as they relate to respiratory therapy. Prerequisites: BIO 218. 40 clock hours. Four credits.

INT 109 GAS, AEROSOL, AND HUMIDITY THERAPY

To acquaint students with the familiarization of the indications, contraindications, and safe administration procedures for the following medical gases; oxygen, carbon dioxide, helium and oxygen mixtures and their physical properties. 40 clock hours. Four credits.

INT 111 CLINICAL MEDICINE I

To have students become acquainted with the basic concepts of medical practices as they relate to respiratory care and to know basic pathological processes as it applies to all diseases covered in this course. The students will be able to understand each disease from an etiological, symptomatic, diagnostic, therapeutic and prognostic viewpoint. Prerequisite: INT 108. 36 clock hours. Four credits.

INT 112 CLINICAL MEDICINE II

Continuation of Clinical Medicine I. Prerequisite: INT 111. 36 clock hours. Four credits.

INT 115 AIRWAY MANAGEMENT AND CARDIOPULMONARY RESUSCITATION

A study of the most common forms of upper airways obstruction and its correction. Also this course will give an understanding to the immediate assessment of patient needs and the institution of life-saving procedures. Prerequisites: BIO 218. 10 clock hours. One credit.

INT 116 PULMONARY REHABILITATION

To know and apply methods of chest physical therapy, breathing exercises, postural drainage, percussion and vibration and related home care of the patients. 12 clock hours. One credit.

INT 117 ARTIFICIAL VENTILATION

To understand basic concepts of ventilation, the rationale, indications and contraindications for artificial ventilation. Prerequisite: INT 109. 40 clock hours. Four credits.

INT 118 ACID/BASE BALANCE

To know and relate the concepts of pH, PaCO2 and PaO2, and abnormalities related to acid base disturbances such as acidoses and alkaloses. The students will be able to operate blood gas machines and related equipment of acid base balance. Prerequisite: INT 108. 20 clock hours. Two credits.

INT 119 PULMONARY FUNCTION TESTING

Students will have an understanding of the indications for pulmonary function testing in regard to diagnoses, disability evaluation and Public Health. They will acquire abilities to demonstrate basic spirometry, lung volumes and diffusion capacities testing techniques. Prerequisite: INT 108. 12 clock hours. One credit.

INT 126 BASIC E.K.G.

Students will be able to explain a normal electrocardrographic tracing and its relationship to the hemodynamic activity of the heart. Also the junctional anatomy, hemodynamic activity, and neuromuscular pathways of the heart will be reviewed. Prerequisites: BIO 218. 20 clock hours. Two credits.

TECHNICAL DIVISION

AGRICULTURE
CO-OP PRE-MANAGEMENT (AGR)

AGR 111 AGRICULTURE OF CO-OP CAREERS I

Designed to give students basic knowledge about various areas in cooperative business, to help students decide in which way they wish to concentrate. Fertilizer and agriculture credit will be covered. 30 clock hours. Field trips included. Three credits.

AGR 112 AGRICULTURE CO-OP CAREERS II

Continuation of AGR 111. Feeds, tires, batteries and accessories will be covered briefly. The major emphasis will be sales procedure and management styles needed by a co-op employee. 50 clock hours. 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; independents; cooperative organization; buy-sell; future 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 corporation; history; impact on American business, and opportunities in cooperatives. 50 clock hours. Field trips included. Five credits.

AGR 117 FEEDS AND FEEDING

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

AGR 118 FERTILIZATION AND SOIL

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

AGR 119 FEED PROCESSING AND GRAIN HANDLING

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

AGR 125 CHEMICALS

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

AGR 126 PETROLEUM

This course covers petroleum products sold by most co-ops. It defines the role and job responsibility of a co-op petroleum sales specialist. The four stroke cycle of a spark ignition engine and four cycle diesel engines are briefly covered. The course mainly covers product information, storage, care and operation of equipment and plant, warranties and selling. Two credits.

AGR 127 TIRES, BATTERIES AND ACCESSORIES

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

AGR 129 LP CARBURATION

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

AGR 135, 136, 235 AGRICULTURE ON THE JOB TRAINING

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

AGR 137 AGRICULTURE CHEMICALS

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

AGR 139 FERTILIZER

This course is designed to lead the student to a basic understanding of soil and soil nutrients. Using this knowledge, combined with soil test results, a proper combination of fertilizer nutrients can be recommended. This course makes use of filmstrip, cassette, and student manual. 30 clock hours. Three credits.

AGR 145 FERTILIZER BULK BLENDING

This course covers the blending of fertilizer to use on a per acre basis, blending plant equipment, inventory and mathematics used in formulating blends. For a usable understanding, students should spend lab time observing the actual process at a fertilizer plant. This time can be arranged with instructor. Prerequisite: Agriculture 139. 20 or 30 clock hours. Two or three credits.

AGR 146 ANHYDROUS AMMONIA

This course begins with the history of ammonia and progresses through the chemistry, production and application of the most widely used nitrogen fertilizer today. Consideration is given to use of ammonia in growing the following crops: corn, wheat and sugar beets. Safety in handling and preventive maintenance of equipment is also covered. Prerequisite: Understanding of Soils or Agriculture 139, 20 or 30 clock hours. Two or three credits.

AGR 147 CORN PRODUCTION

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

AGR 148 FEED

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

AGR 149 PROFITABLE PORK PRODUCTION

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

AGR 155 COOPERATIVE ORGANIZATION

This is a beginning course study of the operation of co-ops. The structure, organization, and operation of co-ops are explained. Questions concerning taxation, board operation, management and patronage refunds are adequately explained. The course requires a text and completion of ten unit tests and a final. Two credits.

AGR 156 BASIC MANAGEMENT

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

AGR 159 ANIMAL HEALTH

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

AVIATION TECHNOLOGY (AVT)

AVT 105 AVIATION SEMINAR

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

AVT 106 PRIVATE GROUND SCHOOL I

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

AVT 107 PRIVATE GROUND SCHOOL II

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

AVT 115 PRIVATE FLIGHT SIMULATOR

The student will be able to demonstrate a high level of skill in basic attitude instrument flying in the flight simulator upon completion of the course. Students will be expected to complete the flight syllabus for this course. Five credits.

AVT 116 PRIVATE FLIGHT LAB

Designed for completion of private pilot license. Includes: pre-solo and supervised solo, cross country, emergency procedures and basic instrument flying. The student will have necessary skill and knowledge to pass FAA private check ride upon succssful completion of course. Five credits.

AVT 117 COMMERCIAL FLIGHT LAB I

The first of four phases in preparation for the FAA commercial license. Includes an introduction to the basic commercial flight maneuvers. The student will have necessary skill and knowledge to pass a phase I flight check upon successful completion of the course. Five credits.

AVT 118 COMMERCIAL FLIGHT LAB II

Continuation of Commercial Flight Lab I with a greater emphasis on cross country flying. The student must complete the solo, night and cross country requirements for the FAA Instrument rating during this lab. The student will have the necessary skill and knowledge to pass a phase II flight check upon the successful completion of the course. Five credits.

AVT 119 CONVENTIONAL GEAR TRANSITION LAB

Includes orientation to tail wheel aircraft including principles of "P" factor and torque. The student will be able to solo a tail wheel aircraft upon successful completion of course. Two credits.

AVT 205 INSTRUMENT GROUND SCHOOL

Course includes advanced meteorology, IFR procedures, flight and navigation instruments, IFR regulations and procedures and other necessary information necessary for passing FAA instrument test. The student should be able to pass the FAA instrument test upon successful completion of the course. 60 hours. Six credits.

AVT 206 COMMERCIAL GROUND SCHOOL

Includes: A review of material for commercial flying and FAR part 135. The student should be able to pass the FAA commercial written test upon the successful completion of the course. 30 hours. Three credits.

AVT 207 BASIC GROUND INSTRUCTOR

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

AVT 208 ADVANCED GROUND INSTRUCTOR

Students practice experience in classroom presentation, advanced theory, and practice of classroom presentation, advanced meteorology, weight balance, and transport-type aircraft. 20 clock hours. Two credits.

AVT 209 INSTRUMENT GROUND INSTRUCTOR

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

AVT 215 INSTRUMENT FLIGHT SIMULATOR

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

AVT 216 INSTRUMENT FLIGHT LAB

This course includes necessary flight instruction to qualify the student to receive the FAA instrument rating. The student will have the necessary skill and knowledge to pass the FAA instrument check ride upon successfull completion of the course. Five credits.

AVT 217 COMMERCIAL FLIGHT LAB III

This is the final flight lab in preparation for the commercial license. The student will have the necessary knowledge to pass the FAA commercial flight check upon successful completion of the course. Five credits.

AVT 218 CERTIFIED FLIGHT INSTRUCTOR

Instructional methods theory, and practice, fundamentals of instruction and preparing a lesson plan. A review of flight maneuvers. The student will be able to pass the FAA CFI check ride upon successful completion of the course. Five credits.

AVT 219 INSTRUMENT FLIGHT INSTRUCTOR

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

AVT 225 MULTI-ENGINE TRANSITION LAB

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

ELECTRO-MECHANICAL TECHNOLOGY (ELM)

ELM 101 PRINT READING I

The student will be introduced to the system of lines and use of the basic tools for sketching. The student will perform pictorial sketching dealing with orthographic and isometric projections. The majority of his effort will be reading prints as they deal with machine parts, gears, pulleys, bearings, linkages and cams, and assembly and production drawings. 40 clock hours. Three credits.

ELM 102 PRINT READING II

The student will perform sketchings as they relate to electrical/electronic symbols, schematics, and wiring connections, interconnection, and printed circuit board layouts. He will again devote his major efforts to reading and interpreting prints about the above with additional exposure to welding and structural drawings. Prerequisite: Reading I or permission of the instructor. 40 clock hours. Three credits.

ELM 105 MECHANISMS AND COMPONENTS

Continued study of mechanical elements of electro-mechanical systems first introduced in Physics I. Individual components and mechanisms are studied in terms of functional and operational characteristics. Considered will be torque, inertia, work, power and efficiency as they relate to gears, pulleys, belts, chains, sprockets, cams, cam followers, levers, linkages and bearings. 80 clock hours. Six credits.

ELM 115 MECHANISMS
ELM 116 COMPONENTS

To assist night time students, ELM 105 has been divided into two courses, one titled Mechanisms and one titled Components. Subject matter in total is identical to that of ELM 105. Completion of each class will fulfill the requirements of ELM 105. ELT 115 and ELT 116 each are 40 clock hours. Three credits each.

ELM 205 AC-DC MACHINERY AND CONTROLS

A study of AC and DC motors and generators and their individual characteristics. Single phase and three phase characteristics will be compared. Electrical and mechanical controls will be studied for application to business and industry. Practical applications of these principles will be performed in the laboratory. Lubrication, alignment and coupling problems of rotating equipment will be studied. Prerequisites: ELT 100 and ELT 101 or permission of the instructor. 70 clock hours. Five credits.

ELM 206 INSTRUMENTATION AND CONTROLS

A study of sensing devices and components used in industry for measuring temperature, pressure, flow, counting and various other functions. The use of electronic digital devices for monitoring these functions and performing control functions in conjunction with other electro-mechanical devices will be coordinated with ELT 265. The accompanying laboratory will stress application of these priniciples. 70 clock hours. Five credits.

ELM 207 ELECTRO-MECHANICAL MACHINES AND SYSTEMS

Ties together all aspects of electro-mechanical curriculum. The study of electro-mechanical devices is expanded to permit the student to analyze various electronic, mechanical, and electro-mechanical devices as they interface into complete systems for specific applications. The student will exercise personal initiative in problem solving and report techniques, both oral and written. Where appropriate, the student will analyze and trouble-shoot operational systems where faults are intentionally introduced. Safety will become an important aspect of trouble-shooting and design. Prerequisites: ELM 265, ELM 205 and ELM 206, or permission of instructor. 100 clock hours. Eight credits.

ELECTRONICS TECHNOLOGY (ELT)

ELT 120 SURVEY OF ELECTRONICS

A broad introduction for the beginning student stressing fundamentals but also examining systems in block diagram form. An overview of the penetration of electronics in commercial, industrial, medical and military applications. 60 clock hours. Five credits.

ELT 121 DC FUNDAMENTALS

Direct current applications in passive linear networks. Network laws and theorems, mathematical analysis and laboratory experiments including attention to measurements and troubleshooting. 60 clock hours. Five credits. ELT 120 and 121 obtain credit for ELT 141.

ELT 122 ELECTRONICS MATH

An applied math course designed to build proficiency in solving electronic problems, algebraic operations, equations, quadratic equations, determinants, graphic relationships, exponentials, logarithms, right angle trigonometry, vectors, phasors, J-operator. Math exercises emphasize typical electronic applications. 60 clock hours. Five credits.

ELT 123 AC/DC CIRCUIT ANALYSIS

A continuation of the study of passive circuits emphasizing analysis of AC and time-varying conditions, practice in measurement and analysis, and troubleshooting. 60 clock hours. Five credits. ELT 122 and 123 obtain credit for ELT 142.

ELT 124 SOLID STATE CIRCUITS I

Introduction to active circuits. Development of analytical and graphic tools for practical application to commonly encountered solid state circuits. Attention to measurements and trouble shooting. 60 clock hours. Five credits.

ELT 125 SOLID STATE CIRCUITS II

Continuation of ELT 124. Extends development of analytical tools to increase complex solid state circuits including some integrated circuits. 60 clock hours. Five credits. ELT 124 and 125 obtain credit for ELT 143.

ELT 141 INTRODUCTION TO ELECTRONICS

Physics of electricity, basic circuits and systems are studied. Using mathematics and laboratory experiments, students discover fundamental concepts governing currents in passive circuits and the systems in which they will be functioning. Note: ELT 120 and 121 obtain credit for this course. Prerequisite: none. 120 clock hours. Ten credits.

ELT 142 AC/DC CIRCUIT ANALYSIS

A continuation of the study of passive circuits with emphasis on analysis of AC and time varying conditions. Similar to ELT 141, students develop practical measurement and analysis skills and become more aware of systems applications. Note: ELT 122 and 123 obtain credit for this course. Prerequisite: ELT 141 or ELT 120/121 or permission of instructor. 120 clock hours. Ten credits.

ELT 143 CIRCUITS AND APPLICATIONS

Emphasizes active electronic devices and the systems where they are employed. Students study a variety of integrated circuits and solid state devices where further emphasis is given measurement considerations and fault isolation methods as well as the basic analysis of operation. Note: ELT 124 and ELT 125 obtain credit for this course. Prerequisite: ELT 142 or ELT 122/123 or permission of the instructor. 120 clock hours. Ten credits.

ELT 146 ELECTRONICS PRINT READING AND SKETCHING

Familiarizes the student with drafting documentation encountered in the electronics industry. Presentation of terms and techniques employed in industry. Practice in sketching, reading/interpreting industry prints. Includes circuit board layout. 40 clock hours. Three credits.

ELT 255 LINEAR IC'S AND SENSORS

Study of linear integrated circuits (especially operational amplifiers). Stresses analysis of commonly encountered applications. Some attention given to sensors and actuators. Prerequisite: ELT 143 or permission of instructor. 60 clock hours. Five credits.

ELT 266 ELECTRONIC DESIGN AND FABRICATION

Proper chassis layout and equipment arrangements (packaging), soldering and other assembly or re-work techniques. Building a functional unit of an approved type is undertaken. 40 clock hours. Three credits.

ELT 267 INTRODUCTION TO NEW ELECTRONIC INDUSTRY DEVELOPMENTS

New devices including new developments in general. Students assist in current literature search and presentation of findings. Current hiring practices and conditions, desirable employee attitudes, proper conduct during an interview and typical entrance exam questions are discussed. 30 clock hours. Three credits.

ELT 268 PRACTICAL SOLID STATE TROUBLE SHOOTING

A logical approach to troubleshooting modern solid state equipment. Lab and industrial systems stressed. Also covers some electronics used in homes. 40 clock hours. Three credits.

ELT 271 COMMUNICATIONS I

Detailed analysis of fundamental circuits of communication systems. Emphasizes mathematical understanding of circuit action; also, theoretical concepts. Laboratory experiments complement lecture/demonstration. Prerequisite: ELT 143 or permission of instructor. 60 clock hours. Five credits.

ELT 272 COMMUNICATIONS II

Systems approach will be major emphasis as individual circuits studied in the previous course will be combined into complete systems. Transmission methods, transmission lines, antennas and introduction to microwave techniques are studied. Some special methods will be included that enhance information transmission from point to point. Laboratory experiments are included. Prerequisite: ELT 271 or permission of instructor. 60 clock hours. Five credits.

***ELT 273 COMMUNICATIONS III**

Intent is to assist the student in obtaining the FCC second class radio telephone license. Based on typical FCC license examination questions, study of FCC regulations and review of electronic circuit theory. Prerequisite: ELT 272 or permission of instructor. 60 clock hours. Five credits.

***ELT 281 COMPUTERS I**

Digital fundamentals beginning with the block diagram of a general purpose digital computer. Number systems, IC gates, Boolean algebra, flip-flops and applications including arithmetic circuits. Some software attention. Reference is made to systems (micro-processor) at appropriate points. Prerequisite: ELT 143 or permission of instructor. 60 clock hours. Five credits.

***ELT 282 COMPUTERS II**

Continuation of hardware and software elements of digital machines. Counters, registers, ROM, RAM and reference to systems (micro-processor) continues. Prerequisite: ELT 281 or permission of instructor. 60 clock hours. Five credits.

***ELT 283 COMPUTERS III**

Micro-processors are employed to obtain systems experience and application of fundamentals. Hardware and software studies and trade offs between hardware/software. Organization of a micro-processor; clock, CPU, I/O, bus concepts, EPROM, RAM, programming and peripherals. Prerequisite: ELT 282 or permission of instructor. 60 clock hours. Five credits.

***ELT 284 COMPUTERS IV**

Special studies in computer systems. Studies can include new micro-processor types, interfacing, hardware/software development. Projects can be instructor assigned or student proposed (and approved). May be taken concurrently with ELT 283. 60 clock hours. Five credits.

***Electronics electives --** Additional courses may be designed or permitted in the elective area.

MECHANICAL AND CIVIL ENGINEERING TECHNOLOGY (MCE)

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

MCE 101 DRAFTING FUNDAMENTALS (EVENING)

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

MCE 102 DIMENSIONING AND PICTORIAL DRAFTING (EVENING)

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

MCE 103 DRAFTING GRAPHICS (EVENING)

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

MCE 104 TECHNICAL DRAFTING (EVENING)

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

MCE 105 STATICS AND MECHANICS

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

MCE 111 DRAFTING I

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

MCE 112 DRAFTING II

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

MCE 113 DRAFTING III

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

MCE 201 DRAFTING IV

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

MCE 202 DRAFTING V

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

MCE 203 DRAFTING VI

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

MCE 206 HYDRAULICS AND PNEUMATICS

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

MCE 207 MATERIALS AND PROCESSES

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

MCE 208 STRENGTH OF MATERIALS

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

MCE 209 ENGINEERING PROBLEMS

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

MCE 211 BASIC FIELD SURVEYING I

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

MCE 212 BASIC FIELD SURVEYING II

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

MCE 221 APPLIED DESIGN DRAFTING I (EVENING)

Continuation of MCE 104. Engineering drafting problems are developed and solved in the area of architectural, structural, electronic and electrical, and topographic drafting. 60 clock hours. Four credits.

MCE 222 APPLIED DESIGN DRAFTING II (EVENING)

Continuation of MCE 221 in the areas of topographic, tool, patent, welding and fluid power drafting problems. Beginning design concepts and procedures are discussed. 60 clock hours. Four credits.

MCE 223 MACHINE DESIGN DRAFTING I (EVENING)

Continuation of MCE 222 emphasizing basic engineering problems primarily of a civil and mechanical nature. Emphasis is on design, procedures and graphic solutions to production drawing. 60 clock hours. Four credits.

MCE 224 MACHINE DESIGN DRAFTING II (EVENING)

Continuation of MCE 224 utilizing knowledge of mathematics and sciences to solve practical problems of machine component design. 60 clock hours. Four credits.

VOCATIONAL: TECHNICAL RELATED (VTR)

VTR 101 BASIC TECHNICAL MATHEMATICS

A basic arithmetic review with introduction to applied algebra and formula application. 70 clock hours. Six credits.

VTR 102 APPLIED TECHNICAL MATHEMATICS

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

VTR 105 INDUSTRIAL COMMUNICATIONS

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

VTR 106 INDUSTRIAL ECONOMICS

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

VTR 107 ELEMENTS OF TECHNICAL WRITING

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

VTR 108 INDUSTRIAL PHYSICS I

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

VTR 109 INDUSTRIAL PHYSICS II

Fundamentals of heat, light, sound and properties of solids, liquids and gases understanding principles involved and mathematics proficiency in industrial applications. 70 clock hours. Five credits.

TRADES AND INDUSTRY DIVISION

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

ABR 190 INTRODUCTION TO AUTO BODY

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

ABR 101 AUTO BODY WELDING

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

ABR 102 BASIC STRAIGHTENING

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

ABR 103 BASIC REFINISHING

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

ABR 111 DAMAGE REPAIR

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

ABR 112 PANEL REPLACEMENT

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

ABR 121 ELECTRICAL AND ALIGNMENT

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

ABR 122 ADVANCED REFINISHING

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

ABR 123 DAMAGE APPRAISAL (ESTIMATING)

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

ABR 141 AUTO BODY REPAIR I

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

ABR 142 AUTO BODY REPAIR II

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

ABR 143 AUTO BODY REPAIR III

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

ABR 151 AUTO REFINISH I

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

ABR 152 AUTO REFINISH II

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

ABR 153 AUTO REFINISH III

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

ABR 201 QUARTER PANEL REPLACEMENT

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

ABR 202 BASIC SHEET METAL REPLACEMENT

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

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

The students will be able to remove and replace door skin, and front sheet metal including alignment and refinishing. They will also be able to remove and replace a quarter panel, repair inner panels and refinforcements. They will align the sheet metal and complete the job including refinishing. 60 clock hours. Four credits. Prerequisites: ABR 202, or ABR 201 or instructor approval.

ABR 211 BASIC FRAME REPAIR

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

ABR 212 CONVENTIONAL FRAME REPAIR

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

ABR 213 UNITIZED FRAME REPAIR

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

ABR 221 AUTO BODY REBUILDING I

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

ABR 222 AUTO BODY REBUILDING II

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

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

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

ABR 241 AUTO BODY REPAIR IV

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

ABR 242 AUTO BODY REPAIR V

The student will be able to identify and diagnose types of frames and damages. They will be familiar with the repair methods and equipment used in the alignment of conventional and utilized frames and bodies. Student will also be able to write an accurate estimate. 150 clock hours. Twelve credits.

ABR 243 AUTO BODY REPAIR VI

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

AUTOMOTIVE MECHANICS TECHNOLOGY (AMT)

AMT 104 BRAKE REPAIR

This course is designed to prepare the student for the specialty work of modern automobile brake repair and adjustment. Conventional as well as disc systems are studied and worked on. 60 clock hours. Four credits.

AMT 105 ADVANCED ELECTRICAL

This course is designed to give the student the theoretical and practical knowledge necessary to test and repair electrical units on modern cars. 60 clock hours. Four credits.

AMT 106 TUNE-UP

This course is designed to give the student the basic skills and knowledge in tune-up and service procedures as related to the automobile. Upon completion of the course the student will be able to diagnosis and service the components of the conventional point and electronic ignition system. 60 clock hours. Four credits.

AMT 107 ADVANCED ENGINE TUNE-UP

This course is designed to give the student basic skills and knowledge in fuel systems and service procedures as related to the automobile. Upon completion of the course the student will be able to diagnosis, and repair or overhaul the various types of carburetors found on American and most foreign cars. 60 clock hours. Four credits.

AMT 108 AUTOMATIC TRANSMISSIONS

This course is designed to give the student the basic skills and knowledge in automatic transmission services as it relates to the automobile. Upon completion of the course the student will be able to diagnosis and service automatic transmissions (minor repair - includes seal replacement, band adjustment, linkage adjustment, and transmission removal.) 60 clock hours. Four credits.

AMT 115 FOREIGN CAR TUNE-UP

This course is designed to develop the skills and knowledges necessary to correctly tune the engines on foreign cars. 60 clock hours. Four credits.

AMT 116 AUTOMOTIVE EMISSION CONTROL

This course is designed to develop the skills and knowledge to enable the student to make repairs and adjustments on all makes of vehicle emission controls. 60 clock hours. Four credits.

AMT 125 AUTO CERTIFICATION REFRESHER

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

AMT 131 BRAKES, TRANSMISSIONS AND FINAL DRIVES -- A

Students develop necessary skills and knowledge to accurately diagnose and repair various brake systems, conventional power, self-adjusting and disc type, during the first half of the course. In the second half they will overhaul standard transmission, clutches, drive shafts, and differentials. 150 clock hours. Twelve credits.

AMT 132 STEERING AND SUSPENSION SYSTEMS -- A

Students develop necessary skills and knowledge to repair all parts of the suspension systems, 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 adjustment such as doors, hoods, and truck lids normally performed by automotive mechanics. 150 clock hours. Twelve credits.

AMT 133 FUEL SYSTEMS AND TUNE-UP -- A

Students develop necessary skills and knowledge to perform complete major engine tune-ups and carburetor overhaul. Theory and overhaul of single, two-and four-barrel carburetors, fuel pumps, exhaust emission 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 strobscrope, oscilloscope, exhaust analyzer, and all types of engine testers are used. 150 clock hours. Twelve credits.

AMT 136 EMISSION CONTROL

This course provides a basic knowledge and understanding of the various emission control systems and how they function on the automobile to aid in reducing emissions. Such polutants as carbon monoxide, hydrocarbons and nitrogen oxides will be tested in the shop on the latest test equipment available. Prerequisite: Instructor's permission to enter class, or Basic Ignition Systems and Basic Fuel Systems. 50 clock hours. Five credits.

AMT 141 BRAKES, TRANSMISSIONS AND FINAL DRIVES -- B

Students develop necessary skills and knowledge to accurately diagnose and repair various brake systems, conventional power, self-adjusting and disc type, during the first half of the course. In the second half they will overhaul standard transmission, clutches, drive shafts, and differentials. "Six hours of class required a week. Work experience credit will be given for approved full-time current work as an auto mechanic." (This is equivalent to AMT 131-A). Twelve credits.

AMT 142 STEERING AND SUSPENSION SYSTEMS -- B

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

AMT 143 FUEL SYSTEMS AND TUNE UP -- B

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

AMT 190 INTRODUCTION TO AUTOMOBILE MECHANICS

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

AMT 206 ADVANCED DIAGNOSIS

This course is designed to advance experienced mechanics in the field of Automotive diagnosis and troubleshooting. 150 clock hours. Twelve credits.

AMT 231 AUTOMOTIVE ENGINES -- A

Students learn construction, operation, parts identification, and service procedures on all types of modern automotive engines. Study of cooling and lubricating systems included. Students begin on mock-up units and progress to 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 -- A

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 fastest electrical testing equipment to diagnose problems in automotive electrical units and circuits. 150 clock hours. Twelve credits.

AMT 233 AIR CONDITIONING AND COMFORT CONTROLS

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

AMT 234 AUTOMATIC TRANSMISSIONS AND SERVICE PRACTICE--A

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

AMT 241 AUTOMOTIVE ENGINES -- B

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. "Six hours of class required a week. Work experience credit will be given for approved full-time current work as an auto mechanic." (This is equivalent to AMT 231-A). Twelve credits.

AMT 242 ADVANCED ELECTRICAL -- B

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. "Six hours of class required a week. Work experience credit will be given for approved full-time current work as an auto mechanic." (This is equivalent to AMT 232-A). Twelve credits.

AMT 244 AUTOMATIC TRANSMISSIONS AND SERVICE PRACTICE--B

Students learn principles of hydraulics, planetary gear sets, and power flow through modern automatic transmissions. Students gain experience in disassembly, inspection, replacement of defective parts, and complete diagnosis of functions of each component. All late model types of automobile transmission covered. "Six hours of class required a week. Work experience credit will be given for approved full-time current work as an auto mechanic." (This is equivalent to AMT 234-A). Twelve credits.

BUILDING CONSTRUCTION (BCS) & (BCT)

BSC 102 BASIC CABINETRY

This course will provide the student with necessary instruction for skill development and understanding in the area of basic cabinet construction. 60 clock hours. Four credits.

BCS 104 CABINETRY II

After completion of this course the student will be able to construct detailed cabinets using intermediate techniques in machine and hand tool joining. He will be able to analyze and design cabinets for home, office, and shop use. 60 clock hours. Four credits.

BCS 111 BUILDING CONSTRUCTION I

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

BCT 115 CONCRETE

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

BCT 117 BASIC TOOLS AND MATERIALS

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

BCT 121 FRAMING I

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

BCS 122 BUILDING CONSTRUCTION II

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

BCT 125 EXTERIOR

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

BCT 126 MASONRY

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

BCT 127 INTERIOR FINISH

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

BCT 131 BASIC MATH AND ESTIMATING

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

BCS 133 BUILDING CONSTRUCTION III

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

BCT 135 INTERIOR TRIM AND CABINETS

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

BCT 136 PAINTING AND FINISHING

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

BCT 141 BASIC ARHCITECTURAL DRAFTING AND PRINT READING

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

BCT 160 ORIENTATION TO BUILDING CONSTRUCTION

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

BCS 190 INTRODUCTION TO BUILDING CONSTRUCTION

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

BCS 211 BUILDING CONSTRUCTION IV

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

BCT 215 PREPARATION AND LAYOUT

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

BCT 221 FRAMING II

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

BCS 222 BUILDING CONSTRUCTION V

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

BCT 230 CONSTRUCTION ESTIMATING I

This course is a basic refresher course allowing the student to establish a set of guidelines from which a complete material take off can be prepared. 30 clock hours. Three credits.

BCT 231 CONSTRUCTION ESTIMATING II

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

BCS 233 BUILDING CONSTRUCTION VI

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

BCT 236 BUILDING CODES

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

BCT 237 LEGAL PROCEDURES AND PRACTICES

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

BCT 241 ARCHITECTURAL DRAFTING II

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

CHILD CARE TEACHER (CCT)

CCT 100 INTRODUCTION TO EARLY CHILDHOOD EDUCATION

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

CCT 101 WRITTEN COMMUNICATION FOR THE PRESCHOOL TEACHER

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

CCT 102 ORAL COMMUNICATION FOR THE PRESCHOOL TEACHER

The student will develop vocational applications for oral communication skills basic to the field of early childhood education. To develop an appreciation for the process of attentive listening in a variety of settings familiar to the child care worker. To develop the ability to differentiate between personal attitudes, values and beliefs and professional outcomes. 30 clock hours. Three credits.

CCT 105 FIRST AID

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

CCT 106 CHILDREN'S LITERATURE

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

CCT 131 PRACTICE TEACHING I

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

CCT 132 PRACTICE TEACHING II

Continuation of Practice Teaching I. Student will be responsible for making plans and working with small groups of young children. Prerequisite: CCT 131. 80 clock hours. Four credits.

CCT 133 VOCATIONAL TEACHING EXPERIENCE

Course designed for the student to work as a teacher aide under the direction of a qualified teacher in a setting for young children, closely supervised by an instructor. Prerequisite: CCT 132. 80 clock hours. Four credits.

CCT 141 ACTIVITIES FOR YOUNG CHILDREN

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

CCT 150 SKILLS IN CLASSROOM EQUIPMENT

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

CCT 151 NUTRITION FOR YOUNG CHILDREN

The study of the essential nutrients and their function for a growing child. Student will be able to evaluate menus and snacks for home and institutional food services and apply nutrition education in the preschool classroom. 40 clock hours. Four credits.

CCT 161 CHILD GROWTH AND DEVELOPMENT I

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

CCT 162 CHILD GROWTH AND DEVELOPMENT II

Continuation of Child Development I. Study of child growth patterns with an emphasis on the child's learning environment and language skills. The student will investigate behavior management techniques. Prerequisite: CCT 161 or permission of instructor. 30 clock hours. Three credits.

CCT 201 BUSINESS MANAGEMENT FOR CHILD CARE CENTERS

The record-keeping procedures necessary for the successful business operation of a child care center will be studied. Students will practice with forms for financial reports and analysis of a small service business. Prerequisite: CCT 101 & CCT 102. 30 clock hours. Three credits.

CCT 202 ADMINISTRATION OF CHILD CARE CENTERS

A study of the organization and management of the various chid care programs. The student will examine the goals, staffing, planning, and administrative procedures necessary for directing an early childhood program. 40 clock hours. Four credits.

CCT 231 PRACTICE TEACHING III

Continuation of Practice Teaching II. Students will develop individual teaching skills in a guided classroom teaching experience. Unit planning for the young child's classroom will be practiced. Prerequisite: CCT 133. 80 clock hours. Four credits.

CCT 232 HUMAN RELATIONS IN THE CLASSROOM

An assessment of the teacher's role in the classroom. The emphasis of this team teaching experience is the development of a positive and constructive attitude towards self appraisal and the appraisals of others. Prerequisite: CCT 231. 100 clock hours. Five credits.

CCT 233 FAMILY AND COMMUNITY RELATIONS

A team teaching experience with an emphasis on the effects of family, class and ethnic value systems on the young child's personality. Prerequisite: CCT 232. 100 clock hours. Five credits.

CCT 241 METHODS OF TEACHING THE YOUNG CHILD

Students learn to prepare daily schedules and materials, specific techniques for teaching in a living-learning environment. Prerequisite: CCT 141 or permission of the instructor. 40 clock hours. Four credits.

CCT 251 CREATIVE FOODS AND NUTRITION

A practical course in planning, preparing and evaluating foods served to young children. Laboratory experiences will include quantity cooking, preserving nutrients and exploring foods with children. 40 clock hours. Three credits.

CCT 255 SCIENCE FOR PRESCHOOL TEACHERS

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

CCT 265 PLAYGROUND DEVELOPMENT

After visiting and evaluating various playgrounds, the students will plan and construct playground equipment suitable for a particular site and appropriate for young children's developing abilities. 80 clock hours. Four credits.

GRAPHIC TECHNOLOGY (GRT)

GRT 111 GRAPHIC TECHNOLOGY I

This course will introduce the student to the printing industry, the types of work and skills related to the industry and its history. Upon completion of this course, the student will have been given the opportunity to acquire a knowledge of typography and basic skills in the fundamentals of strike-on composition, photo composition, layout and paste-up techniques for one color reproduction by the offset printing process. 150 clock hours. Ten credits.

GRT 112 GRAPHIC TECHNOLOGY II

This course will introduce the student to process photography and plate making. Upon completion of the course, the student will have been given the opportunity to acquire a basic knowledge of the principles and fundamental practices related to the process camera, film, film processing, line and halftone photography, stripping and plate making for one color reproduction by the offset printing process. 150 clock hours. Ten credits.

GRT 113 GRAPHIC TECHNOLOGY III

This course will introduce the student to press operation and finishing procedures. Upon completion of the course, the student will have been given the opportunity to acquire a basic knowledge of the principles and fundamental practices in the operation of a variety of makes of duplicator size offset presses and manually operated bindery equipment. 150 clock hours. Ten credits.

GRT 190 INTRODUCTION TO GRAPHIC TECHNOLOGY

This course will introduce the student to procedures of the printing industry. Emphasis will be on a broad over-view of the duplicating processes with an emphasis on offset printing. Upon completion, the student will have a basic understanding of the printing industry. 30 clock hours. Two credits.

GRT 210 GRAPHIC MATERIALS ACQUISITION

This course will introduce the student to purchasing and cost analysis. Upon the completion of the course, the student will have been given the opportunity to acquire a basic knowledge of paper, supplies and equipment purchasing; discounts, shipping charges and cost analysis. 30 clock hours. Three credits.

GRT 211 GRAPHIC TECHNOLOGY IV

This course deals with advanced photocomposing techniques and an introduction to pre-press preparation of copy for multi-page and multi-color reproduction. Upon completion of the course, the student will have been given the opportunity to acquire a basic knowledge of the principles and fundamental practices related to sophisticated photocomposer techniques and operation by data storage, layout and paste-up for multi-color reproduction and imposition of multiple pages. 150 clock hours. Ten credits.

GRT 212 GRAPHIC TECHNOLOGY V

Upon completion of this course, the student will have been given the opportunity to acquire a basic knowledge of advanced process camera techniques related to multi-color reproduction and stripping procedures related to plate making for multi-color, multi-page reproduction. 150 clock hours. Ten credits.

GRT 213 GRAPHIC TECHNOLOGY VI

Upon completion of this course, the student will have been given the opportunity to acquire a basic knowledge of duplicator size press operation as it relates to color registration. In addition, as near production type situation will be simulated requiring students to produce jobs from roughs through press proofs from customer specifications. 150 clock hours. Ten credits.

GRT 214 GRAPHIC TECHNOLOGY VII

Upon completion of this course, the student will have been given the opportunity to acquire a basic knowledge of duplicator size press operation as it relates to color and two-sided registration. In addition, pressure adjustments will be covered in detail along with minor repair, maintenance and lubing of the equipment. 150 clock hours. Ten credits.

GRT 215 GRAPHIC TECHNOLOGY VIII

This course will introduce the student to large sheet fed offset press and automated bindery equipment operation. Upon completion of this course, the student will have been given the opportunity to acquire a basic knowledge of the principles and fundamental practices in preparing and running a large offset press as well as automated bindery equipment including book stitcher, folder and collator. 150 clock hours. Ten credits.

MOTORCYCLE AND SPORTSCRAFT ENGINES (MSE)

MSE 100 MOTORCYCLE AND SPORTSCRAFT ENGINES I

Students will learn and understand how to use general hand tools and specialized shop equipment used in repair of motorcycle and sportscraft engines. They will understand power mechanics as it applies to both four-stroke cycle and two-stroke cycle engines. They will perform various services and repairs, including complete engine overhaul on all types of four-and two-stroke motorcycle and sportscraft engines. 150 clock hours. Twelve credits.

MSE 101 MOTORCYCLE AND SPORTSCRAFT ENGINES II

Students obtain an understanding and working knowledge of basic electricity (DC) in areas of electron theory, magnetism, magnetic induction, electrical terms and properties, conductors, insulators, and batteries. They will understand principles of operation and service all types of ignition system used on motorcycles and sportscraft engines, including conventional battery-contact point system flywheel and unit type magnetos, energy transfer system, and capacitor discharge ignition (CD) systems. They will be able to service all types of motorcycle and sportscraft engine fuel systems including float and diaphram carburetors, vacuum type fuel pumps, and/or different types of fuel tanks and line. 150 clock hours. Twelve credits.

MSE 102 MOTORCYCLE AND SPORTSCRAFT ENGINES III

Students service both AC and DC charging systems and electrical starting system as used on motorcycles, outboards, snowmobiles, and other units. They develop skill necessary to service outboard power head (special features) and lower units, diagnose boat performance problems, and tank test outboard engines. Other skills developed include servicing motorcycle wheels and brakes, clutches, and transmissions. They will also understand basic design and operation of rotary engines. 150 clock hours. 12 credits.

MSE 105 OUTBOARD MOTOR REPAIR

The course will introduce the student to the basic terms and concepts of automotive electricty; the principles of operation of battery and magneto type ignition systems and ignition tuneup procedures; checking and testing the electric starter and charging system; principles of carburetion and carburetor adjustments; cooling systems; gear housing; propeller selection; boat performance; and power head test and repairs. 30 clock hours. 2 credits.

MSE 107 MOTORCYCLE REPAIR I

The course will introduce the student to modern shop tools, methods, and procedures. A study of power mechanics and treatment of the complete engine overhaul is covered. The activities will involve work in the lab on training engines and actual live work on patron owned unit. 30 clock hours. 2 credits.

MSE 108 MOTORCYCLE REPAIR II

A brief review of basic electrical terms and electrica concepts. The operation and servicing of bettery operated, magneto, and energy transfer ignition systems. A study of the principles of carburetion, and the servicing of motorcycle carburetors. The student will perform lab assignments and work on live units in the shop. 30 clock hours. 2 credits.

MSE 190 INTRODUCTION TO MOTORCYCLE AND SPORTSCRAFT ENGINES

The course will introduce the student to motorcycle and sportscraft engines. Emphasis will be on safety and a knowledge of the motorcycle and sportscraft mechanics. Upon completion the student will have a basic understanding of power mechanics and other mechanical and electrical systems as applied to modern motorcycles and sportscraft. 30 clock hours. Two credits.

WELDING (WLT)

WLT 101 OXY-ACETYLENE WELDING I

After successful completion of this course the participant will be trained to safely operate oxy-acetylene equipment and to weld the common joints used in industry in the flat, horizontal, vertical and over head positions. 60 clock hours. Four credits.

WLT 102 OXY-ACETYLENE WELDING II

After successful completion of this course the participant will be able to weld all the joints used in industry, in the horizontal and overhead positions. 60 clock hours. Four credits.

WLT 103 OXY-ACETYLENE WELDING III

After successful completion of this course the participant will be able to weld 3/16" mild steel, pipe and tubing, cast iron, and braze cast iron, mild steel in all positions -- silver braze and hard surface. 60 clock hours. Four credits.

WLT 111 SHIELDED METAL ARC I-A

Upon successful completion of the course the participant should be able to operate SMAW equipment properly and safely and have the basic skill and theory needed to weld in the flat position using E-6013, E-7014, E-7024, E-6010, and E-6011; and weld fillet welds in the horizontal, vertical, and overhead positions using E-6010 and E-6011. 60 clock hours. Four credits.

WLT 112 SHIELDED METAL ARC I-B

Upon successful completion of the course the participant should be able to make pass fillet welds in all positions using E-6010, E-6011, E-7018, and E-6013; downhill welding using E-6010 and showing basic skill and knowledge. 60 clock hours. Four credits.

WLT 113 SHIELDED METAL ARC I-C

Upon completion of the course the participant will be able to weld sheet metal in all positions using various electrodes; weld tubing and light to heavy metal; carbon arc cutting and gauging; hard surfacing; and showing basic skills and have a knowledge of field testing; weld inspection and, quality control. 60 clock hours. Four credits.

WLT 121 SHIELDED METAL ARC II-A

Upon successful completion of the course the participant will be able to make multiple pass fillet welds in the horizontal and vertical positions to meet American Welding Society specifications. 60 clock hours. Four credits.

WLT 122 SHIELDED METAL ARC II-B

Upon successful completion of the course the participant will be able to make multiple pass fillet welds in the vertical position using E-6010 and E-7018 electrodes to meet American Welding Society specifications. 60 clock hours. Four credits.

WLT 123 SHIELDED METAL ARC II-C

Upon successful completion of the course the participant will be able to make multiple pass fillet welds in the overhead position using various electrodes and meeting American Welding Society specifications. 60 clock hours. Four credits.

WLT 135 METALLURGY

Students recognize raw materials, equipment and changes that occur when metals are manufactured, heat-treated, and welded. 50 clock hours. Five credits.

WLT 141 OXYGEN/ACETYLENE WELDING

Students weld and bronze all common fillet and butt joints in all positions normally used by industry; proper oxygen/acetylene cutting techniques of various thicknesses of metal will also be practiced. Proper use of equipment will be demonstrated by each participant at all times. American Welding Society standards will be criteria used to judge objectives. 150 clock hours. Twelve credits.

WLT 142 SHIELDED METAL ARC I

Upon successful completion of the course the partcipant will have very basic welding skills, in all positions, using all common welding electrodes. 150 clock hours. 12 credits.

WLT 143 SHIELDED METAL ARC II

Students weld all common fillets in all positions normally used by industry, accomplished by using various types of electrodes and thicknesses of carbon steel. Students use proper and safe work habits in cutting and preparing metal. American Welding Society standards will be criteria used to determine objective completion and cutting practice. 150 clock hours. Twelve credits.

WLT 190 INTRODUCTION TO WELDING

The course will introduce the student to oxy-actylene arc welding. Emphasis will be on safety and a knowledge of the welding profession. Upon satisfactory completion the student will have a basic understanding of oxy-acetylene and arc welding. 30 clock hours. Two credits.

WLT 201 SHIELDED METAL ARC PIPE-A

Upon successful completion of courses number 201, 202, and 203 the participant will be able to properly level, fit up and weld pipe with E-6010 and 7018 electrodes in 2G, 5G, and 6G positions in accordance with American Welding Society specifications. 60 clock hours. Four credits.

WLT 202 SHIELDED METAL ARC PIPE-B

Upon successful completion of course 201, 202, and 203 the participant will be able to properly bevel, fit up and weld pipe with E-6010 and E-7018 electrodes in 2G, 5G, and 6G positions in accordance with American Welding Society specifications. 60 clock hours. Four credits.

WLT 203 SHIELDED METAL ARC PIPE-C

Upon successful completion of course 201, 202, and 203 the participant will be able to properly bevel, fit up and weld pipe with E-6010 and E-7018 electrodes in 2G, 5G, and 6G positions in accordance with American Welding Society specifications. 60 clock hours. Four credits.

WLT 211 SHIELDED METAL ARC III-A

Upon successful completion of the course the participant will be able to weld beveled butt joints in the vertical and horizontal positions using E-6010 electrodes to meet American Welding Society specifications. 60 clock hours. Four credits.

WLT 212 SHIELDED METAL ARC III-B

Upon successful completion of the course the participants will be able to weld beveled butt joints in the overhead position using E-6010 electrodes and in the vertical position using E-7018 electrodes and meeting the American Welding Society specifications. 60 clock hours. Four credits.

WLT 213 SHIELDED METAL ARC III-C

Upon successful completion of the course the partcipant will be able to weld beveled butt joints in the horizontal and overhead welding positions using E-7018 electrodes and meeting American Welding Society specifications. 60 clock hours. Four credits.

WLT 221 MIG WELDING I

Upon successful completion of the course the participant should be able to operate GMAW equipment properly and safely, weld fillet welds with .035 wire in all positions, square groove butt joints in all positions, and the welding of various joints on sheet metal with job entry level skills. 60 clock hours. Four credits.

WLT 222 MIG WELDING II

Upon successful completion of the course the participant should be able to operate GMAW equipment properly and safely, weld vee grove butt joints in the vertical, horizontal, and overhead positions, and be able to weld various joint types using .045 mild wire with job entry level skills. 60 clock hours. Four credits.

WLT 223 MIG WELDING III AND TIG WELDING

Upon successful completion of the course the participant should be able to operate GMAW equipment properly and safely. They should weld using consumable spot welding, weld various joints in the flat and horizontal positions using 1/16" flux cored wire, weld stainless steel and aluminum using the GMAW process with job entry level skill. 60 clock hours. Four credits.

WLT 236 SPECIAL PROBLEMS IN WELDING

Students improve skills in welding processes and positions as they and instructors feel necessary to meet students vocational goals. 150 clock hours. Twelve credits.

WLT 241 SHIELDED, METAL, ARC III

Students weld beveled butt joints on ¼" to ½"plate in all positions using various electrodes. American Welding Society standards will be criteria used to determine objective completion. Prerequisite: WLT 142, WLT 143, or ten hours of oxygen/acetylene safety and cutting practice. 150 clock hours. Twelve credits.

WLT 242 SHIELDED METAL ARC PIPE WELDING

Upon successful completion of the course the participant will be able to properly bevel, fit up and weld pipe with E-6010 and 7018 electrodes in 2G, 5G, and 6G positions in accordance with American Welding Society specifications. 150 clock hours. Twelve American Welding Society specifications. 150 clock hours. Twelve credits.

WLT 243 TIG AND MIG WELDING

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

VOCATIONAL: TRADES AND INDUSTRY (VTI)

VTI 101 SAFETY AND FIRST AID

Student recognizes importance of good safety practices and results of poor practices. They recall hazard and methods of accident prevention related to vocational area and basic first aid procedures. 20 clock hours. Two credits.

VTI 103 INDUSTRIAL COMMUNICATIONS

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

VTI 105 INDUSTRIAL ORGANIZATIONS AND INSTITUTIONS

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

VTI 121 SHOP MATH

Student will recall concepts and solve problems relating to his vocational area of study. 30 clock hours. Three credits.

VTI 124 SERVICE MANAGEMENT

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

VTI 125 COLORADO STATE SAFETY INSPECTION

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

VTI 135 INDUSTRIAL MATH AND SCIENCE

The student will recall concepts and solve problems in basic math and in basic physics as they relate. 50 clock hours. Five credits.

VTI 136 SHOP PRACTICE

Students will learn and understand various shop procedures that are common to all types of automotive repair shops. Study will include the use and care of basic hand tools, shop equipment, measuring instruments, service reference materials and interpreting automotive drawings. 30 clock hours. Three credits.

VTI 137 PARTS MANAGING FUNDAMENTALS

Students will study the basic operation of typical parts departments. This will include the use of parts manuals, cross references, price manuala, micro fiche systems, and inventory control. 30 clock hours. Three credits.

VTI 175 WELDING CERTIFICATION AND EMPLOYMENT

Students are acquainted with certification requirement for different industries and possibilities in professions. Prerequisites: WLT 141, WLT 142, WLT 143, WLT 241, WLT 242. 50 clock hours. Five credits.

VTI 181 BASIC BLUEPRINT READING

Students learn to read shop drawings and standard welding symbols. Prerequisite: Welding student standing or permission of instructor. 30 clock hours. Three credits.

VTI 182 WELDING LAYOUT

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

VTI 183 WELDING INDUSTRY

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

AIMS JUNIOR COLLEGE DISTRICT COMMITTEE

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M.A., University of Northern Colorado.

GLENN E. BAILEY (Building Construction)
Eighteen years construction experience.

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Welding Certificate, Hobart Technical Center; Colorado State University; Eighteen years in welding media - eight years in field, consisting of production welding, bridge construction, gas pipelines and maintenance welding. Eleven years in testing and laboratory work.

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B.A., University of Montana; M.A., University of Montana; M.A.L., University of Denver.

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B.S., University of Missouri at Rolla; M.B.A., Arizona State University; Advanced Graduate Study, Colorado State University, University ofhNorthern Colorado; Twenty-two years industrial experience. Registered Professional Engineer.

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TWO-YEAR PROGRAM WORKSHEET

Name _____ **Advisor** _____

First Year	Cr. Hrs.	Second Year	Cr. Hrs.
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Course Code Course Title		Course Code Course Title	
Winter		**Winter**	
Spring		**Spring**	