## MSI Separator Sheet

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1988-1989
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CATALOG 1988-89

AIMS<br>COMMUNITY<br>COLLEGE<br>Comprehensive<br>Two-year<br>College

## Teaching Shakespeare to <br> Fire Fighting

## AIMS COMMUNITY COLLEGE

## 1988-89 CATALOG

## Established 1967

## A College Serving North-Central Colorado

GREELEY CAMPUS<br>5401 W. 20th Street<br>P.O. Box 69<br>Greeley, Colorado 80632<br>Telephone (303) 330-8008<br>AIMS SOUTH CAMPUS<br>260 College Avenue<br>P.O. Box 949<br>Fort Lupton, Colorado 80621<br>Telephone Fort Lupton (303) 857-4022<br>Greeley 352-4664<br>Denver 659-2243<br>\section*{LOVELAND CAMPUS}<br>310 N. Railroad Avenue<br>Loveland, Colorado 80537<br>Telephone Loveland (303) 667-4611

MAY 1988

## A LETTER FROM THE PRESIDENT...

Our sights are set on tomorrow. Tomorrow is when you are going to make your mark. Tomorrow is when the skills and values you develop at Aims Community College will lead you to bigger and better things in your career and your personal life. Your educational and training journey requires some knowledge of the various avenues open to you which lead to where you want to be tomorrow. This catalog is designed to help you plan for that trip.

Although this catalog is not a contract between you and the college, it is a grand guide to what is available here and it presents the options in an orderly fashion. Look it over. Review the services available to you. And, while you're reading, make sure you know what is expected of you while you study with us.

Most importantly, while you are enrolled
 at Aims, please do not be afraid to explore. Today you may think you want to be a corporate executive but you owe it to yourself to find out whether or not a career in commercial aviation might be more to your liking. Or you may think you should be a physician because dad and mom told you that you should. They may be right but perhaps you would like teaching school better, or programming complex computers, or fixing sophisticated electronic devices, or helping people as an emergency medical technician. Maybe you would make a better accountant or automotive technician than you would anything else on earth. Wouldn't it be a shame if you never discovered your true potential?
No matter how much you read about a romantic and exciting vacation spot, nothing sells you more on the idea of visiting that special place than talking to someone who has been there. Aims Community College has scores of people who have been where you are and successfully made the journey to where they want to be. Seek them out. You will find them in our assessment and counseling center; our classrooms, laboratories and shops. Aims people are friendly and they enjoy nothing better than helping individuals like you.

Today is the tomorrow you worried about yesterday. I challenge you to make today the day you prepare logically and practically for your next tomorrow. Join your neighbors in building a more meaningful future as an active and informed student at Aims Community College.

George $R$. Conger President

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## ACADEMIC CALENDAR 1988-1989

SUMMER QUARTER, 1988<br>(Four-Day Week)



## FALL QUARTER, 1988



WINTER QUARTER, 1989




February 6-10, 1989

March 15, 16, 1989
March 17, 1989
Evaluation Days
Graduation/End of Quarter

SPRING QUARTER, 1989

| March 27, 1989 |
| :---: |
| March 29, 1989 |
| April 7, 1989 |
| April 14, 1989 |
| May 1-5, 1989 |
| May 29, 1989 |
| June 7, 8, 1989. |
| June 9, 1989 <br> Graduation/End of Quarte |



## GENERAL INFORMATION

## HISTOR Y

In the summer of 1966, a citizen's committee representing all of Weld County's school districts recommended the formation of a junior college district. In January of 1967, voters of the district overwhelmingly approved the establishment of Aims Community College. Two months later a governing board was elected and it, in turn, selected Dr. Ed Beaty as the college's first president

After Dr. Beaty's death in 1975, Dr. Richard Laughlin was appointed president. He served the college in this post until 1979 when Dr. George R. Conger assumed the position.

Enrollment has expanded over the past twenty years from 900 students in 1967, to over 14,000 credit students annually in 1986.

Aims Community College's permanent 175 acre campus site was purchased in 1970. In 1971 the college secured a 50,000 square foot industrial building on ten acres adjacent to the main campus. This acquisition brought the Greeley campus to its present size of 185 acres.

The college's first totally new building, the Trades and Industry Building, was constructed in 1971. Next came Horizon Hall which opened in 1973. In 1975 the Emergency Services Academy was completed. The Physical Education Building was constructed in time for the opening of the winter quarter in 1976.

Ed Beaty Hall, opened in the Fall of 1978. This distinctive facility provides over 60,000 square feet of laboratory and classroom space.

Planning for additional construction on the Greeley campus was initiated in 1982, culminating in the opening of the Welding Technology Building in the fall of 1983 and Westview Classroom Building in the fall of 1984.

The Aims Community College South Campus in Fort Lupton was also completed in late 1984. This facility serves the community and educational needs of our students in the Southern Weld County region.

To meet the needs of Aims students living in the Loveland/Berthoud area, classes are offered through the cooperation and facilities of Thompson Valley School District R2-J. A new facility, the Loveland Center, opened in the fall of 1986 to meet the needs of students in our service area of Larimer County.

## PHILOSOPHY

The educational offerings and services of Aims Community College are based upon the belief that the primary obligation of the public educational system is to assist in the development of individuals for meaningful, productive lives in a democratic society. This philosophy implies a deep and abiding faith in the worth and dignity of the individual as the most important component of a democracy. This conviction recognizes that ideas are as valuable as facts in our dynamic and complex society, and it suggests that the college has an obligation to:

1. Create an educational environment which encourages the development of intellectual, social, and physical skills;
2. Foster a climate for students to develop rewarding personal and social patterns of life for their roles at home and in the community;
3. Assist students to achieve optimum vocational maturity; and
4. Promote an appreciation for the creativity of others and, thereby, to discover the potential for one's own creativeness.

## PURPOSES

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

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

## APPROVAL

The operation of Aims Community College is approved by the State of Colorado. It is governed by the five member Aims Junior College District Board of Trustees elected by the voters of the Aims Junior College District. All degree programs are approved by the Colorado State Board for Community Colleges and Occupational Education and the Colorado Commission on Higher Education.

## ACCREDITATION

Aims Community College is accredited by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools.

## EDUCATIONAL RIGHTS AND PRIVACY ACT

Aims Community College complies with the Federal Family Education Rights and Privacy Act of 1974, which specifies that (a.) a student's record is closed to non-college officials unless specific authorization to review those records is granted in writing by the student or is granted by provisions of the law and (b.) a student has the right to inspect and review certain specified official records, files, and data directly related to that student. Students desiring to inspect and/or review their official records should contact the Registrar, Office of Admissions and Records.


## AFFIRMATIVE ACTION

Aims Community College is committed to equal opportunity in employment and education regardless of age, race, color, religion, sex, national origin, or handicap. Publicly adopted throughout the college is an affirmative action policy which shall assure equal employment and educational opportunities to all minorities in the college, whether classified staff, faculty, students, or administrators. Any student or college employee who encounters acts of discrimination because of age, race, religion, color, sex, national origin, or handicap should contact the Affirmative Action Officer, Associate Dean of the College Robert Rangel.

## THE FOUNDATION

The Aims Community College Foundation was established during the 1979-1980 academic year to provide financial and other support for the college and its activities beyond those which are available through normal institutional funding sources. Because of the continuous limitations on such routine sources, the college has been obliged to rely increasingly upon private and corporate donor support.

Foundation activities are moderated by a board of directors selected from various segments of the business and professional community. Current members of the Foundation Board are: George R. Conger, Tom Cowan, Conrad J. Greicar, Mike Geile, Wes Goehring, Bob Mitchell, Norman Noe, Louis C. Rieker, Kenneth Whitney, and Jerry Winters.

## CATALOG CHANGES

Aims Community College reserves the right, whenever it judges it is necessary or advisable to do so, to meet changing academic, instructional, student, or fiscal needs, to cancel or modify, without notice, any course or program described in this catalog. The College also reserves the right to change any provision or requirement of this catalog, including tuition and fees.

## SMOKING POLICY

Smoking is prohibited in all buildings owsed and operated by the college except in designated areas.

## ASSOCIATE of APPLIED SCIENCE (A.A.S.) DEGREE AND CERTIFICATE PROGRAMS

| AAS | Accounting | 2 YR | AA | Humanistic Psychology | 2 YR |
| :---: | :---: | :---: | :---: | :---: | :---: |
| AAS | Agriculture Technology | 2 YR | AA | Paraprofessional Counseling | 2 YR |
| CERT | Agriculture Technology | 4 QT | AA | Biofeedback | 2 YR |
| CERT | Drafting | 3 QT | AA | Criminal Justice | 2 YR |
| CERT | Auto Body Refinishing | 3 QT | AA | Prelaw | 2 YR |
| CERT | Auto Body Repair | 3 QT | AA | Political Science | 2 YR |
| AAS | Auto Body Repair | 2 YR | AA | Social Science | 2 YR |
| CERT | Auto Mechanics | 3 QT | AA | Communications Media | 2 YR |
| AAS | Auto Mechanics | 2 YR | AA | Design \& Visual Communications | 2 YR |
| CERT | Aviation | 4 QT | AA | Fine Arts | 2 YR |
| AAS | Aviation General Aviation Pilot Option Pilot Entry Program (PEP) Option | 2 YR | AA | Computer Information Systems | 2 YR |
| AAS | Building Trades | 2 YR |  |  |  |
| CERT | Building Trades | 3 QT |  |  |  |
| AAS | Business Information Systems | 2 YR |  |  |  |
| AAS | Criminal Justice | 2 YR | ASSOCIATE OF SCIENCE (A.S.) DEGREE |  |  |
| CERT | Basic Peace Officer Academy | 1 QT | Liberal Arts Major with Emphasis in: |  |  |
| CERT | Early Childhood Education | 3 QT |  |  |  |
| AAS | Early Childhood Education | 2 YR | AS | Chemistry | 2 YR |
| AAS | Electronics | 2 YR | AS | Chemical Testing Technology | 2 YR |
| CERT | Emergency Medical Technician | 1 QT | AS | Computer Programming | 2 YR |
| AAS | Engineering Technology | 2 YR | AS | Computer Science | 2 YR |
|  | Architectural Option |  | AS | Pre-Engineering | 2 YR |
|  | Civil Option |  | AS | Life Sciences | 2 YR |
|  | Computer Aided Manufacturing Option |  | AS | Mathematics | 2 YR |
|  | Mechanical Option |  | AS | Pre-Health Profession | 2 YR |
| AAS | Fire Service Technology <br> Fire Protection Option <br> Fire Science Option | 2 YR | AS | Pre-Nursing | 2 YR |
| CERT | Fire Service Training Academy | 1 QT |  |  |  |
| CERT | Volunteer Fire Fighter Training | 4 QT | ASSOCIATE OF GENERAL STUDIES (A.G.S.) DEGREE 2 YEAR PROGRAM |  |  |
| AAS | Graphics Technology <br> Artistic Option <br> Typesetting Option <br> Photographic Option <br> Mechanical Option | 2 YR |  |  |  |
| CERT | Graphics Technology <br> Artistic Option <br> Typesetting Option <br> Photographic Option <br> Mechanical Option | 3 QT |  |  |  |
| CERT | Farm and Ranch Business Management | 3 YR |  |  |  |
| AAS | Marketing/Management <br> Fashion Merchandising Option <br> Supervisory Management Option <br> Marketing Option <br> Small Business Management Option | 2 YR |  |  |  |
| CERT | Office Clerk | 4 QT |  |  |  |
| AAS | Radiologic Technology | 2 YR |  |  |  |
| CERT | Real Estate | 3 QT |  |  |  |
| AAS | Office Occupations Administrative Support Legal Office Option | 2 YR |  |  |  |
| AAS | Welding Technology | 1 YR |  |  |  |
| CERT | Welding Technology | 3 QT |  |  |  |
| CERT | Young Farmer | 1 YR |  |  |  |

## ASSOCIATE OF ARTS (A.A.) DEGREE Liberal Arts Major with Emphasis in:

## ASSOCIATE OF SCIENCE (A.S.) DEGREE Liberal Arts Major with Emphasis in:



## ADMISSIONS POLICY

Aims Community College has an "open door" policy and will not deny admission to any district resident because of financial need as determined by the student Financial Aid Office. No admission fee or entrance examination is required as a condition for admission. Admission 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 as identified by the college's Assessment Center. Minimum skill levels are required for admission to even basic education courses.

Students may apply for admission at any time during the quarter; however, in most cases course registration must be made at the beginning of that course's term.

The College will admit students 16 years of age or older who are not enrolled in a regular program of kindergarten through grade twelve who the College determines can profit from the instruction for which they enroll. Students who are currently enrolled in high school and have reached the senior grade level may be allowed to enroll for advanced placement if permission is obtained from their respective high schools. Concurrently enrolled high school students should contact the Admissions Office well in advance of anticipated enrollment.

## APPLICATION FOR ADMISSION

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 form, students should submit one of the following to the Admissions Office:

- A high school transcript indicating graduation and ACT or SAT scores, or
- GED test scores, if the student earned a high school Equivalency Certificate, or
- College transcripts which are required for transfer students pursuing a degree program.


## PREASSESSMENT

New and returning students are responsible for making arrangements at the College Assessment Center to meet the preassessment requirement prior to conferring with an advisor and prior to registration.

The preassessment requirement may be met in one of the following ways:

1. By taking the Aims Community College preassessment tests in reading, writing, arithmetic, and algebra (if applicable), or
2. By establishing proof of successful previous college experience at an accredited college ( 2.0 grade point average with transfer college classes in English and mathematics), or
3. By having ACT scores of 20 in English, mathematics, and in the composite, or
4. By having minimum SAT scores of 500 in the verbal and mathematics areas.

Students should contact the College Assessment Center for information and for testing times.


## TRANSFER TRANSCRIPT EVALUATION

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 upon request by the student. The acceptance of this credit is documented on the student's permanent record as earned credit only, without any indication of grade or quality points.

## ADMISSION REQUIREMENTS FOR INTERNATIONAL (FOREIGN) STUDENTS

1. Submit application for admission.
2. Submit English proficiency results from the Test of English as a Foreign Language (TOEFL) or English Language School (ELS). To be considered for admission to Aims Community College, international students must have a minimum score of 500 on the TOEFL or have completed an Intensive English program at a certified ELS center. All international students admitted are required to take the college preassessment test.
3. Completed application and supporting credentials must be in the Admissions Office by midterm of the quarter preceding the quarter of enrollment.
4. International students must pay their tuition and fees on the day they register. Failure to comply will result in withdrawal of their U.S. Immigration Form 20(1-20).
5. International students are required to maintain satisfactory progress to be eligible for reenrollment in a subsequent quarter.
If an international student is admissible, the student will be issued the U.S. Immigration Form 20 (1-20). Questions regarding the admission of international students should be forwarded to the Admissions Office.

## ORIENTATION

All new degree seeking students are encouraged to attend an Orientation session prior to enrollment. Orientation provides the student with general information concerning admission procedures, registration, academic programs and services. Information on scheduled orientations can be obtained from the Counseling Information Center or Admissions and Records.

## REGISTRATION

After completing the admissions, orientation, and preassessment processes, the student must complete the following registration process at the beginning of each quarter. A schedule of classes listing day and evening courses is published each quarter and is available in the Admissions and Records Office prior to early registration for returning students and registration for new students. Consult the calendar in the front of the schedule of classes for registration dates and other important deadlines.

The steps in the registration process are:

1. Obtain advising/registration form from Office of Admissions and Records.
2. Contact faculty advisor (see academic information section).
3. Apply for financial aid (if desired).
4. Complete the course registration process as described in the schedule of classes.
5. Obtain billing of tuition and fees.
6. Pay tuition and fees. See tuition payment policy. A fee will be charged for late payments.

NOTE: Students must have all financial obligations to Aims Community College paid before they will be permitted to register for subsequent course work.

## ADD, DROP, WITHDRAWAL, CANCELLATION OF CLASSES AND REFUNDS

## course cancellations

Aims Community College must retain the customary right to cancel course offerings where enrollment is too low to make a course educationally sound and economically efficient. Course cancellations will result in refund of tuition.

## ADDING, DROPPING, WITHDRAWING <br> FROM CLASSES

Adding and dropping of classes must be done within the first 8 days of the quarter ( 6 days of summer quarter). For other short term courses the adding and dropping of courses must be done within the first $15 \%$ of the course meetings. This is the registration adjustment period and no academic record will be generated for classes dropped within this time line.

After the $15 \%$ date has passed, adding or registration may be done on an exception basis only if space is available and the instructor and division chair have given signed permission to enroll. Students may also enroll in certain courses which are designated as continuous enrollment courses.

Any class drop after the 8th class day for a full term class or after the $15 \%$ deadline for other short term courses will become a withdrawal and will generate a W grade on the student's record. W grades can affect the student's academic standing. Students may withdraw from classes through $60 \%$ of class meetings. After $60 \%$ of the class meetings, neither the student nor the faculty can process a standard withdrawal for a W grade (see grade policy section regarding WF and WP).

## HOW TO ADD, DROP, WITHDRAW

1. Fill out add/drop/withdraw form from Admissions and Records, General Services Building Room 202.
2. Obtain instructor's approval and signature to add courses designated in the Schedule of Classes as "Division Approval Required."
3. Submit form to Admissions and Records by deadlines in the Schedule of Classes.

## ADD, DROP, WITHDRAWAL REGULATIONS

1. Students are responsible for properly processing adds, drops, and withdrawals.
2. A faculty member or administrator may withdraw a student from class for non-attendance, failure to achieve course objectives, or if it is considered to be in the student's best interest. This is an optional process; therefore, students cannot expect to be withdrawn due to non-attendance.
3. In case of emergencies, students are to submit written withdrawal requests to Admissions and Records, P.O. Box 69, Greeley, CO 80632. Students should provide an explanation about the situation regarding withdrawal requests.
4. Telephone requests for adds, drops, or withdrawals are not honored.

## REFUND REGULATIONS

Under specific conditions, the College grants refunds for tuition and special course fees to students who withdraw from college or make a reduction in credit hours EVEN IF CLASSES ARE NOT ATTENDED, THEY MUST BE DROPPED IN ADMISSIONS BY THE SPECIFIED DEADLINE IN THE CURRENT QUARTER SCHEDULE OF CLASSES IN ORDER TO ELIMINATE CHARGES ON ACCOUNT.

To be eligible for a refund, a DROP (reduction in credit hours) form must be initiated in person, or in cases of emergency, by letter through the Admissions Office. The date the request is made at the Admissions Office, or the postmark date for letters, will be used in determining the eligibility of the refund. If the student was provided assistance from College funds or funds managed by the College, the refund will be returned to the appropriate scholarship/grant fund or applied to the student's note in the loan fund.
REFUNDS will be made in accordance with the following schedule. (Please consult calendar in Quarterly Class Schedule for Refund dates.)*
A. Registration day through eighth (8) day of the Quarter, sixth (6) day of Summer Quarter
$100 \%$
B. After eighth (8) day of the Quarter, sixth (6) day of Summer Quarter $\qquad$ NO REFUND
C. Cancelled Classes: $100 \%$ refund will be available after the refund period.
D. Self-Supporting Classes: Refunds will be granted only for classes which are dropped prior to the first class meeting.

* For classes which begin after the first full week of the quarter, the first day a class is to meet will be considered the "first official class date."


## TUITION AND FEES

Tuition charges at Aims Community College are dependent upon the student's residency status:
Full-time Students: (12-20 credit hours)
In-State, ${ }^{*}$ In-District residents: $\$ 180.00$ per quarter
In-State, Out-of-District residents: $\$ 300.00$ per quarter
Out-of-State residents:
$\$ 900.00$ per quarter
Part-time Students: ( $1-11$ credit hours)
In-State, ${ }^{*}$ In-District residents:
$\$ 15.00$ per credit hour
In-State, Out-of-District residents: $\$ 25.00$ per credit hour
Out-of-State residents: $\$ 75.00$ per credit hour

Surcharge: (Over 20 credit hours)
In-State, ${ }^{*}$ In-District residents:
$\$ 12.00$ per credit hour
In-State, Out-of-District residents: $\$ 20.00$ per credit hour
Out-of-State residents: $\$ 60.00$ per credit hour
*In-District refers to the Aims Comunity College Tax District.
Classes requiring payment of a lab fee will be designated in the quarterly registration materials.

Active duty members of the U. S. Armed Forces (and their dependents) residing in Colorado on a permanent change-of-station status may be eligible for in-state tuition rates. Contact the Registrar for details.

Complete information regarding residency is available in the Admissions/Records office. Also, students may obtain a Change of Residency Petition from the Admissions Office. The final petition must be submitted to the Admissions Office by the deadline published in current quarter Schedule of Classes and approved prior to registration.

## ALL TUITION AND FEE CHARGES ARE SUBJECT TO CHANGE BY THE AIMS JUNIOR COLLEGE DISTRICT BOARD OF TRUSTEES AS CIRCUMSTANCES MAY REQUIRE, WITHOUT NOTICE. SEE CURRENT QUARTER SCHEDULE OF CLASSES FOR UPDATED INFORMATION.



## STUDENT INSURANCE FEES

Each full-time student ( 12 credit hours or more) is assessed a mandatory fee of $\$ 5.00$ per quarter for accident insurance coverage. This insurance is nonmandatory for part-time students ( 11 credit hours or less) but is available at $\$ 5.50$ per quarter. Additional information may be obtained through the Dean of Students Office.

## TUITION PA YMENT POLICY

1. A combined bill/schedule must be picked up by each student at the time of registration, add, or drop.

Each student must make a down-payment at the time of registration according to the following range based on bill total:

Bill Range
Up to $\$ 100.00$
$\$ 101.00$ to $\$ 250.00$
$\$ 251.00$ to $\$ 450.00$
$\$ 451+$

Minimum Down-payment
\$ 25.00
$\$ 50.00$
$\$ 75.00$
$\$ 200.00$

If no down-payment is made, classes will be dropped. Financial Aid Awards and Third Party Authorizations will be considered as down payments for those who qualify (only if awarded by the time of registration).

When a down-payment is made, the registered student is required to sign a promissory note. Final payment will be due thirty (30) days from the start of the quarter. A $\$ 15.00$ late fee will be assessed on all unpaid accounts at that time. Students will not be allowed to register for subsequent quarters and their records will be held until all financial obligations have been satisfied.

## REFER TO CURRENT QUARTER SCHEDULE OF CLASSES FOR SPECIFIC DUE DATES AND UPDATED INFORMATION.

2. Payments may be made in cash, Money Order, VISA, MasterCard, or Choice Card. Cashier will accept personal, oneparty checks in the amount of charges only. A valid driver's license is required. Every check returned to the College will be collected by CheckRite. Checks will not be accepted from students who have written or submitted two or more returned checks to the College. If a check written as a down-payment is returned to the college for any reason, classes will be dropped.
3. Self-Supporting/Continuing Education Classes: Tuition and fees for these classes are due upon registration.
4. Students Sponsored by a Third Party Agency:
A. A valid letter of sponsorship must be on file in Fiscal Services.
B. Students must make arrangements for agency billing with Fiscal Services in accordance with payment deadlines.
C. Students are responsible for any charges not covered by their Agency and are subject to late fees and refund guidelines.
D. Questions? Call Fiscal Services, 330-8008, X486.
5. It must be understood that each student is responsible for payment of his/her own expenses. The College is not responsible for making payment arrangements with parents, guardians, international agencies, or other third parties.
6. Seriously past due accounts will be assigned for collection to a local attorney by the college. This attorney will pursue court proceedings when necessary.

## FINANCIAL OBLIGATIONS OF STUDENTS

The financial obligations of students to the college, such as payments for tuitions, fees, and books, are due and payable on specific dates or at the time the obligations are incurred. Students will not be allowed to register, graduate, or receive transcripts of courses completed unless all financial obligations to the college have been met. See current quarter Schedule of Classes for updated information and specific due dates.

## STUDENT RECORDS, TRANSCRIPTS, REQUESTS FOR INFORMATION

## STUDENT RECORDS

The Admissions and Records Office under the direction of the Registrar keeps the following student information:

1. Personal Data - name, address, phone number, sex, student/social security number.
2. Educational background information - previous high school, and/or college attended, degrees earned.
3. College major and degree expectations.
4. Degrees and honors received.
5. College records containing courses attempted, grades earned, credits earned, and dates of enrollment.
6. Courses, hours, and credits of current enrollment.

A cumulative record of each student's college application, correspondence, and other miscellaneous forms is kept active while the student is enrolled in the College. If the student's enrollment ceases, the file is kept active for two years. If the student does not enroll again during this twoyear period, the record is retired, and the file is destroyed in accordance with the regulations of the Colorado State Archives. A security copy of the inactive permanent transcript also is on file in the Colorado State Archives.

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

Students may review their records upon request in the Admissions and Records Office. Students may contact the Registrar to appeal any errors which they feel have been made on their records.

The college will not permit the access to or the release of student educational records or personally indentifiable information contained therein, other than items designated as public information, without the written consent of the student.

## TRANSCRIPTS

A student may request a transcript (copy of academic record) in writing from the Admissions and Records Office. Transcripts are issued by Aims Community College free of charge. All accounts with Aims College must be settled before a transcript may be released. Transcripts or copies of transcripts from other colleges or institutions which were used for evaluation of transfer credit are not released by Aims and must be obtained from the institution holding the original record.

## REQUESTS FOR INFORMATION

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

1. Name
2. Affirmation of whether currently enrolled.

## Addresses are considered personally identifiable information except

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

Consent for release of education records or personally identifiable information shall not be required for the following parties:

1. Aims Community College officials.
2. Officials of other schools or colleges where the student intends to enroll.
3. State or federal educational authorities in connection with a student's application for financial aid.
4. State and local officials requiring reporting data.
5. Organizations conducting studies for educational institutions or agencies.
6. Accrediting organizations.
7. Parents of a dependent child as certifiable with notarized documents.
8. In compliance with judicial order or subpoena.
9. Law enforcement agencies of Colorado demonstrating that requested information is necessary for an investigation.
10. In case of emergency to protect the health, safety, or welfare of the student or other persons.


## STUDENT FINANCIAL AID

Aims Community College participates in a wide variety of federal, state, and local programs designed to assist undergraduate students in meeting the costs of education. Applications and information concerning all the Financial Aid programs are available in the Financial Aid Office, General Services Building, Room 201.

## ELIGIBILITY

Most financial aid is awarded to students on the basis of NEED. In determining NEED in a consistent way for all aid candidates, Aims Community College requires all financial aid applicants to submit the ACT Family Financial Statement to the ACT program in lowa City, lowa. The ACT Family Financial Statement and information about financial aid may be obtained from the high school guidance counselors and/or the Financial Aid Office at Aims Community College.

Complete program eligibility guidelines are listed in the Financial Aid Handbook and in the ACT Application Packet. Contact Finacial Aid Office for additional information.

## APPLICATION PROCEDURES

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

1. Family Financial Statement (FFS) of the American College Testing program (ACT) and Pell Student Aid Report.
2. Financial Aid Transcript (only for students who have attended another college)
3. Copy of previous year's Federal Income Tax 1040 Form
4. Verification of Non-taxable Income
5. Any other required documents as determined by your financial aid application.
Applicants for financial assistance are considered after the applicants have complied with the admissions and preassessment procedures listed in this catalog. The following dates will be the deadlines for submitting applications for guaranteed processing:

Summer quarter . .............................................. April 1
Fall quarter . ......................................................... June 15
Winter quarter . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . October 31
Spring quarter . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . January 31
Students are advised that the availability of aid funds is limited.
Consequently, students who are seeking financial assistance are urged to submit their completed application and all required documentation 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 awards will depend on the availability of funds at the time.)

## ESTIMATED ACADEMIC YEAR BUDGETS (9 MONTHS)

## Single Resident (Weld County)



Single Nonresident
Tuition \& Fees . . . . . . . . . \$2715.00 Room \& Board . . . . . . . . . 3717.00
Books \& Supplies . . . . . . . . 253.00
Personal Expenses ....... 859.00
Transportation ........... 531.00

Single Resident Out of Weld County District
Add $\$ 729.00$ to above Resident Budget.
These budgets are current as of the publication date. Check with the Financial Aid Office for most recent estimates.


## STUDENT FINANCIAL ASSISTANCE PROGRAMS

## LOANS <br> CARL D. PERKINS-

## NATIONAL DIRECT STUDENT LOANS (NDSL):

Undergraduate students may borrow up to $\$ 9,000$ during their undergraduate career. Total loans for the first two years of school may not exceed $\$ 4,500$. Repayment of the NDSL begins nine months after the student ceases to be a half-time ( 6 hours) student. NDSL funds are to be repaid at a minimum of $\$ 30$ per month. The period of repayment cannot exceed ten years. The NDSL has cancellation provisions. Information regarding cancellation may be obtained from the Financial Aid Office. Interest rate is $5 \%$. Principal and interest payments are deferrable during periods of at least part-time study. ACT application required.

## COLORADO GUARANTEED STUDENT LOANS (CGSL)

Undergraduate dependent students may borrow up to $\$ 2,625$ per academic year, but not more than $\$ 17,500$ during their undergraduate career. The interest on a CGSL is $8 \%$ simple interest. ACT application required.

## PLUS/SLS LOANS

Undergraduate independent students or parents of dependent students who do not qualify for a CGSL may borrow up to $\$ 4,000$ per academic year. Interest is currently at $12 \%$ and repayment begins within 60 days of the disbursement of the loan.

## GRANTS

## PELL GRANT:

Available to all eligible undergraduate students. All Pell Grant awards are preliminary and may be adjusted, depending upon place of residence while attending the college, number of class hours carried, and the final payment schedule developed by the Office of Education. The Financial Aid Office must have all copies of the Pell Eligibility Report Forms and all required documentation on hand before payment can be made. All financial aid applicants must establish their eligibility for this program before other aid can be awarded. ACT or Pell application required.

## SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (SEOG):

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

## COLORADO STATE GRANT (CSG):

State funds made available to Colorado resident undergraduate students with financial needs. Awards vary from $\$ 100$ to $\$ 2,000$, depending upon the financial need of individual students and the amount of funds allocated to the College by the State of Colorado. Recipients must be residents of Colorado. ACT application required.

## COLORADO STUDENT INCENTIVE GRANT (CSIG):

Grants of up to $\$ 2,500$ are made to substantially needy students. Recipients must be undergraduate residents of Colorado. The actual amount of each award is dependent upon the individual student's need and available funds. Funds are allocated to the college in 50\% Federal and $50 \%$ State monies. ACT application required.

## STUDENT EMPLOYMENT

## FEDERAL COLLEGE WORK-STUDY PROGRAM:

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

## COLORADO NEED WORK-STUDY PROGRAM:

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

## COLORADO NO-NEED WORK-STUDY PROGRAM:

Allocations from the Colorado No-Need Work-Study Program can be made to students who do not have financial need. Students who show financial need are not eligible under this program. Wages are paid on the basis of an hour's pay for an hour's work. Students may not earn over the maximum authorized earning figure, as allocated by the Financial Aid Office. Applications for Colorado No-Need Work-study are available in the Office of Financial Aid.

## AIMS TUITION GRANTS

Aims tuition grants are available to in-district students whose financial status is defined as low income by the Financial Aid Office guidelines. Grants are made to cover the costs of tuition. Students approved for tuition grants are required to apply for a Pell Grant if they are enrolled as at least half-time students.

A senior citizen's tuition grant is available for residents of the Aims Community College taxing district who are 60 years of age or older. This grant is applicable only in credit courses on a space available basis.

Tuition grants do not apply to self-supporting courses, including Continuing Education Workshops and Community Non-credit Courses.

Tuition grants do not cover lab fees, books and student insurance.


## SCHOLARSHIPS

## AIMS PROGRAM OF SCHOLARS:

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

## COLORADO MERIT SCHOLARSHIP PROGRAM:

Awards are made to recognize outstanding achievements of Colorado resident undergraduate students in both academic and talent areas. Applications are made to the Financial Aid Office; award recipients are selected by the Financial Aid Director only if two letters of recommendation and a copy of the most current academic transcript accompany the regular Colorado Merit Scholarship application. Colorado high school students should contact the Financial Aid Office regarding these scholarships. Colorado Merit Scholarship Program is an undergraduate program funded by the Colorado General Assembly.

## ROY L. SMITH MEMORIAL FUND AWARD:

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

## DR. EDWARD BEATY MEMORIAL FUND:

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

## FACULTY ASSOCIATION SCHOLARSHIP:

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

## VETERANS BENEFITS

The Financial Aid/Veterans Office helps the Veterans Administration implement the provisions of the various programs of benefit to veterans or eligible relatives of veterans under benefits of Chapter $32,34,35,106$, Chapter 30 - Montgomery GI Bill, and Title 38, United States Code.

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

CHAPTER 34 - MONTHLY RATES - GI BILL

| COURSE LOAD | $\begin{gathered} \text { NO } \\ \text { DEPS. } \end{gathered}$ | $\begin{gathered} 1 \\ \text { DEP. } \end{gathered}$ | 2 DEPS. | $\begin{gathered} \text { EA. ADD. } \\ \text { DEP. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| Full time (12 credit hours) | \$376 | \$448 | \$510 | \$32 |
| Three-Fourths Time (9-11 credit hours) | 283 | 336 | 383 | 24 |
| Half Time (6-8 credit hours) | 188 | 224 | 255 | 17 |

## CHAPTER 32 - MAXIMUM MONTHLY RATES - VEAP

Full Time ( 12 credit hrs.) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 300$
Three-Fourths Time ( $9-11$ credit hrs.) . . . . . . . . . . . . . . . . . . . . . . . . . . . 225
Half Time ( $6-8$ credit hrs.) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 150

## CHAPTER 30-MONTGOMERY GI BILL

Students eligible for this program should contact the Veterans Office for information on application procedure and pay rates.

## CHAPTER 106 - MONTHLY RATES - SELECTED RESERVE

Full Time ( 12 credit hrs.)
Three-Fourths Time ( $9-11$ credit hrs.) . . . . . . . . . . . . . . . . . . . . . . . . . . . 105
Half Time ( $6-8$ credit hrs.)70

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

If a veteran student has previously attended an institution of higher learning, the VA requires that the student provide the Admissions Office with a copy of the transcript or transcripts reflecting any post-secondary educational course work for the purpose of determining whether or not transfer credit can be allowed in the veteran's program of study.


## COLORADO NATIONAL GUARD TUITION ASSISTANCE PROGRAM

The State of Colorado has extended the National Guard Tuition Assistance Program to include students attending Aims. The purpose of the program is to encourage enlistment and promote retention in the Colorado National Guard. Students must meet the following eligibility requirements:

1. be a current member of the Colorado National Guard
2. be pursuing studies leading to an associate degree or a certificate of completion
3. be approved for participation by the Department of Military Affairs
4. have agreed to serve two years in the Colorado National Guard for each year of tuition assitance granted
5. be in good standing and demonstrate academic progress according to standards established by the Tuition Advisory Board.

The maximum amount of the award is 75 percent of the student's instate tuition charges each quarter. Assitance may not be granted for more than 198 quarter hours of course work.

Applications for this program should be obtained from the National Guard Unit Commanders. Completed, approved applications should be presented to the Business Office at the time of registration.

## FINANCIAL AID SATISFACTORY PROGRESS

All Aims Community College students who receive Federal or State Aid, Guaranteed Student Loan, PLUS/SLS loans and/or Veterans assistance are required to:
A. Enroll each quarter for the minimum number of credit hours determined by enrollment status in classes that are within the student's degree or certificate program.

1. Full-time enrollment $=12$ credit hours per quarter
2. Three-quarter time enrollment $=9$ credit hours per quarter
3. Half-time enrollment $=6$ credit hours per quarter
B. Maintain satisfactory academic progress each quarter while receiving aid.
C. Seek and receive advising from his/her area of emphasis.

## MEASUREABLE SATISFACTORY ACADEMIC PROGRESS

A. All students, both full and part-time, are expected to make satisfactory academic progress with the Grade Point Average (GPA) and number of credit hours completed each quarter being used as the basis for determining standards of progress. A standard $0-4.00$ scale is used to determine academic progress:
1st Quarter in attendance: 1.75 quarter GPA
2nd Quarter in attendance: 1.90 quarter GPA cumulative GPA
3rd Quarter in attendance: 2.00 quarter GPA and cumulative GPA
B. Full-time students must complete a minimum of 12 credit hours after each quarter of enrollment.
C. Three-quarter time students must complete a minimum of 9 credit hours after each quarter of enrollment.
D. Half-time students must complete a minimum of 6 credit hours after each quarter of enrollment.
E. Courses which receive the following passing grades shall be considered as credits completed:

1. "A" through "D" grades (D grade will not meet passing requirements or graduation requirements in some programs).
2. " S " (passing with credit)
F. The following shall not be considered as credits completed:
3. " $F$ " grades
4. "W", "W-P", "W-F" withdrawals
5. "U" unsatisfactory grades
6. "I" incomplete
7. "NC" no credits
G. Students receiving scholarship funding must maintain a 3.00 GPA each quarter.

## REVIEW PROCEDURE

Following each quarter the GPA and number of credit hours completed by each aid student will be reviewed in the Financial Aid Office.

## FINANCIAL AID PROBATION

A. In the event that a student fails to meet the measurable satisfactory academic progress criteria in a particular quarter, the student will be placed on financial aid probation.

1. A student on probation may receive assistance for the following quarter in which he/she enrolls, but must maintain satisfactory progress during future quarters in order to continue schooling with financial assistance.

## FINANCIAL AID SUSPENSION

A. If a student fails to meet satisfactory academic progress after being placed on financial aid probation, the student is considered to be making "unsatisfactory progress" and is placed on financial aid suspension. Suspension will remain until student has achieved the required number of hours as outlined in table \#1.

1. Financial aid suspension means the termination of all financial assistance.

## APPEAL OF FINANCIAL AID SUSPENSION

Once "unsatisfactory progress" has been determined, the student's recourse is:
A. A student will indicate in writing (use financial aid appeal form) to the Financial Aid Committee (a) the reasons why he/she did not achieve satisfactory academic progress, and (b) reasons why his/her aid should not be terminated.
B. The Financial Aid Committee will review the appeal and determine whether the financial aid suspension is justified. The student will be advised, in writing, of the Committee's decision.
C. A student wishing to appeal the decision of the Financial Aid Committee, may do so in writing, to the Dean of Student Personnel Services.
D. A student will be granted an appeal only once after being placed on financial aid suspension. If suspension occurs again the student may not appeal again.

## CONDITIONS OF REINSTATEMENT

A. To be reinstated a student must:

Option I - Have an appeal approved by Financial Aid Committee.
Option II - With his/her own funds complete 12 credit hours with a GPA 2.00 .
At that time a student may reapply, in writing, for financial aid to be reinstated for the following quarters in which he/she will enroll.
B. Students reinstated will receive financial aid, but they will remain on financial aid probation.
C. A student placed on suspension may be reinstated only once.
D. Incompletes that result in a student being placed on Probation/Suspension will be reviewed by the Director of Financial Aid.

## LIMIT ON STUDENT AID ASSISTANCE

A. No full-time student will receive aid for more than 8 quarters. However, the 8 quarter limit may be appealed if remedial course work is required, or if other unusual circumstances require aid beyond 8 quarters.
TABLE \#1
FULL-TIME ENROLLMENT STATUS $=12+$ credit hours each quarter
NUMBER OF QUARTERS
HOURS COMPLETED EACH QUARTER
1.

12
2................................................................... 24
3................................................................. 36



6. ..... 72
7. ..... 84
8. ..... 96
THREE-QUARTER TIME ENROLLMENT STATUS $=9$ to 11 credit
hours each quarter
NUMBER OF QUARTERSHOURS COMPLETEDEACH QUARTER

1. .....  9
2. ..... 18
3.. ..... 27
4.. ..... 36
3. ..... 45
6.. ..... 54
4. ..... 63
5. ..... 72
9.. ..... 81
6. ..... 90
7. ..... 99

HALF-TIME ENROLLMENT STATUS $=6$ to 8 credit hours each quarter

NUMBER OF QUARTERS
HOURS COMPLETED EACH QUARTER

1. ..... 6
2. ..... 12
3.. ..... 18
4.. ..... 24
5.. ..... 30
3. ..... 36
4. ..... 42
8.. ..... 48
5. ..... 54
6. ..... 60
7. ..... 66
8. ..... 72
9. ..... 78
10. ..... 84
11. ..... 90
12. ..... 96

# ACADEMIC INFORMATION 

## DEGREES AND CERTIFICATES AWARDED

ASSOCIATE OF ARTS (A.A.)<br>ASSOCIATE OF SCIENCE (A.S.)<br>ASSOCIATE OF GENERAL STUDIES (A.G.S.)<br>ASSOCIATE OF APPLIED SCIENCE (A.A.S.)<br>CERTIFICATE IN OCCUPATIONAL EDUCATION

A student who has earned an associate or higher academic degree from an accredited institution is normally ineligible to receive an associate degree from Aims Community College in an identical or closely related discipline or program. The appropriate dean may waive this restriction when a waiver would be in the best educational interest of the student.
Each degree granted by the college contains a minimum number of general education courses. "General Education" refers to a group of courses designed to assist individuals to assume the responsibilites which they share in common as citizens in a free society and to promote wholesome and creative participation in a wide range of life activities. Aims Community College will accept any of the following courses as meeting the general education requirement of the appropriate degree:

1. Those courses accepted toward fulfilling the core requirements toward the Associate of Arts, Associate of Science and Associate of General Studies degrees.
2. Those non-occupational courses specifically designed to meet Associate of Applied Science degree requirements.
3. Other courses which the College's Academic Council identifies as falling within the overall general education definition.

## DEGREES AND CERTIFICATES AWARDED

Students may earn more than one degree or certificate at Aims Community College as long as all course requirements for each degree or certificate are satisfied. However, a student who has earned an Associate of Science degree at Aims Community College who wishes also to receive an Associate of Arts or an Associate of General Studies degree will be required to complete an additional twenty hours of coursework in Communications, Humanities, Behavioral Science and/or Social Science.

## ASSOCIATE OF ARTS (A.A), ASSOCIATE OF SCIENCE (A.S.) AND ASSOCIATE OF GENERAL STUDIES (A.G.S.) DEGREES

The Associate of Arts (A.A.), the Associate of Science (A.S.), or the Associate of General Studies (A.G.S.) degree is awarded to a student who successfully completes a program designed to transfer to a four-year college or university for the purpose of earning a baccalaureate degree. Although the requirements of the three degrees are similar, the Associate of Science degree program includes more science and mathematics and the Associate of General Studies includes selected professional courses. The student who is pursuing a particular major at a four-year institution may wish to select a particular area of emphasis within these degrees.

Although all courses included within an Associate of Arts, an Associate of Science or an Associate of General Studies program are intended to be transferable, the student should realize that occasional arts and sciences courses and most occupational courses may not be accepted for transfer by baccalaureate institutions. The student who desires to include these courses as electives within an A.A., an A.S., or an A.G.S. program should check carefully the requirements of the institution and program into which he or she wishes to transfer.

The following are general requirements for the A.A., A.S. and A.G.S. degrees:

1. Ninety-six quarter hours credit in approved course work. Fortyfive quarter hours of this total must be in general education courses. Particular program requirements are outlined in this catalog under the section on the School of Arts and Sciences.
2. A minimum cumulative grade point average of 2.0 (a "C" average) in the A.A., A.S., or A.G.S. degree program curriculum.
3. Twenty-four of the last thirty-six quarter hours of course work prior to graduation must be taken in residence at Aims Community College.
4. Most courses numbered 100 and above are applicable toward these degrees.
5. Occupational courses are accepted toward the requirements of these degrees only upon the approval of the Dean of Arts and Sciences or his designee. This approval is given only when the courses are appropriate to the educational objectives of the student. Blanket approval is granted for those courses recommended as electives within the various areas of emphasis.
6. A faculty advisor in the field of study must sign the application for graduation. For A.S. degrees, the Division Chair must also sign the application. The Associate of General Studies degree requires the signature of the faculty advisor, the Dean of Arts and Sciences and the Dean of Occupational Education.

## ASSOCIATE OF APPLIED SCIENCE (A.A.S.) DEGREE

The Associate of Applied Science (A.A.S.) degree is awarded to a student who successfully completes a program designed exclusively to prepare the student for immediate employment in a full-time skilled and/or paraprofessional occupation. Each of the College's A.A.S. degree programs is in a specified occupational field.
Although some college credits within these programs are accepted for transfer by particular four-year colleges and universities, occupational courses are not specifically designed to facilitate transfer. The student who anticipates transferring is encouraged to check carefully the requirements of the institution and program into which he or she might desire to transfer.
The following are general requirements for the A.A.S. degree:

1. A minimum of ninety quarter hours in approved course work. Since each A.A.S. program is designed for a specified occupational field, the minimum requirements will vary with the particular program. Eighteen quarter hours of the total must be in general education courses. Course requirements for the various A.A.S. degree programs are outlined in this catalog within the School of Occupational Education section.
2. A minimum cumulative grade point average of 2.0 (a "C" average) in the particular A.A.S. degree program curriculum.
3. Twenty-four of the last thirty-six quarter hours of course work prior to graduation must be taken in residence at Aims Community College.
4. Normally, only courses numbered 100 or above are applicable toward this degree.
5. Courses used as electives in meeting degree requirements and taken in addition to specified courses in a particular program are accepted toward the requirements of this degree only upon the approval of the appropriate program official. This approval is given only when appropriate to the educational objectives of the student.
6. A faculty advisor in the field of study must sign the application for graduation.

## CERTIFICATE IN OCCUPATIONAL EDUCATION

A Certificate in Occupational Education is awarded to a student who successfully completes an occupational program not leading to an associate degree. Normally, these programs are of one year or less in duration. These programs are designed exclusively to prepare students for immediate employment. No general education course work is required. Course requirements for the various certificate programs are outlined in this catalog within the School of Occupational Education section.

The following are general requirements for the Certificate in Occupational Education:

1. A minimum cumulative grade point average of 2.0 (a " C " average) in the particular certificate program curriculum.
2. A minimum of one-half $(50 \%)$ of a program's course work must be taken in residence at Aims Community College.
3. Normally, only courses numbered 100 or above are applicable toward a Certificate of Occupational Education.
4. Courses used as electives in meeting certificate requirements and taken in addition to specified courses in a particular program are accepted toward certificate requirements only upon the approval of the appropriate program offical. This approval is given only when appropriate to the educational objectives of the student.
5. A faculty advisor in the field of study must sign the application for graduation.

## GRADUATION REQUIREMENTS

The general requirements for receipt of an Associate of Applied Science (A.A.S.) degree, an Associate of Arts (A.A.) degree, an Associate of Science (A.S.) degree, an Associate of General Studies (A.G.S.) degree, or Certificates in Occupational Education programs are outlined in the curricula section of this catalog. A minimum cumulative grade point average of 2.0 is required in the particular program's curriculum for receipt of any type of degree or certificate, and normally only courses numbered 100 or above are applicable toward the degree or certificate. Specific requirements for individual programs may be secured from either the Records Office or the Counseling Center.

Twenty-four of the student's last thirty-six quarter hours of course work prior to graduation must be taken in residence at Aims Community College.
Students must make application for graduation by the end of the second full week of classes in the anticipated quarter of graduation. Graduation applications are available from the Records Office. Completed graduation applications with the faculty advisor's signature must be returned to the Records Office where final evaluations will be made. Additional signatures are needed for the following degrees: the A.S. degree requires the Mathematics and Science Division Chair's signature and the A.G.S. degree requires the signatures of the Dean of Arts \& Sciences and the Dean of Occupational Education. The student will be notified by mail of the conditions required for graduation.

## EFFECTIVE CATALOG

The catalog in use during a student's first enrollment in the college normally is used in determining completion of degree or certificate requirements. The effective catalog may, however, be no more than seven years old at the time of graduation. A student may elect to meet the requirements of any subsequent catalog published during the seven year period, including the current year. This election must be made when the student files a graduation application.

A student who has a break in enrollment in the college and/or program of four consecutive quarters or more, excluding summer sessions, must meet the program requirements of the catalog in use at the time of readmission. Any previously completed Aims occupational coursework may be subject to an evaluation of its relevancy to any revised program. If the occupational program in which the student was previously enrolled has been discontinued, or if a public notice of program discontinuance has been given, the student cannot reenroll in that program.

The College reserves the right to substitute courses for those no longer offered, to modify course content at any time, to approve the substitution of one course for another in any program or degree or waive any course prerequisite or corequisite.


## ADVISING

All students with a declared major and/or any student taking seven or more credits during any quarter must have an advisor. All students who have accumulated eighteen credits which will be applied to a degree must have an advisor's signature. New students need to make contact with an admission's counselor in the Counseling Information Center who will direct them to the appropriate staff for advising. A faculty advisor becomes conversant with the student's background, aptitudes, and educational objectives, and takes a personal interest in the student's education and welfare. Generally, an advisor is associated with the student's major field of study. Each student must accept the responsibility to:

1. Meet with an advisor to discuss career objectives;
2. Discuss program and class schedule prior to each registration or early registration; and
3. Make an appointment with an advisor when problems arise in the student's program, or if class changes are necessary, and
4. File appropriate advisor and program change forms with Admissions and Records.
Arts and Sciences Students taking 7 or more credits during a quarter, having declared a degree program, or who have accumulated 18 credits towards a degree, must have an advisor and must secure the advisor's signature on enrollment forms.
Occupational Student enrollees who have a declared major, or who are enrolling in seven or more credit hours, or who have 18 credits accumulated toward a degree must meet with an occupational faculty advisor and secure their signature on enrollment forms.
Developmental Studies Students, full-time or part-time, must have a faculty advisor.
Undecided Students may secure an advisor in the Counseling Information Center, however, no advisor's signature is required for enrollment unless the student has accumulated 18 credits towards a degree or when enrolling in 7 credits or more in one term. Courses carrying "permission only" designations in the Schedule of Classes always require division/department approval for enrollment.

## TRANSFER CREDIT

Aims Community College gives college credit, according to its policy, for College Level Examination Program (CLEP), specific education experience in the armed forces, and courses completed at other collegiate institutions. The College reserves the right to examine all credits to determine obsolescence of content. In the event that course work is found to be obsolete, the student may be required to update the credit. The College will accept those courses for transfer which have been completed with a "C" grade or better at an accredited college or university, or other approved institutions, and are applicable to their program of choice. Students who wish to take advantage of this service must formally request a review of their individual files by contacting the Aims Admissions Office. The Registrar will determine the number and nature of transfer credits applicable toward a degree or certificate.

## COURSE CHALLENGING PROCEDURE

A student may challenge a course for which the student believes his or her prior training and/or study are adequate to meet the instructor's course requirements. Credits for course work attempted through the challenge procedure do not contribute toward a student's eligibility for Financial Aid or Veteran's benefits. Only certain courses, identified by individual divisions, are available for this option. This credit will be allowed based on the following conditions and procedures:

1. The student must be currently enrolled in Aims Community College.
2. A course challenge may not be made for a course in which the student is currently enrolled, nor for one in which the student had been previously enrolled or had attended as a listener or visitor.
3. The student must secure a Course Challenge Application Form from the Office of Admissions and Records, and then submit the application to the division offering the course. The division will inform the student of divisional procedures.
4. Upon the approval of the course instructor and the division chair, the student will be offered the opportunity to complete the requirements for the course challenge.
5. A fee of $\$ 20.00$ per quarter hour credit will be charged to the student, and is payable upon divisional approval. Final arrangements for the course challenge will be made when the student presents the instructor with a receipt from the Business Office.
6. Upon successful completion of a challenge for credit, the student shall be awarded full credit for the course. A grade of "P" (passing) will be recorded when it is submitted to Admissions and Records by the faculty on a copy of the application form.
7. Challenge credit is not applicable toward college graduation residency requirements.

## COURSE LOAD

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

## COURSE NUMBERING

0-99 Precollege level courses not designed for transfer to other institutions. These courses do not count for college credit and are not used in grade point average calculation. Courses normally taken by freshmen

100-199
200-299

Courses normally taken by sophomores

## ATTENDANCE

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

## AUDITING OF COURSES

Any person may elect to enroll in a noncredit course on an audit basis if space is available. Such individuals will pay the regular tuition assessed for courses taken under this option. Those enrolled in noncredit courses need not take examinations.


## REPEATING COURSES

A student who earns a grade of "D" or "F" may repeat the course once to raise the grade to a " C " or better to meet the performance level required for subsequent courses. The course may be used only once to meet the graduation requirements of a particular degree or certificate program. If on the second attempt, the student fails to earn a "C" or higher grade, the student will not be allowed to attempt another repeat for one full academic year unless special approval has been granted by the Academic Standards Committe. A student may not repeat a course in which he has received a letter grade of "C" or higher without instructor approval. All grades will be listed on the student's transcript and will be computed in the student's grade point average (GPA).


GRADING SYSTEM
Aims Community College assigns the following alphabetical grades:

## Grade Quality of Work <br> Grade

Symbol Indicated by Symbol
A Indicates that the student has demonstrated superior achievement of the course objectives.
B Indicates that the student has demonstrated aboveaverage achievement of the course objectives.
C Indicates that the student has demonstrated acceptable achievement of the course objectives.
D Indicates that the student has demonstrated less-thanacceptable achievement of the course objective. Although a grade of " $D$ " indicates passing, it does not constitute satisfactory performance according to the standards of some programs. These may therefore, issue an " $F$ " grade rather than the "D."

F Indicates that the student has failed to achieve the objectives of the course.
P PASSING: Indicates a successful challenge to a course. none
S SATISFACTORY: For designated courses, indicates achievement of the course objectives at a passing level. none
U UNSATISFACTORY: For designated courses, indicates failure to achieve course objectives.
none
W WITHDRAWAL: Indicates withdrawal from the course. May be student or faculty initiated through $60 \%$ of the course. Signatures of instructor or advisor is required on withdraw form.
none
WP WITHDRAWAL - PASSING: Indicates that at the time of withdrawal the student was passing the course. Instructor assigns as final grade when student stops attending after $60 \%$ of quarter and up to final examination.

WF WITHDRAWAL - FAILING: Indicates that at the time of withdrawal the student was failing the course. Instructor assigns as final grade when student stops attending after $60 \%$ of quarter and up to final examination.

1 INCOMPLETE: An instructor may choose not to record a grade when the student has, for good reason, been delayed in completing the required work. The student who meets the instructor's requirements for an " I " must complete an agreement with the instructor which specifically identifies the terms and conditions for completing the course. This agreement must be filed with the Office of Admissions and Records. The student has a maximum of one academic quarter to complete the course requirements. If at the end of this time the " l " has not been completed, the student will receive the " $F$ " designation for the course. If a student's individual circumstances justify, the instructor and/or the Division Chairman may approve an extension for an "I" completion up to a four-quarter maximum.
NC NO CREDIT: Available only in below-100 and noncredit courses
AU AUDIT: Available only in non-credit courses. none

## GRADE POINT AVERAGE

A student's grade point average (GPA) is computed according to the following formula:

Number of credits of " $A$ " multiplied by 4; plus
Number of credits of " $B$ " multiplied by 3 ; plus
Number of credits of "C" multiplied by 2; plus
Number of credits of " $D$ " multiplied by 1 ;
Number of credits of " F " multiplied by 0 .
Divided by total number of credits accumulated.
Only the credits accumulated and grade points earned in college level courses at Aims Community College are used in computation of quarterly and cumulative GPAs which appear on grade reports. Courses numbered below 100 do not count for college credit or in the grade point average. Courses graded " S " count for college credit, but are not used in the grade point average.

## ACADEMIC STANDARDS

Academic progress is measured by both the cumulative and the quarter grade point average. All students, both full and part-time, are expected to make satisfactory academic progress with the GPA being used as the basis for determining minimum standards of progress. The following 4.0 scale is used to determine academic progress:

1st Quarter in attendance: 1.75 GPA
2nd Quarter in attendance: 1.9 GPA
3rd and Subsequent Quarters: 2.0 cumulative GPA
Any student who does not maintain an appropriate GPA will be subject to Academic Probation. Academic Probation is a formal and official warning to the student that reassessment should be made of his/her study habits, class loads, or program selection. Each quarter the Academic Standards Committee will review the academic performance of each student who falls into one of the following categories:

1. Has achieved less than a 1.75 GPA the first quarter.
2. Has achieved less than a 1.9 cumulative GPA through the second quarter.
3. Has achieved less than a 2.0 cumulative GPA through the third quarter and each subsequent quarter thereafter.
4. Withdraws (after 8 day) and/or receives an " F " grade in $25 \%$ or more of the credit hours in which registered.
Following its review, the Academic Standards Committee may implement one or a combination of the following actions: (A written copy of the committee's action will be retained in the student's file, provided to the student, and to the appropriate third parties.)
5. Academic Warning (referred to advisor and/or counselor for assistance).
6. Academic Probation (written notification).
7. Referral for Basic Skill Development and/or Remedial Course Work.
8. Advise a Program Change.

Students who are placed on academic probation for one quarter and continue to make less than satisfactory progress or fail to improve their GPA standing above the probationary level will be called before the Academic Standards Committee for an Academic Suspension Hearing. The findings of the Academic Standards Committee will determine whether or not the student will be allowed to continue course work or will be placed on Academic Suspension. Academic Suspension is for one academic quarter. A student placed on Academic Suspension may apply for readmission to the college after the suspension period. A student may appeal, according to College procedure, any action of the Academic Standards Committee.

## HONORS

Full-time students who complete at least 12 degree hours of credit during a quarter and who earn a GPA of 4.0 (straight A) will be listed on the President's List. Full-time students who earn a GPA of 3.5 but less than 4.0 , will be on the Dean's List. The achievement of honor status is noted on student transcripts.

## SUPPLEMENTAL SERVICES

The Supplemental Services program provides assistance to all students needing "extra help" with any vocational or academic course at Aims. Our tutoring staff is prepared to help students with specific problems in individual courses in addition to helping students strengthen their skills in reading, studying, writing, spelling, and basic mathematics. Instructor referrals and completion of course prerequisites are required in order to receive tutoring.

Computer programs for review of English, mathematics and other basic subjects are also available in the Micro Lab adjacent to the Supplemental Services Center (Horizon Hall, Rooms 301-304.) Ask for assistance if you are not sure which computer program you need.

Handicapped students needing special materials or accommodations should contact any of the office personnel in Supplemental Services prior to registration so that appropriate arrangements can be made with instructors. We can be reached during the day at extensions 248,388 , or 496.


## MEDIA SERVICES/ TELECOMMUNICATION/TV DISTRIBUTION

The Media Services department supports Aims Community College programs, students, faculty, administrative and support staff personnel in the development, production and distribution of instructional materials.

This award winning department is dedicated to the highest standards of service to the academic community and has gained recognition at local, state, regional and national levels.

The production areas of this department include: Graphics, Photography, Audio and Video.

Graphic services include overhead transparencies, poster mounting, lettering, lamination, dry mounting and framing.

Photographic services include black and white and/or color original photography, either in-studio or on location, darkroom services for black and white film, duplication of slides and filmstrips, and copy stand work. Archives of historic photographs and slides are available for slidetape programs. Original graphic slides can also be produced.

Audio production is done in a four-track audio recording/production studio which includes both sound effects and production music libraries. Original narration, sound tracks, and pulsing for slide-tape programs are produced in this facility. On location audio taping, such as guest lectures, and audio duplication services are also available.

Color television production is provided either on location or in the three-camera studio and editing suite. Television is used for a variety of instructional purposes including mirror teaching, student observation, evaluation and testing, training videotapes, telecourses, promotion and public relations and duplication services.

The Telecommunications area is used by students and faculty to develop original programming for instruction and includes scriptwriting, pre-production services, production, and post-production editing. Internships are available for qualified students seeking further television production experience. Telecommunications also co-ordinates PBS telecourse offerings with KRMA-TV for students wishing to utilize this academic resource.

The Television Distribution area includes a twelve channel closedcircuit television distribution system which feeds nearly $100 \%$ of the main campus classrooms and a 1500 volume tape library. TV distribution also provides access to cable and satellite transmissions for off-air recording and prepares programming supplied by Aims for cablecast on Greeley Cablevision channel 8.

## AUDIO-VISUAL EQUIPMENT CENTER

The Audio-Visual Equipment Center provides preventative maintenance and repair service for the College's instructional equipment. The Center also has designed the media delivery systems which provide students and staff better access to learning media for both group and individualized instruction. Instruction is given to any person who requires assistance in the operation of audio and visual equipment with which he or she is not familiar. The Audio-Visual Equipment Center functions in close harmony with the Media
Services/Teleccmmunications Center to ensure the availability of compatable equipment in sufficient quantity.

An Office Equipment Service Center is contained within the AV Department for support of school equipment. All office equipment such as typewriters, print copiers, mimeograph, and calculators are processed through this facility for preventive maintenance and service.

## LIBRARY

The Library stores and circulates about 40,000 print materials (books, magazines) and nonprint materials (records, audio cassettes, slides). The library subscribes to nearly 400 periodicals (magazines, journals, newspapers). Students, faculty, and staff can check out materials by providing their Social Security Number. Community users may also check out materials by providing their current address in addition to their Social Security Number.

Reserve materials assigned by instructors are checked out at the main desk. Knowing the instructor's name and the exact title of the material ensures speedy service.

AV equipment is available at the main desk for student check-out with the instructor's approval.

Library hours appear every quarter in the front part of the class schedule for that quarter. Handy phone numbers: Ext. 227 for renewals and questions about overdue materials; Ext. 326 for AV equipment information; Ext. 237 for the Library Coordinator.

## ASSESSMENT CENTER

The Assessment Center provides the following services:

1. Preassessment: Upon application for admission to the college, new students are preassessed in reading, writing, basic mathematics, and algebra to determine their skill levels. This information is utilized by the advisor and the student in making appropriate decisions about course scheduling.
2. Diagnostic Assessment: Upon identified need, the student is provided with diagnostic assessment, and evaluation in cognitive, affective, and perceptual-motor domains to determine his or her learning characteristics. This information is utilized by the student, the advisor, and the instructors to assist the student in a chosen course of studies at Aims Community College.

## COUNSELING INFORMATION CENTER

(Sue Davisson, Director Counseling Services; Charlotte Rodriquez, Counselor; Dr. Margaret Morelli, Vocational Counselor; Bill Hardgrave, Career Counselor; Arwilda Harrington, Secretary)

The Counseling Information Center (CIC) consists of the Advising and Career Resource Centers which are located in the General Services Building. The Advising Center provides all students with an opportunity for assistance in making more objective and adequate decisions relative to vocational and educational plans. Advising is provided specifically to students who are undecided in their program choice or who are planning on transferring to another institution. Orientations are held regularly throughout the school year to welcome and introduce new students to the College and to help them become acquainted with programs of study, services available and the registration process. The Advising 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 Career Resource Center provides active, wideranging and unique services and programs.

Our emphasis is placed in helping all students with any problems that interfere with achieving success at the College. Since these services are entirely voluntary, the student must initiate contact or be referred by a member of the professional staff in order to receive assistance.

The staff assists students in the following areas:

1. Educational Vocational planning
2. Career planning
3. Advising orientation
4. Test evaluation (interest, aptitude and personality)
5. Referral services about school and community resources
6. Workshops
7. On-going women's and men's problem-solving and support groups


## SPECIAL INSTRUCTIONAL PROGRAMS

## DEVELOPMENTAL STUDIES

The Developmental Studies Division exists to provide educational options for students. An initial assessment of academic skills administered by the Assessment Center is required to assure that students meet minimum academic entrance requirements for specific courses and/or programs. Students have an opportunity to improve their skills in the area of math, reading, writing, and basic oral language development to the level necessary to pass the General Education Development (GED) examination and/or to benefit from certificate or degree programs.

## CONTINUING EDUCATION

The Office of Continuing Education provides workshops and seminars for both personal and professional development. Outreach classes in Loveland, Berthoud, Eaton, Ault, Nunn and other neighboring communities are also provided through the collaborative efforts of the Divisions and the Office of Continuing Education. The new Loveland Center was opened in the Fall of 1986 to serve the needs of Larimer County residents.
In a similar manner, the Office of Continuing Education develops and coordinates the College for Kids summer program initiated in 1982.

Emphasis is placed on serving community needs and developing new offerings, such as: scheduling classes on the weekend and workshops for adults retarning to school.

## COMMUNITY SPECIAL PROJECTS

## BUILDING BETTER BOARDS FOR COMMUNITY ORGANIZATIONS

The Building Better Boards for Community Organizations (BBB) project began in 1981 under the auspices of the American Association of Community and Junior Colleges and is designed to strengthen the skills for citizen boards of non-profit organizations.

Aims Community College was selected as one of 148 participating colleges in the nation. The Office of Continuing Education offers board development workshops on various topics.

## COMMUNITY INTEREST PROGRAMS

Classes are offered in a number of instructional areas for the person who desires to broaden his or her experiences with the study of subjects of special interest. Major emphasis is on personal and professional improvement and interest. Courses are offered if the need or demand arises, an appropriate number of students is available, and a qualified instructor can be secured. Adult education classes also are offered in communities outside Greeley, including Ault, Eaton, Windsor, Kersey, Johnstown, Gilcrest, Fort Lupton, Keenesburg, and others.

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

## "COLLEGE FOR KIDS"

"College for Kids," developed by Aims Community College in 1982, is a community outreach program offering summer enrichment classes for children. Courses are specifically designed for children and include a wide variety of subjects. Examples of course offerings are: LOGO for the Young Child, Soccer, Television Workshop, Aviation, Creative Writing, and Electronics.

## STUDENT ACTIVITIES AND ORGANIZATIONS


#### Abstract

The Associated Students of Aims Community College, ASACC, serves as the student government and assists in developing a diversified activities program which includes a variety of social, cultural, recreational and career development programs. The ASACC Program Board is responsible for student initiated activities to complement the educational aspects of college life. The college believes that such activities are an important element of the college experience and aid in the development of students so that they may lead more meaningful, productive and balanced lives.


The ASACC Advisory Board represents the diverse needs and interests of Aims' students and assists in chartering and working with student organizations. The Board recognizes that student organizations provide valuable services to students, especially if they emphasize programs for professional, philosophical or occupational development. Seats on the Board are often assigned to students who are active in chartered campus organizations. In addition, a method of financial assistance for funding club projects employed by the Board encourages greater involvement and participation in student organizations.

Advisory and Program Board members participate in the decisionmaking processes of the college. Members represent student opinions and concerns and give input on matters relating to student life to the college administration and the Governing Board of the institution. Through their involvement Board Members develop leadership skills, manage student programs and student affairs, and serve as spokespersons for the student body.

The Student Boards also assist in providing information on student life through student publications, promotions, and a television program that features news, sports, entertainment and activities at Aims Community College.
Student organizations with specific purposes addressing the interests of particular segments of the student population may be chartered and receive financial assistance. Currently the chartered clubs and organizations at Aims include:

VICA - Vocational and Industrial Clubs of America
PBL - Phi Beta Lambda
DEC - Mid-Management Club
AIDD - American Institute of Drafting and Design
APRS - Aims Program Radiography Students
AEYC - Association for Education of Young Children

## MISCELLANEOUS INFORMATION

## STUDENT CODE OF CONDUCT

Aims Community College student organizations follow the policies, procedures and standards of conduct as set forth by the college. It is expected that the students of Aims Community College will obey federal, state and local laws and respect the rights, privileges, and property of others. They are expected to conduct themselves in a manner which is not disruptive of college functions, does not interfere with free movement of students, school personnel, or invited visitors, 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 warranting such action, the College President may summarily suspend all persons involved in a violation of these standards, pending final disposition 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 orderly. 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.

## CHEATING

Cheating takes place in different ways, but basically, it involves dishonest behavior, such as copying from another person or obtaining any form of unauthorized help or assistance from any person or source.

Breaches of academic honesty will result in disciplinary measures.
These can include:

1. A failing grade for a particular assignment.
2. A failing grade for a particular course.
3. Suspension for various lengths of time from the college.
4. Permanent expulsion from the college.

## DISMISSAL

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

## PLACEMENT SERVICES

Aims Community College provides a student placement service. The placement service aids students in securing full-time employment upon graduation. The College also cooperates with local businesses to assist students in securing part-time employment while attending school. An effort is made to place students in job fields which relate to their college programs. Placement information may be obtained from the Placement Office in Ed Beaty Hall, Room 579.

## BUS SERVICE

The City of Greeley has a bus system which includes two routes that provide service to Aims Community College. Riders can also transfer to Aims campus routes from other routes which serve the City.

## PARKING

Vehicular parking is available on campus in designated lots. Parking regulations are enforced by the Department of Public Safety.

## FOOD SERVICE

The Campus Kitchen I cafeteria is located west of the General Services Building. Regular hours are 8:00 a.m. - 4:30 p.m., Monday through Friday. Summer hours are 7:00 a.m. - 4:00 p.m. Monday through Thursday.

Food and snack vending machines are located in buildings throughout the Greeley campus.

## BOOKSTORE

The Aims College Bookstore, located in the General Studies Building, is a institutionally owned facility operated for the convenience of the students of the College. Students may purchase textbooks, supplies, and softgoods during posted hours.

Textbooks are also available for purchase at the South Campus, Fort Lupton, and for Loveland-Berthoud classes in the Loveland Center.

## HEALTH SERVICES

Aims Community College provides emergency health services by a trained Emergency Medical Technician. The EMT provides first aid and emergency care on campus and referrals to appropriate health agencies when deemed necessary.

Handicapped Parking Permits are issued by the Dean of Student Services Office.

The mandatory Student Accident Insurance Program is administered in the Dean of Student Services Office. A student must file an Accident/Incident Report within 24 hours following an accident/incident. All medical bills resulting from an accident/incident must be presented by the student to the Dean of Student Services Office for processing of insurance claims.

In addition, the University of Northern Colorado offers Aims students the opportunity to purchase health services from the University. For additional information contact the Dean of Student Services Office.

## EARLY CHILDHOOD EDUCATION CENTER

Aims Community College offers, for a nominal fee, an Early Childhood Education Center. The Center is a training station for adult students enrolled in the Child Care Services Program and is staffed by a qualified director.

Applications for enrolling children are available at the Early Childhood Education Center during registration each quarter. The Center serves children ages 3 to 5 years (but not yet in kindergarten) for half-day ( 3 hour) sessions Monday through Thursday.
The purpose of the Center includes:

1. Providing children the opportunity to gain social relationships with other children.
2. Providing play experiences that contribute to the physical, social and emotional needs of the child.

## HOUSING

Since the College does not provide student housing, it is the student's responsibility to make arrangements for his or her living quarters. It is recommended that these arrangements be made prior to the beginning of the quarter for which the student intends to enroll. It should be noted that most parties who have facilites 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.



## SCHOOL OF ARTS AND SCIENCES

Arts and Sciences offerings are intended to serve a variety of student needs. Students may find support for their Occupational Education programs in these offerings; they may be enrolled to earn a two-year arts, science or general studies degree; or a student may be preparing for a baccalaureate program at a four-year institution to which he or she plans to transfer. In addition, these offerings may serve the special educational interests of the community.
Students in Occupational Education programs may enroll in Arts and Sciences courses to meet the specific requirements of a particular occupational curriculum and to select desired elective courses.
Students who earn the Associate of Arts degree, the Associate of Science degree or the Associate of General Studies degree will meet most requirements for transfer to a four-year institution. These students are encouraged to fulfill elective requirements by taking courses which relate directly to a career or academic major at another school.
For the student who desires to begin work towards a particular major while at Aims Community College, the Arts and Sciences instructional divisions have developed "areas of emphasis." Some of these are described within this section of the catalog.
The Arts and Sciences program provides adult and evening courses as part of its regular instruction. The curriculum consists of arts and sciences course work, vocational-technical and related instruction, and self-interest courses. The wide variety of instruction allows people of all ages to complete college work, acquire new skills, improve existing skills, and pursue special interests.

## ASSOCIATE DEGREES

Included within the Arts and Sciences program are three degree options: the Associate of Arts (A.A.) degree, the Associate of Science (A.S.) degree and the Associate of General Studies (A.G.S.) degree.

## ASSOCIATE OF GENERAL STUDIES DEGREE (A.G.S.)

The purpose of the A.G.S. degree is to serve students who need an individualized degree program for job requirements, career advancement and/or personal development. The A.G.S. degree, however, does not guarantee transferability nor employability. A unique characteristic of the degree is that the field of study is determined by the student in consultation with a faculty advisor. Each student must develop a written statement of Goals and Objectives and specific courses needed to satisfy those objectives. In addition, a core curriculum of general education courses must be completed. The student who is pursuing a particular major at a four-year institution may wish to select a particular area of emphasis within the degree. A degree contract must be signed by the student, faculty advisor and the Deans of Arts \& Sciences and Occupational Education prior to acceptance into the degree program.

## AEROSPACE STUDIES

In cooperation with the University of Northern Colorado (UNC), Aims Community College offers students the opportunity to enroll in the first two years of the Air Force Reserve Officer Training Corps (AFROTC) program. Students enroll through Aims and attend classes at UNC.
Candidates are educated to assume duties as Air Force Second Lieutenants upon graduation from UNC. AFROTC graduates normally go on active duty with the United States Air Force soon after completion of AFROTC. Initial assignments may include flight training for pilots and navigators, missile training, or other technical or management training depending on the individual's assignment.
For additional information, contact the AFROTC chairperson, University of Northern Colorado.

## MEXICAN AMERICAN STUDIES

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


## INDEPENDENT STUDY COURSES

Some courses are offered on an independent study basis. This format provides an opportunity for the student to study intensively a specific topic under the direction of a faculty member. Prerequisites may be required. Credits available vary with each division. These courses may be repeated at different levels of proficiency. Also, the number of independent study credits taken per quarter may be limited. Consult the contact person listed with the course description for specific information regarding divisional requirements and to register for the independent study. This information is applicable also to practicums listed in the Communications and Humanities Division.

## INDIVIDUALIZED COURSES

Some classes are offered on an individual basis. These courses generally are available throughout the academic year. The format requires no class attendance, allows entry at any time, and permits the student to proceed at his or her own pace. Help is available on request. Consult the contact person listed with the course description for specific information regarding divisional requirements and how to register for the individualized class.

## ASSOCIATE OF ARTS (A.A.) DEGREE

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

Credits
Communications ..... 15
Humanities ..... 15
Behavioral and Social Science ..... 15
Mathematics and Science ..... 15
Physical Education ..... 5
Electives ..... 31
Total ..... 96
ASSOCIATE OF ARTS (A.A.) DEGREE
Total Minimum Requirements:CREDITS
COMMUNICATIONS
ENG 121 English Composition I5
As the result of a placement test, the student maybe required to take Fundamentals of Com-position, ENG 105, for elective credit (five credits)or a remedial course for no college credit.Proficiency in essay writing is required for apassing grade.Students are encouraged to take the above courseswithin the first two quarters of their degreeprogram.
ENG 122 English Composition II
Prerequisite: ENG 121
SPE 115 Principles of Speech Communication

## HUMANITIES

Students will take three courses from at least two different disciplines. The following course is required of all students:

## HUM 121 Survey of Humanities I

Students will select the other two courses from those listed below.

| ART | 111 | Art History I | 5 |
| :--- | :--- | :--- | :--- |
| ART | 112 | Art History II | 5 |
| SPA | 111 | Spanish Language I | 5 |
| SPA | 112 | Spanish Language II | 5 |
| FRE 111 | French Language I | 5 |  |
| FRE | 112 | French Language II | 5 |
| HUM 122 | Survey of Humanities II | 5 |  |
| HUM 123 | Survey of Humanities III | 5 |  |
| LIT | 115 | Introduction to Literature | 5 |
| LIT | 201 | Masterpieces of Literature I | 5 |
| LIT | 202 | Masterpieces of Literature II | 5 |
| MUS 120 | Music Appreciation | 5 |  |
| MUS | 121 | Introduction to Music History I | 5 |
| MUS | 122 | Introduction to Music History II | 5 |
| THE | 211 | Development of Theatre I | 5 |
| THE | 212 | Development of Theatre II | 5 |
| PHI | 111 | Introduction to Philosophy | 5 |
| PHI | 112 | Ethics | 5 |
| PHI | 113 | Logic | 5 |

Total Credits for A.A. Degree

## CREDITS

## BEHAVIORAL AND SOCIAL SCIENCES

Select one from the following courses: 5
PSY 101 General Psychology I 5
SOC 101 Introduction to Sociology I 5
Select from two of the following five areas: 10
ANTHROPOLOGY
ANT 111 Cultural Anthropology 5
ECONOMICS
ECO 201 Principles of Macreoeconomics 5
ECO 202 Principles of Microeconomics 5
HISTORY
HIS 101 Western Civilization I 5
HIS 102 Western Civilization II 5
HIS 103 Western Civilization III 5
HIS 201 United States History 1 5
HIS 202 United States History II 5
HIS 203 United States History III 5
POLITICAL SCIENCE
POS 111 American Government 5
GEOGRAPHY
GEO 105 World Geography 5
Total Credits for A.A. Degree

## PHYSICAL EDUCATION

A minimum of five, separate credits of prefixes PEA, PEB, PED, PEF will be selected from any physical education activities offered. This will provide the student with adequate opportunity to be introduced to a variety of physical fitness and leisure time activities to round out his or her general education.
Veterans or students with a doctor's excuse may have their physical education requirements waived. They must still meet the 96 credit hour requirements for the A.A. degree. Students who desire a physical education waiver must contact the Registrar.

## MATHEMATICS AND SCIENCE

While planning academic programs, advisors and students should give maximum attention to assessment test scores and prerequisites and/or corequisites as stated in this catalog. The student planning to transfer to a specific four-year school should work carefully with an advisor and the catalog of the school of transfer.

NOTE: A single course may be used to meet only one requirement. All course prerequisites must be met for the following courses:

## MATHEMATICS

## CREDITS

Students will select a minimum of one of the following choices:
$\left.\begin{array}{llr}\text { MAT } & 121 & \text { College Algebra } \\ \text { MAT } & 125 & \text { Survey of Calculus }\end{array}\right) 5$

| BIO | 105 | Science of Biology | 5 |
| :--- | :--- | :--- | :--- |
| BIO | 111 | General College Biology 1 | 5 |
| CHE | 111 | General College Chemistry I | 5 |
| GEY | 111 | Physical Geology | 5 |
| GEY | 121 | Historical Geology | 5 |
| PHY | 105 | Conceptual Physics | 5 |
| PHY | 111 | Physics: Algebra-based I | 5 |
| PHY | 211 | Physics: Calculus-based I | 5 |

## MATHEMATICS AND/OR SCIENCE

Students will select from courses having the following prefixes: AST, BIO, CHE, CSC, EAS, GEY, MAT, PHY, SCI or STA. minimum of 5 credits

Note: The following courses may not be used towards the Mathematics and Science requirements for the A.A. degree: MAT 101, MAT 110, PHY 101, SCI 230 and any courses numbered below 100.

Total Credits for A.A. Degree
Minimum of 15


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

## HUMANISTIC PSYCHOLOGY EMPHASIS

Recommended degree requirements for area of emphasis:

## CREDITS

COMMUNICATIONS
See A.A. degree requirements

HUMANITIES
See A.A. degree requirements

BEHAVIORAL AND SOCIAL SCIENCE
PSY 101 General Psychology I 5
See A.A. degree requirements 10

PHYSICAL EDUCATION
See A.A. degree requirements

MATHEMATICS AND SCIENCE

See A.A. degree requirements

## Electives

PSY 107 Transactional Analysis 3
PSY 111 Basic Human Potential Seminar 3
PSY 115 Humanistic Psychology 5
PSY 131 Beginning Counseling 5
PSY 241 Biofeedback I: Biofeedback \& the
Psychology of Health (Principles) 5
PSY 248 Child Psychology 5
SOC 105 Sociology of Marriage and the Family 5
Total Credits for Area of Emphasis

## PARAPROFESSIONAL COUNSELING EMPHASIS

Recommended degree requirements for area of emphasis:

## COMMUNICATIONS

See A.A. degree requirements
HUMANITIES
See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE
$\begin{array}{lll}\text { PSY } & 101 & \text { General Psychology I } \\ & & \text { See A.A. degree requirements }\end{array}$
PHYSICAL EDUCATION
See A.A. degree requirements
MATHEMATICS AND SCIENCE
See A.A. degree requirements
Electives
PSY 111 Basic Human Potential Seminar 3
PSY 131 Beginning Counseling 5
PSY 138 Biofeedback and Stress Management
PSY 221 Abnormal Psychology
PSY 225 Advanced Counseling
PSY 241 Biofeedback I: Biofeedback \& the Psychology of Health (Principles)
PSY 248 Child Psychology
Total Credits for Area of Emphasis

## BIOFEEDBACK EMPHASIS

Recommended degree requirements for area of emphasis:

## COMMUNICATIONS

See A.A. degree requirements
HUMANITIES
See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE
PSY 101 General Psychology I
See A.A. degree requirements
PHYSICAL EDUCATION
See A.A. degree requirements

## MATHEMATICS AND SCIENCE

BIO 211 Human Anatomy and Physiology I
BIO 212 Human Anatomy and Physiology II
BIO 213 Human Anatomy and Physiology III

## Electives

PSY 131 Beginning Counseling
PSY 138 Biofeedback and Stress Management
PSY 225 Advanced Counseling
PSY 241 Biofeedback I: Biofeedback \& the
Psychology of Health (Principles)
PSY 242 Biofeedback II
PSY 244 Biofeedback and Hypertension

## Electives

CREDITS 15

## CRIMINAL JUSTICE EMPHASIS

This emphasis will prepare individuals for transfer to four-year college or university criminal justice, pre-law, political science, social work, or sociology programs. For further information and/or advising on career or transfer possibilities, contact the Criminal Justice Department.

Recommended degree requirements for area of emphasis:
CREDITS
COMMUNICATIONS
See A.A. degree requirements
HUMANITIES
See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE
See A.A. degree requirements
MATHEMATICS AND SCIENCE
See A.A. degree requirements
PHYSICAL EDUCATION
See A.A. degree requirements
Electives
CRJ 110 Introduction to Criminal Justice 5
CRJ 114 Community and the Justice System 5
CRJ 201 Criminal Law 5
CRJ 202 Constitutional Law 5
CRJ 203 Criminal Procedure 5
CRJ 248 Criminology 5
CRJ 249 Discretionary Justice 3
Total Credits for Area of Emphasis

## PRELA W EMPHASIS

Since most law schools do not prescribe a rigid prelaw curriculum, students intending to enter law school should tailor subject selection to provide strong foundations in writing, speaking, studying, and logical thinking. Social science is frequently the undergraduate field for the prelaw student, but all law schools require sufficient English to ensure competence in grammar, composition, spelling, and speech. Both mathematics and philosophy promote the capacity to think analytically. In some instances, students who wish to provide a base for future specialization may select some beginning courses related to that specialty. Tax law, for example, could be facilitated by a strong accounting background; patent law by engineering or natural sciences; comparative or international law by foreign language competency and acquaintance with other cultures; criminal law by criminal justice courses. The Political Science Department will be pleased to assist prelaw students.

## POLITICAL SCIENCE EMPHASIS

This emphasis leads graduates 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 the Behavioral and Social Science Division.

Recommended degree requirements for area of emphasis:

## CREDITS

## COMMUNICATIONS

See A.A. degree requirements

## HUMANITIES

See A.A. degree requirements and consult with advisor.
BEHAVIORAL AND SOCIAL SCIENCE
Select one of the following:

| PSY | 101 | General Psychology I | 5 |
| :--- | :--- | :--- | :--- |
| SOC | 101 | Introduction to Sociology I | 5 |
| Also: |  |  |  |
| POS | 111 | American Government | 5 |
| ECO | 201 | Principles of Macroeconomics | 5 |

PHYSICAL EDUCATION
See A.A. degree requirements
MATHEMATICS AND SCIENCE
See A.A. degree requirements
Electives
Select courses in political science, history, and humanities in consultation with advisor.

Total Credits for Area of Emphasis

## SOCIAL SCIENCE EMPHASIS

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

See A.A. degree requirements

## HUMANITIES

See A.A. degree requirements
BEHAVIORAL AND SOCIAL SCIENCE 35
ECO 201 Principles of Macroeconomics 5
GEO 105 World Geography 5
HIS $103 \quad \begin{aligned} & \text { Western Civilization III, Introduction } \\ & \\ & \\ & \text { to History }\end{aligned}$
PSY 101 General Psychology I 5
POS 111 American Government 5
POS 118 State and Local Governments 5
SOC 101 Introduction to Sociology I 5
Consult with an advisor to determine which of these courses will apply to the A.A. degree "area" requirements and which will apply to "elective" requirements. All of the above courses are required to complete this emphasis.
PHYSICAL EDUCATION
See A.A. degree requirements
MATHEMATICS AND SCIENCE
See A.A. degree requirements
Electives
Total Credits for Area of Emphasis 96

## FAMILY AND LIFE EDUCATION

John Turner, M.A.
Division Chair
Behavioral \& Social Science
Aims Community College

## STAFF COORDINATORS

Sally Eastwood, M.A.-Active Families
Kathleen Stevens, R.N.-Expectant Families
Susan Wanner, M.A.-Senior Education Program

## ADMINISTRATIVE ASSISTANTS

Susan LaBonde


## COMMUNICATIONS AND HUMANITIES DIVISION

## COMMUNICATIONS MEDIA EMPHASIS

This emphasis in Communications is for students who wish to transfer to a four-year college for a major in this area, or for students who wish to complete two years of college and go immediately into a career. For information on careers in the field, students may consult brochures available in the Communications and Humanities Division Office or the Career Resource Center.
Students preparing for this area of study should ensure proper preparation in writing and speaking skills. Preassessment in reading and writing is a requirement before registering in this major emphasis.
Recommended degree requirements for area of emphasis:
CREDITS

## COMMUNICATIONS

The following courses are required:

| ENG | 121 | English Composition I | 5 |
| :--- | :--- | :--- | :--- |
| ENG | 122 | English Composition II | 5 |
| SPE | 115 | Principles of Speech Communication | 5 |

SPE 115 Principles of Speech Communication 5
HUMANITIES
HUM 121 Survey of Humanities I 5
Student will select two courses from two different disciplines listed below:
ART 111 Art History I 5
SPA 111 Spanish Language I 5
LIT 115 Introduction to Literature 5
MUS 120 Music Appreciation 5
PHI 111 Introduction to Philosophy 5
THE 211 Development of Theatre I 5
BEHAVIORAL AND SOCIAL SCIENCE
See A.A. degree requirements
MATHEMATICS AND SCIENCE
See A.A. degree requirements
PHYSICAL EDUCATION
See A.A. degree requirements
Electives
COM 112 Introduction to Mass Media 5
COM 113 Introduction to Radio Broadcasting 5
COM 114 Introduction to Television Broadcasting 5
COM 115 Introduction to Television Broadcasting II 5
COM 118 Introduction to Audio Production 5
COM 291 TV Field Production Lab 1 (6 hours) 3
COM 298 Broadcast Internship ( 10 hours) 5
COM 299 Communications Practicum 1-3
Total Credits for Area Emphasis

## DESIGN AND CREATIVE STUDIES (DESIGN, VISUAL ARTS, MUSIC, THEATRE AND MOVEMENT, TEXTILES AND CLOTHING)

The study of design and the arts is an exciting venture with several facets. Students may work in these courses to deepen their understanding of human expression and invention, to strengthen their sensory skills, to develop creative thinking abilities, or to create their own unique expressions, images, or objects.

The transfer level courses may be taken as rewarding electives within a program of general education, or as work toward a four-year program in design, visual arts, music, theatre and dance, or textiles and clothing. Each course is not offered every quarter. Some are offered every other year, or on demand. (See Aims Annual Schedule.)

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

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

## DESIGN AND VISUAL COMMUNICATION EMPHASIS <br> Recommended degree requirements for area of emphasis:

## COMMUNICATIONS

See A.A. degree requirements

## HUMANITIES

ART 111 Art History I 5
ART 112 Art History II 5
MUS 120 Music Appreciation 5
MUS 121 Introduction to Music History 1 5
MUS 122 Introduction to Music History II 5
THE 211 Development of Theatre I 5
THE 212 Development of Theatre II 5
BEHAVIORAL AND SOCIAL SCIENCE 15
See A.A. degree requirements
PHYSICAL EDUCATION
5
See A.A. degree requirements
MATHEMATICS AND SCIENCE
See A.A. degree requirements


## Electives

Select from the following courses, with advisor approval:
(These are required prerequisites in most college art and design programs.)
AAD 101 Fundamentals of Art \& Design I 5
AAD 102 Fundamentals of Art \& Design II 5
AAD 131 Drawing I
3
AAD 132 Drawing II 3
ART 111 Art History I 5
ART 112 Art History II 5
Select from the following studio design courses,
with advisory approval:
ART 100 Art Appreciation 5
ART 113 Art History III 5
AAD 128 Computer Graphics I 3
AAD 129 Computer Graphics II 3
AAD 201 Survey of Fashion Design 3
AAD 221 Graphic Design I 3
AAD 222 Graphic Design II 3
AAD 223 Graphic Design III 3
AAD 225 Calligraphy 3
AAD 231 Figure Drawing I 3
AAD 232 Figure Drawing Il 3
AAD 235 Graphic Illustration 3
AAD 241 Photography I 3
AAD 242 Photography II 3
AAD 243 Photography III 3
AAD 244 Photography IV 3
AAD 245 Photojournalism 3
AAD 251 Interior Design I 3
AAD 252 Interior Design II 3
AAD 253 Interior Design III 3
ARS 243 Water Media I 3
ARS 244 Water Media II 3
Total Credits for Area of Emphasis


## FINE ARTS EMPHASIS

The Fine Arts Emphasis may be directed toward teacher preparation. Two options are available to the student: Art, or Music and Theatre. All students complete the same total minimum requirements ( 65 credits) for the A.A. degree. In choosing the remaining elective courses ( 31 credits) to complete the A.A. degree ( 96 credits), the student selects from either the Art electives listed, or from the Music and Theatre electives listed.

Recommended degree requirements for area of emphasis:

## CREDITS

COMMUNICATIONS
See A.A. degree requirements

## HUMANITIES

ART 111 Art History I 5
ART 112 Art History II 5
MUS 120 Music Appreciation 5
MUS 121 Introduction to Music History I 5
MUS 122 Introduction to Music History II 5
THE 211 Development of Theatre I 5
THE 212 Development of Theatre II 5
See A.A. degree requirements

BEHAVIORAL AND SOCIAL SCIENCE
See A.A. degree requirements

PHYSICAL EDUCATION
5
See A.A. degree requirements

## MATHEMATICS AND SCIENCE

See A.A. degree requirements

Electives - Art
31
Select from the following courses with advisor approval:
(These are required prerequisites in most college art and design programs.)

| AAD 101 | Fundamentals of Art \& Design I | 5 |
| :--- | :--- | :--- |
| AAD 102 | Fundamentals of Art \& Design II | 5 |
| AAD 131 | Drawing I | 3 |
| AAD 132 | Drawing II | 3 |
| ART | 111 | Art History I |
| ART 112 | Art History II | 5 |

Select from the following studio art courses, with advisor approval:
ART 100 Art Appreciation 5
ART 113 Art History III 5
AAD 225 Calligraphy 3
AAD 231 Figure Drawing I 3
AAD 232 Figure Drawing II 3
ARS 100 Textile Crafts \& Design 3
ARS 125 Handbuilt Clay I 3
ARS 126 Handbuilt Clay II 3
ARS 127 Handbuilt Clay III 3
ARS 131 Stained Glass I 3
ARS 241 Painting I 3
ARS 242 Painting II 3
ARS 243 Water Media I 3
ARS 244 Water Media II 3
ARS 251 Sculpture I 3
ARS 252 Sculpture II 3
ARS 261 Jewelry and Metalwork I 3
ARS 262 Jewelry and Metalwork II 3
ARS 271 Pottery and Ceramic Design I 3

ARS 272 Pottery and Ceramic Design II 3
ARS 273 Pottery and Ceramic Design III 3
ARS 274 Pottery and Ceramic Design IV 3
ARS 281 Weaving I 3
ARS 282 Weaving II 3
Total Credits for Area of Emphasis 96
Electives - Music and Theatre 31
Select from the following courses, with advisor approval:

| MUP 131 | Piano I | 2 |
| :--- | :--- | ---: |
| MUP 132 | Piano II | 2 |
| MUP 133 | Piano III | 2 |
| MUP 134 | Piano IV | 2 |
| MUP 135 | Piano V | 2 |
| MUP 136 | Piano VI | 2 |
| MUP 151 | Voice I | 2 |
| MUP 152 | Voice II | 2 |
| MUP 153 | Voice III | 2 |
| MUP 154 | Voice IV | 2 |
| MUP 171 | Classical Guitar I | 2 |
| MUP 172 | Classical Guitar II | 2 |
| MUP 173 | Classical Guitar III | 2 |
| MUP 251 | Voice V | 2 |
| MUS 105 | Fundamentals of Music | 5 |
| MUS 106 | Music Theory | 4 |
| MUS 121 | Music History I | 5 |
| MUS 122 | Music History II | 5 |
| MUS | 220 | Children's Music |
| THE | 116 | Screen Acting I |
| THE | 117 | Screen Acting II |
| THE | 118 | Screen Acting III |
| THE | 211 | Development of Theatre I |
| THE | 212 | Development of Theatre II |
| THE | 299 | Theatre Practicum |
|  |  | (Prospective theatre majors should take part |

Total Credits for Area of Emphasis

MATHEMATICS AND SCIENCE DIVISION

## COMPUTER INFORMATION SYSTEMS EMPHASIS

The Computer Information Systems emphasis is for the student who is leaning towards a career in business programming and is interested in transferring to a four-year college. This emphasis combines specific courses from both the Mathematics/Science and Business Divisions. These courses will provide exposure to both Computer Science and Business topics such as: computer software, computer programming, accounting, economics and statistics.

Recommended degree requirements for area of emphasis:

## CREDITS

## COMMUNICATIONS

15
See A.A. degree requirements

## HUMANITIES

15
See A.A. degree requirements

BEHAVIORAL AND SOCIAL SCIENCE
15
ECO 201 Principles of Macroeconomics 5
ECO 202 Principles of Microeconomics 5
SOC 101 Introduction to Sociology I 5
PHYSICAL EDUCATION
See A.A. degree requirements

## MATHEMATICS AND SCIENCE

Select one of the following required Mathematics courses:

| MAT 125 | Survey of Calculus | 5 |
| :--- | :--- | :--- |
| MAT 135 | Introduction to Statistics | 5 |
|  | See A.A. degree requirements for Science selection | 5 |
|  | Select from CSC prefixed courses | minimum |

## ELECTIVES:

## NOTE:

Some colleges and universities will not accept the transfer of courses which are under the School of Occupational Education (ACC, BIS and BUS prefixes), while other schools will accept selected courses from these areas. The courses suggested here are intended for transfer to fouryear schools. Consult with your advisor regarding the transferability of these courses to the school of your choice.

Select one from the following courses:

| CSC | 100 | The Computer and Society |  |
| :--- | :--- | :--- | ---: |
| BIS | 110 | Introduction to Data Processing |  |
| Select one from the following courses: |  |  |  |
| CSC | 141, CSC 142, CSC 143 |  |  |
| Microcomputer Managed Applications |  |  |  |
| BIS | 105 | Computers for Small Business |  |
| Select any of the following courses: |  |  |  |
| MAT | 115 | Mathematics for Decision Making | $2-6$ |
| CSC | 101 | Introduction to Programming in BASIC | 5 |
| CSC | 102 | Advanced BASIC Programming |  |
| CSC | 110 | Introduction to Digital Principles | 5 |
| CSC | 111 | Structured Program Design | 4 |
| CSC | 121 | Programming in PASCAL | 4 |
| CSC | 201 | Programming in FORTRAN 77 | 4 |
| STA | 201 | Statistics for Bus., Sci., Soc. Sci. I | 3 |
| STA | 202 | Statistics for Bus., Sci., Soc. Sci. II | 5 |
| ACC | 101 | Principles of Accounting I | 5 |
| ACC | 102 | Principles of Accounting II | 5 |
| ACC | 103 | Principles of Accounting III | 5 |
| BIS | 205 | Assembler Language Programming | 5 |
| BIS | 117 | Computer Operations | 5 |
| BIS | 201 | C Programming Language | 5 |
| BIS | 221 | Structured COBOL Programming | 5 |
| BIS | 222 | Advanced Structured COBOL | 5 |
| BUS | 200 | Business Law | 5 |

Total Credits for A. A. degree
For other computer related programs, see the Computer
Programming Emphasis and the Computer Science Emphasis under the Associate of Science Degree.

## ASSOCIATE OF SCIENCE (A.S.) DEGREE

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

| CREDITS |  |
| :--- | ---: |
| Communications | 15 |
| Humanities | 15 |
| Behavioral and Social Science | 15 |
| Physical Education | 5 |
| Mathematics and Science | 46 |
| $\quad$ Total | 96 |

## ASSOCIATE OF SCIENCE (A.S.) DEGREE

Total Minimum Requirements:
COMMUNICATIONS

ENG $121 \quad$| English Composition 1 |
| :--- |
|  |
|  |
|  |
|  |
|  |
| As a result of a placement test, the student may be |
| required to take Fundamentals of Composition, ENG |
| 105, for elective credit (five credits) or a remedial course |
| for no college credit. |
| Proficiency in essay writing is required for a passing |
| grade. |

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

ENG $122 \quad$| English Composition II |
| :--- |

SPE $115 \quad$| Prerequisite: ENG 121 |
| :--- |
| Principles of Speech Communication |

Total Credits for A.S. Degree

## HUMANITIES

Students will take three courses from at least two different disciplines. The following course is required of all students:

HUM 121 Survey of Humanities 1
Students will select the other two courses from those listed below.

| ART | 111 | Art History I | 5 |
| :--- | :--- | :--- | :--- |
| ART | 112 | Art History II | 5 |
| SPA | 111 | Spanish Language I | 5 |
| SPA | 112 | Spanish Language II | 5 |
| FRE | 111 | French Language I | 5 |
| FRE | 112 | French Language II | 5 |
| HUM | 122 | Survey of Humanities II | 5 |
| HUM | 123 | Survey of Humanities III | 5 |
| LIT | 115 | Introduction to Literature | 5 |
| LIT | 201 | Masterpieces of Literature I | 5 |
| LIT | 202 | Masterpieces of Literature II | 5 |
| MUS | 120 | Music Appreciation | 5 |
| MUS | 121 | Introduction to Music History I | 5 |
| MUS | 122 | Introduction to Music History II | 5 |
| THE | 211 | Development of Theatre I | 5 |
| THE | 212 | Development of Theatre II | 5 |
| PHI | 111 | Introduction to Philosophy | 5 |
| PHI | 112 | Ethics | 5 |
| PHI | 113 | Logic | 5 |5

SPA 111 Spanish Language I 5
FRE 111 French Language I 5
FRE 112 French Language II 5
HUM 123 Survey of Humanities III 5
LIT 115 Introduction to Literature 5
LIT 202 Masterpieces of Literature II 5
MUS 120 Music Appreciation 5
MUS 121 Introduction to Music History I 5
MUS 122 Introduction to Music History II 5
Development of Theatre I 5

PHI 111 Introduction to Philosophy 5
PH - 112 Ethics
5

Total Credits for A.S. Degree


CREDITS

## BEHAVIORAL AND SOCIAL SCIENCE

Select one of the following courses:

PSY 101 General Psychology 1
5
SOC 101 Introduction to Sociology I
Select from two of the following five areas:

## ANTHROPOLOGY

ANT 111 Cultural Anthropology 5

## ECONOMICS

ECO 201 Principles of Macroeconomics 5
ECO 202 Principles of Microeconomics 5
HISTORY
HIS 101 Western Civilization I 5
HIS 102 Western Civilization II 5
HIS 103 Western Civilization III 5
HIS 201 United States History I 5
HIS 202 United States History II 5
HIS 203 United States History III 5

## POLITICAL SCIENCE

POS 111 American Government 5
GEOGRAPHY
GEO 105 World Geography 5
Total Credits for A.S. Degree

## PHYSICAL EDUCATION

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

Veterans who have fulfilled their physical education requirements or students with a doctor's excuse may have their physical education requirements waived. They must still meet the 96 credit requirement for the A.S. degree. Students who desire a physical education waiver must contact the Director of Admissions.
Total Credits for A.S. Degree

## MATHEMATICS AND SCIENCE

Note: Students pursuing an Associate of Science degree must see an advisor in the Mathematics and Science Division to help them plan their academic program. Furthermore, all degree plans must be approved by the Division Chairman of Mathematics and Science.

The Associate of Science Degree is awarded only to those students who have met the minimum degree requirements and who have demonstrated competency in both mathematics and science disciplines. This degree will not be granted to students who have completed only survey type courses in several mathematics and science areas.

A minimum of 46 credits is required for the Associate of Science Degree. Students should give maximum attention to prerequisites and corequisites as stated in the catalog. All mathematics and science courses applied to this degree must be completed with a grade of "C" or better.

A single course may be used to meet only one requirement. All course prerequisites must be met for the following courses.

CREDITS

## MATHEMATICS

Students will select a minimum of one of the following choices:
MAT 121 College Algebra 5

MAT 125 Survey of Calculus 5
MAT 201, 202 and 203 Calculus I, II and III ( 5 credits each) 15
SCIENCE
Students will select a minimum of one of the following sequence choices:
BIO 111, 112 and 113 General College Biology I, II and III 15
CHE 111, 112 and 113 General College Chemistry I, II and III 15
PHY 111, 112 and 113 Physics: Algebra-based I, II and III 15
PHY 211, 212 and 213 Physics: Calculus-based I, II and III 15
GEY 111, 112 and 121 Physical Geology, Introduction to Field Geology and Mapping and Historical Geology

## MATHEMATICS AND/OR SCIENCE

Students will select from approved courses having the following prefixes: AST, BIO, CHE, CSC, EAS, GEY, MAT, PHY or STA.

28 or less as appropriate
Note: The following courses may not be used towards the mathematics and science requirements for the A. S. Degree: MAT 101, MAT 110, MAT 111, MAT 112, MAT 113, PHY 101 and any courses numbered below 100 .
Total Credits for the A. S. Degree
minimum of 46


## AREAS OF EMPHASIS-A.S.

## MATHEMATICS AND SCIENCE DIVISION

Location: Ed Beaty Hall, Room 592<br>Telephone: 330-8008, Ext. 252<br>Cathie Johnson, Division Secretary

## FULL-TIME FACULTY AND AREAS OF ACADEMIC SPECIALITY

Alan Ackerman
Larry Batman
Roy Cameron
Douglas Clay
Sam Cooper
Susan Cribelli
Phil Edwards
(Asst. Division Chairman, Ft. Lupton)
Donald Harris
Keith Lane
Walt Richter (Division Chairman)
Karen Robinson
Lyndon Robinson

Chemistry and Health Sciences Mathematics
Biology
Computer Disciplines
Computer Disciplines and Physics
Computer Disciplines and Statistics
Computer Disciplines, Mathematics and Physics

Chemistry and Chemical Technology Mathematics
Chemistry and Health Sciences

Mathematics and Computer Disciplines Geology, Earth Science and Physics

The Mathematics and Science Division 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 also is offered in many preprofessional programs that are based upon the lifescience and health-science disciplines.

Areas of Emphasis: The Mathematics and Science Division offers students the option of an area of emphasis in the following disciplines: Chemistry, Chemical Testing Technology, Computer Programming, Computer Sciences, Pre-Engineering, Mathematics, Pre-Health Professions, Life Sciences and Pre-Nursing. The courses listed under each emphasis are guidelines to help students identify which courses are the most applicable to their chosen area of interest. This would apply both to students who will complete their education after earning an A.S.
Degree (or A. A. Degree) and to students who are planning to transfer these courses into a Bachelor's program at the college or university of their choice. It is ultimately the student's responsibility to be informed about the course requirements particular to the Bachelor's program that the student intends to pursue.

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.
3. Satisfy the specific requirements for the A.S. degree.
4. Satisfy the specific requirements for the A.G.S. degree.
5. Satisfy the specific requirements for an area of emphasis in the Mathematics and Science Division. This is usually in conjunction with the A.S. degree.
If Option 5 is selected, it should be noted that the general 96 credit hour requirement for the A.S. degree is not altered; therefore, several additional credit hours of course work may be necessary.

Some students may decide to concentrate their studies in one or more of these following areas and yet not choose to pursue an A.S. Degree. They may prefer to follow the requirements for the A.A. Degree and apply mathematics and science credits to the 31 credit hours required under the A.A. electives category. Using this approach, the student can earn the A.A. Degree and gain substantial knowledge in one or more mathematics and/or science areas.

A student may earn either an A.A. or A.S. Degree using the following emphases as guidelines for course selection. The student should be aware that there are General Education requirements for both the A.A. and A.S. Degrees which involve course selections from the Communications, Humanities, Behavioral and Social Sciences, Mathematics and Science, and Physical Education Divisions. The student is referred to the Degree Requirements section of this catalog for specific course selections from these different areas.
Many of the course suggestions under these areas of emphasis will fulfill the Mathematics and Science general education requirements, for either the A.A. or A.S. Degrees. A number of these courses can be used to fulfill the electives category for the A.A. Degree or the additional mathematics and science requirements for the A.S. Degree. However, a student may not earn either an A.A. or an A.S. Degree by simply taking the courses listed under an area of emphasis.

## CHEMISTR Y EMPHASIS

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

## CREDITS

INITIAL COURSE BLOCK:

| CHE 111, 112, 113 | General College Chemistry I, II, III | (each) 5 |
| :--- | :--- | ---: |
| MAT 121, 122 | College Algebra, Trigonometry | (each) 5 |
| MAT 201 | Calculus I | 5 |
| General Education Courses |  |  |

General Education Courses

## TERMINAL COURSE BLOCK:

CHE 201, 202, 203 Organic Chemistry I, II, III (each) 5
MAT 202, 203
PHY 211, 212, 213 Physics: Calculus -based I, II, III
CSC $201 \quad$ Programming in FORTRAN 77
(each) 5
(each) 5
General Education Courses

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

## CHEMICAL TESTING <br> TECHNOLOGY EMPHASIS

This emphasis is designed to train chemical laboratory testing technicians who will be qualified for immediate employment as chemical technicians or research assistants in area industries. They may enter such diverse fields as film processing, soil testing, sugar and associated product manufacture, animal assay, cement manufacture and research, and general analytical laboratory testing involving physical and chemical analysis. This couse of study is also designed for transfer to four-year colleges and universities. Consult faculty advisor for details.

## INITIAL COURSE BLOCK:

## Required:

CHE 111, 112, 113 General College Chemistry I, II, III (each) 5
CHE 115, 116 Chemical Technology 1 (each) 1
MAT 121
College Algebra
CSC 101 Introduction to Programming in the BASIC Language
HEN 106 Safety and First Aid
General Education Courses
Recommended:
GEY 111 Physical Geology 5

PHY 111, 112, 113 Physics: Algebra-based I, II, III (each) 5
MAT 201
Calculus I
BIO 105 Science of Biology 5

## TERMINAL COURSE BLOCK:

## Required:

CHE 201, 202, 203 Organic Chemistry I, II, III (each) 5
CHE 215, 216 Chemical Technology II (each) I
CHE 225, 226 Chemical Technology III (each) I
CHE 235, 236 Chemical Technology IV (each) 1
General Education Courses
Recommended:
CHE 230 Scientific Writing 3
CHE 295 Independent Study - Chemical Literature and Study Methods
MAT 135 Introduction to Statistics 5
CSC $201 \quad$ Programming in FORTRAN 77
BIO 216 Introduction to Microbiology

## COMPUTER PROGRAMMING EMPHASIS

Programming in several high level languages and a general background in information systems are the core of this curriculum. Fifteen credits of mathematics and statistics are included:

## Recommended Courses:

## CREDITS

| MAT 115 | Mathematics for Decision Making | 5 |
| :--- | :--- | :--- |
| CSC 100 | Computer and Society | 4 | OR

CSC 141, 142, 143
Microcomputer Managed Applications (each) 2
CSC 101

CSC 102
Introduction to Programming in the BASIC Language

4

CSC 110
Advanced BASIC 3-4
Introduction to Digital Principles 4
CSC 111
Structured Program Design 3
CSC 121
Programming in Pascal 5
CSC 201
Programming in FORTRAN 77
Information Systems I, II
5
CSC 211, 212
CSC 232
Programming in ADA
(each) 5

CSC 233
Data Structures and Algorithms
STA 201, 202

BIS 121
BIS 122
Statistics for Business, Science and Social Science 1, II
(each) 5
Structured COBOL Programming 5
Advanced COBOL Programming 5
BIS 201
C Programming Language 5
General Education Courses


## COMPUTER SCIENCE EMPHASIS

This option provides specialized courses in the theory, functions, architecture and applications of computer hardware and software. Mathematics and statistics are an integral part of this curriculum.

## Recommended Courses:

CREDITS
MAT $121 \quad$ College Algebra 5
MAT 122 College Trigonometry 5
CSC 101 Introduction to Programming
CSC 102
CSC 111
CSC 121
CSC 201
CSC 221, 222
MAT 201, 202, 203
MAT 261
STA 201, 202

CSC 232
CSC 233
General Education Courses

## COMPUTER INFORMATION SYSTEMS EMPHASIS

See program requirements under A.A. Degree, area of emphasis. (page 30 )

## PRE-ENGINEERING EMPHASIS

Engineering is involved with all facets of modern technology. As such, it is a highly specialized area of study. This curriculum is designed to give the student basic courses, which may be applied to different engineering specialties at the baccalaureate level.

## INITIAL COURSE BLOCK:

## CREDITS

MAT 121, 122 College Algebra, Trigonometry (each) 5
MAT 201, 202, 203 Calculus I, II, III (each) 5
CSC 121
Programming in Pascal
5
CSC $201 \quad$ Programming in FORTRAN 77
CHE 111, 112, 113 General College Chemistry I, II, III
(each) 5
General Education Courses

## TERMINAL COURSE BLOCK:

STA 201, 202 Statistics for Business, Science and Social Science, I, II
(each) 5
PHY 211, 212, 213
Physics: Calculus-based I, II, III (each) 5
MAT 261
MAT 262
Linear Algebra
5

MAT 263
General Education Courses
Note: This emphasis contains College Algebra and Trigonometry which may transfer as electives only. Consequently, students may require a longer period of time to complete the baccalaureate degree.

## MATHEMATICS EMPHASIS

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

## INITIAL COURSE BLOCK:

CREDITS
CSC 101

CSC 111
Introduction to Programming in the BASIC Language

4

CSC 201
MAT 121, 122
MAT 201, 202, 203
STA 201, 202

Structured Program Design
Programming in FORTRAN 77
College Algebra, Trigonometry
Calculus I, II, III
Statistics for Business, Science and Social Science I, II

INITIAL COURSE BLOCK:
BIO 111, 112, 113 General College Biology I, II, III
CHE 111, 112, 113 General College Chemistry 1, 11, III
PHY 111, 112, 113
STA 201

General Education Courses
TERMINAL COURSE BLOCK:
BIO 211, 212, 213 Human Anatomy and
Physiology I, II, III
(each) 5
BIO 216
Introduction to Microbiology
5

General Education Courses
TERMINAL COURSE BLOCK:

| MAT 261 | Linear Algebra | 5 |
| :--- | :--- | ---: |
| MAT 262 | Calculus with Analytic Geometry IV | 5 |
| MAT 263 | Elementary Differential Equations | 5 |
| PHY 211, 212, 213 | Physics: Calculus-based I, II, III | (each) 5 |
| General Education Courses |  |  |
| Note: This emphasis contains College Algebra and Trigonometry which |  |  |
| may transfer as electives only. Consequently, students may require a |  |  |
| longer period of time to complete the baccalaureate degree. |  |  |

## LIFE SCIENCES EMPHASIS

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

## INITIAL COURSE BLOCK:

BIO 111, 112, 113 General College Biology 1, II, III

## CREDITS

CHE 111, 112, 113
MAT 121 General College Chemistry I, II, III
(each) 5
(each) 5

General Education Courses

## TERMINAL COURSE BLOCK:

BIO 211, 212, 213
Human Anatomy and Physiology I, II, III
BIO 216
Introduction to Microbiology
STA 201, 202
Statistics for Business, Science, and Social Science I, II
(each) 5

General Education Courses

## PRE-HEALTH PROFESSION EMPHASIS

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

General Education Courses


## PRE-NURSING EMPHASIS

This curriculum is designed to provide the student with the general education, statistics and basic science requirements that will transfer into a university program leading to the Bachelor of Science in Nursing Degree (BSN). The coursework can be chosen to lead to either an A.A. or A.S. Degree, or the student may opt to take a number of required courses and transfer into the program without earning an Associate Degree. The student should contact the Pre-Nursing advisor for help in choosing the proper courses.

## Recommended Courses:

CREDITS

MAT 135
CHE 110
CHE 120
CHE 210
B1O 211, 212, 213
PSY 166
SOC 101
ANT 101

Introduction to Statistics Introduction to Inorganic Chemistry Introduction to Organic Chemistry Introduction to Human Biochemistry Human Anatomy and Physiology,

$$
1,11,111
$$

General Education Courses
Note: Aims can also provide the essential science and general education courses which are required for two-year Nursing programs leading to the Associate Degree Nursing, (ADN). The college has established transfer agreements with area community colleges who do offer this program. Contact the Pre-Nursing advisor in the Mathematics and Science Divison for details.

## ASSOCIATE OF GENERAL STUDIES (A.G.S.) DEGREE

Students seeking the Associate of General Studies degree must complete the Associate of General Studies Degree Contract to be signed by the faculty advisor, the Dean of Arts \& Sciences and the Dean of Occupational Education prior to acceptance into the degree program.

Students must then earn minimum credits in the following subject areas:

Physical Education
Professional Courses 14
Electives
Total

## ASSOCIATE OF GENERAL STUDIES (A.G.S.) DEGREE

## Total Minimum Requirements:

CREDITS
COMMUNICATIONS AND HUMANITIES

## Required Courses:

ENG 121 English Composition 1
5
SPE 115 Principles of Speech Communications
Select one of the Humanities five-hour courses listed in the current catalog for the A.A. degree.

## MATHEMATICS AND SCIENCE

Any combination of courses with the following prefixes which are 100 level and above: AST, BIO, CHE, CSC, EAS, GEY, PHI, SCI, STA OR MAT. (The following courses will not apply to this category: MAT 101, MAT 110, PHY 101.)

## BEHAVIORAL AND SOCIAL SCIENCE

Any combination of courses listed in the current catalog for the A.A. degree.


## PHYSICAL EDUCATION

Veterans who have fulfilled their physical education requirements or students with a doctor's excuse may have their physical education requirements waived by the Registrar (See catalog). However, students must still meet the 96 credit requirement for the A.G.S. degree. Select from courses with the following prefixes: PEA, PEB, PED, PEF.

## PROFESSIONAL COURSES

Any combination of professional courses with the following prefixes as listed in the current catalog: BUS, CSC, MGT, BIS, HLH.

## ELECTIVE CREDIT

Requirement may be satisfied with courses in the Arts and Sciences and/or Occupational Education areas as listed in the current catalog. Total credits earned with a specific occupational program or academic discipline may not exceed 30 credits.
Total Credits for A.G.S. Degree



## DEVELOPMENTAL STUDIES

The Developmental Studies Division exists to provide educational options for students. An initial assessment of academic skills administered by the Assessment Center is required to assure that students meet minimum academic entrance requirements for specific courses and/or programs. Students have an opportunity to improve their skills in the areas of math, reading, writing, and basic oral language development to the required level necessary to pass the General Education Development (GED) examination, and/or to benefit from certificate or degree programs.

The College offers its developmental studies through four programs:

## SURVIVAL ENGLISH AS A SECOND LANGUAGE (ESL)

This program is for students who wish to improve or gain English speaking skills. The courses will emphasize verbal skills related to subject matter which is relevant to the adult learners in the class, such as consumer education, jobs, schools, and the community. This program is not intended to be an English preparatory program for students who are seeking entrance to colleges and universities. Foreign students wishing to take this curriculum must have their visa cleared by the Office of Admissions and Records.

## APRENDER INGLES COMO SEGUNA LENGUA

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

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

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

## DEVELOPMENTAL EDUCATION

Developmental courses include a sequence of skill development classes in reading, language, and/or mathematics. They are content-oriented courses designed to prepare students for the GED or for remedial-level courses.

## GENERAL EDUCATION DEVELOPMENT

The GED program is designed to help students develop the skills necessary to pass the GED examination in the content areas of arithmetic, language, literature, social science, and science. The program contains group activities, instructor presentations, and individualized activities. Students will be encouraged to study any of the content areas in greater depth than required for the GED in order to prepare themselves for future college or vocational goals. The GED certificate is equivalent to the high school diploma and is accepted by most employers and schools of higher education. The GED certificate often provides increased opportunities for future education.

## COLLEGE SKILLS PROGRAM

The College Skills Program of Aims Community College is designed for students who want to improve their reading, writing, or basic communication skills. The purpose in taking courses in the program may be to improve such skills for greater achievement in college transfer or vocational courses. Students who intend to pursue a program of study may be advised into certain writing and reading courses as a result of their pre-assessment test scores.

## DEVELOPMENTAL STUDIES CURRICULUM

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

Possible Course Hours

## Language:

$\begin{array}{lr}\text { English as a Second Language (ESL) } & 5-70\end{array}$
Developmental Language $\quad 5-15$
Remedial Language $\quad 5-10$

## Mathematics:

Developmental Mathematics $\quad 5-15$
Remedial Mathematics $\quad 5-10$

## Reading:

Developmental Reading $\quad 5-15$
Remedial Reading $\quad 5-27$


## SCHOOL OF OCCUPATIONAL EDUCATION

Aims Community College offers a variety of vocational-technical courses designed to prepare adults, post high school, and high school students for useful and gainful employment. Persons who wish to prepare for initial employment, who are employed but desire to improve their skills, or who seek a new vocation will find a variety of programs from which to choose.

Supplemental services, which include individual tutoring, are available to assist students in successfully completing their courses. Handicapped students also can receive special assistance if needed.

Since the purpose of occupational education is to prepare students for employment, programs are developed according to the identified needs of business and industry. Advisory committees are formed to provide communication links between business, industry, public service, and education.

Students may enroll in programs leading to a Certificate in Occupational Education or to an Associate of Applied Science degree. Persons enrolling in and successfully completing an occupational course may request a certificate of completion or competency.

The Occupational Education programs are not intended for transfer to baccalaureate degree programs; however, a number of the courses may be accepted towards a bachelor's degree at some institutions. Please consult an academic advisor for further information.
NOTE: Each Associate of Applied Science degree contains a minimum 18 credit hours of "General Education." The prefixes and/or course titles for general education courses are subject to change on short notice in an effort to comply with State Guidelines.
Registration Requirement: All students taking a course or courses in the School of Occupational Education must have an appropriate Occupational Education program advisor's signature on the course registration form before registering.

## BUSINESS DIVISION PROGRAMS

Students enrolling in Business Division programs will gain the knowledge and skills required for entry into a variety of related occupations. Courses are also offered to enable persons currently employed to improve their skills.
Students entering Aims Community College with high school credit in typewriting, bookkeeping, and/or shorthand may substitute other courses with the consent of their advisor.

A student who intends to enroll in Business Division courses should consult a faculty advisor in the Division at the earliest opportunity to plan a program that is appropriate to his or her needs.

The Business Lab, Westview 606 and 618, provides business instructors, instructional media, reference materials, and machines to assist business students.

## ACCOUNTING ACCOUNTING

(two-year A.A.S. degree)

## BUSINESS INFORMATION SYSTEMS BUSINESS INFORMATION SYSTEMS <br> (two-year A.A.S. degree)

## GENERAL BUSINESS <br> OFFICE OCCUPATIONS

(two-year A.A.S. degree)
ADMINISTRATIVE SUPPORT OPTION
LEGAL OFFICE OPTION
OFFICE CLERICAL
(one-year certificate)

## MARKETING/MANAGEMENT MARKETING/MANAGEMENT (two-year A.A.S. degree) FASHION MERCHANDISING OPTION SUPERVISORY MANAGEMENT OPTION MARKETING OPTION <br> SMALL BUSINESS MANAGEMENT OPTION <br> REAL ESTATE FOR COLORADO LICENSING <br> (one-year certificate)

## ACCOUNTING

(Betty Buxman, Kerry Colton, Marthanne Edwards, Ken Neet)
Potential Opportunities: This program is designed to prepare the student for employment in accounting positions which would include: accounts receivable or accounts payable clerk, cash receipts and disbursements clerk, payroll accounting technician, and junior accountant.

Registration Requirement: All students taking a course or courses in a Business Division program must have an appropriate Business Division program advisor's signature on the course registration form before registering.

## DEGREE PROGRAM



## ACCOUNTING ADVISORY COMMITTEE

Chuck Anderson
Anderson \& Whitney

Dr. Franklin Cordell
Professional Outreach Associates

Dennis DeCamp
Hewlett-Packard

John Ewert
University of Northern Colorado

Linda Kadlecek
Kosmicki \& Company

Allen McConnell
University of Northern Colorado

David Ransome
Greeley National Bank

## BUSINESS INFORMATION SYSTEMS

(Cathy Hall, Ruby Loveless, Steve Pellican, Thelma Stephenson)
Potential Opportunities: Students who desire a career as a programmer trainee, computer operator, or microcomputer specialist may elect this curriculum. This program is designed so a student may choose to have an emphasis in the microcomputer environment or in the more traditional mainframe programmer/operator environment.

Logical reasoning, problem-solving ability, perseverance, and inquisitiveness are definite assets to students.

Courses to develop an understanding of business organizations, accounting, and communication skills are included.

Registration Requirement: All students taking a course or courses in a Business Division program must have an appropriate Business Division program advisor's signature on the course registration form before registering.

## DEGREE PROGRAM

| Degree Requirements: |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: |
| ACC | 101 | Principles of Accounting I |  |  |  |
| ACC | 102 | Principles of Accounting II | 5 |  |  |
| BIS | 105 | Introduction to Computer Applications I | 5 |  |  |
| BIS | 107 | Problem Solving Using Numbers |  |  |  |
| BIS | 110 | Introduction to Business Information |  |  |  |
|  | $\quad$ Systems |  |  |  | 5 |
| BIS | 111 | Computer Concepts I | 5 |  |  |
| BIS | 112 | Computer Concepts II | 5 |  |  |
| BIS | 116 | Business BASIC Programming | 5 |  |  |
| BIS | 117 | Computer Operations | 5 |  |  |
| BIS | 137 | Writing Computer Documentation | 5 |  |  |
| BIS | 138 | MS/DOS Overview | 5 |  |  |
| BIS | 206 | New Issues and Developments | 2 |  |  |
| BIS | 211 | Structured Systems Analysis | 5 |  |  |
| BIS | 221 | Structured COBOL Programming | 5 |  |  |
| BIS | 222 | Advanced Structured COBOL | 5 |  |  |
| BUS | 142 | Intermediate Communications | 5 |  |  |

Select one from the following courses:
ACC 197 Computerized Practicum I 1
ACC 198 Computerized Practicum 11 1
Select one from the following courses:
BUS 100 Introduction to Business 5
PSY 145 Human Relations at Work 5
MGT 208 Small Business Management 5
MGT 212 Management Decision Making 5
Select one from the following courses:
BIS 126 Report Program Generator 11 5
BIS 201 C Programming Language 5
BIS 205 Assembly Language 5
Select one from the following courses:
ACC 103 Principles of Accounting III 5
BIS 115 Introduction to Computer Applications II
BIS 136 Unix for Business Applications 5
BIS 145 Integrated Software 5
BIS 207 Program Maintenance and JCL 5
Electives (selected with advisor approval) 6
Total Credits for A.A.S. Degree 995

BUSINESS INFORMATION SYSTEMS ADVISORY COMMITTEE

Richard Boggs<br>Aims Community College<br>Marilyn Jenkins<br>Hewlett-Packard<br>Duane Nelson<br>School District Six<br>Gary Parker State Farm Insurance Company<br>Donn Ruby Weld County<br>Vicki Sauer<br>Monfort of Colorado

## GENERAL BUSINESS

(Ann Aron, Bobbi Benesch, Lucille Eckhardt, Jerry Goddard, Gale Heiman, Judy Leusink, Maxine Marquez, Paul Martin, Trudi Montoya, Trulene Page, Linda Scott)

Potential Opportunities: The programs are designed for persons interested in gaining basic skills and knowledge for positions as a clerk bookkeeper; a secretary in a business, education, or government office; or a legal secretary in a law office, savings and loan, real estate, or insurance office with maintenance and custody of legal records.

Registration Requirement: All students taking a course or courses in a Business Division program must have an appropriate Business Division program advisor's signature on the course registration form before registering.

## OFFICE OCCUPATIONS <br> DEGREE PROGRAM

| Degree Core Requirements: |  |  |  |
| :--- | :--- | :--- | :--- |
| BIS | 105 | Introduction to Computer Applications I | 5 |
| BUS | 100 | Introduction to Business | 5 |
| BUS | 102 | Typewriting II | 4 |
| BUS | 103 | Typewriting III | 4 |
| BUS | 111 | Word/Information Processing I | 4 |
| BUS | 121 | College Bookkeeping I | 5 |
| BUS | 125 | Adding/Calculating Machines | 2 |
| BUS | 142 | Intermediate Communications | 5 |
| BUS | 143 | Advanced Communications | 3 |
| BUS | 161 | Shorthand I | 5 |
| BUS | 162 | Shorthand II | 5 |
| BUS | 195 | Bookkeeping Practicum | 1 |
| MAT | 110 | Applied Business Mathematics | 5 |
| PSY | 145 | Human Relations at Work | 5 |

## ADMINISTRATIVE SUPPORT OPTION

## Additional Degree Requirements:

CREDITS
BUS 104 Typewriting IV 4
BUS 107 Basic Office Procedures 5
BUS 112 Word/Information Processing II 4
BUS 196 Computerized Bookkeeping Practicum 1
BUS 241 Advanced Office Procedures 4
Electives (selected with advisor approval)
Total Credits for A.A.S. Degree


## LEGAL OFFICE OPTION

Additional Degree Requirements: ..... 29
BUS 115 Legal Typewriting ..... 4
BUS 117 Legal Terminology ..... 5
BUS 118 Legal Machine Transcription ..... 4
BUS 211 Legal Office Procedures ..... 5
BUS 212 Career Legal Secretary ..... 4
BUS 231 Word/Information Processing Il--Legal ..... 4
BUS 291 Legal Internship ..... 3
Electives (selected with advisor approval) ..... 9
Total Credits for A.A.S. Degree ..... 96
OFFICE CLERICAL CERTIFICATE PROGRAMCREDITS
Certificate Requirements: ..... 34
BUS 101 Typewriting I ..... 4
BUS 102 Typewriting II ..... 4
BUS 107 Basic Office Procedures ..... 5
BUS 121 College Bookkeeping I ..... 5
BUS 125 Adding/Calculating Machines ..... 2
BUS 142 Intermediate Communications ..... 5
BUS 143 Advanced Communications ..... 3
BUS 195 Bookkeeping Practicum ..... 1
MAT 110 Applied Business Mathematics ..... 5
Select from the following courses (with business advisor approval):
ACC 105 Payroll Accounting 3
BIS 105 Introduction to Computer Applications I ..... 5
BUS 103 Typewriting III ..... 4
BUS 111 Word/Information Processing I ..... 4
BUS 112 Word/Information Processing 11 ..... 4
BUS 116 Word Processing: Dedicated Systems ..... 4
BUS 122 College Bookkeeping II ..... 5
BUS 127 Business Word Usage ..... 3
BUS 131 Typewriting Refresher I ..... 4
BUS 141 Introduction to Communications ..... 5
BUS 146 Office Internship ..... 3
BUS 196 Computerized Bookkeeping Practicum ..... 1
Electives7
Total Credits for Certificate

# GENERAL BUSINESS ADVISORY COMMITTEE 

Carol Bailey
National Board of Chiropractic Examiners

Kate Campbell
Union Colony Bank

Joanna Christensen
Greeley West High School
Ann Marie Giese
University of Northern Colorado

Barbara McIntyre
Keith McIntyre Law Firm

Pat Morimoto
University of Northern Colorado
Claudia Reich
Kosmicki and Company
Sherry White
John Dent Law Office

JoAnne Hilzer
Platte Valley High School

## MARKETING/MANAGEMENT

(Jim Adams, Claudia Boehm, Maxine Christenson, Elmer Kiekhaefer, Mary Webster)

Program Length: Usually six quarters for Associate of Applied Science degree program. The degree will be awarded in Marketing/ Management, with curriculum options available, such as: Fashion Merchandising, Supervisory Management, Marketing, and Small Business Management. Usually two quarters are needed for courses offered in real estate toward completion of the Colorado Real Estate Agent license or the Colorado Real Estate Broker license. No degree is offered in real estate.

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

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

Real estate courses are offered for those students interested in taking courses toward preparation for the real estate agent's or broker's license and those interested in real estate for their personal information or investment purposes. Students who want to complete the real estate agent's or broker's license should consult with the real estate faculty advisor in the Business Division.

Registration Requirement: All students taking a course or courses in a Business Division program must have an appropriate Business Division program advisor's signature on the course registration form before registering.

## MARKETING/MANAGEMENT DEGREE PROGRAM

## CREDITS

| Degree Core Requirements: |  |  |  |
| :--- | :--- | :--- | :--- |
| BUS | 142 | Intermediate Communications | 5 |
| BUS | 143 | Advanced Communications | 3 |
| MAT | 110 | Applied Business Math | 5 |
| MGT | 101 | Sales | 5 |
| MGT | 207 | Human Resource Management | 5 |
| MGT | 211 | Principles of Marketing | 5 |
| MGT | 215 | Principles of Management | 5 |
| MGT | 291 | Personal Adjustment to Business | 6 |
| MGT | 292 | Personal Adjustment to Business | 6 |
| PSY | 145 | Human Relations at Work | 5 |

## FASHION MERCHANDISING OPTION

|  | CREDITS |  |  |
| :--- | :--- | ---: | :--- |
| Degree Option Requirements: | 37 |  |  |
| MGT 105 | Principles of Advertising | 5 |  |
| MGT 120 | Introduction to Fashion Merchandising | 5 |  |
| MGT | 126 | Fashion Buying | 4 |
| MGT | 208 | Small Business Management | 5 |
| MGT 225 | Fashion Retail Merchandising | 5 |  |
| MGT 226 | Fashion Textiles | 5 |  |
| MGT 237 | Supervisory Management | 5 |  |
| MGT $245 \quad$ Analysis of Fashion Concepts | 3 |  |  |
| Select one with advisor approval: |  | 5 |  |
| BIS $\quad 105 \quad$ Introduction to Computer Applications I | 5 |  |  |
| BUS $121 \quad$ College Bookkeeping I | 5 |  |  |
| Electives (selected with advisor approval) |  | 7 |  |
| Total Credits for A.A.S. Degree |  | 99 |  |

CREDITS
Degree Option Requirements:
BIS 105 Introduction to Computer Applications I 5
BUS 121 College Bookkeeping I 5
BUS 200 Business Law 5
MGT 235 Organizational Environment 5
MGT 236 Labor Law Relations 5
MGT 237 Supervisory Management 5
MGT 239 Purchasing 5
MGT 293 Personal Adjustment to Business 6
Electives (selected with advisor approval) 8
Total Credits for A.A.S. Degree

## MARKETING OPTION

## Degree Option Requirements:

BIS 105 Introduction to Computer Applications I 5
BUS 200 Business Law 5
MGT 102 Advanced Sales 5
MGT 105 Principles of Advertising 5
MGT 171 Management Activity I 2
MGT 206 Sales Management 5
MGT 235 Organizational Environment 5
MGT 238 Marketing Research 4
MGT 293 Personal Adjustment to Business 6
Electives (selected with advisor approval)
Total Credits for A.A.S. Degree

## SMALL BUSINESS MANAGEMENT OPTION

## Degree Option Requirements:

BIS 105 Introduction to Computer Applications I 5
BUS 121 College Bookkeeping I 5
BUS 200 Business Law 5
MGT 105 Principles of Advertising 5
MGT 171 Management Activity I 2
MGT 208 Small Business Management 5
MGT 212 Management Decision Making 5
MGT 238 Marketing Research 4
MGT 293 Personal Adjustment to Business 6
Electives (selected with advisor approval)
Total Credits for A.A.S. Degree

## REAL ESTATE

Courses offered toward completion of the Colorado Real Estate Agent license:

| RES | 106 | Real Estate Practice and Law | 6 |
| :--- | :--- | :--- | :--- |
| RES | 115 | Colorado Real Estate Law and <br> Colorado Real Estate Contracts | 3 |

Elective/Support Courses
RES 103 Real Estate License Preparation 3
$\begin{array}{ccc}\text { RES } 104 \quad \text { Real Estate Closing and } \\ & \text { Trust Accounts }\end{array}$
RES 205 Real Estate Finance 2
RES 207 Advanced Real Estate Law 1
Courses offered toward completion of the Colorado
Real Estate Broker license:
$\begin{array}{ccc}\text { RES } & 104 \quad \text { Real Estate Closing and } \\ & \text { Trust Accounts }\end{array}$
RES 106 Real Estate Practice and Law 6
RES 115 Colorado Real Estate Law and Colorado Real Estate Contracts 3
RES 205 Real Estate Finance 2
RES 207 Advanced Real Estate Law 1
Elective/Support Courses
RES 103 Real Estate License Preparation
3

## MARKETING/MANAGEMENT/REAL ESTATE ADVISORY COMMITTEE

| Sandra Bodie <br> Greeley Real Estate, Inc. | Bill May <br> Greeley Central High School |
| :--- | :--- |
| Richard Erwin <br> Better Business Bureau | Dave McCollough <br> Joslins |
| Paul Haugen | Sharon Snyder <br> Scott Realty Company |
| Collitioning Spa <br> Higgins Sentry Hardware | Jack Weber <br> Case Realty |
| Phillip Lunsford |  |
| Taco Bell Restaurant |  |



## PUBLIC SERVICE DIVISION PROGRAMS

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

Training or classes may be conducted on the job or on campus.
Training time may vary from a number of hours or quarters to a one or two year Certificate in Occupational Education program, or to the Associate of Applied Science (A.A.S.) degree program.

Registration Requirement: All students taking a course or courses in a Public Service Divison program must have an appropriate Public Service Division program advisor's signature on the course registration before registering.

The Public Service Division offers the following programs:

CRIMINAL JUSTICE
(two-year A.A.S. degree)
CRIMINAL JUSTICE EMPHASIS (two-year A.A. degree)
BASIC PEACE OFFICER ACADEMY (13-week certificate)
FIRE SERVICE TECHNOLOGY (two-year A.A.S. degree) OPTION: FIRE PROTECTION TECHNOLOGY FIRE SCIENCE TECHNOLOGY

FIRE SERVICE TRAINING
ACADEMY
(one-quarter certificate)
VOLUNTEER FIRE SERVICE TRAINING (certificate)
EMERGENCY MEDICAL TECHNICIAN (certificate)
RADIOLOGIC TECHNOLOGY
(two-year A.A.S. degree)
OTHER HEALTH SERVICES

## CRIMINAL JUSTICE

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

Program Description: This program is structured for the individual seeking either pre-service or in-service education and training. This program is vitally concerned with both practice and theory in the conviction that neither can stand alone. Sound practice demands sound theory, while advances in knowledge grow out of the realities of practice.

Criminal Justice is an interdisciplinary field that draws on the knowledge and methods of a large number of disciplines, including psychology, sociology, political science, and history. This program is concerned with the concept of justice--its implications, its practice, and its demands in relation to the social, political, legal, and economic institutions that define our society. The emphasis is on the total environment in which the justice system operates.

Potential Opportunities: Although an in-depth study of career placement has not been completed, many graduates find positions with various federal, state and local criminal justice agencies.

Registration Requirement: All students taking a course or courses in a Public Service Divison program must have an appropriate Public Service Division program advisor's signature on the course registration before registering. However, students do not have to be Criminal Justice majors to enroll in Criminal Justice classes.

## DEGREE PROGRAM

## Degree Requirements:

## CREDITS

CRIMINAL JUSTICE CORE

| CRJ | 110 | Introduction to Criminal Justice | 5 |
| :--- | :--- | :--- | :--- |
| CRJ | 111 | The Police Function | 3 |
| CRJ | 112 | The Judicial Function | 3 |
| CRJ | 113 | The Correctional Function | 3 |
| CRJ | 114 | Community and the Justice System | 5 |
| CRJ | 201 | Criminal Law | 5 |
| CRJ | 202 | Constitutional Law | 5 |
| CRJ | 203 | Criminal Procedure | 5 |
| CRJ | 248 | Criminology | 5 |
| CRJ | 249 | Discretionary Justice | 3 |
| CRJ | 255 | Criminal Justice Internship | 3 |

## COMMUNICATIONS

ENG 121 English Composition I 5
BUS 142 Intermediate Communications 5
BEHAVIORAL AND SOCIAL SCIENCES
Select four from any of the following courses:
ANT 111 Cultural Anthropology 5

ECO 100 Introduction to Economics 5
GEO 105 World Geography 5
HIS 202 United States History II 5
HUM 121 Survey of Humanities I 5
MAS 162 Introduction to Modern Mexico 5
PHI 111 Introduction to Philosophy 5
PHI 113 Logic 5
POS 111 American Government 5
POS 118 State and Local Government 5
PSY 101 General Psychology I 5
PSY 221 Abnormal Psychology 5
SOC 101 Introduction to Sociology I 5

## RECOMMENDED ELECTIVES

May be accomplished by completing one of the following: (Consult with the Criminal Justice Advisor)

1. Successful completion of the Aims Regional Peace Officer Basic Academy. (Refer to CRJ 261 - Criminal Justice Practicum.)
2. Successful completion of a state-recognized minimum 160 hour Basic Detention Officer Academy PLUS 15 college credits in the Social Sciences.
3. Successful completion of any "State Certified" minimum 342 hour Basic Peace Officer Academy. (Must submit acceptable proof regarding the length of the curriculum and successful completion.)
4. Successful completion of the PLS (Professional Legal Secretary) and/or CLA (Certified Legal Assistant) nationally accredited examination, plus an additional 15-20 college credits subject to the discretion of the Criminal Justice advisor. (Must submit acceptable proof of certification.)
Total Credits for A.A.S. Degree

## BASIC PEACE OFFICER ACADEMY

Program Length: Thirteen weeks; eight hours per day/five days per week.

Program Description: A unique aspect of Criminal Justice at Aims College is the Peace Officer Basic Academy program. Success in the Academy leads to a "certificate of completion" and college credits, which may be applied to the A.A.S. degree program in Criminal Justice.

The Peace Officer Basic Academy offers an excellent opportunity for individuals desiring "certifiability" as peace officers. REMEMBER, only the State of Colorado Peace Officers Standards and Training (POST) Board may grant certification as a Peace Officer.

The Aims College Regional Peace Officer Basic Academy follows the curriculum of basic law enforcement training established by the Colorado Peace Officers Standards and Training Board and is reviewed/approved by the State of Colorado.

Program Objective: Knowing subject matter academically does not guarantee that one will be a professional peace officer. But it should guarantee that the individual does not start exploring "as new" an approach discarded by others long ago.

An education, even in a so-called practical or professional field such as law enforcement, cannot really prescribe what an individual should do. It may, however, suggest the following:

1. What not to do.
2. What has been done before.
3. Where to look when one has questions about what one is doing now.
4. How to think clearly, act well in one's work, and appreciate human life.
This Academy emphasizes the acquisition of knowledge of how to apply the principles of law enforcement correctly and sufficient physical fitness to perform with vigor and enthusiasm.

Potential Opportunities: Although an in-depth study of career placement has not been completed, career opportunities appear good since our Academy graduates have been found to be excellent peace officers who are worth employing.

Registration Requirement: Must consult with the Academy Director.

## CERTIFICATE PROGRAM

CREDITS
Certificate Requirements:
CRJ 261 Criminal Justice Practicum "Police Academy"
40
Total Credits for Certificate

CRIMINAL JUSTICE ADVISORY COMMITTEE
Rick Dill
Weld County Sheriff's Office

Bruce Luedeman
Department of Public Safety U.N.C.

Stan Peek
District Attorney's Office
Weld County

Philip L. Reichel, Professor Department of Sociology U.N.C.

Philip R. Wilson
Larimer County Sheriff's Department

Roger Muller Greeley Police Department

George R. Ward
Fort Lupton Police Department

Dick Evans
Evans Police Department

## FIRE SERVICE TECHNOLOGY DEGREE PROGRAM

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

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

The Public Service Division provides students with the option to specialize in Fire Science Technology (firefighting) or in Fire Protection Technology (fire prevention). Job opportunities may be found in small or large municipal fire departments, special fire protection districts, or in industrial fire departments.

Registration Requirement: All students taking a course or courses in a Public Service Divison program must have an appropriate Public Service Division program advisor's signature on the course registration before registering.

## FIRE PROTECTION TECHNOLOGY OPTION

| Degree Requirements: |  |  |  |
| :--- | :--- | :--- | :--- |
| ENG | 105 | Fundamentals of Composition | 5 |
| CSC | 100 | The Computer and Society | 4 |
| FIS | 100 | Introduction to Fire Science and Suppression | 3 |
| FIS | 104 | Fire Company Organization and Procedure | 3 |
| FIS | 108 | Fire Hydraulics | 3 |
| FIS | 111 | Fire Fighter Occupational Safety | 3 |
| FIS | 113 | Fire Inspector I | 3 |
| FIS | 115 | Introduction to Industrial Trades | 3 |
| FIS | 117 | Effective Fire Service Presentations | 5 |
| FIS | 190 | Administration of Justice and Court Procedures | 3 |
| FIS | 202 | Fundamentals of Fire Prevention | 3 |
| FIS | 203 | Uniform Building and Fire Codes | 5 |
| FIS | 205 | Life Safety Codes | 3 |
| FIS | 207 | Applied Chemistry for Firefighters | 5 |
| FIS | 208 | Hazardous Materials I | 3 |
| FIS | 209 | Hazardous Materials Il | 3 |
| FIS | 212 | Fixed Fire Protection Equipment \& Systems | 3 |
| FIS | 213 | Fire Service Supervision | 3 |

Fire Fighter Occupational Safety 3

FIS 115 Introduction to Industrial Trades 3
IS 117 Effective Fire Service Presentations 5
3

FIS 203 Uniform Building and Fire Codes 5
FIS 205 Life Safety Codes 3
FIS 207 Applied Chemistry for Firefighters 5

FIS 212 Fixed Fire Protection Equipment \& Systems 3
FIS 213 Fire Service Supervision 3
FIS 218 Fire Investigation ..... 3
FIS 230 Building Construction for the Fire Service ..... 3
MAT 101 Applied Math 1 ..... 5
PHY 105 Conceptual Physics ..... 5
PSY 111 Basic Human Potential Seminar ..... 3
SOC 101 Introduction to Sociology ..... 5
Recommended Electives:
BUS 101 Typewriting I ..... 4
FIS 112 Fire Service Planning ..... 3
FIS 119 Fire Service Instructor I ..... 3
HEN 106 Safety and First Aid ..... 3
TEM 105 Emergency Medical Technician ..... 12
POS 111 American Government ..... 5
POS 118 State and Local Governments ..... 5
PSY 107 Transactional Analysis ..... 324

Note: Four elective credit hours are allowed for a student who has been certified by the State of Colorado at the Firefighter One Level, or above.
Total Credits for A.A.S. Degree


FIRE SCIENCE TECHNOLOGY OPTION

Degree Requirements:
ENG 105 Fundamentals of Composition 5
CSC 100 The Computer and Society 4
FIS 100 Introduction to Fire Science and Suppression 3
FIS 104 Fire Company Organization and Procedure 3
FIS 106 Fire Fighting Tactics and Strategy 5
FIS 108 Fire Hydraulics 3
FIS 110 Fire Apparatus and Equipment 3

| FIS | 111 | Fire Fighter Occupational Safety | 3 |
| :--- | :--- | :--- | ---: |
| FIS | 113 | Fire Inspector I | 3 |
| FIS | 115 | Introduction to Industrial Trades | 3 |
| FIS | 117 | Effective Fire Service Presentations | 5 |
| FIS | 206 | Rescue Practices | 3 |
| FIS | 207 | Applied Chemistry for Firefighters | 5 |
| FIS | 208 | Hazardous Materials I | 3 |
| FIS | 209 | Hazardous Materials II | 3 |
| FIS | 213 | Fire Service Supervision | 3 |
| FIS | 218 | Fire Investigation | 3 |
| FIS | 230 | Building Construction for the |  |
|  | $\quad$ Fire Service |  |  |
| MAT | 101 | Applied Math 1 | 3 |
| PSY | 111 | Basic Human Potential Seminar | 5 |
| SOC | 101 | Introduction to Sociology I | 3 |
| Recommended Electives: | 5 |  |  |
| BUS | 101 | Typewriting I |  |
| FIS | 112 | Fire Service Planning | 4 |
| FIS | 119 | Fire Service Instructor I | 3 |
| HEN | 106 | Safety and First Aid | 3 |
| TEM | 105 | Emergency Medical Technician | 3 |
| POS | 111 | American Government | 12 |
| POS | 118 | State and Local Government | 5 |
| PSY | 107 | Transactional Analysis | 5 |

Note: Four elective credit hours allowed for a student who has been certified by the State of Colorado at the Firefighter One Level, or above.

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

## VOLUNTEER FIREFIGHTER TRAINING

Program Length: Will vary from four quarters to eight quarters or more.

The Volunteer Firefighter Training Program is designed to provide theory and practical training for volunteer firefighters and those who wish to become volunteer firefighters.
Potential Opportunities: Opportunities to become volunteer firefighters exist locally as well as nationwide. This training will also benefit those who wish to become career firefighters.
Registration Requirement: All students taking a course or courses in a Public Service Division Program must have an appropriate Public Service Division Program advisor's signature on the course registration before registering.
Certificate Program Credits
Certificate requirements:
A total of 24 credit hours from the following list of classes must be completed:

| FIS | 196 | Volunteer Fire Seminar | 1 |
| :--- | :--- | :--- | :--- |
| FIS | 197 | Volunteer Fire Seminar | 2 |
| FIS | 198 | Volunteer Fire Seminar | 3 |
| FIS | 199 | Volunteer Fire Seminar | 4 |
| TEM | 106 | First Responder | 4 |
| TEM | 127 | Cardiopulmonary Resuscitation | 1 |
| TEM | 128 | C.P.R. Instructor | 1 |
| TEM | 196 | Firefighter First Aid | 1 |

The above classes must include the following requirements:
BASIC FIREFIGHTING TRAINING
Regular Department Training (Maximum 1 credit)
Firefighter I Certification or
Firefighter I Theory (Maximum I credit)
Firefighter II Certification (Maximum I credit)
Fire Safety

## Initial Fire Attack

Driver Training
Fire and Rescue Field Days
Other Basic Firefighting topics approved by advisor
Student must also pass a Basic Firefighting knowledge and skills competency exam.

Credits

## EMERGENCY MEDICAL TRAINING

4
First Responder Emergency Medical Technician C.P.R. C.P.R. Instructor Other E.M.S. topics approved by advisor

FIRE COMMAND AND ADMINISTRATION TRAINING
Rural Firefighting Tactics
On Scene Coordination
Fire Officer Training
Firefighter III Certification (Maximum 1 credit)
Other Fire Command topics approved by advisor
HAZARDOUS MATERIALS TRAINING
Basic Hazardous Materials
Other Hazardous Materials Topics approved by advisor
SPECIALIZED FIREFIGHTER TRAINING
Dive Rescue
Ice Rescue
Trench Rescue
Farm Accident Rescue
Extrication
Fire Prevention
Other Specialized Firefighter Topics approved by advisor
FIREFIGHTER ELECTIVES
To be selected from any above topics

## FIRE SERVICE TRAINING ACADEMY

Program Length: Usually 13 weeks for Certificate in Occupational Education program. Thirty credit hours required ( 460 clock hours).

The Fire Service Training Academy is a training program which meets eight (8) hours per day, five (5) days per week. It is designed for the recruits/cadets who are in need of basic job entry skills and knowledge. The State of Colorado Firefighter 1 examinations are given prior to academy graduation.

Potential Opportunities: Entry level employment in this field is frequently difficult to obtain. This course is designed to provide entry level knowledge and skills to firefighter recruits/cadets, or the student who may be seeking a career in the fire service.

Registration Requirement: Students must consult with the Academy Director prior to receiving the necessary application packet.

## CERTIFICATE PROGRAM

CREDITS
Certificate Requirements: $\quad 30$
FIS 105 Fire Service Training Academy
30
Total Credits for Certificate

## FIRE SERVICE TECHNOLOGY <br> VOLUNTEER FIRE SERVICE TRAINING CERTIFICATE <br> FIRE SERVICE TRAINING ACADEMY ADVISORY COMMITTEE

Dave Bierweiler
Longmont Rural Fire Protection District

Jill Carlson
Industrial Representitive
National Cash Register
Gene Chantler
Poudre Valley Fire Authority
Bob Claypool
Insurance Industry Representative
State Farm Insurance

Don Cummins
Ft. Lupton Voluntee: Fire Department
Aims College - South Campus
Greg Holmes
Supervisor Fire \& Safety
Eastman Kodak Company
Willard (Will) Martin
Greeley Fire Department
Mark Hettinger
Student Representative

Robert Starman
Loveland Volunteer Fire
Department

Christine Stolly
Johnstown Volunteer Fire Department
Student Representative
Greg Thompson
Greeley Fire Department Student Representative

Gerald Ward
Berthoud Fire Protection District

Bill Bailey
Program Supervisor
Aims Community College
Verne Einspahr
Instructor
Aims Community College
Paul Gaiser
Dean Occupational Education
Aims Community College
Dave Goodale
Instructor
Aims Community College
Dan Peck
Division Chairman-Public
Service
Aims Community College

## EMERGENCY MEDICAL TECHNICIAN

Program Length: EMT is currently a 20 week program within the occupational education program with a certificate awarded upon completion. Twelve credit hours required ( 160 clock hours). The students are required to be proficient in both the cognitive and practical skills to pass the program and become state certified by the Emergency Medical Services Division of the Colorado Department of Health. This certificate must be renewed every 3 years by taking an EMT-refresher class ( 40 hours, 4 credits).
Potential Opportunities: Entry level employment in this field is frequently difficult to obtain. The course is designed to serve those who may be first responders to an accident scene. This will commonly include: ambulance crew members, highway patrolmen, fire rescue teams (both paid and volunteer), police department rescue teams, ski patrol or mountain rescue groups, etc.
Registration Requirement: All students taking a course or courses in a Public Service Division program must have an appropriate Public Service Division program advisor's signature on the course registration before registering.

# CERTIFICATE PROGRAM 

Certificate Requirements:
TEM 105 Emergency Medical Technician
Total Credits for Certificate
CERTIFICATE RENEWAL PROGRAM
CREDITS
Certificate Renewal Requirements:
TEM 108 EMT Refresher
4
Total Credits for Certificate Renewal

## EMERGENCY MEDICAL SERVICES ADVISORY COMMITTEE

Dave Bressler, EMT-P
Weld County Ambulance Service
Michael Gress, EMT-P
Poudre Fire Department
Marilyn Hall, RN
North Colorado Medical Center
Debi Hunter, RN
Swedish Medical Center
Gary McCabe, EMT-P
Weld County Ambulance Service
Larry Richardson, EMT
Fort Lupton Fire Department


## RADIOLOGIC TECHNOLOGY

Program Length: Usually eight quarters for Associate of Applied Science degree program, starting in the fall quarter only.

Entrance Requirements: This program starts in the fall quarter ONLY. Entry is highly competitive and early application is recommended. A separate program application for the fall quarter classes must be submitted by the end of May prior to the term the student expects to begin the program. Prerequisites for program acceptance are necessary. Contact program faculty for entrance specifics as soon as possible prior to application deadline.
Registration Requirement: XRT majors in the program or working toward the program must have radiography advisor's signature on all registration lerms each quarter.

Potential Opportunities: The radiographer as part of the health care team is dedicated to the conservation of life and health and the discovery of existing disease.
This program is designed to train individuals in the art and science of Radiologic Technology.
Students successfully completing the program are eligible to take a National Registry examination that upon successful completion will allow the graduate to hold the status of Registered Technologist (R.T.).
NOTE: Courses listed in this program are subject to change. Students can verify the course offerings from the program director.

## DEGREE PROGRAM

Degree Requirements:
CREDITS
First Year
Fall Quarter
XRT 100 Introduction to Radiologic Technology
XRT 101 Radiographic Postioning I

XRT 111 Clinical Experience I 2
HLH 131 Medical Terminology 3
Winter Quarter
XRT 102 Radiographic Positioning II 4
XRT 112 Clinical Experience II 5
XRT 118 Radiation Protection \& Biology 3
XRT 121 Radiographic Exposure I 4
Spring Quarter
12
XRT 103 Radiographic Positioning III 4
XRT 113 Clinical Experience III 5
XRT 122 Radiographic Exposure II 3
Summer Quarter
XRT 104 Radiographic Positioning IV 4
XRT 114 Clinical Experience IV 10
Total Credits for First Year
56

## CREDITS

## Second Year

Fall Quarter
XRT 205 Special Procedures 3
XRT 208 Radiographic Pathology
XRT 211 Clinical Experience V
XRT 221 X-ray Physics I
Winter Quarter
XRT 212 Clinical Experience VI 8
XRT 222 X-ray Physics II 3
XRT 225 Radiographic Quality Assurance 2
Spring Quarter
XRT 207 Radiographic Imaging 3
XRT 213 Clinical Experience VII 10
XRT 218 Computers in Medicine

Summer Quarter
XRT 214 Clinical Experience VIII ..... 10
Total Credits for Second Year ..... 56
General Education Requirements ..... 20
BIO 120 Basic Human Anatomy \& Physiology ..... 5(to be taken First Year, Fall Quarter)SPE 118 Interpersonal Communications5
PSY 101 General Psychology 1 ..... 5
ENG 105 Fundamentals of Composition ..... 5

Total Credits for A.A.S. Degree

## RADIOLOGIC TECHNOLOGY ADVISORY COMMITTEE

Jane Mulledy, R.T.
Department of Radiology
North Colorado Medical Center

Robert Hamm, M.D.
McKee Medical Center

Glenn Hewitt, M.D.
Department of Radiology
North Colorado Medical Center

Dennis Isaacson, R.T.
Chief Technologist
Poudre Valley Hospital

Jon Lapp, R.T.
Administrative Technologist
North Colorado Medical Center

Greg Messmer, R.T. (R)
McKee Medical Center

Sandra Pool, R.T. (R)
Department of Radiology
Poudre Valley Hospital

Beth Post, R.T. (R)
Department of Radiology North Colorado Medical Center

Elizabeth Fegley, R.T.
Department of Radiology
Poudre Valley Hospital

## TECHNICAL DIVISION PROGRAMS

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

Training or classes may be conducted on-the-job or on campus and may vary from a few hours to several quarters in duration.

## General Program Requirements:

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

1. A good general mathematics background. (Some programs require a math background through algebra-see program requirements.)
2. Students should have high school level reading and communication skills.
3. Good eyesight (corrected or uncorrected) and good hand dexterity are helpful.
4. All students enrolling in Technical Division courses MUST be advised and have registration forms signed by a Technical Division program advisor.
5. Students enrolling in designated Technical Division programs SHOULD complete preassessment evaluation (in College Assessment Center) prior to enrollment. Additional placement or diagnostic evaluations may be required before acceptance into a specific program.
6. Students lacking essential skills or background may obtain required knowledge through preparatory classes within the College. (See a program advisor.)

## General Education Requirements:

All A.A.S. degree programs require a minimum of 18 credit hours of general education. The curriculum for each program has these classes designated. Program advisors will assist in course selection. The student must take a minimum of one advisor approved course in each of the following disciplines:

1. Mathematics/Science
2. Behavioral/Social Science
3. Communications/Humanities

The Technical Division offers the following programs:

## AGRICULTURE TECHNOLOGY

Farm and Ranch Business Management Option
Farm and Ranch Business Management
Young Farmer Program
Training Option
Computer Users Option

## AVIATION TECHNOLOGY

Aviation Technology
General Aviation Pilot Option
Pilot Entry Program (PEP) Option
General Aviation Pilot

## ELECTRONIC TECHNOLOGY

DRAFTING TECHNOLOGY

## ENGINEERING TECHNOLOGY

Architectural Option
Civil Option
Mechanical Option
Computer Aided Manufacturing Option
A.A.S. Degree
A.A.S. Degree
A.A.S. Degree
A.A.S. Degree Certificate

Certificate Certificate

A.A.S. Degree

Certificate

A.A.S. Degree

Certificate
A.A.S. Degree

Registration Requirement: All students taking a course in a Technical Division program must have an appropriate Technical Division program advisor's signature on the course registration form before registering.


## AGRICULTURE TECHNOLOGY

Program Advisors: Merle Brockshus, Glen Sowder
Farm and Ranch Business Management is a systematic program built into a three-year course of study and training. The course is designed for farmers and ranchers who are actively engaged in farming/ranching and involves 40 hours of classroom instruction per year along with 10/12 farm/ranch visits per year. Individual instruction on the use of the personal computer using agriculture software is studied and used to maintain farm/ranch records during farm/ranch visits.

Students are enrolled as a farm/ranch unit (a unit consists of two (2) people). Students enrolled in this program may use the credits in either the degree or certificate program.

For additional information on program costs (a special fee is charged rather than standard tuition rates) and enrollment periods please contact the Technical Division Office, extension 286.

## DEGREE PROGRAM

FARM AND RANCH BUSINESS OPTION
Potential Opportunities: This program is designed to prepare the student as: (1) an Agriculture Accounting Technician, (2) Data Entry Technician for Farm or Ranch Accounting and/or Management firms, (3) Farm and Ranch Business Manager.
Registration Requirement: All students enrolling in classes in a Technical Division course or program MUST have an appropriate Technical Program advisor's signature on the course registration (enrollment) form before registering.
Degree Requirements:
CREDITS
General Education
The following courses will fulfill the general education requirements.
Other general education classes may be accepted with advisor/department approval.

## Communication and Arts

ENG 105 Fundamentals of Composition 5
Mathematics and Science
(Minimum of 8 credit hours required)
CSC 100 The Computer and Society 4

CSC 101 Introduction to Programming in
the Basic Language
CSC 105 Introduction to Personal Computing 3
CSC 141 Microcomputer Managed Application: Word Processing

2
CSC 142 Microcomputer Managed Application: Electronic Spreadsheets

## Behavioral and Social Science

(Minimum of 5 credit hours required)
PSY 101 General Psychology I 5

SOC 101 Introduction to Sociology I 5
ECO 201 Principles of Macroeconomics 5
ECO 202 Principles of Microeconomics 5
PHI 107 Introduction to Logic 5
Agriculture Core Courses
(66 credit hours required)
FMT 101 Farm and Ranch Business Management I 22
FMT 102 Farm and Ranch Business Management II 22
FMT 103 Farm and Ranch Business Management III 22
Upon completion of the 66 credit hours of core courses the student must complete a comprehensive examination of the material covered. If successful, the 66 credit hours will fulfill the core requirement for the A.A.S. degree program.

BUS 100 Introduction to Business
(Minimum of 12 credit hours required)
Elective courses may be taken from Agriculture Home Study courses or other advisor/department approved courses.
Agriculture Home Study Courses
Management Development

| AGS | 100 | Introduction to Agribusiness |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: |
| AGS | 101 | Introduction to Agribusiness |  |  |  |
|  | Management |  |  |  | 3 |
| AGS | 102 | Agricultural Economics | 3 |  |  |
| AGS | 103 | Personnel Management |  |  |  |
| AGS | 104 | Cooperative Management by Objectives | 3 |  |  |
| AGS | 105 | Positive Performance Appraisal | 3 |  |  |
| AGS | 106 | Employee Selection and Interviewing | 3 |  |  |
| Accounting/ Office Management | 3 |  |  |  |  |
| AGS | 122 | How Money Works in Agribusiness |  |  |  |
| AGS | 123 | Marketing Through Hedging |  |  |  |
| Employee Communications | 3 |  |  |  |  |
| AGS | 130 | Cooperative Organizations | 3 |  |  |
| AGS | 132 | Agribusiness Telephone Communications | 3 |  |  |

Minimum required Program Credit Hours
Minimum required Elective Credit Hours
Minimum General Education Credit Hours
Minimum Credits required for A.A.S. Degree

## CERTIFICATE PROGRAM

| FARM AND RANCH BUSINESS MANAGEMENT |  |  |
| :---: | :---: | :---: |
| Certificate | equirements: |  |
| FMT 101 | Farm and Ranch Business Management I | 22 |
| FMT 102 | Farm and Ranch Business Management II | 22 |
| FMT 103 | Farm and Ranch Business Management III | 22 |

Minimum required Program Credit Hours
Minimum required Elective Credit Hours
Minimum General Education Credit Hours
Minimum Credits required for Certificate

## AGRICULTURE HOME STUDY COURSES

The following courses are available as individual home study courses. The student MUST contact an agriculture advisor to enroll and obtain course materials.

## MANAGEMENT DEVELOPMENT

| AGS | 100 | Introduction to Agribusiness | 3 |
| :---: | :---: | :---: | :---: |
| AGS | 101 | Introduction to Agribusiness |  |
|  |  | Management | 3 |
| AGS | 102 | Agricultural Economics | 3 |
| AGS | 103 | Personnel Management | 3 |
| AGS | 104 | Cooperative Management by Objectives | 3 |
| AGS | 105 | Positive Performance Appraisal | 3 |
| AGS | 106 | Employee Selection and Interviewing | 3 |
| ACCOUNTING/OFFICE MANAGEMENT |  |  |  |
| AGS | 122 | How Money Works in Agribusiness | 3 |
| AGS | 123 | Marketing Through Hedging |  |



## EMPLOYEE COMMUNICATIONS

AGS 130 Cooperative Organizations 3
AGS 132 Agribusiness Telephone Communications 3
FERTILIZER AND AG CHEMICALS
AGS 141 Fertilizer 3
AGS 142 Ag Chemicals 3
AGS 143 Lawn and Garden Center Sales 3
AGS 144 Corn Production 3
AGS 145 Anhydrous Ammonia Safety 3
AGS 146 Irrigation 3
FEED AND ANIMAL HEALTH
AGS 151 Feed 3
AGS 152 Animal Health 3
AGS 153 Beef Production--Cow/calf Program 3
AGS $154 \quad \begin{gathered}\text { Beef Production--Growing \& } \\ \text { Finishing Program }\end{gathered}$
AGS 155 Swine Production 3
AGS 156 Sheep Production 3
AGS 157 Dairy Production 3
AGS 158 Advanced Animal Health 3
PETROLEUM, TBA, AND LPG
AGS 165 LP Gas Handling and Storage 3
AGS 166 LP Carburetion 3
GRAIN HANDLING
AGS 173 Physical Grain Handling 3
SALES TRAINING

| AGS | 182 | Farm Store Management | 3 |
| :--- | :--- | :--- | :--- |
| AGS | 183 | Cooperative Salesmanship | 3 |

## AGRICULTURE ADVISORY COMMITTEE

| Fred Gibbs <br> B \& G Irrigation <br> Greeley, CO | Don Lindauer <br> Peterson Agri-Management <br> Association |
| :--- | :--- |
| Alan Hergert | Greg Marrs |
| Farmer |  |
| Greeley, CO | Farmer <br> Greeley, CO |
| Dennis Hoshiko | Steve Mendell |
| Farmer |  |
| Greeley, CO | Agland, Inc. <br> Eaton, CO |
| Bill Janssen | Ron Miller |
| Northern Colorado | Soil Conservation Service <br> Greeley, CO |
| Agri-Business Association | Daryl Ottoson |
| Dr. Jerome Lawler | Farmer <br> Greeley, CO |
| Veterinarian | Ron Preston |
| Eaton Animal Clinic | Vocational Agriculture |
| Phil Leffler | Instructor |
| Farm Credit Service | Eaton, CO |
| Greeley, CO |  |

## YOUNG FARMER PROGRAM

Young Farmer programs are designed to meet occupational needs of persons who are at least 16 years of age and are not regularly enrolled in secondary school, or who have completed their secondary (12th grade) education.
The major instructional objective is to develop the group and individual responsibility of young farmers through programs of instruction in Vocational Agriculture. These programs are designed to help the young farmers to meet their needs to become efficiently established in farming or an agricultural occupation.
No degree will be awarded to persons enrolled in this program since it is considered to be an upgrading of the profession in which they are presently employed. These programs will be ongoing in nature and will not be considered as separate classes or programs. College credit may be awarded on a yearly basis to individuals enrolled in this program.
These programs preferably will be started in July, but in many cases will start after the beginning of the school year as soon as they can be organized. Programs will have some flexibility as a minimum of 15 meetings is required, and the fiscal year runs from July 1 to June 30 of each year.
For additional information on Young Farmer programs, please contact Technical Division, extension 286.

## AVIATION TECHNOLOGY

Program Advisors: Marvin Bay, Gina Kline
Program Length: Usually three quarters for the General Aviation Pilot Certificate program, six quarters for the General Aviation Pilot Option A.A.S. degree program, and seven quarters for the Pilot Entry Program (PEP) program. Times may be shorter if the student is eligible to receive credit for previous flying experience.

## Potential Opportunities:

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

Pilot Entry Program (PEP): The Pilot Entry Program sponsored by Eastern Airlines in cooperation with Aims Community College is designed to train pilots that will be eligible for employment in the commuter airline system. It is anticipated that after two years of successful commuter airline flying the student would be eligible to move to a major airline as flight positions became available. Completion of the PEP program DOES NOT GUARANTEE that the graduate will be employed by any airline, however, the possibility of employment is enhanced because of the affiliation of the program with Eastern Airlines.
Program Requirements: Students pursuing a certificate or degree in Aviation Technology MUST complete the AIMS Preassessment examinations prior to program enrollment. If qualifying scores are not attained, program advisors will determine remedial courses that will be required to gain program or class admittance.
The student MUST also pass the required flight physical exam prior to the end of the first quarter of enrollment. The student MAY also be required to undergo drug testing at any time.
Many of the classes in the aviation program have prerequisites that MUST be met PRIOR to class admittance. (See course descriptions for specific requirements.)
General Information: Additional charges are made for rental of aircraft for flight labs. Aims Community College does not own aircraft but contracts for flight training. (See course descriptions for flight labs.)
Students wishing to enter the PEP program may make application for program entrance after completion of one quarter of aviation classes. This application also requires an additional fee.
The Aviation Department will have information detailing the application fees and flight expenses--call extension 286.
Credit for previous flying experience may be awarded with the approval of the division/department. This will be determined on an individual basis.

Registration Requirement: All students enrolling in Technical Division courses MUST have an appropriate Technical Division program advisor's signature on the registration form BEFORE registering.

## GENERAL AVIATION PILOT OPTION

## Quarter \#1

QTR HOURS
AVT 100
Aviation Seminar
2
AVT 108
Private Ground School
AVT 101 Private Flight Lab I
AVT 105
Quarter \#2
Private Flight Simulator
3

Private Flight Lab II
QTR HOURS
EAS 106
EAS 106 Meterology 4
PEF 126 Aerospace Fitness and Performance I

2
AVT 106 Aviation Economics 5
Quarter \#3 QTR HOURS
19
AVT 103 Commercial Flight Lab I 5
AVT 109 Instrument Ground School 6
AVT 111 Instrument Flight Simulator I 3
PHY 105 Conceptual Physics 5
Quarter \#4 QTR HOURS
18
AVT 104 Commercial Flight Lab II 5
AVT 211 Instrument Flight Simulator II - Part A

3
SPE 115 Principles of Speech Communication 5
OR
SPE 110 Communication Concepts


## PILOT ENTRY PROGRAM OPTION

Walter Bjorneby - Eastern Airlines Coordinator
Quarter \#1
AVT 100
QTR HOURS 14
Aviation Seminar
AVT 108 Private Ground School 2

- 6

AVT 105
Quarter \#2
AVT 102
Private Flight Lab II
QTR HOURS 14

EAS 106
Meterology
Aviation Economics
PEF 126 Aerospace Fitness and Peformance 1

QTR HOURS 19
$\begin{array}{llll}\text { AVT } & 103 & \text { Commercial Flight Lab 1 } & 5 \\ \text { AVT } & 109 & \text { Instrument Ground School } & 6 \\ \text { AVT } & 111 & \text { Instrument Flight Simulator I } & 3\end{array}$
$\begin{array}{llll}\text { AVT } & 103 & \text { Commercial Flight Lab 1 } & 5 \\ \text { AVT } & 109 & \text { Instrument Ground School } & 6 \\ \text { AVT } & 111 & \text { Instrument Flight Simulator I } & 3\end{array}$
Conceptual Physics
Quarter \#4
AVT 104
Commercial Flight Lab II
AVT 211 Instrument Flight Simulator II - Part A

QTR HOURS 18

SPE 115 Principles of Speech Communication OR
SPE 110 Communication Concepts
ENG 121

English Composition I

Quarter \#5
QTR HOURS 19
AVT 206
Commercial Ground School
5
AVT 216 Instrument Flight Lab 5
AVT 212 Instrument Flight Simulator II - Part B

3
AVT 235 Flight Engineer: Systems 6
Quarter \#6
AVT 217
Commercial Flight Lab III
AVT 214 Advanced Flight Simulator
AVT 236 Flight Engineer: Power Plant
Quarter \#7
Multi-engine Flight Lab
QTR HOURS 13
AVT 225 Multi-engine Flight Lab 4
AVT 215 Airline Management
5
CSC 100 The Computer and Society
4
Minimum required Program Credit Hours 88
Minimum required Elective Credit Hours
Minimum General Education Credit Hours
Minimum Credits required for A.A.S. Degree

## CERTIFICATE PROGRAM

Certificate Requirements:

## CREDITS

Classroom
AVT 100 Aviation Seminar 2
AVT 108 Private Ground School 6
AVT 109 Instrument Ground School 6
AVT 206 Commercial Ground School
5
Flight
AVT 101 Private Flight Lab I 3
AVT 102 Private Flight Lab II 3
AVT 103 Commerical Flight Lab I 5
AVT 104 Commercial Flight Lab II 5
AVT 216 Instrument Flight Lab 5
AVT 217 Commercial Flight Lab Ill 5
Flight Simulator
AVT 105 Private Flight Simulator 3
AVT 211 Instrument Flight Simulator I 3
AVT 213 Instrument Flight Simulator II 6
Minimum required Program Credit Hours 57
Minimum required Elective Credit Hours
Minimum General Education Credit Hours
Minimum Credits required for A.A.S. Degree

Total Credits For Certificate

## AVIATION TECHNOLOGY ADVISORY COMMITTEE

| Robert Anderson | Ernest Kampe <br> Commercial Pilot |
| :--- | :--- |
| Flight Instructor Pilot |  |

## ELECTRONICS TECHNOLOGY

Program Advisors: Fred Bantin, Bob Beck, Gene Cross, Ralph Green
Program Length: Usually six quarters for Associate in Applied Science degree program.

Potential Opportunities: Students can expect to secure entry level positions with progress toward jobs as research and development technicians, engineering aides, field service representatives, production test technicians, electronic tooling maintenance technicians, design and fabrication technicians, or system technicians for computers, controls, and communications.

Program Requirements: Students entering this program are required to complete AIMS preassessment examinations in the areas of reading, writing, math and algebra. If qualifying scores are not attained, program advisors will determine the remedial courses that will be required to gain admittance to the program.

The A.A.S. degree in Electronics Technology requires a demonstrated proficiency in composition. This may be accomplished by SUCCESSFULLY completing (ENG 105) Fundamentals of Composition or QUALIFYING performance on the preassessment examination.

Many of the Electronic Technology courses have prerequisites that MUST BE MET PRIOR TO CLASS ADMITTANCE. See ELT course descriptions for specific requirements.

General Information: Certain courses may be waived if applicant has 3-5 years of appropriate experience in electronics or a closely related industry. This assessment will be made on an individual basis. Advisor approved courses will be selected in lieu of waived courses. Advanced standing is possible if the applicant has had military or other adult electronic schooling.

Advanced standing will be determined on an individual basis.

## TESTING CENTER:

Aims Community College is an authorized testing center for NARTE and ETA.

NARTE (The National Association of Radio and Telecommunications Engineers, Inc.)

Students completing the degree program are eligible for a NARTE Third Class Technician Certificate without further examination upon payment of appropriate membership and certification fees. Additional work experience may establish eligibility for a second or first class certification as determined by the NARTE classification board.
ETA (The Electronics Technician Association, International) This organization is sanctioned by Iowa State University. Students may obtain an associate membership certificate without work experience by examination and payment of appropriate membership fees.

Registration Requirement: All students taking a course or courses in a Technical Division program must have an appropriate Technical Division program advisor's signature on the course registration form before registering.

General Education Requirements: The following courses will fulfill the general education requirements. Other general education courses may be accepted with division/department approval.

```
Communication and Arts
Take one of the following:
SPE 115 Principles of Speech Communication
SPE 110 Communication Concepts
SPE 118 Interpersonal Communications
```

Mathematics and Science
Take two of the following:

| CSC | 101 | Introduction to Programming in <br> the BASIC Language |
| :--- | :--- | :--- |
| CSC | 102 | Advanced Basic Programming |
| CSC | 111 | Structured Program Design |
| CSC | 121 | Programming in Pascal |
| Behavioral and Social Science |  |  |
| Take one of the following: |  |  |
| ECO | 201 | Principles of Macroeconomics |
| ECO | 202 | Principles of Microeconomics |
| PSY | 101 | General Psychology I |
| PSY | 111 | Basic Human Potential Seminar |

## DEGREE PROGRAM

Degree Requirements: CREDITS
First Year
Fall Quarter ..... 20
ELT 141 Introduction to Electronics(or Evening classes):
ELT 150 DC Fundamentals I ..... (5)
(5)ELT 105 Technical Reporting
General Education
(SPE 111 \& CSC 101 Suggested) ..... 9
Winter Quarter ..... 20
ELT 106 Applied Physics: Mechanical ..... 5
ELT 142 AC/DC Circuit Analysis ..... 10(or Evening classes):
ELT 152 AC Fundamentals I ..... (5)
ELT 153 AC Fundamentals II ..... (5)
General Education(ECO 201 or PSY 101 Suggested)
ELT 107 Applied Physics: Heat/Light/Sound10
(or Evening classes)
ELT 154 Solid State Circuits I
ELT 155 Solid State Circuits II
ELT 144 Digital Fundamentals I5

Total Credits for First Year

Note: BEFORE the student may enroll in second year classes she/he MUST have demonstrated proficiency in composition or have completed ENG 105 Fundamentals of Composition.
Second Year CREDITS ..... 19
Fall Quarter ..... 5
ELT 271 Electronic Communications I ..... 5
ELT 255 Linear ICs and Sensors ..... 5
CSC 102 Advanced BASIC OR ..... 3-4
CSC 121 Programming in Pascal ..... 5
Winter Quarter ..... 16
ELT 202 Microprocessors I ..... 5
ELT 272 Electronic Communications II ..... 5
ELT 266 Electronic Design and Fabrication ..... 5
BET 207 Technical Job Seeking ..... 1
Spring Quarter
ELT 268 Practical Solid State Troubleshooting ..... 5

## ELECTIVES:

Select a minimum of 10 credit hours with advisor approval.

| Recommended Elective Courses: |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: |
| ELT | 203 | Microprocessors II | 5 |  |  |
| ELT | 273 | Electronic Communications III | 5 |  |  |
| ELT | 275 | Integrated Circuit |  |  |  |
|  | Fabrication Techniques |  |  |  |  |
| ELT | 276 | Fundamentals of Robotics | 5 |  |  |
| ELT | 277 | Video Systems | 5 |  |  |

Total Credits Second Year
Minimum required Program Credit Hours
Minimum required Elective Credit Hours
Minimum General Education Credit Hours
Minimum Credits required for A.A.S. Degree

## ELECTRONICS TECHNOLOGY ADVISORY COMMITTEE

Catherine Crim
Woodward Governor, Inc. Ft . Collins

Tom Henderson
Hewlett-Packard
Greeley Division

Lynn Johnson
Woodward Governor, Inc. Ft. Collins

Clarence Laber
Hewlett-Packard
Loveland Division

Rick Peterson
Woodward Governor, Inc. Ft. Collins

Lowell Shatraw
Eastman Kodak Company
Colorado Division

William Spicer
Hewlett-Packard
Ft. Collins Division

Ron Williams
NCR
Ft. Collins

## DRAFTING

Manual and computer aided drafting courses are offered to meet the needs of students and industry within the college district.

A series of courses is offered as part of the Drafting Technology certificate and the Engineering Technology degree programs. A student who is interested in developing only drafting skills may enroll in these courses (for skill development) providing course prerequisites are met. (See course descriptions for individual course prerequisites.)

Upon written request, non-certificate or non-degree students will be awarded a "Certificate of Completion" for the classes that have been successfully completed

Drafting courses are also available to students enrolled in the Area Vocational School. These courses are offered during regular college hours to all students of the Aims Junior College District. Students interested in these courses should contact their high school principal or counselors for details and the possibilities for enrollment.
ALL drafting students are ENCOURAGED to join the local Aims Community College Chapter of AIDD (American Institute of Design and Drafting) to enhance their professional development.

## DRAFTING TECHNOLOGY

Program Advisor:Don Darling
Program Length: Usually three quarters for completion of Certificate in Occupational Education program.

Potential Opportunities: The program is designed to qualify the student for entry level employment as a drafter. The student will develop an understanding of applied mathematics and drafting techniques utilized in the drafting field.

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

1. Architectural Drafting
2. Civil Drafting
3. Urban Plan Drafting
4. Solar Technology Planning and Drafting
5. Engineering and Architectural Related Technologies

Program Requirements: Good eyesight, hand dexterity, and a sense of size are helpful.

Many of the courses within this program have prerequisites that must be met prior to class admittance. See specific course descriptions for requirements.

General Information: All students in this program are encouraged to participate in the Aims Community College Chapter of AIDD (American Institute of Design and Drafting).

The student may add electives to the certificate program with advisor approval.

Registration Requirement: All students taking a course or courses in a Technical Division program must have an appropriate Technical Division program advisor's signature on the course registration form before registering.

## CERTIFICATE PROGRAM

## Certificate Requirements: CREDITS

Fall Quarter
BET 105 Applied Technical Mathematics 5
BET 100 Introduction to Engineering Technology 1
BET 101 Technical Drawing Concepts 6
MET 101 Engineering Materials 3

## Winter Quarter

BET 102 Drafting Fundamentals 4
BET 201 CAD Fundamentals I 4
BET 207 Technical Job Seeking I
Technical Elective
minimum 5
Spring Quarter
BET 103 Engineering Graphics 4
BET 202 CAD Fundamentals II
4
Technical Elective
minimum 8
Minimum Credit Hours Required for Certificate

## ENGINEERING TECHNOLOGY

Program Advisors: Bill Cullins, Don Darling, Jay Freese, Art Giesick
Program Length: Usually six quarters for Associate in Applied Science degree program.

Potential Opportunities: The program is designed to prepare a student for activities of a technical nature, usually associated with architectural, civil or mechanical engineering. These occupation entry
level activities may include drafting, estimating, data gathering, technical reports, minor structural, topographic or mechanical design, surveying, laboratory testing and other engineering assistance skills. The student will develop work skills, an understanding of applied mathematics and physics, and materials and techniques relative to human relations, such as leadership, career planning, and obtaining a position.
Program Requirements: Students entering this program are required to complete AIMS preassessment examinations in the areas of reading, writing, math, and algebra. If QUALIFYING SCORES are NOT attained, program advisors will determine the remedial courses required to gain admittance to the program.
Many Engineering Technology courses have prerequisites that MUST be met prior to class admittance. See AET, BET, CAM, CET, and MET course descriptions for specific requirements.
Good eyesight, hand dexterity, and a sense of size and proportion are helpful in many of the technical courses.
General Information: The Engineering Technology student has the choice of completing a degree in the following option areas: Architectural, Civil, Computer Aided Manufacturing, or Mechanical Technology. A student may receive a degree in more than one option providing ALL degree requirements are met for EACH degree option.
Registration Requirement: All students taking a course or courses in a Technical Division program must have an appropriate Technical Division program advisor's signature on the course registration form before registering.

General Education Requirements: The following courses will fulfill the general education requirements. Other general education courses may be accepted with division/department approval.

## COMMUNICATION AND ARTS

ENG 105 Fundamentals of Composition - REQUIRED (Should be completed during FIRST year in Program)
Take one of the following:

| SPE | 115 | Principles of Speech Communication |
| :--- | :--- | :--- |
| SPE | 110 | Communication Concepts |
| SPE | 118 | Interpersonal Communication |
| SPE | 200 | Organizational Communication |

## MATHEMATICS AND SCIENCE

Take one of the following:
\(\left.$$
\begin{array}{llll}\text { CSC } & 100 & \begin{array}{c}\text { The Computer and Society } \\
\text { CSC }\end{array} & 101\end{array}
$$ \begin{array}{c}Introduction to Programming in <br>

the BASIC Language\end{array}\right]\)| CSC | 111 | Introducing to Computer Programming and <br> the Pascal Language |
| :--- | :--- | :--- |
| CSC | 141 | Microcomputer Managed Applications: <br> Word Processing |
| MAT | 113 | College Plane Geometry |
| MAT | 121 | College Algebra |
| MAT | 122 | College Trigonometry |

## BEHAVIORAL AND SOCIAL SCIENCE

Take one of the following:

| ECO | 201 | Principles of Macroeconomics |
| :--- | :--- | :--- |
| ECO | 202 | Principles of Microeconomics |
| PHI | 113 | Logic |
| PSY | 101 | General Psychology I |
| PSY | 111 | Basic Human Seminar |
| SPC | 101 | Introduction to Sociology |

## DEGREE PROGRAM <br> ARCHITECTURAL TECHNOLOGY (AET)

Degree Requirements:
First Year
Fall Quarter
17
AET 100 Intro to Architecture History \& Technology ..... 2
BET 100 Intro to Engineering Technology ..... 1
BET 101 Technical Drawing Concepts ..... 6
BET 105 Applied Technical Mathematics ..... 5
MET 101 Engineering Materials ..... 3
Winter Quarter ..... 18
AET 105 Contract Drawing Interpretation ..... 4
BET 102 Drafting Fundamentals ..... 4
BET 106 Applied Physics: Statics/Dynamics ..... 5
ENG 105 Fundamentals of Composition ..... 5
Spring Quarter20
AET 103 Drafting III: Architecture ..... 6
BET 103 Engineering Graphics ..... 4
BET 107 Physics: Heat/Fluids ..... 5
General Education or Technical Elective ..... 5
Second Year
Fall Quarter17
CET 201 Drafting IV: Structural ..... 4
AET 201 Drafting IV: Architectural ..... 4
BET 202 CAD Fundamentals I ..... 4
BET 206 Statics ..... 5
Winter Quarter ..... 18
AET 202 Drafting V: Architectural ..... 4
BET 207 Technical Job Seeking ..... 1
BET 202 CAD Fundamentals II ..... 4
CET 202 Drafting V: Civil ..... 4
General Education and/or Technical Elective ..... minimum 5
Spring Quarter16
AET 203 Drafting VI: Architectural ..... 4
AET 208 Applied Engineering Problems: Architecture ..... 4
BET 204 Industrial Relations ..... 3
General Education and/or Technical Elective minimum 8
Minimum required Program Credit hours ..... 83
Minimum required Elective Credit hours ..... 5
Minimum General Education Credit hours ..... 18
Minimum Credits Required for A.A.S. Degree ..... 106
MECHANICAL TECHNOLOGY (MET)
Degree Requirements:
First Year
Fall Quarter20
BET 100 Intro to Engineering Technology ..... 1
BET 101 Technical Drawing Concepts ..... 6
BET 105 Applied Technical Mathematics ..... 5
MET 101 Engineering Materials ..... 3
ENG 105 Fundamentals of Composition ..... 5
Winter Quarter ..... 17
BET 102 Drafting Fundamentals ..... 4
BET 106 Applied Physics: Statics/Dynamics ..... 5
MET 102 Manufacturing Process ..... 3
CAM 105 Industrial Electricity ..... 5
Spring Quarter18
BET 103 Engineering Graphics ..... 4
BET 107 Applied Physics: Heat/Fluids ..... 5

BET 201 CAD Fundamentals I
General Education (Speech elective suggested)

| Second Year |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall Quarter |  |  | 19 |
| CET 201 | Drafting IV: Structural | 6 |  |
| BET 206 | Statics | 6 |  |
| MET 216 | Applied Fluid Mechanics | 3 |  |
| BET 202 | CAD Fundamentals II | 4 |  |
| Winter Quarter |  |  | 16 |
| BET 207 | Technical Job Seeking | 1 |  |
| BET 215 | Engineering Planning \& Control | 4 |  |
| MET 201 | Strength of Materials I | 3 |  |
| MET 202 | Mechanical Design: Manufacturing | 3 |  |
| General Education and/or Technical Elective |  | minimum 5 |  |
| Spring Quarter |  |  | 16 |
| MET 208 | Applied Engineering Problems: Mechanical | al 4 |  |
| MET 204 | Strength of Materials II | 3 |  |
| BET 204 | Industrial Relations | 3 |  |
| MET 203 | Mechanical Design: Facilities | 3 |  |
| General Education and/or Technical Elective minimum 5 |  |  |  |
| Minimum required Program Credit hours |  |  | 83 |
| Minimum required Elective Credit hours |  |  | 5 |
| Minimum General Education Credit hours |  |  | 18 |
| Minimum | redits Required for A.A.S. Degree |  | 106 |

Minimum Credits Required for A.A.S. Degree

## COMPUTER AIDED TECHNOLOGY (CAM)

CREDITS
Degree Requirements:
First Year
Fall Quarter
BET $100 \quad$ Intro to Engineering Technology
BET $101 \quad$ Technical Drawing Concepts
BET 105
Applied Technical Mathematics
MET 101 $\quad$ Engineering Materials
General Education and/or Technical Elective
Winter Quarter


Spring Quarter
12
CAM 208 Applied Engineering Problems: Manufacturing 4
BET 204 Industrial Relations 3
General Education and/or Technical Elective minimum 5

| Minimum required Program Credit hours | 77 |
| :--- | ---: |
| Minimum required Elective Credit hours | 8 |
| Minimum General Education Credit hours | 18 |
| Minimum Credits Required for A.A.S. Degree | $\mathbf{1 0 3}$ |

Minimum Credits Required for A.A.S. Degree

## CIVIL TECHNOLOGY (CET)

Degree Requirements:
First Year
Fall Quarter
BET 100 Intro to Engineering Technology 1
BET 101 Technical Drawing Concepts 6
BET 105 Applied Technical Mathematics 5
ENG 105 Fundamentals of Composition 5
Winter Quarter
19
BET 102 Drafting Fundamentals 4
BET 106 Applied Physics: Statics/Dynamics 5

General Education (Speech elective suggested)
5
General Education (Social Science suggested) minimum 5
Spring Quarter
BET 103 Engineering Graphics
BET 107 Applied Physics: Heat/Fluids 5
CET 105 Basic Field Survey 8

## Second Year

Fall Quarter
CET 201 Drafting IV: Structural 4
BET 206 Statics 5
BET 201 CAD Fundamentals I 4
General Education (Science and math elective suggested) minimum 5

Winter Quarter

BET 207 Technical Job Seeking 1
BET 215 Engineering Planning \& Control 4
CET 216 Civil Hydraulics 3
CET 202 Drafting V: Civil 4

MET 201 Strength of Materials I 3
BET 201 CAD Fundamentals II
Spring Quarter
CET 208 Applied Engineering Problems: Civil 4
CET 203 Applied Civil Design 6
MET 204 Strength of Materials II 3
BET 204 Industrial Relations 3
Minimum required Program Credit hours 8
Minimum required Elective Credit hours
Minimum General Education Credit hours 18
Minimum Credits Required for A.A.S. Degree 103

## ARCHITECTURAL AND ENGINEERING ADVISORY COMMITTEE

Steve Caldwell Colorado Engineering Experiment Station, Inc.

Tom Cope
Civil Engineer

Don Correll
Building Inspector
City of Greeley
Chuck Dayton
Hewlett-Packard
Greeley Division
Bill Friehauf
Woodward Governor, Inc. Ft. Collins

Bill Hange
Traffic Manager
City of Greeley

## TRADES AND INDUSTRY DIVISION PROGRAMS

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

Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering.
The Trades and Industry Division offers the following programs:

## AUTO BODY REFINISHING

(Occupational Certificate)

## AUTO BODY REPAIR TECHNOLOGY

## AUTOMOTIVE MECHANICS TECHNOLOGY

(A.A.S degree or Occupational Certificate)

4
(A.A.S degree or Occupational Certificate)

# CHILD CARE SERVICES <br> (two-year A.A.S. degree or one-year Occupational Certificate) 

## GRAPHIC TECHNOLOGY

WELDING TECHNOLOGY
(A.A.S. degree or

Occupational Certificate)

## AUTO BODY REFINISHING

Program Length: Usually three quarters for Certificate in Occupational Education program.

Potential Opportunities: This is a specialized, three quarter certificate program to help develop the knowledge and skill used by an automotive or truck refinisher. Students will learn about materials and equipment, including their uses, in order to qualify for entry level jobs.

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

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

Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering. The advisors for the Auto Body program are: Ben Bitterman, Carl Guilliams, Mike Geist, or Jim Hein, Division Chairman.

| CERTIFICATE PROGRAM |  |  |
| :--- | ---: | ---: |
| Certificate Requirements: | CREDITS |  |
| Fall Quarter | 12 |  |
| ABF 151 Auto Refinish I |  | 12 |
| Winter Quarter | 12 |  |
| ABF 152 Auto Refinish II |  | 12 |
| Spring Quarter | 12 |  |
| ABF 153 Auto Refinish III |  | 36 |



## AUTO BODY REPAIR

Program Length: 900 clock hours ( 72 credits) for Certificate in Occupational Education program or 1090 clock hours ( 72 credits plus 18 credits for general education) for Associate in Applied Science degree program.

Potential Opportunities: Opportunities for the tradesman range from the actual repair of the damaged auto to being owner of the shop, shop foreman, shop estimator, or insurance adjustor. A constant manpower demand has existed for several years in this field. The demand exists in small local shops as well as large agency organizations.

The program will help develop the skill and knowledge needed to repair a damaged auto including glass removal and replacement, straightening of damaged panels and frames, checking of wheel alignment, panel alignment, filling dents, welding and brazing of torn panels, and preparing for the application of modern automotive finishes. The program is designed to give the student skill and knowledge for entry level employment.

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

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

Program Requirements: Completion of the six certificate requirements will earn a Certificate in Occupational Education. When possible, courses will be scheduled so that the student may take one course per quarter for 12 credits or two courses per quarter for 24 credits.

To earn an Associate of Applied Science degree, the student must complete the certificate requirements and at least 18 credit hours of general education courses. Students in Trades and Industry are encouraged to take the recommended general education courses when possible. With the consent of the student's advisor, other courses may be selected to fulfill the general education requirements.

Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering. The advisors for the Auto Body area area: Ben Bitterman, Carl Guilliams, Mike Geist, or Jim Hein, Division Chairman.

## CERTIFICATE PROGRAM

## Certificate Requirements:

CREDITS
Fall Quarter
ABR 141 Auto Body Repair I 12
ABR 241 Auto Body Repair IV 12
Winter Quarter
ABR 142 Auto Body Repair II 12
ABR 242 Auto Body Repair V 12
Spring Quarter
ABR 143 Auto Body Repair III 12
ABR 243 Auto Body Repair VI 12
Total Credits for Certificate

## DEGREE PROGRAM

Degree Requirements:
Completion of all certificate requirements plus recommended general education courses.
ECO 105 Organizations and Institutions ..... 3
HEN 106 Safety and First Aid ..... 3
MAT 101 Applied Mathematics I ..... 5
PHY 101 Applied Physics I

Total Credits for A.A.S. Degree
Support Courses
ABR 102 Basic Straightening ..... 4
ABR 103 Basic Refinishing ..... 4
ABR 111 Damage Repair ..... 4
ABR 112 Panel Replacement ..... 4
ABR 121 Electrical and Alignment ..... 4
ABR 122 Advanced Refinishing ..... 4
ABR 123 Damage Appraisal Estimating ..... 4
ABR 199 Special Needs/Auto Body Repair ..... 1
ABR 201 Quarter Panel Replacement ..... 4
ABR 202 Basic Sheet Metal Replacement ..... 4
ABR 203 Advanced Sheet Metal Replacement ..... 4
ABR 211 Basic Frame Repair ..... 4
ABR 212 Conventional Frame Repair ..... 4
ABR 213 Unitized Frame Repair ..... 4
ABR 221 Auto Body Rebuilding I ..... 4
ABR 222 Auto Body Rebuilding II ..... 4
ABR 223 Auto Body Rebuilding III ..... 4

## AUTO BODY REFINISHING AUTO BODY REPAIR ADVISORY COMMITTEE

\(\left.\left.\left.$$
\begin{array}{ll}\text { Kermit Bailey } & \text { Rondo Sherman } \\
\text { R.B.I. } & \text { High Tech Auto Body }\end{array}
$$\right\} $$
\begin{array}{l}\text { Mike Foster Wilson } \\
\text { Stevens Automotive }\end{array}
$$ \quad $$
\begin{array}{l}\text { Precision Auto Body }\end{array}
$$\right\} \begin{array}{l}Al Yago <br>
Dave Keiser <br>

Keiser Paint \& Body\end{array} \quad $$
\begin{array}{l}\text { Precision Auto Body }\end{array}
$$\right\}\)| Student Representative |
| :--- |
| Elassic Chevrolet (Retired) |

## AUTOMOTIVE MECHANICS TECHNOLOGY

Program Length: 900 clock hours ( 72 credits) for Certificate in Occupational Education program or 1090 clock hours ( 72 credits plus 18 credits of general education) for Associate in Applied Science degree program. Students have the option of completing the program in one year (six hours per day) or two years (three hours per day).

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

The modern automobile is a complex piece of machinery that requires a technician who knows how to repair it, and who knows why and how it operates so that $\mathrm{s} /$ he can diagnose problems quickly and accurately.

We offer a refesher course to help prepare a mechanic for the certification tests. It is our purpose to meet the training needs of the community. In most cases we are able to offer special vocational classes or programs upon request from industry or a group of students.

Program Requirements: Completion of the six certificate requirements will earn a Certificate in Occupational Education. When possible, courses will be scheduled so that the student may take one course per quarter for 12 credits or two courses per quarter for 24 credits.

To earn an Associate of Applied Science degree, the student must complete the certificate requirements and at least 18 credit hours of general education courses. Students in Trades and Industry are encouraged to take the recommended general education courses when possible. With the consent of the student's advisor, other courses may be selected to fulfill the general education requirements.

Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering. The advisors for the Auto Mechanics program are: George Edel, Dennis Schossow, or Jim Hein, Division Chairman.

| CERTIFICATE PROGRAM |  |  |  |
| :--- | ---: | ---: | ---: |
| Certificate Requirements: | CREDITS |  |  |
| Fall Quarter |  | 24 |  |
| AMT 131 | Brakes, Transmissions and Final Drives A | 12 |  |
| AMT | 231 | Automotive Engines A | 12 |

Total Credits for Certificate
(AMT 266 may be substituted for AMT 131, or 132, or 231, or 234)

## DEGREE PROGRAM

Degree Requirements:
Completion of all certificate requirements plus recommended general education courses.

| Certificate Requirements: | CREDITS |  |
| :--- | :--- | ---: |
| Recommended General Education Courses |  |  |
| COS | 115 | Applied Communications |
| ECO | 105 | Organizations and Institutions |
| HEN | 106 | Safety and First Aid |
| MAT | 101 | Applied Mathematics I |
| PHY | 101 | Applied Physics I |

Total Credits for A.A.S. Degree

## Support Courses

| AMT 101 | Auto Mechanics for Beginners | 4 |
| :--- | :--- | :--- |
| 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 |
| :---: | :---: |
| AMT 115 | Foreign Car Tune-up |
| AMT 116 | Four Wheel Alignment |
| AMT 124 | Automotive Service Management |
| AMT 125 | Auto Certification Refresher |
| AMT 135 | Colorado Emission License |
| AMT 136 | Emission Control |
| AMT 199 | Special Needs/Auto Mechanics |
| AMT 233 | Air Conditioning and Comfort Controls |
| AMT 261 | Computer Controlled Engine Systems |
| AMT 262 | Automotive Electronics |
| AMT 266 | Automotive Electronics and Computer Systems |

## AUTOMOTIVE MECHANICS TECHNOLOGY ADVISORY COMMITTEE

William Crabtree
Weld County Garage

Don Gaudreault
Stanley Lincoln-Mercury

Art Heselius
Greeley Dodge

Charles Jacquinot
Pastor Mazda

## BUILDING CONSTRUCTION

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

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

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

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

For those already employed in the construction field on a full time basis, Aims offers the Building Construction Work Experience program in the evening. This program requires six quarters for completion.

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

To earn an Associate of Applied Science degree, the student must complete the certificate requirements and at least 18 credit hours of general education courses. With the consent of the student's advisor, other courses may be selected to fulfill the general education requirements.

Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate

Trades and Industry Division program advisor's signature on the course registration before registration can be completed. The advisors for the Building Construction area are: Bill Roberts, Gary Martin, or Jim Hein, Division Chairman.

## CERTIFICATE PROGRAM

## Certificate Requirements:

## CREDITS

Fall Quarter
BCS 105 Building Construction I
BCS 205 Building Construction II
Winter Quarter
BCS 106 Building Construction III
BCS 206 Building Construction IV
Spring Quarter
BCS 107 Building Construction V
BCS 207 Building Construction VI
Total Credits for Certificate

## DEGREE PROGRAM

## Degree Requirements:

Completion of all certificate requirements plus recommended general education courses.

## CREDITS

## Certificate Requirements:

Recommended General Education Courses:
COS 115 Applied Communications 3
ECO 105 Organizations and Institutions 3
HEN 106 Safety and First Aid 3
MAT 101 Applied Mathematics 5
PHY 101 Applied Physics I 5
Total Credits for A.A.S. Degree

## Support Courses:

BCS 102 Basic Cabinetry 4
BCS 104 Cabinetry II 4
BCS 125 Blueprint Reading 3
BCS 199 Building Construction Special Needs I
BCS 225 Construction Estimating I 3
BCS 226 Construction Estimating II 3
BCS 227 Building Contracts 3
$\begin{array}{llll}\text { BCS } & 236 & \text { Cabinet Making Theory }\end{array}$
BCS 237 Building Codes 3
On-The-Job Training Courses:
BCS 115 Building Construction I B 14
(Equivalent to $\mathrm{BCS}-105$ )
BCS 116 Building Construction III B 14
(Equivalent to BCS-106)
BCS 117 Building Construction V B
(Equivalent to BCS-107)
BCS 215 Building Construction II B 14
(Equivalent to $\mathrm{BCS}-205$ )
BCS 216 Building Construction IV B 14
(Equivalent to BCS-206)
BCS 217 Building Construction VI B 14

## BUILDING CONSTRUCTION ADVISORY COMMITTEE

\(\left.$$
\begin{array}{ll}\text { Tom Cowan } \\
\text { Best Way Paving }\end{array}
$$ \quad \begin{array}{l}David Stookesberry <br>

Economy Lumber\end{array}\right]\)| Jim Taylor |
| :--- |
| Marvin Davis |
| Wedgewood Homes |$\quad$| Tony Tieman |
| :--- |
| Royal Henry |
| Self-employed | | Building Material Dealers |
| :--- |
| Association |



## EARLY CHILDHOOD EDUCATION CERTIFICATE PROGRAM PRESCHOOL GROUP LEADER

Program Length: Usually three quarters for a Certificate in Occupational Education program.

Potential Opportunities: The rapid increase of services for young children provides a wide variety of positions available to the person trained in early childhood education. The expansion of knowledge in child development methods, coupled with the economic need for parents to seek part or full-day child care outside their home, has created specialized fields for working with young children and their families. The demand for quality child care in centers which promote educational goals replaces the traditional role of baby-sitter with a number of career options in the exciting, growing field of Early Childhood Education.

The program is designed to prepare students for group leader positions in private preschools, small and large day care centers, nursery schools, child development centers, Head Start and Follow Through programs and summer day camps. In most cases, work experience is required in addition to courses listed.

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

Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering. The advisors for the Early Childhood Education area are: Kathy Vasa, Maurine Summers, or Jim Hein, Division Chairman.

CREDITS

## Certificate Requirements:

| ECE | 100 | Introduction to Early Childhood Education | 2 |
| :--- | :--- | :--- | :--- |
| ECE | 131 | Practice Teaching I: Observations | 5 |
| ECE | 132 | Practice Teaching II: Assistant Group Leader | 7 |
| ECE | 133 | Practice Teaching III: Group Leader | 7 |
| ECE | 141 | Designing Creative Activities | 3 |
| ECE | 142 | Designing Learning Activities | 3 |
| ECE | 161 | Child Growth and Development | 5 |
| ECE | 162 | Guidance Techniques for Early |  |
|  |  | Childhood Educators | 2 |
| ENG | 105 | Fundamentals of Composition | 5 |
| COS | 115 | Applied Communication | 3 |
| HEN | 106 | Safety and First Aid | 3 |
| Elective |  | 2 |  |

Total Credits for Certificate

## DEGREE PROGRAM <br> EARLY CHILDHOOD EDUCATION

Program Length: 1130 clock hours ( 96 credits), usually six quarters for an Associate of Applied Science degree.

Potential Opportunities: The rapid increase of services for young children provides a wide variety of positions available to the person trained in early childhood education. The expansion of knowledge in child development methods, coupled with the economic need for parents to seek part or full-day child care outside their home, has created specialized fields for working with young children and their families. The demand for quality child care in centers which promote educational goals replaces the traditional role of baby-sitter with a number of career options in the exciting, growing field of Early Childhood Education.

The program is designed to prepare students for group leader positions in private preschools, small and large day care centers, nursery schools, child development centers, Head Start and Follow Through programs and summer day camps. In most cases, work experience is required in addition to courses listed.

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

Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering. The advisors for the Early Childhood Education area are: Kathy Vasa, Maurine Summers, or Jim Hein, Division Chairman.

## CREDITS

## Degree Requirements:

## First Year

ECE 100 Introduction to Early Childhood Education 2
ECE 131 Practice Teaching I: Observations 5
ECE 132 Practice Teaching II: Assistant Group Leader 7
ECE 133 Practice Teaching III: Group Leader 7
ECE 141 Designing Creative Activities 3
ECE 142 Designing Learning Activities 3
ECE 161 Child Growth and Development 5

| ECE | 162 | Guidance Techniques for Early <br> Childhood Educators | 2 |
| :--- | :--- | :--- | :--- |
| ENG | 105 | Fundamentals of Composition | 5 |
| COS | 115 | Applied Communication | 3 |
| HEN | 106 | Safety and First Aid | 3 |
| Elective |  | 2 |  |

Total Credits for First Year
Second Year
ECE 202 Administration: Licensing \& Legislation 3
ECE 203 Administration: Working with Parents 3
$\begin{array}{ll}\text { ECE } & 231 \\ \text { Practice Teaching IV: Team Teacher }\end{array}$
ECE 232 Practice Teaching V: Lead Teacher 7
ECE 233 Practice Teaching VI: Apprentice Director 7
ECE 204 Nutrition for Young Child 3
ECE 245 Nondiscipline Discipline 2
SOC 101 Introduction to Sociology I 5
OR
SOC 105 Sociology of Marriage and Family 5
MAT 110 Applied Business Mathematics 5
PSY 101 General Psychology I 5
OR
PSY 115 Humanistic Psychology
OR
PSY 166 Developmental Psychology 5
PSY 248 Child Psychology 5
Elective 4
Total Credits for Second Year 49
Total Credits for A.A.S Degree 96
Program Electives
ECE 145 Creative Materials Workshop 2
ECE 146 Music/Movement Workshop 2
ECE 147 Outdoor Activities Workshop 2
ECE 148 Math and Science Workshop 2
ECE 155 Toddler Care Workshop 2
ECE 156 Safety Skills Workshop 2
ECE 157 Motor Skills Workshop 2
ECE 206 Literature and Language Workshop 2
ECE 207 Early Childhood Education Trends and Issues

2
ECE 241 Unit Planning Workshop 2
(Students must complete I of the above courses for a certificate and complete 2 of the above courses for an A.A.S. degree. Other required electives for an A.A.S. degree may be selected with advisor approval.)
HEN 105 Personal Health 3
PSY 107 Transactional Analysis 3

## COLORADO DEPARTMENT OF SOCIAL SERVICES REQUIREMENTS:

(Aims courses that meet Colorado Department of Social Services requirements for director qualifications for large day care centers (13 or more children.)
CHILD DEVELOPMENT AND ECE METHODS:
(Total of 18 quarter credits with at least 6 credits in child development.)
CREDITS

| ECE | 100 | Introduction to Early Childhood Education | 2 |
| :--- | :--- | :--- | :--- |
| ECE | 131 | Practice Teaching I: Observations | 5 |
| ECE | 141 | Designing Creative Activities | 3 |
| ECE | 142 | Designing Learning Activities | 3 |


| ECE | 145 | Creative Materials Workshop | 2 |
| :--- | :--- | :--- | :--- |
| ECE | 146 | Music/Movement Workshop | 2 |
| ECE | 147 | Outdoor Activities Workshop | 2 |
| ECE | 148 | Math and Science Workshop | 2 |
| ECE | 155 | Toddler Care Workshop | 2 |
| ECE | 156 | Safety Skills Workshop | 2 |
| ECE | 157 | Motor Skills Workshop | 2 |
| ECE | 206 | Literature and Language Workshop | 2 |
| ECE | 207 | Early Childhood Education Trends |  |
|  |  | and Issues | 2 |
| ECE | 245 | Value of Play | 2 |

## PSYCHOLOGY

(Total of 4.5 quarter hours required)
PSY 101 General Psychology I
PSY 115 Humanistic Psychology 5
PSY 166 Developmental Psychology 5
PSY 248 Child Psychology 5

## SOCIOLOGY

(Total of 4.5 quarter hours required)
SOC 101 Introduction to Sociology I
SOC 105 Sociology of Marriage and Family
NUTRITION FOR PRESCHOOL CHILD
(Total of 3 quarter hours required)
ECE 204 Nutrition For Young Children

## ADMINISTRATION OF A PRESCHOOL OR DAY CARE PROGRAM

(Total of 4.5 quarter hours minimum)
ECE 202 Administration of Child Care Centers
ECE 203 Administration: Working with Parents

## EARLY CHILDHOOD EDUCATION ADVISORY COMMITTEE

Jerrilyn Eaton
UNC Child Care Center

Barbara McFerron
Children's World

Anne Merkley
Small Wonder Child
Development Center

Mary Moreno
Head Start

Mary Shier
Loveland Day Care Center
Marylouise Widmaier
Trinity Episcopal
Parent Cooperative

## GRAPHIC TECHNOLOGY

Program Length: 900 clock hours ( 74 credits) for the Certificate in Occupational Education program or 1210 clock hours ( 96 credits) for the Artistic Option; 1150 clock hours ( 97 credits) for the Typesetting Option; 1170 clock hours ( 95 credits) for the Photographic Option; 1120 clock hours ( 95 credits) for the Mechanical Option within the Associate of Applied Science degree program.

Potential Opportunities: The program is designed to prepare the student for entry into a number of career fields; opportunities are almost unlimited in Graphic Technology. Key occupations include: layout, paste-up, composition, process camera work, image positioning, presswork, platemaking, and bindery. With additional training, the student also can be employed in graphic design, photography, management, sales, service, and repair. If you are interested in high speed, high volume communication within the printing industry (the third largest industry in the United States), a position is available to those with the proper skills.

Program Requirements: Completion of the six certificate requirements will earn a Certificate in Occupational Education.

The Associate of Applied Science degree program offers the student additional theory as it is related to the student's area of specialization. The degree is recommended for persons wishing to advance in the printing industry.

Registration Requirement: All students taking a course or courses in a Trades and Industry Division must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering. The advisors for the Graphic Technology program are: Deb King, Lori Ford, or Jim Hein, Division Chairman.


## CERTIFICATE PROGRAM

Certificate Requirements: CREDITS
Fall Quarter
BUS 101 Typewriting I 4
GRT 101 Graphic Technology I 20
Winter Quarter
BUS 142 Intermediate Communications 5
GRT 102 Graphic Technology II 20
Spring Quarter
25
GRT 103 Graphic Technology III 20
MAT 110 Applied Business Mathematics 5

Total Credits for Certificate

## DEGREE PROGRAM

## Degree Requirements:

Completion of five core courses plus six to seven courses related to the student's specialization as listed below.
(Total Degree Requirements range from 95 to 98 credits.)

## CREDITS

## Core Courses

GRT 101 Graphic Technology I 20
GRT 102 Graphic Technology II 20
GRT 103 Graphic Technology III 20
HEN 106 Safety and First Aid 3
BUS 101 Beginning Typewriting 4
Core Credit Hours Required
The above courses are required and constitute the basic graphic technology core.

## ARTISTIC OPTION

| AAD 101 | Fundamentals of Art and Design I | 5 |
| :--- | :--- | :--- |
| AAD 131 | Drawing I | 3 |
| AAD 132 | Drawing II | 3 |
| AAD | 221 | Graphic Design I |
| BUS | 142 | Intermediate Communications |
| MAT | 101 | Applied Mathematics 1 |
| PSY | 145 | Human Relations at Work |

The above courses are required for the artistic option. 29
Total Artistic Option Credits

## TYPESETTING OPTION

AAD 101 Fundamentals of Art and Design 1
BUS 102 Typewriting II
BUS 142 Intermediate Communications 5
COS 115 Applied Communications 3
$\begin{array}{ccc}\text { CSC } & 101 \quad \text { Introduction to Computing and } \\ \text { the BASIC Language }\end{array}$
MAT 101 Applied Mathematics I 5
PSY 145 Human Relations at Work 5
The above courses are required for the typesetting option.
Total Typesetting Option Credits

## PHOTOGRAPHIC OPTION

| AAD | 101 | Fundamentals of Art and Design I | 5 |
| :--- | :--- | :--- | :--- |
| AAD | 241 | Photography I | 3 |
| BUS | 142 | Intermediate Communications | 5 |
| CHE | 100 | Fundamentals of Chemistry | 5 |
| PHY | 105 | Conceptual Physics | 5 |
| PSY | 145 | Human Relations at Work | 5 |

The above courses are required for the photographic option.
Total Photographic Option Credits

## MECHANICAL OPTION

| BUS | 100 | Introduction to Business | 5 |
| :--- | :--- | :--- | :--- |
| BUS | 142 | Intermediate Communications | 5 |
| MAT | 100 | Introduction to Beginning Algebra | 3 |
| PHY | 101 | Applied Physics | 5 |
| PHY | 105 | Conceptual Physics | 5 |
| PSY | 145 | Human Relations at Work | 5 |

The above courses are required for the mechanical option.
Total Mechanical Option Credits

Support Courses:

| GRT | 104 | Graphic Technology IV | 10 |
| :--- | :--- | :--- | ---: |
| GRT | 107 | Silk Screen Printing | 2 |
| GRT | 199 | Graphic Technology/Special Needs | 1 |
| GRT | 295 | Graphic Technology/Independent Study A | 2 |
| GRT | 296 | Graphic Technology/Independent Study B | 3 |
| GRT | 297 | Graphic Technology/Independent Study C | 5 |
| GRT | 299 | Graphic Technology/Practicum | 1 |

The above supporting courses are for the purpose of enriching the Degree or Certificate programs, but are not required.

## GRAPHIC TECHNOLOGY ADVISORY COMMITTEE

\(\left.$$
\begin{array}{ll}\begin{array}{l}\text { Jerry David } \\
\text { Norwest Publishing Co., Inc. }\end{array} & \begin{array}{l}\text { Ken Hamel } \\
\text { VWR Scientific }\end{array}
$$ <br>
Ken Eberly \& Jani Malkiewicz <br>

Butler Paper Co. \& J.L. Printing\end{array}\right]\)| Eileen Soucie |
| :--- |
| Don Ford |
| Affordable Instant Printing | | Coors Paper Packaging |
| :--- |
| Dan Gares |
| Frontier Business Products | | Margaret Willoughby |
| :--- |
| Graphic Production |
| Aims Community College |

## WELDING TECHNOLOGY

Program Length: 900 clock hours ( 72 credits) for Certificate in Occupational Education program or 1090 clock hours ( 72 credits plus 18 credits of general education) for Associate of Applied Science degree program.

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

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

Program Requirements: Completion of the three certificate requirements will earn a Certificate in Occupational Education.

To earn an Associate of Applied Science degree, the student must complete the certificate requirements and at least 18 credit hours of general education courses. Students in Trades and Industry are encouraged to take the recommended general education courses when possible. With the consent of the student's advisor, other courses may be selected to fulfill the general education requirements.

For the students' convenience, the Welding Technology program offers an alternate delivery method for certificate program courses. This will allow students to take WLT 151,152 , and 153 for 72 credits or WLT $141,142,143,241,242$, and 243 for 72 credits.

Registration Requirement: All students taking a course or courses in a Trades and Industry Division program must have an appropriate Trades and Industry Division program advisor's signature on the course registration before registering. The advisors for the Welding Technology program are: Bill Killebrew, John Hickman, Mike Spika, or Jim Hein, Division Chairman.


## CERTIFICATE PROGRAM

## Certificate Requirements:

## CREDITS

Fall Quarter
24
WLT 151 Welding Technology I
(Equivalent to WLT 141 and 142)
Winter Quarter
WLT 152 Welding Technology II
24
(Equivalent to WLT 143 and 241)
Spring Quarter
WLT 153 Welding Technology III
24
24
(Equivalent to WLT 242 and 243)

Total Credits for Certificate

## Alternate Delivery Method for Certificate Program

| WLT | 141 | Oxy-Acet Welding | 12 |
| :--- | :--- | :--- | :--- |
| WLT | 142 | Shielded Metal Arc I | 12 |
| WLT | 143 | Shielded Metal Arc II | 12 |
| WLT | 241 | Shielded Metal Arc III | 12 |
| WLT | 242 | Pipe Welding | 12 |
| WLT | 243 | Gas Metal Arc Welding | 12 |

Total Alternate Credits for Certificate

## DEGREE PROGRAM

Degree Requirements:
Completion of all certificate requirements plus recommended general education courses.

## CREDITS

Certificate Requirements:
Recommended General Education Courses:
COS 115 Applied Communications 3
ECO 105 Organizations and Institutions 3
HEN 106 Safety and First Aid 3
PHY 101 Applied Physics I 5
MAT 101 Applied Mathematics 5
Total Credits for A.A.S. Degree

## Support Courses

WLT 100 Beginning Welding 2
WLT 105 Basic Oxy/Acet Welding 4
WLT 106 Advanced Oxy/Acet Welding 4
WLT 107 Basic Shield Metal Arc Welding 4
WLT 108 Advanced Shielded Metal Arc Welding 4
WLT 109 Basic Gas Metal Arc Welding 4
WLT 115 Advanced Gas Metal Arc Welding 4
WLT 121 Basic Welding Layout 3
WLT 144 Specialized Welding I 12
WLT 199 Welding Specialities 1
WLT 204 Welding Problems I 4
WLT 205 Welding Problems II 4
WLT 206 Welding Problems III 4
WLT 236 Special Problems in Welding I 24
WLT 237 Special Problems in Welding II 24
WLT 244 Specialized Welding II 12
WLT 251 Welding Fabrication 24

## WELDING TECHNOLOGY ADVISORY COMMITTEE

\(\left.\left.$$
\begin{array}{ll}\text { Mike Emerick } & \begin{array}{l}\text { Dale Majors } \\
\text { Mobart Brothers Welding }\end{array} \\
\text { Majors Welding Supply }\end{array}
$$\right\} \begin{array}{ll}Roger Felker \& Larry Sarchet <br>

Felder \& Sons Welding\end{array} \quad $$
\begin{array}{l}\text { Certified Welding }\end{array}
$$\right]\)| D.R. Joe Goddard |
| :--- |
| Retired |




## COURSE DESCRIPTIONS

## ACC: ACCOUNTING

## ACC 101 PRINCIPLES OF ACCOUNTING I

Fundamentals of accounting theory and practice. Includes a study of the entire accounting cycle, accounting for a merchandising concern, special journals, control of cash, and accounts and notes receivable.
Five credits: 50 clock hours

## ACC 102 PRINCIPLES OF ACCOUNTING II

A continuation of ACC 101 emphasizing the study of inventories, plant and equipment, intangible assets, short-term and long-term liabilities, investments and bonds payable, and accounting for partnerships and corporations.
Prerequisite: ACC 101 (ACC 196 recommended to be taken concurrently)
Five credits: 50 clock hours

## ACC 103 PRINCIPLES OF ACCOUNTING III

A continuation of ACC 102 emphasizing departmental, manufacturing and cost accounting, flow of funds, standard cost and capital budgeting, and statement analysis.
Prerequisite: ACC 102 (ACC 299 recommended to be taken concurrently)
Five credits: 50 clock hours

## ACC 105 PAYROLL ACCOUNTING

An in-depth study of the need for payroll and personnel records, computing gross salary using different methods, determining taxes (Social Security, Federal and State withholding, and unemployment), and various accounting systems used to record payroll. A payroll project will be completed.
Prerequisite: ACC 101 or BUS 121 or permission of instructor Three credits: 30 clock hours

## ACC 121 INCOME TAX ACCOUNTING I

A study of the important income tax code provisions primarily as they affect individuals. Topics include: filing requirements and status, inclusions/exclusions of gross income, itemized deductions, losses, depreciation, credits, and property transactions.
Prerequisite: ACC 102 or permission of instructor
Five credits: 50 clock hours

## ACC 122 INCOME TAX ACCOUNTING II

A continuation of ACC 121 emphasizing the rules and regulations as they apply to corporations, S corporations, partnerships, and estates.
Prerequisite: ACC 121 or permission of instructor
Three credits: 30 clock hours

## ACC 125 INCOME TAX ACCOUNTING I AND II

Combined ACC 121 and ACC 122 into one class. Covers same topics. Prerequisite: ACC 102 or permission of instructor Eight credits: 80 clock hours

## ACC 196 ACCOUNTING PRACTICUM

The completion of a merchandising practice set for a proprietorship. Prerequisite: ACC 101
One credit: 15 clock hours

## ACC 197 COMPUTERIZED PRACTICUM I

A practice set to be completed on a microcomputer using general ledger software.
Prerequisite: ACC 102 and ACC 196 or permission of instructor One credit: 15 clock hours

## ACC 198 COMPUTERIZED PRACTICUM II

(Formerly ACC 299) A practice set to be completed on a microcomputer using integrated accounting software.
Prerequisite: ACC 102 and ACC 196
One credit: 15 clock hours

## ACC 201 INTERMEDIATE ACCOUNTING I

An in-depth study of the accounting cycle, and the principles and concepts of accounting. Attention is given to cash and temporary investments, receivables, and cost/valuation procedures for inventories. Prerequisite: ACC 103 or permission of instructor Five credits: 50 clock hours

## ACC 202 INTERMEDIATE ACCOUNTING II

Continuation of ACC 201 with emphasis on long-term assets and liabilities (long-term and short-term), investments, and flow of funds. Prerequisite: ACC 201 or permission of instructor Five credits: 50 clock hours

## ACC 205 ACCOUNTING SYSTEMS

A study of the flow of accounting information within an organization, with emphasis on integration of accounting sub-systems, designing a system for a business and viewing systems currently being used. An advanced accounting practice set will be completed.
Prerequisite: ACC 105 and ACC 201 or permission of instructor Five credits: 50 clock hours

## ACC 206 COST ACCOUNTING

A study of the fundamental elements of an organization's direct and indirect costs. Emphasis is on the preparation of cost data used by management for planning and controlling. It includes variable and fixed costs: cost-volume-profit relationships; job, process and operations systems; master and flexible budgeting; and standard and product costing.
Prerequisite: ACC 103 or permission of instructor
Five credits: 50 clock hours

## ACC 207 FINANCIAL MANAGEMENT

Deals with conceptual alternatives of financial management and emphasizes preparation and analysis of sources and uses of short-and long-term capital, and an in-depth analysis of financial statements.
Prerequisite: ACC 103 or permission of instructor
Five credits: 50 clock hours

## ACC 208 LOTUS 1-2-3 APPLICATIONS FOR

 BUSINESSProvides students with an opportunity to apply accounting theory to spreadsheet software.
Prerequisite: ACC 101 or equivalent, or permission of instructor
Two credits: 30 clock hours

ACC 209 LOTUS 1-2-3 APPLICATIONS FOR COST ACCOUNTING
To provide the student with the opportunity to use electronic spreadsheets to solve common cost accounting problems such as job order costing, budgeting, standard costing, and inventory control. Prerequisite: ACC 206 (may be taken concurrently) and ACC 208 Two credits: 30 clock hours

## ACC 215 LOTUS 1-2-3 APPLICATIONS FOR FINANCE

To provide the student with the opportunity to use state-of-the-art electronic spreadsheets to solve common financial management problems such as ratio analysis, financial forecasting, and asset management.
Prerequisite: ACC 207 (may be taken concurrently) and ACC 208, or permission of instructor
Two credits: 30 clock hours

## ACC 216 LOTUS 1-2-3 ADVANCED APPLICATIONS FOR BUSINESS

To provide the student with the opportunity to apply the more complex features of electronic spreadsheet software to the solution of accounting and finance problems.
Prerequisite: ACC 208 or permission of instructor
Two credits: 30 clock hours

## ACC 297 ADVANCED COMPUTERIZED PRACTICUM

To provide the student with the opportunity to complete a computerized accounting simulation involving advanced accounting theory related to a corporation.
Prerequisite: ACC 103 and ACC 197 or permission of instructor Two credits: 30 clock hours

## ACC 298 ACCOUNTING PRACTICUM II

The completion of a practice set commensurate with the level of accounting theory the student has taken. It could be a practice set for a corporate merchandising firm after ACC 102, job order or process cost practice set after ACC 206, or working from incomplete records after ACC 201.
Prerequisite: ACC 102 or permission of instructor
One credit: 15 clock hours

## AES: AEROSPACE STUDIES

## AES 101 AIR FORCE TODAY I

To assist in initial education of the U.S. Air Force Officer candidate, this course examines the history of airpower in the world and in the United States. Students receive an introduction to Air Force doctrine and how it relates to national strategy. Corps Training is included as a laboratory portion of all AFROTC courses.
Three credits: 30 clock hours (equals to 2 semester credits at UNC)

## AES 102 AIR FORCE TODAY II

To assist in continuing education of the U.S. Air Force Officer candidate, this course examines the role and missions of the Strategic Air Command, Military Airlife Command, Tactical Air Command, and other Command/Services, as used for instruments of national power. Corps Training is included as a laboratory portion of the course. Three credits: 30 clock hours (equals to 2 semester credits at UNC)

AES 201 THE DEVELOPMENTAL GROWTH OF AIRPOWER I
This survey course is designed to acquaint the USAF officer candidate with the history of the growth and development of airpower from its beginnings through the start of WWII. Corps Training is included as a laboratory portion of the course.
Three credits: 30 clock hours (equals to 2 semester credits at UNC)
AES 202 THE DEVELOPMENTAL GROWTH OF AIRPOWER II
This survey course is designed to acquaint the USAF officer candidate with the history of the growth and development of airpower from the end of World War II to the present. Corps Training is included as a laboratory portion of the course.
Three credits: 30 clock hours (equals to 2 semester credits at UNC)

## AGRICULTURE TECHNOLOGY

## FMT: FARM AND RANCH BUSINESS MANAGEMENT

FMT: FARM AND RANCH BUSINESS MANAGEMENT

## FMT 101 FARM AND RANCH BUSINESS

 MANAGEMENT IThe first in a series of courses one year in length. In this course the student will acquire basic knowledge of personal computers using agriculture software to develop an accurate and realistic set of farm/ranch records. Initial records will be used to locate problems, set goals and objectives, and evaluate resources available.
Twenty-Two credits: 40 hours lecture, 10-12 farm/ranch instructor visits

## FMT 102 FARM AND RANCH BUSINESS MANAGEMENT II

The second in a series of courses one year in length. This course will continue in the development of records and accounting procedures using the personal computer and agricultural software. The records developed through year one will be interpreted and analyzed to determine accuracy, strengths and weaknesses.
Twenty-two credits: 40 hours lecture, $10-12$ farm/ranch instructor visits

## FMT 103 FARM AND RANCH BUSINESS MANAGEMENT III

The third and final course in a series of one year courses. This course continues with the development and analyzing of records with emphasis on reorganization of the agriculture business to meet the farm/ranch and family living goals using accurate records and sound economic principles to implement those goals. If desired, the student will be assisted in identifying and associating with an agriculture management service upon completion of the program.
Twenty-two credits: 40 hours lecture, 10-12 farm/ranch instructor visits

## AGS: AGRICULTURE HOME STUDY COURSES

## MANAGEMENT DEVELOPMENT

## AGS 100 INTRODUCTION TO AGRIBUSINESS

An overview of agribusiness including farming, farm supplies and service businesses, and marketing farm products.
Three credits: 30 clock hours

## AGS 101 INTRODUCTION TO AGRIBUSINESS

 MANAGEMENTBasic managerial principles, managing through people, financial strategies and planning.
Three credits: 30 clock hours

## AGS 102 AGRICULTURAL ECONOMICS

Agricultural resources and production, market-price determination and marketing, and the world agricultural situation.
Three credits: 30 clock hours

## AGS 103 PERSONNEL MANAGEMENT

Employee needs, selection and motivation, performance, appraisal, wage determination, and employee health and safety.
Three credits: 30 clock hours

## AGS 104 COOPERATIVE MANAGEMENT BY OBJECTIVES

Setting objectives, writing performance standards, conducting effective performance appraisals.
Three credits: 30 clock hours

AGS 105 POSITIVE PERFORMANCE APPRAISAL
Designing appraisal systems, conducting appraisal sessions, developing employees.
Three credits: 30 clock hours

## AGS 106 EMPLOYEE SELECTION AND INTERVIEWING

Selection process, interviewing, checking references, equal opportunity employment.
Three credits: 30 clock hours

## ACCOUNTING/OFFICE MANAGEMENT

AGS 122 HOW MONEY WORKS IN AN AGRIBUSINESS
Financial management, organizing and analyzing financial information, source and use statement, securing finances, and flow of money. Three credits: 30 clock hours

## AGS 123 MARKETING THROUGH HEDGING

Introduction to the area of marketing called hedging. Explains what hedging is, where it is done and contract requirements.
Three credits: 30 clock hours

## EMPLOYEE COMMUNICATIONS

## AGS 130 COOPERATIVE ORGANIZATIONS

Co-op history, co-ops and today's economy, federal legislation and cooperatives, cooperative organization financing and credit in co-ops, role of co-op directors and managers, and credit in co-ops.
Three credits: 30 clock hours

AGS 132 AGRIBUSINESS TELEPHONE COMMUNICATIONS
Developing effective telephone manners, selling over the telephone, handling outside calls, and customer complaints and collecting delinquent accounts.
Three credits: 30 clock hours

## FERTILIZER AND AG CHEMICALS

## AGS 141 FERTILIZER

Soil types, nutrients and testing, fertilizer materials, fertilizing common crops, using the CO-OP Pharmacy File, selling CO-OP fertilizer.
Three credits: 30 clock hours

## AGS 142 AG CHEMICALS

Common insects and weeds, insecticides, herbicides, handling chemicals safely, stored grain chemicals, seed treatment.
Three credits: 30 clock hours

## AGS 143 LAWN AND GARDEN CENTER SALES

Establishment and maintenance of a lawn; weed, insect, and disease control in a lawn; and a proven sales approach for lawn and garden center sales.
Three credits: 30 clock hours

## AGS 144 CORN PRODUCTION

Corn plant development, hybrid selection, seedbed preparation and planting, fertilizing corn, corn insects, and diseases.
Three credits: 30 clock hours

## AGS 145 ANHYDROUS AMMONIA SAFETY

To acquaint agriculture students, the farmer/user and the dealer with whom he does business, with the hazards, safety procedures and first aid involved in dealing with anhydrous ammonia.
Three credits: 30 clock hours

## AGS 146 IRRIGATION

Introduction to modern methods of irrigation. Many of the factors that have to be considered for efficient use of water and its application are detailed.
Three credits: 30 clock hours

## ANIMAL PRODUCTION

## AGS 151 FEED

Animal nutrition and digestion; roughages, grains, and supplements; ration formulation; feed warehousing; and selling CO-OP feed.
Three credits: 30 clock hours

## AGS 152 ANIMAL HEALTH

Animal health term, diagnosing disease, wounds, poisonings, parasites, and CO-OP Animal Health products.
Three credits: 30 clock hours

## AGS 153 BEEF PRODUCTION-COW/CALF PROGRAM

Beef cow feeding, crop feeding, feeding replacement heifers, herd health program.
Three credits: 30 clock hours

AGS 154 BEEF PRODUCTION-GROWING AND FINISHING PROGRAM
The starting program, growing program, COPASS program, finishing program, grower and feedlot health programs.
Three credits: 30 clock hours

AGS 155 SWINE PRODUCTION
The CO-OP Meat Market Program, management of the herd, hog health products, and hog facilities and equipment.
Three credits: 30 clock hours

## AGS 156 SHEEP PRODUCTION

Managing and feeding the breeding flock and fattening lambs, identifying diseases of sheep and managing the flock at lambing.
Three credits: 30 clock hours

## AGS 157 DAIRY PRODUCTION

The dry cow, lactating herd, replacement heifer, dairy feeds, sanitation and fly control, management suggestions.
Three credits: 30 clock hours

## AGS 158 ADVANCED ANIMAL HEALTH

Presents products and their recommended use for common health problems. Also covers animal health terminology and health programs for beef, swine, dairy, and sheep.
Three credits: 30 clock hours

## PETROLEUM, TBA, AND LPG

## AGS 165 LP GAS HANDLING AND STORAGE

Transferring LP gas, care of equipment, bulk plant records and safety, filling cylinders, LP delivery.
Three credits: 30 clock hours

## AGS 166 LP CARBURETION

Provides an overview of the nature, origin, and use of LP gas. Teaches the carburetion system beginning with engine operation; covers fuel and combustion. Carburetion system parts covered are: air cleaner, ventilation, governors, ignition circuit, adjustments, tests, and trouble shooting.
Three credits: 30 clock hours

## GRAIN TRAINING

## AGS 173 PHYSICAL GRAIN HANDLING

Principles of grain management including facilities, operations, personnel, inventory, and financial management.
Three credits: 30 clock hour

## SALES TRAINING

## AGS 182 FARM STORE MANAGEMENT

Purchasing merchandise, display of merchandise, advertising, inventory control, store layout, budgets, financial statements, and employee training.
Three credits: 30 clock hours

## AGS 183 COOPERATIVE SALESMANSHIP

This course covers characteristics and attitudes of a salesperson, sources of product information, and basic selling techniques needed by cooperative employees.
Three credits: 30 clock hours

## ANT: ANTHROPOLOGY

## ANT 101 CULTURAL ANTHROPOLOGY

Studies human cultural patterns and learned behavior. Includes linguistics, social and political organization, religion, culture and personality, culture change, and applied anthropology.

## Five credits

## ANT 111 PHYSICAL ANTHROPOLOGY

Studies human biology and its effects on behavior. Includes principles of genetics and evolution, vertebrates and primates, human origins, human variation, and ecology.
Five credits

## ART: ART AND DESIGN

## ART: ART

## ART 100 ART APPRECIATION

Introduction to art, architecture, and several fields of design. Through visual presentations, discussions, and studio exercises, students examine various ways in which people express themselves, and solve problems; e.g. painting, sculpture, crafts, housing, and consumer goods.

Five credits

## ART 107 ARTS FOR HUMAN DEVELOPMENT

This course offers a variety of information and activities in the areas of drawing, design and color, crafts, music, poetry and prose to heighten the student's sensitivity to and awareness of the arts.
One credit: 20 clock hours

## ART 111 ART HISTORY I

Provides the knowledge base to understand the visual arts, especially as related to Western Culture. Surveys the visual arts from the Ancient through Medieval periods. Course fulfills a humanities requirement. Five credits

## ART 112 ART HISTORY II

Provides the knowledge base to understand the visual arts, especially as related to Western Culture. Surveys the visual arts from the Renaissance through the Modern periods. Course fulfills a humanities requirement.
Five credits

## ART 113 ART HISTORY III

Provides the knowledge base to understand the visual arts, especially as related to NON-WESTERN CULTURE.
Five credits

## ART 299 ARTS PRACTICUM

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

## ARS: ART STUDIO

## ARS 100 TEXTILE CRAFTS \& DESIGN

Emphasis is placed upon an introduction to fabric crafts with design application in each fabric craft.
Three credits: 40 clock hours

ARS 125 HANDBUILT CLAY I
ARS 126 HANDBUILT CLAY II ARS 127 HANDBUILT CLAY III

The study of functional and decorative design elements, designing handbuilt ceramics, and instruction in several methods of hand building. Three credits each: 40 clock hours each

ARS 131 STAINED GLASS I
ARS 132 STAINED GLASS II
These courses teach the techniques for the design and construction of stained glass.
Three credits: 40 clock hours

ARS 141 CREATIVE PAINTING I
ARS 142 CREATIVE PAINTING II
ARS 143 CREATIVE PAINTING III
These courses cover various painting techniques as a means for selfexpression to discover individual painting styles.
One credit each: 20 clock hours each

ARS 241 PAINTING I
ARS 242 PAINTING II
These courses introduce students to the design principles, technical information, and skills necessary to express ideas and feelings through painting. Painting II emphasizes materials exploration in terms of painting, and further development of individual approaches to painting. Three credits each: 40 clock hours each

ARS 243 WATER MEDIA I
ARS 244 WATER MEDIA II
These courses include a survey of the various water media processes, instruction in the basic water media techniques, and work with the unique aspects of developing a painting. Water Media II includes the study of concepts, (forms for effective water media statements), and concentrates on individual patterns of expression.
Three credits each: 40 clock hours each

ARS 251 SCULPTURE I
ARS 252 SCULPTURE II
These courses include a survey of traditional and contemporary sculptural forms, the study of sculptural elements; organization and imagery; experience in designing for sculpture; instruction in the basic techniques of modeling, carving, and construction. Sculpture II emphasizes the figure, further work in designing for sculpture, and further instruction in the techniques of modeling, bronze casting and construction.
Three credits each: 40 clock hours each

ARS 261 JEWELRY AND METALWORK I
ARS 262 JEWELRY AND METALWORK II
Jewelry and Metalwork I includes a study and survey of jewelry and related metal forms; experience in designing for jewelry and metalwork; and instruction in the basic techniques of cutting, forming, soldering, finishing, and stone setting. Jewelry and Metalwork II emphasizes conceptual design development and specialized techniques (e.g. casting, raising, enameling, stone cutting).
Three credits each: 40 clock hours each

ARS 271 POTTERY AND CERAMIC DESIGN I
ARS 272 POTTERY AND CERAMIC DESIGN II
Pottery and Ceramic Design I includes a survey of traditional and contemporary pottery and ceramic forms; the study of functional and decorative design elements and principles of organization; and experience in designing for ceramic objects. Pottery and Ceramic Design 11 includes a survey of wheel thrown pottery; continued instruction in the various aspects of throwing; the study of the essentials of glaze formulation; and work with creative design for wheel thrown forms.
Three credits each: 40 clock hours each

## ARS 273 POTTERY AND CERAMIC DESIGN III <br> ARS 274 POTTERY AND CERAMIC DESIGN IV

Pottery and Ceramic Design III offers a survey of wheel thrown pottery, with emphasis on more advanced forms, refining technique, glaze techniques and kiln firing. Pottery and Ceramic Design IV presents a deeper involvement in all aspects of pottery making, glazing, and firing.
Three credits each: 40 clock hours each

## ARS 281 WEAVING I

This course is the introduction to four harness loom weaving. It includes preparation of warp, dressing the loom and learning tapestry and rug techniques of weaving. A historical review of weaving with emphasis on design is studied prior to individual work. Design emphasis is in the area of tapestry and decorative weaving.
Three credits: 40 clock hours

## ARS 282 WEAVING II

This course continues four harness loom weaving of patterned fabric, teaches reading of pattern drafts and weaving sequences for woven yardage. It includes a more in-depth study of fibers with their wearability and care. The emphasis is on functional and wearable fabric. Three credits: 40 clock hours each

## AAD: DESIGN

## 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. Students study the process of creative thinking, fundamental visual elements, and principles of organization. Included are: techniques for idea development, executing "rough" proposals, choosing effective materials, and making successful presentations. The application of these fundamentals to problems in the visual arts and design fields is surveyed. First course concentrates on two-dimensional situations; and second course focuses on three-dimensional conditions.
Five credits each

## AAD 128 COMPUTER GRAPHICS I AAD 129 COMPUTER GRAPHICS II

These courses teach students the use of the TIME ARTS LUMENA Computer System, including a graphics tablet with stylus, and a color monitor.
Three credits: 40 clock hours - contact instructor

## AAD 131 DRAWING I <br> AAD 132 DRAWING II

These courses introduce students to drawing as a means of visual thinking and communication. Drawing I assignments cover visual perception, basic drawing techniques (e.g. line drawing, shading, perspective), and composition. Students may choose to emphasize "commercial" or personally expressive drawing approaches. Drawing II includes a survey of expressive drawing styles, design for drawing, further experience with developing and expressing concepts in terms of drawing, and an exploration of various drawing mediums.
Three credits each: 40 clock hours each

## AAD 221 GRAPHIC DESIGN I <br> AAD 222 GRAPHIC DESIGN II

These courses introduce students to graphic applications of drawing, painting and photographic techniques; and creative design with letter forms and composition (e.g. logos, letterheads, posters, brochures, advertising, and publications). Graphic Design I concentrates on basic concepts and working processes from idea development through the execution of the "rough" to the "complete." Graphic Design II covers additional design projects, such as calendars, other advertising, and publications such as newsletters, catalogs, or service manuals. Students will execute a project through camera ready art.
Three credits each: 40 clock hours each

## AAD 223 GRAPHIC DESIGN III

Includes a survey of graphic preparations for packaging, product design, signage, and interior and architectural planning; and the elements and principles relevant to their design.
Three credits: 40 clock hours

## AAD 225 CALLIGRAPHY

This course introduces calligraphy as an art form and as a major design element in graphic design. It includes instruction in techniques, information regarding tools and materials, practice in various lettering styles, and practical applications.
Three credits: 40 clock hours

## AAD 231 FIGURE DRAWING I AAD 232 FIGURE DRAWING II

These courses include a survey of figure drawing, study of anatomy in terms of drawing, and instruction in the basic techniques of drawing the human figure. Figure Drawing II includes additional study of anatomy and complex drawing problems.
Three credits each: 40 clock hours each

## AAD 235 GRAPHIC ILLUSTRATION

This course allows students with previous drawing experience to explore "commercial" applications such as illustration, or architectural rendering.
Prerequisite: AAD 131 and AAD 132
Three credits: 40 clock hours

AAD 241 PHOTOGRAPHY I
AAD 242 PHOTOGRAPHY II
AAD 243 PHOTOGRAPHY III
AAD 244 PHOTOGRAPHY IV
Photography I and II include a survey of historical and contemporary photographic styles, the study of relevant design elements and principles of organization, camera mechanics, and darkroom techniques. The planning and execution of photographs of expressive and creative visual content is emphasized. Photography III includes a survey of functional applications of photography (e.g. photo illustration, portraiture), and work with related design principles and photographic techniques. Photography IV emphasizes the aesthetics of contemporary photographic procedures and helps to prepare the serious student of photography to prepare an exhibition grade portfolio.
Three credits each: 40 clock hours each

## AAD 245 PHOTOJOURNALISM I

A study of photography used for telling a picture story. Includes composition and use of the camera for publications.
Prerequisite: AAD 241
Three credits: 40 clock hours

## AAD 251 INTERIOR DESIGN I <br> AAD 252 INTERIOR DESIGN II <br> AAD 253 INTERIOR DESIGN III

Interior Design I and II cover visual and spatial elements, organizing principles, materials, and their relationships to architecture. Each emphasizes the process of studying and designing for interior spaces. Interior Design III gives students an opportunity to apply, within a structured course setting, interior design concepts to specific problems (e.g. residential interiors, display spaces).

Three credits each: 40 clock hours each

## AST: ASTRONOMY

## AST 105 INTRODUCTORY ASTRONOMY

(Formerly AST 101) Covers methods of observation and analysis used by astronomers: astronomic tools, the solar system, stars, galaxies, and constellations of 40 degrees N lat. Also includes observing with the telescope.
Three credits: three hours lecture

## AST 106 ASTRONOMY SEMINAR

(Formerly AST 102) An approach to more advanced topics in astronomy that allows students to explore an area of this subject in depth. Students will write a paper, determine the method of exposition, and present the special information to the class.
Three credits: three hours lecture

## AST 109 SELECTED ASTRONOMY TOPICS

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

## AST 295 INDEPENDENT STUDY IN ASTRONOMY

Provides an opportunity for the highly motivated student to engage in intensive study and research on a specified topic under the direction of a faculty member. The student will be limited as to the number of independent study credits taken per quarter.
Prerequisite: previous academic study or experience in astronomy One to three credits: contact division chairman

## ABF: AUTO BODY REFINISHING ABR: AUTO BODY REPAIR

## ABR 102 BASIC STRAIGHTENING

Students will be able to properly set up a gas welding unit; make lap and butt T-joints in the flat position, and lap and butt in the vertical position using oxy-acetylene and MIG welding equipment. Students also will be able to identify types of damage, use the hand tools and power equipment necessary for repairing minor damage and major door damage, and use plastic filler on the large areas of repair.
Four credits: 60 clock hours

## ABR 103 BASIC REFINISHING

Students will become familiar with refinishing material and equipment, and their uses. They will prime, sand, and apply top coats using proper methods.
Four credits: 60 clock hours

## ABR 111 DAMAGE REPAIR

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

## ABR 112 PANEL REPLACEMENT

Students will remove, replace, and align damaged panels using proper tools and equipment.
Prerequisite: ABR 111 or permission of instructor.
Four credits: 60 clock hours

## ABR 121 ELECTRICAL AND ALIGNMENT

Students will be able to diagnose minor electrical malfunctions resulting from collision damage, using a continuity light. They also will be familiar with the use of front end alignment equipment and methods of aligning a front end.
Four credits: 60 clock hours

## ABR 122 ADVANCED REFINISHING

Students will properly sand, prime, mask, and seal a car; and refinish the car with finishes currently used in industry.
Prerequisite: ABR 103 or permission of instructor
Four credits: 60 clock hours

## ABR 123 DAMAGE APPRAISAL (ESTIMATING)

Students will become familiar with the manuals, forms, and procedures for writing damage estimates.
Prerequisite: ABR 121 or permission of instructor
Four credits: 40 clock hours

## ABR 141 AUTO BODY REPAIR I

Students will learn to weld lap, butt, and T-joints in the flat and vertical positions using oxy-acetylene and MIG welding equipment. They will be able to remove small dents with the pick and file method without the use of fillers, and progress to severe or major door damage using power equipment and fillers to repair damage. They also will repair the damaged area using proper priming, sanding, and color application techniques.
Twelve credits: 150 clock hours

## ABR 142 AUTO BODY REPAIR II

Students will learn to identify the panels on an auto and to use power tools in the repair, replacement, and alignment of damaged panels. They will remove and replace interior and exterior trim as necessary for completion of the repair, and refinish partial and complete panels.
Prerequisite: ABR 141 or permission of instructor
Twelve credits: 150 clock hours

## ABR 143 AUTO REPAIR III

Students will learn to diagnose minor electrical malfunctions in circuits, using continuity lights; will properly sand, prime, mask, and seal a car; will refinish the car with finishes currently used in industry, and will become familiar with the use of the front end alignment equipment and methods used in aligning the front end. Students will learn to remove, install, and make adjustment to automotive glass. They also will become familiar with the manuals and procedures of writing estimates.
Prerequisite: ABR 141 or permission of instructor
Twelve credits: 150 clock hours

## ABF 151 AUTO REFINISH I

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

## ABF 152 AUTO REFINISH II

Students will sand, prime, mask, seal and apply top coats to partial and complete panels. Proper color matching using acrylic enamels and acrylic lacquer paints is included.
Prerequisite: ABF 151 or permission of instructor
Twelve credits: 150 clock hours

## ABF 153 AUTO REFINISH III

Students will prep and apply top coats to the entire car using lacquers and enamels.
Prerequisite: ABF 151, or permission of instructor
Twelve credits: 150 clock hours

## ABR 199 SPECIAL NEEDS/AUTO BODY REPAIR

Designed to improve skills in any one of the various areas of auto body. Actual course content will be established as necessary upon agreement of the student, instructor, and advisor. The student must be enrolled in the Auto Body program.
One credit: 10 clock hours

## ABR 201 QUARTER PANEL REPLACEMENT

Students will learn to remove and replace a quarter panel, repair panels and reinforcements, align the sheet metal, and complete the job, including refinishing.
Prerequisite: ABR 123, ABR 143, or permission of instructor Four credits: 60 clock hours

## ABR 202 BASIC SHEET METAL REPLACEMENT

Students will learn to remove and replace a door skin and front sheet metal. They also will do the alignment and refinishing.
Prerequisite: ABR 201 or permission of instructor
Four credits: 60 clock hours
ABR 203 ADVANCED SHEET METAL REPLACEMENT
Continuation of ABR 201 and ABR 202. Students will learn to remove and replace the door skin and the front sheet metal, will do the alignment and refinishing, will remove and replace a quarter panel, repair inner panels and reinforcements, will align the sheet metal, and complete the job, including refinishing.
Prerequisite: ABR 201, ABR 202, or permission of instructor
Four credits: 60 clock hours

## ABR 211 BASIC FRAME REPAIR

Students will learn to identify and diagnose types of frames and damage. They will become familiar with reinforcement and replacement methods.
Prerequisite: ABR 203, ABR 242, or permission of instructor
Four credits: 60 clock hours

## ABR 212 CONVENTIONAL FRAME REPAIR

Students will learn to identify and diagnose types of frames and tools used to repair and align conventional frames.
Prerequisite: ABR 211 or permission of instructor
Four credits: 60 clock hours

## ABR 213 UNITIZED FRAME REPAIR

Students will become familiar with the equipment and repair methods used in the alignment of the unitized body.
Prerequisite: ABR 212 or permission of instructor
Four credits: 60 clock hours

## ABR 221 AUTO BODY REBUILDING I

Students will learn to repair an auto with severe damage (totaled) and do the operations required to make the auto road-worthy.
Prerequisite: ABR 213 and ABR 242, or permission of instructor Four credits: 60 clock hours

## ABR 222 AUTO BODY REBUILDING II

Students will learn to repair an auto with severe damage (totaled) and do the operations required to make the auto road-worthy.
Prerequisite: ABR 221
Four credits: 60 clock hours

## ABR 223 AUTO BODY REBUILDING III

Continuation of ABR 222. Students will learn to repair an auto with severe damage (totaled) and do the operations required to make the auto road-worthy.
Prerequisite: ABR 221 and ABR 222 or permission of instructor Four credits: 60 clock hours

## ABR 241 AUTO BODY REPAIR IV

Students will learn to remove, replace, and align weld on body panels such as quarter panels, door skins and rear body panels; and completely replace and align the front sheet metal. They will be able to straighten or repair damaged inner structures using power equipment and tools. The job, including refinish work, will be completed by the students.
Prerequisite: ABR 141 or permission of instructor
Twelve credits: 150 clock hours

## ABR 242 AUTO BODY REPAIR V

Students will learn to identify and diagnose types of frames and damages, will be familiar with the repair methods and equipment used in the alignment of conventional and unitized frames and bodies, and will be able to write an accurate estimate.
Prerequisite: ABR 141 or permission of instructor
Twelve credits: 150 clock hours

## ABR 243 AUTO BODY REPAIR VI

Students will learn to repair an auto with severe damage (totaled) and do the operations required to make the auto road-worthy.
Prerequisite: ABR 141 or permission of instructor
Twelve credits: 150 clock hours

## AMT: AUTOMOTIVE MECHANICS TECHNOLOGY

## AMT 101 AUTO MECHANICS FOR BEGINNERS

Students develop a basic knowledge of the major systems of the automobile. They will learn parts identification and basic theory of how automotive systems work. Minor repair and diagnosing common problems will be taught. Good shop safety practices and accident prevention are included with each job in this course.
Four credits: 60 clock hours

## AMT 104 BRAKE REPAIR

Designed to prepare students for the specialty work of modern automobile brake repair and adjustment. Conventional as well as disc systems are studied and worked on. Good shop safety practices and accident prevention are included with each job in this course.
Four credits: 60 clock hours

## AMT 105 ADVANCED ELECTRICAL

Designed to give students the theoretical and practical knowledge necessary to test and repair electrical units on modern cars. Good shop safety practices and accident prevention are included.
Four credits: 60 clock hours

## AMT 106 TUNE-UP

Designed to give students the basic skills and knowledge in tune-up and service procedures as related to the automobile. Upon course completion students will be able to diagnose and service the components of the conventional point and electronic ignition systems. Good shop safety practices and accident prevention are included.
Four credits: 60 clock hours

## AMT 107 ADVANCED ENGINE TUNE-UP

Designed to give students the basic skills and knowledge in fuel systems and service procedures as related to the automobile. Upon course completion students will be able to diagnose and repair or overhaul the various types of carburetors found in American and most foreign cars.
Four credits: 60 clock hours

## AMT 108 AUTOMATIC TRANSMISSIONS

Designed to give students the basic skills and knowledge in automatic transmission services as related to the automobile. Upon course completion students will be able to diagnose and service automatic transmissions (minor repairs including seal replacement, band adjustment, linkage adjustment, and transmission removal).
Four credits: 60 clock hours

## AMT 115 FOREIGN CAR TUNE-UP

Designed to develop the skills and knowledge necessary to correctly tune the engines on foreign cars. Good shop safety practices and accident prevention are included.
Four credits: 60 clock hours

## AMT 116 FOUR WHEEL ALIGNMENT

Designed for the experienced front end alignment mechanic that would like to learn how to align all four wheels on modern front wheel drive automobiles using the latest computer four wheel alignment machine.
Four credits: 60 clock hours

## AMT 124 AUTOMOTIVE SERVICE MANAGEMENT

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

## AMT 125 AUTO CERTIFICATION REFRESHER

This course prepares professional auto mechanics for certification tests given by National Institute for Automotive Service Excellence. Two credits: 24 clock hours

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

Students will learn various shop procedures that are common to all types of automotive repair shops; use and care of basic hand tools, and service reference materials will be covered. The repair and diagnosis of drum, disc, and power brakes will be covered during the first half of the course. During the second half, students will overhaul standard transmissions, clutches, driveshafts, and differentials. Good safety practices and accident prevention are included with each job in this course.
Twelve credits: 150 clock hours

## AMT 132 STEERING AND SUSPENSION SYSTEMS A

Students will develop necessary skills and knowledge to repair all parts of the suspension system, align front ends, perform four wheel alignment, balance wheels, overhaul and adjust rack and pinion, conventional and power steering units. Included is MacPherson strut service, transaxle overhaul, constant velocity joint service, and independent rear suspension service and adjustment. Good safety practices and accident prevention are included with each job in this course.
Twelve credits: 150 clock hours

## AMT 133 FUEL SYSTEMS AND TUNE-UP A

Students develop necessary skills and knowledge to perform complete major engine tune-ups and carburetor overhaul. Theory and overhaul of single, two, and four-barrel carburetors, fuel pumps, exhaust emission controls, and ignition systems are covered. Modern test equipment is used to diagnose performance problems such as infra-red exhaust analyzers, oscilloscopes, tachometer, dwell meter, ohmmeter, vacuum gauge, distributor stroboscope, and all types of engine testers. Students study the various emission control systems, how they work, and what pollutants each system controls. Procedures for emission testing are covered. Good safety practices and accident prevention are included with each job in this course.
Twelve credits: 150 clock hours

AMT 135 COLORADO EMISSION LICENSE PROGRAM
This course follows the recommended program outlined by the Colorado Department of Health to prepare automotive technicians for a Colorado Emission License. Study of the emissions rules and regulations and hands-on use of the approved testing machines is covered.
Two credits: 20 clock hours

## 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. Students will also cover the program recommended by the Colorado Department of Health for mechanics applying for an emission license. Use of the latest emission testing machines will be stressed. Students will perform mock emission inspections using the Colorado approved inspection machines. Upon completion of the course students may test for a Colorado Emission License with the Colorado Department of Health.
Prerequisite: AMT 106, AMT 107, AMT 133, or permission of instructor
Five credits: 50 clock hours

## AMT 199 SPECIAL NEEDS/AUTO MECHANICS

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

## AMT 231 AUTOMOTIVE ENGINES A

Students learn construction, operation, parts identification, and service procedures on all types of modern automotive engines. Study of cooling and lubricating systems included. Students begin on mock-up units and progress to complete engine overhaul. Shop math including fractions, decimals, cubic measurements, formulas, and metric measurements will be covered. Good safety practices and accident prevention are included with each job in this course.
Twelve credits: 150 clock hours

## AMT 232 ELECTRICAL A

Students learn theory, diagnosis, and repair of all automotive electrical units including batteries, starters, generators, alternators, regulators, and electrical testing equipment to diagnose problems in automotive electrical units. Good safety practices and accident prevention are included with each job in this course.
Twelve credits: 150 clock hours
AMT 233 AIR CONDITIONING AND COMFORT CONTROLS
Students learn basic theory of refrigeration systems components, evacuation, charging, and testing automobile air conditioners. They solve simulated problems on late model air conditioners. Heaters and defrosters are also covered.
Five credits: 50 clock hours

## AMT 234 AUTOMATIC TRANSMISSIONS AND AIR CONDITIONING A

Students learn principles of hydraulics, planetary gear sets, and power flow through modern automatic transmissions. Students gain experience in disassembly, inspection, replacement or simulated replacement of defective parts and complete diagnosis of functions. Basic theory of refrigeration systems, components, evacuation, charging, and testing automotive air conditioners is included. Students will learn how to install after-market units, service factory installed air conditioners, and solve problems on late model units. Good safety practices and accident prevention are included with each job in this course.
Twelve credits: 150 clock hours

## AMT 261 COMPUTER CONTROLLED ENGINE SYSTEMS

This course provides a basic knowledge and understanding of computer command controlled engines. Feedback carburetors, all fuel injected systems including ported fuel injection systems will be covered. The input sensors and the electronic controls that change engine fuel, timing, and emission controls will also be covered. Students will learn how to test computer equipped engines using special test instruments and also with simple shop equipment such as an ohmmeter, voltmeter, and dwellmeter. Design and service of turbochargers for these engines will be covered.
Prerequisite: AMT 133 or AMT 106 and AMT 107 or permission of instructor
Four credits: 60 clock hours

## AMT 262 AUTOMOTIVE ELECTRONICS

Students will develop the knowledge to identify various circuits, calculate their values and operational features. They will study semiconductors and other electronic components used on the automobile. Computer design and operation as it relates to automotive systems will be covered.
Six credits: 60 clock hours

## AMT 266 AUTOMOTIVE ELECTRONICS AND COMPUTER SYSTEMS

The purpose of this course is to provide additional training to qualified students in the areas of automotive electronics, microprocessors and computer controlled systems. Students will develop the knowledge to identify various circuits, calculate their values and operational features. They will study semi-conductors and other electronic components used on the automobile. Computer design and operation as it relates to automotive systems will be covered. Students will develop the knowledge and skills to correctly diagnose problems in the electronic ignition and fuel delivery systems of late model automobiles. (With the permission of advisor, a student wishing to specialize in automotive electronics may elect to substitute this course for one of the certificate courses to satisfy graduation requirements.)
Prerequisite: AMT 133 or AMT 132 or permission of instructor
Twelve credits: 150 clock hours

## AVT: AVIATION TECHNOLOGY

## AVT 100 AVIATION SEMINAR

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

## AVT 101 PRIVATE FLIGHT LAB I

Designed for completion of first solo flight and additional training before cross country flight.
Prerequisite: recommended concurrent enrollment in AVT 108 and AVT 109
Three credits: 30 clock hours

## AVT 102 PRIVATE FLIGHT LAB II

Designed for completion of private pilot license. Includes cross country, emergency procedures, and basic instrument flying.
Prerequisite: AVT 101 or previous solo flight
Three credits: 30 clock hours

## AVT 103 COMMERCIAL FLIGHT LAB I

(Formerly AVT 117) The first of four phases in preparation for the FAA commercial license. Includes an introduction to the basic commercial flight maneuvers. Upon successful completion of the course, the student will have necessary skill and knowledge to pass a phase I flight check.
Prerequisite: AVT 102 or private license
Five credits: 70 clock hours

## AVT 104 COMMERCIAL FLIGHT LAB II

(Formerly AVT 118) Continuation of AVT 117 with a greater emphasis on cross country flying. The student must complete the solo, night, and cross country requirements for FAA instrument rating during this lab. Upon successful completion of the course, the student will have the necessary skill and knowledge to pass a phase II flight check.
Prerequisite: AVT 103 or permission of instructor
Five credits: 70 clock hours

## AVT 105 PRIVATE FLIGHT SIMULATOR

Upon completion of the course, the student will be able to demonstrate a high level of skill in basic attitude instrument flying in a flight simulator. Students will be expected to complete the flight syllabus for this course.
Prerequisite: recommended concurrent enrollment in AVT 108
Three credits: 30 clock hours

## AVT 106 AVIATION ECONOMICS

A general study of the economic basis of commercial aviation intended to impart an understanding of the requirements necessary for successful operation of an air transportation business.
Five credits: 50 clock hours

## AVT 107 AIRPLANE PINCH HITTER COURSE

This course is designed to provide training for non-pilots who wish to be able to assist a pilot of a small airplane and also to be prepared to handle the airplane in an emergency.
Two credits: 20 clock hours

## AVT 108 PRIVATE GROUND SCHOOL

By the end of the course, the student should be able to pass the FAA private pilot written test. Includes basic aerodynamics, airplane systems, air traffic control and communications, aircraft weight and balance, meteorology, Federal Aviation regulation, basic navigations and radio navigations, airman's information manual, medical factors of flight, and review for the FAA test.
Six credits: 60 clock hours

## AVT 109 INSTRUMENT GROUND SCHOOL

(Formerly AVT 205) Includes advanced meteorology, IFR procedures, flight and navigation instruments, IFR regulations and procedures and other information necessary for passing FAA instrument test. Upon successful completion of the course, the student should be able to pass the FAA instrument test.
Prerequisite: AVT 108 or private license, or permission of instructor Six credits: 60 clock hours

## AVT 111 INSTRUMENT FLIGHT SIMULATOR I

Designed to develop skills in VOR navigation and ADF procedures such as holding patterns and DME Arcs. Various instrument approaches will also be covered.
Prerequisite: AVT 105 or permission of instructor
Three credits: 30 clock hours

## AVT 119 CONVENTIONAL GEAR TRANSITION LAB

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

## AVT 202 INSTRUMENT SIMULATOR REFRESHER

Course is designed to assist the instrument rated pilot in maintaining current status for IFR flight.
Prerequisite: Instrument rating or permission of instructor
One credit: 10 clock hours

## AVT 206 COMMERCIAL GROUND SCHOOL

Includes a review of material for commercial flying and FAR part 135. Upon successful completion of the course, the student should be able to pass the FAA commercial written test.
Prerequisite: AVT 108 or private license, or permission of instructor Five credits: 50 clock hours

## AVT 207 BASIC GROUND INSTRUCTOR

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

## AVT 208 ADVANCED GROUND INSTRUCTOR

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

## AVT 209 INSTRUMENT GROUND INSTRUCTOR

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

## AVT 211 INSTRUMENT FLIGHT SIMULATOR II PARTA

This course and AVT 212 meet the requirements for AVT 213. Course designed to refine instrument flying skills.
Prerequisite: AVT 105 or permission of instructor
Three credits: 30 clock hours

## AVT 212 INSTRUMENT FLIGHT SIMULATOR II PART B

This course and AVT 211 meet the requirements for AVT 213. Cross country flying and communication skills will be stressed. The student will be expected to fly an instrument proficiency checkride at the end of the course.
Prerequisite: AVT 211
Three credits: 30 clock hours

## AVT 213 INSTRUMENT FLIGHT SIMULATOR II EVENING

Course will develop skills in all phases of instrument flying. Includes review of skills learned in AVT 111 and cross country procedures. The student will be expected to fly an instrument proficiency checkride at the end of course.
Prerequisite: AVT 105 or permission of instructor
Six credits: 60 clock hours

## AVT 214 ADVANCED INSTRUMENT SIMULATOR

(Formerly AVT 213) Designed to refine instrument flying skills and to complete simulator training for FAA instrument rating.
Five credits: 50 clock hours

## AVT 215 AIRLINE MANAGEMENT

A general study of management and marketing aspects of airline operations.
Five credits: 50 clock hours

## AVT 216 INSTRUMENT FLIGHT LAB

Includes necessary flight instruction to qualify the student to receive the FAA instrument rating. Upon successful completion of the course, the student will have the necessary skill and knowledge to pass FAA instrument check ride.
Prerequisite: AVT 104 or permission of instructor
Five credits: 70 clock hours

## AVT 217 COMMERCIAL FLIGHT LAB III

The final flight lab in preparation for the commercial license. Upon successful completion of the course, the student will have the necessary knowledge to pass the FAA commercial flight check.
Prerequisite: concurrent enrollment in AVT 216 or permission of instructor
Five credits: 70 clock hours

## AVT 218 CERTIFIED FLIGHT INSTRUCTOR

Theory and practice of instructional methods; fundamentals of instruction and preparing a lesson plan. A review of flight maneuvers. Upon successful completion of the course, the student will be able to pass the FAA CFI check ride.
Prerequisite: commercial pilot license or permission of instructor Five credits: 50 clock hours

## AVT 219 INSTRUMENT FLIGHT INSTRUCTOR

Theory and practice of teaching basic attitude instrument flying. instrument flight planning, and instructional techniques. Upon successful completion of the course, the student will be able to take the FAA IFI check.
Prerequisite: commercial pilot license or permission of instructor Three credits: 30 clock hours

## AVT 221 INSTRUMENT PROFICIENCY CHECK II

This course is designed as a refresher on IFR flight for the instrument rated pilot. A proficiency check is given by the instructor.
Prerequisites: Instrument flight rating and permission of instructor One credit: 10 clock hours

## AVT 222 INSTRUMENT PROFICIENCY CHECK II

This course is designed as a refresher on instrument procedures for the instrument rated pilot. A proficiency check is given by the instructor. Prerequisites: Instrument flight ratings and permission of instructor One credit: 10 clock hours

## AVT 225 MULTI-ENGINE TRANSITION LAB

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

## AVT 226 MULTI-ENGINE SIMULATOR

Designed to help prepare the student for the multi-engine rating or to provide comprehensive review for multi-engine rated pilots.
Prerequisite: AVT 115, AVT 215, or permission of instructor
Three credits: 30 clock hours

## AVT 227 MULTI-ENGINE INSTRUMENT SIMULATOR

Designed to give the student additional skill in instrument flight with a complex airplane and to develop instrument and emergency skills to a high level.
Prerequisite: AVT 226 or permission of instructor
Two credits: 20 clock hours

## AVT 228 MULTI-ENGINE SIMULATOR REFRESHER I

Designed to keep the pilot proficient in instrument procedures.
Prerequisite: permission of instructor
One credit: 10 clock hours

## AVT 229 MULTI-ENGINE SIMULATOR REFRESHER II

Designed to keep the pilot proficient in instrument procedures.
Prerequisite: permission of instructor
One credit: 10 clock hours

## AVT 235 FLIGHT ENGINEER-SYSTEMS

Course covers background and theory necessary to impart understanding of aircraft systems. First of two courses preparing the student for the FAA Flight Engineer written examination.
Prerequisites: Instrument ratings or permission of instructor Six credits: 60 clock hours

## AVT 236 FLIGHT ENGINEER - POWERPLANT

Course covers background and theory necessary to impart understanding of aircraft powerplants. Second of two courses preparing the student for the FAA Flight Engineer written examination.
Prerequisites: AVT 235, Instrument ratings or permission of instructor Six credits: 60 clock hours.

## BIO: BIOLOGICAL SCIENCES

## BIO 105 SCIENCE OF BIOLOGY

(Formerly BIO 101) Designed for non-science students. Examines the basis of biology in the modern world and surveys the current knowledge and conceptual framework of the discipline. Biology as a science--a process of gaining new knowledge--is explored as is the impact of biological science on society. This course includes laboratory experiences.
Five credits: four hours lecture, two hours lab per week

## BIO 106 FIELD BOTANY

Studies methods of collecting, preserving, and identifying plants.
Three credits: two hours lecture, two hours lab per week
GENERAL COLLEGE BIOLOGY I, II, III
This sequence of courses is designed for students interested in the Life Sciences or Pre-Health Professions. It is recommended that students complete and transfer these courses as an aggregate.

## BIO 111 GENERAL COLLEGE BIOLOGY I

Examines the fundamental molecular, cellular and genetic principles characterizing plants and animals. Includes cell structure and function; energy, respiration and photosynthesis; mitosis and meiosis; developmental biology; heredity and evolution. This course includes laboratory experience.
Five credits: four hours lecture, two hours lab per week

## BIO 112 GENERAL COLLEGE BIOLOGY II

A continuation of Biology 1. Includes classification of animals; structure and function in animals; and ecology of animals. This course includes laboratory experience.
Prerequisites: BIO 111
Five credits: three hours lecture, four hours lab per week

## BIO 113 GENERAL COLLEGE BIOLOGY III

A continuation of Biology II. Includes classification of plants; structure and function in plants; and plant ecology and evolution.

## Prerequisite: BIO 112

Five credits: three hours lecture, four hours lab per week

## BIO 116 INTRODUCTION TO HUMAN HEREDITY

Introduction to the nature of inheritance with emphasis on humans. Includes autosomal dominants and recessives, $x$-linked inheritance, and chromosomal additions and deletions. Genetic screening and counseling, and facets of bioethics introduced by current genetic research will be considered.

## Prerequisite: none

Four or Five credits: four or five hours lecture per week

## BIO 120 BASIC HUMAN ANATOMY AND PHYSIOLOGY

An introductory course in human anatomy and physiology which emphasizes the relationship between body structure and function. The laboratory portion includes microscopic study of tissue and selected dissections. Credit will not be given for BIO 120 and BIO 211 .
Prerequisite: none
Five credits: four hours lecture, three hours lab per week

## BIO 150 HUMAN SEXUALITY

A survey of the biological, psychosocial, behavioral, clinical and cultural perspectives of human sexuality with emphasis on anatomy, physiology, reproduction, contraception and developmental sexuality.
Prerequisite: none
Three credits

BIO 211 HUMAN ANATOMY AND PHYSIOLOGY I
First in a sequence of three courses emphasizing broad principles of human biology, anatomical structure of the human organism and the relationship between structure and function at all levels of organization. Includes chemical composition, cellular and tissue organization, the integumentary system, the skeletal system and basic concepts concerning the blood, lymph, intracellular fluids and electrolytes.
Prerequisite: BIO 105 or permission of instructor
Five credits: four hours lecture, three hours lab per week

## BIO 212 HUMAN ANATOMY AND PHYSIOLOGY II

Second course in the sequence emphasizing broad principles of human biology and the relationship of structure to body function. Includes the muscular system, the nervous system including the special senses, and the endocrine and digestive systems.
Prerequisite: BIO 211 or permission of the instructor
Five credits: four hours lecture, three hours lab per week

## BIO 213 HUMAN ANATOMY AND PHYSIOLOGY III

Third course in the sequence emphasizing broad principles of human biology and the relationship of structure to body function. Includes nutrition and metabolism, the respiratory system, the cardiovascular system, immunology and the lymphatic system, the urinary system, fluid and electrolyte balance, the reproductive system and human genetics.
Prerequisite: BIO 212 or permission of the instructor
Corequisite: Registration and completion of TEM 127 Cardiopulmonary Resuscitation (CPR)
Five credits: four hours lecture, three hours lab per week

## BIO 216 INTRODUCTION TO MICROBIOLOGY

Foundation course in microbiology emphasizing structure, function, development and classification of protists. Includes both protocaryotic and eucaryotic micro-organisms. Emphasizes organisms with medical and economic impact on human populations. Major laboratory emphasis is on staining techniques and laboratory safety.
Prerequisite: BIO 105 or one year high school biology and permission of the instructor
Five credits: three hours lecture, four hours lab per week

## BIO 217 INTRODUCTION TO ORNITHOLOGY

Introduction to the study of birds. Lecture includes classification and natural history, with field trips to different habitats for identification and observation of adaptations and behavior. Offered spring or summer quarters. Field trips required.
Prerequisite: BIO 105 or permission of instructor
Four credits: six clock hours per week

## BIO 295 INDEPENDENT STUDY IN BIOLOGY

Provides an opportunity for the highly-motivated student with previous academic experience or work in biology to engage in intensive study and research of a specified topic under the direction of a faculty member. The student will be limited as to the number of independent study credits taken per quarter.
Prerequisite: previous academic study or experience in biology
One to three credits: contact division chairman

## BCS: BUILDINGCONSTRUCTION

## BCS 102 BASIC CABINETRY

Provides students with necessary instruction for skill development and understanding in the area of basic cabinet construction.
Four credits: 60 clock hours

## BCS 104 CABINETRY II

Students will learn to construct detailed cabinets using intermediate techniques in machine and hand tool joining, and will be able to analyze and design cabinets for home, office, and shop use.
Four credits: 60 clock hours

## BCS 105 BUILDING CONSTRUCTION I

Upon completion of this course, students will be able to read and understand a set of blueprints, and identify the various framing and cornice members. The student should be able to cut and assemble a floor, wall, and roof system; install the cornice, closures, and siding for a given set of prints
Fourteen credits: 175 clock hours

## BCS 106 BUILDING CONSTRUCTION III

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

## BCS 107 BUILDING CONSTRUCTION V

Upon completion of this course, students will be able, when applicable, to assist in setting forms, assist in placing and finishing concrete. Instructions regarding special masonry requirements for walls and foundations is included.
Fourteen credits: 175 clock hours

## BCS 115 BUILDING CONSTRUCTION I B

This course provides training in safety, reading and use of blueprints and specifications. Students will study framing and floor; wall and roof systems, use and application of roofing materials, types and application of exterior wall coverings, exterior trim, doors and windows. (BCS 115 is equivalent to BCS 105.)
Prerequisite: Employment in building trades or related field.
Fourteen Credits: 60 clock hours plus 240 hours of work experience

## BCS 116 BUILDING CONSTRUCTION III B

This course provides instruction in basic math related to building trades; training and instruction in different insulations and their Rfactors; sheetrocking, taping, texturing, paints, stains and finishes; door hanging and hardware. (BCS 116 is equivalent to BCS 106.)
Prerequisite: Employment in building trades or related field
Fourteen Credits: 60 clock hours plus 240 hours of work experience

## BCS 117 BUILDING CONSTRUCTION V B

Students will learn safety procedures, site selection and layout, forms and form setting methods, cement finishing, brick layout and brick laying. (BCS 117 is equivalent to BCS 107.)
Prerequisite: Employment in building trades or related field
Fourteen Credits: 60 clock hours plus 240 hours of work experience

## BCS 125 BLUEPRINT READING

This course provides training in how to read and understand blueprints - specifications - and door and window schedules.
Three Credits: 30 clock hours

## BCS 199 BUILDING CONSTRUCTION SPECIAL

 NEEDSIf the student is in need of special assistance, he or she will develop a step-by-step procedure which can be used in a specific area of housing construction. These procedures will be directly related to the methods and techniques set forth by the instructor of the building trades program.
One to three credits: 10 to 30 clock hours

## BCS 205 BUILDING CONSTRUCTION II

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

## BCS 206 BUILDING CONSTRUCTION IV

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

## BCS 207 BUILDING CONSTRUCTION VI

Upon completion of this course, students should be able to locate a structure on a building site, estimate the excavation and concrete costs for a given structure, do a material breakdown on the masonry needed (including fireplaces), lay out and set forms as required, and lay out the bond and bed joints for the masonry construction.
Fourteen credits: 175 clock hours

## BCS 215 BUILDING CONSTRUCTION II B

This course will provide training and instruction in estimating of exterior materials and labor. Training will also cover advanced framing, stair lay out and building, and roof systems. (BCS 215 is equivalent to BCS 205.)
Prerequisite: Employment in building trades or related field
Fourteen Credits: 60 clock hours plus 240 hours of work experience

## BCS 216 BUILDING CONSTRUCTION IV B

This course will provide training and instruction in estimating of interior building materials and labor, cabinet making and counter tops, woods, wood joints and interior trim. (BCS 216 is equivalent to BCS 206.)

Prerequisite: Employment in building trades or related field
Fourteen Credits: 60 clock hours plus 240 hours of work experience

## BCS 217 BUILDING CONSTRUCTION VI B

This course will give instruction in the use of the U.B.C. (Uniform Building Codes) and State and local regulations; legal procedures pertaining to writing contracts, lien waivers, insurances and financial aids needed in contracting. (BCS 217 is equivalent to BCS 207.)
Prerequisite: Employment in building trades or related field
Fourteen Credits: 60 clock hours plus 240 hours of work experience

## BCS 225 CONSTRUCTION ESTIMATING I

This course provides training in estimating and take-offs of exterior building materials and labor and provides training in the use of basic math (job related) in conjunction with estimating.
Three Credits: 30 clock hours

## BCS 226 CONSTRUCTION ESTIMATING II

This course is designed to provide training in estimating and calculating of interior building materials and labor.
Prerequisite: BCS 225 or permission of instructor
Three Credits: 30 clock hours

## BCS 227 BUILDING CONTRACTS

This course is designed to provide training in how to write contracts use of lien waivers - necessary insurances and financial advice in contracting.
Three Credits: 30 clock hours

BCS 236 CABINET MAKING THEORY
This course is designed to provide instruction in cabinet making and counter tops. It provides training in the types of wood and wood joints.
Three Credits: 30 clock hours

## BCS 237 BUILDING CODES

This course is designed to provide instruction in the use of the U.B.C. codes and other state and local regulations.
Three Credits: 30 clock hours

## BIS: BUSINESS INFORMATION SYSTEMS

## BIS 100 INTRODUCTION TO COMPUTERS

This telecourse will provide the student with a comprehensive overview of the computer with a survey of computer hardware and software.
Four credits: 40 clock hours

## BIS 105 INTRODUCTION TO COMPUTER APPLICATIONS I

The student will gain an understanding of how and why computers are used in business applications. The student will have hands-on-experience on a microcomputer using word processing and spreadsheet software such as Word Perfect and Lotus.
Five credits: 50 clock hours

## BIS 107 PROBLEM SOLVING USING NUMBERS

The student will learn terms and concepts used in business computer programming calculations and develop logic and problem solving skills using algebraic concepts.
Five credits: 50 clock hours

## BIS 110 INTRODUCTION TO BUSINESS INFORMATION SYSTEMS

The student will learn structured programming methodology using flowcharts and/or pseudocode. The student will program in BASIC. Five credits: 50 clock hours

## BIS 111 COMPUTER CONCEPTS I

The student will study various file and data base structures from the view point of efficiency, utility and practicality.
Prerequisite: BIS 105 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 105
Five credits: 50 clock hours

## BIS 112 COMPUTER CONCEPTS II

The student will learn to work with numbering systems used with computers. The student will work with JCL and gain an understanding of concepts that apply to data communications.
Prerequisite: BIS 105 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 105
Five credits: 50 clock hours

## BIS 115 INTRODUCTION TO COMPUTER APPLICATIONS II

A continuation of BIS 105. The student will learn to use the advanced features of word processing, spreadsheet, and database software packages related to business applications. Prerequisite: BIS 105 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 105
Five credits: 50 clock hours

BIS 116 BUSINESS BASIC PROGRAMMING
The student will acquire the skills needed to write structured BASIC programs for business applications. The students will learn file processing techniques on a microcomputer.
Prerequisite: BIS 110 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 110 Five credits: 50 clock hours

## BIS 117 COMPUTER OPERATIONS

The student will learn to operate a computer system with actual hands-on-experience. The student will become proficient with operator commands and have an understanding of all components that make up a computer environment.
Prerequisite: BIS 110 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 110 Five credits: 50 clock hours

## BIS 126 REPORT PROGRAM GENERATOR II

 (RPG II)The student will learn the syntax of RPG Il and write programs that search tables, match files and have control break logic. The student will learn about RPG III enhancements.
Prerequisite: BIS 116 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 116
Five credits: 50 clock hours

## BIS 136 UNIX FOR BUSINESS APPLICATIONS

The student will learn the features of Unix including multi-tasking, directories, and file maintenance, and apply those features to business related applications.
Prerequisite: BIS 116 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 116 Five credits: 50 clock hours

## BIS 137 WRITING COMPUTER DOCUMENTATION

The student will learn to integrate the disciplines of computer programming and English by applying good writing standards when documenting a computer system.
Prerequisite: BIS 142 and BIS 121, both with a grade of C or better or written proof of education equivalent of the topics covered in BIS 142 and BIS 121
Five credits: 50 clock hours

## BIS 138 MS/DOS OVERVIEW

The student will learn to install a microcomputer beginning with removing the hardware from the shipping carton and concluding with a post-installation systems check. The student will become proficient with MS/DOS systems, including file maintenance, directory structure, and business application management.
Two credits: 20 clock hours

## BIS 145 INTEGRATED SOFTWARE

The student will learn to utilize software vendor manuals. The student will convert business applications into automated applications using Symphony.
Prerequisite: BIS 105 with a grade of C or better or written proof of equivalent experience or training
Five credits: 50 clock hours

BIS 201 C PROGRAMMING LANGUAGE
The student will learn the syntax of C which features the economy of expression, modern control flow and data structures, and specific operators.
Prerequisite: Advanced programming techniques with a grade of $B$ or better or written proof of equivalent experience or training Five credits: 50 clock hours

## BIS 205 ASSEMBLY LANGUAGE

The student will learn to program using BAL in an IBM mainframe environment. The student will learn to read core dumps and will learn various debugging techniques.
Prerequisite: BIS 116
Five credits: 50 clock hours

## BIS 206 NEW ISSUES AND DEVELOPMENTS

The student will learn about current issues and developments in the computer industry. The student will learn to research industry topics and present their research in both an oral and written format.
Prerequisite: Successful completion of 45 credits of courses with a BIS prefix or instructor consent
Five credits: 50 clock hours

## BIS 207 PROGRAM MAINTENANCE AND JCL

The student will learn the effects of changes to a business computer system from the perspective of the user, operator, programmer, and customer. The student will learn program maintenance methodologies related to programs and JCL.
Prerequisite: Successful completion of 30 credit hours of courses with a BIS prefix
Five credits: 50 clock hours

## BIS 211 STRUCTURED SYSTEMS ANALYSIS

The student will learn to utilize structured tools (data flow diagrams, data dictionaries, data structure diagrams) to define structured specifications for a business system.
Prerequisite: BIS 111 and BIS 116, both with a grade of C or better or written proof of education equivalent to the topics covered in BIS 111 and BIS 116
Five credits: 50 clock hours

## BIS 221 STRUCTURED COBOL PROGRAMMING

(Formerly BIS 121) The student will learn to apply structured techniques to the COBOL language. The student will write business related applications gaining skills in documentation, logic and debugging.
Prerequisite: BIS 117 with a grade of C or better or written proof of education equivalent to the topics covered in BIS 116
Five credits: 50 clock hours

## BIS 222 ADVANCED STRUCTURED COBOL

(Formerly BIS 122) A continuation of BIS 221. The student will learn industry programming standards and COBOL-85 features. The student will write programs that utilize complex table handling, internal sorts, report writer and complex file processing and maintenance.
Prerequisite: BIS 221 and BIS 111, both with a grade of C or better or written proof of education equivalent to the topics covered in BIS 221 and BIS 111
Five credits: 50 clock hours

BIS 295 COMPUTER INDEPENDENT STUDY
BIS 296 COMPUTER INDEPENDENT STUDY
BIS 297 COMPUTER INDEPENDENT STUDY
BIS 298 COMPUTER INDEPENDENT STUDY
BIS 299 COMPUTER INDEPENDENT STUDY
A course providing the opportunity for the student to study a specific computer related area or skill under the direction of a qualified faculty member.
One to Five credits each: $10-50$ clock hours each

## BUS: GENERAL BUSINESS

## BUS 100 INTRODUCTION TO BUSINESS

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

## BUS 101 TYPEWRITING I

An introduction to typewriting. Emphasizes learning the keyboard and parts of the typewriter, proper technique, speed and control, and basic typewritten applications such as copy placement, business letters, tabulations, and simple reports. For students with no typing background.
Four credits: 50 clock hours

## BUS 102 TYPEWRITING II

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 high school typing or 25 wpm typing speed
Four credits: 50 clock hours

## BUS 103 TYPEWRITING III

Further development of typing techniques. Emphasis on production of mailable copy of business letters, tabulations, business communication forms, and special reports.
Prerequisite: BUS 101 or speed of at least 45 wpm . Additional lab hours may be needed.
Four credits: 50 clock hours

## BUS 104 TYPEWRITING IV

Further development of typing techniques in office-type situations. Emphasis will be placed on production of mailable copy from office style typing and transcribing machines. Office simulations will be done the last five weeks of the quarter.
Prerequisite: BUS 103, BUS 142, and speed of 50 wpm
Four credits: 50 clock hours

## BUS 106 OFFICE SKILLS I

The basic objectives of this course include giving students fundamental skills, competencies, and confidence to enable them to succeed in a vocational setting. Whenever possible, the course will draw on available resource materials and/or persons available in the immediate vicinity of the Aims campus and its environs.
Three credits: 50 clock hours

## BUS 107 BASIC OFFICE PROCEDURES

A study of general business office duties and problems, job interviewing and application, payroll and financial procedures, reception and messenger work, mail handling, telephone technique, and filing.
Prerequisite: BUS 101 or equivalent
Five credits: 50 clock hours

## BUS 108 10-KEY TOUCH CALCULATING

Students will become proficient in the touch method operation of the 10-key pad. Students will be able to use the calculator efficiently in record keeping activities.
One credit: 15 clock hours

## BUS 109 SECRETARIAL SKILLS

Review of basic typing, filing procedures, communication, mailing procedures, human relations, personnel, and duplicating, as well as other similar duties.
Two credits: 30 clock hours

## BUS 110 INTRODUCTION TO WORD/INFORMATION PROCESSING

Introduction to the usage and concepts of word processing. An orientation course for secretarial, management, accounting, and data processing students who wish to remain abreast of the latest state of the art in office efficiency and productivity.
Prerequisite: BUS 101 or 35 wpm typing speed or permission of instructor
Four credits: 40 clock hours

## BUS 111 WORD/INFORMATION <br> \section*{PROCESSING I}

To instruct the student through a combination of lecture and individualized study in overall operations of word processing software using personal computers. At the completion of the course the student will be able to produce letters, memos, tables, and reports.
Prerequisite: BUS 103 and BUS 110, both with a grade of C or better or consent of instructor
Four credits: 50 clock hours

## BUS 112 WORD/INFORMATION PROCESSING II

This course is intended to provide the student with machine transcription skills and additional production experience using word processing software on personal computers. The student will learn to produce mailable copy from office-style material and transcription tapes. Prerequisite: BUS 104 and BUS 111, both with a grade of C or better and 50 wpm typing speed or consent of instructor
Four credits: 50 clock hours

## BUS 115 LEGAL TYPEWRITING

Production practice in preparing legal documents and legal forms. Emphasizes typewriting and spelling accuracy of legal terminology.
Prerequisite: BUS 103 and 60 wpm typing speed. To be taken concurrently with BUS 117
Four credits: 50 clock hours

## BUS 116 WORD PROCESSING:

## DEDICATED SYSTEMS

This course is designed to provide the student with production experience on a dedicated word processor using an individualized approach.
Prerequisite: BUS 110 and BUS 111 and permission of instructor Four credits: 60 clock hours

## BUS 117 LEGAL TERMINOLOGY

A study of the language of law. Basic preparation for secretaries training to work in a legal office. Emphasizes understanding terminology as well as being able to spell and use terms correctly.
Five credits: 50 clock hours

## BUS 118 LEGAL MACHINE TRANSCRIPTION

Student will review legal terminology and legal forms, transcribe legal material, and type legal forms commonly used in legal offices.
Prerequisite: BUS 115, BUS 117 , and BUS 142
Four credits: 50 clock hours

## BUS 119 LEGAL ENVIRONMENT OF BUSINESS

To provide the student with an overview of business law, particularly as it pertains to mid-managers, legal secretaries, and business secretaries. Five credits: 50 clock hours

## BUS 121 COLLEGE BOOKKEEPING I

To give the student an understanding of the fundamentals of bookkeeping and accounting as applied to practical situations in the business community. To prepare the student to do the duties of an entrylevel bookkeeper.
Five credits: 50 clock hours

## BUS 122 COLLEGE BOOKKEEPING II

To give the student an understanding of bookkeeping and accounting as applied to practical business situations in the community. To prepare the student to take care of the duties of a bookkeeper in the average office.
Prerequisite: BUS 121 and BUS 195 or permission of instructor Five credits: 50 clock hours

## BUS 125 ADDING AND CALCULATING MACHINES

Student will acquire basic skills necessary to process data accurately and rapidly. They will learn to use electronic calculators properly and efficiently.
Prerequisite: MAT 110 or permission of instructor
Two credits: 30 clock hours

## BUS 126 PROOFREADING TECHNIQUES

This course will assist individuals in developing proofreading skills necessary to create error-free communications. Recommended for clerical majors.
One credit: 10 clock hours

## BUS 127 BUSINESS WORD USAGE

This course will assist individuals in developing business language skills necessary to produce error-free communications. Recommended for clerical majors.
Prerequisite: BUS 141 and permission of instructor
Three credits: 45 clock hours

## BUS 128 KEYBOARDING FOR COMPUTERS

This course offers the opportunity for all individuals to learn keyboarding on an electric typewriter. This skill may be transferred for use on personal and/or business computers. This course is not intended to replace Typewriting I. Intended for non-secretarial majors.
Two credits: 25 clock hours

## BUS 131 TYPEWRITING REFRESHER I

An individualized refresher typing class tailored for persons reentering the labor market who need to refresh their typing skills.
Prerequisite: BUS 101 or one year high school typewriting
Four credits: 60 clock hours

## BUS 139 YOU AND YOUR WORLD OF WORK

Students will be provided with the business skills necessary to select, critique, and evaluate position opening notices; to present themselves successfully in job interviews; to integrate themselves effectively into the world of work. As part of the course, students will learn office procedures commonly used in business, job interview skills, job maintenance skills, and communication skills necessary for success in the work environment.
One credit: 8 clock hours

## BUS 140 WORD PROCESSING ON MICROCOMPUTERS I

To gain a basic understanding of the functions and mechanics of word processing software used on a microcomputer.
Prerequisite: BUS 101
Two credits: 30 clock hours

## BUS 141 INTRODUCTION TO COMMUNICATIONS

Fundamentals of communication theory and practice. Includes a study of vocabulary, spelling, mechanics, parts of speech, sentence analysis and dictionary usage as it applies to the business world. Written business communication will be introduced.
Five credits: 50 clock hours

## BUS 142 INTERMEDIATE COMMUNICATIONS

Students develop more extensive vocabularies and learn parts of speech, sentence structure, punctuation, spelling and word division as used in business communication. Practical application of principles learned will be demonstrated through the writing of business communications.
Prerequisite: BUS 141 or permission of instructor
Five credits: 50 clock hours

## BUS 143 ADVANCED COMMUNICATIONS

Students develop communication skills to write with clarity and confidence. Students work towards precise, powerful business writing. The basic principles and practices of business letters, reports, memos, and oral communication are studied and applied.
Prerequisite: BUS 142 or permission of instructor
Three credits: 30 clock hours

## BUS 145 WORD PROCESSING ON MICROCOMPUTERS II

To gain further experience using word processing software and personal computers.
Prerequisite: BUS 140 or permission of instructor
Two credits: 30 clock hours

## BUS 146 OFFICE INTERNSHIP

The office internship will provide on-the-job experience in a business office.
Prerequisite: permission of instructor
Three credits: 90 clock hours

BUS 150 INFORMATIONAL CONCEPTS FOR BANKERS
To introduce students to the basics of computer operation, and, in particular, the skills necessary for the banking industry.
Two credits: 20 clock hours

## BUS 155 RECORDS MANAGEMENT

Students will learn the nature and purpose of records and the need to implement and use rules to maintain up-to-date records and to retrieve records.
Two credits: 20 clock hours

## BUS 161 SHORTHAND I

To develop reading speed from book plates and handwritten notes.
Develop shorthand writing of familiar and unfamiliar material. Develop the ability to transcribe at the typewriter.
Prerequisite: BUS 101 or 30 wpm typing speed and BUS 141, or permission of instructor
Five credits: 50 clock hours

## BUS 162 SHORTHAND II

Develops ability to construct outlines for unfamiliar words and increases skill in transcription. Emphasizes production of mailable letters from office style dictation, reviews theory of shorthand, and increases shorthand reading speed.
Prerequisite: BUS 161 or previous shorthand
Five credits: 50 clock hours

BUS 171 BUSINESS LEADERSHIP ACTIVITIES
BUS 172 BUSINESS LEADERSHIP ACTIVITIES
BUS 173 BUSINESS LEADERSHIP ACTIVITIES
These courses are designed to encourage growth and development through activities in a student organization with professional goals.
Two credits each

BUS 185 OFFICE INDEPENDENT STUDY
BUS 186 OFFICE INDEPENDENT STUDY
BUS 187 OFFICE INDEPENDENT STUDY
BUS 188 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 four credits

## BUS 195 BOOKKEEPING PRACTICUM

Provides students with the opportunity to apply basic bookkeeping theory by working through the bookkeeping cycle through the completion of a merchandising proprietorship practice set.
Prerequisite: BUS 121 or permission of instructor
One credit: 15 clock hours

## BUS 196 COMPUTERIZED BOOKKEEPING PRACTICUM

Provides students with the opportunity to apply basic bookkeeping principles by working through the bookkeeping cycle through the completion of a merchandising proprietorship computerized practice set. Prerequisite: BUS 121 and BUS 195 or permission of instructor One credit: 15 clock hours

## BUS 200 BUSINESS LAW

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

## BUS 210 BUSINESS AND BANKING

An introductory course in finance with special emphasis on various types of financial institutions and roles they play in the economy and society.
Five credits: 50 clock hours

## BUS 211 LEGAL OFFICE PROCEDURES

To acquaint the student with the tasks performed in a legal office and to show how these tasks relate to the court system.
Prerequisite: BUS 115 and BUS 117
Five credits: 50 clock hours

## BUS 212 CAREER LEGAL SECRETARY

A comprehensive course for advanced-level students who desire to become legal secretaries. Designed to meet the needs of a legal trainee by integrating previously acquired knowledge and applying it to a legal office.
Prerequisite: BUS 211
Four credits: 50 clock hours

## BUS 215 NALS OFFICIAL COURSE FOR

 LEGAL SECRETARIES - ADVANCED IIContinuation of BUS 225.
Three credits: 33 clock hours

## BUS 221 CPS REVIEW I

A review course highlighting six areas of business: business law, economics and management, accounting, behavioral science, office administration and communication, and office technology. Designed to prepare the student for Certified Professional Secretary test.
Two credits: 20 clock hours

## BUS 222 CPS REVIEW II

A continuation of CPS Review I.
Prerequisite: BUS 221
Two credits: 20 clock hours

## BUS 225 NALS OFFICIAL COURSE FOR LEGAL SECRETARIES - ADVANCED

Designed for the legal secretary who may perform the duties of a legal assistant and assumes some knowledge of the law.
Three credits: 33 clock hours

BUS 231 WORD/INFORMATION PROCESSING II - LEGAL
Student will learn to use the word processor to prepare legal documents and legal correspondence from rough drafts and further develop problem solving and proof-reading skills. Students will gain production experience on WP equipment.
Prerequisite: BUS 111 and BUS 115
Four credits: 50 clock hours

## BUS 241 ADVANCED OFFICE PROCEDURES

A capstone course designed to simulate a typical business office. This class provides culminating, integrating experience in typing, word processing, shorthand, communications, and interpersonal skills. Students will gain production experience on WP equipment. Prerequisite: BUS 104, BUS 111, BUS 161, or consent of instructor Four credits: 50 clock hours

BUS 285 SECRETARIAL INDEPENDENT STUDY
BUS 286 SECRETARIAL INDEPENDENT STUDY BUS 287 SECRETARIAL 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

## BUS 291 LEGAL INTERNSHIP

Provides legal secretarial students with work experience in the legal field, preparing them to accept a position as a legal trainee.
Prerequisite: BUS 211
Three credits: 90 clock hours

## CHE: CHEMISTRY

## 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 which are required of science and engineering majors (CHE 111, 112, 113). The basic principles of chemistry are studied and may include classroom and laboratory studies of measurements, nuclear chemistry compounds, energy, elements, conversions, mole concept, gases, atomic structure, periodic table, chemical bonding, formulas, nomenclature, chemical equations, chemical arithmetic, acids, bases, pH and organic compounds. The laboratory exercises are designed to complement and reinforce lecture topics.
Prerequisite: one year of high school algebra or equivalent.
Five credits: three hours lecture, four hours lab per week

## CHE 105 INTRODUCTORY NUTRITION

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

## CHE 110 INTRODUCTION TO INORGANIC CHEMISTRY

The first course in a three quarter chemistry sequence designed to meet the needs of allied health students. This course will introduce the student to the fundamental laws and theories of inorganic chemistry. Applications to health related areas will be stressed where appropriate.
Prerequisite: One year high school algebra or MAT 111 or the equivalent. High school chemistry is recommended.
Five credits: four hours lecture, and three hours lab per week

## GENERAL COLLEGE CHEMISTRY I, II, III

Students majoring in chemistry, chemical technology, biology, preveterinary medicine, pre-medicine, pre-dental medicine and prechiropractic medicine should complete this series as fulfillment of a full year of general chemistry. Pre-engineering requires all or part of this series. Each course includes an integrated lecture and laboratory study.

## CHE 111 GENERAL COLLEGE CHEMISTRY I

(Formerly CHE 101) For science and engineering majors. Includes the study of measurements, atomic theory, chemical bonding, stoichiometry and gases. Also includes the problem solving skills and descriptive contents for these topics. Laboratory techniques used in the experiments will demonstrate the above concepts as well as the qualitative and quantitative analytical techniques involved in chemistry.
Prerequisite: One year of high school chemistry or CHE 100
Corequisite: Intermediate Algebra (MAT 112) or consent of the instructor
Five credits: three hours lecture, four hours lab per week

## CHE 112 GENERAL COLLEGE CHEMISTRY II

(Formerly CHE 102) A continuation of CHE 111. Includes condensed states, solutions, thermodynamics, chemical kinetics and chemical equilibrium. Also includes the problem solving skills and descriptive contents for these topics. The laboratory experiments will demonstrate both qualitative and quantitative analytical techniques.
Prerequisite: CHE 111
Corequisite: College Algebra (MAT 121)
Five credits: three hours lecture, four hours lab per week

## CHE 113 GENERAL COLLEGE CHEMISTRY III

(Formerly CHE 103) A continuation of CHE 112. Includes acid-base equilibrium, ionic equilibrium, electrochemistry, nuclear chemistry and organic chemistry. Also includes the problem solving skills and descriptive contents for these topics. Organic chemistry may be included if time permits. The laboratory experiments will demonstrate both qualitative and quantitative analytical techniques.
Prerequisite: CHE 112
Five credits: three hours lecture, four hours lab per week

## CHE 115, 116 CHEMICAL TECHNOLOGY I

Consists of two modules: Gravimetric Analysis and Volumetric Analysis.

## CHE 115 GRAVIMETRIC ANALYSIS

Intensive laboratory oriented study of the methods and procedures of chemical analysis involving the use of a semi-micro analytical balance.

## Prerequisite: CHE 101

One credit: five hours lecture, ten hours lab per week

## CHE 116 VOLUMETRIC ANALYSIS

Laboratory oriented study of the methods of chemical analysis through the use of pipets, burets and other volume measuring devices.
Prerequisite: CHE 101
One credit: five hours lecture, ten hours lab per week

## CHE 120 INTRODUCTORY ORGANIC CHEMISTRY

The second course in a three quarter sequence designed primarily for the allied health student. The course content includes structures, nomenclature, and chemical properties of alkanes, alkenes, alkynes, aromatic molecules, alcohols, organic halides, ethers, epoxides, acids, aldehydes, ketones, heterocyclic and nitrogen compounds. Selected topics in the chemistry of molecules of biological interest also will be presented.
Prerequisite: CHE 100 or CHE 110 or equivalent.
Five Credits: four hours lecture, three hours lab per week

## ORGANIC CHEMISTRY I, II, III

Students majoring in chemistry, chemical technology, biology, preveterinary medicine, pre-medicine, pre-dental medicine and prechiropractic medicine should complete this series as fulfillment of a full year of organic chemistry. Each course integrates laboratory and lecture.

## CHE 201 ORGANIC CHEMISTRY I

Studies atomic and molecular structures, nomenclature, chemical bonding reactions, reaction mechanisms of hydrocarbons, aromatics, alcohols, and organic halides; structural and geometric isomers, electrophilic and neucleophilic reactions. Stereochemistry also is included with industrial and biological applications. Laboratory will cover fundamental operations of simple and fractional distillation, melting points, recrystalization, nitration of aromatic compounds, hydrocarbon reactions, Grignard and aklyl halide reactions.
Prerequisite: CHE 102
Five credits: three hours lecture, four hours lab per week

## CHE 202 ORGANIC CHEMISTRY II

Examines the structure, nomenclature, reaction mechanisms, and applications of ethers, epoxides, carboxylic acids, aldehydes, and ketones, and organic nitrogen compounds. Identification of structure of organic compounds by classical and modern techniques will be covered. Laboratory will examine the Williamson ether synthesis, esterification and other carbonyl reactions; reactions of amines, infrared and nuclear magnetic resonance spectroscopy.
Prerequisite: CHE 201 or written permission of instructor after successful completion of a lecture and a laboratory pretest Five credits: three hours lecture, four hours lab per week

## CHE 203 ORGANIC CHEMISTRY III

The third quarter of the organic chemistry sequence which deals with the structure, nomenclature, and reaction mechanisms, and biological applications of the following: fats and other lipids, terpenes, carbohydrates, proteins, amino acids, and enzymes. The laboratory consists of the synthesis, qualitative analysis, and structural determination of the above compounds.
Prerequisite: CHE 202 or written permission of instructor after successful completion of a pretest
Five credits: three hours lecture, four hours lab per week

## CHE 210 INTRODUCTION TO HUMAN BIOCHEMISTRY

The third course of a three quarter sequence designed primarily for the allied health student. This course will introduce the student to the chemistry of living systems with emphasis on biochemical structures and the reactions involved in metabolic pathways. Applications to human disease processes will be stressed where apppropriate.
Prerequisite: CHE 120 or equivalent.
Five credits: four hours of lecture, three hours of lab per week

## CHE 215, 216 CHEMICAL TECHNOLOGY II

Consists of two modules: UV-Visible Spectroscopy and Atomic Absorption Spectroscopy.

## CHE 215 UV-VISIBLE SPECTROSCOPY

Concentrated study of instrumentation, applications, and analysis in ultra-violet and visible absorption spectra.
Prerequisite: CHE 102
One credit: five hours lecture, ten hours lab per week

## CHE 216 ATOMIC ABSORPTION SPECTROSCOPY

Concentrated study of applications, theory, operation, and adjustment of instrumentation. Preparation of solutions and interpretations of analytical data.
Prerequisite: CHE 102
One credit: five hours lecture, ten hours lab per week

## CHE 225, 226 CHEMICAL TECHNOLOGY III

Consists of two modules: pH Millivolt Titrations and Specific Ion Electrodes and Gas Chromotography.

## CHE 225 pH MILLIVOLT TITRATIONS AND SPECIFIC ION ELECTRODES

Intensive investigation of the electrode construction of pH meters and their use of acid/base and redox titrimetry. Theory and application of specific ion electrodes will be investigated.
Prerequisite: CHE 102
One credit: five hours lecture, ten lab hours per week

## CHE 226 GAS CHROMOTOGRAPHY

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

## CHE 235, 236 CHEMICAL TECHNOLOGY IV

Consists of two modules: Infrared Spectroscopy and Refractometry and Optical Activity.

## CHE 235 INFRARED SPECTROSCOPY

Concentrated study of instrumentation, sample preparation, applications and interpretation of infrared absorption spectra.
Prerequisite: CHE 202
One credit: five hours lecture, ten hours lab per week

CHE 236 REFRACTOMETRY AND OPTICAL ACTIVITY
Laboratory oriented course concentrating on refractive indices of liquids and solutions and the use of a polarimeter for quantitative chemical analysis of optically active compounds.
Prerequisite: CHE 201
One credit: five hours lecture, ten hours lab per week

## CHE 295 INDEPENDENT STUDY IN CHEMISTRY

Provides the opportunity for the highly motivated student to engage in intensive study and research on a specified topic under the direction of a faculty member. The student will be limited to the number of independent study courses taken per quarter.
Prerequisite: previous academic study or experience in chemistry One to three credits: contact division chairman

## COM 298 BROADCAST INTERNSHIP

Student works under the direction of a professional in the field of broadcasting.
Prerequisite: COM 291
Five credits: ten hours

## COM 299 COMMUNICATIONS PRACTICUM

Provides an opportunity for the serious minded student to develop his or her skills in writing and producing a broadcast program under the direction of a faculty member. May be repeated at different levels of proficiency.
Prerequisite: permission of instructor
One to three credits: two to six hours

## CNC: COMMUNITY NONCREDIT

The following classes in art, music, and theatre provide a nonacademic experience for citizens of the community. They are noncredit and are not applicable to the degree programs of the college.

## CNC 011 COMMUNITY POTTERY

Includes instruction in various hand building techniques and throwing on the potter's wheel.

## CNC 016 COMMUNITY JEWELRY \& SCULPTURE

Covers selected techniques of jewelry and stained glass design, and small sculpture.

## CNC 019 COMMUNITY HOME DECORATING

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

## CNC 051 COMMUNITY GUITAR

A nonacademic experience with guitar.

## CNC 083 COMMUNITY PHOTOGRAPHY (CAMERA AND DARKROOM TECHNIQUES)

Includes black and white photography, cameras, lenses, films, and papers. It also includes black and white photographic developing techniques, enlarging, and mounting of prints.

## CNC 085 COMMUNITY ARTS - ON LOCATION

This course includes a changing variety of subjects of a unique nature or limited scope (e.g. mountain photography, primitive pottery, landscape painting). They are frequently offered "on location."

## CNC 055 COMMUNITY PIANO

A non-academic experience with learning to play the piano.

## CRJ: CRIMINAL JUSTICE

## CRJ 110 INTRODUCTION TO CRIMINAL JUSTICE

The history and philosophy of the American criminal justice system; an overview of the crime phenomena; organization of federal, state, and local Criminal Justice agencies and their bureaucratic interaction. Five credits: 50 clock hours

## CRJ 111 THE POLICE FUNCTION

Police as agents of social control, the conflict generated by the demands of the "police subculture," the police role, function and organization and the formal requirements of law.
Three credits: 30 clock hours

## CRJ 112 THE JUDICIAL FUNCTION

This course examines the criminal court system with an analysis of the major judicial decision-makers, i.e., prosecutors, defense attorneys, judges, and the dişcretionary aspects of adjudication.
Three credits: 30 clock hours

## CRJ 113 THE CORRECTIONAL FUNCTION

An examination of the history and philosophy of correctional theory and practice.
Three credits: 30 clock hours

## CRJ 114 COMMUNITY AND THE JUSTICE SYSTEM

A critical and interdisciplinary examination of the community influences on the justice system; special emphasis on the interrelationships and role expectations of various criminal justice agencies and the communities they serve.
Five credits: 50 clock hours

## CRJ 201 CRIMINAL LAW

Development, implementation and sociology of criminal law.
Examination of how and under what conditions behavior comes to be defined as criminal.
Five credits: 50 clock hours

## CRJ 202 CONSTITUTIONAL LAW

A study of the powers of government as they are allocated and defined by the United States Constitution; intensive analysis of United States Supreme Court decisions.
Five credits: 50 clock hours

## CRJ 203 CRIMINAL PROCEDURE

(Formerly Constitutional Law II) An intensive analysis of United States Supreme Court decisions interpreting the procedural and substantive protections of individual rights.
Five credits: 50 clock hours

## CRJ 248 CRIMINOLOGY

Examination of the question of crime causation from legal, social, political, psychological, and theoretical perspectives; history and development of criminology.
Five credits: 50 clock hours

## CRJ 249 DISCRETIONARY JUSTICE

The use of discretionary authority throughout all phases of the justice system and the influence of social, psychological and political variables upon the discretionary judgements.
Three credits: 30 clock hours

## CRJ 255 CRIMINAL JUSTICE INTERNSHIP

Assignments in a justice agency designed to further the student's integration of theory and practice. Placements arranged through consultation with advisor.
Three credits: 90 clock hours

## CRJ 261 CRIMINAL JUSTICE PRACTICUM ("POLICE ACADEMY")

An intensive theoretical/practical introduction to law enforcement. Courses include: administration of justice, basic law, human relations, patrol procedures, traffic management, criminal investigation, firearms, written communications, driving techniques, arrest control techniques (KOGA). (Aims College Regional Peace Officer Basic Academy) Forty credits: 450 clock hours

## CSC: COMPUTER SCIENCE

## CSC 100 THE COMPUTER AND SOCIETY

An introduction to computers, their application and their impact on our lives. Included is an overview of the history, the components, the terminology and uses of the computer. The hands-on lab exposes the student to a sampling of software and programming.
Prerequisite: None
Three or Four credits: two or three lecture hours, two lab hours per week

## CSC 101 INTRODUCTION TO PROGRAMMING IN THE BASIC LANGUAGE

This is the first in the series of high level programming languages. The student will attain programming skills using the BASIC language.
Topics include: design techniques, looping structures, compound conditionals, string manipulation and array processing.
Prerequisite: High school Algebra I or MAT 111 or the equivalent Corequisite: CSC 111 - highly recommended
Four credits: three lecture hours, two lab hours per week

## CSC 102 ADVANCED BASIC PROGRAMMING

A continuation of CSC 101 that allows the student to learn advanced programming techniques such as: graphics, multiple control beaks, data editing, sequential and random file accessing and updating.
Prerequisite: CSC 101 or the equivalent
Three or Four credits: two or three lecture hours, two lab hours per week

## CSC 105 INTRODUCTION TO PERSONAL COMPUTING

Developing programs for home and educational use is emphasized. Microcomputer terminology and concepts of disk handling--including initializing, loading, saving, and deleting-are covered. Students will also develop specific criteria for evaluating software. The hands-on lab introduces the student to creating and modifying programs using the programming languages of BASIC and LOGO. (Credit will not be allowed for both CSC 101 and CSC 105; Computer Science students should take CSC 101.)
Prerequisite: None
Two to Four credits: one to three lecture hours, two lab hours per week.

## CSC 110 INTRODUCTION TO DIGITAL PRINCIPLES

The objective of this course is to introduce the student to the concept of digital logic and design by using integrated circuits. The information and topics to be covered are: binary codes, error detection and correction, chips (IC's) and logic gates, exposure to boolean logic, Karnaugh Maps and their use, code conversions, flip-flops, counters, registers, and binary arithmetic.
Prerequisite: None (An adequate arithmetic background is highly recommended.)
Four credits: three lecture hours, two lab hours per week

## CSC 111 STRUCTURED PROGRAM DESIGN

The objective of this course is to introduce the student to the concept of instruction sequence. Modern program design techniques such as Modular Flowcharts, Warnier/Orr diagrams and Pseudo-code will be taught as viable program design methods generic of specific programming languages.
Prerequisites: None
Three credits:

## CSC 120 INSTRUCTIONAL COMPUTING IN THE CLASSROOM

Primarily designed for educators, this course will provide an introduction to computers and computerized teaching materials for a variety of fields. Use of the computer as an educational tool will be emphasized. Students will explore educational games, simulations, tutorials, and problem-solving programs and will learn to integrate these materials into their curricula. Computer managed instructional programs and word processing applications will also be presented. Prerequisite: None
Three or Four credits

## CSC 121 PROGRAMMING IN PASCAL

Computer programming through the use of Pascal. Students will attain necessary computing techniques which can be applied to their work in science, mathematics, business, or engineering. Topics to be included: problem solving, control structures, looping techniques, data types and structures, procedures and functions, subscripted variables, string manipulation, and as time permits, records, sets, recursion and pointer variables.
Prerequisite: Completion of one high-level language
Five credits

## CSC 141 MICROCOMPUTER MANAGED APPLICATIONS: WORD PROCESSING

This course is one of three courses which are designed to introduce students to basic computer operations, printer options, and the most widely used application software: word processing, electronic spreadsheet, and data base management. Students will attain a working knowledge of computer and software fundamentals which can then be applied to their work in science, mathematics, behavioral science, humanities, business, or engineering. The three courses can be taken in any sequence or separately. In this course, word processing, mail-merge applications, printing printer options, and fundamentals of operating microcomputers will be emphasized.

## Prerequisite: None

Two credits

## CSC 142 MICROCOMPUTER MANAGED APPLICATIONS: ELECTRONIC SPREADSHEETS

This course is designed to introduce students to basic computer operations and application software. (See CSC 141.) It can be taken in sequence with CSC 141 or separately. In this course, the creation and use of electronic spreadsheets and computer-generated graphs will be emphasized. Additional topics involving advanced functions and macros will be covered as time permits.
Prerequisite: None
Two credits

CSC 143 MICROCOMPUTER MANAGED APPLICATIONS: ELECTRONIC DATA BASES
This course is designed to introduce students to basic computer operations and application software. (See CSC 141.) It can be taken in sequence with CSC 141 and CSC 142 or separately. This course will provide a basic introduction to the creation and use of electronic data base files. Concepts will include sorting, indexing, searching, and updating data bases, as well as label and report generating. Programming in a data base language will be studied as time permits. Prerequisite: None
Two credits

## CSC 201 PROGRAMMING IN FORTRAN 77

Students will attain skills using FORTRAN 77. Topics
include: program design; data types; looping structures; array, matrix and character manipulation; functions and subroutines; and printing and file formatting.
Prerequisites: One high level programming language.
Five credits

## CSC 211 INFORMATION SYSTEMS I

This first course in the sequence will focus on the internal representations of information within the computer. The student will be introduced to computer organization, data types, addressing and basic component operation. Binary arithmetic and assembler microcode will be used to illustrate internal information processing within the computer.
Prerequisite: One high level programming language
Five credits

## CSC 212 INFORMATION SYSTEMS II

This course will focus on the storage, organization and retrieval of information on auxillary devices. Topics will include: device overviews, serial and sequential files, direct files and hashing, keyed and indexed files, and database management systems.
Prerequisite: CSC 211
Five credits

## CSC 221 COMPUTER SCIENCE I

ACM recommended topics will include: binary systems, boolean algebra and logic circuits, simplification of boolean functions using mapping techniques, combinational logic, coding, number representation, and digital arithmetic.
Prerequisite: CSC 121 or CSC 201
Four credits: three lecture hours, two lab hours per week

## CSC 222 COMPUTER SCIENCE II

ACM recommended topics will include: flip-flops and sequential circuits, registers and counters, register transfer logic, processor logic design, control logic design, computer design, and assembly language on a micro-processor.
Prerequisite: CSC 221
Four credits: three lecture hours, two lab hours per week

## CSC 231 SPECIAL TOPICS IN COMPUTER SCIENCE

Topics will reflect the special expertise of the faculty and/or the special needs of the student.
Prerequisite: Consent of the instructor
One to Four credits: contact division chairman

## CSC 232 PROGRAMMING IN ADA

Lexical style, overloading (procedures and/or functions), the package concept, data types (enumeration, scaler and derived), scope and visibility concept, arrays (slices, constrained and unconstrained), parameters and binding modes, simple and variant records, discriminants, tree structures, linked lists, attributes, $1 / \mathrm{O}$ exceptions, memory allocation (static and dynamic), and the tasking concept will be included. A final project will be required.
Prerequisite: CSC 121 or CSC 201
Five credits

CSC 233 DATA STRUCTURES AND ALGORITHMS
Algorithmns and algorithm design, arrays, vectors, matrices, lists, linked lists, pointers, queues, stacks, binary trees, non-binary trees and binary search trees will be presented.
Prerequisite: CSC 121 or CSC 232
Five credits

CSC 295 INDEPENDENT STUDY IN COMPUTER PROGRAMMING

Provides an opportunity for the experienced programming student to complete appropriate projects if interested. The student will be limited as to the number of independent study credits to be taken.
Prerequisite: Previous computer programming courses or programming experience
One to Three credits: contact division chairman

## GOV: DEVELOPMENTAL GOVERNMENT

## GOV 014 DEVELOPMENTAL GOVERNMENT IV

The purpose of the course is to aid students to increase their knowledge of community, state, and federal government. Emphasis is given to the relationship between individual citizens and the selection and maintenance of government.
Prerequisite: placement

## EAS: EARTH SCIENCE

EAS 100 FIELD STUDY OF ROCKS AND MINERALS
A study of the field characteristics of rocks and common rock forming minerals.
Two credits: one hour lecture per week, plus two field trips

## EAS 105 EARTH SCIENCE

Provides an understanding of the planet earth and its place in the universe. Includes general geology of the earth, weather and climate on the earth, and descriptive astronomy of the solar system.
Five credits: four hours lecture, two hours lab per week

## EAS 106 INTRODUCTION TO METEOROLOGY

Basic course in meteorology. Studies the atmosphere, its composition, thermal structure, pressure, humidity, wind, precipitation, clouds, and storm fronts. Practical aspects such as weather for flying, measurements of atmospheric conditions for weather prediction, and weather map analysis will be emphasized.
Four credits: three hours lecture, two hours lab per week

## EAS 295 INDEPENDENT STUDY IN EARTH SCIENCE

Provides an opportunity for the highly-motivated student to engage in intensive study and research on a specified topic under the direction of a faculty member. The student will be limited as to the number of independent study credits taken per quarter.
Prerequisite: previous academic study or experience in earth science
One to three credits: contact division chairman

## ECO: ECONOMICS

## ECO 100 INTRODUCTION TO ECONOMICS

Survey course offering an introduction to basic economics. Current economic issues receive considerable attention.
Five credits

## ECO 105 ORGANIZATIONS AND INSTITUTIONS

(This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree. Trades and Industry Division course.)
The student will participate in activities which will enhance his or her ability to be a part of or deal with organizations such as companies, governmental agencies, banks, loan companies, service organization/unions. The history of these organizations and the relationship between them will be discussed.
Three credits: 30 clock hours

## ECO 201 PRINCIPLES OF MACROECONOMICS

Studies the American economy, stressing the interrelationships among the household, business, and government sectors. Explores saving and investment decisions, unemployment, inflation, national income accounting, taxing and spending policies, the limits of the market and government, public choice theory, the Federal Reserve System, money and banking, and international trade.
Five credits

## ECO 202 PRINCIPLES OF MICROECONOMICS

Studies the firm in-depth, the nature of cost, and how those relate to the economy as a whole. Analyzes economic models of the consumer, perfect competition, monopoly, oligopoly, and monopolistic competition. Explores economic issues including market power, population growth, positive and negative externalities, income distribution, poverty and welfare, discrimination, and international economic interdependence.
Five credits

## ECE: EARLY CHILDHOOD EDUCATION

## ECE 100 INTRODUCTION TO EARLY CHILDHOOD EDUCATION

An orientation to the field of early childhood education. Students will investigate different types of programs available for young children in relation to their own career goals and individual potentials for teaching. Advocacy skills for Early Childhood Education will be practiced.
Two credits: 20 clock hours

## ECE 131 PRACTICE TEACHING I: OBSERVATION

An observation experience in the laboratory preschool. Techniques of child study are applied to a real life setting through written assignments of observations of children. Effective teaching strategies are discussed weekly in class. Observation time to be arranged.
Five credits: 50 clock hours

## ECE 132 PRACTICE TEACHING II: ASSISTANT GROUP LEADER

A practical experience in a laboratory preschool designed to develop skills of an assistant group leader: planning activities for small groups of children; identifying and assessing appropriate techniques for guiding the activities and behaviors of young children. To be taken concurrently with ECE 141.
Prerequisite: ECE 131 or permission of instructor
Seven credits: 100 clock hours

## ECE 133 PRACTICE TEACHING III: GROUP LEADER

A continuation of Practice Teaching II. The student will plan, implement and evaluate activities for all areas of the preschool classroom. Strategies for classroom management will be discussed. To be taken concurrently with ECE 142.
Prerequisite: ECE 132 or permission of instructor
Seven credits: 100 clock hours

## ECE 141 DESIGNING CREATIVE ACTIVITIES

Introduction of theory and practical application of activities for young children in motor, sensory, outdoor and music/movement experiences. Additional topics include: planning the play environment, writing and implementing behavioral objectives and developing specified curriculum content.
Three credits: 30 clock hours

## ECE 142 DESIGNING LEARNING ACTIVITIES

Practical application and theory of activities for young children in art, dramatic play, natural/physical science and block play experiences. Additional topics include: planning for group times, developing specified curriculum content and developing a unit plan of activites for a young child's classroom.
Prerequisites: ECE 141 or permission of instructor
Three credits: 30 clock hours

## ECE 145 CREATIVE MATERIALS WORKSHOP

Hands-on experience with a variety of materials suitable for use with young children. Special emphasis on self-directing open-ended materials students can create.
Two credits: 20 clock hours

## ECE 146 MUSIC AND MOVEMENT WORKSHOP

Students will develop and implement innovative plans using music and movement activities with young children. Emphasis is on creating selfconfidence with creative movement activities in the preschool classroom.
Two credits: 20 clock hours

## ECE 147 OUTDOOR ACTIVITIES WORKSHOP

After visiting and evaluating various playgrounds, the student will plan and design learning activities appropriate for young children's developing abilities.
Two credits: 20 clock hours

## ECE 148 MATH AND SCIENCE WORKSHOP

Students will develop concepts and determine effective ways to plan and implement activities which will foster the young child's cognitive processes through discovery processes, creative materials, divergent questions and practical activites.
Two credits: 20 clock hours

## ECE 155 TODDLER CARE WORKSHOP

Students will discuss toddler development and issues, evaluate play experiences, develop activities, and observe environments for children ages 12 months to 3 years.
Two credits: 20 clock hours

## ECE 156 SAFETY SKILLS WORKSHOP

How to teach young children basic survival skills for physical and psychological security in a non-threatening manner. Students will develop age-appropriate materials for classroom use and parent education.
Two credits: 20 clock hours

## ECE 157 MOTOR SKILLS WORKSHOP

Students will examine the progression of large and small motor skill development as experienced by the young child. Teaching techniques and motor skills activities will be designed and implemented.
${ }^{T}$ wo credits: 20 clock hours

## ECE 161 CHILD GROWTH AND DEVELOPMENT

Designed for adults who work with children, this course examines the theories and sequence of growth and development of children from birth through the early elementary school years. Emphasis is on the concept of the whole child and how adults can provide a supportive environment for positive interactions with children in the early childhood classroom. Five credits: 50 clock hours

## ECE 162 GUIDANCE TECHNIQUES FOR EARLY CHILDHOOD EDUCATORS

The student will study the components of the guidance system: the child, the adults and the physical environment. Theories will be explored to determine how to guide the child toward self-control and individual competence.
Two credits: 20 clock hours

## ECE 202 ADMINISTRATION: LICENSING AND LEGISLATION

To acquaint the student with the variables involved in organizing and managing a preschool program. Provides the technical information needed to open and operate a licensed child care facility. Strategies for advocating for early childhood education are practiced.
Three credits: 30 clock hours

## ECE 203 ADMINISTRATION: WORKING WITH PARENTS

Students will examine family system relationships and how they affect the young child in a group care setting. Provides students with homeschool communication skills, problem solving strategies, and referral information.
Three credits: 30 clock hours

## ECE 206 LITERATURE AND LANGUAGE WORKSHOP

Students examine, design and implement curriculum which will foster receptive and expressive communication skills in young children. Children's literature, bibliotherapy, reading readiness and story reading and story telling techniques will be studied.
Two credits: 20 clock hours

## ECE 207 EARLY CHILDHOOD EDUCATION TRENDS AND ISSUES

Students will examine critical issues and current trends pertinent to Early Childhood Education professionals through professional journals, current publications, and guest speakers.
Two credits: 20 clock hours

## ECE 231 PRACTICE TEACHING IV: TEAM TEACHER

Students will develop team teaching skills in the laboratory preschool or in a supervised early childhood classroom. The student's responsibilities will include unit planning and organizing the classroom for effective learning. Emphasis will be on the teacher as a team member. To be taken concurrently with ECE 202, 203 or 245.
Prerequisite: ECE 133 or permission of instructor
Seven credits: 100 clock hours

## ECE 232 PRACTICE TEACHING V: LEAD TEACHER

A continuation of Practice Teaching IV. The emphasis of this course is the development of positive and constructive techniques for self appraisal and the appraisal of others as early childhood teachers. To be taken concurrently with ECE 202, 203 or 245.
Prerequisite: ECE 231 or permission of instructor
Seven credits: 100 clock hours

## ECE 233 PRACTICE TEACHING VI: APPRENTICE DIRECTOR

The student will examine the effects of family, class and ethnic value systems on the young child's personality growth in this teaching experience. The student will study the administrative policies and procedures of the program where assigned. Students will plan and implement parent conferences. To be taken concurrently with ECE 245.
Prerequisite: ECE 232 or permission of instructor
Seven credits: 100 clock hours

## ECE 241 UNIT PLANNING WORKSHOP

Students will plan activity schedules appropriate for implementation in an early childhood group setting. Educational play materials, individualized learning by young children and effective communication of activity plans to staff and parents will be discussed.
Two credits: 20 clock hours

## ECE 245 NONDISCIPLINE DISCIPLINE

Students will examine behavior management styles and alternatives as they apply to young children in group settings with emphasis on individual needs.
Two credits: 20 clock hours

## EDU: EDUCATION

## EDU 107 INTRODUCTION TO BILINGUAL EDUCATION

Students will develop an awareness of bilingual education; its history and current programs. Students will be required to review, select, and use materials applicable to the bilingual classroom. Also included will be development in the adoption of materials for use in a bilingual classroom.
Three credits: 30 clock hours
EDU 109 METHODS OF TEACHING THE BILINGUAL
Bilingual teaching techniques used in reading, writing, spelling. language arts, arithmetic, social studies, and science will be emphasized as they relate to the role of the bilingual teacher aide.
Five credits: 50 clock hours

## EDU 207 CLASSROOM APPLICATION OF HOW TO

 TALK SO KIDS WILL LISTENDesigned to incorporate the theory and practice of good communication concepts in the classroom setting. One credit

EDU 208 TURNING POINTS: TEEN SEXUALITY \& RELATIONSHIPS
To assist parents and teachers in communicating effectively with teenagers on sexual issues confronting teens today.
One credit
EDU 215 MOTIVATING YOUR STUDENTS
To develop and explore various motivational techniques in the classroom.
One credit

## EDU 216 SUICIDE TEACHER AWARENESS AND INTERVENTION

To develop an understanding of the incidence and impact of suicide, and how to implement an intervention program. (Second in a series of 3 classes on Suicide.)
One credit

## EDU 217 PROFESSIONAL SKILLS FOR TEACHING

To investigate four areas of teaching: communication, creativity, teacher stress, and children anxieties; and examine techniques for developing professional skills in these areas.
Three credits

EDU 218 CHILD ABUSE, NEGLECT AND PROTECTION
Become knowledgeable in signs, symptoms and patterns of child abuse and neglect; prevention strategies; and child advocacy in the system and community.
One credit

## EDU 225 CRISIS TEAM DEVELOPMENT FOR TEACHERS

Participants are encouraged to involve peers and administrators in their schools to develop a functioning crisis team within their own school. (Third in a series of 3 classes on Suicide.)

## One credit

## EDU 226 SKILLS TO ENHANCE ADULT/TEEN RELATIONSHIPS

To develop better relationships with teens and ways to "teach" responsibility, develop self-discipline, enhance communication and encourage excellence in adolescent effort.
One to three credits

## EDU 227 DESIGNING SUPPORTIVE SCHOOL ENVIRONMENTS

Designed to promote the creation of an environmental classroom milieu in which all children will thrive.
Three credits

## EDU 229 CREATIVE CONFLICT MANAGEMENT

Designed to look at conflict as a dynamic that occurs within any family setting, and explore ways to deal meaningfully with it. One credit

EDU 235 TURNING POINTS: TEEN ALCOHOL AND DRUG ABUSE
To increase awareness of teenage drinking patterns and explore the role of families and community resources.
One credit

## EDU 236 TRANSITIONS: MAKING SENSE OF LIFE'S CHANGES

Designed to help participants view transition as a positive aspect of life and to increase awareness of personal resources as one copes with changes and transitions of life.
One credit

## EDU 238 CHILDREN OF DIVORCE

Explore the dynamics felt by children experiencing divorce, and look at ways for the adult world to deal with such dynamics.
One credit

## EDU 239 TEACHER EXPECTATIONS AND STUDENT ACHIEVEMENT (T.E.S.A.)

Designed to identify 15 key aspects of classroom behavior which may affect student achievement.
One credit

## EDU 245 POSITIVE RELATIONSHIPS BETWEEN MEN AND WOMEN IN THE WORKPLACE

Designed for women and men to reflect on their histories and look sensitively at their responses to one another, especially in the work setting.
One credit

## EDU 246 HOW TO TALK SO KIDS WILL LISTEN

For parents of children age 3 years and older. Reviews developmental expectations of the preschool and school age child with a focus on communication skills, discipline techniques, and fostering self-confidence and responsibility.
One credit

## EDU 247 FILLING THE KID'S TOOL BOX FOR LIFE

Designed to give adults skills and knowledge that will promote responsibility, self-discipline, positive self-image and quality communication with our youth.
One-half to one credit

## EDU 248 SELF-ESTEEM FOR CHILDREN

An overview of the origin and development of self worth in individuals within the family. Different parenting styles will be explored to determine the impact of each style on the child's self-esteem. Techniques and skills for fostering positive self-esteem will be presented. One credit

## EDU 249 BASIC SKILLS FOR LIFE: THE ELEMENTARY YEARS

Designed to help professionals take a look at the essential elements of those "basic skills" for life.
One to three credits

## EDU 255 ESSENTIAL ELEMENTS - <br> THE SECOND TIME AROUND

This class is designed for review of the essential elements of instruction for teachers. It includes classroom observations and presentations on the eight vital components of quality instruction.

## Two credit

## EDU 256 PEER ANALYSIS FOR EDUCATORS

Designed to provide participants with an effective tool used to ensure that current research is implemented at a level where student learning is impartial.
Two credits

## EDU 257 TURNING POINTS: TEENS AND STRESS

To assist parents and teachers in understanding teen stress and how to relate effectively to a teen under stress.
One credit

## ELT: ELECTRONICS TECHNOLOGY

## ELT 105 TECHNICAL REPORTING

This course will provide technicians with introductory information concerning electronic technology, planning for study skills and study habits, technical paper development, and technical reporting.
Prerequisite: None. SHOULD BE TAKEN FIRST QUARTER ENROLLED IN PROGRAM
One credit: 10 clock hours

## ELT 106 APPLIED PHYSICS: Mechanical

Provides the technical student with an understanding of the basic principles of mechanics and properties of matter through problem solving and the practical applications of the basic physics laws in an industrial environment.
Five credits: 60 clock hours

## ELT 107 APPLIED PHYSICS: Heat-Light-Sound

Provides the technical student with an understanding of the physical properties of heat, light (optics) and sound through problem solving, and practical applications of the applicable physical laws and their relation to the industrial environment.
Five credits: 60 clock hours

## ELT 141 INTRODUCTION TO ELECTRONICS

The study of direct current applications in passive linear circuits with emphasis on the physics of electricity and network theorems.
Mathematical analysis and laboratory experiments are used to discover fundamental concepts. (ELT 150 and ELT 151 are equivalent to ELT 141)

Prerequisite: ELT 105 (or may be taken concurrently) and qualifying pre-assessment scores
Ten credits: 120 clock hours

## ELT 142 AC/DC CIRCUIT ANALYSIS

A study of passive circuits emphasizing analysis of AC and time varying conditions. Students develop practical measurement and analysis skills and become more aware of systems applications. The study of reactive component analysis. (ELT 152 and ELT 153 are equivalent to ELT 142.)
Prerequisite: ELT 141 or ELT 151, or permission of instructor Ten credits: 120 clock hours

## ELT 143 CIRCUITS AND APPLICATIONS

Introduction to active circuits. Development of analytical and graphic tools for practical applications to commonly encountered solid state circuits. Attention to measurements and troubleshooting including a variety of integrated circuits and solid state devices. (ELT 154 and ELT 155 are equivalent to ELT 143.)
Prerequisite: ELT 142 or ELT 153, or permission of instructor
Ten credits: 120 clock hours

## ELT 144 DIGITAL FUNDAMENTALS I

Study of digital fundamentals beginning with the block diagram of a general purpose digital computer. Includes number systems, IC gates, Boolean algebra, flip-flops and applications including arithmetic circuits. Some software attention. Reference is made to systems (a microprocessor) at appropriate points.
Prerequisite: ELT 143 or ELT 155 or permission of instructor
Five credits: 60 clock hours

## ELT 150 DC FUNDAMENTALS (Evening)

The study of direct current applications in passive linear circuits with emphasis on the physics of electricity and network theorems.
Mathematical analysis and laboratory experiments are used to discover fundamental concepts. (ELT 150 and ELT 151 are equivalent to ELT 141)

Prerequisite: ELT 105 (or may be taken concurrently) and qualifying pre-assessment scores
Five credits: 60 clock hours

## ELT 151 DC FUNDAMENTALS II (Evening)

Continuation of ELT 150. The application of basic fundamentals and the study of their functional characteristics. (ELT 150 and ELT 151 are equivalent to ELT 141.)
Prerequisite: ELT 150 or permission of instructor
Five credits: 60 clock hours

## ELT 152 AC FUNDAMENTALS I (Evening)

A study of passive circuits emphasizing analysis of AC and time varying conditions. Students develop practical measurement and analysis skills and become more aware of systems applications.
Prerequisite: ELT 151 or ELT 141, or permission of instructor Five credits: 60 clock hours

## ELT 153 AC FUNDAMENTALS II (Evening)

Continuation of ELT 152. The study of reactive component analysis. (ELT 152 and ELT 153 are equivalent to ELT 142.)
Prerequisite: ELT 152 or permission of instructor Five credits: 60 clock hours

## ELT 154 SOLID STATE CIRCUITS (Evening)

Introduction to active circuits. Development of analytical and graphic tools for practical applications to commonly encountered solid state circuits. Attention to measurements and troubleshooting.
Prerequisite: ELT 153 or ELT 142, or permission of instructor Five credits: 60 clock hours

## ELT 155 SOLID STATE CIRCUITS II (Evening)

Continuation of ELT 154. Extends development of analytical tools to increasingly complex solid state circuits including a variety of integrated circuits and solid state devices. (ELT 154 and ELT 155 are equivalent to ELT 143.)
Prerequisite: ELT 154 or permission of instructor
Five credits: 60 clock hours

## ELT 201 DIGITAL FUNDAMENTALS II

Continuation of hardware and software elements of digital machines. Counters, registers, ROM, RAM and reference to systems (microprocessor) continues.
Prerequisite: ELT 144 or permission of instructor
Five credits: 60 clock hours

## ELT 202 MICROPROCESSORS I

Microprocessors are employed to obtain systems experience and application of fundamentals. Involves hardware and software studies and tradeoffs between hardware/software. Organization of a microprocessor; clock, CPU, I/O, bus concepts, EPROM, RAM, programming and peripherals.
Prerequisite: ELT 201 or permission of instructor
Five credits: 60 clock hours

## ELT 203 MICROPROCESSORS II

Special studies in computer systems. Studies can include new microprocessor types, interfacing, hardware/software development. Projects can be instructor assigned or student proposed (and approved).
May be taken concurrently with ELT 283.
Prerequisite: ELT 202 or permission of instructor
Five credits: 60 clock hours

## ELT 255 LINEAR ICs AND SENSORS

Studies linear integrated circuits (especially operational amplifiers). Stresses analysis of commonly encountered applications. Some attention given to sensors and actuators.
Prerequisite: ELT 143 or permission of instructor
Five credits: 60 clock hours

## ELT 266 ELECTRONIC DESIGN AND FABRICATION

Provides a working knowledge of electronics layout, design, and fabrication technique along with print reading and documentation encountered in the industry.
Prerequisite: ELT 255, ELT 271, and ELT 201
Five credits: 60 clock hours

## ELT 268 PRACTICAL SOLID STATE TROUBLESHOOTING

A logical approach to troubleshooting modern, solid-state equipment. Lab and industrial systems are stressed. Also covers some electronics used in homes.
Prerequisites: ELT 202, ELT 255, and ELT 272 or permission of instructor
Five credits: 60 clock hours

## ELT 271 ELECTRONIC COMMUNICATIONS I

Detailed analysis of fundamental circuits of communication systems. Emphasizes mathematical understanding of circuit action and theoretical concepts. Laboratory experiments complement lecture/demonstration.
Prerequisite: ELT 143 or 155 or permission of instructor
Five credits: 60 clock hours

## ELT 272 ELECTRONIC COMMUNICATIONS II

Systems approach will be major emphasis as individual circuits studied previously will be combined in complete systems. Modulation modes, transmission lines, and antennas are studied along with methods that enhance information transmission from point to point. Laboratory experiments are included.
Prerequisite: ELT 271 or permission of instructor
Five credits: 60 clock hours

## ELT 273 ELECTRONIC COMMUNICATIONS III

Advanced topics in Electronic Communications are studied. This includes data transmission techniques, video monitors and TV systems, and microwave systems.
Prerequisite: ELT 272 or permission of instructor
Five credits: 60 clock hours

## ELT 275 INTEGRATED CIRCUIT FABRICATION TECHNIQUES

Provides students with a general view of manufacturing processes. Topics include physics of semiconductors, materials used, processes including photolithography, diffusion/vacuum systems, device recognition, and data acquisition. Field trips are included.
Prerequisites: ELT 255, CSC 101, and ELT 201 or permission of instructor
Five credits: 60 clock hours

## ELT 276 FUNDAMENTALS OF ROBOTICS

Provides the student with general terminology, mechanical and electronic operating procedures, micro-computer control, and industrial applications of robots.
Prerequisites: ELT 255, ELT 202, ELT 106, ELT 107, or permission of instructor
Five credits: 60 clock hours

## ELT 277 VIDEO SYSTEMS

Video and sweep sections of video monitors and televisions will be studied. Included will be cathode ray tubes, high and low voltage power supplies, color circuits and the NTSC color system.
Prerequisites: ELT 143 and ELT 144 or permission of instructor Five credits: 60 clock hours

## ELT 278 CET EXAM PREPARATION

Introduction and preparation for the Certified Electronics Technician exam with emphasis on the Associate level exam.
Prerequisite: permission of instructor
Five credits: 60 clock hours

## TEM: EMERGENCY MEDICAL SERVICE

## TEM 100 INTRODUCTION TO EMERGENCY CARE

Provides the student with certification in CPR by the AHA along with instruction on common medical and trauma emergencies. The student will learn how to access the EMS system, recognize medical and trauma emergencies, and give basic treatment, until advanced medical help arrives.
Two credits: 20 clock hours

## TEM 105 EMERGENCY MEDICAL TECHNICIAN

Instruction in recognition and treatment for patients of medical and trauma emergencies. Included is anatomy/physiology, terminology, control of accident scene, safe and efficient transport, reporting and record keeping, medical equipment and its use, legal aspects of emergency care, and cardiopulmonary resuscitation (CPR). Strong emphasis on practical application of skills.
Prerequisite: First Responder advised as prerequisite, but not required Twelve credits: 160 clock hours

## TEM 106 FIRST RESPONDER

Designed to teach skills to those who will be first on the scene of an accident or medical illness. Recognition and treatment of medical and trauma patients along with use of pertinent equipment for stabilization until advanced help arrives. Certification in CPR. Strongly recommended before taking an EMT course.
Four credits: 40 clock hours

## TEM 108 EMT REFRESHER

Updating and renewing skills for recertifying as an EMT-B. Condensed EMT-Basic class with strong emphasis on cognitive application and skills performance.
Four credits: 40 clock hours

## TEM 109 EMT REFRESHER SEMINAR

This class is geared for EMT-B's interested in continuing medical education applied toward recertification of the EMT-B certificate. Hours can be accumulated to recertify without taking entire EMT Refresher course.
One credit: 10 clock hours

## TEM 115 EMERGENCY MEDICAL DISPATCH

Specifically designed for dispatchers and includes information on medical dispatch to rescuers, medical information dissemination to the public, and communication skills.
Three credits: 30 clock hours

## TEM 116 EMT IV-MAST

Cognitive and practical information on indications for, use of, and precautions of IV-MAST use. Anatomy and physiology background suggested. This class is only for current state certified medical personnel. Continued medical education and skills use required.
Prerequisites: Physician advisor's signature, current state certification EMT-B level or above
Two credits: 24 clock hours

## TEM 127 CARDIOPULMONARY RESUSITATION (CPR)

Designed to qualify the student for basic rescuer certification by the AHA. Covers basic CPR and emergency cardiac care in both theory and practice. Includes one and two rescuer CPR, infant and child CPR, and choking.
One credit: 10 clock hours

## TEM 128 CPR INSTRUCTOR

Designed to qualify the student for Basic Life Support instructor certificate issued by the AHA. Covers basic life support techniques and teaching methods necessary to instruct CPR. Also includes manikin maintenance and cleaning.
Prerequistes: Current AHA CPR "Course C" certificate
One credit: 14 clock hours

## TEM 129 CPR INSTRUCTOR TRAINER

Qualifies the student to train and certify CPR instructors for the American Heart Association. Strong emphasis on teaching methods and teaching aids.
Prerequisites: Current AHA CPR instructor card
One credit: 8 clock hours

## TEM 131 EKG-BASIC

A very basic class designed for the student who has a desire to learn how to read and interpret EKG's.
Prerequisite: Current EMT-B certification
Four credits: 40 clock hours

## TEM 132 EKG - DEFIB

Designed for the student who needs to learn cardiac defibrillation.
Strong emphasis on indications for, use of, and precautions of defibrillation.
Prerequisites: Current EMT-B certification, TEM 131, Physician advisor signature
One credit: 10 clock hours
TEM 135 ADVANCED CARDIAC LIFE SUPPORT (ACLS)
Theory and skills for those needing to provide advanced cardiac care.
Topics include: acid base balance, drug therapy, airway management, rhythm recognition, defibrillation and general cardiac care.
Prerequisites: EMT-P level certification or above, current CPR card. Others may attend class but will be unable to gain state ACLS certification.
Two credits: 18 clock hours

## TEM 136 PREHOSPITAL TRAUMA LIFE SUPPORT

A class designed to teach rescuers the most updated information in trauma assessment along wth skills to enhance patient care. Rapid assessment and treatment emphasized.
Two credits: 16 clock hours

TEM 137 EMERGENCY RESPONSE TO SPORTS INJURIES
Designed primarily for coaches but open to all. Includes recognition, assessment and treatment of most emergent sports injuries, common medical emergencies, accessing EMS, and rehabilitation.
One credit: 10 clock hours

## TEM 138 HEART SAVER CPR

American Heart Association certification in one-rescuer CPR and choking. For those who want a quick CPR class with strong emphasis on skills performance.
One-half credit: 6 clock hours

## TEM 145 CPR REFRESHER

Designed to recertify students in basic CPR by the AHA.
Prerequisites: Current CPR card
One-half credit: 5 clock hours

## TEM 196 FIRE FIGHTER FIRST AID

Geared specifically for fire departments or special groups, this class includes continuing medical education which can be used for state recertification at various levels, from CPR to EMT. This class emphasizes both theory and skills.
One credit: 10 clock hours

## TEM 197 FIRE FIGHTER FIRST AID

Class includes the same type of information as TEM 196. Two credits: 20 clock hours

## TEM 198 FIRE FIGHTER FIRST AID

Class includes the same type of information as TEM 196.
Three credits: 30 clock hours

TEM 199 FIRE FIGHTER FIRST AID
Class includes same type of information as TEM 196.
Four credits: 40 clock hours

## ENG: ENGLISH COMMUNICATIONS

*Indicates instruction is administered by Developmental Studies Division.

## *ENG 012 DEVELOPMENTAL LANGUAGE II

This course provides students a basic orientation to capitalization, punctuation, and basic sentence types. The primary purpose of this course is to prepare students for more advanced grammar assignments introduced in ENG 014.
Prerequisite: placement
Three credits

## *ENG 013 DEVELOPMENTAL WRITING III

This course is designed to provide students with a basic orientation to writing for practical and creative purposes. The primary purpose of this course is to prepare students for ENG 015.
Prerequisite: placement
Two credits

## *ENG 014 DEVELOPMENTAL LANGUAGE IV

Students will learn to apply grammar, capitalization and punctuation rules. This course will prepare students to enter ENG 016.
Prerequisite: placement
Three credits
*ENG 015 DEVELOPMENTAL WRITING V
This course is designed to provide the students with the opportunity to write for practical and creative purposes.
Prerequisite: placement
Two credits
*ENG 016 DEVELOPMENTAL LANGUAGE VI
Students will continue to learn to apply basic grammar, usage and punctuation rules. This course will prepare students to enter ENG 093.
Prerequisite: placement
Three credits

## *ENG 017 DEVELOPMENTAL WRITING VII

This course is designed to continue to provide the student with the opportunity to write for practical and creative purposes.
Prerequisite: placement
Two credits

## ENG: ENGLISH (COMPOSITION)

*Indicates instruction is administered by Developmental Studies Division.

## *ENG 092 WRITING ESSENTIALS

Prepares the student to pass the writing sample on the GED test. The course emphasizes sentence structure, outlining and basic paragraph writing.
Prerequisite: placement
Two credits

## *ENG 093 LANGUAGE ESSENTIALS

Prepares the student to pass the writing skills portion of the GED test. Involves a study of grammar and punctuation.
Prerequisite: placement
Three credits

## *ENG 095 BASIC COMMUNICATION SKILLS

This is a transition course for students who have a high school diploma or its equivalent but who have a limited background in basic language skills. The course is a survey of basic grammar, punctuation, the writing of different types of sentences and beginning paragraph development.
Prerequisite: placement
Five credits

## ENG 105 FUNDAMENTALS OF COMPOSITION

(Formerly CON 101) This course helps prepare students for ENG 121 by emphasizing sentence building and paragraph development.
Individual needs will be met within the classroom and in the writing lab. Proficiency in paragraph writing and competency in language skills are required for a passing grade.
Prerequisite: placement test
Five credits

## ENG 121 ENGLISH COMPOSITION I

(Formerly CON 102) This course emphasizes the planning, writing, and revising of compositions and develops critical and logical thinking skills. This course will include a minimum of five (5) compositions, which may include expressive, informative, analytical, evaluative, and persuasive/argumentative writing.
Prerequisite: ENG 105 or placement test
Five credits

## ENG 122 ENGLISH COMPOSITION II

(Formerly CON 103) This course expands and refines the objectives of English Composition 1. Emphasizes critical and logical thinking, problem definition, research strategies, and writing analytical, evaluative, and/or persuasive papers that incorporate research.
Prerequisite: ENG 121 or placement test
Five credits

## ENG 225 ADVANCED COMPOSITION

(Formerly CON 202) This course offers students the opportunity to study the styles of professional writers in order to refine their writing skills. Students will practice techniques in persuasive writing, analytical/critical writing, and newspaper/magazine article writing. Prerequisite: ENG 121
Five credits

## ENG 226 CREATIVE WRITING

(Formerly CON 109) This course offers instruction in the techniques of short story and poetry writing reinforced by an informal study of professional writing in these areas. Students will receive practice in the type of writing best suited to their individual interest and talent. Students will receive positive criticism for improvement and practical information on publication.
Five credits

## ENG 227 CREATIVE WRITING PROJECTS I

(Formerly CON 211) This course provides the student with instruction on how to write creatively by working on individual writing projects in the development of some poetry, short stories, or a novel.
Prerequisite: ENG 226 or permission of instructor.

## Three credits

## ENG 228 CREATIVE WRITING PROJECTS II

A continuation of ENG 227.
Prerequisite: ENG 227 or permission of instructor Three credits

## ENG 295 INDEPENDENT STUDY IN COMMUNICATION

(Formerly CON 295) Independent study provides an opportunity for the serious minded student to engage in intensive study and research on a specified topic under the direction of a faculty member.
Prerequisite: ENG 121, permission of an instructor required One to three credits

## ENGINEERING TECHNOLOGY

## AET: ARCHITECTURAL ENGINEERING TECHNOLOGY

## AET 100 ARCHITECTURAL TECHNOLOGY

This course introduces the student to the world of architecture: the practice, drawing format, work environment, and history of land description as well as history and philosophy of architecture from Stonehenge to modern times.
Prerequiste: None
Two credits: 30 clock hours

## AET 103 DRAFTING III: ARCHITECTURAL

An introduction to the field of architectural drafting through development of basic skills and knowledge in planning, layout, and drawing of residential architecture. Guides students through a series of exercises starting with the basic idea and culminating with a full set of working construction drawings.
Prerequisite: AET 105, BET 102 and concurrent with BET 105 or instructor permission
Six credits: 80 clock hours

## AET 105 CONTRACT DRAWING INTERPRETATION

Provides students with an opportunity to continue the study and interpretation of construction documents. Drawings, forms, schedules, reference sources and code requirements encountered in the day-to-day operation of an architectural design office are reviewed.
Prerequisite: AET 100 and BET 101 or permission of instructor Four credits: 50 clock hours

## AET 151 INTRODUCTION TO BUILDING CODES AND STANDARDS

Upon completion of this course the student will have a fundamental understanding of the basic codes and standards as set forth by the International Conference of Building Officials (Uniform Building Code). Basic areas of study include: engineering regulations, public property and street regulations, requirements based on occupancy and construction types as well as fire resistive standards for fire protection.

The student will also be introduced to related codes and standards, i.e., Uniform Housing Code, Uniform Sign Code, Uniform Solar Code, and Uniform Plumbing Code.
Prerequisite: None
Three credits: 30 clock hours

## AET 201 DRAFTING IV: ARCHITECTURAL

The student will study multi-family, multi-level frame and timber construction techniques and review modular and component applications.
Prerequisite: AET 103 and AET 105 or permission of instructor
Four credits: 60 clock hours

## AET 202 DRAFTING V: ARCHITECTURAL

Provides students with an opportunity to study concrete and masonry as building materials. Applications and techniques related to structure as well as decor will be explored.
Prerequisite: AET 103 and CET 201 or permission of instructor Four credits: 60 clock hours

## AET 203 DRAFTING VI: ARCHITECTURAL

Provides students the opportunity to study steel building applications and techniques. Structural and decorative applications in relation to building construction will be explored.
Prerequisite: AET 103 and CET 201 or permission of instructor Four credits: 60 clock hours

## AET 208 APPLIED ENGINEERING PROBLEMS AND APPLICATIONS/ARCHITECTURAL

Provides practical and realistic application of engineering technology skills. The student will encounter various situations similar to those found in industry and will be required to apply engineering tech skills individually and as a project team member.
Prerequisite: ALL required classes listed in this catalog for quarters one through five
Four credits: 60 clock hours.

## BET: BASIC ENGINEERING TECHNOLOGY (CORE COURSES)

## BET 100 INTRODUCTION TO ENGINEERING TECHNOLOGY

Provides introductory information concerning engineering technologies (architectural, civil, computer aided manufacturing, and mechanical) and how to plan and succeed in a technical environment. Prerequisite: None, however, SHOULD BE TAKEN FIRST QUARTER ENROLLED IN ENGINEERING TECHNOLOGY PROGRAM

One credit: 10 clock hours

## BET 101 TECHNICAL DRAWING CONCEPTS

A freehand sketch approach to technical drawing intended to familiarize the student with the basic concepts and techniques of the engineering language. Covered will be basic knowledge of engineering lettering, scales, geometric construction, orthographic projection, sections, auxiliary views, rotation and revolution, threaded fasteners, pictorials, dimensioning procedures, and assembly drawings.
Prerequisite: BET 100 and BET 105 or concurrent with BET 100/105 Six credits: 80 clock hours

## BET 102 DRAFTING FUNDAMENTALS

Initial development of manual drafting skills in the areas of drafting tool usage, freehand lettering, understanding and applying ANSI standards and concepts to detail drawings. Appplication of dimensioning and tolerancing, threads and fasteners, section views and auxiliary views will be made to detail drawings.
Prerequisite: BET 101 and BET 105
Four credits: 60 clock hours

## BET 103 ENGINEERING GRAPHICS

Introduction to engineering graphics and applications. Areas studied include descriptive geometry, auxiliary views, intersections and developments, and an introduction to vector graphics.
Prerequisite: BET 103 or permission of instructor
Four credits: 60 clock hours

## BET 105 APPLIED TECHNICAL MATHEMATICS

The student will become more proficient in the solution of practical problems through the use of linear equations in one and multiple unknowns, simultaneous and quadratic equations and graphic algebra. The student will also study right and oblique triangle trigonometry problems as applied to land surveying, physics, statics, and related engineering technology courses.
Prerequisite: qualifying preassessment scores on the mathematics and algebra skills. If acquired score is less than required, a Technical Division advisor will assist in placement in the proper skill development course.
Five credits: 60 clock hours

## BET 106 APPLIED PHYSICS: STATICS/DYNAMICS

Provides the technical student with an understanding of the basic principles of mechanics and properties of matter through problem solving and practical applications of the basic laws of physics in an industrial environment.
Prerequisite: BET 105 or equivalent, or permission of instructor Five credits: 60 clock hours

## BET 107 APPLIED PHYSICS: HEAT/FLUIDS

Provides the student with an understanding of the physical properties of heat and fluids through problem solving and the application of applicable physical laws and their relation to the industrial environment. Prerequisite: BET 105 or equivalent, or permission of instructor Five credits: 60 clock hours

## BET 115 INTRODUCTION TO TECHNICAL MATHEMATICS

The student will review basic mathematics operations and learn to apply them to practical problems. Emphasizes word problem solutions. Includes fractions, percentages, ratios and proportions, weights and measures, unit conversions, roots and powers, and an introduction to basic algebra and practical applications.
Prerequisite: Qualifying preassessment scores. COURSE WILL NOT FULFILL PROGRAM REQUIREMENTS FOR GRADUATION Five credits: 60 clock hours

## BET 201 COMPUTER AIDED DRAFTING FUNDAMENTALS I

This course will acquaint the student with computer graphics as used in the engineering environment. The student will study the disk operating system and basic CAD system commands. The student will gain practical hands-on experience through the use of a personal computer and AutoCad software.
Prerequisite: BET 101 and BET 105, or CAM 101, or permission of instructor. (Knowledge of typewriter keyboard is helpful.)
Four credits: 60 clock hours

## BET 202 COMPUTER AIDED DRAFTING FUNDAMENTALS II

A continuation of BET 201 with greater emphasis on the basic graphic commands as well as introduction to advanced graphics commands. The student will study and use advanced size and shape description, editing and facilitation of assembly, working, and production drawings.
Prerequisite: BET 201
Four credits: 60 clock hours

## BET 203 ADVANCED COMPUTER AIDED DRAFTING III

The student will become more proficient in the production of CAD products with an emphasis on proficiency in the area of the student's program option, i.e., architectural, computer aided manufacturing, civil, or mechanical.
Prerequisite: BET 202
Four credits: 60 clock hours

## BET 204 INDUSTRIAL RELATIONS

Person-to-person relationships are studied from the perspective of the first line supervisor and his/her development and responsibilities relative to management expectations. Emphasizes the employee and his/her development, employee evaluation, and leadership development. Job safety relative to government standards is also discussed.
Prerequisite: none
Three credits: 30 clock hours

## BET 206 STATICS

A study of analytical mechanics and the comprehension of the underlying principles and their application in the design of mechanisms and static structures. The successful student will be able to apply the principles to the design and/or analysis of static structures.
Prerequisite: BET 105 and BET 106
Five credits: 70 clock hours

## BET 207 TECHNICAL JOB SEEKING

The students will develop a better understanding of their skills, interests and job (employment) search procedures. Preparation of resumes, vitas, and applications is studied along with how to prepare and present oneself for an interview.
Prerequisite: None
One credit: 10 clock hours

## BET 215 ENGINEERING PLANNING AND CONTROL

An introduction to concepts and applications in the areas of scheduling, estimating, engineering economy, and quality assurance.
Prerequisite: BET 103, BET 105, and CET 201
Four credits: 60 clock hours

## CET: CIVIL ENGINEERING TECHNOLOGY

## CET 105 BASIC FIELD SURVEY

Acquaints the student with basic surveying equipment, calculations, and note forms derived during survey operations. The student will become proficient in fundamental survey techniques and in the care and daily maintenance of survey equipment and in computer computations used in surveying.
Prerequisite: BET 102 and BET 105 or permission of instructor Eight credits: 100 clock hours

## CET 201 DRAFTING IV: STRUCTURAL

This course acquaints the student with structural drafting practices, enabling completion of structural plans and details in wood, steel, and concrete for residential, commerical, and industrial structural systems.
Prerequisite: BET 103
Four credits: 60 clock hours

## CET 202 DRAFTING V: CIVIL I

Topographic drafting principles, interpretation, plotting, and detailing are studied to assist the student in the areas of open and closed traverses relating land descriptions and aspects of tract, plat, plot, and site maps.
Prerequisite: BET 101 through BET 105 and CET 105
Five credits: 60 clock hours

## CET 203 APPLIED CIVIL DESIGN

A consolidation of the major aspects of the Civil Engineering Technology program with principle emphasis on design.
Prerequisite: CET 202
Six credits: 80 clock hours

## CET 208 APPLIED ENGINEERING PROBLEMS AND APPLICATIONS/CIVIL

Provides practical and realistic application of engineering technology skills. The student will encounter various situations similar to those found in industry and will be required to apply engineering tech skills individually and as a project team member.
Prerequisite: ALL required classes as listed in this catalog for quarters one through five.
Four credits: 60 clock hours

## CET 216 CIVIL HYDRAULICS

A study of open channel flow and hydrology. The student will gain an understanding of urban drainage requirements and the solution of urban drainage problems through the use of design manuals. Design of small drainage structures will also be studied.
Prerequisite: BET 105, BET 106, and BET 107
Three credits: 40 clock hours

## MET: MECHANICAL ENGINEERING TECHNOLOGY

## MET 101 ENGINEERING MATERIAL

Materials of industry are studied from the properties and applications viewpoints with emphasis on manufacturing.
Prerequisite: BET 105 or concurrent with BET 105
Three credits: 40 clock hours

## MET 102 MANUFACTURING AND PROCESSES

Continuation of MET 101 with an emphasis on manufacturing processes that use metals, woods and other common materials.
Prerequisite: MET 101
Three credits: 40 clock hours

## MET 201 STRENGTH OF MATERIALS I

The study of properties and their effects relevant to material stress and strain, tension, compression, and shear. Design of thin walled pressure vessels, and riveted and welded joints are studied. Centroids, moments of inertia, shear and moment diagrams and stresses in beams are included.
Prerequisite: BET 105 and BET 106
Three credits: 40 clock hours

## MET 202 MECHANICAL DESIGN: MANUFACTURING

This course will acquaint the student with mechanical design practices for manufacturing using sketching and problem solving techniques.
Prerequisite: BET through BET 107 or permission of instructor Three credits: 40 clock hours

## MET 203 MECHANICAL DESIGN: FACILITIES

This course will acquaint the student with mechanical design practices for facilities using sketching and problem solving techniques.
Prerequisite: BET 101 through BET 107 or permission of instructor Three credits: 40 clock hours

## MET 204 STRENGTH OF MATERIALS II

A continuation of MET 201 with an emphasis on the study and design of beams and columns utilizing materials such as wood and steel.
Prerequisite: MET 201
Three credits: 40 clock hours

## MET 205 ELECTRO/MECHANICAL DESIGN

This course will acquaint the student with electronic design drafting practices. Introduces the student to basic diagrams and packaging systems.
Prerequisite: BET 101 through BET 107 or permission of instructor Three credits: 40 clock hours

## MET 208 APPLIED ENGINEERING PROBLEMS

## AND APPLICATIONS/MECHANICAL

Provides practical and realistic application of engineering technology skills. The student will encounter various situations similar to those found in industry and will be required to apply engineering tech skills individually and as a project team member.
Prerequisite: ALL required classes listed in this catalog for quarters one through five
Four credits: 60 clock hours

## MET 216 APPLIED FLUID POWER

A study of fluid power systems (hydraulic and pneumatic) and the applications of these systems in the engineering fields.
Prerequisite: BET 106
Three credits: 40 clock hours

## CAM: COMPUTER AIDED MANUFACTURING

## CAM 105 INDUSTRIAL ELECTRICITY

The student will study the basic concepts of electrical circuits, equipment, and applications. Safety, troubleshooting, and National Electric Codes (NEC) will also be studied.
Prerequisite: None
Four credits: 60 clock hours

## CAM 106 ELECTRONICS FOR ENGINEERING TECHNICIANS I

This course will cover the basic concepts of industrial electronics with an emphasis on circuits and components.
Prerequisite: BET 105 or permission of instructor
Five credits: 60 clock hours

## CAM 205 COMPUTER AIDED MANUFACTURING

An introduction to the concepts of Computer Aided Manufacturing, including CNC programming and CIM.
Prerequisite: None
Four credits: 60 clock hours

## CAM 206 ELECTRONICS FOR ENGINEERING TECHNICIANS II

A continuation of CAM 106. The student will become familiar with microprocessor interfacing, troubleshooting, and typical robotic/CNC electronic systems.
Prerequisite: CAM 106
Five credits: 60 clock hours

## CAM 207 INTRODUCTION TO ROBOTICS

A basic course emphasizing the components, systems, and applications of industrial robots.
Prerequisite: None
Four credits: 60 clock hours

## CAM 208 APPLIED ENGINEERING PROBLEMS

 AND APPLICATIONS/MFGProvides practical and realistic application of engineering technology skills. The student will encounter various situations similar to those found in industry and will be required to apply engineering tech skills individually and as a project team member.
Prerequisite: ALL required classes listed in this catalog for quarters one through five
Four credits: 60 clock hours

## ESL: ENGLISH AS A SECOND LANGUAGE

## ESL 011 SURVIVAL ENGLISH AS A SECOND LANGUAGE I

Designed to provide the non-English speaking individual with basic language survival skills which will be integrated with pattern usage of the English language. About 75 percent of class time will be devoted to oral and listening development, and about 25 percent devoted to writing simple statements and building vocabulary.
Prerequisite: Placement

ESL 012 SURVIVAL ENGLISH AS A SECOND LANGUAGE II
Designed to provide the very limited English speaking individual with basic, language survival skills which will be integrated with pattern usage of the English language. These skills will be a continuation of those acquired in ESL 1. Great emphasis will be placed on oral and listening development. Writing and reading skills also will be emphasized to build vocabulary skills.
Prerequisite: ESL 011 or placement

## ESL 013 SURVIVAL ENGLISH AS A SECOND LANGUAGE III

Designed to provide the limited English speaking individual with basic, language survival skills which will be integrated with pattern usage of the English language. These skills will be a continuation of those acquired in ESL I and II. Great emphasis will be placed on oral and listening development. Writing and reading skills also will be emphasized to build vocabulary skills.
Prerequisite: ESL 012 or placement

ESL 014 SURVIVAL ENGLISH AS A SECOND LANGUAGE IV
This course is designed to provide the limited English speaking individual with basic survival skills which will be integrated with pattern usage of the English language. These skills will be a continuation of those acquired in levels I, II, and III. Great emphasis will be placed in oral and listening development. Writing and reading skills will also be emphasized for vocabulary skill buildup.
Prerequisite: ESL 013 or placement

## ESL 015 SURVIVAL ENGLISH AS A SECOND LANGUAGE V

This course is designed to provide the limited English speaking individual with basic survival skills which will be integrated with pattern usage of the English language. These skills will be a continuation based upon those acquired in levels I, II, III, and IV. Great emphasis will be placed in oral and listening development. Writing and reading skills will also be emphasized for vocabulary skill buildup.
Prerequisite: ESL 014 or placement

## ESL 011 CLASE DE INGLES - NIVEL I

Esta clase está diseñada para darle al estudiante que no habla inglés una habilidad básica en inglés que será integrada con formas de como se usa el inglés correctamente. Como un 75 por ciento de la enseñanza de la clase pondrá énfasis en el desarollo oral (de conversación) y de escuchar el inglés. Como un 25 por ciento de la clase será dedicado a el desarollo de la escritura de oraciones simples.
Requisito: Colocar

## ESL 012 CLASE DE INGLES - NIVEL II

Esta clase está diseñada para darle al estudiane quien está muy limitado en la habilidad de comunicarse en inglés una habilidad básica en inglés que será integrada con formas de como se usa el inglés correctamente. Estas habilidades serán una continuación de esas habilidades introducidas en el Nivel 1. Se dará mucha atención al desarollo de la escritura y lectura del inglés.
Requisito: Colocar

## ESL 013 CLASE DE INGLES - NIVEL III

Esta clase está diseñada para darle al estudiante quien está limitado en la habilidad de comunicarse en inglés una habilidad básica en inglés que sera integrada con formas de como se usa el inglés correctamente. Estas habilidades seran una continuación de esas habilidades introducidas en los Nivels I y II. Se dará mucha atención al desarollo oral (de conversación) y de escuchar inglés. También se dará mucha atención al desarollo de la escritura y lectura.
Requisito: Colocar

ESL 014 CLASE DE INGLES - NIVEL IV
Esta clase está diseffada para darle al estudiante quien está limitado en la habilidad de communicarse en inglés una habilidad básica en inglés que será integrada con formas de como se usa el inglés correctamente. Estas habilidades serán una continuación de esas habilidades introducidas en los Niveles I, II, y III. Se dará mucha atención al desarollo oral (de conversación), y de escuchar inglés. También se dará mucha atención al desarollo de la lectura y escritura.
Requisito: Colocar

## ESL 015 CLASE DE INGLES - NIVEL V

Esta clase está diseñada para darle al estudiante quien está limitado en la habilidad de comunicarse en inglés una habilidad básica en inglés. Estas habilidades serán una continuación de esas habilidades introducidas en los Niveles I, II, III, y IV. Se dará much atención al desarollo de la lectura y escritura.
Requisito: Colocar

## FAMILY AND LIFE EDUCATION

## Expectant Families, Active Families and Changing Individuals are cosponsored with North Colorado Medical Center.

## FLE: EXPECTANT FAMILIES

## FLE 115 PREPARED CHILDBIRTH

Prepare as a family for the birth of your baby. Group discussions concern the physical and emotional aspects of pregnancy and the postpartum period, including new family relationships, the unique role of the father, basic nutrition, and initial newborn care. Promotes better preparation for labor and delivery processes by teaching and practicing related exercises and breathing techniques including the Lamaze method. Labor and delivery film is shown and tour of the hospital obstetrical facilities included.

## Two credits

## FLE 117 REFRESHER

For parents who previously have completed a comprehensive childbirth education course. Review and practice of relaxation and breathing techniques for labor and delivery. Labor and delivery film is shown and tour of the hospital obstetrical facilities is included.
Prerequisite: childbirth education course
One credit

## FLE 121 NOW I'M A PARENT

Acquaints parents with growth, development, and the normal characteristics of early infancy. Helps parents understand and cope with their feelings.

## One credit

## FLE 131 EXERCISE FOR PREGNANCY I

To help women prepare physically for the birth of their baby. Includes stretching, body conditioning, and aerobic exercises designed specifically for pregnant women and new mothers.

## One credit

## FLE 132 EXERCISE FOR PREGNANCY II

To help women prepare physically for the birth of their baby. Includes stretching, body conditioning, and aerobic exercises designed specifically for pregnant women and new mothers.
One credit

## FLE 133 EXERCISE FOR POSTPARTUM

To help women get back in shape after the baby is born. Designed specifically for postpartum women.
One credit

## FLE 141 SHAPE UP WITH BABY I

To help get back into shape after the birth of your baby and enjoy exercising with your baby at the same time.
One-half credit

## FLF: ACTIVE FAMILIES

## FLF 112 HOW TO TALK SO KIDS WILL LISTEN II

Review the concepts from Part I and give practical applications to daily lives.
One-half credit

## FLF 127 COPING WITH YOUR ACTIVE TODDLER

For parents of one to two and one-half year olds. Discussions concern parental stress and alternatives in discipline; developing a child's selfesteem, language, and motor skills; snacks and finger foods, accidents and poisonings, toilet training, and dependence versus independence. Child care provided for daytime classes.
One to two credits

## FLF 129 HOW DO I GO ON?

LOSS, GRIEF \& LIVING
Develop understanding of the grief process, prepare for the reactions of others to the death of your loved one, take stock and rebuild life without that person you loved.
One credit

## FLF 139 TEACHING YOUR CHILD TO SOLVE HIS OWN PROBLEMS

Recognize the when, where, why and how of helping kids to solve their own problems.
One-half credit

## FLF 141 PARENTING IN REMARRIAGE

Discover how to blend individuals into a new family unit, resolve discipline differences, adapt to new roles and develop positive relationships.
One-half to three credits

## FLF 142 PARENTING IN REMARRIAGE II

To continue to help stepparents in blending a new family unit and resolving discipline differences.
One-half to three credits

## FLE 151 ENJOYING SINGLE PARENTING

To help assist the single parent to adapt to the challenges of going it alone and making single parenthood more enjoyable.
One to Three credits

## FLF 159 ADOPTION A - Z

An overall view of adoption, from the decision to adopt and issues involved in that decision, through the placement of a child(ren). Two credits

## FLF 204 YOU AND YOUR AGING PARENTS

Supplies adult children and professionals working with families insight into the medical, psychological and social aspects of aging. Discusses options and resources for the aging parent or relative and how to make decisions based on these alternatives.
One credit

FLF 205 WOMEN'S ROLES, CHOICES AND CHALLENGES
Identifies personal needs which are sometimes swallowed up in the role of motherhood. Priority and goal-setting; time management, communication skills, self-concept, and relationships with others are discussed.
One credit

## FLE 209 RELATING TO TEENS

Deals with reasons for teen misbehavior and suggests appropriate parental response. Emphasizes the teens responsibility, methods of discipline, and communications skills between parent and teen. One credit

FLF 215 SUICIDE: CHILDREN AND TEENS IN CRISIS
A class for parents and professionals that focuses on the systems designed to address the prevention and intervention in the phenomenon of suicide in children. (First in a series of three classes on suicide.) One credit

## FLF 216 ACTIVE PARENTING: RAISING A RESPONSIBLE CHILD

To increase parent awareness of effective parent-child communication and to provide problem solving skills and methods of achieving enhanced family relationships. Class discussions will center around video tape vignettes of parent-child interactions.

## One credit

## FLF 217 PREPARING FOR ADOLECENCE

Understand better the needs of a soon-to-be teenager in light of your own adolescence, normal development, and the role of the family. Learn more about handling communication and conflict, discipline, and parent needs at this time of change.
One credit

## FLF 221 BALANCING WORK AND THE FAMILY

To help enhance the competency and sense of well-being of working parents, both at work and at home, by providing information and support to help them improve their ability to meet their personal needs as well as the demands of their employers and their families. One credit

FLF 222 BALANCING WORK AND THE FAMILY II
To help enhance the competency and sense of well-being of working parents by providing the skills needed for balancing work and family life. It will provide information on individual and family development. One credit

## FLF 227 PARENT BURNOUT

Learn to cope with parent burnout; explore strategies for coping with the physical, mental and emotional stress of parenting.
One-half credit

## FLF 228 WOMEN'S SELF-ESTEEM

Provides an overview of the issues that promote or inhibit positive self esteem for women.
One credit
FLF 235 MOTIVATING YOUR KIDS: HOW TO TURN THEM ON
To assist parents to explore motivation techniques with their child(ren).
One credit

Parents and students, please look under Education (EDU) for classes on The Family also.

## FLC: CHANGING INDIVIDUALS

## FLC 125 UNDERSTANDING MEDICARE AND SUPPLEMENTAL INSURANCE

To inform consumers about how the medicare system functions and how to choose supplemental health insurance.
One-half credit

## FLC 207 RETIREMENT PLANNING

Explore the options of what you can do now to make your retirement years more enjoyable and fulfilling.
Two credits

## FLS: SENIOR ADULT PROGRAM

## FLS 111 SENIOR SHAPE UP I

Introduces body conditioning to raise fitness levels of older adults. One credit

## FLS 112 SENIOR SHAPE UP II

A continuation of Senior Shape Up 1 to better improve fitness levels. One credit

## FLS 113 SENIOR SHAPE UP III

Allows the student to continue improvement of body fitness.
One credit

FLS 115 MANAGING STRESS FOR HEALTHY AGING
Identify age-related stress situations and learn techniques to cope. One credit

## FLS 121 ADVANCED SENIOR SHAPE UP I

A more active, strenuous exercise class with aerobic activity for older adults.
One credit
FLS 122 ADVANCED SENIOR SHAPE UP II
A continuation of active exercises with some dance and walking. One credit

## FLS 123 ADVANCED SENIOR SHAPE UP III

Allows continued improvement of total body fitness. One credit

FLS 131 MOVING TOGETHER FOR FITNESS I
An exercise program for older adults with special needs.

## One credit

FLS 132 MOVING TOGETHER FOR FITNESS II
A continuation of exercise to improve strength and flexibility.

## One credit

## FLS 133 MOVING TOGETHER FOR FITNESS III

Allows for continued improvement in strength and flexibility for older adults.
One credit
FLS 145 LOOKING AT LEGAL RIGHTS IN YOUR LIFE
Focuses on concerns and rights of retirees.
One credit

## FLS 161 NUTRITION AND FITNESS I

Establishes guidelines for older adults to balance exercise and good nutrition for weight control.
One credit

## FLS 162 NUTRITION AND FITNESS II

This class reviews the benefits of regular exercise and emphasizes the importance of a diet that includes "nutrient-dense" foods for weight control for older adults.

## One credit

## FLS 163 NUTRITION AND FITNESS III

To develop a plan of action for good health. It will include a determination of ideal weight, an understanding of the balance of calorie intake and output, and a determination of individual adjustments to diet and exercise to achieve ideal weight.
One credit

FLS 167 WEIGHT LOSS FOR THE OLDER ADULT
Learn to achieve your ideal weight and maintain it through good nutrition.
One credit

## FLS 178 LIVING WITH HEARING LOSS

Workshop on causes of hearing disorders and coping strategies.

## One-half credit

## FLS 179 SELF-ESTEEM: THE MATURE YEARS

Examines how to restore and maintain feelings of self-worth in later years.
One credit

## FLS 181 HEALTH AWARENESS FOR SENIORS I

Provides information about health and aging and taking an active role in maintaining health. Topics include back care, the heart, arthritis, medications, digestion and circulation.
One credit

## FLS 182 HEALTH AWARENESS FOR SENIORS II

Additional information about health and aging includes hearing and vision, diabetes, chronic diseases, and community resources.
One credit

## FLS 183 HEALTH THROUGH EXERCISE

Understand the many ways exercise benefits the health of the older adult and participate in exercises for strength and flexibility. One credit

## FIS: FIRE SCIENCE

## FIS 100 INTRODUCTION TO FIRE SCIENCE

 AND SUPPRESSIONPhilosophy and history of fire protection; history of loss of life and property by fire; review of municipal fire defenses; study of the organization and function of federal, state, county, and private fire protection agencies; survey of professional fire protection career opportunities. Introduces fire suppression organization; fire suppression equipment; characteristics and behavior of fire; fire hazard properties of ordinary materials; building design and construction; extinguishing agents; basic fire-fighting tactics; public relations.
Three credits: 30 clock hours

## FIS 104 FIRE COMPANY ORGANIZATION

 AND PROCEDUREReview of fire department organization, fire company organization, the company officer, personnel administration, communications, fire equipment, maintenance, training, fire prevention, fire fighting, company fire fighting capability, records and reports.
Three credits: 30 clock hours

## FIS 105 FIRE SERVICE TRAINING ACADEMY

The student will demonstrate the knowledge and skill necessary to perform as a recruit in a paid or volunteer fire department as well as the knowledge and skill necessary for Fire Fighter I certification.
Thirty credits: 460 clock hours

## FIS 106 FIRE FIGHTING TACTICS AND STRATEGY

Review of fire chemistry, equipment, and manpower; basic firefighting tactics and strategy; methods of attack, preplanning fire problems.
Five credits: 50 clock hours

## FIS 108 FIRE HYDRAULICS

Review of basic mathematics; hydraulic laws and formulas as applied to fire service; application of formulas and mental calculation to hydraulic problems, water supply problems, and underwriters' requirements for pumps.
Three credits: 30 clock hours

## FIS 110 FIRE APPARATUS AND EQUIPMENT

Driving laws, driving techniques; construction and operation of pumping engines, ladder trucks, aerial platforms, and specialized equipment; apparatus maintenance.
Three credits: 30 clock hours

## FIS 111 FIRE FIGHTER OCCUPATIONAL

 SAFETYStudents will learn to recognize those areas of the fire service where accidents frequently occur and how to recognize safety measures which will help to decrease the hazards associated with operational areas. Three credits: 30 clock hours

## FIS 112 FIRE SERVICE PLANNING

Students will acquire ability to develop and coordinate plans between various agencies for utilization of manpower, equipment, facilities, and water for fire suppression and prevention.
Three credits: 30 clock hours

## FIS 113 FIRE INSPECTOR I

Students will acquire the ability to inspect buildings for the compliance of adopted codes in their respective service area as well as understanding the function of the fire prevention organization.
Three credits: 30 clock hours

## FIS 115 INTRODUCTION TO INDUSTRIAL TRADES

Familiarization with the various trades in which specific hazards may present complicated and unique fire suppression or rescue problems for the firefighter.
Three credits: 30 clock hours

## FIS 117 EFFECTIVE FIRE SERVICE

 PRESENTATIONSA public speaking course designed to provide students with skills in public speaking, listening skills, and fundamentals in presenting public fire safety education programs.
Five credits: 50 clock hours

## FIS 119 FIRE INSTRUCTOR I

Students will learn the role of the fire service instructor in today's fire service. Topics will include: The Instructor and the Job, Concepts of Learning, Planning Instruction, Presenting the Instruction, Training Aids, and Testing and Evaluation.
Three credits: 30 clock hours

## FIS 185 VOLUNTEER FIRE SEMINAR

Provides Fire Service Training on a supplementary and upgrading basis to firefighters who are members of volunteer fire departments, fire protection districts, or paid members of smaller fire departments. The objective is to orient the training toward the equipment available in the department or district and to stress firefighting methods appropriate to the equipment and to the district.
Six credits: 60 clock hours

## FIS 186 VOLUNTEER FIRE SEMINAR

Class includes the same type of information as FIS 185. Eight credits: 80 clock hours

## FIS 187 VOLUNTEER FIRE SEMINAR

Class includes the same type of information as FIS 185.
Twelve credits: 120 clock hours

## FIS 188 VOLUNTEER FIRE SEMINAR

Class includes the same type of information as FIS 185.
Sixteen credits: 160 clock hours

## FIS 190 ADMINISTRATION OF JUSTICE AND COURT PROCEDURES

Study of processes of criminal justice; procedures of local, state, and federal courts; organization of jurisdiction. Criminal justice in Colorado, conduct of trials, rights of accused, motions, and appeals also included.
Three credits: 30 clock hours

## FIS 196 VOLUNTEER FIRE SEMINAR

Provides Fire Service Training on a supplementary and upgrading basis to firefighters who are members of volunteer fire departments, fire protection districts, or paid members of smaller fire departments. The objective is to orient the training toward the equipment available in the department or district and to stress firefighting methods appropriate to the equipment and to the district.
One credit: 10 clock hours

## FIS 197 VOLUNTEER FIRE SEMINAR

Class includes the same type of information as FIS 196. Two credits: 20 clock hours

## FIS 198 VOLUNTEER FIRE SEMINAR

Class includes the same type of information as FIS 196. Three credits: 30 clock hours

## FIS 199 VOLUNTEER FIRE SEMINAR

Class includes the same type of information as FIS 196.
One credit: 10 clock hours

## FIS 202 FUNDAMENTALS OF FIRE PREVENTION

Organization and function of the fire prevention organization; inspections, surveying and mapping procedures; recognition of fire hazards, engineering a solution to the hazard, enforcement of the solution, and public relations as affected by fire prevention.
Prerequisite: FIS 100
Three credits: 30 clock hours

## FIS 203 UNIFORM BUILDING AND FIRE CODES

Familiarization with national, state, and local laws and ordinances which influence the field of fire prevention; emphasizes building codes and fire codes.
Prerequisite: FIS 202 or comparable experience
Five credits: 50 clock hours

## FIS 205 LIFE SAFETY CODES

Continuation of FIS 203, emphasizing life safety and fire codes. Three credits: 30 clock hours

## FIS 206 RESCUE PRACTICES

Rescue practices, rescue skills and techniques; rescue tools and equipment, emphasizing auto accident extrication; building collapse, cave-in and landslide, and other rescue problem procedures.
Three credits: 30 clock hours

## FIS 207 APPLIED CHEMISTRY FOR FIREFIGHTERS

A basic, practical course in chemistry designed specifically for
firefighters. Various materials which firefighters encounter will be discussed.
Five credits: 50 clock hours

## FIS 208 HAZARDOUS MATERIALS I

A review of basic chemistry, storage, and fire-fighting practices pertaining to hazardous materials. Includes basic laws and standards for handling various hazardous materials.
Prerequisite: FIS 207
Three credits: 30 clock hours

## FIS 209 HAZARDOUS MATERIALS II

Continuation of FIS 208. Emphasizes fire-fighting and control at the company officer level.
Prerequisite: FIS 208
Three credits: 30 clock hours

## FIS 212 FIXED FIRE PROTECTION EQUIPMENT AND SYSTEMS

Portable fire extinguishing equipment requirements. Sprinkler systems: types, installation, and maintenance. Special protection systems for various hazards.
Three credits: 30 clock hours

## FIS 213 FIRE SERVICE SUPERVISION

Studies fire department organization. Includes personnel relations, leadership, motivation, training, hiring, and disciplinary action.
Three credits: 30 clock hours

## FIS 218 FIRE INVESTIGATION

Introduction to arson, incendiarism, and types of incendiary fires. Methods of determining fire cause, recognizing and preserving evidence, interviewing and detaining witnesses. Procedures in handling juveniles, court procedures, and giving court testimony.
Three credits: 30 clock hours

## FIS 230 BUILDING CONSTRUCTION FOR THE FIRE SERVICE

Students will study various types of building construction, principles of fire resistance, flame spread, and fire and smoke containment. Students may be required to complete a case study, slide presentation, and a written report.
Three credits: 30 clock hours

## FOREIGN LANGUAGE

## FRE: FRENCH

NOTE: Students wishing to satisfy a five-semester hour language requirement at the university level need to take a minimum of two quarters of the same foreign language at Aims College.

## FRE 101 BASIC APPLIED FRENCH I

Basics of spoken French are presented. Emphasizes vocabulary and sentence patterns that a traveler might need to order meals, get a room in a hotel, shop, exchange money, or travel.

## Three credits

## FRE 102 BASIC APPLIED FRENCH II

Continuation of FRE 101.

## Three credits

FRE 103 BASIC APPLIED FRENCH III Continuation of FRE 102.

## Three credits

## FRE 111 FRENCH LANGUAGE I

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading, and writing the language.
Five credits

## FRE 112 FRENCH LANGUAGE II

Continues French Language I in the development of functional proficiency in listening, speaking, reading, and writing the language. Five credits

## FLE 113 FRENCH LANGUAGE III

Continues French Language II in the development of functional proficiency in listening, speaking, reading, and writing the language. Five credits

## SPA: SPANISH

## SPA 101 BASIC APPLIED SPANISH I

Introduces the student to basic Spanish conversation. This course is designed to give the student a prompt ability to communicate orally in the language.
Three credits
SPA 102 BASIC APPLIED SPANISH II
Continuation of SPA 101.

## Three credits

SPA 103 BASIC APPLIED SPANISH III Continuation of SPA 102.

## Three credits

## SPA 111 SPANISH LANGUAGE I

Begins a sequence dealing with the development of functional proficiency in listening, speaking, reading, and writing the language. Five credits

## SPA 112 SPANISH LANGUAGE II

Continues Spanish Language 1 in the development of functional proficiency in listening, speaking, reading, and writing the language.

## Five credits

## SPA 113 SPANISH LANGUAGE III

Continues Spanish Language II in the development of functional proficiency in listening, speaking, reading, and writing the language. Five credits

## SPA 201 ADVANCED SPANISH CONVERSATION

Gives Spanish students the opportunity to continue their study of the language and to practice their speaking of the language. Prerequisite: SPA 103, SPA 113 or permission of instructor Three credits

## GEO: GEOGRAPHY

## GEO 105 WORLD GEOGRAPHY

An introductory course designed to facilitate an understanding of spatial relationships between and among the geographic regions of the world. Included are demographic and cultural (political, economic, and historic) forces related to the physical environments of selected regions. Methods of study include analysis of/and interrelationships between developed and developing regions.
Five credits

## GEY: GEOLOGY

## GEY 100 SURVEY OF GEOLOGY

A general study of the characteristics of the past and present physical environment and the geologic forces at work to sculpture the landscape. Credit will not be given for both GEY 100 and GEY 111.
Three credits: two hours lecture, two hours lab per week

## 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. Four credits: four hours lecture per week

## GEY 111, 112, 121

For programs that require two semesters (1 year) of geology, students should complete all three courses. This sequence will transfer to other academic institutions as an aggregate.

## GEY 111 PHYSICAL GEOLOGY

Studies the materials of the earth, its structure, surface features and the geologic processes involved in its development. This course includes laboratory experience. Field trips required.
Five credits: three hours lecture, four hours lab per week

## GEY 112 INTRODUCTION TO FIELD GEOLOGY AND MAPPING

Introduces the skills and techniques used by the field geologist to obtain information from topographic maps, aerial photographs, geological maps, and field observations to identify major physical landforms and make interpretations of geologic structures. Field trips required.
Prerequisite: GEY 111 or permission of instructor
Three credits: two hours lecture, two hours lab per week

## GEY 121 HISTORICAL GEOLOGY

(Formerly GEY 113) Studies the physical and biological development of the earth through the vast span of geologic time. Emphasizes the investigation and interpretation of sedimentary rocks, the record of ancient environment, fossil life forms, and physical events, all within the framework of shifting crustal plates.
Prerequisite: Physical Geology (GEY 111) or permission of instructor Five credits: three hours lecture, four hours lab per week

## GRT: GRAPHIC

 TECHNOLOGY
## GRT 101 GRAPHIC TECHNOLOGY I

Students will be given the opportunity to acquire basic knowledge and skills in photocomposition, layout and paste-up, process camera photography, film stripping, plate-making, and duplicator-sized presswork. The student will perform the above fundamental activities at production quality level.
Twenty credits: 250 clock hours

## GRT 102 GRAPHIC TECHNOLOGY II

Students will be given the opportunity to complete the learning activities for duplicator-sized presswork. Students will then be given the opportunity to acquire advanced knowledge and skills in photocomposition, or layout, paste-up and film stripping or printing press operation and maintenance and bindery; and materials and personal activities. The student will perform the above advanced activities at production quality level. The student will also be given the opportunity to acquire knowledge and skills in job placement.
Prerequisite: GRT 101 or permission of instructor
Twenty credits: 250 clock hours

## GRT 103 GRAPHIC TECHNOLOGY III

Students will be given the opportunity to further develop the advanced skills acquired in GRT 101 and GRT 102 in order to perform those skills at no more than double the average production time and at no less than production quality. The student also will be given the opportunity to participate in an internship directly related to his/her specialization.
Prerequisite: GRT 102 or permission of instructor
Twenty credits: 250 clock hours

## GRT 104 GRAPHIC TECHNOLOGY IV

Students will be given the opportunity to choose an additional specialization from the Artistic, Typesetting, Photographic, or Mechanical options.
Prerequisite: GRT 103 or permission of instructor
Ten credits: 125 clock hours

## GRT 107 SILK SCREEN PRINTING

Students will be given the opportunity to acquire basic knowledge in silk mounting, paper stencil, film stencil, photo stencil, two-color printing, blocking, textile printing, and clean-up. Students are encouraged to work on projects of their choice within the time constraints of the class.
Two credits: 30 clock hours

## GRT 199 GRAPHIC TECHNOLOGY/SPECIAL NEEDS

Allows the student to work on a few specific objectives in conjunction with the Graphic Technology certificate requirements. The student and the instructor may develop an individual program which is agreeable to both parties. The student must be enrolled in the Graphic Technology program. This course may be repeated.
One to three credits: 10 to 30 clock hours

## GRT 295 GRAPHIC TECHNOLOGY/INDEPENDENT STUDY A

This course provides an opportunity for the student to engage in intensive study and research on a specific topic under the direction of a faculty member.
Prerequisite: permission of instructor only
Two credits: 20 clock hours

GRT 296 GRAPHIC TECHNOLOGY/INDEPENDENT STUDY B
This course provides an opportunity for the student to engage in intensive study and research on a specific topic under the direction of a faculty member.
Prerequisite: permission of instructor only
Three credits: 30 clock hours

## GRT 297 GRAPHIC TECHNOLOGY/INDEPENDENT STUDY C

This course provides an opportunity for the student to engage in intensive study and research on a specific topic under the direction of a faculty member.
Prerequisite: permission of instructor only
Five credits: 50 ciock hours

## GRT 299 GRAPHIC TECHNOLOGY PRACTICUM

This course content will be dependent upon the current needs of the students and determined at the time of the course offering. The practicum could involve introduction of, and experience with, the offset printing trade and the new products related to process camera work, press work, etc. This course may be repeated.
One credit: 10 clock hours

## HEN: HEALTH EDUCATION

## HEN 105 PERSONAL HEALTH

Studies problems involved in personal and community health. Emphasizes actions an individual can take to maintain the highest degree of mental and physical health.
Three credits: 30 clock hours

## 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 service of a physician can be secured. (The official First Aid Standard Certificate is granted to students who satisfactorily pass the American Red Cross examination.)
Three credits: 30 clock hours

## HEN 107 ADVANCED SAFETY AND FIRST AID

This Red Cross Advanced First Aid and Emergency Care course is designed for persons who are responsible for giving emergency care to the sick and injured. It provides the essential information for developing functional first aid capabilities required by policemen, firefighters, ski patrol, and other special interest groups. Includes cardiopulmonary resuscitation. Students completing course and testing will be certified by the American Red Cross in advanced first aid and cardiopulmonary resuscitation.
Five credits: 50 clock hours

## HEN 117 BEHAVIORAL WEIGHT CONTROL I

This course utilizes a behavioral/nutritional approach that will enable overweight individuals to lose excess body weight. Permanent weight control will be the main objective of this course.

Nutritional counseling will include: 1) Proper nutrition 2) Exchange system of food charting 3) Shopping and reading labels 4) Keeping a nutritional diary 5) Integrating a nutritional food plan into one's daily life.

Behavioral education will include: 1) What to do to lose weight 2) Keeping weight off permanently 3 ) Controlling overeating practices 4) Learning about feelings and how moods affect eating behavior 5) Eating on special occasions/restaurants 6) Stress Management/relaxation training 7) Assertiveness training 8) Eating Disorders.
One credit: 10 clock hours

## HEN 118 BEHAVIORAL WEIGHT CONTROL II

Continuation of HEN 117. Further emphasis on nutritional counseling and behavioral education.
One credit: 10 clock hours

## HLH: HEALTH OCCUPATIONS

The following classes are offered upon the request of twelve students or more. (Additional courses could be designed to meet continuing education needs of the community.)

## HLH 107 R.N. REFRESHER

Upon completion, the R.N. student will have (1) reviewed basic adult medical-surgical nursing care; (2) updated professional skills and knowledge of basic adult medical-surgical nursing care; (3) completed supervised laboratory practice of updated skills; (4) completed supervised clinical practice, applying the professional knowledge and skills learned.
Prerequisite: current Colorado R.N. license, personal professional liability insurance
Sixteen credits: 240 clock hours

## HLH 128 HEALTH CARE SEMINAR

Designed to provide health care providers with current information on health consumer trends and issues and/or on current health care issues and practices and/or on advances in health care and related disciplines A series of seminar topics will be selected; ea h topic will meet one or more of the objectives.
Prerequisite: none
Variable credit: 1 to 12 clock hours

## HLH 129 SCHOOL HEALTH AIDE

Course content and activities are organized to prepare the student to understand how the school health assistant contributes to the total school health program; to assess the needs of those coming to the clinic for assistance, and to make decisions based upon the assessment; to assist the school nurse with health educational materials; to take a major role in health screening; to adequately maintain the clinic room.
Prerequisite: high school diploma or equivalent is normally required for employment by the school district
Three credits: 30 clock hours

## HLH 131 MEDICAL TERMINOLOGY

Builds skills in verbal and written communication of medical terms. A basic study of medical words. Includes defining, spelling, pronouncing, and analysis of component parts. Practical use of words developed through audio-visual aids and discussion.
Three credits: 30 clock hours

## HLH 136 MEDICAL OFFICE LABORATORY TECHNIQUES

Upon completion, the successful student will be able to: (1) aseptically perform venipuncture; (2) aseptically perform capillary stick; (3) accurately perform the manual laboratory tests that are taught; (4) correctly use and clean instruments and glassware that are used to perform the tests.
Specimen collection, routine urinalysis, plating of cultures, complete blood count, slide testing for mononucleosis and pregnancy (kit), and techniques of running and mounting electrocardiogram are included. Prerequisite: current employment as a medical assistant, office nurse, or with instructor's permission
Four credits: 40 clock hours

## HLH 205 I.V. THERAPY FOR LPNs

Expected to prepare the LPN for involvement in administration of I.V. therapy. Content includes related anatomy and physiology, basics of fluid and electrolyte balance, specialized nursing care, regulations, policies, procedures pertinent to I.V. therapy. Also computation, regulation, and maintenance of an infusion rate, techniques for venipuncture, and collection of venous blood specimens. Successful clinical experience required to complete course. Approved by Colorado State Board of Nursing.
Prerequisite: current Colorado nursing license, personal professional liability insurance
Four credits: 40 clock hours

## HIS: HISTORY

## HIS 101 WESTERN CIVILIZATION I, INTRODUCTION TO HISTORY

Explores the major political, economic, social, diplomatic/military, cultural, and intellectual events and the roles of key personalities that shaped Western/World civilization from the prehistoric era to 1000 A.D. Five credits

## HIS 102 WESTERN CIVILIZATION II, INTRODUCTION TO HISTORY

Explores the major political, economic, social, diplomatic/military, cultural, and intellectual events and the roles of key personalities that shaped Western/World civilization from 1000 A.D. to 1800 A.D.

## Five credits

## HIS 103 WESTERN CIVILIZATION III, INTRODUCTION TO HISTORY

Explores the major political, economic, social, diplomatic/military, cultural, and intellectual events and the roles of key personalities that shaped Western/World civilization from 1800 A.D. to the present day. Five credits

## HIS 108 MODERN RUSSIAN CIVILIZATION

A contemporary study of the Soviet Union. Contrasts life of today with the past by focusing on societal and cultural traits.
Five credits

## HIS 115 OCCULT SCIENCES

An historical examination of the beliefs and practices of voodoo, vampirism, witcheraft, hunting magic, snake handling cults, palmistry, tarot cards, 1 Ching, demonic possession and ESP. Five credits

## HIS 201 U.S. HISTORY I

Examines the major political, economic, social, diplomatic/military, cultural, and intellectual events in American History from the first inhabitants through the Civil War/Reconstruction.

## Five credits

## HIS 202 U.S. HISTORY II

Examines the major political, economic, social, diplomatic/military, cultural, and intellectual events in American History from Reconstruction to 1945.

## Five credits

## HIS 203 U.S. HISTORY III

Examines the major political, economic, social, diplomatic/military, cultural, and intellectual events in American History since 1945.

## 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 215 HISTORY OF CHRISTIANITY

A survey of the history of Christianity from its beginning to the present, including ecclesiastical and doctrinal developments. Emphasizes the interaction of Christianity with the world and the influence each has had on the other.
Five credits

## HIS 295 INDEPENDENT STUDY IN HISTORY

Provides an opportunity for the serious-minded student to engage in intensive study and research on a specified topic under the direction of a faculty member.
Two credits: contact instructor

## MAS 161 EARLY HISTORY OF MEXICO

Studies the important aspects of Indian history and culture in Mexico. Emphasizes the Aztec empire and its cultural contributions. Examines the Spanish conquest and its effects on the Mexican Indian.
Five credits

## MAS 162 INTRODUCTION TO MODERN MEXICO

Studies the cultural and historical events that have shaped Mexico into what it is today. Topics include Mexican - U.S. relations, the Mexican Revolution, contemporary issues such as immigration, industrialization, and population.
Five credits

## HUM: HUMANITIES

## HUM 105 WORLD MYTHOLOGY

Students are acquainted with myths and legends from many areas of world culture.
Three to five credits

## HUM 106 INTRODUCTION TO WORLD RELIGIONS

A comparative study of the ideas, doctrines, and concepts of the world's major religions (Eastern, Western or both) through their historical and geographical evolution.

## Three to five credits

## HUM 107 INTRODUCTION TO THE ART OF FILM

Teaches film appreciation by viewing films in and out of class and by discussing the elements of film, including scripts, acting, photography, symbolism, editing and other technical aspects as well as the director's role.

## Five credits

## HUM 108 EASTERN PHILOSOPHY

Student examines the wisdom of the East, both theoretically and experientially through textual study and field research.
Five credits

## HUM 109 MODERN AMERICAN CULTURE

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

## Five credits

## HUM 121 SURVEY OF HUMANITIES I

(Formerly HUM 101) Introduces students to the history of ideas in Western cultures through a study of the visual arts, literature, drama, music, and philosophy of early civilizations, Greek and Roman antiquity and Christian eras. Emphasizes connections among the arts, values, and diverse cultures.

## Five credits

## HUM 122 SURVEY OF HUMANITIES II

(Formerly HUM 102) Examines the Medieval, Renaissance, and Baroque periods through a study of the visual arts, literature, music, and philosophy. Compares and contrasts diverse cultural ideas and feminine and masculine viewpoints.

## Five credits

## HUM 123 SURVEY OF HUMANITIES III

(Formerly HUM 103) Examines the cultures of the 17th through the 20th centuries by focusing on the interrelatedness of the arts, ideas and history. Considers the influences of industrialism, scientific development and non-European peoples.
Five credits

## MAS 120 CULTURE OF MEXICO AND SOUTH AMERICA

Examines the social and cultural institutions, as well as the history of Mexico and South America from pre-Columbian time to the present. Emphasis will be placed on the Folkloric aspects of Hispanic culture. Five credits

## LIT: LITERATURE

## LIT 115 INTRODUCTION TO LITERATURE

(Formerly LIT 105) Introduces students to fiction, poetry, and drama. Emphasizes active and responsive reading.
Five credits

## LIT 116 THE AMERICAN WEST

(Formerly LIT 205) Studies American short stories, plays, poems, and novels with settings west of the Mississippi River, from the Civil War to the present.
Five credits

## LIT 201 MASTERPIECES OF LITERATURE I

Examines significant writings in world literature from the ancients through the Renaissance. Emphasizes careful reading and understanding of the works and their cultural backgrounds.
Five credits

## LIT 202 MASTERPIECES OF LITERATURE II

Examines significant writings in world literature from the seventeenth century to the present. Emphasizes careful reading and understanding of the works and their cultural backgrounds.
Five credits

## LIT 206 SHAKESPEARE: REPRESENTATIVE PLAYS

Introductory class in Shakespearean drama covering a cross section of plays drawing from comedies, histories, and/or tragedies. Background coverage of Elizabethan England will be included. Course fulfills a communications or humanities requirement.
Five credits

## LIT 215 SCIENCE FICTION

Students examine the genre of science fiction as it reflects social, political, psychological, and moral views of a variety of writers through the ages.
Five credits

## LIT 217 WOMEN IN LITERATURE AND MEDIA

Uses literature and media to study the variety of experiences encountered by modern women. Helps women to understand not only the difficulties, but also the possibilities of attaining fulfillment beyond coping with life.
Five credits

## LIT 286 STUDIES IN LITERATURE

The study of various themes, topics, or genres in literature such as Fiction, Nonfiction, Famous Lovers, etc. Courses may be repeated under various subtitles.
Five credits

## LIT 295 INDEPENDENT STUDY IN LITERATURE

Provides an opportunity for the serious-minded student to engage in intensive study and research on a specified topic under the direction of a faculty member.
Prerequisite: CON 102 and a course in literature or humanities One to three credits: contact instructor

## *MAT013 DEVELOPMENTAL MATHEMATICS III

Provides students, who lack computational skills, with instruction in the operations dealing with fractions. The major objective is to develop computational skills in fractions to enable the student to enter MAT 014.

Prerequisite: MAT 012 or placement
Five credits

## *MAT014 DEVELOPMENTAL MATHEMATICS IV

Provides students, who lack computational skills, with instruction in decimals, ratios, proportions, and percents. The major objective is to develop computational skills in decimals, ratios, proportions, and percents to enable the student to enter MAT 015.
Prerequisite: MAT 013 or placement

## *MAT015 DEVELOPMENTAL MATH V

Provides students, who lack computational skills, with instruction in graphs, measurements, and an introduction to algebra. The major objective is to develop computational skills in using graphs, measurements, and basic algebra skills.
Prerequisite: MAT 014 or placement
Five credits

## *MAT 095 INTRODUCTION TO MATHEMATICS

This is a course for students who have a high school diploma or its equivalent but need to review basic computational skills. The course is a survey of basic computational skills. The topics include fractions, decimals, ratios, proportions and percents. The major objective of the course is to provide students with the necessary computational skills to enter business math or beginning algebra.
Prerequisite: placement
Five credits

## *MAT097 INTRODUCTION TO BEGINNING ALGEBRA

Topics include fractions, decimals, percents, ratios, finding lowest common multiples and highest common factors, and factoring composite numbers into prime numbers. As time allows the following will be discussed: variables, order of operations, symbols of grouping, distributive law, multiplication of binomials, factoring algebraic fractions, complex fractions, and linear equations.
Prerequisite: placement
Three credits

## MAT 101 APPLIED MATHEMATICS I

(This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree. Trades \& Industry Division course)

Reviews many of the basic fundamentals of math as used in everyday life, on the job, at home, in business, and for leisure. Includes whole numbers, fractions, decimals, percentages, measurement, ratio and proportion, simple algebraic equations. The mathematical concepts and problems can be applied by the student to his or her special area of interest.
Five credits:

## MAT 110 APPLIED BUSINESS MATHEMATICS

(This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree. Business Division course)

The objectives of this course are to: (1) provide the student with math skills to enter a job in business; (2) to provide the student with a broad introduction into the math and terminology used in different areas of business; and (3) provide the student with the basic math procedures in order to make better use of calculators.
Five credits: 50 clock hours

## MAT 111 BEGINNING ALGEBRA

(Formerly MAT 121) The student will be introduced to integer arithmetic, linear equations with applications, and linear inequalities. Also taught will be the arithmetic of polynomials and fractions along with the techniques of factoring. Graphing of linear equations of two variables and linear inequalities of two variables will be covered as well as graphing to solve systems of linear equations and systems of inequalities. Systems of linear equations in two variables will be solved by algebraic techniques. Quadratic equations and radicals will be studied as time permits.
Prerequisite: A good knowledge of basic arithmetic; MAT 095; MAT 097; or entrance exam is required

## Five credits

## MAT 112 INTERMEDIATE ALGEBRA

(Formerly MAT 122) 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 111, or equivalent high school course; an entrance exam is required
Five credits

## MAT 113 COLLEGE PLANE GEOMETRY

(Formerly MAT 123) For students with little or no background in plane geometry. The student will study some logic and deductive reasoning. Emphasis will be placed on congruent triangles, parallel and perpendicular lines, parallelograms, properties of circles, and similarity of triangles. An introduction to inequalities will be made. If time permits, some constructions and loci will be presented.
Prerequisite: MAT 111 or equivalent
Five credits

## MAT 115 MATHEMATICS FOR DECISION MAKING

(Formerly MAT 130) Topics to include equations, inequalities, exponential and logarithmic functions, matrices, systems of equations, linear programming, combinatorics and probability.
Prerequisite: MAT 112 or equivalent
Five Credits

## MAT 121 COLLEGE ALGEBRA

(Formerly MAT 131) Includes a brief review of intermediate algebra, equations and inequalities, functions and their graphs, exponential and logarithmic functions, linear and non-linear systems, graphing of the conic sections, introduction to sequences and series, permutations and combinations, the binomial theorem and theory of equations.
Prerequisite: High school Algebra 1 and 11 and a year of high school Geometry or MAT 112 and MAT 113, or any equivalent combination of the above; an entrance exam is required
Five credits

## MAT 122 COLLEGE TRIGONOMETRY

(Formerly MAT 132) The wrapping function is used to develop the trigonometric functions and identities with applications to both right and oblique triangles. Covers trigonometric applications, complex numbers and topics in analytic geometry.
Prerequisite: MAT 121 or permission of instructor; an entrance exam is required
Five credits

## MAT 125 SURVEY OF CALCULUS

(Formerly MAT 160) For business, life science and social science majors. Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential and logarithmic functions.
Prerequisite: College Algebra (MAT 121) or permission of instructor Five credits

## MAT 135 INTRODUCTION TO STATISTICS

(Formerly STA 200) Includes data presentation and summarization, introduction to probability concepts and distributions, statistical inference-estimation, hypothesis testing, comparison of populations, correlation and regression.
Prerequisite: Two years high school algebra or Intermediate Algebra
(MAT 112)
Five credits

## MAT 201 CALCULUS I

(Formerly MAT 161) Introduces single variable calculus and analytic geometry. Includes limits, continuity, derivatives, and applications of derivatives as well as indefinite and definite integrals.
Prerequisite: MAT 121 or permission of instructor; an entrance exam may be requested; MAT 122 is high recommended
Five credits

## MAT 202 CALCULUS II

(Formerly MAT 162) Continuation of single variable calculus which will include applications of integrals, exponential and logarithmic functions, trigonometric and hyperbolic functions, and techniques of integration.
Prerequisite: MAT 122 and MAT 201
Five credits

## MAT 203 CALCULUS III

(Formerly MAT 163) Continuation of single variable calculus which will include polar coordinates, analytic geometry, improper integrals, infinite series and vectors in two and three dimensions.
Prerequisite: MAT 202

## Five credits

## MAT 261 LINEAR ALGEBRA

Includes an introduction to matrices and determinants with solutions to systems of equations by matrix methods. Emphasizes vector spaces and linear transformations. Eigenvalues, eigenvectors, quadratic forms, and some numerical methods of linear algebra are included as time permits.
Prerequisite: MAT 203 or permission of instructor
Five credits

## MAT 262 CALCULUS WITH ANALYTIC GEOMETRY IV

Functions of several variables, partial derivatives, double and triple integrals, and line integrals are presented.
Prerequisite: MAT 203 and MAT 261
Five credits

## MAT 263 ELEMENTARY DIFFERENTIAL EQUATIONS

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

## MAT 295 INDEPENDENT STUDY IN MATHEMATICS

Provides an opportunity for the highly-motivated student to engage in intensive study and research on a specified topic under the direction of a faculty member. The student will be limited as to the number of independent study credits taken per quarter.
Prerequisite: previous academic study or experience in mathematics One to three credits: contact division chairman

## MAS: MEXICAN AMERICAN STUDIES

## MAS 106 PSYCHOLOGY OF THE MEXICAN AMERICAN

Identifies and examines the various psychological traits which make up the unique, and seldom understood, world view of the Mexican American. Includes the psychology of the Mexican American male and female, and related social problems.

## Three credits

## MAS 120 CULTURE OF MEXICO AND SOUTH AMERICA

Examines the social and cultural institutions, as well as the history of Mexico and South America from pre-Columbian times to the present. Emphasis will be placed on the Folkloric aspects of Hispanic culture. Five credits

## MAS 161 EARLY HISTORY OF MEXICO

Studies the important aspects of Indian history and culture in Mexico. Emphasizes the Aztec empire and its cultural contributions. Examines the Spanish conquest and its effects on the Mexican Indian. Five credits

## MAS 162 INTRODUCTION TO MODERN MEXICO

Studies the cultural and historical events that have shaped Mexico into what it is today. Topics include Mexican-U.S. relations, the Mexican Revolution, contemporary issues such as immigration, industrialization, and population.
Five credits

## MCM: SPECIALIZED MANUAL COMMUNICATION

MCM 221 INTRODUCTION TO AMERICAN SIGN LANGUAGE
This course acquaints students with American Sign Language as a language in its own right.

## Three credits

## MCM 222 AMERICAN SIGN LANGUAGE I

This course further develops the student's skills in the use of American Sign Language and signed English.

## Three credits

## MCM 223 AMERICAN SIGN LANGUAGE II

This course continues development of the student's skills in the vocabulary and structure of American Sign Language.

## Three credits

MCM 224 AMERICAN SIGN LANGUAGE III
Continued development of student's skills in the use of American Sign Language and signed English.
Three credits

## MGT: MARKETING/ MANAGEMENT

## MGT 101 SALES

An interpretation of the psychological development of people. Emphasizes the art of making friends and the development of a successful relationship between customers and salesperson. Five credits: 50 clock hours

## MGT 102 ADVANCED SALES

Develop skills of the professional salesperson through role playing situations and studies of advanced closing techniques.
Prerequisite: MGT 101 and employment in a sales position
Five credits: 50 clock hours

## MGT 105 PRINCIPLES OF ADVERTISING

An introduction to functions of advertising as a merchandising tool. Includes study of copy, media, art work, and production. Five credits: 50 clock hours

## MGT 109 INTRODUCTION TO THE HOSPITALITY

 INDUSTRYAn exploratory course designed to acquaint the student with the restaurant/bar, hotel/motel and resort business, and the employment opportunities available in the growing area of hospitality management. Three credits: 30 clock hours

## MGT 115 INTRODUCTION TO FOOD SERVICE MANAGEMENT

To familiarize the student with the principles of food service management, including organization and functions; design, layout and equipment; cost controls; laws and regulations; and marketing. Five credits: 50 clock hours

MGT 116 INTRODUCTION TO FOOD SERVICE MANAGEMENT II
Students learn specific management practices being utilized in the food service industry. Emphasis is on management control functions such as purchasing, inventory, and budgeting. Students learn marketing and financing techniques.
Three credits: 30 clock hours

## MGT 120 INTRODUCTION TO FASHION MERCHANDISING

To acquaint the student with the fundamentals of fashion and the basic principles that control fashion movement and change. The history and development, organization and operation, merchandising activities, and marketing trends of industries engaged in producing and distributing fashion will be studied.
Five credits: 50 clock hours

MGT 126 FASHION BUYING
This course examines the buyer's role in retail merchandising, including the concepts and principles of fashion merchandising, operations, the buyer's responsibility, and buying practices and techniques.
Four credits: 40 clock hours

## MGT 171 MANAGEMENT ACTIVITY I

This course is designed to encourage growth and development through activities in a student or business organization with professional goals. Two credits: 20 clock hours

MGT 185 INDIVIDUAL STUDIES IN MARKETING MGT 186 INDIVIDUAL STUDIES IN MARKETING MGT 187 INDIVIDUAL STUDIES IN MARKETING
These courses provide an opportunity for students to engage in intensive study and research beyond the stated prerequisites.
Prerequisite: MGT 211
One to three credits each: contact instructor

## MGT 206 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.
Prerequisite: MGT 101 and MGT 211
Five credits: 50 clock hours

## MGT 207 HUMAN RESOURCES MANAGEMENT

A survey of principles of personnel management and industrial relations policies. Emphasizes theories of work, organization, administration, manpower, management, staffing, and work incentives. Special emphasis on the art of supervision.
Five credits: 50 clock hours

## MGT 208 SMALL BUSINESS MANAGEMENT

A study of the environment, management policies, marketing and control problems in small business. Emphasizes solving problems, recognizing and evaluating business opportunities. Includes practice in making decisions under conditions of uncertainty and incomplete knowledge.
Prerequisite: MAT 110 or permission of instructor
Five credits: 50 clock hours

## MGT 211 PRINCIPLES OF MARKETING

A study of fundamental organization of distribution systems from manufacturer to consumer. Special emphasis at retail level.
Prerequisite: sophomore standing
Five credits: 50 clock hours

## MGT 212 MANAGEMENT DECISION MAKING

The study of making management decisions with the aid of computer simulations. Illustrates how various combinations of the "marketing mix" change the business outcome.
Prerequisite: MGT 211
Five credits: 50 clock hours

## MGT 215 PRINCIPLES OF MANAGEMENT

A study of the management process, the decision-making process, and the science and art of management. The functions of management (planning, coordinating, organizing, testing, and controlling) are studied in formulating and carrying out the objectives, policies, methods, and procedures in managing a successful business enterprise.
Five credits: 50 clock hours

MGT 225 FASHION RETAIL MERCHANDISING
This course examines in detail each of the merchandising activities a buyer of fashion goods might be expected to perform at the retail level.
Prerequisite: MAT 110 and MGT 126 or permission of instructor
Five credits: 50 clock hours

## MGT 226 FASHION TEXTILES

This course is directed toward the student who may one day make his/her career in an area where a knowledge of textiles would be important. The concepts, principles, and facts about fibers, yarns, fabrics, finishes and fabric construction are presented.
Five credits: 50 clock hours

## MGT 235 ORGANIZATIONAL ENVIRONMENT

Provides an understanding of human behavior, management theory, and leadership as they relate to the student's success in the work environment.
Prerequisite: MGT 207 and MGT 215
Five credits: 50 clock hours

## MGT 236 LABOR LAW RELATIONS

Gives students an understanding of the various laws that govern employer/employee relationships, unfair labor practices, strikes, boycotts, bargaining units, anti-trust, anti-injunction, etc.
Five credits: 50 clock hours

## MGT 237 SUPERVISORY MANAGEMENT

Assists the potential or newly appointed supervisor in becoming acquainted with the many problems which will confront him or her and offers practical advice for their solution. The experienced supervisor should benefit by a re-examination of his or her position and how it relates to other levels in the organization.
Five credits: 50 clock hours

## MGT 238 MARKETING RESEARCH

This course will introduce the principles and practices of marketing research, including research instruments and data collection and interpretation.
Prerequisite: MGT 211
Four credits: 40 clock hours

## MGT 239 PURCHASING

A study of the many parts of the purchasing job: costs, vendor selection, quality determination, bids versus negotiated contracts, ethics, and inventory control methods. Follows the recommendations of the National Association of Purchasing Management, and will stress the significance of purchasing as a management function.
Prerequisite: permission of instructor
Five credits: 50 clock hours

## MGT 245 ANALYSIS OF FASHION CONCEPTS

This course will introduce the student to the principles of fashion design and the implications for marketing.
Three credits: 30 clock hours

## MGT 246 BUSINESS ETHICS

Students will examine current problems, practices, and trends of business ethics, including truth in advertising and professional codes of conduct.
Three credits: 30 clock hours

MGT 275 MID-MANAGEMENT SEMINAR
MGT 276 MID-MANAGEMENT SEMINAR
MGT 277 MID-MANAGEMENT SEMINAR
Contemporary problems are explored as they relate to students' goals and aspirations.
One to three credits each: 10 to 30 clock hours
MGT 285 INDIVIDUAL STUDIES IN MANAGEMENT
MGT 286 INDIVIDUAL STUDIES IN MANAGEMENT
MGT 287 INDIVIDUAL STUDIES IN MANAGEMENT
These courses provide an opportunity for students to engage in extensive study and research beyond the stated prerequisites.
Prerequisite: MGT 215
One to three credits each: contact instructor
MGT 291 PERSONAL ADJUSTMENT TO BUSINESS
MGT 292 PERSONAL ADJUSTMENT TO BUSINESS
MGT 293 PERSONAL ADJUSTMENT TO BUSINESS
Bridges the gap between classroom instruction and work experience for the management-oriented student. Attention is given to specific on-the-job problems encountered by the student. Student will formulate work objectives and attend a weekly one-hour seminar. Employer involved in student evaluation. Other courses may be substitued with the consent of the advisor.
Prerequisite: (1) declared Mid-Management major, (2) consent of a MidManagement advisor, (3) enrolled in one or more of the Mid-
Management program courses each quarter, (4) employed part-time or seeking part-time employment in an acceptable job.
Six credits; 160 clock hours each

## MUS: MUSIC

## 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

This course is designed to provide the mechanics of musical practice (e.g. keys, scales, chords, part-writing, sight-singing, and ear-training). It is intended for potential music majors or minors, and others with serious interest in developing their knowledge.

## Four credits

MUS 111 MUSIC EXPRESSIONS I
MUS 112 MUSIC EXPRESSIONS II
MUS 113 MUSIC EXPRESSIONS III
Provides a variety of musical experiences to stimulate senses, encourages participation and self-expression; provides information on composers, musical styles and history of music and songs.

## One credit

## MUS 120 MUSIC APPRECIATION

(Formerly MUS 100) Covers the basic materials of music, musical forms, media, genres, and musical periods. Emphasizes the development of tools for intelligent listening and appreciation. The course fulfills a humanities requirement.
Five credits

## MUS 121 INTRODUCTION TO MUSIC HISTORY I

Introduction to Music History 1 studies the various periods of music history with regard to the composers, aesthetics, forms, and genres of each period. Considers music from the Middle Ages through the classical period. This course fulfills a humanities requirement.
Five credits
MUS 122 INTRODUCTION TO MUSIC HISTORY II
Continues Introduction to Music History I with a review of the elements of music and a study of music from Early Romantic Period to the present. This course fulfills a humanities requirement.
Five credits

## MUS 220 CHILDREN'S MUSIC

Surveys musical materials appropriate for preschool and elementary school age children. Includes studying and working with listening, rhythm, and creative activities; experiences in singing and playing instruments are involved. Students will develop a repertoire of songs and guided listening for children.
Three credits

## MUS 299 MUSIC PRACTICUM

This learning structure facilitates the development of creative talents (an interrelation of motor, affective, and cognitive skills). The particular format and content of each practicum is determined by the musical form the student is working in and the student's level of proficiency. May be repeated at different levels of proficiency.
One to three credits: contact program coordinator

## MUP: MUSIC PERFORMANCE

| MUP | 131 |
| :--- | :--- |
| MUP | PIANO I |
| MUP | 133 | PIANO II 1 PIANO III

These courses are for the student beginning to study piano. Reading skills and techniques necessary to play simple songs and accompaniments are included. Selected piano works are surveyed.
Two credits each: eight practice hours each

| MUP 151 | VO |
| :---: | :---: |
| MUP 152 | V |
| MUP 153 | V |
| MUP 154 |  |
| 251 | VOI |

Vocal techniques for beginners or more advanced students; survey of selected vocal works included.
Two credits each: eight practice hours each
MUP 171 CLASSICAL GUITAR I
MUP 172 CLASSICAL GUITAR II
MUP 173 CLASSICAL GUITAR III
These courses develop a basic technical and musical foundation for playing classical guitar. Sight reading, technical exercises, and selected guitar literature are studied.
Two credits each: eight practice hours each

## PHI: PHILOSOPHY

PHI 111 INTRODUCTION TO PHILOSOPHY
(Formerly PHI 205) Introduces significant human questions and emphasizes understanding the meaning and methods of philosophy. Includes the human condition, knowledge, freedom, history, ethics, the future, and religion.
Five credits

PHI 112 ETHICS
(Formerly PHI 107) Examines human life, experience, and thought in order to discover and develop the principles and values of pursuing a more fulfilled existence. Theories designed to justify ethical judgements are applied to a selection of contemporary and social issues.
Five credits
PHI 113 LOGIC
(Formerly PHI 108) Studies effective thinking using language-oriented logic. Provides tools and develops skills for creative and critical thinking. Emphasizes the development of decision-making and problemsolving skills.
Five credits

## PHI 205 TOPICS IN PHILOSOPHY

Encourages students who have special interests in philosophy to pursue them in depth. Readings will be selected by instructors as appropriate to the topic. Course may be taken more than once for elective credit provided topics are not repeated.
Five credits

## PEA: PHYSICAL EDUCATION ACTIVITIES

## PEA 101 ARCHERY I

Teaches the techniques and fundamentals of archery.
One credit: 20 clock hours

## PEA 102 ARCHERY II

Improves knowledge of the basic skills learned in PEA 101. More time will be spent on correction of errors and accuracy in shooting.
One credit: 20 clock hours

## PEA 103 ARCHERY III

For those who want to continue improving the skills and techniques of archery.
One credit: 20 clock hours

## PEA 131 BOWLING I

Rules, skills, strategy, and courtesies of individual and team bowling are covered.
One credit: 20 clock hours

## PEA 132 BOWLING II

Improves the basic skills of bowling and introduces techniques of tournament bowling.
One credit: 20 clock hours

## PEA 133 BOWLING III

For bowlers who wish to improve skills while working on rules, strategy, and techniques of team bowling.
One credit: 20 clock hours

## PEA 151 AQUASIZE

This unique form of exercise tones and trims with minimal effort and also has therapeutic value, Class is performed in swimming pool. Basic water safety tips are taught.
One credit: 20 clock hours

## PEA 161 SWIMMING I

Instructs nonswimmers, using the American Red Cross swimming program. Teaches basic strokes of swimming.
One credit: 20 clock hours

## PEA 162 SWIMMING II

Incorporates the basic sequence of skills taught in the American Red Cross intermediate and advanced swimmer classifications.
One credit: 20 clock hours

## PEA 163 SWIMMING III

For the advanced swimmer to maintain and increase his/her endurance level.
One credit: 20 clock hours

## PEB: PHYSICAL EDUCATION BALL SPORTS

## PEB 100 RECREATIONAL BASKETBALL

An activity class designed to allow participation and additional training in the skills, fundamentals and the team play of basketball.
One credit: 20 clock hours

## PEB 101 BASKETBALL I

An activity class which allows the student maximum participation on an intraclass team organizational basis.
One credit: 20 clock hours

## PEB 102 BASKETBALL II

Gives students additional training in basketball skills,
fundamentals, and team play.
One credit: 20 clock hours

## PEB 103 FLAG FOOTBALL I

Allows students to participate on a team level. Participants are divided into teams and records are maintained throughout the season.
One credit: 20 clock hours

## PEB 104 FLAG FOOTBALL II

Allows students to participate on a team level and provides additional opportunities in leadership experience.
One credit: 20 clock hours

## PEB 107 GOLF I

Develops knowledge of the rules, courtesies, and skills of golf and instills an appreciation of the game.
One credit: 20 clock hours

## PEB 108 GOLF II

Improves the techniques of grip, stance, swing, and follow-through. Individual play and putting will be stressed.
One credit: 20 clock hours

PEB 109 GOLF III
Develops advanced techniques of golf.
One credit: 20 clock hours

## PEB 115 WALLYBALL I

Combination of Volleyball and Racquetball skills to play an off-thewall volleyball game.
One credit: 20 clock hours

## PEB 116 WALLYBALL II

Players will experience a higher level of skill and strategies.
One credit: 20 clock hours

## PEB 141 RACQUETBALL I

Teaches the basic movements, skills and rules of racquetball.
One credit: 20 clock hours

## PEB 142 RACQUETBALL II

Improves player skills and strategies of PEB 141. More individual play will be stressed.
One credit: 20 clock hours

## PEB 143 RACQUETBALL III

For students who want to improve skills and knowledge of racquetball.
One credit: 20 clock hours

## PEB 144 ADVANCED RAQUETBALL

An advanced course that will emphasize more strategy and a variety of difficult shots.
One credit: 20 clock hours

PEB 151 SOFTBALL I
Teaches various skills, techniques, rules, and regulations of softball. One credit: 20 clock hours
One and one-half credits: 30 clock hours

PEB 152 SOFTBALL II
Improves knowledge of the fundamentals, skills, rules, and regulations of softball.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEB 161 TENNIS I

Introduces theory and practice of tennis. Skills taught include serve, forehand and backhand drives, volleying, footwork, scoring, rules.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEB 162 TENNIS II

Improves the player's skills and strategies. More individual play will be stressed.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

PEB 163 TENNIS III
For improvement and advancement of skills in tennis.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEB 170 VOLLEYBALL SKILLS

To develop the basic skills and strategies of Volleyball. One credit: 20 clock hours

PEB 171 VOLLEYBALL I
Teaches basic skills of volleyball. Team play is stressed and some intrasquad competition is provided.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEB 172 VOLLEYBALL II

Teaches the finer skills and strategies of PEB 171. More time will be devoted to team play and intrasquad competition.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEB 173 VOLLEYBALL III

Improvement of skills, strategies, and knowledge of volleyball stressed.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEB 181 COMPETITIVE VOLLEYBALL I

Provides the students with the opportunity to develop skills and strategies for competitive volleyball.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEB 182 COMPETITIVE VOLLEYBALL II

Provides the students the opportunity to continue improvement of skills and et rategies of competitive volleyball.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEB 183 COMPETITIVE VOLLEYBALL III

The course gives the student the opportunity to maintain the high level of skills used in competitive volleyball.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED: PHYSICAL EDUCATION DANCE

## PED 101 CLASSICAL BALLET I

Develops poise, grace, agility, and rhythm by learning the
classical Cecchette form of ballet.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 102 CLASSICAL BALLET II

Increases the poise, grace, agility, and rhythm achieved in PED 101. Develops an appreciation of ballet as an art form.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 103 CLASSICAL BALLET III

Improves the student's poise, grace, agility, and rhythm, and increases the student's personal enjoyment of ballet.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 111 AEROBICS I

Helps students gain cardiovascular efficiency through a variety of dance routines.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 112 AEROBICS I

Involves the student in more strenuous and difficult dance routines. Develops better cardiovascular efficiency and proficiency.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 113 AEROBICS III

Continues to aid the student in maintaining greater cardiovascular efficiency. Routines will be more difficult.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 107 ADVANCED AEROBICS

Provides the student with advanced conditioning through accelerated aerobic training.
One credit: 20 clock hours

## PED 121 JAZZ DANCE I

Introduces students to this indigenous dance form of the United States. Teaches basic jazz techniques, terminology, jazz movement, and routines.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 122 JAZZ DANCE II

Continued instruction in jazz dance. Provides a rewarding, satisfying jazz dance experience.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 123 JAZZ DANCE III

Advanced instruction in jazz dance: develops a greater knowledge and proficiency in jazz as a form of dance.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 126 LOW IMPACT AEROBICS I

This class is designed to help the student obtain a better understanding of Health \& Fitness through cardiovascular exercise without the normal impact of aerobic activity.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 127 LOW IMPACT AEROBICS II

Continued instruction in Health and Fitness through cardiovascular exercise without the normal impact of aerobic activity.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 128 LOW IMPACT AEROBICS III

Advanced instruction in cardiovascular exercise.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PED 131 MID-EASTERN DANCE

Provides the students with an understanding of Mideast Dance, its purpose, history and form, traditional and American interpretation. It allows the students to get in touch with themselves through exercise, dance and breathing.
One credit: 20 clock hours

## PED 165 BALLROOM DANCING I

Students will learn a variety of social dances and various steps and the rhythmical aspects of ballroom dance.
One credit: 20 clock hours

PED 166 BALLROOM DANCING II
For students who desire to further their skills in ballroom dancing. One credit: 20 clock hours

## PED 171 COUNTRY SWING I

Introduces the many styles and various combinations of steps suitable for Western dance music. Includes instruction in converting
combinations of other traditional and fad dance steps to country swing as they become popular.
One credit: 20 clock hours

## PED 172 COUNTRY SWING II

Advanced steps and dancing skills are taught, enabling students to enjoy the art of dancing for leisure time activity.
One credit: 20 clock hours

## PED 173 COUNTRY SWING III

For those who want to improve their skills and abilities in country swing dancing.
One credit: 20 clock hours

## PEF: PHYSICAL EDUCATION FITNESS

## PEF 104 AEROBIC CONDITIONING I

To develop a better figure, to increase circulation, to help students gain greater cardiovascular efficiency.
One credit: 20 clock hours

## PEF 105 AEROBIC CONDITIONING II

To further develop the individual figure and to work toward an improvement in physical condition.
One credit: 20 clock hours

## PEF 106 AEROBIC CONDITIONING III

Designed for those students who want to continue to increase their physical fitness and develop a better figure
One credit: 20 clock hours

## PEF 107 SELF-DEFENSE I

Teaches various skills and techniques of self defense.
One credit: 20 clock hours

## PEF 108 SELF-DEFENSE II

To further the skills and techniques of more advanced self-defense. One credit: 20 clock hours

## PEF 111 PHYSICAL FITNESS I

A variety of exercises are taught to improve students' physical fitness. Students also will have the opportunity to jog a few miles each week. One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 112 PHYSICAL FITNESS II

A continuation of PEF 111. Uses a variety of exercises to develop endurance and a higher level of physical fitness.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 113 PHYSICAL FITNESS III

An activity course which continues to improve the endurance and overall condition of the individual.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 116 NU-SHAPE

This class provides low impact aerobic and muscle strengthening exercises for persons not able to participate in a higher level class, due to health or overweight problems.
One credit: 20 clock hours
One and one-half credit: 30 clock hours

## PEF 117 ELASTIC BAND WORKOUT

The purpose and objectives of this course is to enable the student to tone, strengthen and re-apportion all body parts with the use of rubber band resistance.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 121 SLIMNASTICS I

Designed to develop a better figure, firm up the body, increase circulation, and improve coordination.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 122 SLIMNASTICS II

Designed to improve the individual's figure, posture, and coordination.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 123 SLIMNASTICS III

For those students who want to continue in an advanced slimnastics course. Emphasizes the development of the total body.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 126 AEROSPACE FITNESS \& PERFORMANCE I

This class will provide an individualized program of exercise, nutrition, and health enrichment for increased performance and prolonged career in aviation. Physiological evaluation in FITPAC lab available at cost of $\$ 15.00$.
Two credits: 30 clock hours

## PEF 141 YOGA I

Helps students attain physical health, clarity of mind, and spiritual awareness through various exercises. Studies a person's entire being, consisting of body, mind, and spirit.
One credit: 20 clock hours
One and one-half credit: 30 clock hours

## PEF 142 YOGA II

Improves the student's appreciation of physical health and clarity of mind through various exercises.
One credit: 20 clock hours
One and one-half credit: 30 clock hours

## PEF 151 EXERCISE \& HEALTH I

This class provides the student with an individualized exercise program of health and fitness.

Periodic lecture sessions will be held which involve health topics. Exercise programs include choices of aerobics, walking, jogging, exercise bicycles, treadmill, rope jumping and strength building equipment.

An optional fitness test analysis is offered for a $\$ 15.00$ fee. The test includes a submaximal exercise test performed by the student on the treadmill or stationary bicycle. The instructor monitors the heart rate and blood pressure and at the termination of the test, provides the student with a computerized read-out. The read-out gives specifics as to the individual's current health status, and focuses on required weight of individual, body fat percentages, caloric intake, and an exercise prescription.
Two credits: 30 clock hours

## PEF 152 EXERCISE \& HEALTH II

Continuation of PEF 151 with further emphasis in health and fitness. Two credits: 30 clock hours

## PEF 153 EXERCISE \& HEALTH III

Further instuction in health and fitness based on PEF 151 and PEF 152.

Two credits: 30 clock hours

## PEF 161 BODYBUILDING I

To attain maximum potential in muscular and overall body definition and size through progressive resistant training and diet.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 162 BODYBUILDING II

To allow the student to continue improvement in bodybuilding
techniques and improve physical condition.
One credit: 20 clock hours
One and one-half credit: 30 clock hours

## PEF 163 BODYBUILDING III

To improve lifting and bodybuilding techniques to maintain and improve physical conditioning.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 175 MARTIAL ARTS I

To promote physical fitness through various methods of martial arts conditioning and to provide students with a basic understanding of weaponless self-defense methods.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 176 MARTIAL ARTS II

Students will learn the advanced form of kicking, punching and blocking, and self-defense techniques of martial arts.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 177 MARTIAL ARTS III

A continuation of Martial Arts II. Students will develop a deeper understanding of the principles of martial arts through the study of advanced techniques.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 181 ADULT FITNESS I

The student will be instructed in activities which are in fulfillment with his/her individual exercise prescription. A variety of activities will be introduced as an appropriate means of attaining physical fitness.
Periodic evaluations will be necessary for prescription purposes.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 182 ADULT FITNESS II

Continuation of Adult Fitness I. The student will continue activities which are in accordance with his/her individual exercise prescription. Periodic re-evaluations will be necessary for prescription purposes.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 183 ADULT FITNESS III

Continuation of Adult Fitness I \& II, re-evaluations of individual exercise prescriptions.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 185 WOGGING/RACEWALKING

This class will introduce the student to Walking/Jogging/Racewalking as a lifetime sport, and to provide knowledge of fitness components.
One credit: 20 clock hours
One and one-half credit: 30 clock hours

## PEF 191 BODY TRIM I

A class designed for individuals who want a toning and aerobic program. The class concentrates on toning and conditioning with special emphasis on the hips, thighs, waist and abdomen.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 192 BODY TRIM II

Designed to further develop the individual figure and to work towards an improvement in physical condition.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PEF 193 BODY TRIM III

Designed for those students who want to continue to increase their physical fitness and develop a better figure.
One credit: 20 clock hours
One and one-half credits: 30 clock hours

## PHY: PHYSICS

## PHY 101 APPLIED PHYSICS I

(This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree, Trades and Industry course)
Introduces the student to a survey of physics as it applies to the scientific concepts of mechanics. Includes energy, work and power, torque, force, pressure, speed, velocity and acceleration, inertia momentum, properties of matter, the gas laws, mechanices of fluids and simple machines. Involves lecture and discussion on theory and practical applications of concepts. No lab time is required
Prerequisite: none
Five credits

## PHY 105 CONCEPTUAL PHYSICS

Studies mechanics, heat, properties of matter, electricity and magnetism, light and modern physics. This course includes laboratory experience.
Prerequisite: MAT 111 or equivalent
Five credits: four hours lecture, two hours lab per week
PHY 106 LABORATORY TECHNIQUES IN PHYSICS
An experiential study of selected laws of physics using standard laboratory equipment. Emphasis will be placed on solving problems using the scientific approach.
One - Three credits

## PHYSICS: ALGEBRA BASED I, II, III

An introductory sequence of courses for students in preprofessional disciplines. It is recommended that this sequence be transferred to other academic institutions as an aggregate.

## PHY 111 PHYSICS: ALGEBRA-BASED I

Studies mechanics including the concepts of statics, kinematics, momentum, work and energy. This course includes laboratory experience.
Corequisite: College Trigonometry (MAT 122)
Five credits: four hours lecture, two hours lab per week

## PHY 112 PHYSICS: ALGEBRA-BASED II

A continuation of PHY 111. Studies the concepts of heat, light, waves, optics and energy transformations. This course includes laboratory experience.
Prerequisite: PHY 111
Five credits: four hours lecture, two hours lab per week

## PHY 113 PHYSICS: ALGEBRA-BASED III

A continuation of PHY 112. Studies the concepts of electricity, magnetism, modern physics, special relativity, quantum phenomena and radioactivity. This course includes laboratory experience.
Prerequisite: PHY 112
Five credits: four hours lecture, two hours lab per week

## PHYSICS: CALCULUS BASED I, II, III

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

## PHY 211 PHYSICS: CALCULUS-BASED I

An analytical and comprehensive treatment of mechanics and mechanical waves, including basics of relativistic mechanics. This course includes laboratory experience.
Prerequisite: MAT 201 (or may be taken concurrently)
Five credits: four hours lecture, three hours lab per week

## PHY 212 PHYSICS: CALCULUS-BASED II

A continuation of PHY 211. An analytical and comprehensive treatment of thermodynamics, electricity and magnetism. This course includes laboratory experience.
Prerequisite: MAT 202 (or may be taken concurrently), and PHY 211
Five credits: four hours lecture, three hours lab per week

PHY 213 PHYSICS: CALCULUS-BASED III
A continuation of PHY 212. An analytical and comprehensive treatment of wave motion, sound light and energy transformations. A research paper or project may be required. This course includes laboratory experience.
Prerequisite: MAT 203 (or may be taken concurrently), and PHY 212
Five credits: four hours lecture, three hours lab per week

## PHY 295 INDEPENDENT STUDY IN PHYSICS

Provides an opportunity for the highly-motivated student to engage in intensive study and research on a specified topic under the direction of a faculty member. The student will be limited as to the number of independent study credits taken per quarter.
Prerequisite: previous academic study or experience in physics One to three credits: contact division chairman

## POS: POLITICAL SCIENCE

## POS 100 INTRODUCTION TO POLITICAL SCIENCE

Introduces the student to the field of political science by examining the state, elements of government, the political process, political ideologies, and international relations.
Five credits

## POS 111 AMERICAN GOVERNMENT

(Formerly POS 101) Includes the background of the U.S. Constitution; the philosophy of American government; general principles of the Constitution; federalism; civil liberties; public opinion and citizen participation; political parties, interest groups, and the electoral process; and the structure and functions of the national government.
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 the underlying principles of international relations with a view toward understanding current international problems.
Five credits

## POS 208 COMPARATIVE FOREIGN GOVERNMENT

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

## PSY: PSYCHOLOGY

## PSY 101 GENERAL PSYCHOLOGY I

Scientific study of behavior including motivation, emotion, sexuality, physiological psychology, stress and coping, research methods, consciousness, sensation, perception, learning, and memory.
Five Credits

PSY 102 GENERAL PSYCHOLOGY II
Scientific study of behavior including cognition, language, intelligence, psychological assessment, personality, abnormal psychology, therapy, life span development and social psychology.
Five credits

## PSY 104 APPLIED INDUSTRIAL RELATIONS

Person-to-person relationships are studied from the perspective of the first line supervisor and his or her development and responsibilities relative to management expectations.
Three credits

## PSY 107 TRANSACTIONAL ANALYSIS

This course will explain basic concepts of personality structure and interpersonal relationship through an investigation of T.A. theory. Topics will include: ego states (Parent-Adult-Child), life scripts, strokes, games, time structuring, and contract for change.
Three credits

## PSY 111 BASIC HUMAN POTENTIAL SEMINAR

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

## Three credits

## PSY 112 ADVANCED HUMAN POTENTIAL SEMINAR

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

## PSY 115 HUMANISTIC PSYCHOLOGY

A survey of the third force in psychology; emphasizing Gestalt
therapy, psychosynthesis, reality therapy, bio-energetics, body movement, biofeedback, and transactional analysis.

## Five credits

## PSY 117 INTRODUCTION TO CAREER PLANNING

A course designed to help clarify abilities, interests, and values; and to help with job information, vocational planning, and decision making. One or three credits

## PSY 118 PSYCHOLOGY OF ADULTHOOD

Explores the psychological, social, and physiological issues of adulthood and aging, from a lifespan perspective and as a framework for viewing the adult years.
Three credits

## PSY 120 PSYCHOLOGY OF LEADERSHIPAND MANAGEMENT

This course is designed to provide students with an overview of organizational leadership and management from a psychological perspective. Students will be introduced to such concepts as: the relationship between leadership and management, the psychology of individual and group change, the leading-learning styles of leadership, the use of conflict resolution and problem solving in organizations and the situational management style.
Five credits

## PSY 121 DEATH \& DYING: A HOLISTIC PERSPECTIVE

To acquaint participants with new research, alternate approaches, psychological literature on death and dying.

## Three credits

## PSY 128 LOVE AND LONELINESS

This course details unexpected human dimensions that make loneliness a positive good and necessity. It describes how love and loneliness contribute to identity and how a person can move to more authenticity and more meaningful love relationship with his or her fellow human beings.
Three credits

## PSY 131 BEGINNING COUNSELING

A beginning course which introduces students to basic concepts and skills involved in counseling. Emphasizes the uses of and abuses of basic counseling skills. Provides information to help students decide if they want to become counselors.

## Five credits

## PSY 138 BIOFEEDBACK AND STRESS MANAGEMENT

A survey of coping and preventive skills and techniques for dealing with the disabling effects of stress and anxiety. The successful transfer of these skills and techniques to real-life situations is enhanced by supplementing classroom presentations with regular labwork utilizing biofeedback.
Four credits: three hours lecture, two hours lab

## PSY 145 HUMAN RELATIONS AT WORK

## (Business Division course)

A study of personal development and adjustment in business and industry, and attitudes and working relationships with co-workers and supervisors, in order that organizations can be run in greater harmony. Five credits: 50 clock hours

## PSY 166 DEVELOPMENTAL PSYCHOLOGY

A survey of the entire human life span from conception through senescence. A study of the major themes in human development; cognitive, physical, social, perceptual, emotional, personality, language, and moral development. Also covers adult developmental tasks and crisis periods.
Five credits

## PSY 177 CAREER AND LIFE PLANNING

A study of personal awareness, career exploration/research, skills identification, decision making, time management, and stress management as it relates to careers and long term life decisions. Time is divided between classroom instruction and lab activities.

## Five credits

## PSY 205 PSYCHOLOGY OF ADOLESCENCE

An investigation of the psychological, social, physiological development of individuals between puberty and young adulthood. Special problems and deviation from normal development will also be treated.
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 209 PSYCHOLOGY OF PREJUDICE

A study of the underlying causes of prejudice and how prejudicial behavior is learned, continued, and diminished.
Three credits

## PSY 211 PARAPSYCHOLOGY I

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

## PSY 221 ABNORMAL PSYCHOLOGY

A study of abnormal behavior found in humans. Such disorders as organic mental, schizophrenic, paranoid, anxiety, dissociative, and psychosexual disorders will be considered for causes, symptoms, characteristics, treatment, and prevention.
Prerequisite: PSY 101
Five credits

## PSY 225 ADVANCED COUNSELING

The emphasis of the course is on a multi-modal approach to the development of counseling skills such as attending, assessment, life-style analysis, pacing, empathy, reframing, and problem solving skills.
Prerequisite: PSY 131
Four credits

## PSY 229 ALCOHOL \& SUBSTANCE ABUSE

This course provides the student with current information concerning the physiological, psychological, and sociological aspects of drug use, misuses, and abuse.

## Three credits

## PSY 232 PSYCHOLOGY OF DREAMS

An exploration of the literature in the field. Coverage will include theory and technique and current sleep research with a major goal of understanding the process of dreaming.
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 (PRINCIPLES)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. Five credits

## PSY 242 BIOFEEDBACK AND STRESS MANAGEMENT II

Continuation of Biofeedback and Stress Management. Concrete applications of biofeedback training as well as the use of adjunctive techniques of covert sensitization, covert reinforcement, imagery, desensitization, implosion, flooding and cognitive re-structuring.
Prerequisite: PSY 138, PSY 241 or PSY 244
Four credits: three hours lecture, two hours lab

## PSY 244 BIOFEEDBACK AND HYPERTENSION

Focuses on the biofeedback procedure for blood pressure reduction developed at the Biofeedback and Psychophysiology Center of the Menninger Foundation, Topeka, Kansas. Class topics include the principles and techniques of biofeedback training, the physiology of hypertension and its causes, the role of stress management, diet, exercise, life style and medications in blood pressure management.
Five credits: four hours lecture, two lab sessions each week

## PSY 248 CHILD PSYCHOLOGY

A study of the normal child's emotional, physical, cognitive, social, and moral development from infancy through adolescence. Five credits

## PSY 275 HYPERTENSION FOLLOW-UP

Continuation of the training begun in PSY 244, including biofeedback training, diet, exercise, stress management, and cardiovascular
functioning.
Prerequisite: PSY 244
Two credits

## PSY 276 HUMAN SEXUALITY

A survey of human sexual functioning with emphasis on psychological, cultural, and biological components. Topics covered include; sexual variation, sexual identity, personal development and fulfillment, and social and ethical aspects of sex.
Three credits

## PSY 278 PSYCHOLOGY OF CRIMINAL BEHAVIOR

Analysis of the personality structure of criminals and the study of effective rehabilitation techniques.

## Three credits

## PSY 279 PSYCHOLOGICAL ASPECTS OF ABUSE IN RELATIONSHIPS

This course introduces the issues of abuse in relationships from the perspective of the victim, the perpetrator and society.

## Three credits

## PSY 287 CLIENT RECORDS MANAGEMENT

Students interested in chemical/alcohol counselor I certification will learn Colorado state laws, counter methods and client records documentation in this course.

Two credits: see instructor

## PSY 288 BASIC THERAPEUTIC SKILLS

Experimental clinical skill practice, crisis intervention techniques and an overview of substance abuse are presented in this course. This course is for persons seeking chemical/alcohol counselor certification.
Four credits: see instructor

## PSY 289 INTRODUCTION TO ADDICTIVE BEHAVIORS

This course presents the subject of addictive behavior and its effect on individuals, families and society.
Five credits

## PSY 295 INDEPENDENT STUDY IN PSYCHOLOGY

Provides an opportunity for the serious-minded student to engage in intensive study and research on a specified topic under the direction of a faculty member.
One to three credits: contact instructor
MAS 106 PSYCHOLOGY OF THE MEXICAN AMERICAN
Identifies and examines the various psychological traits which make up the unique, and seldom understood, world view of the Mexican American. Topics will include the psychology of the Mexican American male and female and social related problems.
Three credits

## XRT: RADIOLOGIC TECHNOLOGY

## XRT 100 INTRODUCTION TO RADIOLOGIC TECHNOLOGY

Designed to provide the student with an overview of radiography and its role in health care delivery. Emphasis is on radiology department organization, accreditation and credentialing, medical ethics and law, and professional growth.
Prerequisite: none
Two credits

## XRT 101 RADIOGRAPHIC POSITIONING I

Designed to ensure that students gain the ability and confidence they need to perform the radiographic examinations they will be expected to handle in the clinical setting; fundamentals of positioning, positioning nomenclature, positioning of the thoracic contents, abdomen and contents, and distal upper and lower extremities.
Prerequisite: majors only
Four credits

## XRT 102 RADIOGRAPHIC POSITIONING II

A continuation of XRT 101. Consideration will be given to the structure and positioning of the upper and lower extremities, shoulder and pelvic girdles, lumbar and thoracic spines.
Prerequisite: XRT 101, majors only
Four credits

## XRT 103 RADIOGRAPHIC POSITIONING III

A continuation of XRT 101 and XRT 102. Emphasis on the structure and positioning of cranium, cervical spine, distal spine, special views of the spine and pelvis, bony thorax, sinuses, facial bones and cranium.
Prerequisite: XRT 101, XRT 102, majors only
Four credits

## XRT 104 RADIOGRAPHIC POSITIONING IV

A continuation of XRT 101, XRT 102, and XRT 103. Emphasis on sinuses, facial bones, and special positions of the cranium.
Prerequisite: XRT 101, XRT 102, and XRT 103, majors only Four credits

## XRT 105 PATIENT CARE

Designed to provide the student with concepts of patient care including considerations of physical and psychological conditions. Routine and emergency patient care procedures will be described. Emphasis is on body mechanics, applied communications, vital signs, infection control, asepsis, contrast media. Aspects of death and dying will be discussed.
Prerequisite: none
Three credits

## XRT 111 CLINICAL EXPERIENCE I

The student in the clinical setting will perform radiographic procedures under the direct supervision of a qualified radiologic technologist or radiologist. Unsatisfactory clinical performance will result in the student being terminated from the curriculum. Only fulltime radiologic technology students are permitted to participate in this course.
Prerequisite: majors only
Two credits

## XRT 112 CLINICAL EXPERIENCE II

Continuation of supervised clinical education under the direct supervision of a qualified radiologic technologist. Correlates skills from academic courses.
Prerequisite: XRT 111, majors only
Five credits

## XRT 113 CLINICAL EXPERIENCE III

Continuation of supervised clinical education under the direct supervision of a qualified radiologic technologist. Correlates skills from academic courses.
Prerequisite: XRT 112, majors only
Five credits

## XRT 114 CLINICAL EXPERIENCE IV

Continuation of supervised clinical education under the direct supervision of a qualified radiologic technologist. Correlates skills from academic courses.
Prerequisite: XRT 113, majors only
Ten credits

## XRT 118 RADIATION PROTECTION \& BIOLOGY

Designed to ensure that the student has an understanding of the effects of ionizing radiation in biologic systems, and the public right to minimal radiation exposure.
Prerequisite: permission of instructor
Three credits

## XRT 121 RADIOGRAPHIC EXPOSURE I

Introduces the student to the theory of radiographic prime factors, factors influencing exposure values, attenuating and restricting devices, technique charts and their application. Provides the student with guided experiences in the laboratory setting to reinforce the theory material.
Prerequisite: majors only
Four credits

## XRT 122 RADIOGRAPHIC EXPOSURE II

Continuation of XRT 121 with emphasis on application of theory.
Prerequisite: XRT 121, XRT majors only
Three credits

## XRT 205 SPECIAL PROCEDURES

Acquaints the student with the theory, equipment, and methodology of selected special procedures.
Prerequisite: permission of instructor
Three credits

## XRT 207 RADIOGRAPHIC IMAGING

A study of image intensification, recording media, and special imaging techniques in radiography.
Prerequisite: permission of instructor
Three credits

## XRT 208 RADIOGRAPHIC PATHOLOGY

Gives the student a basic understanding of the definition and types of selected diseases common to radiography. Consideration will be given to common illnesses of the body systems and their effects on the production of a diagnostic radiograph.
Prerequisite: permission of instructor
Three credits

## XRT 211 CLINICAL EXPERIENCE V

The student in the clinical setting will perform radiographic procedures under the direct supervision of a technologist or radiologist. Unsatisfactory clinical performance will result in the student being terminated from the curriculum. Only full-time radiologic technology students are permitted to participate in the course.
Prerequisite: XRT 114, majors only
Eight credits

XRT 212 CLINICAL EXPERIENCE VI
Continuation of XRT 211. Correlates skills from previous classes. Prerequisite: XRT 211, majors only
Eight credits

XRT 213 CLINICAL EXPERIENCE VII
Continuation of XRT 212.
Prerequisite: XRT 212, majors only
Ten credits

## XRT 214 CLINICAL EXPERIENCE VIII

Continuation of XRT 213.
Prerequisite: XRT 213, majors only
Ten credits

## XRT 218 COMPUTERS IN MEDICINE

Designed to make the student aware of the various uses of computers in imaging.
Prerequisite: permission of instructor
Two credits

## XRT 221 X-RAY PHYSICS I

Imparts an understanding of basic x-ray physics, includes: unit of measurement, mechanics, structure of matter, electrostatics, magnetism, and electrodynamics.
Prerequisite: permission of instructor
Four credits

## XRT 222 X-RAY PHYSICS II

A continuation of XRT 221. Consideration will be given to electromagnetism, rectification, and production and properties of $x$-rays, $x$-ray tubes, and x-ray circuits.
Prerequisite: XRT 221 or permission of instructor
Three credits

## XRT 225 RADIOGRAPHIC QUALITY ASSURANCE

Designed to provide the student with an introduction to the evaluation of radiographic systems to assure consistency in the production of quality images. The components involved in the radiography system will be identified. Tests and procedures to evaluate these components will be discussed. State and federal impacts will be described.
Prerequisite: XRT majors only or permission of instructor Two credits

## REA: READING

*This course will not satisfy minimum nor elective requirements for the A.A. or A.S. degree.

## REA 012 DEVELOPMENTAL READING II

Provides the beginning reader with skills in word attack and comprehension, and provides practice in developing these skills. Primary purposes are to give the student a basic introduction to general reading skills and to prepare the student for REA 013.
Prerequisite: placement

## REA 013 DEVELOPMENTAL READING III

Provides the intermediate level reader with instruction in vocabulary development, structural analysis, comprehension, and reading for specific purpose. Provides practice in these reading skills in both general and content area reading materials. Primary purposes are to improve the student's reading level, to expand the variety of reading skills a student uses, and to prepare the student for REA 014.
Prerequisite: REA 012 or placement

## REA 014 DEVELOPMENTAL READING IV

Provides the advanced intermediate reader with additional instruction in vocabulary development, structural analysis, comprehension, and reading for a specific purpose. Includes general and content area reading materials. Primary purposes are to improve the student's reading level, and to expand the variety of reading skills the student uses.
Prerequisite: REA 013 or placement

## *REA 094 LITERATURE READING

Provides a basic introduction to reading in the content field of literature and general or practical reading. Major objectives are to familiarize students with the content vocabulary in literature, and to prepare students to apply skills well enough to pass the literature reading section of the GED test.
Prerequisite: placement

## *REA 100 INTRODUCTION TO COLLEGE READING

To provide the opportunity to learn and improve all basic reading skills necessary for comprehension.
Prerequisite: placement
Five credits

## *REA 101 MASTERING COLLEGE READING

To increase the student's ability to comprehend college level texts by providing him/her with critical, affective and creative reading skills.

## Prerequisite: placement

Five credits

## REA 102 COLLEGE READING AND STUDY SKILLS

Increases the student's ability to read college level texts and to provide him/her with the study techniques necessary for success in content areas and study situations.
Prerequisite: placement

## Five credits

## REA 103 BASIC VOCABULARY SKILLS

This course is designed to help students achieve a higher literacy by understanding and mastering new words and by understanding how words and language are created.
Prerequisite: placement
Three credits

## *REA 104 BASIC SPELLING SKILLS

Provides opportunity to learn and improve the basic spelling skills necessary for academic success.
Prerequisite: placement
Two credits

## REA 105 READING, WRITING, AND

 THINKING SKILLSThis course provides students with an opportunity to apply analytical reading, writing and reasoning skills to a variety of curriculum areas.
Prerequisite: REA 100 or placement
Five credits

## REA 107 READING SPEED AND EFFICIENCY

To increase knowledge of literal, critical, and affective comprehension skills while teaching the use of several reading speeds.
Prerequisite: REA 101 or placement
Five credits

## RES: REAL ESTATE

## RES 103 REAL ESTATE LICENSE PREPARATION

Assists students in preparing for the Colorado Real Estate License Examinations required to enter the field of real estate.
Prerequisite: RES 106 or permission of instructor
Three credits: 30 clock hours

RES 104 REAL ESTATE CLOSING AND

## TRUST ACCOUNTS

Provides the student with an understanding of the legal requirements, record keeping responsibilities, establishment and maintenance of trust accounts, and the broker's responsibilities related to closings.
Three credits: 30 clock hours

## RES 106 REAL ESTATE PRACTICE AND LAW

Each student will be familiar with the language of real estate, know the essential elements of real estate principles and law, and be able to practice real estate under the supervision and training of a manager broker.
Six credits: 60 clock hours

## RES 115 COLORADO REAL ESTATE LAW AND COLORADO REAL ESTATE CONTRACTS

To protect the public by introducing and instructing students in Colorado Real Estate Laws and Colorado Real Estate Commission approved real estate contracts.
Three credits: 30 clock hours

## RES 205 REAL ESTATE FINANCE

Teaches the student how to counsel buyers and sellers in financing techniques, including seller financing, the importance of calculations and disclosures required for the various methods of financing, and an understanding of necessary documents for financing.
Prerequisite: RES 106 or permission of instructor
Two credits: 20 clock hours

## RES 207 ADVANCED REAL ESTATE LAW

Provides a study of the sources of law and the legal system, the law of agency, licensing concerns, limitations of ownerships, evidence of title, notes and security instruments, and current legal concerns.
One credit: 10 clock hours

## SCI: SCIENCE

## *Indicates instruction is administered by Developmental Studies Division.

## *SCI 014 DEVELOPMENTAL SCIENCE IV

The primary purposes of the course are: to teach basic scientific facts and ideas; to develop reading comprehension and vocabulary mastery in the content area of science; to introduce students to earth science and life science; and to provide a systematic survey of basic science.
Prerequisite: placement
Five credits

## *SCI 015 DEVELOPMENTAL SCIENCE V

The primary purposes of the course are: to teach basic facts and ideas; to continue the development of reading comprehension and vocabulary mastery through the study of basic sciences; to introduce students to the study of physical science, and to continue to provide a systematic survey of basic science.
Prerequisite: placement
Five credits

## *SCI 095 NATURAL SCIENCE READING

Provides a basic introduction in the content field of the natural sciences. Major objectives are to familiarize students with the content vocabulary in this area and to prepare students to apply comprehension skills of reading appropriate to the area of the natural science adequate to allow students to pass the reading comprehension section of the GED test.

## Prerequisite: placement

## SCI 105 INTRODUCTION TO PRINCIPLES OF SOLAR ENERGY

Topics include solar geometry, heat transfer; active, passive and hybrid systems; general structural heat loss, transfer mediums, cost, and legislation. A presentation of several systems and collectors will be available through field trips.

## Three credits

## SCI 106 SOLAR SYSTEM SIZING

Theory and calculations will be presented regarding heat loss, collector efficiency, heat gain, distribution, and sizing. Heat storage systems and solar systems also will be analyzed.
Prerequisite: SCI 105 or permission of instructor
Three credits

## SCI 115 PASSIVE SOLAR DESIGN

The following topics will be included in this course: elementary thermodynamics, fundamentals of solar heating, factors determining effectiveness and efficiency, design characteristics, a selection of applications and aesthetic realities.

## Three credits

## SCI 230 SCIENTIFIC WRITING

Topics include use of scientific literature and library resources, the general aspect of a scientific paper, the title, preparation of tables and illustrations and procedures regarding materials and methods. A section covering results, discussion and acknowledgements also will be included.
Prerequisite: CON 102 or equivalent
Three credits

## SOC: SOCIOLOGY

*Indicates instruction is administered by Developmental Studies Division.

## *SSS 095 SOCIAL SCIENCE READING

Provides a basic introduction to reading in the content field of social science. Major objectives are to familiarize students with the content vocabulary in this area, and to prepare students to apply comprehension skills of reading appropriate to the area of social science adequate to allow students to pass the reading comprehension sections of the GED test.
Prerequisite: placement

## SOC 101 INTRODUCTION TO SOCIOLOGY I

Examines the basic concepts, theories, and principles of sociology, as well as human cultures, social groups, and the social issues of age, gender, class and race.
Five credits

## SOC 102 INTRODUCTION TO SOCIOLOGY II

Examines social institutions and organizations from the macro perspective. Emphasizes issues of social change, demography, social movements, and conflicts and trends within education, religion, family, political, and economic structures.
Five credits

## SOC 105 SOCIOLOGY OF MARRIAGE AND FAMILY

A study of marriage and family relationships, focusing on social institutions, value systems, communication, mate selection, and other social/cultural factors. The course will emphasize courtship, marriage, and conjugal life in contemporary America, and discuss the changes in these areas.
Five credits

## SOC 106 CONTEMPORARY SOCIAL PROBLEMS

A study of both specific and general problems of our time. Some of the social problem studies include poverty, civil liberties, social change, crime and delinquency in the context of contemporary American society. Three credits

## SOC 205 SOCIOLOGY OF EDUCATION

A study of the relationship of social and educational systems in American society. We will explore the performance of the American educational system in fulfilling the promise of opportunity and in providing access for upward mobility.
Three credits
SOC 207 SOCIOLOGY OF WORK AND LEISURE
Analysis of the changing relationship between work and leisure (nonwork). As we enter the post-industrial/high-tech society, our quest for quality of life may be affected by new occupations, new opportunities, and nonwork patterns of behavior.
Three credits

## SOC 217 SYSTEMS PERSPECTIVE FOR SOCIAL WORK

Introduction of the "systems perspective" as a framework of social work. The course will emphasize listening skills, crisis intervention skills and case study evaluation.
Three credits

## SOC 218 SOCIOLOGY OF MINORITIES

This course explores the variety of intergroup relations--race, income, minority and urban/rural, and offers methods of teaching and measuring these intergroup relations.
Four credits

## SOC 219 GENERIC SOCIAL WORK

Basic elements of social work will be presented in this class, including the various tasks of Social Workers, including short-term focused brief therapy, mental health, aging and community organizations.
Five credits

## SOC 291 SOCIOLOGY PRACTICUM/FIELD EXPERIENCE - A

This course provides communication training and applied helping skills to the beginning social work student through placement in various social work settings. Chemical/alcohol counselor I students need this course to complete 1000 clock hours for certification.
Three credits: contact instructor

## SOC 292 SOCIOLOGY PRACTICUM/FIELD EXPERIENCE - B

Continuation of SOC 291. Chemical/alcohol counselor I students need this course to complete 1000 clock hours for certification.
Three credits: contact instructor

SOC 293 SOCIOLOGY PRACTICUM/FIELD

## EXPERIENCE - C

Continuation of SOC 291. Chemical/alcohol counselor I students need this course to complete 1000 clock hours for certification. Three credits: contact instructor

## SOC 294 SOCIOLOGY PRACTICUM/FIELD EXPERIENCE - D

Continuation of SOC 291. Chemical/alcohol counselor I students need this course to complete 1000 clock hours for certification.
Three credits: contact instructor

## SOC 295 INDEPENDENT STUDY IN SOCIOLOGY

Provides an opportunity for the serious-minded student to engage in intensive study and research on a specified topic under the direction of a qualified faculty member.
One to three credits: contact instructor

## SPP: SPECIAL PROGRAMS

## DST 025 BILINGUAL CITIZENSHIP

Designed to prepare students to successfully pass the test to obtain United States citizenship. Local, state, and national government functions and procedures will be emphasized. When the student is ready, an application packet issued by the Immigration and Naturalization Department will be given to the student to apply for citizenship. Spanish instruction will be provided for those who need it.

## DST 065 BILINGUAL DRIVER'S EDUCATION

Designed to prepare students to understand and pass the driver's license oral or written examination. If the student cannot read or write, emphasis is given to the verbal understanding of signs, rules, and state laws. Spanish instruction will be provided for those who need it.

## DST 025 CLASES DE CIUDADANIA

Esta clase se ensena para preparar estudiantes para que puedan pasar el examen de ciudadania de los Estados Unidos. Se dara enfasis a las funciones y procedimientos del govierno local, estatal y nacional. Cuando el estudiante este listo, un sobre con las aplicaciones necesaries del Departamento de Imigracion y Naturalizacion se dara al estudiante para que pueda aplicar por ciudadania. Instruccion en espanol se dara a los que la necesiten.

## DST 065 CLASES DE MANEJAR

Esta clase es para preparar estudiantes para que entiendan y pasen el examen de licencia en la forma oral o escrita. La instruccion de signos, leyes y reglas del estado de Colorado sera presentada oralmente si el estudiante no puede leer o escribir. Instruccion en espanol se dara a los que la necesiten.

## DST 092 ORIENTATION TO GED

Includes orientation for students in the content areas that are tested in the GED exam. Informs students of the eligibility and requirements pertaining to the GED test, and introduces the students to test taking techniques.
Prerequisite: placement

SPE: SPEECH

## SPE 110 COMMUNICATION CONCEPTS

(Formerly SPE 115) Provides students with practical experience in everyday, oral communication such as interpersonal communication, group discussion, listening skills, and certain fundamentals of public speaking.

## Five credits

## SPE 115 PRINCIPLES OF SPEECH COMMUNICATION

(Formerly SPE 116) A course combining the basic theory of speech communication with public speech performance skills. Emphasizes speech delivery, preparation, organization, support, and audience analysis.

## Five credits

## SPE 118 INTERPERSONAL COMMUNICATIONS

Focuses on learning communication skills used in listening and sending messages. Students develop problem solving skills as well as selfconfidence and self-awareness while working in pairs and small groups. Five credits

## SPE 119 INTRODUCTION TO SEMANTICS

Introductory study of how persons respond to words and other symbols. Students not only look at words and things, but also at the human behavior that results from using various types of symbols in different ways.

## Three credits

## SPE 125 WORD POWER: ADVANCED VOCABULARY

Provides an opportunity to increase the student's knowledge of the function in the English language of words derived from Latin, Greek, and other languages.

## Two credits

## SPE 200 ORGANIZATIONAL COMMUNICATION

Students will investigate the nature of communication systems within an organization, with special emphasis on strategies and practice in effective organizational communication.
Five credits

## SPE 299 SPEECH PRACTICUM

Provides an opportunity for the serious-minded student to develop speaking skills under the direction of a faculty member. May be repeated at different levels of proficiency.
Prerequisite: permission of instructor
One to three credits

## STA: STATISTICS

## STA 201 STATISTICS FOR BUSINESS, SCIENCE, AND SOCIAL SCIENCE I

Emphasizes concepts and applications of selected topics from descriptive and inferential statistics. Includes organization of data, computation and interpretation of descriptive measures, linear correlation and regression, simple aspects of probability, the normal and binomial distributions, and sampling distributions.
Prerequisite: two years high school algebra or MAT 112 or permission of the instructor
Five credits

STA 202 STATISTICS FOR BUSINESS, SCIENCE, AND SOCIAL SCIENCE II
Includes tests of statistical hypothesis based upon the $\mathrm{z}, \mathrm{t}$, chi-square and F distributions. Other selected topics may include analysis of variance, multiple regression, nonlinear estimation and time series analysis.
Prerequisite: STA 201 or permission of instructor
Five credits

STA 203 STATISTICS FOR BUSINESS, SCIENCE, AND SOCIAL SCIENCE III
A treatment of statistical topics and techniques to include: single and two factor analysis of variance, multiple regression and correlation, forecasting models and time series analysis, nonlinear regression and statistical quality control.
Prerequisite: STA 202 or permission of instructor
Five credits

## THE: THEATRE

## THE 116 SCREEN ACTING I <br> THE 117 SCREEN ACTING II <br> THE 118 SCREEN ACTING III

These courses teach the differences between stage acting, and screen (video) acting, and all the how to's involved in that area. Development of characterization skills, increased understanding of human behavior and relationships, and imaginative encounters with one's self, build confidence and improve audition/interview abilities.

## Three credits each

## THE 211 DEVELOPMENT OF THEATRE I

Surveys the history and evolution of the theatre from Ancient Greece to the Renaissance, emphasizing all aspects of the art form from period values to analysis of dramatic literature and performance. This course fulfills a humanities requirement.

## Five credits

## THE 212 DEVELOPMENT OF THEATRE II

Surveys the history and evolution of drama from the Renaissance to the present, emphasizing all aspects of the art form from period values to the analysis of dramatic literature and performance. This course fulfills a humanities requirement.

## Five credits

## THE 299 THEATRE PRACTICUM

This learning structure facilitates the development of creative talents (an interrelation of motor, affective, and cognitive skills). The particular format and content of each practicum is determined by the theatrical form in which the student is working and the student's level of proficiency. May be repeated at different levels of proficiency. One to three credits: contact program coordinator

## WLT: WELDING TECHNOLOGY

## WLT 105 BASIC OXY/ACET WELDING

Students will receive training in the safe and correct procedure for using oxy-acetylene equipment. Students also will receive instruction on welding mild steel material using fillet and butt welds.
Four credits: 60 clock hours

## WLT 106 ADVANCED OXY/ACET WELDING

Training will be given in out-of-position welding of mild steel and instruction on brazing and oxy-acetylene cutting.
Four credits: 60 clock hours

## WLT 107 BASIC SHIELDED METAL ARC WELDING

Students will receive training in safe and correct procedures for using arc welding equipment. Instruction will be given using common types of electrodes on various types of joints in all positions.
Four credits: 60 clock hours

## WLT 108 ADVANCED SHIELDED METAL ARC WELDING

Training will be given using E-7018 electrodes on various types of fillet welds on heavy plate. These welds will be made in the horizontal, vertical, and overhead positions.
Four credits: 60 clock hours

## WLT 109 BASIC GAS METAL ARC WELDING

Students will receive training in the correct and safe way to operate gas metal arc welding equipment. They will weld common fillet welds on various gauges of material using .035 diameter solid wire.
Four credits: 60 clock hours

## WLT 115 ADVANCED GAS METAL ARC WELDING

Students will weld beveled butt joints in all positions using .035 solid wire. They also will receive training using flux cored wire.
Four credits: 60 clock hours

## WLT 121 BASIC WELDING LAYOUT

To introduce the participant to the basic layout tools and techniques, including the use of a calculator to compute angles and lengths.
Three credits: 30 clock hours

## WLT 141 OXY/ACET WELDING

Students will be given training and skill development in the use of oxy-acet welding equipment including fusion welding, brazing and cutting.
Twelve credits: 150 clock hours

## WLT 142 SHIELDED METAL ARC I

Students will be given training and skill development in shielded metal arc welding. Welding will be in all positions on $3 / 16^{\prime \prime}$ mild steel using various electrodes.
Twelve credits: 150 clock hours

## WLT 143 SHIELDED METAL ARC II

Students will be given training on multiple pass fillet welds in all positions using E-6010 and E-7018 electrodes.
Twelve credits: 150 clock hours

## WLT 144 SPECIALIZED WELDING I

This course is designed to meet the needs of students who would benefit from a specialized program. Objectives will be agreed upon by the instructor, program supervisor and the student.
Twelve credits: 150 clock hours

## WLT 151 WELDING TECHNOLOGY I

Students will be given training and skill development in the use of oxy-acetylene welding, basic shielded metal arc welding, shop safety, and basic metal and electrode identification. Oxy-acetylene will include fusion welding, brazing, and cutting. Are welding will include work in all positions of welding using various electrodes and common joints.
Twenty-four credits: 300 clock hours

## WLT 152 WELDING TECHNOLOGY II

Students will be working with the shielded metal arc process on fillet and beveled butt welds using E-6010 and E-7018 electrodes on heavy plate in all positions. Instruction also will be given in basic blueprint reading and welding symbols.
Prerequisite: WLT 151 or instructor permission
Twenty-four credits: 300 clock hours

## WLT 153 WELDING TECHNOLOGY III

Training will be given on uphill pipe welding using the SMAW process. Pipe will be welded in 5 and 6 G positions. Instruction also will be given in the GMAW process. Students will work on light and heavy material using both solid and cored wire in a variety of positions. Students will learn basic layout tools and techniques for their use.
Prerequisite: WLT 152 or instructor permission
Twenty-four credits: 300 clock hours

## WLT 199 WELDING SPECIALTIES

This course is designed for in-service students. It will provide upgrading skills to persons who are actually involved in the field of welding. Objectives will be agreed upon by the instructor, program supervisor and the student.
One credit: 10 clock hours

## WLT 204 WELDING PROBLEMS I

Designed to meet the needs of students who would benefit from a specialized program. Objectives will be agreed upon by the instructor, program supervisor, and the student.
Four credits: 60 clock hours

## WLT 205 WELDING PROBLEMS II

This course is designed to meet the needs of students who would benefit from a specialized program. Objectives will be agreed upon by the instructor, program supervisor and the student. Normally used as advanced study beyond WLT 204.
Four credits: 60 clock hours

## WLT 206 WELDING PROBLEMS III

This course is designed to meet the needs of students who would benefit from a specialized program. Objectives will be agreed upon by the instructor, program supervisor and the student. Normally used as advanced study beyond WLT 205.
Four credits: 60 clock hours

## WLT 236 SPECIAL WELDING PROBLEMS I

This course is designed to meet the needs of students who would benefit from a specialized program. Objectives will be agreed upon by the instructor, program supervisor, and student.
Twenty-four credits: 300 clock hours

## WLT 237 SPECIAL WELDING PROBLEMS II

This course is designed to meet the needs of students who would benefit from a specialized program. Objectives will be agreed upon by the instructor, program supervisor and the student. Normally used as advanced study for WLT 236.
Twenty-four credits: 300 clock hours

## WLT 241 SHIELDED METAL ARC III

Students will be given instruction in the welding of beveled butt joints with an open root using E-6010 and E-7018. Basic blueprint reading and weld symbols will also be covered.
Twelve credits: 150 clock hours

## WLT 242 PIPE WELDING

Instruction will be given on uphill pipe welding using the SMAW process. Pipe will be welded in the 5 and 6G positions using E-6010 and E-7018 electrodes.
Twelve credits: 150 clock hours

## WLT 243 GAS METAL ARC WELDING

Students will learn to operate and perform basic trouble shooting on GMAW equipment. Welding will be done on a variety of metal thicknesses with solid and flux core wire.
Twelve credits: 150 clock hours

## WLT 244 SPECIALIZED WELDING II

This course is designed to meet the needs of students who would benefit from a specialized program. Objectives will be agreed upon by the instructor, program supervisor and the student. Normally used as advanced study beyond WLT 144.
Twelve credits: 150 clock hours

## WLT 251 WELDING FABRICATION

This course is designed to provide basic knowledge in the areas of layout, fabrication tools and equipment, and assembly of welding structures. Actual hands-on work will be provided.
Prerequisite: WLT 151 and WLT 152, or permission of instructor.
Twenty-four credits: 300 clock hours


## AIMS JUNIOR COLLEGE DISTRICT BOARD OF TRUSTEES

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## ADMINISTRATIVE STAFF

DR. GEORGE R. CONGER (President) ..... 1979
PAUL W. GAISER (Vice President and Dean: School of Occupational Education) ..... 1967
DR. JERRY KIEFER (Vice President and Dean of the College) ..... 1974
DR. DWANE R. RAILE (Vice President and Dean: School of Arts and Sciences) ..... 1971
WILLIAM M. HILLARD (Vice President and Dean: Student Personnel Services) ..... 1984
DON CUMMINS (Associate Dean of the College and Director of the South Campus) ..... 1980
ROBERT N. RANGEL (Associate Dean of the College: Evening Program/Affirmative Action Officer) ..... 1969
PHILIP ROUSE (Associate Dean: School of Occupational Education) ..... 1980
ARIETTA M.C. WIEDMANN (Associate Dean: School of Arts and Sciences and Director: Continuing Education) ..... 1984
RICHARD E. BOGGS (Director: Computer Services) ..... 1977
RICHARD C. BURNS (Director: Purchasing) ..... 1981
TERRY CARR (Director: Financial Aid) ..... 1971
WILLIAM D. GREEN (Registrar) ..... 1985
RALPH D. MARTINEZ (Director: Student Services - South Campus) ..... 1973
DIANE W. MILLER (Director: Personnel and Payroll) ..... 1984
ROBERT MITCHELL (Business Manager) ..... 1985
MARK L. OLSON (Director: Public Information) ..... 1982
DONALD B. RITTER (Director: Institutional Planning) ..... 1971

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## AIMS COMMUNITY COLLEGE FACULTY

## ACKERMAN, ALAN H.

## (Chemistry and Biology)

B.A., Clark University, Massachusetts; Ph.D., Massachusetts Institute of Technology.

## ADAMS, JAMES R.

## (Marketing/Management)

B.A., University of Northern Colorado; Graduate study, University
of Northern Colorado; Eighteen years business experience. 1968
ARON, ANN
(Division Chair, Business)
B.S., University of Nebraska; M.A., University of Northern Colorado.
BAILEY, WILLIAM N.
(Assistant Division Chair, Fire Science)
Colorado Certificate, Fire Fighter I, Instructor I; Ten years public
fire suppression and fire administrative experience.

## BANTIN, FREDERICK

## (Electronics Technology)

B.A., University of Nebraska-Omaha; Electronic Technology

Institute, Inc., Denver; Graduate study, University of Northern
Colorado; Twelve years industrial experience.

## BATMAN, LARRY G.

(Mathematics and Computer Science)
B.A., University of Northern Colorado; M.A., University of Northern Colorado; Advanced graduate study, Colorado State University.

## BAY, MARVIN L.

(Aviation Technology)
B.S., Colorado State University; M.A., University of Northern

Colorado; Advanced graduate study, University of Northern
Colorado; Eight years industrial experience.

## BECK, ROBERT

(Electronics Technology)
Two years electronics school, U.S. Navy; Fifteen years industrial experience.

## BENAVIDEZ, E. C. "VERA"

(Assistant Chair - Developmental Studies, South Campus)
B.A., Metropolitan State College; M.A., University of Northern Colorado.

## BENESCH, BARBARA

(General Business)
B.S., Colorado State University; M.E., Colorado State University.

## BITTERMAN, R. BEN

(Auto Body)
Ten years trade experience.
BOEHM, CLAUDIA S.
(Marketing/Management)
B.A., University of Northern Colorado; graduate study, University of

Northern Colorado; Ten years business experience.

## BROCKSHUS, MERLE

(Agriculture Technology)
(Farm and Ranch Business Management)
B.S. lowa State University; M.S. Iowa State University; Graduate study, University of Wisconsin, University of Northern lowa, and Colorado State University.

## BROWN, W. ARLIN

(Communications \& Humanities)
B.A., Eastern New Mexico University; M.A., Western State College
of Colorado; Ed. D., University of Northern Colorado. 1968

## BUXMAN, BETTY J.

(Accounting)
A.A., Aims Community College; B.A., University of Northern Colorado; M.A., University of Northern Colorado; Eight years business experience.
CAMERON, ROY E.
(Biology)
B.S., University of Illinois; M.S., University of Illinois; Advanced graduate study, Purdue University, Illinois Institute of Technology, Eastern Illinois University, Northern Illinois University, University of California-Berkeley, University of Northern Colorado, University of Denver, Colorado State University. Aims Foundation Fellow, 1984.

## CHRISTENSON, MAXINE GROSS

(Marketing/Management)
B.S., University of Wisconsin, M.S., University of Wisconsin; Advanced graduate study, University of Northern Colorado; Four years business experience.

## CLAY, DOUGLAS G.

(Computer Science; Program Supervisor)
B.S., Purdue University, Indiana; M.A., Lesley College,

Massachusetts; Advanced Graduate Study, Florida International
University.

## COLTON, KERRY L.

## (Accounting)

B.A., University of Northern Colorado; M.S., University of Northern

Colorado; One year business experience.

## COOPER, SAM

(Physics and Computer Science; Program Supervisor)
A.A., Aims Community College; B.A., University of Northern Colorado; M.A., University of Northern Colorado; Advanced graduate study, Colorado State University.

## CRIBELLI, SUSAN

## (Mathematics and Computer Science)

B.A., University of Northern Colorado; M.A., University of Northern Colorado; Advanced graduate study, University of Northern Colorado.

## CROSS, EUGENE (GENE)

## (Electronics Technology)

B.S.E.E., University of Pittsburgh; Graduate study, University of Northern Colorado and Colorado State University; Twenty years industrial experience.
CULLINS, BILL
(Engineering Technology)
B.S., Tarleton State University, Texas; Graduate study University of Northern Colorado and Angelo State University; Five years industrial experience.
DARLING, DONALD W.

## (Engineering Technology)

A.A., Foothill College, California; B.A., University of Northern Colorado; M.A., University of Northern Colorado; Advanced graduate study, Colorado State University; Fifteen years industrial experience.

## DAVISSON, SUE E.

(Coordinator, Counseling Services)
B.A., University of Northern Colorado; M.A., University of Northern Colorado; Advanced graduate study, Kephart Clinic; Ed.S., University of Northern Colorado.

1976
DeWITT, ROGER A.
(Assistant Chair, Behavioral \& Social Sciences, South Campus)
B.A., University of Northern Colorado; M.A., University of Northern Colorado

## ECKHARDT, LUCILLE

(General Business)
B.A., University of Northern Colorado; Six years business experience. Aims Foundation Fellow, 1982.

## EDEL, GEORGE D.

(Automotive Mechanics)
B.E., Colorado State University; Graduate study, Colorado State University; Eight years trade experience. Aims Foundation Fellow, 1985.

EDWARDS, J. PHIL
(Computer Science and Physical Science; Assistant Division Chairman, Mathematics and Science)
B.A., University of Northern Colorado; M.A., University of Northern Colorado; Advanced Graduate Study, Colorado State University, American University/Commonwealth Institute. 1986

## EDWARDS, MARTHANNE

(Accounting)
B.A., University of Minnesota; M.S., Colorado State University; Ten years business experience.1985

## EVANS, LUCILE

(Radiologic Technology)
Radiologic Technology Certificate, Weld County General Hospital; Registered Technologist (American Registry of Radiologic Technology); Six years of clinical experience.

## FAJARDO, JOSEPH S.

(Communications \& Humanities; Program Chair, Mexican American Studies)
B.A., University of Denver; M.A., University of Colorado; M.A.,

University of Northern Colorado.
1974
FORD, LORI
(Graphic Technology)
Certificate, Graphic Technology, Aims Community College; Seven
years industrial experience.
FREDERICK, GENE A.
(Economics and Geography)
B.S., University of Missouri; M.A., Adams State College; Advanced graduate study, Purdue University, University of Northern Colorado, University of New York. Aims Foundation Fellow, 1982

## FREESE, JASPER (Jay)

(Engineering Technology)
B.S.C.E., Worchester Polytechnic Institute, Massachusetts; M.S.C.E., University of Southern California; Twenty-three years industrial and military experience.1981

## FROST, CHRISTA ADAMS

(Communications \& Humanities)
B.A., M.A. University of Northern Colorado; Advanced graduate
study, Colorado State University.

## GEIST, MIKE

## (Auto Body)

B.E., Colorado State University; M.E., Colorado State University;

Advanced graduate study, Colorado State University, University of
Northern Colorado; Nine years industrial experience.
1979

## GIESICK, R. ARTHUR

(Division Chair, Technical)
B.A., University of Northern Colorado; Nationally certified as an

Engineering Technician by N.I.C.E.T.; Graduate study, Colorado
State University, University of Northern Colorado; Twenty-six years
industrial and military experience.
1970

## GODDARD, JERRY F.

(General Business)
A.A., Graceland College, lowa; A.B., University of Northern

Colorado; M.A., Colorado State University.

## GOMEZ, RUTH

(Division Chair, Developmental Studies)
M.A., University of Northern Colorado.

## GOODALE, DAVID

## (Fire Science)

Colorado Certificate, Fire Fighter II; Instructor I; Sixteen years industrial and municipal fire suppression experience, volunteer and career.

## GORDON, FRANK J.

## (Political Science)

B.A., University of Colorado; M.A., University of Colorado; Ph.D., University of Colorado-Boulder; Post-doctoral research at Harvard University, West Berlin, Hannover, Goettingen, Marburg UniversityWest Germany.

1982

## GREEN, JUDITH

## (Biofeedback)

B.A., University of Chicago; M.A., University of lowa; Ph.D., Union

Graduate School, Ohio.
GREEN, RALPH H.

## (Electronics Technology)

B.S., Colorado State University; M.Ed., Colorado State University; Advanced graduate study, Colorado State University; Eighteen years business and industrial experience.
1974

GUILLIAMS, CARLE.
(Auto Body)
Thirty years industrial experience.
1976

## HALL, CATHERINE

(Business Information Systems)
A.A.S., Aims Community College; B.S., Moorhead State College, Minnesota; M.S., University of New Mexico; Five years business experience. Aims Foundation Fellow, 1985.
HARRIS, DONALD T. (Chemistry)
B.S., Western Kentucky State University; M.A., Western Kentucky State University; Advanced graduate study, University of Northern Colorado (ABD). Aims Foundation Fellow, 1983.
HEEN, SAMUEL K.
(Physical Education; Communications \& Humanities)
B.A., Colorado State University; M.Ed., Colorado State University.

## HEIMAN, GALE E.

(General Business)
A.B., University of Northern Colorado; M.A., University of Northern Colorado; Ph.D., Laurence University School of Banking, California; Fourteen years of business experience.

HEIN, B. JIM
(Division Chair, Trades \& Industry)
B.Ed., Colorado State University; M. Ed., Colorado State

University; Ten years trade experience.

## HICKMAN, JOHN C.

(Welding)
Welding Certificate, Hobart Technical Center; Colorado State
University; Eighteen years industrial experience.

## JOKERST, JAMES C.

## (Psychology)

B.A., University of Arizona; M.A., University of Northern Colorado; Ph.D., University of Northern Colorado. Aims Foundation Fellow, 1982.

1971
KARST, GERALD L.
(Sociology)
B.A., University of Northern Colorado; M. Ed., Colorado State University; Advanced graduate study, University of Northern Colorado.

## KIEKHAEFER, ELMER A.

(Marketing/Management)
B.A., Valparaiso University, Indiana; M.A., University of New

Mexico; Advanced graduate study, University of Northern Colorado;
Eighteen years business experience.

## KILLEBREW, WILLIAM A. (Welding) <br> A.A.S., Aims Community College; Four years industrial experience.

## KING, DEBRA

(Graphic Technology)
Certificate, Graphic Communications, Mankato Area Vocational Technical Institute; Seven years industrial experience.1983

## KLINE, GINA

(Aviation Technology)
A.A.S. Aims Commmunity College, Six years Industrial experience.

## KNUDSON, DEBRA

(Radiologic Technology)
X-Ray Certificate from Presbyterian Hospital School of Radiology;
Registered with American Registry of Radiologic Technologists;
Seven years clinical experience.

## LANE, E. KEITH

(Mathematics)
B.S., West Texas State University; M.S., West Texas State University.

## LEUSINK, JUDITH P.

(General Business)
B.S., Colorado State University; Graduate study, University of

Northern Colorado; Five years business experience.

## LORENSON, M. RUTH

(Health Occupations)
Nursing Diploma, University of Oklahoma; B.S., University of Colorado; M.A., University of Northern Colorado; Ed.D., University of Northern Colorado.1971

## LOVELESS, RUBY

## (Business Information Systems)

B.S., Colorado State University; Six years business experience.

## MARQUEZ, MAXINE F. <br> (General Business)

B.A., University of Northern Colorado; M.A., Colorado State

University. Aims Foundation Fellow, 1983.
MARTIN, PAUL
(General Business)
B.A., McNesse State University, Louisiana; M.A., University of Northern Colorado; Advanced graduate study, University of Northern Colorado; Twelve years business experience.

## MARTZ, NANCY SUE

## (Communications \& Humanities)

B.A., University of Northern Iowa; M.S.T., Wisconsin State University; Advanced graduate study, University of Northern Colorado.

## MAXFIELD, BARBARA

(Developmental Studies)
B.A., Colorado State University; B.S., Colorado State University; M.A., University of Northern Colorado. Aims Foundation Fellow, 1985

MONTOYA, TRUDI C.

## (General Business)

B.S., University of Colorado; M.A., University of Northern Colorado; Ten years business and industry experience.

## MUELLER, JOHN P.

(History)
B.S., Colorado State University; M.A., University of Colorado; Advanced graduate study, University of Colorado.

MUSIL, SUSAN
(Coordinator, Business Lab)
B.A., University of Northern Colorado

MYERS, CHARLES E., II
(Assistant Division Chair, Criminal Justice)
B.A., California State University-Fresno.

NEET, KENNETH
(Accounting)
B.A., Point Loma College, California; Seven years business experience. Aims Foundation Fellow, 1986.

## PAGE, TRULENE B.

(General Business)
B.S., Colorado State University; M.A., University of Northern

Colorado; Advanced graduate study, University of Northern Colorado.

PECK, DANIEL D. (Division Chair, Public Service) B.E., Colorado State University; M. Ed., Colorado State University; Twelve years industrial experience.

## PELKEY, WILLIAM L.

(Criminal Justice)
B.S., Eastern Kentucky University; M.S., Eastern Kentucky University; Six years police and field training experience.

## PELLICAN, STEVEN

(Business Information Systems)
M.A., Western State; Five years business experience.

## REIERSTAD, KEITH B.

(Assistant Division Chair - South Campus, Communications \& Humanities)
B.A., Wesleyan University; M.A./Ph. D., University of Pennsylvania

## RICHTER, WALTER

(Division Chair, Mathematics and Science)
B.S., Wagner College, New York; Ph.D., University of Vermont; Post-doctoral Research Fellow, University of Alabama Medical Center.

## ROBERTS, WILLIAM

(Building Construction)
Twenty-six years industrial experience. 1979
ROBINSON, JAMES (LYN)

## (Physical Science)

B.S., University of New Mexico; M.A., University of New Mexico;

Ed.D, University of Northern Colorado; Advanced graduate study, University of Kansas, University of Denver, Colorado State University.

## ROBINSON, KAREN

(Mathematics and Computer Science)
B.S., Colorado State University; M.S., Colorado State University.1985

RUNGE, TEDD
(Assistant Division Chair, Design \& Creative Studies) B.F.A., University of Illinois-Champaign; M.A., University of Northern Colorado.

## RODRIGUEZ, CHARLOTTE

## (Counselor)

M.A., University of Northern Colorado.1971

## SCHOSSOW, DENNIS

## (Automotive)

B.S., Moorhead State University, Minnesota; Vocational Education Certificate, Colorado State University; Five years industrial experience.

1980
SCOTT, LINDA

## (General Business)

B.S.E., North East Missouri State University; M.A. University of Northern Colorado. Aims Foundation Fellow, 1983.1982

SHATRAW, DIANA
(Assistant Division Chair, Radiologic Technology)
Radiologic Technology Certificate, Weld County General Hospital; Registered Technologist (American Registry of Radiologic Technology); Ten years clinical experience.1979

## SHELLENBERGER, ROBERT

## (Psychology)

B.A., Bluffton College, Ohio; B.D., Vanderbilt University, Tennessee; M.A., Northwestern University; Ph.D., Northwestern University. Aims Foundation Fellow, 19851975

## SLOMER, RUTH

## (Communications \& Humanities)

B.S., Illinois State University; M.A., Western State College; Advanced graduate study, University of Colorado, University of Northern Colorado, Colorado State University, Denver University, Brigham Young University.
SOWDER, GLEN E.
(Agriculture Technology)
A.A., Northeastern Junior College, Colorado; B.S., Colorado State University; M.E., Colorado State University; Graduate study, University of Northern Colorado. Aims Foundation Fellow, 1983.

SPIKA, MICHAEL

## (Welding)

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Wardenburg Health Center
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PRIOR EDUCATION (mark all that apply):
$\square$ Attended Aims courses previously.
$\square$ College graduate* $\qquad$
Location Highest Degree Mo./Yr.
$\square$ College transfer* (show name and location of last college attended):

$\square$ Non High School graduate. Show highest grade completed $\qquad$ (1-11)

EDUCATION PLANS AT AIMS (mark one):
If seeking a degree but major/emphasis is unknown, mark degree box and show major as "unkriown."
$\square$ A.A. - Associate of Arts--Liberal Arts major. Emphasis (optional):
$\square$ A.S. - Associate of Science--Liberal Arts major. Emphasis (optional):A.A.S. - Associate of Applied Science--Specific major:Occupational Certificate--Specific major:A.G.S. - Associate of General Studies--Liberal Arts major (See catalog or Counseling Center for details--you will be "undeclared" until contract is completed.)

## $\square$ G.E.D. - General Education Diploma

Undecided - I would like assistance from the Counseling Center for career or education planning: $\square$ Yes $\square$ NoPersonal interest$\square$ Professional development/skills upgrade: $\qquad$
Education plans after current program (mark one):
$\square$ None/Undecided2 year degree/certificate4 year degree4 year degree and beyond$\square$ If planning to transfer, where:
EMPLOYMENT STATUS

I am employed or self-employed:working more than 35 hours/week
working 10-35 hours/week
Field of Study (2) AA: ------
AS: ------
AAS: ------
CERT: -----UNCL: 555555
BE: 555555
UNCL: 555555
UNCL: 555555
NONE: $\qquad$working less than 10 hours/week


#### Abstract

 


$\square$


## OFFICE

 USE ONLYOR
I am unemployed, but looking for work:
$\square$ Yes
$\square$ No

$\square$ RetiredRetired | Retired |
| :--- |
| $\begin{array}{l}\text { I certify that to the best of my knowledge the information } \\ \text { furnished on this form is true and complete. }\end{array}$ | No fee Required


|  |
| :---: |


| Expected Year/Qtr of Enrollment: <br> 19 $\qquad$ Fall Winter Spring Summer | DATE OF BIRTH - Month, Day, Year <br> (If under 16, contact Dean of Arts \& Sciences prior to admission. Students currently enrolled in High School must contact Admissions and Records.) | Home Campus (where you will register): Greeley Ft. Lupton Loveland Senior Adult Ed. |
| :---: | :---: | :---: |
| ADDRESS - Street/P.0. Box/Apt. \# |  |  |
|  |  |  |
| ZIP CODE |  |  |
| TELEPHONE: Home |  |  |
| U.S.A. Citizen?: $\square$ Yes | If No: |  |
| $\square$ No | Visa Number |  |

SELECTIVE SERVICE registration status information must be provided in order to comply with Colorado law. Individuals providing false information are subject to penalty of law.
$\square$ I certify that I am not required to be registered with Selective Service, because -- (check one reason)

TUITION CLASSIFICATION: All information must be completed for in-state tuition classification purposes (see Schedule of Classes for rates).
$\square$ I am 22 or older, or under 22 and married, or under 22 and emancipated (proof attached). Answers below apply to me.
$\square$ I am under 22 and unmarried. Answers below apply to my parent or guardian.
Place of employment past 12 months:

Name Address $\quad$ Phone

Active duty members of the U. S. Armed Forces (and their dependents) residing in Colorado on a permanent change-of-station status may be eligible for in-state tuition rates. Contact the Registrar for details.

In-Dist.
(1)

Out-Dist.
(2)

Out-State
(3)

Foreign
(4)

- I am an alien (not a U.S. citizen).

I certify that I am registered with Selective Service.

County


No fee Required




[^0]:    $\star$ Indicates the year each joined the College.

