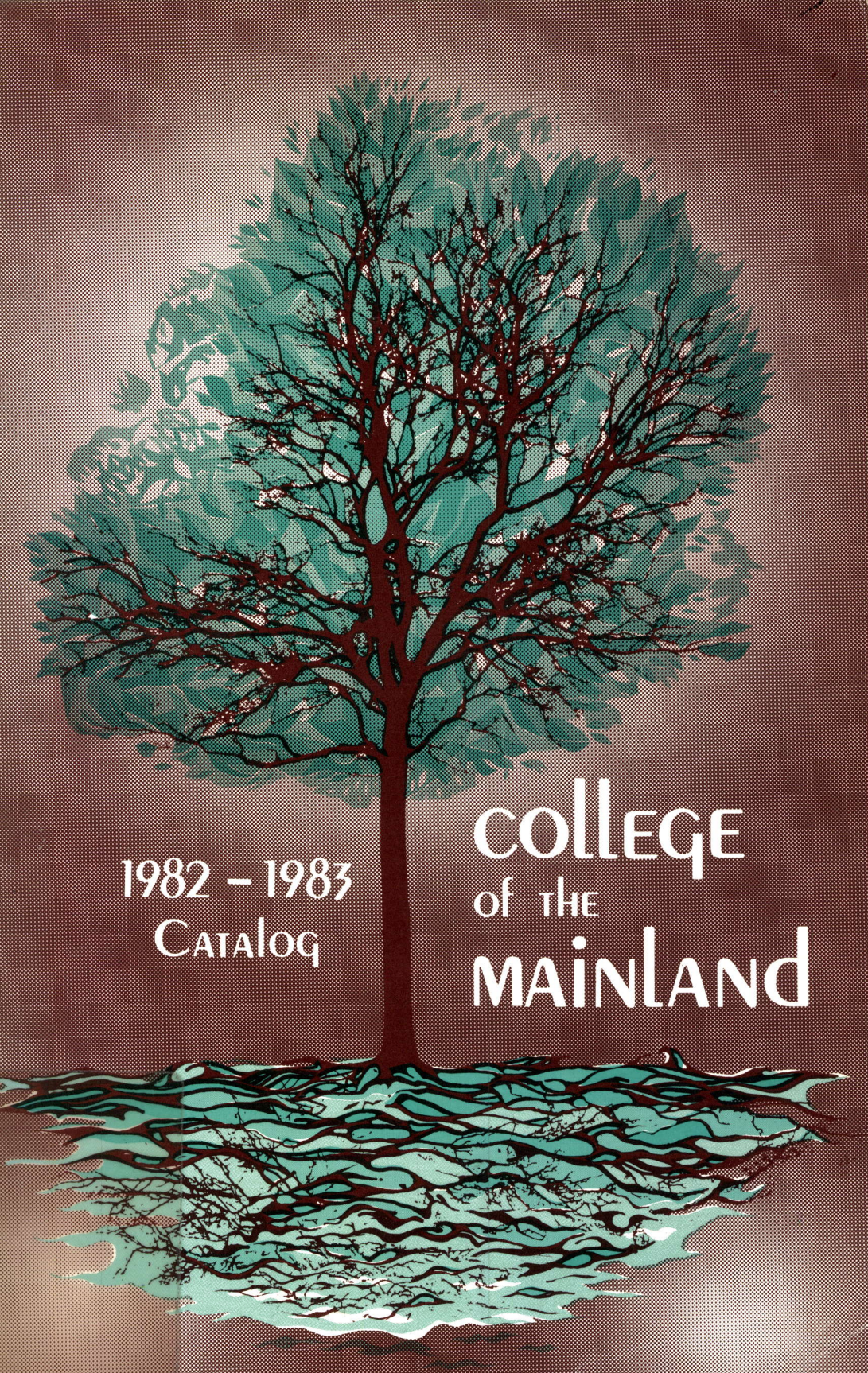
1982 – 1983
Catalog
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mainland

College of the Mainland
84077920

# College of the Mainland

**8001 Palmer Highway**
**Texas City, Texas 77591**
**(713) 938-1211**
**Toll-free number for**
**Dickinson-Clear Lake Area: 534-6341**
**Admissions Office Only — 337-1631**
**(Dickinson-Clear Lake area)**

A Union of Dickinson, Hitchcock, LaMarque, Santa Fe, and Texas City School Districts

**Approved and Accredited by**
The Southern Association of Colleges and Schools
Texas Education Agency
Coordinating Board of the Texas College and University System
Association of Texas Colleges and Universities
American Institute of Banking
Board of Nurse Examiners
League for Nursing
Texas Credit Union League
Texas Real Estate Commission

**Member of**
American Association of Junior and Community Colleges
Southern Association of Community and Junior Colleges
Texas Junior College Association
Gulf Coast Intercollegiate Conference
Texas Art Schools Association
Texas Association of Music Schools
Texas Public Community/Junior College Association

College of the Mainland is an equal opportunity/ affirmative action educational institution and employer. Students, faculty and staff members are selected without regard to their race, color, creed, sex, or national origin, consistent with the Assurance of Compliance with Title VI of the Civil Rights Act of 1964, and Executive Order 11246 as issued and amended.

College of the Mainland does not discriminate on the basis of handicap in the recruitment and admission of students, the recruitment and employment of faculty and staff, and the operation of its programs and activities, as specified by federal laws and regulations within Section 504 of the Rehabilitation Act of 1973.

**Changes in Regulations**

**College of the Mainland reserves the right to make changes in the regulations, courses, fees and other matters of policy and procedure when deemed necessary.**

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# A Message from the President



I would like to take this opportunity to welcome you to College of the Mainland on behalf of our faculty and staff.

College of the Mainland offers a remarkable range of programs and resources to meet the post-secondary needs of all segments of the community. In addition, our institution has an outstanding faculty, a modern, beautifully-designed campus and up-to-date facilities. Most important, College of the Mainland offers a climate which is conducive to personal growth and development.

College of the Mainland is a community resource which our residents can draw upon for a lifetime. I hope that when you complete your studies here and go on to the next phase in your life, you will continue to return to our campus to partake of the exciting educational and cultural offerings available for your lifetime use.

Sincerely,

President

# 1

# The College

Accreditation
Board of Trustees
Buildings, Facilities and Services
Campus Map

# College Calendar 1982-83

## Fall Semester, 1982

| | |
|---|---|
| August 18 | Admissions requirements must be met by this date in order to be eligible for credit registration on August 24, 25. |
| August 19 | Orientation begins for New Students |
| August 19 | Applications for Financial Aid must be filed by this date to insure processing for August 24, 25 registration. |
| August 23 | Faculty Returns to Campus |
| August 23 | Apprenticeship Classes at Danforth Campus commence |
| August 23, 27 | Professional Development Days |
| August 24, 25 | Registration — Fall, 1982 semester — Credit Program |
| August 26 | Late Registration (Late Fee) |
| August 27, 28 | Registration for Non-Credit Program |
| August 30 | Fall, 1982 classes commence, 8 a.m. |
| August 30, 31 | Schedule Changes |
| September 6 | Labor Day — College closed |
| September 13 | Last day for Withdrawal Refunds |
| October 28 | Grade of "W" will be given for all classes dropped on or before this date. |
| November 12 | Admissions requirements must be met by this date in order to be eligible for Early Registration on December 1, 2. |
| November 25, 26, 27 | Thanksgiving Holidays — College closed |
| December 1, 2 | Early Registration — Spring, 1983 Semester — Credit Program |
| December 15 | Admissions requirements must be met by this date in order to be eligible for credit registration on January 10, 11. |
| December 13-16 | Final Evaluations |
| December 16 | End of Fall Semester |
| December 20 | Grades due in Records Office by 4 p.m. |
| December 22-January 3 | Winter Holidays — College closed through January 3 |
| January 3 | Apprenticeship classes at Danforth Campus resume |
| January 15 | End of Fall Semester at Danforth Campus |

## Spring Semester, 1983

See previous semester for Early Spring Registration information.

| | |
|---|---|
| January 4 | Applications for Financial Aid must be filed by this date to insure processing for January 10, 11 registration. |
| January 6 | Faculty Returns to Campus |
| January 6, 7 12, 14 | Professional Development Days |
| January 10, 11 | Registration — Spring, 1983 Semester — Credit Program |
| January 13 | Late Registration (Late Fee) |
| January 14, 15 | Registration for Non-Credit Program |
| January 17 | Spring 1983 classes commence, 8 a.m. |
| January 17, 18 | Schedule Changes |
| January 24 | Danforth Campus Spring 1983 Classes Commence |
| January 28 | Last day for withdrawal refunds |
| February 7-11 | Technical-Vocational Education Week |
| March 17 | Deadline for accepting applications for Spring, 1983 graduates |
| March 17 | "W" Day |
| March 28-April 1 | Classes recessed — Spring break for faculty and students except Danforth Campus |
| March 31, April 1 | College closed for Spring Holidays; Danforth open |
| April 4 | Classes resume, 8 a.m. |
| April 15 | Professional Development Day |
| May 7 | ADN Striping Ceremony |

| | |
|---|---|
| May 12 | End of Spring Semester |
| May 9-12 | Final Evaluations |
| May 13 | Spring Commencement, 7:30 p.m. |
| May 13 | Grades due in Records Office by 4 p.m. |
| June 14 | End of Spring Semester at Danforth Campus |

## Summer I Session, 1983

| | |
|---|---|
| May 13 | Admissions requirements must be met by this date in order to be eligible for credit registration on May 26 |
| May 26 | Registration — Summer I Session, 1983 — Credit Program |
| May 27 | Registration for Non-Credit Program |
| May 31 | Summer I classes commence, 8 a.m. |
| May 31 | Schedule Changes |
| June 2 | Last day for withdrawal refunds |
| June 16 | Grade of "W" will be given for all classes dropped on or before this date. |
| July 4 | Independence Day Holiday — College Closed |
| July 7 | Final Evaluations |
| July 7 | End of Summer I session |
| July 8 | Grades due in Records Office by 4 p.m. |

## Summer II Session, 1983

| | |
|---|---|
| July 1 | Admissions requirements must be met by this date in order to be eligible for credit registration on July 11 |
| July 11 | Registration — Summer II Session, 1983 — Credit Program |
| July 12 | Summer II classes commence, 8 a.m. |
| July 12 | Schedule Changes |
| July 15 | Last day for withdrawal refunds |
| July 28 | Grade of "W" will be given for all classes dropped on or before this date. |
| August 18 | Final Evaluations |
| August 18 | End of Summer II session |
| August 19 | Grades due in Records Office by 4 p.m. |
| August 19 | Orientation for New Students |

Some classes remain open for continuous enrollment for nearly the entire semester. If you miss registration but want to enroll, contact the Admissions Office.

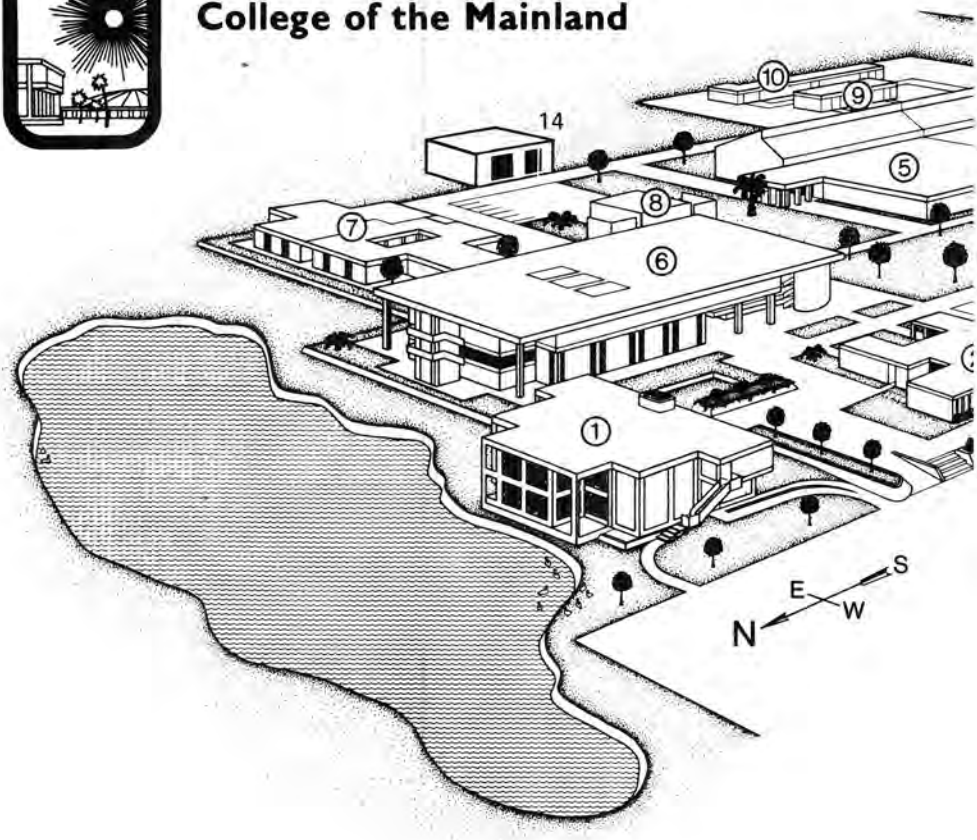


# Board of Trustees

The seven-member Board of Trustees holds full legal and financial responsibility for the college. It is empowered to formulate policy and philosophy, employ a President and, on his recommendation, approve the hiring of personnel. The Board meets the fourth Thursday of every month in the Administration Building. The general public is cordially invited to attend the meetings.

**Trustees serving during the 1982-83 year are, left to right (seated) John W. Cox; Carmen Anderson, President; James Edwards, Jr., Vice President; (Second row) Bill W. Flaniken; Roy Engelke; Mary Doyle, Secretary and James P. Simpson.**

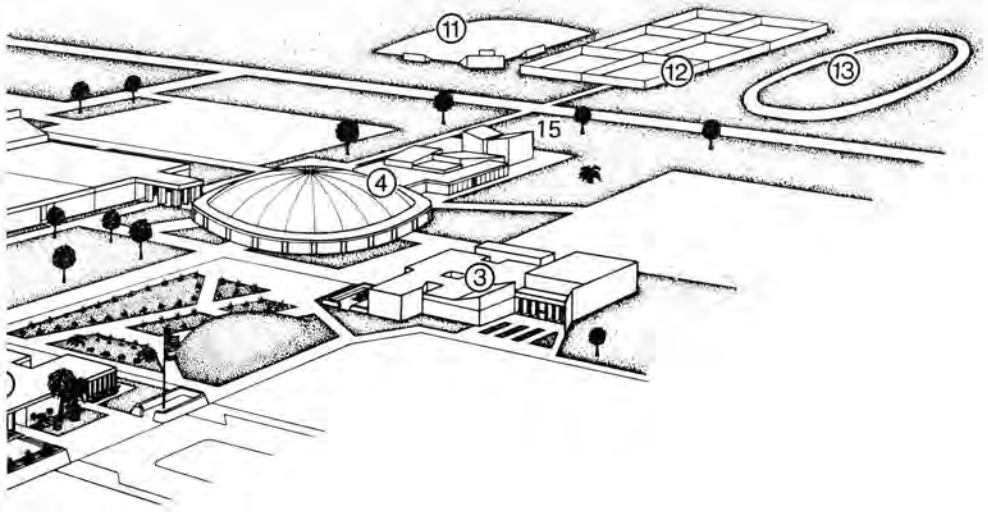
# College of the Mainland






## Buildings, Facilities and Resources

1. STUDENT CENTER (SC)
   - Downstairs
     - Senior Adult Office
     - Book Store
     - Snack Bar
   - Upstairs
     - Counseling and Appraisal Center (Testing)
     - Family Services
2. ADMINISTRATION BUILDING (A)
   - Admissions Office
   - Financial Aid
   - Personnel
   - Planning, Development & Institutional Research
   - Public Relations and Information
   - Central Supply & Mail Room
3. FINE ARTS COMPLEX (F)
   - Art Gallery
   - Arena Theatre
   - Fine Arts Classrooms
4. PHYSICAL EDUCATION COMPLEX (P)
   - Gym, Weight Room
   - Swimming Pool, Sauna, Whirlpool
   - Physical Education & Recreation Classrooms
5. TECHNICAL-VOCATIONAL BUILDING (T)
   - Word Processing Center
   - Business, Health, Related Occupations and Industrial Education Classrooms






1. **Student Center**
2. **Administration Building**
3. **Fine Arts Complex**
4. **Physical Education Complex**
5. **Technical-Vocational Building**
6. **Learning Resources Center**
7. **Math-Science Building**
8. **Central Utilities**
9. **Maintenance Building**
10. **Firing Range**
11. **Baseball Diamond**
12. **Tennis Courts**
13. **Track**
14. **COM Press**
15. **Racquetball Courts**

6. LEARNING RESOURCES CENTER (L)

| | |
|---|---|
| Downstairs | Library, Non-Print Media |
| | Teaching Auditorium |
| Mezzanine | Student Services |
| Upstairs | Total Learning Center (TLC) |
| | Suite A-Social Sciences |
| | Suite B-Humanities |
| | Suite C-Departmental Offices |

7. MATH-SCIENCE BUILDING (S)
   - Biology Lab
   - Math Learning Center
   - Physics Lab
   - Greenhouse
   - Mathematics, Health and Natural Sciences Classrooms

# Learning Resources Center

The College of the Mainland's Learning Resources Center houses a broad range of materials and equipment which are available to students and other community citizens. Non-students may take advantage of the many resources. All users are required to present a current borrower's card when borrowing books or non-print materials.

The hours of operation are posted in the LRC foyer or one may call 938-1211, extension 205 to inquire.

Grades and transcripts shall not be released until learning resources materials and equipment are returned and fines are paid.

## Library Services

The Library, which is a part of the Learning Resources Center, is in the business of information exchange, disseminating that most important commodity from its source of creation to the user. Each day, innumerable bits of knowledge as recorded in various formats, are acquired, cataloged, and made ready for all seekers of truth. While no one of us can take it all in (40,000 books, 325 magazine subscriptions, uncounted numbers of pamphlets, clippings, and government documents) parts of the collection are there to satisfy most everyone's informational and recreational reading needs.



A wide range of career information materials (books, brochures, kits, films and filmstrips are available in the Library to help students make informed choices as they develop their careers.

The College has committed itself to providing opportunities for individualized learning, such as those that the resources in the Library afford. Members of the Library staff are part of those resources and consider their prime function to be helping clients locate what they need, want, or just wish to think about.

## Non-Print Media Services

The Non-Print Media Resources of the College provide support to the instructor and student in meeting the demands of teaching and learning.

The College has a good selection of audio-visual equipment and materials. Equipment consists of numerous types of cameras, projectors, phonographs, tape recorders, and other media production machinery. Materials range from cassette tape recordings to 16mm motion pictures.

Non-Print services are available at the circulation counter on the ground floor of the Learning Resources Center. Audio-Visual materials are integrated into the card catalog with print materials to provide an individual complete access to any resources desired. Media staff will assist individuals with their audio-visual needs, from instructional design to loan of materials.

# Faculty

College of the Mainland's teaching staff is not only highly-qualified academically, but also has an added dimension: a sensitivity to people's needs and aspirations.

All instructors in Academic Programs have Master's Degrees, with more than 40 per cent having attained at least one year of advanced study beyond the M.A. Degree. Several instructors have their Ph.D. Degree and others are nearing completion of their doctoral requirements. The degrees have been earned from institutions all over the country — from as far afield as Nova Scotia.

Since joining College of the Mainland, many staff members have been listed in OUTSTANDING EDUCATORS OF AMERICA, published books, received grants for advanced study and served as consultants to publishers, colleges, schools and governmental agencies.

# Accreditation

College of the Mainland received its accreditation from the Southern Association of Colleges and Schools in December of 1969 and re-affirmation of accreditation in December 1973. In its report, the Evaluation Committee commended College of the Mainland for "providing the kind of open environment which enhances human relationships among all segments of the community". The Committee also noted "the genuine concern for the student evidenced by trustees, administrators, faculty and staff."

# 2

# General Regulations

Admissions Information
Awards and Honors
Grading System
Student Records
Transfer of Credits
Tuition and Fees

## Admissions Information

### Admission to the College

College of the Mainland has an Open Door Admissions Policy and a student may be admitted by any one of the following methods:

1. Graduation from an accredited secondary school.
2. Transfer from another college.
   Eligibility for admission by transfer will be determined by the same policy that applies to re-entering students at College of the Mainland.



3. Individual approval for veterans, military personnel, or non-high school graduates whose high school class has been graduated and who, in the judgement of college officials, are prepared to undertake post-secondary college work.
4. Examination.
   Eligibility for admission by examination will be established by passing scores on the General Education Development Examination as prescribed by the State of Texas.
5. Special Admission.
   a. Concurrent Enrollment:
      Any student enrolled in his junior or senior year in high school may concurrently enroll at College of the Mainland under the following conditions:
      (1) A student must agree that credit for courses taken at College of the Mainland may be earned only after the student has been graduated from high school.
      (2) A student may take courses concurrently providing he satisfies entry requirements for the college courses. For example, a student enrolled in a high school chemistry course may take a college chemistry course at the same time by providing adequate proof of his ability to handle the more

advanced course. This may be accomplished by any one of the following means: (a) furnishing a transcript of high school work with the appropriate grades; (b) presenting the appropriate test scores, or (c) by approval of the course instructor or the Chairperson of the Division in which the course is offered.

(3) The student must meet all College of the Mainland admission requirements.

(4) The student's load and recommended courses will be covered by agreement between the high school and College of the Mainland.

(5) The student and his public school official must complete the form provided for Concurrent Enrollment for each semester the student plans to attend.

b. Summer Transient Enrollment:
A college transfer student who wishes to attend College of the Mainland during the summer session only may be admitted as a summer transient student by filing an *Application for Admission and Certification of Transient Status* with the Admissions Office.

A summer transient student will not be permitted to register during a regular semester unless he changes his status to that of a regular student. He may do this by filing a *Change of Status* request with the Admissions Office and completing all admission requirements for regular students by the published deadline for the semester he wishes to attend.



c. College Transfer on Suspension Enrollment:
Students suspended for academic reasons from other colleges will be considered for admission on the same basis as students on referral at College of the Mainland for academic reasons. Suspended students may apply to the Subcommittee on Special Admissions for admission and when, in the judgement of the Committee the student would benefit from such admission, the Committee may admit the student for course work prescribed by the Committee.

6. Grounds for Denial of Admission.

a. Current Destructive Behavioral Patterns:
If, upon the basis of an examination of the applicant's personal history and a thorough pre-admissions interview, it is found that it is probable that the quality of the applicant's current behavioral patterns is such that his attendance would be substantially disruptive to the College program, the College may deny him admission or may admit him, under certain circumstances, on a provisional basis.

b. Serious Communicable Disease:
Persons found to have serious communicable diseases shall not be admitted.

## Admission Requirements

For unconditional admission, an applicant must have the following items on file in the Admissions Office by the final date for application as published in the official college catalog calendar:
RESPONSIBILITY RESTS UPON THE STUDENT APPLICANT FOR INSURING THAT ALL NECESSARY MATERIALS HAVE BEEN SUBMITTED FOR ADMISSION.

1. An application for Admission.
2. An official transcript from each college previously attended.
3. Scores from ACT, SAT and/or APP (see Admission Diagnostic requirements below).
4. Immunization record as required by state law (see below).

Detailed information and instructions concerning advisement/registration and appraisal/testing, if required (see p. 20), will accompany the College's letter of response to application for admission.

## Nursing Students

Admission to the college does not assure admission to the Associate Degree in Nursing Program. Applicants wishing to be admitted to this program should apply for admission to that program with the Division of Mathematics, Health and Natural Sciences.



## Required Immunization

The following immunizations are required by Texas State Law of all students enrolled in an institution of higher education:

*Polio* — For persons under 19 years of age, at least 3 doses of oral vaccine provided one or more doses have been received since the fourth birthday.

*Diphtheria/Tetanus* — Minimum of 3 doses with last dose within 10 years. Booster dose only after initial series (TD adult type).

*Acceptable Documents of Immunization* — A new, standard Certificate of Immunization form is available; however, compatible documents will always be acceptable.

Immunization records must have the signature or rubber stamp validation of a physician or public health clinic.

Exclusions from Compliance — Exclusions from compliance are allowable on an individualized basis for medical contraindications and religious conflicts. Students falling into these categories must submit signed affidavits as specified in the law.

Any question concerning immunization should be addressed to the Admissions Office of the College.

## International Students' Admissions

Students from other countries attending College of the Mainland are termed "International" students, according to the following definition: "a person who is a citizen of a country other than the United States who has a visa for educational purposes with an intent to return to his home upon completion of his educational program."

International students must carry a minimum of twelve (12) semester hours to meet Department of U.S. Naturalization and Immigration Service requirements. Because no scholarships or grants are available to international students, it is essential that students from outside the United States have sufficient funds to cover their expenses while in this country. The international student tuition is $40.00 per semester hour with a minimum tuition of $200 for the regular term and $100 for the summer session (subject to change without notice).

Before any action can be taken on their applications, international students who wish to become degree-seeking students at College of the Mainland must complete and file the following with the Admissions Office one month prior to the beginning of the semester or summer session in which they are intending to begin their studies:

1. A completed application form.
2. Health form (U.S. physician's examination).
3. Official transcripts for at least the last four years of secondary school study and any university — level or other post-secondary school work that has been completed or attempted. All these records must list all subjects taken, grades earned or examination results in each subject, and all diplomas and certificates awarded. If these documents are not in English, they must be accompanied by authorized English transcriptions.
4. An official Test of English as a Foreign Language (TOEFL) score report. To be considered for admission, students must receive a minimum converted score of 601 or above. Extenuating circumstances will be reviewed by the Special Admissions Committee which will determine conditions of admissibility, if warranted.
5. Affidavit of Support.
6. Educational Background letter from foreign student advisor of the previous school attended (this applies to students already enrolled in a college in the United States).



## Admission Diagnostic Requirements

In order to furnish students, advisors, and faculty educational diagnosis information, all first-time entering students who have completed fewer than twenty-four (24) semester hours college credit must present SAT or ACT (and in some cases, COM Appraisal Test) scores. There are no "passing scores" as such; rather, score results are used to help the student and advisor to select appropriate courses and as indices of areas

where student's additional preparation may be advised. Scores on the COM Appraisal test expire ten (10) years from the date the test was administered.

Procedure:

1. Student submits official ACT or SAT scores to the Admissions Office, either by request to the appropriate testing company or COM's Counseling and Appraisal Center; depending on score results, some students will be required to present COM APP score results.

   OR

   Upon request, temporary waivers may be arranged for those who apply so late as to preclude their furnishing the score results prior to regular registration and fee payment periods. This waiver will permit registration and fee payment pending submission of the required scores only.
2. Failure to meet the conditions agreed to within the waiver may result in forfeiture of one's enrollment.
3. Appeal of these requirements may be addressed to the Dean, College and Financial Services.

## Transfer of Credit to College of the Mainland



It is the student's responsibility to arrange for transcripts from former institutions to be received by the Admissions Office prior to being admitted. Transcripts are considered official only when they are received through the mail or in a sealed envelope and are signed by the Registrar and bear the seal of the school from which they are issued. Transcripts received become the property of the institution.

### General Regulations Governing Transfer of College Credit

1. The College from which credit is to be transferred must be accredited by one of the six regional accrediting associations.
2. Courses with a letter grade of "C" or better transfer with the corresponding number of semester hours.
3. Courses which are not applicable to programs at College of the Mainland may not transfer or fulfill degree requirements.
4. When a course has been repeated for credit, the last grade and hours will determine the acceptance of the course.
5. The grades earned at other institutions are not transferred nor are the grades included in computing the cumulative GPA at College of the Mainland.

## Retention of Records

Credentials of those applicants not registering for the term indicated on the application for admissions are normally retained in the Admissions and Records Office for a period of four months from the date of application. At the end of this time, the credentials and file are destroyed unless the applicant has notified the Admissions Office of continued interest in attending College of the Mainland. Credentials submitted to the Admissions and Records Office become property of College of the Mainland and are not returned to the student.

# Schedule of Charges***

For purposes of assessing tuition, students enrolling in College of the Mainland will be classified as follows:

**Residence Requirements —**

The State of Texas requires that each student sign an affidavit certifying his/her legal residence at the time of enrollment. The responsibility for registering under the proper residence classification is that of the student and any question concerning his/her right to classification as a resident of Texas or College of the Mainland district must be clarified prior to the time of his/her enrollment.



*Residents* — Residents of College of the Mainland Junior College District and the State of Texas.

*Non-resident of District* — Residents of the State of Texas but not residents of College of the Mainland Junior College District.

*Non-residents of Texas* — Texas law defines a non-resident student of Texas to be a student of less than 18 years of age who lives away from his family and whose family has not resided in Texas twelve months preceding the date of registration, or a student who is 18 years of age or over who resides out of state or who has not been a resident of the state twelve months subsequent to his 18th birthday or for the twelve months immediately preceding the date of registration.

*Alien Students* — Non-Citizens who cannot be classified as Residents of Texas or the United States. Any question concerning residency should be referred to the Admissions Office.

*Residency Status* — Residency status is determined in accordance with Rules and Regulations for Determining Residency Status, published by the Coordinating Board, Texas College and University System, and pursuant to Title 3, Texas Education Code. Information concerning residence requirements is available in the Admissions Office.

| | In District | | | Out of District | | |
|---|---|---|---|---|---|---|
| Cr. Hr. | Tuition | Fees* | Total | Tuition | Fees** | Total |
| 1 | $25.00 | $ .50 | $25.50 | $25.00 | $10.50 | $35.50 |
| 2 | 25.00 | 1.00 | 26.00 | 25.00 | 11.00 | 36.00 |
| 3 | 25.00 | 1.50 | 26.50 | 25.00 | 11.50 | 36.50 |
| 4 | 25.00 | 2.00 | 27.00 | 25.00 | 12.00 | 37.00 |
| 5 | 25.00 | 2.50 | 27.50 | 25.00 | 12.50 | 37.50 |
| 6 | 25.00 | 3.00 | 28.00 | 25.00 | 13.00 | 38.00 |
| 7 | 28.00 | 3.50 | 31.50 | 28.00 | 13.50 | 41.50 |
| 8 | 32.00 | 4.00 | 36.00 | 32.00 | 14.00 | 46.00 |
| 9 | 36.00 | 4.50 | 40.50 | 36.00 | 14.50 | 50.50 |
| 10 | 40.00 | 5.00 | 45.00 | 40.00 | 15.00 | 55.00 |
| 11 | 44.00 | 5.50 | 49.50 | 44.00 | 15.50 | 59.50 |
| 12 | 48.00 | 6.00 | 54.00 | 48.00 | 16.00 | 64.00 |
| 13 | 52.00 | 6.50 | 58.50 | 52.00 | 16.50 | 68.50 |
| 14 | 56.00 | 7.00 | 63.00 | 56.00 | 17.00 | 73.00 |
| 15 | 60.00 | 7.50 | 67.50 | 60.00 | 17.50 | 77.50 |
| 16 | 64.00 | 7.50 | 71.50 | 64.00 | 17.50 | 81.50 |
| 17 | 68.00 | 7.50 | 75.50 | 68.00 | 17.50 | 85.50 |
| 18 | 72.00 | 7.50 | 79.50 | 72.00 | 17.50 | 89.50 |
| 19 | 76.00 | 7.50 | 83.50 | 76.00 | 17.50 | 93.50 |
| 20 | 80.00 | 7.50 | 87.50 | 80.00 | 17.50 | 97.50 |

| | Out of State | | | Out of Country | | |
|---|---|---|---|---|---|---|
| Cr. Hr. | Tuition | Fees* | Total | Tuition | Fees* | Total |
| 1 | $17.00 | $ .50 | $17.50 | $40.00 | $ .50 | $40.50 |
| 2 | 34.00 | 1.00 | 35.00 | 80.00 | 1.00 | 81.00 |
| 3 | 51.00 | 1.50 | 52.50 | 120.00 | 1.50 | 121.50 |
| 4 | 68.00 | 2.00 | 70.00 | 160.00 | 2.00 | 162.00 |
| 5 | 85.00 | 2.50 | 87.50 | 200.00 | 2.50 | 202.50 |
| 6 | 102.00 | 3.00 | 105.00 | 240.00 | 3.00 | 243.00 |
| 7 | 119.00 | 3.50 | 122.50 | 280.00 | 3.50 | 283.50 |
| 8 | 136.00 | 4.00 | 140.00 | 320.00 | 4.00 | 324.00 |
| 9 | 153.00 | 4.50 | 157.50 | 360.00 | 4.50 | 364.50 |
| 10 | 170.00 | 5.00 | 175.00 | 400.00 | 5.00 | 405.00 |
| 11 | 187.00 | 5.50 | 192.50 | 440.00 | 5.50 | 445.50 |
| 12 | 200.00 | 6.00 | 206.00 | 480.00 | 6.00 | 486.00 |
| 13 | 200.00 | 6.50 | 206.50 | 520.00 | 6.50 | 526.50 |
| 14 | 200.00 | 7.00 | 207.00 | 560.00 | 7.00 | 567.00 |
| 15 | 200.00 | 7.50 | 207.50 | 600.00 | 7.50 | 607.50 |
| 16 | 200.00 | 7.50 | 207.50 | 640.00 | 7.50 | 647.50 |
| 17 | 200.00 | 7.50 | 207.50 | 680.00 | 7.50 | 687.50 |
| 18 | 200.00 | 7.50 | 207.50 | 720.00 | 7.50 | 727.50 |
| 19 | 200.00 | 7.50 | 207.50 | 760.00 | 7.50 | 767.50 |
| 20 | 200.00 | 7.50 | 207.50 | 800.00 | 7.50 | 807.50 |

*Student Service Fee is 50 cents per credit hour up to a maximum of 15 hours.
**Student Service Fee plus $10.00 out-of-district fee.
***Subject to change by the State Legislature or by action of the Board of Trustees of the College of the Mainland Community College District. Current tuition charges for credit programs were established or reaffirmed in Texas House Bill 43 and Senate Bill 1036 at the 62nd Legislature, 1971. Courses added after the twelfth class day or fourth class day (Summer Session), require that all students pay the additional tuition for those courses.



## Student Service Fee

The Student Service Fee, as authorized by State law, is required of all students. The income from this fee supports recreational activities, artist and lecture series, student publications and government, cultural entertainment and other student services, as authorized by State law.

## Adding Courses

Courses added after the twelfth class day or fourth class day (Summer Session), require that all students pay the traditional tuition for those courses.

## Late Registration Fee

A fee of $10.00 will be charged for registration after the designated registration period. The fee is non-refundable.

## Special Fees

Science Laboratory Fee (per science lab course) ..... $ 2.00
Music Fee for applied individual music courses ..... $20.00

The following classes are subject to additional fees for Facility Use and/or Equipment Rental: *Bowling, Scuba, Golf, Sailing,* and *Snow Skiing.* The exact fees associated with each of these courses may be found in the schedule of courses for any given semester.

## Special Tuition Schedule (Nursing)

Nursing Program Students: Tuition and fees for Associate Degree Nursing Program students will be computed on the same basis as tuition and fees for other students EXCEPT that the minimum tuition charge will be $20.00 for any semester and the maximum tuition charge will be $50.00 per semester for residents of Texas; Non-Residents of Texas will pay the appropriate tuition prescribed for their residency classification.



*ALL TUITION AND FEES MUST BE PAID IN FULL AT THE TIME OF REGISTRATION.*

## Non-Credit Courses Tuition and Fees

The tuition charge for non-credit courses varies according to such factors as length of the course, number of class meetings, etc. As always, the college attempts to keep the cost as low as possible. For details regarding tuition charges for specific courses, consult the latest non-credit schedule. All Adult Basic Education and General Education Development preparation courses are offered without charge.

## Regulations Concerning Checks

1. A charge of $5.00 will be made for checks presented in payment of a student's obligation to the College in the event that such checks are returned for any reason.

2. No check presented in payment of fees, deposits, or tuition, or for the purchase of books or equipment will be accepted for a sum larger than the total amount due the College in the transaction. A valid driver's license is required as identification for all checks made payable to the College or its affiliated auxiliary enterprises.
3. Checks returned unpaid for any reason must be promptly redeemed or registration in the College may be forfeited, all records withheld and legal action taken.
4. The College retains a list of those that have given checks returned for non-payment and reserves the right to require cash payments for obligations due from anyone on that list.

## Concurrent Enrollment

Section 54.062 of the Texas Education Code permits an adjustment in the minimum tuition charge when a student is concurrently registered at more than one public institution of higher education. The student shall pay the full tuition charge to the first institution at which he is registered. If the minimum tuition at the first institution is equal to or greater than the minimum tuition for the second public institution at which the student is registered concurrently, the student shall not be required to pay the specified minimum tuition charge to the second institution, but shall pay only the hourly rates to the second institution.



The student shall first register at the institution having the lower minimum tuition and shall pay to the second institution only the amount equal to the difference between his total tuition charge at the second institution and his total tuition charge at the first institution, but in no case shall the student pay to the second institution less than the hourly rates.

## Refunding of Fees and Charges

### Withdrawals and Drops

Refunds of tuition and fees will be made on the following basis, at the convenience of the College.

**Fall or Spring Semester**

1. 100% if withdrawal takes place before classes begin.
2. 80% if withdrawal takes place during the first five class days.
3. 70% if withdrawal takes place during the second five class days
4. 50% if withdrawal takes place during the third five class days.
5. 25% if withdrawal takes place during fourth five class days.
6. No refund if withdrawal takes place after fourth five days.

This refund policy is not applicable to those students who register late.

**Summer Session**

1. 100% if withdrawal takes place before classes begin.

2. 80% if withdrawal takes place during the first, second or third class day.
3. 50% if withdrawal takes place during the fourth, fifth or sixth class day.
4. No refund after the sixth class day.

This refund policy is not applicable to those students who register late.

Courses not following the regular semester schedule will be prorated based on the length of the course.

1. 100% of tuition and fees will be refunded upon request to students who withdraw from College of the Mainland within 30 days from the beginning of classes (15 days for summer terms), provided one or more of the following conditions is met and a notarized statement or doctor's certification, as appropriate, accompanies the request for withdrawal and refund.
   a. The student is a minor or is a dependent young adult who lives with his parents or guardian and is forced to withdraw because his parents or guardian moves to a new location beyond commuting distance from College of the Mainland.
   b. The student is a military person who is required by the government to move to a new location beyond commuting distance from College of the Mainland.
   c. The student has suffered serious physical or mental disability which demobilizes him and prevents his attendance.
   d. The student is forced to withdraw because of disaster in the family.
   e. The student's spouse moves to a new location beyond commuting distance from College of the Mainland.
2. Non-credit Refunds shall be issued on the same basis as credit refunds except that the time limitation specified in item "3" above shall be construed to be one-fourth the length of the course.
3. No refund for less than $1.00 will be processed.

Note: If the withdrawal or drop occurs as a result of Class Cancellation or certain other administrative decisions, the student shall receive a refund of all fees and charges associated with the course. In cases of exceptional circumstances the student may appeal to the Director of Admissions/Registrar.



# Enrollment Information

## Schedule Policy

The College reserves the right, when necessary, to cancel classes, change instructors, and otherwise alter the schedule. No charge will be made for changes due to cancelled classes. In order to replace a can-

celled class, the student should make changes the first two days of late registration. The College will determine when courses are to be offered, class enrollments as to size, and locations.

## Student Fee Slips

Each student should be prepared to pay his/her tuition and fees in full at the time of registration. A student is not officially enrolled unless he/she has paid the tuition and fees. A student copy of the receipted charge slip will be issued upon enrollment and this charge slip must be presented for class admission and to make class changes.

## Student Course Load

As a general rule, a student enrolled for a full course load is expected to devote at least as much time per week to his college work as a person who is gainfully employed full-time devotes to his work. Students who plan to work more than fifteen hours per week should reduce their course load accordingly.

Normally, the standard load for a student (not employed full-time) during a regular semester is five college courses carrying from 15 to 17 semester hours credit. The maximum load for a student during the summer is two courses or seven semester hours per six-week term. Only under exceptional circumstances will a student be permitted to register for more than the standard load. The advisor is authorized to approve such overloads.



## Classification of Students

| | |
|---|---|
| Part-time | A student carrying fewer than 12 semester hours of work |
| Full-time | A student carrying 12 or more semester hours of work<br>A student carrying four or more semester hours per summer session |
| Freshman | A student with fewer than 30 semester hours of college credits |
| Sophomore | A student who has earned 30 semester hours of college credits or more |
| Special | A student enrolled in credit courses who is not working toward a degree or diploma |

## Course Numbers

Each numeral in course numbers has a distinct meaning. If the first numeral is 1 (or 0 in the case of Physical Education courses), the course is freshman level; if it is 2, the course is sophomore level. The second numeral indicates the credit in semester hours. The third numeral indi-

cates the sequence or order in which courses of identical name normally should be taken.

## Schedule Changes

The student is expected to carefully plan a schedule in advance in consultation with the advisor. When it is necessary to add and/or drop courses after completion of registration, such course changes must be processed through the Records Office on the dates indicated by the college calendar. This process should be completed on the appropriate form and have the proper signatures. A schedule change fee of $3.00 will be assessed for each transaction.

## Change of Name or Address

A student who, after registration, changes his home or local address or a female student who marries after enrollment at College of the Mainland is expected to notify the Registrar of this change immediately. Any communication from the College which is mailed to the name and address on record is considered to have been properly delivered and the student is thereupon responsible.

## Withdrawal From College



A student who wishes to withdraw from the College must secure a withdrawal slip from the Records Office and follow the general procedure for withdrawal.

Withdrawal is not considered official unless this procedure has been followed. Should the student be unable to present himself at the Records Office, he should promptly advise the College in writing and state his reasons for his decision to withdraw.

## Withdrawal From Class

When a student wishes to withdraw from a class after registration, he or she must complete the proper form for withdrawal in the Admissions and Records Office. The following guidelines determine grades for an official withdrawal:

1. When a student withdraws before 12th class day (4th class day for summer sessions), the course will not appear on the student's permanent record.
2. For withdrawals that take place after the 12th (4th) class day but before "W" Day, as indicated in the college catalog calendar, a grade of "W" will appear on the student's permanent record.
3. A withdrawal, initiated by an instructor, that takes place after "W" Day, as indicated in the college catalog calendar, may appear on the student's permanent record as a "WP" (See 'System of Grading', pp. 23, 24).

## End of Semester Activities

The last week of each semester is reserved for completion of course work, review, and evaluation. Therefore, student extracurricular and other activities which tend to interfere with these purposes are suspended during this period.

Exceptions must be arranged with the Dean of College and Financial Services.

## Class Attendance

Students at College of the Mainland are expected to punctually attend every session of all classes for which they are registered. Students are not permitted a set number of "cuts."

## Instructor-Initiated Drop

When, in the judgement of the instructor, a student has been absent so many times that it is unlikely that he can complete the objectives of the course, the instructor will initiate steps to drop the student by notifying the Records Office. The Records Office will send the student a notice indicating that he has been dropped from the course. The student will receive a "W" for that course.



## Audit

College of the Mainland does not permit an audit in a course. Courses are designed for the individual, and it is necessary that the student participate in the teaching-learning process. Students may work out an individual study plan with the instructor after they have registered for a course.

## Student Evaluation

Credit courses at College of the Mainland are carefully planned using learning objectives. The learning objectives are contained in the course guides which are made available to each student by the first scheduled class meeting.

The instructors responsible for planning the courses have identified the minimum level of achievement a student must accomplish before credit may be earned. Most courses have been designed to evaluate the student's achievements by one of two methods. In some courses a combination of these methods may be used. Each course guide explicitly states how the students will be evaluated.

The first method clearly states behaviorally specified learning objectives which must be completed. These objectives are divided into three categories: minimum specified learning objectives must be satisfactorily completed to earn a "C"; quality specified learning objectives which require the student to demonstrate a greater understanding and mastery of the subject must be completed for the quality grades of "B" or "A".

The second method used in some courses to evaluate the student's level of achievement states in the course guide those learning objectives to be completed. The student's grade is determined by cumulative scores on written, oral, or manipulative examinations which are designed to measure the level of understanding or skills achieved on the course objectives. A minimum level of acceptable performance is assigned a "C" grade. Good or superior levels of performance earn a "B" or "A" grade, respectively.

## Grade Reports

Grade reports are mailed to each student's home address soon after the end of the semester. Grade reports will be withheld from those students who have a financial or other obligation to the College and/or the Business Office, Bookstore, Learning Resources Center, or the Financial Aid Office. Grades are reported for each course according to the following system.

## System of Grading

| Grade | Significance | Grade Points |
|---|---|---|
| A | Superior Achievement of Course Objectives | 4 per sem. hr. |
| B | Outstanding Achievement of Course Objectives | 3 per sem. hr. |
| C | Achievement of Minimum Course Objectives | 2 per sem. hr. |
| I | A temporary grade given to indicate that, in the instructor's judgement, the student can complete the course objectives within a specified extension of time. | NA |
| F | Failure to achieve course objectives | -0- |
| W | Withdrawal on or before the date as specified in the College Calendar. | NA |
| WP | Withdrawal during the period of the semester between the last day to withdraw with a "W" and the end of the semester, if at the time of withdrawal the student is satisfactorily achieving the course objectives. | NA |
| CR | Achievement of Course Objectives for:<br>a. Physical Education Activity Courses for transfer; *or* | |

| | |
|---|---|
| b. Credit toward the College of the Mainland Individualized Studies degree. | NA |
| c. Developmental Courses | NA |

Grade points earned for each course are determined by multiplying the number of points, according to the schedule above, by the number of semester hours credit attached to the course. One's grade point average (GPA) is computed by dividing the sum of all grade points earned by the sum of the hours attempted. It should be noted that the grades of "I", "W", "WP", and "CR" are not considered as hours attempted in computing one's GPA.

## The "I" Grade

An "I" grade is a temporary grade given after an I-contract has been agreed upon and signed by both the student and the instructor when, in the judgment of the instructor, the student can complete the course objectives with a minimum of professional assistance and without attending additional scheduled class sessions. The "I" grade will be changed to a permanent grade when the conditions of the I-contract are completed.

Should the student fail to satisfactorily complete the I-contract after one year from the date of enrollment in the course, the "I" is subject to be changed to an "F" by the Registrar if the grade has not been changed previously by the instructor. The student will be notified of all grade changes in his record.



A student receiving an "I" in a course that is a prerequisite to another can enroll in the next course only with the permission of the instructor of the subsequent course and the student's academic advisor.

## The "W" Grade

Students who officially withdraw from a course for any reason, on or before the date specified on the calendar in the College Catalog, will receive a "W". It is the student's responsibility to insure that he/she is properly withdrawn from a course. Ceasing to attend class does not officially withdraw a student from a course.

An instructor may, at his discretion, withdraw a student due to lack of attendance, inability of the student to maintain the prescribed minimum rate of progress stated in the course guide, or for behavior detrimental to the learning process of the student or class.

## The "WP" Grade

The "WP" grade will be given to students who must withdraw after the W-day due to circumstances beyond the student's control, if at the time of withdrawal the student is making satisfactory progress toward the achievement of the course objectives.

The "WP" grade may also be given in those courses designed to permit and monitor individualized study if the student has been making satisfactory progress until the last day of the semester within the limits of a pre-determined and specified schedule of progression. To receive credit for the course, the student must re-enroll.

## Repeated Courses

When a course has been attempted more than once, only the highest grade received for that course will be used to compute the cumulative GPA. The lower grade will remain on the transcript, but will not be used to compute the cumulative GPA.

## Transcript

One transcript will be supplied free of charge. Each additional transcript will cost $1.00.

Official transcripts of all course work taken at College of the Mainland are available in the Records Office. Requests for transcripts must be in writing and must bear the signature of the student whose record is requested. Transcript service requires 24 hours from the time the request is initiated until the student receives his/her copy. (Exception: Registration Periods)

Transcripts from other institutions submitted to the College of the Mainland become property of the college and are not reproduced and/or mailed to other institutions, agencies or individuals.



Transcript service is withheld from students who have a financial obligation or other commitment outstanding to the college until the obligation is cleared.

### Release of Transcripts and Academic Records

College of the Mainland transcripts and other information from a student's academic records are released by the Registrar only upon written request from the student or other person authorized by law, and when payment of the appropriate fees is made. Exceptions may be made in response to a subpoena or court order and as provided in the policy on releasing directory information set forth in the student records policy.

### Graduation Application

Degrees or diplomas are not awarded automatically upon completion of the degree requirements. Application for graduation must be submitted to the Admission's Office during the semester or summer session in which the degree is to be conferred, sixty days prior to the end of a semester and thirty days prior to the end of the summer term. A preliminary degree check will be made.

If the student does not fulfill degree requirements within the designated semester or session, the graduation application will be deactivated. Participation in Spring graduation ceremonies is limited to students who

have completed all requirements, or are likely to complete all requirements during the subsequent summer sessions.

### Cap and Gown

It is the student's responsibility to order a cap and gown at the Bookstore before April 15 for the spring commencement.

## Scholastic Referral

College of the Mainland recognizes the need to identify individual students who have not completed minimum objectives in their course work so that assistance and support may be offered to them.

#### First Incidence

Each student receiving credit (A,B,C,CR) for less than one-half of the hours for which enrolled and being reported will be on scholastic referral. Each student on scholastic referral will have a written, specific and personal plan developed by his advisor. If appropriate, the plan will identify alternatives available to assist the student to overcome barriers to his success. Both the student and his advisor will be responsible for implementation of the plan.

#### Second Incidence



A student who does not receive credit for at least one-half the hours for which enrolled and being reported the following semester (or two summer terms) must appear before the Committee on Special Admissions prior to further enrollment in the College. It is the responsibility of this committee to determine the student's future status with College of the Mainland.

## Access to Student Records

Public Law 93-380, better known as the Buckley Amendment, provides for certain protection of the rights and privacy of parents and students. College of the Mainland will abide by the provisions of this act by making available to students official records and files included in his/her cumulative record folder as provided by the law. The College will not release personally identifiable records or files of students without the permission of appropriate persons except as provided in the law.

Any student wishing to withhold any or all of the information listed below should fill out, in person, the appropriate form, available at the time of admissions or registration, giving the following data:
student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities, dates of enrollment, degrees and awards received, and the most recent educational agency or institution attended by the student.

Further information concerning this matter may be addressed to the Director of Admissions/Registrar.

# Honors, Opportunities and Awards

College of the Mainland offers special opportunities for advanced students to pursue experiences of a range and depth commensurate with their capabilities and intellectual interests. Special awards recognize outstanding achievement.

## Dean's List

The Dean's List is designed to recognize students whose academic performance is outstanding. In order to qualify for the Dean's List, a student must have completed a total of twelve (12) semester hours of credit work during the semester with a grade point average of 3.3.

In addition to the Dean's List, a Dean's Highest Honors List is designed to recognize students whose academic performance is exceptional. In order to qualify for the Dean's Highest Honors List, a student must have completed a total of twelve (12) semester hours of credit work during the semester with a grade point average of 4.0.

Students selected for the Dean's List or Dean's Highest Honors List for four semesters will be included on the Permanent Honors List. This information will be entered on the student's permanent record. Both lists are published at the end of each semester.

## Honor Graduates



Students who complete the Associate in Arts degree or the Associate in Applied Science may graduate with honors provided they complete at least 40 semester hours at College of the Mainland and attain grade point averages as follows:

| | |
|---|---|
| Honors | GPA 3.4 up to 3.7 |
| Highest Honors | GPA 3.8 thru 4.0 |

The recognition will be entered on the student's permanent record. The Dean of Instruction will recognize Honor Graduates during graduation ceremonies.

## H. K. "Griz" Eckert Awards

The Citizens' Advisory Council of College of the Mainland will sponsor two annual awards to be known as the H. K. "Griz" Eckert Awards. One will go to the college employee, the other to the college student who has best promoted and exemplified the college motto: "Humanhood Through Brotherhood."

## Credit By Examination

A student may earn as many as twenty-four (24) hours of credit by examination but must enroll and attend class at COM for college level courses and must satisfactorily complete at least one credit course to have that credit placed on an official transcript. Transcripts are not created simply to award credit by examination. Further information may be obtained by contacting the Counseling and Appraisal Center, Room 223, of the Student Center.

## Credit for CPS Examinations

College of the Mainland will grant a total of 19 credits based upon the successful completion of the Certified Professional Secretary examination. Applicants must demonstrate that the CPS examination was passed within the last five years. The credits are allocated as follows: Acct 131 (Office Accounting), OP 142 (Office Procedures), B Comm 231 (Business Communications), IB 131 (Introduction to Business) or Mgt 131 (Introduction to Management), Typ 132 (Intermediate Typewriting), and St 132 (Intermediate Shorthand).

In order to receive credit, the applicant must have earned a minimum of 12 hours credit for courses at College of the Mainland before the advanced standing credit is posted on the applicant's record and must request that direct notification be given to the Director of Admissions by the Institute for Certifying Secretaries that the applicant has passed all sections of the examination.

## Honors Courses

A course required by many programs but not available through Credit by examination is Political Science 236 (American, National, and State Government). A highly challenging alternative to this course is designated as Political Science 236H. For additional information, contact the Social Sciences Division.



## Phi Theta Kappa

Phi Theta Kappa is the national honor society for junior colleges. Sigma Delta Chapter here at College of the Mainland is dedicated to service to the community as a whole. Invitations to membership are extended to those students who have accumulated a minimum of 12 semester hours and achieved a 3.2 grade point average and who have matriculated here for at least one semester. Part-time students are eligible once they earn 12 hours with a 3.2 grade point average. Meetings are weekly in the Student Center.

## Who's Who Among Students in American Junior Colleges

Sophomores with excellent academic records, service to the community, leadership in extra curricular activities, growth while a student at College of the Mainland and potential for future success will be recognized in this nationwide publication.

# Bookstore Refunds and Used Book Purchases

College of the Mainland provides a bookstore in the Student Center to allow a student to purchase books and materials as conveniently and economically as possible. The manager of the Bookstore is a staff member of the College and is dedicated to serving students in the best manner possible. The Bookstore personnel maintain textbook lists, which are submitted by the instructors of each course offered at College

of the Mainland. Therefore, one need only to inform them of the name and number of the course and they will help you select the appropriate materials.

## Refunds

100% of the customer's purchase price will be paid if the book is new, unmarked, and is returned before the end of the first two weeks of classes. The sales ticket and evidence of withdrawal from class is required.

## Used Book Purchases

50% of the customer's purchase price will be paid for books bought back by the Bookstore during the buy-back period if the book is in good condition and will be used the next semester. The buy-back period shall be the period of the one week before through one week following the "end of semester" as stated in the College catalog.

Used books which will not be used by the College may occasionally be re-purchased for re-sale to a used book supplier. In this event the buy-back price will be established as appropriate for each title re-purchased.

## Community Use of College Facilities

College of the Mainland urges community groups, organizations, and institutions to use its facilities for meetings and programs. For information and reservations call 938-1211.

# 3

# Student Services and Activities

Financial Aid
Scholarships
Student Life Program
Veterans' Information

## The Student

The Student Development Program at COM affords each adult learner the opportunity to be responsible for and have input into the formal instructional process. This is accomplished through the Student Development Committee which is composed of two faculty and one student representative from each academic component of the College. The committee encourages each division to utilize its students and faculty as resources for program development. The programs are designed as Emphasis Week Activities, some of which occur during actual class time, as in-class seminars and others as special events. All programs are open to the college and community at large.



The Board of Trustees and the Administration of the College of the Mainland believe deeply in, and commit themselves to, the democratic process as a way of life. Therefore, the Board of Trustees and the College Staff commit themselves to the following:

1. The student is an adult person, or is capable of becoming sufficiently responsible immediately, for the purpose of continuing in attendance.
2. The student shall have the status of junior colleague in the College and shall participate in all appropriate ways in the government of the College.
3. The student shall be dealt with by the College Staff as a person meriting the fullest respect at all times.
4. The student merits the ablest and most dedicated professional leadership that can be made available to him.
5. Upon entering, the student shall receive thorough training in the duties and responsibilities of scholarship at College of the Mainland.
6. The work of the student shall be planned and evaluated meticulously and imaginatively. The student shall be involved at all appropriate points in the planning and evaluation processes.
7. The student deserves the most useful modern learning materials, equipment, and facilities that can be made available to him.

8. The student shall be granted the fullest appropriate measures of responsibility for his own education within a framework of careful planning and evaluation of his work.
9. The student shall be given every reasonable opportunity to continue as a member of the College community until he has achieved his purpose.
10. The student shall have the prerogative and the obligation as a scholar to exercise in a responsible way the following rights:
    a. The right to study any controversial issue which has social (i.e., political, moral, economic, religious) significance in our civilization today and concerning which, at his level of scholarly maturity, he should begin to deliberately form his own views, make his own inquiries and draw his own conclusions.
    b. The right to have free access to all relevant information, including materials which circulate freely in the professions and institutions in the larger community.
    c. The right to study under competent leadership in an atmosphere free from indoctrination.
    d. The right to form and express his views on controversial issues in a civilized and scholarly manner with the full support of the College and of the Board of Trustees.

## Behavior Responsibilities of Students at College of the Mainland



Any person enrolled at College of the Mainland is considered to be an adult and capable of conducting himself in a mature manner. Specifically, this means that the College does not presume that students are incapable of discerning for themselves what behavior is within the broad spectrum called "acceptable." It does not mean though that guarantees of due process and fairness can be omitted when behavior disrupts a planned, scheduled activity at a time and place within the College community. To have such a procedure and have it disseminated so that everyone is aware of it is only to provide a signal to all of us that we live and work together, and this fact precludes everyone's behaving with only his own interests in mind.

It would be possible, and to some minds much simpler, to dictate precisely how everyone must dress and behave. We choose rather to have reason, facts and individual circumstances provide the basis for decisions in a given instance. This means the students will be held accountable for their actions, which is, of course, the definition for adult behavior.

### Policy for Dealing with Non-Classroom Related Student* Behavioral Problems

This plan is designed to provide a guide for intelligent action by the College in the event of the following conditions:

1. Violation of College policy or behavior which is deemed inappropriate to the time, place and activity in question.
2. A person or persons being out-of-control on the campus, being violent toward, and/or abusive of, other persons or property, or threatening to be violent toward, and/or abusive of, other persons or property. (This condition might be caused by intoxication; extreme anger, mental disorder; drugs; and open, unlawful gambling; and the like.)

*The procedural steps outlined within this policy are applicable only to students enrolled at the College.

*Preliminary Steps* — The student who takes note of inappropriate behavior makes a judgement as to its potential for unlawful and abusive effects upon the person, other persons or property.

1. If, in the student's own judgement the situation can be resolved by him (without violating the individual's rights or dignity), the student should move to resolve it, and send a dated and signed memorandum to the Director of Student Development answering the questions: who, what, why, where, and when. A recommendation of further action should be attached if deemed necessary.
2. If the student judges the situation cannot be resolved by him, he reports the condition immediately to one of the officers listed below, in the order listed.



Division Chairpersons
Dean of Instruction and Student Development
President

a. The above officer appraises the situation and decides if he can, without force, eliminate the condition.
b. If the above officer judges he cannot resolve the situation without force, he reports the situation to Campus Security and requests immediate assistance.

Note: The report to Campus Security should be done with great care; that is, without hysteria and overembellishment. At the same time, enough information must be given to indicate the seriousness of the condition.

Once a complaint has been reviewed, the person responsible for resolving a non-classroom problem shall be the Dean of Instruction & Student Development or his/her delegate. After investigating all the evidence submitted, and after further investigation and input from the appropriate people, the Dean of Instruction and Student Development shall make final a decision based on the facts of each individual case.

Definitions:

1. Probation — Probation shall be assigned for a specific amount of time, not to exceed 120 calendar days. A record of the causes for a student's being placed on probation will be kept among the student's current, non-academic records in the Dean of Instruction and Student Development office.

2. Attendance — Attendance during the period of time a behavioral problem is being treated will be the student's right pending a further disruption.
3. Time — The maximum amount of time between the occurrence of a behavioral problem of such magnitude as to require discipline and a hearing by the appropriate governing body shall be eight (8) calendar days.
4. Appeal — The right of either party to a dispute to present the issue to a higher level for a review and decision. In order to exercise the right of appeal, the person must file a written request within three (3) days after receiving the decision of the prior hearing.
5. Records — Written records of all actions taken (formal reprimand, probation, suspension, expulsion) shall be kept in the current non-academic files of the Dean of Instruction and Student Development.

Should the Counsel or, Student Activities Board determine that either suspension or expulsion is appropriate, he shall forward such recommendation to the Dean for action.

## Counseling

COM is dedicated to the idea that human potential is often greater than that which is actualized throughout life. The programs and activities available through these services are designed to assist in the students' development of individual potential in the pursuit of their academic, career, and personal goals. The opportunities for growth are unified by the concept that the ability to live a particular lifestyle requires certain personal and career skills. These skills can aid in future life planning and personal growth toward the realization of those goals.



A highly trained and experienced counselor is available in each of the five Divisions: Arts and Humanities, Business, Industrial Education, Mathematics, Health and Natural Sciences, and Social Sciences. In addition, a counselor is assigned to the Admissions Office and the Counseling and Appraisal Center.

## Counseling and Appraisal Center

The Counseling and Appraisal Center at College of the Mainland is designed to provide a comprehensive program of Student Services. The organization of these services has grown out of the recognition that human choices should be enlightened and that students may need professional assistance in making decisions in their academic life. These services are designed to assist the student by realistically assessing academic skills through one's participation in various national testing programs such as the American College Testing Program (ACT), General Educational Diploma (GED), National League of Nursing (NLN), as well as COM's own Appraisal Test. Services also are available to assist in the academic advisement, adjustment counseling for personal, vocational, and social problem solving.

## Student Activities

Student activities are considered an integral part of the total education concept at College of the Mainland. The Counselor of the Student Activities Board work with clubs, organizations and other college employees to plan and coordinate social, cultural and educational programs.

The Student Activities Board plans activities that will assist in the personal development of each student. An organized program of related activities, as well as informal contact among students and faculty, provides an opportunity for students to gain insights and understanding about themselves, their communities and their quality of life.

Student programs include clubs and organizations, Fine Arts events, noon concerts, video-tape series, television lounge, lectures and other planned activities.

## Student Activities Board

This organization serves as the nucleus of all student oriented activities. Its primary functions are (1) to provide an information conduit for all clubs and organizations on campus, (2) to provide a viable link between the students, faculty, staff administrators and the Board of Trustees, (3) to plan, develop and coordinate co-curricular activities, (4) to provide for the social, cultural, recreational, and entertainment needs of the student body.



The Student Activities Board, like all other COM student clubs, is open for membership to all students regardless of race, creed, national origin, sex, age and/or handicap.

# Total Learning Center

The Total Learning Center is designed to provide academic support services. Its mission is to assist all students in the strengthening of the basic skills necessary for survival in and out of a college environment. Depending on the student's appraisal test scores, these courses may be required and/or considered remedial.

The Total Learning Center offers every student specific instruction toward improvement of both reading and writing skills. These services are in direct support of the pursuit of their academic, personal, and career goals:

- Reading courses are designed to improve or correct difficulties which might exist in specific skills areas. They focus primarily on the development of study skills, vocabulary development, comprehension, rate (speed), and fluency.
- The courses for improvement of writing skills are designed to strengthen the student's ability of expression in standard written English.

# Veterans' Educational Benefits at College of the Mainland

The Veterans' Affairs Office of College of the Mainland assists the veteran student in securing VA educational benefits. The office not only handles and processes the necessary paperwork, but also advises the veteran students and monitors their progress according to guidelines set by the Veterans Administration.

## Eligibility and Certification Requirements

Eligibility for educational benefits requires a minimum of 181 days continuous active duty service, except that veterans released earlier because of service-connected disabilities may be eligible. Veterans with less than 18 months of active duty are entitled to one and one-half months of full-time benefits for each month of active duty. Those with 18 months or more of service have an initial entitlement of 45 months of full-time benefits. Except for special cases, eligibility ceases ten years from the date of discharge from active duty.

Veterans applying for educational benefits must provide the Veterans' Affairs Office with the documents required to support their claim. These include a certified copy of the discharge document (DD 214), the application for program of education (1990) or request for change of program (1995), appropriate documents to establish dependency (i.e., marriage, birth certificates), and complete transcripts of all previous college level work completed. A Request for Certification card must be submitted indicating the periods and number of semester hours for which benefits are being claimed. Students scheduling less than six semester hours are paid tuition and fees only; monthly rates for six or more semester hours are available through the Veterans' Affairs Office.



## Programs Approved for VA Benefits

All Associate Degree programs described in this catalog are approved for VA educational benefits. The veteran choosing a Diploma or Certificate (one-year) program should contact the Veterans' Affairs Officer prior to registration. Students who have not completed High School may receive educational benefit payments while attending G.E.D. preparation classes.

## Veterans' Standards of Progress Requirements

The veteran student must make satisfactory progress toward a single identified and pre-determined educational, professional, or vocational objective. Individual courses which are not part of, or transferable into, final degree requirements will not qualify for benefit payments. Courses outside the specific program may, however, be scheduled by the veteran student for college credit. Requirements for satisfactory progress in one's degree program are published and are available from the Veterans' Affairs Office.

## Avoiding Overpayment Difficulties With VA

Veterans' Administration does not award educational benefits for courses in which the grade received is not applicable to the GPA. Students are particularly cautioned to avoid, if possible, grades of "W" and "WP" in order to avoid notices of overpayment from VA. Repeated or unrelated courses may also create overpayments, and should not be included in the veteran's request for certification.

## Veterans' Tutoring Assistance

Tutors are available through VA funding for the veteran student who has difficulty in achieving course objectives. Arrangements are made through the Veterans' Affairs office. Applications for tutorial assistance should be made early enough in the semester to allow satisfactory completion of the course.

## Work-Study Positions

Veteran students who are enrolled for twelve or more semester hours may apply for work-study positions available through the Veterans' Affairs Office. A limited number of these positions are available. Hours are flexible, and work involves clerical support of actual or potential veteran students at College of the Mainland.



## The Texas GI Bill (Hazlewood Act)

Veterans who have been discharged from active duty for a period of over ten years, or who have exhausted their entitlement, are urged to check their eligibility for Hazlewood benefits. Tuition charges are waived for the veterans who were Texas residents at the time of entry into the military, who were honorably discharged, and whose standard VA benefits have expired. A copy of the veteran's discharge paper, Form DD214, is required to document eligibility.

## Gulf Coast Intercollegiate Conference

College of the Mainland, along with other area junior/community colleges of Brazosport, Alvin, Galveston, Lee, Wharton and North Harris County have founded the Gulf Coast Intercollegiate Conference. The conference is divided into five major divisions: Athletics and Physical Education, Occupational Education, Mathematics, Science and Engineering, Communications, and Fine Arts. Within these divisions, activities in the form of festivals, sport days and competitions are designed to promote intercollegiate relationships and reactions.

## Financial Aid

College of the Mainland is dedicated to the belief that the educational opportunities of students should not be controlled by their financial resources. Financial aid is offered to students who need assistance in meeting college expenses. The financial assistance may consist of grants, loans, scholarships, or part-time employment. These may be offered to students singularly or in various combinations depending on the degree of need. Persons wishing to make application for financial aid should contact the Financial Aid Office well in advance of registration.

## Satisfactory Progress

To make efficient use of public funds, and because student financial aid programs were created and funded to help students achieve academic goals, measurable academic progress is required.

To qualify for financial aid and student employment, a student must enroll for six or more credit hours per term, Fall and Spring; three hours or more Summer I and II. Should a student fail to complete successfully with grades A, B, C or CR, at least one half the hours attempted, the student will be placed on financial aid probation. Hours attempted are the hours on record as of the 12th class day Fall and Spring; 4th class day Summer I and II.

Failure to successfully complete one half the hours attempted a second time will result in suspension of all financial aid. For extenuating circumstances, suspension of financial aid may be waived for one semester. A student on financial aid suspension who enrolls and completes half the hours attempted will be reinstated.



## Standing Annual Scholarships

AAUW AMERICAN ASSOCIATION OF UNIVERSITY WOMEN, TEXAS CITY BRANCH, SCHOLARSHIP contributed by the Texas City Branch of the AAUW. Restricted to a female student from within the College District. Apply to College of the Mainland Financial Aid Office.

AFL/CIO OF GALVESTON COUNTY SCHOLARSHIP. Annual scholarships contributed by the Galveston County Branch of AFL/CIO. Restricted to residents of the College District who are taking technical/vocational subjects toward a certificate, diploma, or the A.A.S. degree. Apply to College of the Mainland Financial Aid Office.

B&PW—BUSINESS AND PROFESSIONAL WOMEN'S SCHOLARSHIP Contributed by the Texas City B&PW Evening Club. Restricted to a female from the College District. Apply to College of the Mainland Financial Aid Office.

BETA SIGMA PHI SCHOLARSHIP. Contributed by the Texas City Beta Sigma Phi. Restricted to a single female high school senior or a College of the Mainland freshman carrying at least 12 semester hours. Recipient to be selected by the donor. Applications must be submitted by April 1 of the year in which the scholarship is to be awarded. Apply to the Texas City, Beta Sigma Phi or to the Financial Aid Office at College of the Mainland.

DICKINSON ROTARY CLUB SCHOLARSHIP. Contributed by the Dickinson Rotary Club to a deserving student of the Dickinson School District. Apply to the Dickinson Rotary Club.

ELKS MAINLAND LODGE #2141. Unrestricted. Apply to College of the Mainland Financial Aid Office.

GAF CORPORATION SCHOLARSHIPS. Four annual scholarships contributed by the GAF Corporation, Texas City Plant. Unrestricted. Apply to College of the Mainland Financial Aid Office.

IAM&AW—INTERNATIONAL ASSOCIATION OF MACHINISTS AND AEROSPACE WORKERS SCHOLARSHIP. Restricted to residents of the State of Texas. Apply to College of the Mainland Financial Aid Office.

LA MARQUE ALUMNAE—DELTA SIGMA THETA, INC. Annual scholarship contributed by the La Marque Delta Sigma Theta Sorority to a recent graduate of La Marque, Texas City, or Hitchcock, enrolled for 12 hours of more, and maintaining C+ average or above. Apply to College of the Mainland Financial Aid Office.



LULAC. LEAGUE OF UNITED LATIN AMERICAN CITIZENS COUNCIL 255 SCHOLARSHIP. Unrestricted. Apply to College of the Mainland Financial Aid Office.

MAINLAND CHAMBER OF COMMERCE #2. Unrestricted. Apply to College of the Mainland Financial Aid Office.

P.E.O. SISTERHOOD, CHAPTER E. B. OF HOUSTON. Unrestricted. Apply to College of the Mainland Financial Aid Office.

PROFESSIONAL SECRETARIES, INTL. SCHOLARSHIP. Supported by the Galveston County Chapter. Restricted to a full-time student majoring in the secretarial sciences. Recipient selected by College of the Mainland's Financial Aid Office. Application should be made before May 1 of the year in which the scholarship is desired. Apply to College of the Mainland Financial Aid Office.

TEXAS CITY CIVIC CLUB SCHOLARSHIP. Annual scholarship contributed by the Texas City Civic Club for the purpose of assisting youth advancement. Unrestricted. Apply to College of the Mainland Financial Aid Office.

TEXAS CITY GARDEN CLUB SCHOLARSHIP, Contributed by the Texas City Garden Club to a College of the Mainland student graduating with an Associate of Arts Degree and majoring in Horticulture, Floriculture, Conservation or a related field.

TEXAS CITY ROTARY CLUB. Contributed by the Texas City Rotary Club to a College of the Mainland student graduating with an Associate of Arts Degree and transferring to a four year institution.

TEXAS CREDIT UNION LEAGUE SCHOLARSHIP. Contributed by the Texas Credit Union League and Affiliates. Restricted to a student majoring in Credit Union Management and having a 2.0 or above in high school and college. Apply to the Financial Aid Office.

TEXAS NURSES ASSOCIATION, DISTRICT #29. Restricted to a student enrolled in the Associate Degree Nursing Program. Apply to College of the Mainland Financial Aid Office.

UNION CARBIDE CORPORATION SCHOLARSHIPS. Annual scholarships contributed by Union Carbide Corporation, Texas City Plant. Unrestricted. Apply to College of the Mainland Financial Aid Office.

WALTER FEIGLE SCHOLARSHIP. Contributed in the name of Chief Walter Feigle. Restricted to La Marque High School graduates majoring in Law Enforcement. Apply to La Marque High School, Counselors' Office.

## Women's Center

The Women's Center is open to students and to women in the community. The goal of the Center is to help women make informed decisions about immediate and long-range personal and career goals. The Center can assist the woman who is entering the job market for the first time; planning to enter college; undecided on career goals; unsure of how to combine family and school or career; considering a non-traditional occupation; or experiencing personal or academic problems. Besides personal, academic, and career counseling, the Women's Center provides information about and referral to support services in the community. The Center is located in the Admissions Office.

# Associate in Arts Degree

Divisions of:
Arts and Humanities
Business
Industrial Education
Mathematics, Health, and Natural Sciences
Social Sciences
University Transfer Curricula

# University Transfer Curricula

## Transfer Planning

The student who attends College of the Mainland for one or two years and transfers to a university will have no difficulty in completing transfer of credits if these steps are followed:

1. Select a major field of study and a university which offers a bachelor's degree in that field.
2. Write the *Admissions Office* of the university for a current copy of their catalog. Study the freshman and sophomore courses suggested.
3. Your faculty advisor or a counselor at College of the Mainland will help you select College of the Mainland courses corresponding to those you would take at the university.
4. Complete the courses with a grade-point average of at least 2.0 (a "C" average).
5. Early in your last semester at College of the Mainland, apply for admission to the university and ask the College of Mainland Admissions Office to send the university a transcript of your credits.



Bachelor's degrees awarded by most universities require 124 semester hours, which is approximately four years of study. The Associate in Arts degree certifies completion of the first two years of study, 62 semester hours. Most universities will accept as much as 66 semester hours in transfer from another university or college. They will also accept less than 62 semester hours, but research shows that students who complete two full years at a junior college are more likely to graduate than those who transfer earlier.

Most Texas college and university baccalaureate degrees require:

| | |
|---|---|
| 2 | courses in United States History |
| 2 | courses in Political Science |
| 2-4 | courses in Natural Science |
| 2-4 | courses in English |
| 2-4 | courses in Physical Education |

## The Associate in Arts Degree (A.A.)

College of the Mainland offers the Associate in Arts degree to students who:

1. Satisfy all entrance requirements.
2. Complete Communications 130, 131, 133, 134, 136, 137 and Mathematics 130, 131 courses, if needed.
3. Complete a degree program of 62-66 additional hours including the following:
   a. Six semester hours of United States History (3 hours in Texas history may be applied toward satisfying the history requirement) and six semester hours of American National and State Government (Political Science 235 and 236)
   b. At least six semester hours of natural science.
   c. At least six semester hours of English
   d. Two one-semester hour courses in Physical Education including P.E. 111. Activities can be adapted to accommodate students with temporary or permanent physical limitations; if appropriate activities are not available, this requirement may be waived.
   e. At least eighteen semester hours of sophomore level courses
   f. Either 31 hours or the last fifteen hours of credit toward the degree must be taken at College of the Mainland.
4. Maintain a grade-point average of 2.0 or better for all work attempted.
5. Make application for graduation through the Admissions Office no later than March 17 for Spring graduation.
6. Clear all obligations to the College.

The degrees will be conferred at the time the student completes all requirements for graduation. Participation in the graduation ceremony is optional. Exceptions to specific course requirements must be approved by the Dean of Instruction and Student Development.



### Associate in Arts Degree Plans

The following curricula suggest study toward an Associate in Arts degree.

### Academic Foundations

**Courses common to *all* curricula; *not* repeated in each curriculum listed.**

**English 131, 132**
**History 135, 136**
**Physical Education (2 hrs. including P.E. 111)**
**Political Science 235, 236**
**English (0-6)***
**Physical Education (0-2 hours*)**
***as required by each university**

# ASSOCIATE IN ARTS PROGRAMS: 1982-83

| Program Name | Other Majors Served | Freshman Year Courses | Sophomore Year Courses |
|---|---|---|---|
| ALL PROGRAMS | | English 131, 132<br>History 135, 136<br>P.E. 111, P.E. Activity (1 hr) | Political Science 235, 236 |
| Art<br>Program Advisors:<br>James Templer<br>Mona Marshall | Applied Design<br>Studio Art<br>Commercial Art<br>Art Education<br>Visual Art | Art DS 131, 132;<br>Natural Science (8 hrs.)<br>Art Dr 133, 134 | Art DR 233, 234<br>Art HS 136, 137<br>Studio Art (9 hours) |
| Music<br>Program Advisors:<br>Larry Stanley<br>Hope Shiver | Music Education | MusLT 137, 138<br>Music Applied (6 hrs)<br>MusTH 127, 128<br>MusSS 125, 126<br>MusCH 110, 112, 113, or MusBD 111, 114 (2 hrs) | Music 225, 226, 227, 228<br>Music Applied (6 hrs)<br>Science or Foreign Language (8 hours)<br>MusTH 227, 228, MussSS 225, 226<br>MusCH 110, 112, 113 or MusBD 111, 114 (2 hrs) |
| Theatre Arts<br>Program Advisors:<br>Roger Stallings<br>Larry Stanley | Speech<br>Drama | Natural Science (8 hrs)<br>Speech 131<br>Psychology 231<br>Theatre Arts 131, 231 | Natural Science, Mathematics<br>Foreign Language (8 hrs)<br>Theatre Arts 232, 235<br>Art 135<br>Music Ap 133 |
| Health, Physical Education and Recreation<br>Program Advisors:<br>Jerry Bryant<br>Becky King | Health, Leisure & Sports | Biology 143<br>Physical Education 133, 134<br>Mathematics 133 or Foreign Language (8 hrs)<br>Physical Activity (3 hrs) | Speech 131<br>English 231, 232<br>Minor (6 hrs)<br>Humanities/Social Science Electives<br>Physical Activity (4 hrs) |
| General Arts and Sciences<br>Program Advisors: (Majors Code)<br>Tom Carter<br>Manual Urbina | Geography | Natural Science (8 hrs)<br>Psychology 231<br>Sociology 131<br>Mathematics 137, 138 | Natural Science, or Foreign Language (6-8 hrs)<br>Humanities/Social Science Electives (6 hrs) |
| Elementary Education<br>Program Advisors: (Majors Code)<br>Janith Stephenson<br>Caren Bradshaw<br>Anne Sherill | Special Education | Biology or Physics 141, 142<br>Music 131<br>Psychology 231, 233<br>Geography 131 | Mathematics 235, 236<br>Speech 131<br>Specialization (3 hrs)<br>Sociology 234 |
| English<br>Program Advisors: (Major Code)<br>Brenda Brown<br>Jo Ann Pereto | Humanities<br>Literature | Natural Science (8 hrs)<br>Psychology 231<br>Sociology 131<br>Mathematics 137, 138 | English 231, 232, 235<br>Spanish 141, 142<br>Speech 131<br>Theatre Arts 131 |

| | | | |
|---|---|---|---|
| Behavioral Science<br>Program Advisors: (Majors Code)<br>Lee Yom<br>Virginia Steib | Psychology<br>Sociology<br>Counseling<br>Social Work | Biology 141, 142<br>Psychology 231<br>Sociology 131, 132<br>Mathematics 137 | English 231, 232<br>Psychology 233, 238<br>Economics 231, 232<br>Mathematics 138 |
| Government<br>Program Advisors: (Majors Code)<br>Alan Ginsberg<br>Jim Finley | History<br>Political Science<br>Pre-Law<br>Public Management<br>Historical Studies<br>Law and the Citizen | Natural Science (8 hrs)<br>Psychology 231<br>Sociology 131<br>Mathematics 137, 138 | Economics 231, 232<br>Hum/Soc. Sci. Elective<br>English 231 or 232 |
| Business Administration<br>Johnette Plantz<br>Linda Hanson<br>Bessie Schroder<br>James Simpson<br>William Sowers<br>William Tapp<br>Robert Wennagel | Accounting<br>Business Technology<br>Economics<br>Finance<br>General Business<br>Management<br>Marketing | Business Law 231<br>Computer Science 131, 231 or 233<br>Speech 131<br>Natural Science (8 hrs.)<br>Mathematics 133, 137, 138 (Any 2)<br>Introduction to Business 131 | English (3 hrs Soph level)<br>Economics 231, 232<br>Accounting 241, 242<br>Sociology 131<br>Psychology 231<br>Business Law 231<br>Computer Science 131, 231 or 233 |
| Computer Science<br>Laura Cooper<br>Gordon Sutter<br>Michael Thomas | Computer Applications<br>Information Systems | Computer Sci. 131, 132, 136<br>Mathematics 134, 135<br>Electronics 141, 142 | Electronics 144<br>Computer Sci. 231<br>Mathematics 241, 242<br>Physics 241, 242 |
| Engineering<br>Program Advisors:<br>John Hubisz<br>Dee Smith | Pre-Engineering<br>Physics | Chemistry 141, 142<br>Mathematics 241, 242<br>Drafting 131<br>Engineering 131 | Engineering 231, 232<br>Mathematics 243, 234<br>Physics 241, 242 |
| Medical Technology<br>Program Advisors:<br>Roy Rhame<br>Mack Gary | Physician Asst.<br>Allied Health<br>Medical Records Adm.<br>Physical Therapy<br>Occupational Therapy | Biology 141, 142<br>Chemistry 141, 142<br>Mathematics 133, 134 | Chemistry 241, 242<br>Physics 143, 144<br>English 231 or 232<br>Speech 131 |
| Biology<br>Program Advisors: (Majors Code)<br>Emmeline Dodd<br>Paul Williamson | Pre-Veterinary<br>Pre-Dentistry<br>Pre-Medicine<br>Pre-Optometry<br>Pre-Pharmacy<br>Biological Sciences<br>Marine Biology/Sciences | Biology 141, 142<br>Chemistry 141, 142<br>Mathematics 135, 241 | Chemistry 241, 242<br>Physics 143, 144<br>Biology 243, 244 or Math 242, 243 |

| Program Name | Other Majors Served | Freshman Year Courses | Sophomore Year Courses |
|---|---|---|---|
| Pre-Nursing<br>Program Advisors: (Majors Code)<br>Mack Gary<br>Roy Rhame | | Biology 143, 144<br>Psychology 231, 233<br>Mathematics 136<br>Sociology 131 | Chemistry 141, 142<br>Biology 145<br>Nutrition 133<br>Electives |
| Chemistry<br>Program Advisors: (Majors Code)<br>Kervin Sellers<br>Bill Peace | Physical Sciences | Biology 141, 142<br>Chemistry 141, 142<br>Mathematics 135, 241 | Chemistry 241, 242<br>Physics 143, 144 |
| Geology<br>Program Advisors: (Majors Code)<br><br>David Hansmire<br>Bill Peace | Geoscience | Geology 141, 142<br>Chemistry 141, 142<br>Math 135, 241 | Geology 241<br>Mathematics 242<br>Physics 241, 242<br>English 231 or 232 |
| Mathematics<br>Program Advisors: (Majors Code)<br>Mike Bordelon<br>David Hansmire | Mathematics Teaching<br>Mathematical Sciences | Mathematics 133, 134, 135<br>Physics 143, 144<br>Engineering 131 | Mathematics 241, 242<br>Sociology 131<br>Psychology 231<br>Speech 131<br>English 236 |

# 5

# Associate in Applied Science Degree

Divisions of:
Arts and Humanities
Business
Industrial Education
Mathematics, Health, and Natural Sciences
Social Sciences

College of the Mainland offers a spectrum of credit, continuing education, apprentice, and guided work experience programs in technical-vocational occupations to individuals desireous of entering or upgrading themselves in business, and industrial occupations. Technical assistance services are provided to employers and institutions.

Occupational programs are administered by five full service divisions — Arts and Humanities, Business, Industrial Education which includes the Apprentice and Skills Training Program at the Danforth campus, Mathematics, Health and Natural Sciences and Social Sciences. These programs and activities are described in this section of the catalog.

The AAS degree and diploma programs (one-and two-year credit programs) develop entry level competencies in a student's chosen occupation, while Continuing Education courses assist the seasoned worker to adapt to new conditions on the job. Guided work experience programs such as Cooperative Education link a student's occupational studies with relevant learning experiences in the world of work. Apprentices learn their trade on the job and enroll for related instruction at the College. And technical assistance activities focus the College's expertise on contemporary problems confronting business, industry, labor, and government.



All occupational programs are approved by the Texas Education Agency or the Texas College and University Coordinating Board. Further, advisory committees composed of expert workers and supervisors help the College to create and adapt programs and courses. Committees annually assess programs to determine their relevance to the area's job market requirements.

The faculty and staff meet stringent state and professional certification requirements. In addition to academic credentials, faculty must demonstrate a record of successful work experience in their discipline to achieve state certification. Programs are offered on the main campus, on the Danforth campus, at selected locations throughout the mainland of Galveston County, and wherever a genuine learning need exists, in an employer's place of business. Course schedules are designed to accommodate the shift worker.

## Graduation Requirements for the Associate of Applied Science Degree (A.A.S.)

College of the Mainland confers the Associate of Applied Science degree on students who:

1. Satisfy all entrance requirements.
2. Complete all program requirements specified in the catalog.
3. Maintain a grade point average of 2.0 or better for all work attempted.
4. Make application for graduation through the Admissions Office.

One program in the Division of Business culiminates in the Associate of Arts degree. See the Academic programs section of the catalog for graduation requirements.

## The Full-Service Division

As of September 1, 1982, College of the Mainland has reorganized its structure into five Full-Service Divisions: Arts and Humanities, Business, Industrial Education, Mathematics, Health and Natural Sciences and Social Sciences.



The purpose of the reorganization is to provide the framework for upgrading the College's academic transfer, increasing the credibility of other areas of instruction and, at the same time, maintaining the College's responsiveness to community needs.

Centered on the needs of students, the Full-Service Division sponsors academic, occupational and vocational education and training through associate arts or transfer degree programs; associate in applied sciences degree programs; one-year diploma and clock-hour certificate or job training programs and continuing education or job upgrading/advancement programs. These programs are delivered through courses, seminars, workshops and mini-courses and community service, as well as human development (career and life planning, career exploration, career advisement).

The model was founded on the premise that education and training in the Full-Service Division would be content-based, discipline-based, and created, delivered and evaluated by the best qualified instructional technologists who had both academic and experiential backgrounds in their respective fields—the faculty.

A Full-Service Division can become the center for interactions among individuals and groups with a common goal and can become a catalyst or force in bringing about collaboration and cooperation among colleagues, enabling the instructional divisions to move more rapidly towards positive, productive **student** outcomes.

## Division of
# Arts and Humanities

**Chairperson: Larry Stanley**

The courses and programs in the Division of Arts and Humanities are designed to give students basic skills and knowledge in the Fine Arts (music, art, speech, theatre arts) and to provide opportunities for life enrichment.

Believing that appreciation and understanding of the arts is vital to a full and satisfying life, the Division offers many opportunities for students to participate in or attend theatrical presentations, musical performances, and gallery exhibitions. Many courses in the Arts are designed for students who are not Arts majors.

The Division also offers courses and programs in the humanities which are designed to give students basic skills and knowledge in the Humanities discipline (English, Journalism, Philosophy, Foreign Languages, Communications) and to provide opportunities for life enrichment.

The common thread that connects all of the courses in the division is communication. With all of the technological advances of our day, the problems of communication that have plagued humanity since the beginning of time still remain with us. The Division addresses not only the history of such problems but seeks solutions to contemporary communication problems.



**Continuing Education** courses are also offered in Fine Arts, Crafts, Photography, Dance and Music. These courses are under the direction of a Continuing Education Coordinator with the Division of Arts and Humanities.

**Cooperative education,** wherein students blend theory and practice by working on paid work assignments in their area of professional interest, is an available option.

**Credit by examination** is available in the following courses: English 131, 132, 231 and Spanish 141, 142.

**Counseling** is offered by a professional counselor who helps resolve problems confronting students as they pursue intellectual, emotional and social growth. Counseling subscribes to the philosophy that each person must assume responsibility for his/her own decision-making process and lifestyle. This is promoted by providing an atmosphere of empathy and confidentiality. Services also include instruction in marketing job skills.

**For complete course descriptions, see Section 6.**

## Student Clubs and Organizations

The Division of Arts and Humanities has a wide range of clubs and organizations which are open to students taking courses in the Division. The following clubs, which offer various activities and purposes, are available to students:

**COM Art Association**

Coordinates activities in the art department, organizes student sales, gallery discussions, and sponsors artist speakers.

**COM Singers**

Performs a wide variety of music and presents several public programs each year.

**Lab Band**

Instructs students with previous training who desire experience and instruction in the techniques of Modern Jazz. Students should sign up for Music 111.

**Mainland Chorale**

Provides the student with a variety of larger chorale works. Students should register for Music 110.

**Mainland Community Theatre**

Encourages students interested in drama to become involved in College of the Mainland Community Theatre.



**Phi Theta Kappa**

Recognizes and encourages scholarship among students at COM. Working toward this goal provides for the exchange of intellectual ideas, lively fellowship for scholars, and the stimulation of interest in continuing academic excellence.

**Texas Student Education Association**

Interests students in teaching careers; offers opportunities to gain an understanding of the history, ethics, program of the teaching profession; participates in cooperative work on the problems of the teaching profession and strives for higher standards of preparation.

# Adult Basic Education

Findings of a recently published study conducted by the U.S. Office of Education have indicated that more than 23 million Americans — one of every five adults — cannot read, write, or compute well enough to function effectively in today's world.

Adult Basic Education (ABE) is the process of delivering functional skills and literacy skills ranging from beginning reading and extending through high school equivalency.

General Educational Development is the process of acquiring those skills otherwise acquired in a public school leading to high school graduation. The difference is that instead of a high school diploma certifying acquired skills, an equivalency certificate, issued by the Texas Education Agency is granted. The process may have already taken place and a series of GED tests can be taken which will earn a high school equivalency certificate. Many people go through this process without knowing it. Performing a job, watching T.V., shopping for groceries, reading the comics, these are but a few of the ways education is acquired outside of a formal school setting. If the process is not complete, academic work is prescribed which can complete the process.

**Basic Education** — The basic education classes provide opportunities for adults who missed out on early educational experiences for any reason. Many adults have acquired literacy skills and gone on to enter GED classes and eventually earn high school equivalency certificates.



Any adult over 17 years of age as of September of the current school year and officially withdrawn from public school before high school graduation is eligible for enrollment. In cases recommended by the public schools sixteen year olds may be eligible to attend.

Classes are held in the mornings, afternoons, and evenings. A schedule of specific classes should be consulted for exact times and places.

**General Educational Development (GED)** — To earn high school equivalency certificates which are recognized by business, industry, and educational institutions, one must pass the series of tests called General Educational Development. This test battery consists of five separate tests that cover the main areas of high school study. These tests are:

1. Writing Skills
   This test contains questions about grammar, spelling, sentence structure and punctuation.
2. Social Studies
   This test contains several reading selections in the field of government and history, with questions based on these selections.
3. Natural Science
   This test contains several reading selections in the field of general science (biology, chemistry, and physics) and questions about these selections.

4. Reading Skills
   This test contains several selections from the field of literature and questions about these selections.
5. Mathematics
   This test contains questions about mathematics (ratios, fractions, percentages, ability to understand graphs) and some questions about geometry, elementary algebra.

In order to be eligible to take the GED test, a person must be at least seventeen years old and out of school for a year or be eighteen years old and withdrawn from school.

Many of the certificate recipients have taken the GED tests with no preparation other than past educational experiences combined with their everyday life experiences. Others have enrolled in Adult Basic Education classes and have improved their scholastic skills to the point that they have also passed the GED tests and received the certificate of high school equivalency.

**English as a Second Language** — Classes for individuals who have difficulty communicating in English are available as an integral part of the ABE program. The Continuing Education schedule should be consulted for details.

**Citizenship** — Citizenship classes for those interested in acquiring U.S. citizenship are available upon request and classes are arranged whenever a sufficient number of students express the desire for the course. For further information, please call 938-1211.



College of the Mainland's staff believes that no two people have the same educational needs and that these can be met in ways that are convenient to the individual. The person who needs a high school equivalency diploma will receive counseling by a staff member in order to determine which of the above two methods is more appropriate. Many people are counseled directly into the GED test while others are advised to participate in one of the programs described above.

## College of the Mainland Community Theatre

In its tenth season, College of the Mainland's Community Theatre is rapidly becoming known as one of the most dynamic theatre organizations in the state.

Mounting six major productions a year ranging from classics to Broadway musicals, College of the Mainland Community Theatre boasts 1500 Guild Members and over 300 active actors and back stage technicians.

While distinguished by an unusually ambitious production schedule, visiting guest artists and an enterprising auxiliary children's theatre program, the hallmark of the College of the Mainland Community Theatre has been its New Playwright Series, producing one World Premiere production a year during the past six years.

Whether one mentions its intimate atmosphere, smash SRO summer musicals, quality productions of classics or its innovative New Playwright Series, the name College of the Mainland Community Theatre has become synonymous with the very best in live entertainment.

What else would you expect from the "Biggest Li'l Theatre in Texas?"

For further information regarding season tickets, group discounts, theatre parties, or becoming involved in future productions, please contact the Director of College of the Mainland Community Theatre, 938-1211.

## Senior Adult Program

The Senior Adult Program of College of the Mainland offers the following programs:

### ID Cards

A College of the Mainland Senior Adult Identification Card entitles the bearer to free or reduced fees for College Community Services Programs and will serve as identification for those who wish to register for tuition-free Senior Adults courses, use of physical fitness and swimming facilities, use of library services, participation in special projects, or for regular non-credit continuing education courses at one-half the regular tuition fee. Cards are $2.00 and valid from September 1 to August 31 of the following year.



### Senior Adult Courses

Senior Adult courses, based on sound principles of learning, are informal and highly supportive of group participation as desired by the individual. No academic requirements are necessary, only purchase of an ID Card and registration for course(s) desired.* A variety of courses are offered such as:

- Armchair Travel
- Caning/Rush Weaving
- Ceramics/Pottery
- Dance for Health
- Family Tree (Genealogy)
- Fitness for Seniors
- Home Fixit
- Learning Wheels
- Living History
- Macrame
- Service Providers
- Wood Carving

*Except Technical-Vocational

### COM-Line Newsletter

An important project of the Senior Adult Program is COM-Line (circulation 5,000 monthly), a bi-monthly newsletter concerning senior adult interests and activities, both locally and elsewhere.

### Alliance of Galveston County Senior Adults (ASA)

ASA, sponsored by COM and the USDA Extension Service, is a catalyst body concerned with senior adult welfare and interests. Membership is open to Galveston County residents 55 years and above; membership fee is nominal, $1.00 per year.

### Nursing Home Activities

The COM Senior Adult Program offers a variety of courses at nursing homes for their residents. Nursing home administrators and/or their activity directors may arrange for this service (provided only by request) by calling 938-1211.

### Activities Day

This predominantly social activity, open to seniors 55 and above, is held the second Saturday of each month in the Student Center from 10:00 a.m. to 2:00 p.m. Activities include games of all varieties, swimming, sing alongs, fishing in Lake Eckert (no live bait allowed), entertainment, lectures, demonstrations. Activities fee is 50c and each person provides their own lunch. Drinks and dessert are furnished.

## Total Learning Center



The Total Learning Center is designed to provide academic support services. Our mission is to assist all students in the strengthening of the basic skills necessary for survival in and out of a college environment. Depending on the student's appraisal test scores, these courses may be required and/or considered remedial.

The Total Learning Center offers every student specific instruction toward improvement of both reading and writing skills. These services are in direct support of the pursuit of their academic, personal, and career goals:

- Reading courses are designed to improve or correct difficulties which might exist in specific skills areas. They focus primarily on the development of study skills, vocabulary development, comprehension, rate (speed), and fluency.
- The courses for improvement of writing skills are designed to strengthen the student's ability of expression in standard written English.

## Division of
# Business

**Chairperson: Dorothy Ellen McNutt**

To meet the needs of students in a personalized and innovative manner, the Division of Business offers a broad range of business career opportunities — accounting, banking, business administration, clerical, computer science, data processing, credit union administration, marketing, management, real estate, secretarial and office administration. Two-year programs lead to the AAS and the AA degrees and one-year programs to diplomas. Continuing Education courses are offered to enable participants to obtain entry-level occupational skills or to upgrade themselves in their present occupations.

**Academic/Occupational Advising and Counseling** offers services to enhance the educational, affective, and career development of students. These services include: help in formulating course schedules, planning a program of studies, developing a university transfer curricula, defining and clarifying educational and career goals, assisting in the self-evaluation and recognition of personal and career interests and capabilities, and providing current and relevant occupational information about the world of work. Services also include guidance in marketing job skills. Counseling sponsors business-oriented clubs and activities to afford students extended opportunities for intellectual, emotional, and social growth.



**Continuing Education Program** in the Division of Business encourages individuals to engage in lifelong learning through participation in the Continuing Education Program. The Division offers a variety of courses, seminars, and workshops on a non-credit basis to serve the needs of adults who desire to broaden their educational experience. Instructors are selected from business, industry, the community and the College on the basis of their expertise and ability to work successfully with adults.

Continuing education offerings are designed to:

(1) Upgrade the participant's present occupational skills.
(2) Teach new skills to enable the participants to explore new occupational fields.
(3) Provide resources for business, industry, government, and professional groups desiring to supplement their own training and development programs. Training programs are tailored to meet specific needs of individual organizations and can be conducted on the employer's premises.

Special courses can be designed to meet the needs of individuals, groups, or organizations. For further information on how to create a course, contact the Coordinator of Continuing Education in the Division of Business.

**Cooperative education,** wherein students blend theory and practice by working on paid work assignments in their area of professional interest, is an important option.

**Credit by examination** is available in the following courses: Accounting 131, Accounting 241, Business Law 231, Business Math and Calculating Machines 141, Computer Science 121, Computer Science 131, Computer Science 233, Economics 231, Economics 232, Finance 131, Introduction to Business 131, Shorthand 131, Shorthand 132, Typewriting 111, Typewriting 131, Typewriting 132.

Recipients of the Professional Legal Secretary (PLS) certification may petition the Division Chairperson for a maximum of 16 credit hours as follows: Typewriting 131-132, Shorthand 131-132, Accounting 131 and Office Procedures 142. Requests for these credit hours must contain proof of completion, not to exceed five years of date of certification, including evidence of acceptable legal secretarial work experience from date of certification to present.

**(For complete course descriptions see Section 6.)**

## The Professional Business Institute

The Professional Business Institute is designed to serve the needs of practitioners through individual consultation, group seminars, workshops and conferences, which present current relevant business information. Utilizing the expertise of distinguished academicians and eminent business specialists, the Institute provides educational programs for various segments of the business community. Individual consultations are tailored to meet the needs of individual companies and presented for their employees.



The Real Estate Center offers fast-track courses to meet the demands of the industry. The Management Center concerns itself with a variety of topics including first-line supervisory training, communication skills, information processing, new technology, and small business analysis. The Accounting Center focuses on review courses and specialized topics in financial and managerial accounting. The Office Training Center sponsors clock-hour programs in Fundamentals of Clerical Skills and Fundamentals of Data Entry.

Business and industry representatives from the College of the Mainland District are invited to inquire about the expanding services of the Institute.

## Student Clubs and Organizations

Student clubs and organizations in the Division of Business are open to all students enrolled in Division courses. The purpose of these clubs is to promote vocational understanding, civic consciousness, social intelligence and leadership qualities. The following organizations are available to students in the Division of Business: Data Processing Management Association, Collegiate Distribution Education Club, and Office Education Association.

## BUSINESS/ADMINISTRATION PROGRAM

(Associate in Arts Degree)

The Associate in Arts degree with a concentration in business is based upon a broad foundation of general education comprising basic subject matter in five areas of knowledge. The two-year program is designed for the student who intends to pursue a four-year degree in Accounting, Business Technology, Computer Information Systems, Economics, Finance, General Business, Management or Marketing.

The student should consult the appropriate university catalog for its specific requirements in order to take best advantage of the flexibilities of this program.

The program is specific as to course requirements but flexible enough to accommodate most senior institution degree requirements. To ensure relevant preparation the student must consult the catalogue of the intended senior institution. A student must complete 62 semester hours to earn the College of the Mainland Degree (see the requirements for the Associate of Arts Degree elsewhere in this catalogue).

**General Curricula** — Required (40 semester hours)

English 131, 132, 231 or 232
Speech 131
History 135, 136
Political Science 235, 236
Biology 141, 142 *or* Chemistry 141, 142 *or* Physics 143, 144
Mathematics 133, 137, 138 (any two)
Psychology, Sociology, Anthropology (total of 6 semester hours)
Physical Education 111 and one activity course (total of 2 semester hours)



**Business Curricula** — Required (20 semester hours)

Introduction to Business 131
Computer Science 131 or 232 or 233
Accounting 241, 242
Business Law 231
Economics 231, 232

**Elective Curricula** — (Choose to comply with senior institution degree requirements)

Business Psychology 231
Business Communications 231
Cooperative Education 241, 242, 243
Finance 131, 231
Mathematics 136
Approved elective(s)

# ACCOUNTING PROGRAMS

## Accounting Clerk

(Diploma)

This diploma program in accounting is composed of coursework designed to prepare the student for an entry-level accounting position, such as accounts receivable clerk, accounts payable clerk, or payroll clerk. All courses may apply towards the Associate in Applied Science (AAS) degree in accounting.

First Semester

| Subject | Hours |
|---|---|
| Introduction to Business 131 | 3 |
| Typewriting 131 or *equivalent | 3 |
| English 131 | 3 |
| Accounting 131 | 3 |
| Business Math 141 | 4 |
| Career Planning 114 | 1 |
| | 17 |

Second Semester

| Subject | Hours |
|---|---|
| Business Psychology 231 | 3 |
| Business Communications 231 | 3 |
| Accounting 241 | 4 |
| Computer Science 131 | 3 |
| Accounting 132 | 3 |
| | 16 |

*Equivalents are subject to the approval of the Chairperson, Division of Business.

## Accounting

(Associate in Applied Science Degree)

This two-year degree plan is designed to train the student for a mid-level accounting position, such as a full-charge bookkeeper or clerical supervisor. Although this degree plan contains courses which may be applicable to a four-year degree, it is primarily designed to prepare the student for immediate job placement.



Freshman Year

First Semester

| Subject | Hours |
|---|---|
| English 131 | 3 |
| Introduction to Business 131 | 3 |
| Business Math and Calculating Machines 141 | 4 |
| Accounting 131 *or* Accounting 241 | 3 or 4 |
| Computer Science 131 | 3 |
| Career Planning 114 | 1 |
| | 17 or 18 |

Second Semester

| Subject | Hours |
|---|---|
| Typewriting 131 *or* *equivalent | 3 |
| Accounting 241 *or* Accounting 242 | 4 |
| Finance 231 or Math 132 *or* 133 or Math 136 *or* 137 | 3 |
| Computer Science 136 *or* 231 *or* 233 | 3 |
| Physical Education *or* *elective | 1 |
| Accounting 132 | 3 |
| | 17 |

Sophomore Year

| First Semester | | Second Semester | |
|---|---|---|---|
| Subject | Hours | Subject | Hours |
| Economics 231 *or* 232 | 3 | Banking 233 or 234 | 3 |
| Accounting 242 *or* Accounting 236 | 4 or 3 | Business Communications 231 | 3 |
| Business Law 231 | 3 | Business Psychology 231 | 3 |
| Management 231 | 3 | Accounting 236 | 3 |
| *Elective | 3 | *Elective | |
| *or* | | *or* | |
| **Cooperative Education 241 | 3 or 4 | **Cooperative Education 242 | 3 or 4 |
| | 15 or 17 | | 15 or 16 |

*Electives and equivalents must relate to the student's career objectives and are subject to the approval of the Chairperson, Division of Business.

**Cooperative Work experience and Seminar includes supervised work experience in the accounting area each week with a related 1.5-hour weekly seminar.

# COMPUTER SCIENCE PROGRAMS

## Computer Operations

(Diploma)

This program is composed of coursework designed to prepare the student for an entry-level position in data processing such as computer operator, data entry operator, production control clerk, magnetic media librarian or applications programming trainee.



| First Semester | | Second Semester | |
|---|---|---|---|
| Subject | Hours | Subject | Hours |
| Communications 136 *or* 139 *or* English 131 | 3 | Computer Science 136 *or* 231 *or* 233 | 3 |
| Business Math and Calculating Machines 141 | 4 | Business Psychology 231 | 3 |
| Computer Science 131 | 3 | Computer Science 132 | 3 |
| Typewriting 131 *or* 111 *or* equivalent | 1 or 3 | Accounting 131 | 3 |
| Computer Science 121 | 2 | Cooperative Education 241 *or* *elective | 4 |
| Introduction to Business 131 | 3 | | 16 |
| | 16 or 18 | | |

*Electives and equivalents must relate to the student's career objectives and are subject to the approval of the Chairperson, Division of Business.

## Computer Data Processing

(Associate in Applied Science Degree)

This two-year degree plan in computer science is designed to train the student for an entry-level business applications programming position; and to provide the educational foundation to enable the student to master new equipment, systems and programming languages as changes in data processing technology dictate during his career.

Freshman Year

First Semester

| Subject | Hours |
|---|---|
| English 131 | 3 |
| Business Math and Calculating Machines 141 | 4 |
| Typewriting 131 *or* *equivalent | 3 |
| Computer Science 131 | 3 |
| Introduction to Business 131 | 3 |
| Computer Science 121 | 2 |
| | 18 |

Second Semester

| Subject | Hours |
|---|---|
| Business Communications 231 | 3 |
| Math 136 or 137 | 3 |
| Business Psychology 231 | 3 |
| Computer Science 132 | 3 |
| Computer Science 136 | 3 |
| Physical Education *or* *elective | 1 |
| | 16 |

Sophomore Year

First Semester

| Subject | Hours |
|---|---|
| Accounting 241 | 4 |
| Computer Science 233 | 3 |
| Computer Science 231 | 3 |
| Math 137 or Finance 231 | 3 |
| *Elective *or* **Cooperative Education 241 | 3 or 4 |
| | 16 or 17 |

Second Semester

| Subject | Hours |
|---|---|
| Computer Science 237 | 3 |
| Computer Science 235 | 3 |
| Business Law 231 | 3 |
| Economics 231 *or* 232 | 3 |
| *Elective *or* **Cooperative Education 242 | 3 or 4 |
| | 15 or 16 |

*Electives and equivalents must relate to the student's career objectives and are subject to the approval of the Chairperson, Division of Business.

**Cooperative Work Experience and Seminar includes supervised work experience in the data processing area each week with a related 1.5-hour weekly seminar.

# FINANCE PROGRAMS

## Banking Operations

(Diploma)

The Banking Operations Diploma Program is designed to prepare the student for an entry-level position in the banking industry or to upgrade the operations skills of those currently employed in the banking industry. The student successfully completing the diploma program will have achieved the necessary requirements for the American Institute of Bankers Foundations of Banking Diploma.

First Semester

| Subject | Hours |
|---|---|
| Finance 131 | 3 |
| English 131 | 3 |
| Banking 131 | 3 |
| Business Math and Calculating Machines 141 | 4 |
| Typewriting 131 | 3 |
| | 17 |

Second Semester

| Subject | Hours |
|---|---|
| Computer Science 131 | 3 |
| Management 131 *or* Introduction to Business 131 | 3 |
| Accounting 131 *or* 241 | 3 or 4 |
| Marketing 131 | 3 |
| Banking 132 | 3 |
| Banking 134 | 3 |
| | 18 or 19 |

American Institute of Banking (A.I.B.) certificate requirements and content areas are listed in the A.I.B. catalogue.

## Bank Management



(Associate in Applied Science Degree)

The two-year Bank Management Degree Program is designed to provide a basic competency in bank operations for the beginning banking student and to provide expertise in various specialized management areas for both students and experienced financiers.

Freshman Year

First Semester

| Subject | Hours |
|---|---|
| Management 131 *or* Introduction to Business 131 | 3 |
| English 131 | 3 |
| Banking 131 | 3 |
| Business Math and Calculating Machines 141 | 4 |
| Computer Science 131 | 3 |
| | 16 |

Second Semester

| Subject | Hours |
|---|---|
| Accounting 131 *or* 241 | 3 or 4 |
| Marketing 231 *or* elective | 3 |
| Banking 132 | 3 |
| Banking 134 | 3 |
| Business Communications 231 | 3 |
| Finance 131 | 3 |
| | 18 or 19 |

Second year of Bank Management Program on next page.

Sophomore Year

First Semester

| Subject | Hours |
|---|---|
| Accounting 241 or 242 | 4 |
| Economics 231 | 3 |
| Banking 236 or 235 | 3 |
| Banking 231 or Management 231 | 3 |
| **Cooperative Education 241 *or* *Elective | 4 |
| | 17 |

Second Semester

| Subject | Hours |
|---|---|
| Business Law 231 | 3 |
| Banking 233 | 3 |
| Banking 234 | 3 |
| Business Psychology 231 | 3 |
| **Cooperative Education 242 *or* *Elective | 4 |
| | 16 |

*Electives and equivalents must relate to the student's career objectives and are subject to the approval of the Chairperson, Division of Business. Suggested electives are: Banking 132, 235, 236; Real Estate 131, 232; Management 232.

**Cooperative Work Experience and Seminar includes supervised work experience in the banking area each week with a related 1.5-hour weekly seminar.

American Institute of Banking (A.I.B.) certificate requirements and content areas are listed in the A.I.B. catalogue.

## Credit Union Operations

(Diploma)

This diploma program is designed to provide the student with entry level competencies necessary for beginning a career in the operations area of credit union financial institutions. Successful completion of this program will also satisfy the first year requirements of the A.A.S. degree in Credit Union Management.



First Semester

| Subject | Hours |
|---|---|
| English 131 | 3 |
| Introduction to Business 131 | 3 |
| Business Math and Calculating Machines 141 | 4 |
| Finance 131 | 3 |
| Credit Union 131 | 3 |
| Typewriting 131 or 111 or equivalent | 3 or 1 |
| | 17 or 19 |

Second Semester

| Subject | Hours |
|---|---|
| Credit Union 132 | 3 |
| Business Communications 231 | 3 |
| Credit Union 134 | 3 |
| Computer Science 131 | 3 |
| Accounting 131 or 241 | 3 or 4 |
| | 15 or 16 |

## Credit Union Management

(Associate in Applied Science Degree)

This degree program not only provides the student with entry level competencies for beginning a career in credit union operations, but also provides upgrading skills and training for persons already employed in the credit union industry. This A.A.S. degree program combines the essential mix of academic and work experience essential for success in the rewarding, sensitive career of Credit Union Management.

Freshman Year

First Semester

| Subject | Hours |
|---|---|
| English 131 | 3 |
| Introduction to Business 131 | 3 |
| Business Math and Calculating Machines 141 | 4 |
| Finance 131 | 3 |
| Credit Union 131 | 3 |
| Typewriting 131 or 111 or equivalent | 1 or 3 |
| | 17 or 19 |

Second Semester

| Subject | Hours |
|---|---|
| Credit Union 132 | 3 |
| Business Communications 231 | 3 |
| Credit Union 134 | 3 |
| Computer Science 131 | 3 |
| Accounting 131 or 241 | 3 or 4 |
| | 15 or 16 |

Sophomore Year

First Semester

| Subject | Hours |
|---|---|
| Credit Union 231 or Management 231 | 3 |
| Business Psychology 231 | 3 |
| Accounting 241 or 242 | 4 |
| Economics 231 | 3 |
| **Cooperative Education 241 *or* *Elective | 4 |
| | 17 |

Second Semester

| Subject | Hours |
|---|---|
| Credit Union 235 | 3 |
| Credit Union 233 | 3 |
| Banking 234 | 3 |
| Credit Union 232 | 3 |
| **Cooperative Education 242 *or* *Elective | 4 |
| | 16 |

*Electives and equivalents must relate to the student's career objectives and are subject to the approval of the Chairperson, Division of Business. Suggested electives: Marketing 231, Office Administration 233, Management 232, Real Estate 232, Credit Union 236.

**Cooperative Work Experience and Seminar includes supervised work experience in the management (credit union) area each week with a related 1.5-hour weekly seminar.

# MARKETING MANAGEMENT PROGRAMS

(Associate in Applied Science Degree)

These two-year degree programs are designed to prepare the student for immediate job placement in retail or small business management. The degree program combines the essential mix of academic courses with work experience.

The student with three or more years experience in business or industry is encouraged to request entrance into advanced management or marketing courses. Permission for placement in these courses may be obtained from the Chairperson, Division of Business.

## Retail Management

Freshman Year

First Semester

| Subject | Hours |
|---|---|
| Management 131 *or* Introduction to Business 131 | 3 |
| Business Math and Calculating Machines 141 | 4 |
| Computer Science 131 | 3 |
| English 131 | 3 |
| Accounting 131 *or* Accounting 241 | 3 or 4 |
| Physical Education 111 | 1 |
| | 17 or 18 |

Second Semester

| Subject | Hours |
|---|---|
| Accounting 241 *or* Accounting 242 | 4 |
| Business Communications 231 | 3 |
| Business Psychology 231 | 3 |
| Business Law 231 | 3 |
| Marketing 131 | 3 |
| | 16 |



Summer Semester

| Subject | Hours |
|---|---|
| Management 231 | 3 |
| Marketing 231 | 3 |
| **Cooperative Education 241 or *Elective | 4 |
| | 10 |

Sophomore Year

First Semester

| Subject | Hours |
|---|---|
| Management 232 | 3 |
| Finance 231 | 3 |
| Economics 232 | 3 |
| Cooperative Education 242 or *Elective | 4 |
| | 13 |

Second Semester

| Subject | Hours |
|---|---|
| Marketing 233 | 3 |
| Marketing 236 | 3 |
| Management 235 | 3 |
| **Cooperative Education 243 or *Elective | 4 |
| | 13 |

*Electives and equivalents must relate to the student's career objectives and are subject to the approval of the Chairperson, Division of Business.

**Cooperative Work Experience and Seminar includes supervised work experience in the marketing management area each week with a related 1.5 hour weekly seminar.

## Small Business Management

Freshman Year

First Semester

| Subject | Hours |
|---|---|
| Management 131 *or* Introduction to Business 131 | 3 |
| Business Math and Calculating Machines 141 | 4 |
| Computer Science 131 | 3 |
| English 131 | 3 |
| Accounting 131 *or* Accounting 241 | 3 or 4 |
| Physical Education 111 | 1 |
| | 17 or 18 |

Second Semester

| Subject | Hours |
|---|---|
| Accounting 241 *or* Accounting 242 | 4 |
| Business Communications 231 | 3 |
| Business Psychology 231 | 3 |
| Business Law 231 | 3 |
| Marketing 131 | 3 |
| | 16 |

Summer Semester

| Subject | Hours |
|---|---|
| Management 231 | 3 |
| Marketing 231 | 3 |
| **Cooperative Education 241 or *Elective | 4 |
| | 10 |

Sophomore Year

First Semester

| Subject | Hours |
|---|---|
| Management 232 | 3 |
| Finance 231 | 3 |
| Economics 232 | 3 |
| **Cooperative Education 242 | 4 |
| *or Elective | |
| | 13 |

Second Semester

| Subject | Hours |
|---|---|
| Management 236 | 3 |
| Marketing 236 | 3 |
| Management 235 | 3 |
| **Cooperative Education 243 | 4 |
| *or Elective | |
| | 13 |

*Electives and equivalents must relate to the student's career objectives and are subject to the approval of the Chairperson, Division of Business.

**Cooperative Work Experience and Seminar includes supervised work experience in the marketing management area each week with a related 1.5 hour weekly seminar.

# OFFICE ADMINISTRATION PROGRAMS

## General Office Clerical

(Diploma)

The General Office Clerical Program is designed to prepare the student for an entry-level position in office occupations. The student successfully completing the diploma program will have the basic competencies for jobs such as receptionist, office clerk, and clerk-typist.

First Semester

| Subject | Hours |
|---|---|
| English 131 | 3 |
| Typewriting 131 or 132 | 3 |
| Business Math and Calculating Machines 141 | 4 |
| Introduction to Business 131 | 3 |
| Finance 131 | 3 |
| Career Planning 114 | 1 |
| | 17 |

Second Semester

| Subject | Hours |
|---|---|
| Business Communications 231 | 3 |
| *Typewriting 132 | 3 |
| Accounting 131 | 3 |
| Business Psychology 231 | 3 |
| Office Procedures 142 | 4 |
| Computer Science 121 | 2 |
| | 18 |

*If student has earned credit in this course, an elective related to the student's career objectives is required and must be approved by the Chairperson, Division of Business.

## General Secretarial



(Diploma)

The General Secretarial Program is designed to provide the student with the necessary administrative abilities to enter a secretarial position as either a correspondence or an administrative secretary. The courses in this program may provide students with a background for taking the Certified Professional Secretary (CPS) or Professional Legal Secretary (PLS) examination.

First Semester

| Subject | Hours |
|---|---|
| English 131 | 3 |
| Typewriting 131 *or* 132 | 3 |
| Shorthand 131 *or* 132 | 3 |
| Introduction to Business 131 | 3 |
| Business Math and Calculating Machines 141 | 4 |
| Career Planning 114 | 1 |
| | 17 |

Second Semester

| Subject | Hours |
|---|---|
| Business Communications 231 | 3 |
| *Typewriting 132 | 3 |
| *Shorthand 132 | 3 |
| Office Procedures 142 | 4 |
| Accounting 131 | 3 |
| | 16 |

Third Semester

| Subject | Hours |
|---|---|
| Business Law 231 | 3 |
| Business Psychology 231 | 3 |

| Subject | Hours |
|---|---|
| Economics 231 or 232 | 3 |
| Computer Science 131 | 3 |
| Office Administration 241 | 4 |
| | 16 |

*If student has earned credit in this course, an elective related to the student's career objectives is required and must be approved by the Chairperson, Division of Business. Suggested electives are: Finance 131, 231; Cooperative Education 241, 242, 243.

## Office Management

(Associate in Applied Science Degree)

The Office Management Program combined with appropriate work experience may afford the graduate options for career advancement in the areas of administrative assistant or office manager.

Students with prior experience or education in skills courses such as shorthand and typewriting are encouraged to enroll in advanced courses. If desired, the student can receive credit for courses by successful completion of competency tests.

Freshman Year

| First Semester | | Second Semester | |
|---|---|---|---|
| Subject | Hours | Subject | Hours |
| English 131 | 3 | Office Procedures 142 | 4 |
| Typewriting 131 *or* 132 | 3 | ***Typing 132 | 3 |
| Shorthand 131 *or* 132 | 3 | ***Shorthand 132 | 3 |
| Business Math & Calculating Machines 141 | 4 | Accounting 131 *or* Accounting 241 | 3 or 4 |
| Introduction to Business 131 | 3 | Computer Science 131 | 3 |
| | 16 | | 16 or 17 |

Sophomore Year

| First Semester | | Second Semester | |
|---|---|---|---|
| Subject | Hours | Subject | Hours |
| Business Law 231 | 3 | Office Administration 233 | 3 |
| Business Psychology 231 | 3 | Office Administration 241 | 4 |
| Management 231 | 3 | Management 232 | 3 |
| Business Communications 231 | 3 | Economics 231 *or* 232 | 3 |
| **Cooperative Education 241 *or* *elective | 4 | **Cooperative Education 242 *or* *elective | 4 |
| | 16 | | 17 |

*Electives and equivalents must relate to the student's career objectives and are subject to the approval of the Chairperson, Division of Business.

**Cooperative Work Experience and Seminar includes supervised work experience in the office area with a related 1.5-hour weekly seminar. Career-related electives may be substituted with the approval of the Chairperson, Division of Business.

***If a student has earned credit in this course, an elective related to the student's career objectives is required and must be approved by the Chairperson, Division of Business.

# REAL ESTATE PROGRAM

(Associate in Applied Science Degree)

The purpose of this curriculum is to educate those students wishing to benefit fully from a career in the Real Estate Practice and to aid students seeking real estate licensure in the State of Texas, by providing courses approved by The Texas Real Estate Commission for the Salesmanship and Broker licenses. The student will demonstrate competencies not only consistent with knowledgeable real estate practice, but with the sensitivity of real estate counselors, fully aware of the fiduciary responsibilities of the broker and salesperson to their clients.

Freshman Year

First Semester

| Subject | Hours |
|---|---|
| English 131 | 3 |
| Real Estate 131 | 3 |
| Business Math and Calculating Machines 141 | 4 |
| Typewriting 111 *or* *equivalent | 1 |
| Physical Education 111 *or* *elective | 1 |
| Introduction to Business 131 | 3 |
| Career Planning 115 | 1 |
| | 16 |

Second Semester

| Subject | Hours |
|---|---|
| Business Communications 231 | 3 |
| Speech 131 | 3 |
| Accounting 131 *or* Accounting 241 | 3 or 4 |
| Management 132 *or* Business Psychology 231 | 3 |
| Physical Education *or* *elective | 1 |
| Economics 231 or 232 | 3 |
| | 16 or 17 |



Sophomore Year

First Semester

| Subject | Hours |
|---|---|
| Real Estate 231 | 3 |
| Real Estate 132 | 3 |
| Management 231 | 3 |
| Marketing 231 | 3 |
| **Cooperative Education 241 *or* *elective | 4 |
| | 16 |

Second Semester

| Subject | Hours |
|---|---|
| Real Estate 233 | 3 |
| Real Estate 235 *or* 236 | 3 |
| Real Estate 232 | 3 |
| Real Estate 234 | 3 |
| **Cooperative Education 242 *or* *elective | 4 |
| | 16 |

*Electives and equivalents must relate to the student's career objectives and are subject to the approval of the Chairperson, Division of Business.

**Cooperative Work Experience and Seminar includes supervised work experience in the real estate area with a related 1.5-hour weekly seminar. Career-related electives may be substituted with the approval of the Chairperson, Division of Business.

## Division of
# Industrial Education

**Chairperson: Charles C. Mahaney, Jr.**

The Division of Industrial Education provides a full spectrum of training, education and technical assistance programs to individuals employed in industrial occupations. The Division administers a variety of short-term preparatory, credit and continuing education programs for industrial occupations. The Division provides a variety of one- and two-year credit programs in Automotive, Diesel Technology, Drafting/Design, Electronics, Graphic Arts, Marine Maintenance, Thermal Technology and Welding for students who wish to enter employment upon graduation. The Division also offers a number of courses designed for students transferring to institutions offering four-year technical programs. Industrial Education also encompasses industrial apprenticeship programs which are housed at the Danforth Campus.

The Division offers a variety of courses, seminars, and workshops on a non-credit basis to serve the needs of persons who desire to broaden their educational experience. Instructors are selected from business, industry, the community and the College on the basis of their expertise and ability to work successfully with those persons interested in continuing education.

**Continuing Education** courses are offered on a vocational and avocational basis in a wide variety of courses.



**Counseling** is provided by a counselor assigned to the Division to assist students in planning their career goals, (who is) developing their program of studies and course schedules and providing current and relevant occupational information.

**Credit by examination** is available in the following courses: Drafting 131, Graphic Arts 141, 142, 145 and 146.

## Danforth Campus

Located in downtown Texas City within each reach of industrial facilities, the Danforth Campus offers related instruction to registered apprentices in local industry and labor unions. Continuing education is available at Danforth for the journeyperson. An expert staff assists employers and unions to design and implement competency-based programs of instruction. Programs can also be conducted on the employer's or union's premises. Business, industrial, government, and labor organizations are encouraged to utilize the Danforth Campus for group activities related to the collective bargaining process and worker education. For further information contact the Director of the Danforth Campus.

**For complete course descriptions, see Section 6.**

# DRAFTING & DESIGN TECHNOLOGY

(Associate in Applied Science Degree)

The Drafting and Design Technology Program is a comprehensive two-year course of study culminating in an Associate of Applied Science Degree which prepares the student for his chosen field of work. The program provides learning experiences in theory, in the use of drafting equipment/materials as each relates to planning, preparing, and interpreting mechanical, architectural, structural, piping, electrical, and topographical drawing and sketches.

The Drafting Program offers students three areas of specialization: computer drafting, technical illustration and electrical drafting. These options enable the student to choose his area of interest after he has completed the core curriculum which is the first two semesters of the Drafting Program.

The program is not planned with transfer to a four-year institution as an objective; however, many courses are accepted for credit by senior institutions. Another option is for graduates to continue their education by entering training programs conducted by major engineering and construction firms in the Houston area.

A full-time day student may expect to complete the requirements for an Associate in Applied Science Degree in Drafting and Design Technology within two years. A night or part-time student will require additional time.



The general requirements for an Associate in Applied Science Degree in Drafting and Design Technology at College of the Mainland includes the following:

1. Completion of a minimum of 36 semester hours in the core curriculum
2. Completion of a minimum of 31 semester hours in one of three areas of specialization.

Freshman Year

First Semester

| Subject | Hours |
|---|---|
| Computer Science 121 | 2 |
| Drafting 131 | 3 |
| English 131 | 3 |
| Graphic Arts 145 | 4 |
| Technical Math 131 | 3 |
| Mechanics 131 | 3 |
| | 18 |

Second Semester

| Subject | Hours |
|---|---|
| Computer Science | 3 |
| Drafting 132 | 3 |
| Drafting 134 | 3 |
| Technical Math 132 | 3 |
| Drafting 136 | 3 |
| Political Science 235 *or* Political Science 236 | 3 |
| | 18 |

**Second Year Options**

**Sophomore Year**

First Semester
(Computer Drafting Option)

| Subject | Hours |
|---|---|
| Drafting 231 | 3 |
| Drafting 232 | 3 |
| Drafting 234 | 3 |
| Drafting 235 | 3 |
| Physics 141 *or* Physics 142 | 4 |
| | 16 |

Second Semester
(Computer Drafting Option)

| Subject | Hours |
|---|---|
| Drafting 237 | 3 |
| Drafting 238 | 3 |
| Drafting 239 | 3 |
| Computer Science 132 | 4 |
| DRCOOP *or* Elective | 3 |
| | 15 or 16 |

Sophomore Year

First Semester
(Electrical Drafting Option)

| Subject | Hours |
|---|---|
| Drafting 231 | 3 |
| Drafting 232 | 3 |
| Drafting 234 | 3 |
| Electronics 141 | 4 |
| Technical Math 231 | 3 |
| | 16 |

Second Semester
(Electrical Drafting Option)

| Subject | Hours |
|---|---|
| Drafting 235 | 3 |
| Drafting 241 | 4 |
| Electronics 142 | 4 |
| Industrial Instrumentation 241 | 4 |
| | 15 |

Sophomore Year

First Semester
(Technical Illustrative Option)

| Subject | Hours |
|---|---|
| Drafting 236 | 3 |
| Drafting 237 | 3 |
| Graphic Arts 142 | 4 |
| Art DR 133 | 3 |
| Art PH 130 | 3 |
| | 16 |

Second Semester
(Technical Illustrative Option)

| Subject | Hours |
|---|---|
| Drafting 233 | 3 |
| Drafting 235 | 3 |
| Drafting 240 | 4 |
| Art DS 131 | 3 |
| Art DR 134 | 3 |
| | 16 |



## ELECTRONIC TECHNOLOGY

(Associate in Applied Science Degree)

The Electronics Program offers students three options: (1) Data Communications, (2) General Electronics, and (3) Micro-computer Technology. These alternatives respond to rapid changes in electronic technology which are occurring in industry today. The student develops the competencies needed to perform in the areas of practical circuit feasibility; prototype development and testing; maintenance procedures; systems analysis including design, selection, installation, calibration, and testing; and utilization of engineering data to support professional personnel in the electronics industry. Subject matter encompasses solid state and micro-miniaturization devices as found in computers, industrial controls, home entertainment systems, and communications equipment.

The Electronic Technology option offers three areas of specialization: General Electronics, Data Communication and Micro Computer Technology.

The general requirements for an Associate of Applied Science degree in Electronics Technology at College of the Mainland includes the following:

1. Completion of a minimum of 35 semester hours in the core curriculum.
2. Completion of a minimum of 33 semester hours in one of the three areas of specialization.

COMMON CORE COURSES

Electronics 141, 142, 145, 146, 147, Drafting 131, English 131 and 236, and six hours of Math.

GENERAL ELECTRONICS OPTION

Common Core Courses, plus Industrial Instrumentation 241 and 242, Electronics 240, 241, 248, 341, 342, Computer Science 233, T Math 234 or Math 135, and EI — Coop 241 or an Electronic Elective.

DATA COMMUNICATIONS OPTION



Common Core Courses, plus Electronic 240, 248, 341, 342, 343, and EI — Coop 241 and 242, or an Electronic Elective, and Physics 141, and T Math 234 or equivalent.

MICRO COMPUTER TECHNOLOGY OPTION

Common Core Courses, plus Computer Science 131 and 233, Electrical-Electronic 241 and 244, 248 and EI — Coop 241 and 242 or an Electronic Elective, and Physics 141, and T Math 234 or equivalent.

## ELECTRONICS TECHNOLOGY

First Semester (Core Courses)

| Subject | Hours |
|---|---|
| Electronics 141 | 4 |
| Electronics 145 | 4 |
| *Technical Math *or* Math 133 | 3 |
| Drafting 131 | 3 |
| ⇒English 131 | 3 |
| | 17 |

Second Semester (Core Courses)

| Subject | Hours |
|---|---|
| Electronics 142 | 4 |
| Electronics 146 | 4 |
| Electronics 147 | 4 |
| *Technical Math 132 *or* Math 131 | 3 |
| English 236 | 3 |
| | 18 |

Second Year Options

(1) Third Semester
(Micro Computer Technology Option)

| Subject | Hours |
|---|---|
| Electronics 241 | 4 |
| Electronics 248 | 4 |
| Computer Science 131 | 3 |
| *Technical Math 234 *or* Math 135 | 3 |
| EL-Coop 241 *or* Electronic Elective | (4) |
| | 18 |

Fourth Semester
(Micro Computer Technology Option)

| Subject | Hours |
|---|---|
| Electronics 244 | 4 |
| Computer Science 233 | 3 |
| Physics 141 | 4 |
| EL-Coop 242 *or* Electronic Elective | (4) |
| | 15 |

(2) Third Semester
(Data Communications Option)

| Subject | Hours |
|---|---|
| Electronics 240 | 4 |
| Electronics 248 | 4 |
| Electronics 341 | 4 |
| *Technical Math 234 *or* Math 135 | 3 |
| EL-Coop 241 or Electronic Elective | (4) |
| | 19 |

Fourth Semester
(Data Communications Option)

| Subject | Hours |
|---|---|
| Electronics 342 | 4 |
| Electronics 343 | 4 |
| Physics 141 | 4 |
| EL-Coop 242 *or* Electronics Elective | (4) |
| | 16 |

(3) Third Semester
(General Electronics Option)

| Subject | Hours |
|---|---|
| Electronics 248 | 4 |
| Electronics 240 | 4 |
| Electronics 241 | 4 |
| *Technical Math 234 *or* Math 135 | 3 |
| Industrial Instrumentation 241 | 4 |
| | 19 |

Fourth Semester
(General Electronics Option)

| Subject | Hours |
|---|---|
| Electronics 341 | 4 |
| Electronics 342 | 4 |
| Computer Science 233 | 3 |
| Industrial Instrumentation 242 | 4 |
| EL-Coop 241 *or* Electronics Elective | (4) |
| | 19 |



*Math appraisal test (ACT, SAT & Local) determines which math program the EL student will enter.

## GRAPHIC ARTS PROGRAM

### Graphic Arts/Printing

(Diploma)

The Graphic Arts/Printing curriculum provides preparation for a variety of jobs including offset press operators, camera persons and quick copy operators. It is a concentrated one-year diploma program, which allows the student to specialize in one field. These jobs are found in most in-house printing departments, print shops, and newspapers.

First Semester

| Subject | Hours |
|---|---|
| Graphic Arts 141 | 3 |
| Graphic Arts 143 | 4 |
| Graphic Arts 145 | 4 |
| English 131 or Com 136 | 3 |
| | 15 |

Second Semester

| Subject | Hours |
|---|---|
| Graphic Arts 142 | 4 |
| Graphic Arts 144 | 4 |
| Graphic Arts 146 | 4 |
| Elective** | 3 |
| *or* Co-op 241 | (4) |
| | 15 or (16) |

See footnotes on next page.

**Electives and equivalents must relate to the student's career objectives and are subject to the approval of the Chairman.

Electives:

| | | | |
|---|---|---|---|
| Advertising | English | Math | Physics |
| Drafting | Journalism | Photography | Word Processing |

### Graphic Arts/Phototypesetting

(Diploma)

The Graphic Arts/Phototypesetting curriculum provides preparation for a variety of jobs including phototypesetter, coder, and copy preparation specialist. It is a concentrated one-year diploma program, which allows the student to specialize in one field. These jobs are found in most in-house printing departments, print shops, and newspapers.

First Semester

| Subject | Hours |
|---|---|
| English 131 Composition & Rhetoric in Communication or Journalism 131 Introduction to Mass Communication | 3 |
| Graphic Arts 141 Fundamentals of Offset Printing | 4 |
| Graphics Arts 143 Fundamentals of Phototypesetting | 4 |
| Graphic Arts 145 Fundamentals of Layout and Design | 4 |
| | 15 |

Second Semester

| Subject | Hours |
|---|---|
| Graphic Arts 142 Offset Camera and Darkroom Procedures | 4 |
| Graphic Arts 144 Offset Press Platemaking | 4 |
| Graphic Arts 243 Advanced Phototypesetting/Typography | 4 |
| Elective or GACOOP | 4 |
| | 15 or 16 |



**Electives and equivalents must relate to the student's career objective and are subject to the approval of Chairman, Division of Industrial/Occupations.

## POWER TECHNOLOGY PROGRAMS

Power technology is the study of energy converting machines and equipment which have been developed by mankind for use in work and play. As technology has expanded so has the need for mechanics and technicians in the fields of Automotive, Marine and Diesel Power. The Industrial/Education Division offers Diploma Programs in all three areas.

### Automotive Mechanic Technology

(Diploma Program)

The program will provide training in automotive maintenance repair work on all types of automotive vehicles. Included is training in the use of technical manuals and a variety of hand and power tools. Instruction and practice are provided in diagnosis of malfunctions, disassembly of units, parts inspection, and repair or replacement of parts involving engine overhaul and repair, ignition system, carburetion, brakes, transmission, front-end alignment, and the installation of a variety of accessories.

First Semester

| Subject | Hours |
|---|---|
| Automotive 140 | 4 |
| Automotive 164 | 6 |
| Automotive 166 | 6 |
| | 16 |

Second Semester

| Subject | Hours |
|---|---|
| Automotive 167 | 6 |
| Automotive 265 | 6 |
| Automotive 261 or Automotive 262 | 6 |
| | 18 |

## Diesel Mechanics Technology

(Diploma Program)

The program will provide training in diesel maintenance repair work on all types of diesel engines. Included is the theory and application of basic principles of two cycle and four cycle diesel engines. Technical manuals and a variety of hand and power tools will be used in the program. Instruction and practice are provided in diagnosis of malfunctions, disassembly of units, parts inspection, and repair or replacement of parts involving engine overhaul and repair and accessories.

First Semester

| Subject | Hours |
|---|---|
| Diesel 161 | 6 |
| Diesel 162 | 6 |
| T Math 131 | 3 |
| Electronics 141 or 143 | 4 |
| | 19 |

Second Semester

| Subject | Hours |
|---|---|
| Diesel 242 | 4 |
| Diesel 261 | 6 |
| Diesel 262 | 6 |
| Diesel 263 | 6 |
| | 22 |



## Marine Maintenance

(Diploma Program)

The program will provide training in marine maintenance repair work on all types of pleasure and commercial boats. Included is training in the use of technical manuals and a variety of hand and power tools. Intruction and practice is provided in diagnosis of malfunctions, disassembly of units, parts inspection, and repair or replacement of parts involving engine overhaul and repair, ignition systems, carburetion, power trains, outdrives, transmissions, hull maintenance and repair, and electrical circuits.

First Semester

| Subject | Hours |
|---|---|
| Tech Math 111 | 1 |
| Marine Practice 131 | 3 |
| Marine Engines 141 | 4 |
| Marine Engines 142 | 4 |
| Electronics 143 | 4 |
| | 16 |

Second Semester

| Subject | Hours |
|---|---|
| Marine Engines 241 | 4 |
| Marine Gear Trains 243 | 4 |
| Marine Electrical 143 | 4 |
| Marine Hull Maintenance 144 | 4 |
| | 16 |

## THERMAL TECHNOLOGY

(Associate in Applied Science Degree)

The Thermal Technology Program is designed to be a one (1) year diploma program or comprehensive two (2) year course culminating in an Associate of Applied Science Degree which prepares the student for the world of work in his/her chosen field. The program prepares the student with experiences in operational theory, installation procedures, preventive maintenance, analytical problem solving, and servicing methods. The student will learn the necessity of good customer and human relations.

The first (4) freshman courses serve as an introduction to the principles of operation and service of basic equipment. The sophomore courses offer the student advanced training in specialized areas.

Freshman Year

First Semester

| Subject | Hours |
|---|---|
| *Thermal Technology 141 | 4 |
| *Thermal Technology 142 | 4 |
| *Thermal Technology 143 | 4 |
| *Technical Math 131 | 3 |
| *Welding 131 | 3 |
| English 131 | 3 |
| | 21 |

Second Semester

| Subject | Hours |
|---|---|
| *Thermal Technology 144 | 4 |
| *Thermal Technology 241 | 4 |
| *Thermal Technology 242 | 4 |
| Technical Mathematics 132 | 3 |
| *Electronics 143 | 4 |
| | 19 |



Sophomore Year

First Semester

| Subject | Hours |
|---|---|
| *Thermal Technology 243 | 4 |
| *Thermal Technology 244 | 4 |
| Electronics 146 | 4 |
| Physics 142 | 4 |
| TTCOOP 241 | 4 |
| | 20 |

Second Semester

| Subject | Hours |
|---|---|
| Thermal Technology 246 | 4 |
| Thermal Technology 247 | 4 |
| *Auto 265 | 6 |
| Chemistry 141 | 4 |
| | 18 |

Electives — TTCOOP 242 & 243, Drafting 131 & Mechanics 131

*Courses in one-year diploma program for thermal technology technicians.

## WELDING TECHNOLOGY

(Diploma Program)

The Welding program includes instruction in all types of metal welding, brazing, and flame-cutting. Instruction emphasizes properties of metals, blueprint reading, electrical principles, welding symbols, and mechanical drawing. In the one-year diploma program, the student acquires entry level skills in stick (SMAW), oxy-acetylene (gas), and gas shielded arc (TIG and MIG) welding. The two-year program encompasses all the content of the diploma program plus instruction in stick pipe, TIG and MIG pipe, and pipe fabrication.

First Semester

| Subject | Hours |
|---|---|
| Welding 131 | 3 |
| Welding 141 | 4 |
| Drafting 131 | 3 |
| English 131 *or* Com 136 | 3 |
| Technical Math 111 | 1 |
| | 14 |

Second Semester

| Subject | Hours |
|---|---|
| Welding 136 | 3 |
| Welding 142 | 4 |
| Welding 241 | 4 |
| Mechanics 131 | 3 |
| | 14 |

## WELDING TECHNOLOGY

(Associate in Applied Science Degree)

Freshman Year

First Semester

| Subject | Hours |
|---|---|
| Welding 131 | 3 |
| Welding 141 | 4 |
| Drafting 131 | 3 |
| English 131 *or* Com 136 | 3 |
| Technical Math 131 | 3 |
| | 16 |

Second Semester

| Subject | Hours |
|---|---|
| Welding 136 | 3 |
| Welding 142 | 4 |
| Welding 241 | 3 |
| Technical Math 132 | 3 |
| Physical Education | 1 |
| | 14 |

Sophomore Year

First Semester

| Subject | Hours |
|---|---|
| Welding 144 | 4 |
| Welding 243 | 4 |
| English 236 | 3 |
| *or* | |
| Approved Welding Elective** | |
| Political Science 235 | 3 |
| Mechanics 131 | 3 |
| | 17 |

Second Semester

| Subject | Hours |
|---|---|
| Welding 237 | 3 |
| Welding 244 | 4 |
| Welding 246 | 4 |
| Approved Welding Elective** | 3 |
| Elective** | 3 |
| *or* | |
| Co-op 243 | 4 |
| | 17 or 18 |

**Electives and equivalents must relate to the student's career objectives and are subject to the approval of the Chairman. Approved welding electives are: Computer Science 131, Drafting 232, 234, 238, Electronics 141, Physics 141, 142, Weld 146 and Weld 181.

## Division of
# Mathematics, Health and Natural Sciences

**Chairperson: William L. Peace**

Responding to the diverse needs of our students the Division of Mathematics, Health and Natural Sciences offers courses and programs to prepare students for transfer to the universities, enter careers in health related occupations or improve occupational skills.

Students preparing to transfer to a university in order to complete a baccalaureate, or a more advanced degree have an opportunity to take freshman and sophomore level courses in Biology, Chemistry, Engineering, Geology, Mathematics and Physics.

Courses offered by the Division are designed to:

1. Introduce non-science students to the methods, concepts, and achievements of science through self-studies, lectures and laboratory experiences in Biology, Chemistry, Geology and Physics.
2. Be developmental, particularly in Mathematics, by providing instruction consistent with entry level competencies, allowing progression to skill levels necessary for success in more advanced courses of Chemistry, Engineering, Mathematics and Physics.
3. Fulfill the degree requirements for the freshman and sophomore years for those students who will be transferring to universities and majoring in Engineering, Biological Sciences, Mathematics, the Physical Sciences, or for those students preparing for professional careers in medical or health fields.
4. Promote life-long learning, upgrade occupational skills, and maintain awareness of changes and advances in occupational and professional careers.



Students desiring to enter careers in health care are provided opportunities to pursue several different career options. One option available is College of the Mainland's Associate Degree Nursing Program. Upon completion of the program and successfully passing a State Board Examination the students become Registered Nurses and are able to take advantage of the many employment opportunities available in the surrounding area.

Additional health career options are made possible to students through the Health Related Occupations Programs which College of the Mainland offers in cooperation with the University of Texas School of Allied Health Sciences at Galveston. Additional information regarding the specific programs available through the Health Related Occupations (HRO) Programs is provided on pages which follow.

Through the Emergency Medical Services Program at College of the Mainland students have an opportunity to receive state certification as Emergency Medical Technicians. The program is designed to permit students to continue taking advanced E.M.T. courses in order to receive a Diploma from the College upon completion of the required courses.

**Counseling** needed to aid students in career selection, in scheduling courses, or in planning educational programs is available through the counseling and advising services provided by the Division. A professional counselor is available in the Division to assist students in selecting and achieving their educational goals. Faculty members are available outside of class time to assist students in their studies and serve as advisors.

**Continuing Education** courses, seminars, and workshops pertaining to subjects relative to the Division of Mathematics, Health and Natural Sciences are provided through the direction of the Division's Continuing Education Coordinator. For additional information or recommendations for continuing educational experiences beneficial to the people in our College service area call the Division's Continuing Education Coordinator.

**For complete course descriptions, see Section 6.**

## Student Clubs and Organizations



The Division of Mathematics, Health and Natural Sciences offers students in the Nursing Program an opportunity to enroll in the Student Nurses Association. The purpose of this club is to serve in the preparation of nursing students for the assumption of professional responsibilities.

## ASSOCIATE DEGREE NURSING PROGRAM

ADMISSION REQUIREMENTS

1. To be considered for admission to the Associate Degree Nursing Program, the applicant must:
   a. Have a high school diploma or be a G.E.D. graduate
   b. Apply to College of the Mainland and complete the college requirements for admission
   c. Take the college "Appraisal Test"
      1) have a **12th grade reading level**
      2) be eligible for **Math 132**
      3) be eligible for **English 131**

      If the above requirements are not met, the aplicant must:
      a) Remove academic deficiencies by completing developmental courses, retaking the "Appraisal Test" and achieving admission requirements.
      b) Complete Math 131 and one natural science course with at least a 2.5 average.
   d. Make application to the ADN Program.

2. The ADN Program begins in June. It is recommended that applications be made **before** April. Admission to the college does not guarantee or imply admission to the ADN Program. Applicants residing within the college district have priority for admission.



3. Applicants must be in good physical and mental health. Each applicant must have a thorough physical examination by a licensed physician. The physical examination form will be provided by the Division of Nursing.

4. Applicants will be interviewed by nursing faculty members or counselors.

5. Transcripts may not reflect more than **one** (1) "D" or "F" in a required science or nursing course. Any applicant possessing **two** (2) grades **below** a "C" in a science or nursing course is ineligible.

6. Any required science or nursing course completed five (5) or more years prior to applying to the nursing program **must** be repeated as a conditional requirement for acceptance into the ADN Program.

7. Final admission to the ADN Program is determined by the Admissions Committee. Applicants will be notified by letter of the Committee's action.

8. **Transfer Students** must:
   a. Meet the above admission criteria.
   b. Have a GPA of 2.5 or better on all courses being transferred into the nursing curriculum.

c. Provide the ADN Program with an official transcript and nursing course descriptions from each institution attended.
d. Have a recommendation from the dean/director of their previous program.

READMISSION REQUIREMENTS

1. Students who fail to complete a nursing course for reasons other than academic problems will be considered for readmission on an individual basis.
2. A student failing a nursing course may be allowed one (1) opportunity to repeat that course. (A student may repeat a nursing course for academic problems only **once**.)
3. Applicants for readmission whose previous nursing courses are three (3) or more years old, may be required to repeat those courses.
4. Applicants for readmission to the ADN Program must meet the following criteria:
   a. Complete the form "Application for Readmission." This form must be submitted to the ADN Program **no later** than two (2) months prior to the academic semester that readmission is being considered.
   b. Show evidence that he/she has followed any recommendations as set forth by the nursing faculty in the last nursing course attempted by the student.



COURSES RECOMMENDED**

For Students with problems identified by Appraisal Testing.

| | |
|---|---|
| COM 124 — Study Skills | 2 |
| COM 133 — Writing Improvement | 3 |
| COM 134 — Reading Improvement | 3 |
| MATH 131 — Fundamentals of Mathematics | 3 |
| BIO 141 — General Biology (Recommended for all students who have not taken a science course in the previous 5 years) | 4 |
| HD 131 — Introduction to Human Behavior | 3 |
| | 18 |

Students must maintain a "C" average.

GRADUATION REQUIREMENTS

To be eligible for an Associate in Applied Science Degree (Nursing) students must have completed the prescribed course of study of 76 semester hours with an overall grade point average of 2.0 or better and have spent a minimum of two academic years in school. Upon completion of the requirements for the Associate in Applied Science Degree (Nursing) students are eligible to write the State Board Examination to become a Registered Nurse (R.N.)

# NURSING

(Associate in Applied Science Degree)

The faculty in the Associate Degree Nursing Program have established objectives for graduates of this program. It is expected that graduates of this program will meet the desired objectives as stated below.

## CURRICULUM OBJECTIVES

The graduates of the Associate Degree Nursing Program at College of the Mainland should be able to perform the following:

1. Identifies, analyzes and solves client problems by applying principles and techniques of problem solving.
2. Provides safe and effective physical care applying principles and procedures learned in nursing and non-nursing courses.
3. Applies principles and techniques of interpersonal communications and group process in interactions with individuals and small groups.
4. Plan, organizes, coordinates, delegates, and evaluates care for a group of clients with common, well-defined health problems in structured settings.
5. Applies principles of teaching and learning, formally and informally, in teaching clients, family members, and co-workers any content taught in a basic A.D. program.
6. Actively pursues personal and professional growth in order to provide high quality care and enhance own nursing practice.
7. Demonstrates accountability for his/her practice and strong identification with the nursing profession.



**First Year**

| | Lab. Hrs. | Credit Hrs. |
|---|---|---|
| **Summer I** | | |
| English 131 | | 3 |
| Psychology 231 | | 3 |
| Biology 143 | | |
| **Summer II** | | |
| Psychology 233 | | 3 |
| Biology 143 (cont.) | 3 | 4 |
| **Fall** | | |
| Nursing 181 | 16 | 8 |
| Nursing 111 | 4 | 1 |
| Biology 144 | 3 | 4 |
| Nursing 232 | 3 | 3 |
| **Spring** | | |
| Nursing 132 | 6 | 3 |
| Nursing 133 | 6 | 3 |
| Nursing 112 | 4 | 1 |
| English 132 | | 3 |
| Sociology 131 | | 3 |

**Second Year**

| | Lab. Hrs. | Credit Hrs. |
|---|---|---|
| **Summer I** | | |
| Nursing 241 | 16 | 4 |
| **Fall** | | |
| Nursing 282 | 16 | 8 |
| Nursing 211 | 4 | 1 |
| Nutrition 133 | | 3 |
| Elective | | 3 |
| **Spring** | | |
| Nursing 283 | 16 | 8 |
| Nursing 212 | 4 | 1 |
| Nursing 223 | | 2 |
| Bio 145 | 3 | 4 |

## CURRICULUM COMPETENCY LEVELS

The faculty have determined three levels in the curriculum of the Associate Degree Nursing program. Students are expected to meet these level competencies as identified below. Failure to exhibit the expected competencies will result in failure of the student to progress to the next level.

Level I: Completion of Nursing 181 and Nursing 111, and Nursing 232.
Level II: Completion of Nursing 241
Level III: Completion of Nursing 283 and Nursing 212

# CREDIT PROGRAM

## Basic E.M.T. (Certificate program)

The basic E.M.T. course meets the Texas State Department of Health's requirements for state certification at this level. Academic courses required in this program are selected to enhance the basic knowledges required by this vocational group. Outlined below is the program curriculum and course descriptions.

### Program Objectives

1. To provide the first phase of training in the Emergency Medical Technician career structure.
2. To teach students the overall roles and responsibilities of the Emergency Medical Technician in performing both the emergency care and operational aspects of the profession.
3. To develop student skill in symptom recognition and all emergency treatments short of those rendered by physicians or by paramedical personnel under the direct supervision of a physician.
4. To develop student proficiency in the use and care of all equipment in this phase of emergency medical care.
5. To develop student proficiency in the extrication of accident victims from hazardous situations.



### Program Curriculum

| Course Number | Title | Semester Hours |
|---|---|---|
| E.M.T. 161 | Basic E.M.T. | 6 |
| Biology 143 | Anatomy and Physiology | 4 |
| Psychology 230 | Psychology of Adjustment | 3 |
| E.M.T. 211 | Extrication Techniques | 1 |
| | | Total 14 credit hours |

## Advanced E.M.T.

(Diploma program)

The program of study exceeds the minimum requirements set forth by the Texas State Department of Health. Academic courses and E.M.T. courses, other than E.M.T. 281 and 261, are designed to enhance the learning experiences and vocational requirements. Below is the curriculum plan and course descriptions for the diploma.

### Program Objectives

1. Recognize the signs and symptoms indicative of the need for immediate fluid replacement via the intravenous route.

2. Upon direct voice communication orders from a physician, be able to start an intravenous infusion using either a needle or a catheter.
3. Recognize the signs and symptoms of an impending, acute respiratory emergency.
4. Perform non-invasive measures, i.e., suctioning, designed to alleviate or minimize respiratory difficulties.
5. Upon direct voice communication with a physician, be able to perform invasive procedures, i.e., endotracheal intubation, intended to relieve life-threatening respiratory problems.
6. Develop proficiency in the extrication of victims from a hazardous situation.
7. Develop proficiency in the safe operation and driving of an ambulance unit.
8. Develop proficiency in the use of interpersonal skills and communications in working with individuals in an acute crisis situation.

## Program Curriculum

**Fall Semester**

| Course Number | Title | Semester Hours |
|---|---|---|
| E.M.T. 281 | Advanced E.M.T. Special Skills | 8 |
| Biology 143 | Anatomy and Physiology | 4 |
| Psychology 230 | Psychology of Adjustment | 3 |
| E.M.T. 211 | Extrication Techniques | 1 |
| Math 111 | Posology | 1 |
| | | Total 17 credit hours |



**Spring Semester**

| Course Number | Title | Semester Hours |
|---|---|---|
| E.M.T. 282 | Advanced E.M.T. Completion | 8 |
| Biology 144 | Anatomy and Physiology | 4 |
| Psychology 234 | Crisis Intervention | 3 |
| E.M.T. 222 | Emergency Vehicle Driving | 2 |
| | | Total 17 credit hours |

## Accrediting Agency Approval

The E.M.S. programs, both basic and advanced E.M.T., follow the guidelines established by the E.M.S. Division of the Texas State Department of Health and have been approved by this agency.

The Texas Education Agency reviewed and approved both the certificate and diploma programs in early June of 1981.

## HEALTH RELATED OCCUPATIONS

College of the Mainland offers an array of health occupation programs in cooperation with Galveston College and the University of Texas School of Allied Health Sciences at Galveston. All general education courses are offered on the College of the Mainland Campus, the Health Related Occupations (HRO) courses are offered on the Galveston Campus. Students enrolled in any of these programs are concurrently enrolled in both colleges.

The cooperative Health Related Occupation program is unique. Students practice in the prestigious University of Texas Medical Branch at Galveston. Opportunities are provided for students to study and work under the supervision of experts in their selected health occupation. Students enrolled in these programs graduate from College of the Mainland, with an Associate in Applied Science Degree (AAS) and receive a certificate of proficiency from the University of Texas Medical Branch and its School of Allied Health Sciences. Graduates are prepared to enter the health care system as community health workers, respiratory therapists, occupational therapy assistants, and radiation therapists.

Graduates are eligible to apply for registration or certification and membership in their respective national professional associations. Those which permit registration through examination are Occupational Therapy Assistants, Radiation Therapy Technology and Respiratory Therapy Technology.



### ADMISSION REQUIREMENTS

1. Applicant must be eligible for admission to Galveston College and College of the Mainland. Application should be made by July 1.
2. Applicants must have a American College Test (ACT) score of 15 as a minimum.
3. Applicants who have scores below 15 may be considered:
   a. If the student demonstrates an ability to do acceptable college work on prescribed courses (See Required Courses).
   b. And/or have prior appropriate training and/or experience.
4. Applicants must be a minimum of 17 years of age.
5. Applicants must be in good physical and mental health. An unsatisfactory report on the physical examination form will result in automatic elimination of the candidate for admission to the program.
6. The Division Chairperson will forward written recommendations on students to the Admissions Committee for final action.

### REQUIRED COURSES

For Students with Composite ACT Score below 15 or with identified problems according to Appraisal Testing.

| | |
|---|---|
| COM 114 — Study Skills | 1 |
| COM 133 — Writing Improvement | 3 |
| COM 134 — Reading Improvement | 3 |
| MATH 130 — Fundamentals of Mathematics | 3 |
| and/or | |
| MATH 131 — Fundamentals of Mathematics | 3 |
| BIO 141 — General Biology | 4 |
| | 17 |

Students must maintain a "C" average.

## HEALTH RELATED OCCUPATIONS

Enrollment capacity for following programs in sophomore year are:

Programs

Community Health Worker
Occupational Therapy Assistant
Radiation Therapy Technology
Respiratory Therapist Technology

Certain courses are required of all students the first year. The individual study tract determines the course requirements during the second year. College of the Mainland will admit twenty students per year.



## CORE CURRICULUM

FIRST YEAR

| First Semester | Credit Hours | Second Semester | Credit Hours |
|---|---|---|---|
| ***AHO 141 | 4 | ***AHO 143 | 4 |
| ***AHO 132 | 3 | ***AHO 134 | 3 |
| Biology 143 | 4 | Biology 144 | 4 |
| **English 131 | 3 | English 132 | 3 |
| Sociology 131 | 3 | Psychology 231 | 3 |
| | 17 | | 17 |

**Students entering college with insufficient English preparation may require an additional semester of English or more.
***Designates essentials for certification and/or registration.
***All students must maintain an average of "C" or above in AHO course instruction in order to progress to any subsequent AHO course. (An AHO course may consist of more than one unit of instruction.) AHO courses must be completed in sequence unless otherwise approved by the Department Chairman.

## COMMUNITY HEALTH WORKER

FIRST YEAR

Fall
CHW 141 Introduction to Community Health
CHW 131 Medical Terminology
BIO 141 Biology
ENG 131 English
PSY 231 Psychology

Spring
CHW 132 Diseases and Disabilities
CHW 133 Interviewing and Counseling I
BIO 142 Biology
ENG 132 English
PSY 233 Psychology

Summer
CHW 134 Diseases and Disabilities (Advanced)
Field Work Experience
CHW 135 Interviewing and Counseling II

SECOND YEAR

Fall
CHW 271 Field Work I
*PSY 232 Psychology
MATH 131 Fundamentals of Mathematics
SOC 131 Sociology

Spring
CHW 241 Special Problems and Techniques
CHW 251 Field Work II
CHW 252 Field Work III
POL SCI 235 American National & State Government

*Offered at Galveston College.

## OCCUPATIONAL THERAPY ASSISTANT



FIRST YEAR

Fall
OTA 141 Introduction to Occupational Therapy
OTA 131 Medical Terminology
Bio 143
ENG 131
PSY 231

Spring
OTA 132 Diseases and Disabilities
OTA 142 Therapeutic Media and Procedures I
BIO 144
ENG 132
PSY 233
SOC 131

Summer
OTA 133 Health-Illness-Health
OTA 134 Therapeutic Media and Procedures II

SECOND YEAR

Fall
OTA 135 Principles and Techniques in Psychological Dysfunction
OTA 143 Principles and Techniques in Physical and Developmental Dysfunction
*PSY 232
POL SCI 235
MATH 131

Spring
OTA 144 Fieldwork Level II
OTA 145 Fieldwork Level II
OTA 146 Fieldwork Level II
OTA 147 Special Problems and Techniques

*Offered at Galveston College

# RADIATION THERAPY TECHNOLOGY

FIRST YEAR

1st Semester (16 Weeks)
RTT 131 Introduction to Radiation Science
ENG 131 Composition
RTT 132 Anatomy & Phys.
RTT 121 Medical Terminology
MATH 133 Algebra
or T. MATH 131

2nd Semester (16 Weeks)
PHYS 241 General Physics
PolSci 235 Government
ENG 132 Comp. & Rhetoric
RTT 133 Anatomy & Phy.
RTT 134 Pathology

1st Summer Session (6 Weeks)
RTT 135 Radiologic Phys.
RTT 122 Radiobiology I
RTT 124 Clin. Procedures I

2nd Summer Session (6 Weeks)
RTT 136 Mach. Operations
RTT 123 Radiobiology II
RTT 125 Clin. Procedures II

SECOND YEAR

1st Semester (16 Weeks)
RTT 251 Dosimetry I
RTT 253 Oncology I
RTT 231 Radiotherapy Phys. I

2nd Semester (16 Weeks)
RTT 251 Dosimetry II
RTT 254 Oncology II
RTT 232 Radiotherapy Physics II

1st Summer Session
RTT 244 RTT Technique I
*Elective

2nd Summer Session
RTT 242 RTT Technique II
*Elective

*Elective *must* be in related subject area and approved by Program Director.



# RENAL DIALYSIS TECHNOLOGIST

FIRST YEAR

| First Summer Session | | Second Summer Session | |
|---|---|---|---|
| Math 133 | 3 | AHO 155 | 5 |
| Physical Science 241 | 4 | | — |
| | — | | 5 |
| | 7 | | |

SECOND YEAR

| First Semester | | Second Semester | |
|---|---|---|---|
| Political Science 236 | 3 | AHO 243 | 4 |
| Elective | 3 | AHO 244 | 4 |
| AHO 241 | 4 | AHO 232 | 3 |
| AHO 242 | 4 | Elective | 3 |
| | — | | — |
| | 14 | | 14 |

Total Semester Credit Hours in Program..... 74

*See Tech-Voc Counselor or Advisor for course selection.

# RESPIRATORY THERAPY TECHNOLOGY

FIRST YEAR

Fall
Biology 143 Anatomy & Physiology I
English 131 College Composition
ReT Introduction to Respiratory Therapy
ReT Respiratory Therapy Lab I

Spring
Biology 144 Anatomy & Physiology II
ReT 132 Cardiopulmonary Anatomy & Physiology
ReT 121 Respiratory Therapy Lab II
ReT 151 Clinical Rotation I

Summer Semester I
English 132 Composition & Rhetoric
ReT 122 Clinical Rotation II
ReT 110 Mechanical Ventilation Lab
ReT 123 Respiratory Therapy for the Critical Care Patient

Summer Semester II
Pol Sci 236 American, National & State Govern.
*Physical Sci. 241 Physical Science for Health Occupations

SECOND YEAR

Fall
Biology 145 Microbiology
Math 133 College Algebra
ReT 230 Cardiopulmonary Pathology
ReT 240 Pharmacology for the Respiratory Therapist

Spring
ReT 241 Clinical Lab Rotations
ReT 281 Intensive Care Unit Rotations

Summer Semester I
ReT 242 Respiratory Therapy Seminar

*Offered at Galveston College

## Division of
# Social Sciences

**Chairperson: Alexander T. Pratt**

In order to achieve one's maximum potential as a functioning member of society, it is necessary that one have a broad understanding of the historical base of contemporary problems, the political systems within which human beings operate, the factors that influence human behavior, and the relationship between man, his social and physical environment.

The Division of Social Sciences offers a broad range of courses in the Associate in Arts Degree Programs: History, Political Science, Psychology, Sociology, and Health and Physical Education. These disciplines comprise courses that satisfy degree program requirements at many upper-level institutions, plus a number of elective courses. In addition, the Division offers an Honors Program for students who desire especially challenging and in-depth studies of History and Political Science.

The Division also offers Associate in Applied Science Degree Programs in Child Development, Criminal Justice, and Fire Protection Technology.

**Academic/Occupational Advising and Counseling** offers services to enhance the educational, affective, and career development of students. These services include: help in formulating course schedules, planning a program of studies, developing a university transfer curricula, defining and clarifying educational and career goals, assisting in the self-evaluation and recognition of personal and career interests and capabilities, and providing current and relevant occupational information about the world of work. Services also include guidance in marketing job skills. Counseling sponsors business-oriented clubs and activities to afford students extended opportunities for intellectual, emotional, and social growth.



**Continuing Education** courses are offered on a vocational and avocational basis in a wide variety of courses.

**Credit by examination** is available in the following courses: History 135, Law Enforcement 131, 134, 135, 136, 232, 238, 239, Psychology 231, and Sociology 131.

**For complete course descriptions, see Section 6.**

## Student Clubs and Organizations

The Division of Social Sciences has a wide range of clubs and organizations which are open to students taking courses in the Division. The following clubs, which offer various activities and purposes, are available to students:

**Black American Association**
Stimulates COM students' interest in other people and to get them involved in helping the community.

**COM Amigos**
Strives to establish a link between the Mexican-American community and the College for a better understanding and awareness of higher education opportunities.

**COM Outdoor Club**
Membership is open to any student or community member interested in outdoor activities, such as camping, canoeing, backpacking and rock climbing. Members work together in planning various outdoor experiences.

**Student Activity Board**
Provides for maximum participation of students in the planning and coordination of all cultural, recreational, educational, and other activities sponsored by the Student Center. Serves in an advisory capacity in all matters concerning the management and operation of the Student Center.

**Webb Historical Society**
Provides leadership in fostering historical awareness activities in the immediate area. The members greatly enrich their learning experiences through participation in activities such as oral history programs, historical publications and field trips.



## CHILD DEVELOPMENT PROGRAM

College of the Mainland offers two credit programs in the field of Child Development: (1) a one-year Diploma Program, and (2) a two-year Associate in Applied Science degree program. Both provide an extensive study of child development and early childhood education. The programs focus on skills and knowledge which are needed to work effectively with young children, including: child guidance, child assessment, planning and implementation of good programs for young children. Emphasis is placed on the health and safety as well as cognitive, social, emotional and physical development of children.

In addition, students are guided in developing a personal philosophy which appreciates and accepts each child as a unique and valuable person. Students also explore the history and future of child care as it relates to individual children, families, and society. Theory and practice in the classroom are linked through supervised practical experience in local child care facilities.

Students in the two-year program may choose to specialize in one of the following areas: (1) Administration, (2) Exceptional Children, (3) Infants and Toddlers, (4) Pre-school Children, and (5) School Age Children.

Every effort has been made to assure transferability of credit from COM to the University of Houston Clear Lake City for graduates of the two-year program who wish to continue their education. By carefully selecting electives, a student can transfer up to 55 credit hours toward a Bachelor of Science degree at UHCLC in the Teachers of Young Children Program.

## Child Development

(One-Year Diploma Program)

First Semester

| Subject | Hours |
|---|---|
| Child Development 130 | 3 |
| Child Development 131 | 3 |
| Child Development 138 | 3 |
| Child Development 146 | 4 |
| Psychology 138 | 3 |
| Art 130 | 3 |
| | 19 |

Second Semester

| Subject | Hours |
|---|---|
| Child Development 135 | 3 |
| Child Development 230 | 3 |
| Child Development 147 | 4 |
| Child Development 237 | 3 |
| Psychology 139 | 3 |
| | 16 |

## Child Development

(Associate in Applied Science Degree)

First Semester

| Subject | Hours |
|---|---|
| Child Development 131 | 3 |
| Psychology 138 | 3 |
| Mathematics 235 | 3 |
| English 131 | 3 |
| Art 130 | 3 |
| | 15 |

Second Semester

| Subject | Hours |
|---|---|
| Child Development 130 | 3 |
| Child Development 138 | 3 |
| Child Development 237 | 3 |
| Speech 131 | 3 |
| History 135 | 3 |
| | 15 |

Third Semester

| Subject | Hours |
|---|---|
| Child Development 135 | 3 |
| Child Development 146 | 4 |
| Child Development 230 | 3 |
| Child Development Elective | 3 |
| Physics 141 *or* Spanish 141 | 4 |
| | 17 |

Fourth Semester

| Subject | Hours |
|---|---|
| Child Development 139 | 3 |
| Child Development 147 | 4 |
| Child Development Elective* | 3 |
| Psychology 139 *or* Psychology 233 | 3 |
| Sociology 234 | 3 |
| | 16 |

*Electives: C.D. 132 — Organization and Administration of the Early Childhood Center, CD 231. Infant and Toddler Care, CD 232 — Introduction to the Exceptional Child, CD 233 — Social Studies in Pre-School, CD 234 — Math and Science in Pre-School, CD 235 — School Age Day Care, CD 236 — Special Problems.

CD 133 or CD 134 may be substituted for CD 138 by students who have taken these courses before the establishment of the two-year program.

**Courses may be taken out of sequence but this sequence is strongly recommended.

## Criminal Justice Programs

The Criminal Justice Programs are designed to offer the student two-year degree options in Criminal Justice, Police Management, or Arson Investigation, and a one-year Security Technician diploma.

The Associate in Applied Science Degree in Criminal Justice is offered to those students who are seeking careers as police officers or sheriff's deputies, probation or parole officers, and lawyers, as well as for those students who have recently entered the police service.

The Associate in Applied Science Degree in Police Management is offered to experienced police officers or sheriff's deputies who are interested in advancing to management positions in the police service.

The Associate in Applied Science Degree in Arson Investigation offers the student who desires to become an arson investigator a combination of Fire Protection Technology courses and Criminal Justice courses.

The Security Technician Diploma is designed for students who are seeking employment in, or have recently been employed by, public or private security agencies.

While the Associate in Applied Science Degrees are designed to serve the student as terminal programs, the courses required for these degrees will transfer to most senior institutions.

### Criminal Justice

(Associate in Applied Science Degree)



First Semester

| Subject | Hours |
|---|---|
| English 131 Composition & Rhetoric in Communication | 3 |
| Biology 141 General Biology or Physics 141 General Physics or Chemistry 141 General Inorganic Chemistry | 4 |
| History 135 United States History | 3 |
| CJ 131 Introduction to Criminal Justice | 3 |
| CJ 135 Legal Aspects of Law Enforcement | 3 |
| | 16 |

Second Semester

| Subject | Hours |
|---|---|
| English 132 Composition & Reading | 3 |
| Biology 142 General Biology or Physics 142 General Physics or Chemistry 142 General Inorganic Chemistry | 4 |
| History 136 United States History | 3 |
| CJ 134 Criminal Investigation | 3 |
| CJ 136 Criminal Procedure & Evidence | 3 |
| | 16 |

Third Semester

| Subject | Hours |
|---|---|
| Political Science 235 American National & State Government | 3 |
| Sociology 131 Introductory Sociology or Sociology 132 Social Problems | 3 |
| CJ 232 Police Role in Crime & Delinquency | 3 |
| CJ Electives | 6-7 |
| | 15-16 |

Fourth Semester

| Subject | Hours |
|---|---|
| Political Science 236 American National & State Government | 3 |
| Psychology 230 Phychology of Adjustment or Psychology 231 Introduction to Psychology | 3 |
| CJ 238 Police-Community Relations | 3 |
| CJ Electives | 6-8 |
| | 15-17 |

Students seeking careers in Probation or Parole, and as lawyers, may want to opt for an Associate in Arts Degree. These students should contact their Criminal Justice Program advisor for a modification of the above listed degree plan.

## Police Management

(Associate in Applied Science Degree)

First Semester

| Subject | Hours |
|---|---|
| English 131 Composition & Rhetoric in Communication | 3 |
| Biology 141 General Biology or Physics 141 General Physics or Chemistry 141 General Inorganic Chemistry | 4 |
| History 135 United States History | 3 |
| CJ 238 Police-Community Relations | 3 |
| Computer Science 131 Introductory Computer Science | 3 |
| | 16 |

Second Semester

| Subject | Hours |
|---|---|
| English 132 Composition & Reading | 3 |
| Biology 142 General Biology or Physics 142 General Physics or Chemistry 142 General Inorganic Chemistry | 4 |
| History 136 United States History | 3 |
| CJ 239 Police Organization & Administration | 3 |
| Accounting 131 Office Accounting or Accounting 241 Principles of Accounting | 3-4 |
| | 16-17 |

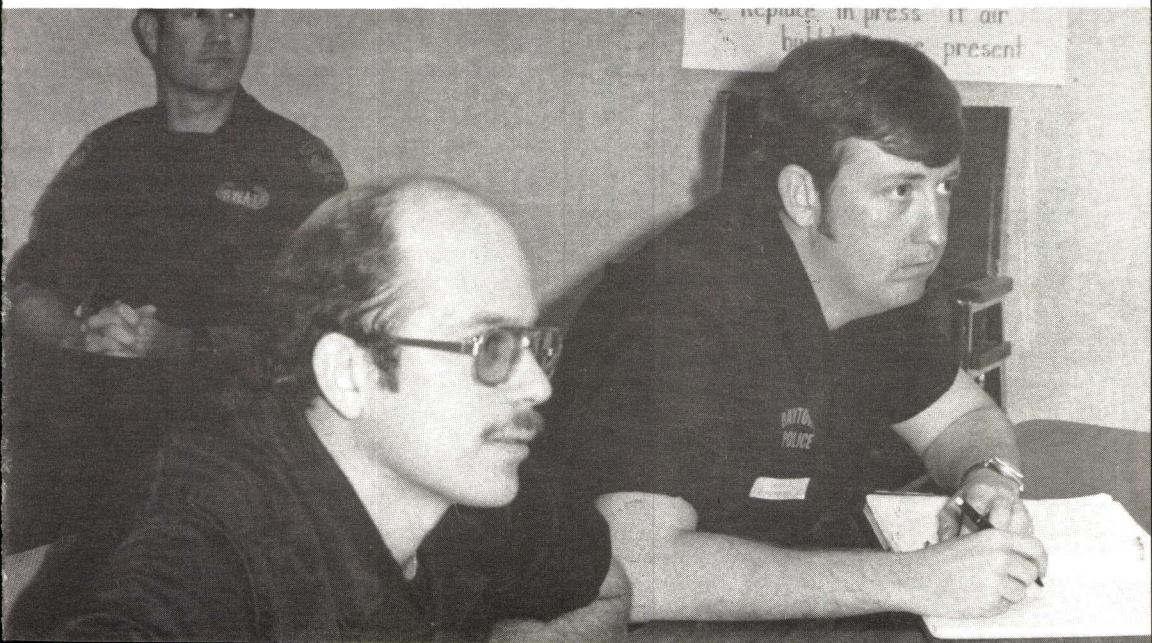
Third Semester

| Subject | Hours |
|---|---|
| Political Science 235 American National & State Government | 3 |
| Sociology 131 Introductory Sociology or Sociology 132 Social Problems | 3 |
| Management 231 Principles of Management | 3 |
| CJ 233 Patrol Administration | 3 |
| CJ 237 Narcotics Investigation or CJ 241 Cooperative Education* | 3-4 |
| | 15-16 |

Fourth Semester

| Subject | Hours |
|---|---|
| Political Science 236 American National & State Government | 3 |
| Business Psychology 231 Business Psychology | 3 |
| Management 232 Human Resource Management | 3 |
| CJ 335 Penology | 3 |
| CJ 332 Traffic Planning & Administration or CJ 242 Cooperative Education* | 3-4 |
| | 15-16 |

*In order to receive credit for Cooperative Education in the Police Management Degree program, the student must participate in work experience projects of a supervisory or managerial nature.



## Arson Investigation

(Associate in Applied Science Degree)

First Semester

| Subject | Hours |
|---|---|
| English 131 Composition & Rhetoric in Communication | 3 |
| Physics 141 General Physics or Chemistry 141 General Inorganic Chemistry | 4 |
| CJ 131 Introduction to Criminal Justice | 3 |
| CJ 135 Legal Aspects of Law Enforcement | 3 |
| Fire 133 Fire Protection Systems | 3 |
| | 16 |

Second Semester

| Subject | Hours |
|---|---|
| English 132 Composition & Reading | 3 |
| Physics 142 General Physics or Chemistry 142 General Inorganic Chemistry | 4 |
| CJ 134 Criminal Investigation | 3 |
| CJ 136 Criminal Procedure & Evidence | 3 |
| Fire 134 Fire Prevention | 3 |
| | 16 |

Third Semester

| Subject | Hours |
|---|---|
| Political Science 235 American National & State Government | 3 |
| Sociology 131 Introductory Sociology or Sociology 132 Social Problems | 3 |
| CJ 238 Police-Community Relations | 3 |
| Fire 232 Building Codes & Construction | 3 |
| Fire 234 Hazardous Materials I | 3 |
| Fire 239 Fire Safety Education | 3 |
| | 18 |

Fourth Semester

| Subject | Hours |
|---|---|
| Political Science 236 American National & State Government | 3 |
| Psychology 231 Introduction to Psychology | 3 |
| CJ 232 Police Role in Crime & Delinquency | 3 |
| Fire 233 Fire & Arson Investigation | 3 |
| Fire 237 Hazardous Materials II | 3 |
| CJ 239 Police Organization & Administration | 3 |
| | 18 |



## Security Technician

(Diploma Program)

| Subject | Hours |
|---|---|
| English 131 Composition & Rhetoric in Communication *or* Com. 133 Writing Improvement *or* Eng. 236 Technical Writing | 3 |
| Technical Math III Technical Mathematics | 1 |
| Electronics 143 Electrical Electronics Circuits I | 4 |
| Soc. 131 Introductory Sociology *or* Psy. 231 Psychology | 3 |
| | 31 |

| Subject | Hours |
|---|---|
| CJ 131 Introduction to Criminal Justice | 3 |
| Sec. 131 Introduction to Public & Private Security | 3 |
| Sec. 225 Private Investigator & Private Security | 2 |
| Sec. 231 Industrial Security | 3 |
| Sec. 232 Operational Security | 3 |
| Sec. 233 Business Security | 3 |
| CJ 230 Crime Prevention | 3 |
| | 31 |

## FIRE PROTECTION TECHNOLOGY

(Associate in Applied Science Degree)

The Fire Protection Technology Program is designed to provide graduates the necessary training to fill a variety of interesting and challenging job opportunities such as: fire insurance inspector, municipal fire inspector, safety technician, industrial fire protection positions, inspection bureau representative, fire department officer, training instructor, fire equipment sales and service representative, state and federal civil service positions, communications center operator, fire investigator, sprinkler system technician and military fire protection specialist.

The program does not train fire fighters in the manipulative trade skills. This is a task of the employing agency. It does include a broad educational base dealing with fundamental and proven knowledge. The student must learn to think, listen, write, study, speak, question, evaluate and, hopefully, find the answers to the problems facing today's fire service.

The student is confronted with technical learning situations which require a genuine desire to learn and advance. Individual subjects cover a wide range of learning. Some examples are: building construction, hazardous materials, chemistry, industrial plant inspection, fire prevention, arson investigation, fireman's law, fire safety, fire insurance, public speaking, human relations, sprinkler systems, and a wide range of administrative subjects.



The Fire Protection Technology Program provides the technological knowledge needed to combat the fire problems created by modern living.

First Semester

| Subject | Hours |
|---|---|
| Fire 131 | 3 |
| Fire 132 | 3 |
| English 131 | 3 |
| Chemistry 141 | 4 |
| Mathematics 131 | 3 |
| | 16 |

Second Semester

| Subject | Hours |
|---|---|
| Fire 133 | 3 |
| Fire 134 | 3 |
| Fire 135 | 3 |
| English 132 | 3 |
| Chemistry 142 | 4 |
| | 16 |

Third Semester

| Subject | Hours |
|---|---|
| Fire 231 | 3 |
| Fire 232 | 3 |
| Fire 233 | 3 |
| English 236 | 3 |
| Political Science 235 | 3 |
| Elective* | 3 |
| | 18 |

Fourth Semester

| Subject | Hours |
|---|---|
| Fire 234 | 3 |
| Fire 235 | 3 |
| Fire 241 | 4 |
| Speech 131 | 3 |
| Elective* | 3 |
| Elective* | 3 |
| | 19 |

*Approved Fire Science Elective

## FIRE PROTECTION TECHNOLOGY

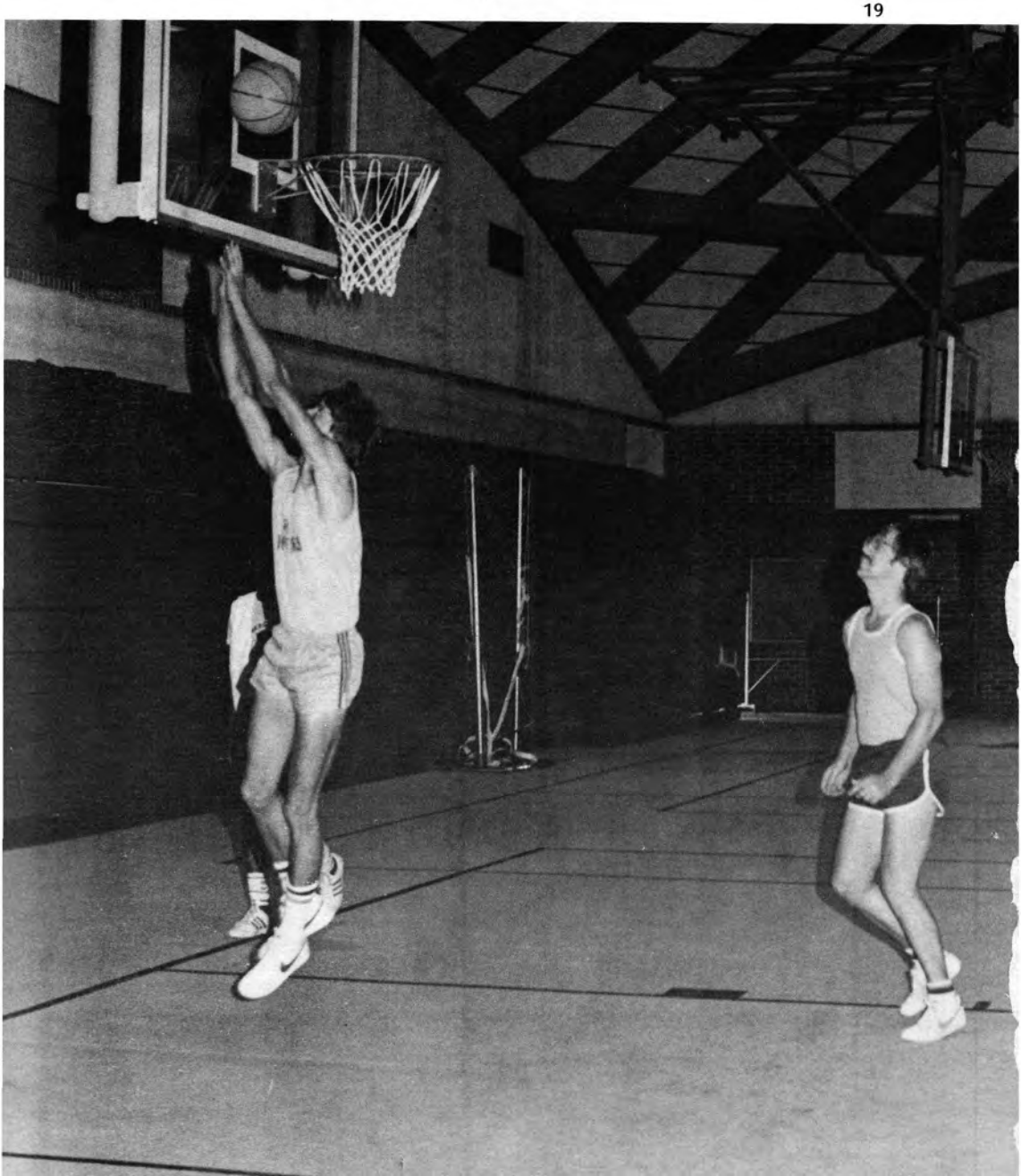
(Diploma Program)

First Semester

| Subject | Hours |
|---|---|
| Fire 131 | 3 |
| Fire 132 | 3 |
| Fire 133 | 3 |
| Fire 134 | 3 |
| Fire 135 | 3 |
| | 15 |

Second Semester

| Subject | Hours |
|---|---|
| Fire 231 | 3 |
| Fire 232 | 3 |
| Fire 233 | 3 |
| Fire 234 | 3 |
| Fire 235 | 3 |
| Fire 241 | 4 |
| | 19 |



## HEALTH, PHYSICAL EDUCATION AND RECREATION

The program of Health, Physical Education and Recreation is committed to the belief that physical well-being is an important determining factor in a person's overall well-being. The program embraces the classic Greek ideal that physical excellence is a responsibility of citizenship.

In order to help people develop and maintain the highest quality of life, the program will provide activities and programs which encourage physical excellence; enhance self-esteem; are playful and cooperative or wholesomely competitive.

## RECREATIONAL ACTIVITIES

Recreational opportunities offered for students take on many forms. Through the purchase of a recreation I.D., individuals can enjoy the use of the gymnasium, swimming pool, racquetball courts, tennis courts, weight room, track, whirlpools, and sauna during specified times.

Legue and tournament competition is held in such sports as volleyball, basketball, racquetball, tennis, table tennis, billiards, badminton and softball. Each semester the college participates in the Gulf Coast Conference Sports Day and Bowling Tournaments. All students are eligible to compete in coed volleyball, tennis, badminton and table tennis events. Although competition is involved the greatest emphasis is placed on participation by as many individuals as possible. All credit students are eligible.

Special events such as the Spring Frolic, Great Punkin Party and New Games Tournament are sponsored by the Program, and are directed toward the idea of play, providing opportunities for people to just enjoy themselves in "fun" activities.



Any student interested in participating in any of these activities should contact Health, Physical Education and Recreation, 938-1211 X417 or 420.

## INTERNATIONAL EDUCATION

The office of International Programs is designed to focus the public's attention on the fact that we must recognize, as Moses Koch, President of Monroe Community College has written, "an education for community must be an education for the world, for they have been inextricable tied to each other by the web of interdependencies that are reshaping work and leisure and culture."

Through such programs as Great Decisions, the annual foreign policy study-discussion program, periodic workshops, seminars, public forums and international travel, College constituents are afforded numerous opportunities to learn about and develop an appreciation for things behind their community and nation.

College of the Mainland's Office of International Education works closely with other colleges in the region through a linkage called the College/Community College Consortium of the Gulf Coast Council on Foreign Affairs. The latter is based at College of the Mainland and is a membership organization open to any member of the community.

# 6 Course Descriptions

Each course description identifies a course, the weekly lecture time and lab time in hours, prerequisites to the course, Credit-by Exam availability and semester the course is usually offered.

## ACCOUNTING

**ACCOUNTING 131. OFFICE ACCOUNTING. (lecture 3, lab 0). CREDIT 3.**
Introduction to recording of business transactions; use of journals and ledgers, trial balance and worksheet; accounting statements, payroll records and payroll taxes; statement analysis and year-end procedures.

**ACCOUNTING 132. TAXATION IN PRACTICE. (lecture 3, lab 0). CREDIT 3.**
A study in State and Federal taxation, including payroll taxes, federal income tax, state sales tax and tax accounting systems with an emphasis on data preparation, storage and retrieval as well as requirements of governmental taxing authorities. Other topics will be chosen from: governmental form requirements, records management, electronic data processing applications. Prerequisite: Accounting 131 or equivalent.



**ACCOUNTING 241. PRINCIPLES OF ACCOUNTING. (lecture 3, lab 1.5). CREDIT 4.**
A study of accounting as an informational system with an emphasis on the underlying concepts. Topics include fundamental relationships; the accounting cycle, including adjusting entries and worksheets; EDP Systems; fixed assets and corporate equity; and funds flow. Prerequisite: Sophomore standing or approval of the Chairperson, Division of Business.

**ACCOUNTING 242. PRINCIPLES OF ACCOUNTING. (lecture 3, lab 1.5). CREDIT 4.**
A study of managerial planning and control with a dual emphasis on the quantitative and behavioral aspects of decision making. Subject areas include funds flow, cash flow, cost-volume-profit analysis, budgeting, capital budgeting, job order costing, process costing and variance analysis. Prerequisite: Accounting 241 or equivalent.

**ACCOUNTING 236. COST ACCOUNTING. (lecture 3, lab 0). CREDIT 3.**
A study of manufacturing budgeting and control systems, including a detailed study of manufacturing costs accounts and financial statements, job-order costing, process costing, master budget, variance analysis, capital budgeting, and quantitative techniques. Prerequisite: Accounting 241 or 242 with a quality grade or the equivalent.

**ACCOUNTING COOPERATIVE EDUCATION 241. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Approval of Chairperson.

**ACCOUNTING COOPERATIVE EDUCATION 242. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 241 and approval of Chairperson.

**ACCOUNTING COOPERATIVE EDUCATION 243. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 242 and approval of Chairperson.

## AIR CONDITIONING

**AIR 141. AIR CONDITIONING FUNDAMENTALS. (lecture 2, lab 4). CREDIT 4.**
A basic course in refrigeration-mechanical principles and applications. Includes basic systems, working copper tubing, gauge installations, charging systems, and operating principles of compressors, metering devices, and various refrigerants. Prerequisite: None. Fall, Spring, Summer I.

**AIR 142. ELECTRICAL FUNDAMENTALS. (lecture 2, lab 4). CREDIT 4.**
A basic course in electrical principles and applications. Includes AC/DC theory, control and power circuits, motors, relays, overloads, capacitors, and wiring diagrams. Prerequisite: Air 141 or approval of Chairman. Fall, Spring, Summer I.

**AIR 243. DOMESTIC AIR CONDITIONING, PRINCIPLES AND APPLICATIONS. (lecture 2, lab 4) CREDIT 4.**
A course in the installation, operation, maintenance and service of home air conditioners. Includes the control of temperature, humidity, filtration and circulation of window coolers, central systems, heat pumps and water chillers. Prerequisite: Air 141, 142. Fall, Summer I.



**AIR 244. COMMERCIAL AIR CONDITIONING PRINCIPLES AND APPLICATIONS. (lecture 2, lab 4). CREDIT 4.**
A course in the installation, operation, maintenance and service of commercial air conditioning equipment. Includes the control of temperature, humidity, filtration and circulation of the atmosphere in business applications. Prerequisite: Air 141, 142. Spring, Summer I.

**AIR 247. SOLAR AIR CONDITIONING (Heating and Cooling). (lecture 2, lab 4). CREDIT 4.**
A course designed to teach procedures to design, install, operate, maintain, and service solar-powered air conditioning equipment for the home, including central cooling and heating systems, water heaters, and swimming pools. Prerequisite: Air 141, 142 or approval of Chairman. Fall, Spring.

## ART

All studio art courses require three hours of additional independent study per week for which studios will be available. Some prerequisites can be waived at discretion of instructor.

**Art 111. SPECIAL TOPICS AND EVENTS. (lecture 0, lab 1). CREDIT 1.**
Study of contemporary topics, special media, and gallery procedures through lectures, workshops, demonstrations, visiting artists, and working with exhibitions. May be repeated four times for credit.

**ART 112. PROBLEMS IN ART. (lecture 1, lab 0). CREDIT 1.**
An exploration of new directions in contemporary art, music and theatre through visiting artist, performers and lectures.
May be repeated over for credit.

**ART 130. CREATIVE EXPERIENCES FOR CHILDREN. (lecture 3, lab 3). CREDIT 3.**
Preparation, presentation, and supervision of activities appropriate for children to express their feelings and ideas; a wide variety of media, music, dance, dramatics. Fall.

**ART 135. INTRODUCTION TO VISUAL ARTS. (lecture 3, lab 0). CREDIT 3.**
A study through art texts, lecture, demonstrations, visiting artists, observation, and discussion of the styles, function, media, formal elements, design principles and criticism of the visual arts. Prerequisites: Nelson Denny reading (16) and English Appraisal. Spring.

## *ADVERTISING*

**ART AD 236, 239. ADVERTISING ART I AND II. (lecture 0, lab 6). CREDIT 3 EACH COURSE.**
An introduction to the relationships between form, color and graphic media used in commercial art. Layout media skills; media and techniques of commercial illustration. Prerequisite: Art DR 134 or permission of the instructor. Art AD 236 Fall, Art AD 239 Spring.

## *ART HISTORY*



**ART HIS 136, 137. ART HISTORY I, II. (lecture 3, lab 0). CREDIT 3 EACH COURSE.**
Studies in the history of western art from prehistoric times through the Twentieth Century. Prerequisite: English Appraisal and Nelson Denny (16). Art HS 136 Fall, Art HS 137 Spring.

## *CERAMICS*

**ART CR 138. CERAMICS I. (lecture 0, lab 6). CREDIT 3.**
An introduction to ceramics processes through the study of basic materials and techniques. Hand building, bisque forms, glazing and firing procedures, and use of the potter's wheel are included in this course. Designed for all students interested in ceramics, this course has no prerequisites and is transferable as an art elective only. Fall.

**ART CR 230. CERAMICS II. (lecture 0, lab 6). CREDIT 3.**
Investigating advanced techniques as well as the creative possibilities of clay, glazes, and firing procedures. Prerequisite: Art CR 138 or permission of instructor. Spring.

## *DRAWING*

**ART DR 133. DRAWING I. (lecture 0, lab 6). CREDIT 3.**
Introduction to the basic concepts, techniques, and materials of drawing. Fall, Spring, Summer I.

**ART CR 231. CERAMICS SCULPTURE. (lecture 0, lab 6). CREDIT 3.**
Investigating the sculptural possibilities of clay and the ceramic processes. Prerequisite Art CR 138 or permission of instructor. Fall, Spring.

**ART DR 134. INTRODUCTION TO LIFE DRAWING. (lecture 0, lab 6). CREDIT 3.**
In class figure studies and out of class assignments dealing with various subjects and techniques. Fall, Spring.

**ART DR 233. DRAWING III. (lecture 0, lab 6). CREDIT 3.**
Continuation of Drawing II with emphasis on the figure including more experimental out of class drawings. Fall, Spring.

**ART DR 234. DRAWING IV. (lecture 0, lab 6). CREDIT 3.**
Continuation of Drawing III with emphasis on exploring special effects, collage, multimedia drawing, and other contemporary drawing forms. The figure will be main subjects of study. Prerequisite: Art DR 233. Spring.

## *DESIGN*

**ART DS 131. DESIGN I. (lecture 0, lab 6). CREDIT 3.**
The study of basic two-dimensional, black & white design principles through the creative application of the formal elements. Fall, Spring.

**ART DS 132. DESIGN II. (lecture 0, lab 6). CREDIT 3.**
The study of the design principles as they apply to three-dimensional form and the arrangement of space. An introduction to sculptural concepts.

**ART DS 231. DESIGN III. (lecture 0, lab 6). CREDIT 3.**
Color theory and color mixing. The study of the physical, psychological, and visual effects of color application. Introduction to painting concepts and techniques. Prerequisites: Art DS 131, Art DR 133. Fall.

**ART DS 235. DESIGN IV. (lecture 0, lab 6). CREDIT 3.**
Multimedia course exploring two and three-dimensional concepts through the creative application of a variety of materials and techniques. Prerequisites: Art DS 131 and Art DS 231. Fall.

## *PHOTOGRAPHY*



**ART PH 130. PHOTOGRAPHY I. (lecture 3, lab 3). CREDIT 3.**
The study of basic photography techniques including camera, film, and darkroom procedures. Cameras furnished. Fall, Spring.

**ART PH 230. PHOTOGRAPHY II. (lecture 3, lab 3). CREDIT 3.**
Continuation of Photography I with advanced camera and darkroom procedures. Prerequisite: Art PH 130 or permission of instructor. Fall, Spring.

**ART PH 233. PHOTOGRAPHY III. (lecture 3, lab 3). CREDIT 3.**
A continuation of Photo II with emphasis on the development of a body of work.

## *PAINTING*

**ART PA 139. PAINTING FOR NON-MAJORS. (lecture 0, lab 6). CREDIT 3.**
Introduction to the basic techniques and materials of oils and acrylics. Fall, Spring.

**ART PA 237. PAINTING I. (lecture 0, lab 6). CREDIT 3.**
Introduction to painting and materials oils and acrylics. Studies in still life, figure, and landscape painting. Prerequisite: Art DR 134 and Art DS 231. Fall.

**ART PA 238. CONTINUATION OF PAINTING I. (lecture 0, lab 6). CREDIT 3.**
Introducing advanced and non-traditional techniques and concepts. Prerequisite: Art PA 237 Fall, Spring.

**ART PA 239. WATERCOLOR PAINTING. (lecture 0, lab 6). CREDIT 3.**
Introduction to the basic techniques and materials of watercolors. Prerequisite: ArtDR 134 and ArtDS 231. Spring.

## *PRINTMAKING*

**ART PR 230. INTRODUCTION TO PRINTMAKING. (lecture 0, lab 6). CREDIT 3.**
Exploration of creative design and color through traditional and contemporary printmaking techniques including woodblock, etching, and silkscreen. Prerequisite: Art DS 131. Fall and Spring.

**ART PR 231. PRINTMAKING II. (lecture 0, lab 6). CREDIT 3.**
A continuation of Art PR 230 with emphasis on self expression through the printmaking media. Prerequisite: Art PR 230.

## *SCULPTURE*

**ART SC 232. SCULPTURE I. (lecture 0, lab 6). CREDIT 3.**
Experience in sculpture of stone, metal, clay, wood, and plaster. Emphasis on three-dimensional form in space. Prerequisite: Art DS 132 and Art DS 134. Spring.

# AUTOMOTIVE MECHANIC TECHNOLOGY*

*Students may take all courses in any sequence.

**AUTO 140. INTRODUCTION TO AUTO TECHNOLOGY. (lecture 2, lab 5). CREDIT 4.**
An introductory course in automotive mechanics, which includes technical and related information. Basic skills and techniques focus on gasoline engines, troubleshooting and tune-up, fuel and electrical systems, brakes and power trains.

**AUTO 164. AUTOMOTIVE FUEL AND ELECTRICAL SYSTEMS. (lecture 2, lab 8). CREDIT 6.**
Instruction is given on the carburetor, fuel pump and ignition components with emphasis on diagnosis, adjustment and repair of the fuel and electrical systems.



**AUTO 166. AUTOMOTIVE FRONT END AND CHASSIS. (lecture 2, lab 8). CREDIT 6.**
A study of the chassis, suspension and spring system, lubrication, braking, and steering systems. The course will cover the construction and reconditioning of automotive brakes and front end alignment.

**AUTO 167. AUTOMOTIVE TRANSMISSION AND POWER TRAINS. (lecture 2, lab 8). CREDIT 6.**
This is a theory and laboratory course in automotive transmission and power trains which considers the design, construction, and operation of various types of transmissions and power trains.

**AUTO 261. AUTOMATIC ENGINE OVERHAUL. (lecture 2, lab 8). CREDIT 6.**
A study of engine disassembly, inspection and reassembly with emphasis placed on a systematic method of disassembling, inspecting and replacing necessary parts to bring the engine back to the manufacturer's specification and operation. The student receives classroom instruction as well as shop work in development of his skills. Prerequisite: AUTO 164.

**AUTO 262. FOREIGN CAR REPAIR. (lecture 2, lab 8). CREDIT 6.**
A study of the fuel and electrical systems with emphasis on repair and service to major components of the vehicle.

**AUTO 265. AUTOMOTIVE AIR CONDITIONING. (lecture 2, lab 8). CREDIT 6.**
A study of special tools and equipment for service on air conditioners, diagnosis and repair of automotive air conditioners, and air conditioning transmissions and drive lines.

# BANKING

**BANKING 131. PRINCIPLES OF BANK OPERATIONS. (lecture 3, lab 0). CREDIT 3.**
Descriptive orientation of bank functions and operations.

**BANKING 132. SAVINGS AND TIME DEPOSIT BANKING. (lecture 3, lab 0). CREDIT 3.**
Historical development and current operational coverage of the savings process as an integral link in financial flows. Prerequisite: Banking 131 or equivalent.

**BANKING 134. INSTALLMENT CREDIT. (lecture 3, lab 0). CREDIT 3.**
Concise presentation of each phase of bank installment credit operations. Prerequisite: Banking 131 or equivalent.

**BANKING 231. PRINCIPLES OF BANK MANAGEMENT. (lecture 3, lab 0). CREDIT 3.**
A study of modern management philosophy and decision-making processes utilizing a banking case study method. An insight into the management functions of planning, organizing, directing and controlling. Prerequisite: 9 semester hours of business administration including Introduction to Business 131 or Management 131 or approval of Chairperson, Division of Business.

**BANKING 232. FEDERAL REGULATION OF BANKING. (lecture 3, lab 0). CREDIT 3.**
A comprehensive treatment of the bank audit function, its importance to regulatory authority, and the organization, functions, and operations of various federal regulatory agencies. Prerequisite: Banking 131 or Economics 231 or 232 or equivalent.

**BANKING 233. ANALYZING FINANCIAL STATEMENTS. (lecture 3, lab 0). CREDIT 3.**
Thorough study of the characteristics and analysis of financial statements. Prerequisites: Banking 131 or Accounting 131 or equivalent.

**BANKING 234. MONEY AND BANKING. (lecture 3, lab 0). CREDIT 3.**
Thorough study of the essential economic principles related to money, financial institutions and financial markets in the context of relevant banking topics, with practical applications to both banks and non-bank financial institutions. Prerequisites: Banking 131 or equivalent and Economics 231 or equivalent.



**BANKING 235. BANK INVESTMENTS. (lecture 3, lab 0). CREDIT 3.**
Analysis of the nature and needs of banks for primary reserves and loanable funds. Prerequisite: Banking 131 or equivalent.

**BANKING 236. CREDIT ADMINISTRATION. (lecture 3, lab 0). CREDIT 3.**
Discussion of factors influencing and determining loan policy. Prerequisite: Banking 131 or equivalent.

**BANKING COOPERATIVE EDUCATION 241. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Approval of Chairperson.

**BANKING COOPERATIVE EDUCATION 242. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 241 and approval of Chairperson.

**BANKING COOPERATIVE EDUCATION 243. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 242 and approval of Chairperson.

# BIOLOGY

**BIOLOGY 141. GENERAL BIOLOGY. (lecture 3, lab 3). CREDIT 4.**
A survey of structures and functions common to living forms in general. Includes principles of cell biology, genetics, development, evolution and a systematic study of the morphology and physiology of vertebrates with emphasis on the human body. Credit by examination available. Fall, Summer I.

**BIOLOGY 142. GENERAL BIOLOGY. (lecture 3, lab 3). CREDIT 4.**
A general survey of the plant and animal kingdoms. Includes principles of classification, plant anatomy and physiology and ecology. Credit by Examination available. Spring, Summer II.

**BIOLOGY 143, 144. HUMAN ANATOMY AND PHYSIOLOGY. (lecture 3, lab 3). CREDIT 4.**
These courses are to be taken in sequence. Structure and function related to human systems. Laboratory includes selected problems using basic techniques to study mammalian anatomy and physiology. Prerequisite: Biology 141 or Instructor recommendation. Bio 143 — Fall and Summer; Bio 144 — Fall and Spring.

**BIOLOGY 145. MICROBIOLOGY. (lecture 3, lab 3). CREDIT 4.**
A comparative study of the structure and function of the microbial cell. Bacteria are used to provide training in the development of experimental methodology. Prerequisite: Biology 144 or Biology 141 and 142. Fall and Summer II.

**BIOLOGY 233. ECOLOGY. (lecture 3, lab 3). CREDIT 3.**
A study of basic ecological principles and techniques with emphasis on biotic interrelationships within aquatic and terrestrial communities and man's influences on the environment. Prerequisite: Biology 141 and 142 or Instructor recommendation. Spring.



**BIOLOGY 241. BACTERIOLOGY. (lecture 3, lab 3). CREDIT 4.**
A study of microorganisms with emphasis on bacteria in soil, water, milk, and sewage; rickettsiae and viruses in relation to disease. Recommended for biology majors, premedical, predental, and medical technology students. Prerequisite: Biology 141 and 142. Credit by examination available. Spring.

**BIOLOGY 242. INVERTEBRATE ZOOLOGY. (lecture 3, lab 3). CREDIT 4.**
The study of a series of invertebrate types, beginning with protozoa. The evolution, natural history and general structural features of each group is discussed. Prerequisite: Biology 141 and 142 *and* Instructor recommendation. Fall.

**BIOLOGY 243. GENETICS. (lecture 3, lab 3). CREDIT 4.**
Principles of inheritance in plants and animals including patterns of inheritance and probability. Laboratory requires crosses involving simple dominance, linkage and sex linkage. Recommended for biology majors, premedical, predental, and preveterinary students. Prerequisite: Biology 141 and 142. Fall.

**BIOLOGY 244. COMPARATIVE VERTEBRATE ANATOMY. (lecture 3, lab 4). CREDIT 4.**
A comparative study of the structural evolvement of the vertebrate body with emphasis on mammalian structure. The laboratory work consists of dissection and study of various vertebrates including the shark and cat. Recommended for biology majors, premedical and predental students. Prerequisite: Biology 141 and 142 and Instructor approval. Spring

# BUSINESS COMMUNICATIONS

**BUSINESS COMMUNICATIONS 231. BUSINESS COMMUNICATIONS. (lecture 3, lab 0). CREDIT 3.**
Study of processes and media utilized in effective oral and written communication. Emphasis on the principles of functional communication; correct, forceful language usage; and sound practices leading to effective communication. Prerequisite: English 131 and Typewriting 131 OR equivalent.

# BUSINESS, INTRODUCTION TO

**INTRODUCTION TO BUSINESS 131. INTRODUCTION TO BUSINESS. (lecture 3, lab 0). CREDIT 3.**

A planned approach to the introductory study of business — its impact on and its responsibility to society, utilizing individual study and group interactivities. Topics include economics, management, marketing, finance, production, government regulations, and social responsibilities of business.

## BUSINESS LAW

**BUSINESS LAW 231. BUSINESS LAW. (lecture 3, lab 0). CREDIT 3.**
Introduction to the legal environment. Subject areas include torts, contracts, Uniform Commercial Code, sales, commercial paper, bailment, agency, and the American legal system. Prerequisite: Sophomore standing or approval of Chairperson, Division of Business.

## BUSINESS MATHEMATICS

**BUSINESS MATHEMATICS AND CALCULATING MACHINES 141. BUSINESS MATH AND CALCULATING MACHINES. (lecture 3, lab 1.5). CREDIT 4.**
Primary emphasis on application of business computations to machine use. Information about office machines and training in their operation. Problems deal with: interest, present value, depreciation, inventory valuation, discounts, pricing, income statements and balance sheets, ratios, statistics, graphs, and payroll records.

## BUSINESS PSYCHOLOGY

**BUSINESS PSYCHOLOGY 231. BUSINESS PSYCHOLOGY. (lecture 3, lab 0). CREDIT 3.**
Study of psychological principles as applied to human relations in business and industry. Emphasis on group dynamics, working environment, motivation, and supervision.

## CAREER PLANNING

**CAREER PLANNING 114. ORIENTATION TO OFFICE CAREERS. (lecture 3, lab 0). CREDIT 1.**
An introduction to and exploration of nature of jobs and job tasks, opportunities, qualifications, training, employment outlook, earning power, advancement, work environment, resources, and terminology unique to the office career secretarial fields. Counseling and self-analysis leading to setting of personal and professional goals.



**CAREER PLANNING 115. ORIENTATION TO MID-MANAGEMENT CAREERS. (lecture 3, lab 0). CREDIT 1.**
An introduction to and exploration of the nature of job tasks, opportunities, qualifications, training, employment outlook, earning power, advancement, work environment, resources, and terminology unique to the banking, management, marketing, and real estate fields. Counseling and self-analysis leading to setting of personal and professional goals.

## CHEMISTRY

**CHEMISTRY 121. CHEMICAL CALCULATIONS. (lecture 2, lab 0). CREDIT 2.**
Concentration on the mathematics necessary for basic chemistry courses; application of mathematical techniques in solving chemical and related scientific problems. Designed for students who have not had H.S. chemistry and are weak in mathematics. Fall, Spring, Summer I.

**CHEMISTRY 141, 142. GENERAL INORGANIC CHEMISTRY. (lecture 3, lab 3). CREDIT 4.**
These courses are to be taken in sequence. Principles and laws of chemical changes, gas laws, periodic classification, atomic and molecular structure, solution concentrations, ionic equilibria, oxidation-reduction reactions, thermodynamic equilibria, and nuclear reactions. For science majors. Credit by examination available. Recommended that students have a strong mathematical background and have completed H.S. Chemistry; otherwise, concurrent enrollment in Chemistry 121 is strongly urged. Prerequisite: Chemistry 141 or Corequisite Math 133 or Com Math Appraisal Score greater than 55. Fall, Spring, Summer I; Chem 142 — Spring, Summer II.

**CHEMISTRY 147. INTRODUCTORY INORGANIC CHEMISTRY. (lecture 3, lab 3). CREDIT 4.**
An introduction to the chemical nature and properties of inorganic compounds. Topics presented include a historical development of theoretical principles, atomic and molecular structures, inorganic nomenclature, states of matter, properties of gases and solutions, acids/bases and salts, chemical equilibrium, nuclear and chemical reactions, descriptive chemistry of selected elements. For non-science majors. Prerequisite Math 131 or COM Math Appraisal score of 31. Fall.

**CHEMISTRY 148. INTRODUCTORY ORGANIC AND BIOCHEMISTRY. (lecture 3, lab 3). CREDIT 4.**
A continuation of Chemistry 147. An introduction to the chemistry of carbon compounds. Topics presented include molecular structures, organic nomenclature, functional characteristics and chemical properties of the different classes of organic compounds. Emphasis on organic compounds essential to living systems, metabolic pathways, causes and characteristics of certain hereditary diseases and other biological dysfunctions. Prerequisite: Chemistry 147. Spring.

**CHEMISTRY 241, 242. ORGANIC CHEMISTRY. (lecture 3, lab 4). CREDIT 4.**
These courses are to be taken in sequence. Study of the chemistry of carbon: classification, nomenclature, properties, applications, and laboratory preparation of monofunctional organic compounds, followed by an emphasis on aromatic and heterocyclic compounds with attention given to classes of compounds fundamental to life processes. Prerequisite: Chemistry 142. Chem 241 — Fall; Chem 242 — Spring.

**CHEMISTRY 243. QUANTITATIVE ANALYSIS. (lecture 2, lab 6). CREDIT 4.**
Theory and laboratory practice in the principles of gravimetric, volumetric, and spectrophotometric methods of chemical analysis. Prerequisite: Chemistry 142. Spring.

## CHILD DEVELOPMENT



**CHILD DEVELOPMENT 130. CLASSROOM MANAGEMENT IN THE EARLY CHILDHOOD CENTER. (lecture 3, lab 6) CREDIT 3.**
Basic techniques of discipline, scheduling, record keeping, staff interaction, procuring materials and supplies, rotating educational materials, planning field trips and special events.

**CHILD DEVELOPMENT 131. SURVEY OF CHILD CARE. (lecture 3, lab 0). CREDIT 3.**
A survey of the history, philosophy and ethics of child care; types of child care facilities; laws and standards governing agency management; roles of team members within a center; and introduction to national Child Development Associate certification program. Fall, Spring.

**CHILD DEVELOPMENT 132. ORGANIZATION AND ADMINISTRATION OF THE EARLY CHILDHOOD CENTER. (lecture 3, lab 0). CREDIT 3.**
Introduction to administrative processes in the preschool center, including staffing, coordination of schedules and activities, record keeping, and mobilization of community resources. Fall.

**CHILD DEVELOPMENT 135. NUTRITION HEALTH AND SAFETY IN THE LEARNING ENVIRONMENT. (lecture 3, lab 0) CREDIT 3.**
Basic information on human nutrition and the nutritional value of foods. Recognition of childhood illnesses. First Aid. State requirements governing nutrition, health and safety. SPRING.

**CHILD DEVELOPMENT 138. CURRICULUM AND MATERIALS IN THE CHILDHOOD CENTER. (lecture 3, lab 6) CREDIT 3.**
Principles of development of curriculum appropriate for pre-school children. Selection of suitable teaching techniques and materials. Construction, display and care of equipment and materials to maintain optimum learning in the environment.

**CHILD DEVELOPMENT 139. GAMES AND SPORTS FOR YOUNG CHILDREN. (lecture 3, lab 0) CREDIT 3.**
Teaching techniques, methods and activities for physical development and recreation, both indoors and outdoors for children 0-12 years of age.

**CHILD DEVELOPMENT 146 & 147. CHILD CARE PRACTICUM. (lecture 1, lab 20) CREDIT 4 hours each.**
Supervised part-time work in a child care center. Student reports to instructor and works to improve skills and practices learned in child development courses. Prerequisite: Approval of Instructor.

**CHILD DEVELOPMENT 230. PARENT AND COMMUNITY RELATIONS. (lecture 3, lab 3) CREDIT 3.**
Basic information on the role of the Early Childhood Center in the community. Techniques for involving parents and the community in a comprehensive system of delivering needed services to children.

**CHILD DEVELOPMENT 231. INFANT AND TODDLER CARE. (lecture 3, lab 0) CREDIT 3.**
A study of growth and development of infants and toddlers and techniques of maximizing development in a group setting.

**CHILD DEVELOPMENT 232. EXCEPTIONAL CHILD. (lecture 3, lab 0) CREDIT 3.**
Overview of exceptional children. Understanding developmental problems in all areas of exceptionality and intervention techniques for maximizing development.

**CHILD DEVELOPMENT 233. SOCIAL STUDIES IN PRE-SCHOOL. (lecture 3, lab 0) CREDIT 3.**
In-depth study of appropriate social studies curriculum and implementation techniques in programs for young children.



**CHILD DEVELOPMENT 234. MATH AND SCIENCE IN PRE-SCHOOL. (lecture 3, lab 0) CREDIT 3.**
Study of foundation concepts in math and science. Developmental strategies and educational materials for instruction of young children.

**CHILD DEVELOPMENT 235. PROGRAMS FOR SCHOOL AGE CHILDREN. (lecture 3, lab 0) CREDIT 3.**
Overview of characteristics of school age children and their developmental needs. Techniques for management and motivation as well as informal educational activities, such as games, arts and crafts, creative dramatics, stories, projects and special events.

**CHILD DEVELOPMENT 236. SPECIAL PROBLEMS. (lecture 3, lab 0) CREDIT 3.**
Understanding structural differences and basic commonalities in a variety of child care delivery systems. Exploration of methods of applying child development principles in various settings. Prerequisite: Approval of Instructor.

**CHILD DEVELOPMENT 237. CHILDREN'S LITERATURE. (lecture 3, lab 3) CREDIT 3.**
Selection of children's books, story telling and reading to children; guidance techniques which promote children's verbal expression of feeling and ideas.

## COMMUNICATIONS

**COMMUNICATIONS 114. SPELLING. (lecture 1, lab 0). CREDIT 1.**
An individualized course in which the student works toward becoming a proficient speller. Fall, Spring, Summer I.

**COMMUNICATIONS 130. BASIC READING. (lecture 3, lab 3). CREDIT 3.**
Comprehension and vocabulary skills necessary for basic reading skills. Special attention will be given to decoding unknown words. For students with 6.6-8.5 grade reading level. Fall, Spring.

**COMMUNICATIONS 131. ENGLISH AS A SECOND LANGUAGE. (lecture 3, lab 2). CREDIT 3.**
For students who have mastered a language other than English and need greater facility in the use of English; speech, listening, usage, and composition. May be repeated for a maximum of six credits. Fall, Spring.

**COMMUNICATIONS 133. WRITING IMPROVEMENT I. (lecture 3, lab 3). CREDIT 3.**
Basic skills for sentence and paragraph writing. The goal is to write paragraphs with a variety of sentence patterns using the grammar and punctuation of edited English. Requires Test of Standard Written English (TSWE) scores of 20-22 and reading grade level of at least 6.6. Fall, Spring, Summer I.

**COMMUNICATIONS 134. READING IMPROVEMENT I. (lecture 3, lab 3). CREDIT 3.**
Instruction in basic reading skills to improve reading comprehension and vocabulary. Develop an awareness of good study habits and techniques. Open to students with 8.6 reading level. Fall, Spring, Summer I.

**COMMUNICATIONS 136. WRITING IMPROVEMENT II. (lecture 3, lab 3). CREDIT 3.**
Practice in basic skills for paragraph and report writing. The goal is to write essays with paragraphs using clear reasoning punctuation of edited English. Requires Test of Standard Written English (TSWE) scores of at least 23 and reading level of at least grade 8.0 or credit for Communications 133. Fall, Spring, Summer I.

**COMMUNICATIONS 137. READING IMPROVEMENT II. (lecture 3, lab 3). CREDIT 3.**
Improvement of reading, vocabulary, and study skills needed for college work, with emphasis on reading with comprehension and flexibility, evaluative comprehensive, and application of skills to specific content area. Prerequisite: Communications 134 or 10.6-12.5 reading level. Fall, Spring, Summer.

**COMMUNICATIONS 213. PROOFREADING. (lecture 1, lab 0). CREDIT 1.**
Instruction and practice in the conventions of edited English. Proofreading for capitalization, punctuation, and applied grammar. Individual assignments. Runs sixteen hours. Continuous enrollment. Requires Test of Standard Written English (TSWE) score of 35. May supplement English 131. Fall, Spring.



**COMMUNICATIONS 215. STUDY SKILLS. (lecture 1, lab 0). CREDIT 1.**
An individualized, sixteen hour course in which the student works to improve study skills specific to the student's diagnosed needs. Time must be arranged with the instructor. Fall, Spring, Summer I.

**COMMUNICATIONS 216. VOCABULARY IMPROVEMENT. (lecture 1, lab 0). CREDIT 1.**
A self-paced, sixteen hour, individualized vocabulary course. Time must be arranged with the instructor. Prerequisite: Communications 137 or Nelson Denny 32%. Fall, Spring, Summer I.

**COMMUNICATIONS 217. READING COMPREHENSION. (lecture 1, lab 0). CREDIT 1.**
An individualized, self-paced, sixteen hour course in which the student works to improve literal, inferential, and evaluative levels of comprehension. Time must be arranged with instructor. Prerequisite: Communications 137 or Nelson Denny 32%. Fall, Spring, Summer I.

**COMMUNICATIONS 218. SPEED READING. (lecture 1, lab 0). CREDIT 1.**
A self-paced, individualized, sixteen hour course designed to train the student in reading flexibility, increased speed of comprehension, and locational skills. Time must be arranged with the instructor. Prerequisite: Communications 137 or Nelson Denny 32%. Fall, Spring, Summer I.

## COMPUTER SCIENCE

**COMPUTER SCIENCE 121. DATA ENTRY. (lecture 1, lab 2). CREDIT 2.**
Data entry and verification with hands-on training using various types of on-line and off-line devices—Data Recorder, CRT, and other similar machines with magnetic storage. Emphasis is placed on performing basic functions utilizing a variety of source documents, program control and multiple program levels. Co-requisite: Typewriting 131 or equivalent.

**COMPUTER SCIENCE 131. INTRODUCTORY COMPUTER SCIENCE. (lecture 3, lab 0). CREDIT 3.**
Comprehensive introduction to data processing. Topics include functions of the computer, data processing methods and devices, problem solving using the computer, and BASIC programming language as a "hands-on" application tool.

**COMPUTER SCIENCE 132. COMPUTER AND PERIPHERAL EQUIPMENT OPERATIONS. (lecture 1, lab 2). CREDIT 3.**
Designed to acquaint the student with the operation of a digital computer and peripheral equipment used with computers through "hands-on training." Communication with the operating system through the console device for such tasks as job management, file inquiry, and initial program load. Operation of printers, tape drives, RJE, card readers and others is included.

**COMPUTER SCIENCE 136. RPG PROGRAMMING. (lecture 3, lab 1.5). CREDIT 3.**
Study of Report Program Generator (RPG) programming language on a step by step basis. Emphasis on computer solution of basic problems from the general business and management science areas. Prerequisite: Computer Science 131 or equivalent.

**COMPUTER SCIENCE 231. COBOL PROGRAMMING. (lecture 3, lab 1.5). CREDIT 3.**
Common Business Oriented Language (COBOL). Emphasis on computer solution of business applications using COBOL programming techniques. Prerequisite: Computer Science 131 or equivalent.

**COMPUTER SCIENCE 232. ADVANCED STRUCTURED COBOL PROGRAMMING. (lecture 3, lab 1.5). CREDIT 3.**
Advanced concepts, techniques and proficiencies using Structured COBOL programming. Applications are planned, compiled, debugged and executed employing standard disk files and I/O's. Prerequisite: Computer Science 231 or equivalent.



**COMPUTER SCIENCE 233. FORTRAN PROGRAMMING. (lecture 3, lab 1.5). CREDIT 3.**
Study of FORTRAN IV programming language. Emphasis is placed on solving problems using the computer in a hands-on laboratory environment. Applications are planned, compiled, "debugged" and executed, employing standard disk files and I/O's. Prerequisite: Computer Science 131 or equivalent.

**COMPUTER SCIENCE 235. COMPUTER APPLICATIONS IN SYSTEMS ANALYSIS. (lecture 3, lab 0). CREDIT 3.**
A study of the application of systems techniques to the solution of business data-processing problems. Prerequisite: Computer Science 232 or Computer Science 233 or approval of Chairperson, Division of Business.

**COMPUTER SCIENCE 237. DATA BASE DESIGN AND MANAGEMENT. (lecture 3, lab 1.5). CREDIT 3.**
Basic data base concepts, organization and definitions; data base design and analysis of schemas for data base management systems. Applications in data base design and query languages. Prerequisites: Computer Science 232 and 233.

**COMPUTER SCIENCE COOPERATIVE EDUCATION 241. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Approval of Chairperson.

**COMPUTER SCIENCE COOPERATIVE EDUCATION 242. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 241 and approval of Chairperson.

**COMPUTER SCIENCE COOPERATIVE EDUCATION 243. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 242 and approval of Chairperson.

## COOPERATIVE EDUCATION

**COOPERATIVE EDUCATION 241. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization; i.e., business occupations, industrial occupations, or public service occupations. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Approval of Chairperson.

**COOPERATIVE EDUCATION 242. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization; i.e., business occupations, industrial occupations, or public service occupations. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 241 and approval of Chairperson.

**COOPERATIVE EDUCATION 243. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization; i.e., business occupations, industrial occupations, or public service occupations. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 242 and approval of Chairperson.



## CREDIT UNION

**CREDIT UNION 131. PRINCIPLES OF CREDIT UNION ORGANIZATION. (lecture 3, lab 0). CREDIT 3.**
Historical and philosophical orientation of the credit union functions, organization and operation.

**CREDIT UNION 132. SAVINGS AND TIME DEPOSIT. (lecture 3, lab 0). CREDIT 3.**
Historical development and current operational coverage of the savings process as an integral link in financial flows. Prerequisite: Credit Union 131 or equivalent.

**CREDIT UNION 134. INSTALLMENT CREDIT. (lecture 3, lab 0). CREDIT 3.**
Concise presentation of all phases of credit union installment credit operations. Prerequisite: Credit Union 131 or equivalent.

**CREDIT UNION 231. PRINCIPLES OF CREDIT UNION MANAGEMENT. (lecture 3, lab 0). CREDIT 3.**
A study of modern management philosophy and decision-making processes utilizing a credit union case study method. An insight into the management functions of planning, organizing, directing and controlling. Prerequisite: 9 semester hours of business administration including Introduction to Business 131 or approval of Chairperson, Division of Business.

**CREDIT UNION 232. FEDERAL REGULATION OF CREDIT UNIONS. (lecture 3, lab 0). CREDIT 3.**
A comprehensive treatment of the credit union audit function, its importance to regulatory authority, and the organization, functions, and operations of various federal regulatory agencies. Prerequisite: Credit Union 131 or equivalent.

**CREDIT UNION 233. ANALYZING FINANCIAL STATEMENTS. (lecture 3, lab 0). CREDIT 3.**
Thorough study of the characteristics and analysis of financial statements. Prerequisites: Credit Union 131 or equivalent.

**CREDIT UNION 235. INVESTMENTS. (lecture 3, lab 0). CREDIT 3.**
Analysis of the nature and needs of financial institutions for primary reserves and loanable funds. Prerequisite: Credit Union 131 or equivalent.

**CREDIT UNION 236. CREDIT ADMINISTRATION. (lecture 3, lab 0). CREDIT 3.**
Discussion of factors influencing and determining loan policy. Prerequisite: Credit Union 131 or equivalent.

**CREDIT UNION COOPERATIVE EDUCATION 241. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Approval of Chairperson.

**CREDIT UNION COOPERATIVE EDUCATION 242. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 241 and approval of Chairperson.

**CREDIT UNION COOPERATIVE EDUCATION 243. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 242 and approval of Chairperson.



## CRIMINAL JUSTICE

**CRIMINAL JUSTICE 131. INTRODUCTION TO CRIMINAL JUSTICE. (lecture 3, lab 0). CREDIT 3.**
A study of the history of law enforcement; principles of law enforcement in a democratic society; criminal justice agencies — local, state and federal police agencies, courts, corrections, probation and parole; and a survey of career opportunities.

**CRIMINAL JUSTICE 134. CRIMINAL INVESTIGATION. (lecture 3, lab 0). CREDIT 3.**
A course in the theory of investigative processes: conduct at the crime scene; the search for, preservation, and collection of physical evidence; the use of the science laboratory, the investigation of specific crimes; interrogation techniques.

**CRIMINAL JUSTICE 135. LEGAL ASPECTS OF LAW ENFORCEMENT. (lecture 3, lab 0). CREDIT 3.**
Elements of criminal law with definitions and general penalties; law of arrest, search and seizure; rights and duties of officers and citizens.

**CRIMINAL JUSTICE 136. CRIMINAL PROCEDURE AND EVIDENCE. (lecture 3, lab 0). CREDIT 3.**
Origin, development and philosophy of rules of evidence; test of admissibility; weight and value of types of evidence; laws of arrest, search, and seizure.

**CRIMINAL JUSTICE 230. CRIME PREVENTION. (lecture 3, lab 0). CREDIT 3.**
The historical and philosophical background of crime prevention; modern concepts in crime prevention; the physical environment; security barriers; survey of commercial and residential crime prevention hardware and its application; practical applications of crime prevention techniques.

**CRIMINAL JUSTICE 231. PHYSICAL EVIDENCE & IDENTIFICATION. (lecture 2, lab 3). CREDIT 3.**
Crime scene procedures; collection and preservation of evidence; scientific instruments and techniques used in the analysis of physical evidence; crime scene sketching and photography; fingerprint classification; use of the Identi-Kit; modus operandi. Prerequisite: LE 134 or permission of the instructor.

**CRIMINAL JUSTICE 232. POLICE ROLE IN CRIME AND DELINQUENCY. (lecture 3, lab 0). CREDIT 3.**
Study of deviant behavior and current criminological theories, with emphasis on police applications; crime prevention and the phenomena of crime as it relates to juveniles.

**CRIMINAL JUSTICE 233. PATROL ADMINISTRATION. (lecture 3, lab 0). CREDIT 3.**
Police responsibilities; personnel recruitment and selection; patrol operations; narcotics and vice; maintaining order; traffic enforcement; juvenile procedures; demonstrations, picketing and riots. Emphasis on new concepts in contemporary society.

**CRIMINAL JUSTICE 237. NARCOTICS INVESTIGATION. (lecture 3, lab 0). CREDIT 3.**
Identification of narcotics and dangerous drugs subject to abuse; origin, distribution and control; special investigation techniques; recognition of drug users; injection marks; use of informants; establishing probable cause; search and seizure; report writing; laws dealing with narcotics and dangerous drugs. Prerequisite: Permission of the instructor.

**CRIMINAL JUSTICE 238. POLICE-COMMUNITY RELATIONS. (lecture 3, lab 0). CREDIT 3.**
Interrelationships between law enforcement and the community; racial and community tensions; positive community relations programs; group techniques and role-playing will be utilized.

**CRIMINAL JUSTICE 239. POLICE ORGANIZATION AND ADMINISTRATION. (lecture 3, lab 0). CREDIT 3.**
Principles and procedures in the organization and administration of law enforcement agencies; includes new concepts such as contract law enforcement, regional crime squads and lateral entry.



**CRIMINAL JUSTICE 241. COOPERATIVE EDUCATION. (lecture 1.5, lab 20). CREDIT 4.**
A comprehensive program that allows the student to receive college credit for on-the-job experiences. Under the supervision of the College and the employer, the student is required to work in a policing, probation or other criminal justice related agency. The student will be rotated through or assigned to one of the various functional components of the employing agency and must show progress in all assigned tasks. Prerequisite: Permission of the instructor.

**CRIMINAL JUSTICE 242. COOPERATIVE EDUCATION. (lecture 1.5, lab 20) CREDIT 4.**
A comprehensive program that allows the student to receive college credit for on-the-job experiences. Under the supervision of the College and the employer, the student is required to work in a policing, probation or other criminal justice related agency. The student will be rotated through or assigned to one of the various functional components of the employing agency and must show progress in all assigned tasks. Prerequisite: Criminal Justice 241 and permission of the instructor.

**CRIMINAL JUSTICE 243. COOPERATIVE EDUCATION. (lecture 1.5, lab 20). CREDIT 4.**
A comprehensive program that allows the student to receive college credit for on-the-job experiences. Under the supervision of the College and the employer, the student is required to work in a policing, probation or other criminal justice related agency. The student will be rotated through or assigned to one of the various functional components of the employing agency and must show progress in all assigned tasks. Prerequisite: Criminal Justice 242 and permission of the instructor.

**CRIMINAL JUSTICE 244. FORENSIC PHOTOGRAPHY. (lecture 2, lab 5). CREDIT 4.**
A course in the equipment, materials and methods used in police photography; legal aspects; courtroom presentation; comprehensive practical work in all darkroom techniques.

**CRIMINAL JUSTICE 332. TRAFFIC PLANNING AND ADMINISTRATION. (lecture 3, lab 0). CREDIT 3.**
History, development, economics of the modern transportation system; agencies involved in traffic administration and control; police traffic engineering, education, and enforcement.

**CRIMINAL JUSTICE 333. JUVENILE PROCEDURES. (lecture 3, lab 0). CREDIT 3.**
The nature and extent of delinquency, theories, prevention and evaluation, control, and treatment programs and procedures.

**CRIMINAL JUSTICE 334. PROBATION AND PAROLE. (lecture 3, lab 0). CREDIT 3.**
The development, organization, operation and result of systems of probation and parole as substitutions for incarceration, methods of selection, and prediction scales.

**CRIMINAL JUSTICE 335. PENOLOGY. (lecture 3, lab 0). CREDIT 3.**
An introduction to and overview of the correctional system in America; local, state and federal penal institutions; prisoners and prison unrest; correctional personnel; probation and parole; contemporary corrections and innovative concepts in the administrator's role in setting objectives, planning, decision making, and controlling the correctional institution.

## DIESEL MECHANICS

**DIESEL 161. DIESEL FUEL SYSTEM. (lecture 2, lab 8). CREDIT 6.**
A study of diesel fuel systems including injectors, transfer pumps, pressure pumps, and root blowers. The student will receive instruction and practice in disassembling, testing, operation, replacing and rebuilding all components of the fuel system.



**DIESEL 162. DIESEL ELECTRICAL AND AUXILIARY EQUIPMENT. (lecture 2, lab 8). CREDIT 6.**
A study of the 12 and 24 volt starting and generating system, including regulators, batteries, and controls; also, a study of the exhaust system and cooling.

**DIESEL 242. POWER EQUIPMENT — PUMPS, COMPRESSORS, WENCHES, HYDRAULICS AND GENERATORS. (lecture 2, lab 4). CREDIT 4.**
A study of the fundamentals, operating principles, and applications of stationary equipment and fluid power. Prerequisite: DIESEL 161, 162.

**DIESEL 261. DIESEL ENGINE OVERHAUL. (lecture 2, lab 8). CREDIT 6.**
A study of engine disassembly, inspection and reassembly with emphasis placed on a systematic method of disassembling, inspecting and replacing necessary parts to bring the engine back to the manufacturer's specification and operation. The student receives classroom instruction as well as shop work in development of his skills. Prerequisite: DIESEL 161, 162.

**DIESEL 262. DIESEL DIAGNOSIS AND REPAIR. (lecture 2, lab 8). CREDIT 6.**
A study of troubleshooting and repairing correctly the causes of engine failure. Prerequisite: DIESEL 261.

**DIESEL 263. POWER TRANSMISSION AND DRIVE COMPONENTS. (lecture 2, lab 8). CREDIT 6.**
A study of manual and automatic devices employed for transmitting power from a diesel engine to an application, i.e. boats, trucks, stationary pumps, generators and compressors. Prerequisite: DIESEL 261.

# DRAFTING AND DESIGN TECHNOLOGY

**DRAFTING 131. ENGINEERING DRAFTING. (lecture 2, lab 4). CREDIT 3.**
An introductory course in drafting which includes a study of drawing principles and practices for print reading and describing objects in graphic language. Basic skills and techniques of drafting included are: use of drafting equipment, lettering free hand, orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views, and standards and practice of dimensioning. The principals of isometric, oblique, and perspective are introduced. Fall, Spring, Summer I.

**DRAFTING 132. DESCRIPTIVE GEOMETRY. (lecture 2, lab 4). CREDIT 3.**
A study of the graphical analysis of space problems dealing with practical design elements involving points, lines, planes, connectors, and a combination of these. Included are problems dealing with solid geometry theorems. Where applicable, each graphical solution shall be accompanied by the analytical solution and visualization shall be stressed in every problem. Prerequisite: Drafting 131 or equivalent. Fall, Spring.

**DRAFTING 134. MACHINE DRAWING. (lecture 2, lab 4). CREDIT 3.**
A study of gears, cams, and complete assembly drawings of small machines. Theory and practice includes a study of design characteristics. Prerequisite: Drafting 131. Fall, Spring.

**DRAFTING 136. ARCHITECTURAL DRAWING I. (lecture 2, lab 4). CREDIT 3.**
A course in basic architectural planning and design in wood, steel and masonry construction. Further development of techniques in lettering, dimensioning, free hand sketches and instrument drawing. Development of foundation, floor and roof plans, wall, window, door sections and other details for small buildings. Prerequisite: Drafting 131. Spring.

**DRAFTING 231. ELECTRICAL DRAFTING. (lecture 2, lab 4). CREDIT 3.**
A study of principles of layout and preparation of finished electrical manufacturing and construction drawings, stressing modern representation used for pictorial drawings, wiring, connection, and schematic diagrams, block diagrams, and architectural drawings. Stress is placed on accepted practices and symbols used in engineering offices. Prerequisite: Drafting 131. Fall, Summer I.



**DRAFTING 232. PIPE DRAFTING. (lecture 2, lab 4). CREDIT 3.**
A study of pipe and fittings, designs, symbols, and specifications, sizing process lines and process symbols. Drafting of flow diagrams, vessels, heat exchangers, pumps, instruments, compressors and mechanical equipment. Prerequisite: Drafting 131. Spring.

**DRAFTING 233. ARCHITECTURAL DRAWING II. (lecture 2, lab 4). CREDIT 3.**
A continuation of Architectural Drawing I with emphasis on the development of commercial building plans and working drawing. Prerequisite: Drafting 136. Fall.

**DRAFTING 234. STRUCTURAL DRAFTING. (lecture 2, lab 4). CREDIT 3.**
A study of A.I.S.C. specifications and standards, structural theory and data, designing and detailing structural members and connections. Design and development of details and specifications for light industrial structures to include structural steel, pipe and reinforced concrete rods. Prerequisite: Drafting 131. Spring, Summer II.

**DRAFTING 235. COMPUTER AIDED DRAFTING. (lecture 2, lab 4). CREDIT 3.**
A basic course in computer aided graphics programming for solving various types of drafting problems including piping, structural and electrical disciplines, and the use of computer aided drafting equipment. Prerequisite: DRAFT 131, 132, 134. Sophomore standing or approval of division Chairman. Fall, Spring.

**DRAFTING 236. TECHNICAL ILLUSTRATION. (lecture 2, lab 4). CREDIT 3.**
A study of the materials and skills necessary to produce technical illustration. Skills would include shading, rendering airbrush work, and other technical illustration procedures. Prerequisite: Drafting 131. Spring.

**DRAFTING 237. MAP DRAFTING. (lecture 2, lab 4). CREDIT 3.**
Plotting surveyor's notes, traverses, plot plans and plats, plan and profile drawing, contours. Prerequisite: Drafting 131. Fall.

**DRAFTING 238. PIPE DRAFTING II. (lecture 2, lab 4). CREDIT 3.**
A continuation of Pipe Drafting I with emphasis on Design Methods and Materials as used in the Refining or Petrochemical Industry. Prerequisite: Drafting 131, and Drafting 232. Spring.

**DRAFTING 239. SELECTED TOPICS FOR COMPUTER AIDED DRAFTING. (lecture 2, lab 4). CREDIT 3.**
The student selects a drafting speciality area from pipe, structural or electrical. He/she writes and tests programs to solve problems in that field. This course may be repeated for credit if drafting discipline varies. Prerequisite: DRAFT 231, 232, 234 and 235. Fall, Spring.

**DRAFTING 240. TECHNICAL ILLUSTRATION II. (lecture 2, lab 5). CREDIT 4.**
A continuation of technical illustration I with emphasis on pastels and air brush work. Also, included will be methods of graphic reproduction and preparing art for offset printing. Prerequisite: DRAFT 236. Fall, Spring.

**DRAFTING 241. ELECTRICAL DRAFTING II. (lecture 2, lab 4). CREDIT 4.**
A continuation of electrical drafting I with emphasis placed on industrial wiring and calculations, use of the national electrical code as for industrial. An in-depth study of one-line, schematic, riser and electrical detail drawings. Prerequisite: DRAFT 231. Fall, Spring.

## DRAMA — (See Theatre Arts, page 145).

## ECONOMICS

**ECONOMICS 231. PRINCIPLES OF ECONOMICS. (lecture 3, lab 0). CREDIT 3.**
The analysis of economic foundations, covering national income theory, public sector functions, money and banking, and economic growth and in international trade in the macroeconomic realm. Prerequisite: Sophomore standing or approval of Chairperson, Division of Business.



**ECONOMICS 232. PRINCIPLES OF ECONOMICS. (lecture 3, lab 0). CREDIT 3.**
The study of prices and markets, allocation of resources, distribution of income, and contemporary economic issues in the microeconomic realm. Prerequisite: Sophomore standing or approval of Chairperson, Division of Business.

## ELECTRONICS TECHNOLOGY

**ELECTRONICS 141. DC THEORY. (lecture 3, lab 3). CREDIT 4.**
A basic course in electronics theory for technical study. Covers Ohm's Law, series/parallel circuits, DC meters, Kirchoff's Laws, Thevenin's and Norton's Theorems. Corequisite: Tech Math 131.

**ELECTRONICS 142. AC THEORY. (lecture 3, lab 3). CREDIT 4.**
A basic study in alternating current theory and application. Covers reactance, impedance transformers, filters, resonance, complex numbers, and series/parallel circuits containing resistance and reactance. Prerequisite: Electronics 141. Corequisite: Tech Math 132.

**ELECRONICS 143. AC/DC THEORY. (lecture 3, lab 3). CREDIT 4.**
A basic course in Electronic and Electrical Theory. Basic AC/DC circuit theory and applications lead to a study of Electronic Devices. Learning alternatives in Electrical Codes, Wiring Practices, AC Motors and Power Distribution provide experience for all majors. Corequisite: Tech Math 131 or consent of instructor. Fall, Spring.

**ELECTRONICS 145. DIGITAL PRINCIPLES AND APPLICATIONS. (lecture 3, lab 3). CREDIT 4.**
A course designed to introduce the electronic or computer science student to Logic Fundamentals, including Gates, Truth Tables, Logic Diagrams, Boolean Equations, Integrated Circuits (TTL, MOS, C-MOS and ECL), Number Systems, Counters and Karnaugh Maps. Formerly EL 242 and 245. Fall, Spring.

**ELECTRONICS 146. TRANSISTORS CIRCUIT ANALYSIS. (lecture 3, lab 3). CREDIT 4.**
Study of diodes and transistors, including bias networks, Common Base, Emitter and Collector Amplifiers, h-Parameter equivalent Circuits, Multistage Amplifier Design and Analysis, Frequency Response and Temperature Characteristics. Prerequisite: EL 143. Formerly EL 144 & 243. Fall.

**ELECTRONICS 147. MICROPROCESSORS I. (lecture 3, lab 3). CREDIT 4.**
Overview of 6800 and 8080 Microprocessor's with Special Emphasis on the following topics:

ARCHITECTURE
INSTRUCTION SETS
ADDRESSING MODES
MEMORY AND STACKS
INPUT/OUTPUT
INTERRUPT PROCESSING
PROCESSOR LANGUAGES
ASSEMBLY LANGUAGE PROGRAMMING

Prerequisite: EL 145. Spring.

***ELECTRONICS 240. ELECTRONIC SYSTEMS. (lecture 2, lab 4). CREDIT 4.**
A study of the theory, circuits, and operation of a modern television system. Shop safety and customer relations are also studied. Prerequisite: EL 146.

**ELECTRONICS 241. MICROPROCESSORS II. (lecture 3, lab 3). CREDIT 4.**
Continuation of Microcomputers I. (EL 147). The student, using a Z80 Chip Set, Keyboard Input, Printer Output, S-100 Mainframe (plus power supply) and Motherboard; will design, build and debug a minimal microcomputer system. Prerequisite: EL 147. Fall, Spring.

**ELECTRONICS 244. MICROPROCESSOR III. (lecture 3, lab 3). CREDIT 4.**
A microcomputer applications course with the emphasis on maintenance and control. Students enrolled in this course will interface a microcomputer, developed in an earlier course, with industrial instrumentation equipment. Prerequisite: EL 241. Spring.

**ELECTRONICS 248. SPECIAL PURPOSE SEMI-CONDUCTOR DEVICES (lecture 3, lab 3). CREDIT 4.**
Design and analysis of electronic circuits using FETs, MOSFET, UJT, Zener diodes, SCRs, TRIACS-DIAC and optoelectronic devices. Prerequisite: Electronics 146.



**ELECTRONICS 341. ELECTRONIC COMMUNICATION I. (lecture 3, lab 3). CREDIT 4.**
Basic Transmitters — system used to provide the carrier frequency and power for all types of transmitters (AM/FM and keyed radiotellegraphy). ON/OFF and FSK methods of carrier control are also covered. Prerequisite: EL 146, Co-requisite: EL 240.

**ELECTRONICS 342. ELECTRONIC COMMUNICATION II. (lecture 3, lab 3) CREDIT 4.**
AM/FM Receivers — Continuation of Electronics 341, includes the various types of circuits used to detect and demodulate AM and FM signals. Service techniques, and alignment and calibration of VHF and CB communications equipment are stressed. Preparation for second class FCC exam. Prerequisite: Electronics 341.

**ELECTRONICS 343. MARINE COMMUNICATIONS (lecture 2, lab 4) CREDIT 4.**
Marine radar, fathometers, the Loran theory and laboratory procedure. Preparation for first class FCC examination with radar endorsement. Servicing of marine electronic devices. Prerequisite: Electronics 341.

*Course description rewritten. (see revision)

# EMERGENCY MEDICAL TECHNICIAN

**EMERGENCY MEDICAL TECHNICIAN 161. BASIC EMERGENCY MEDICAL TECHNICIAN. (lecture 6, lab 6). CREDIT 6.**
A 120 hour course designed to provide the first phase of training in the E.M.T. career structure. Students are taught: 1) overall roles and aspects of the profession, 2) symptom recognition and all emergency treatment short of that rendered by the E.M.T. Advanced (Paramedic) or a physician, 3) the use and care of all equipment used or required in this phase of medical care, 4) the principles of crisis intervention and 5) coping skills for themselves, patients, and families in grief situations. This course is approved by the Texas Department of Health Emergency Medical Services Division.

**EMERGENCY MEDICAL TECHNICIAN 211. EXTRICATION TECHNIQUES. (lecture 1, lab 1). CREDIT 1.**
The use of specialized techniques and equipment for the removal of accident victims from precarious situations. Prerequisite: enrollment in the advanced E.M.T. program or permission of the instructor.

**EMERGENCY MEDICAL TECHNICIAN 281. ADVANCED E.M.T. SPECIAL SKILLS. (lecture 6, lab 12) CREDIT 8.**
A course designed to train emergency medical technicians in the use of certain advanced emergency skills as: the administration of intravenous fluids, advanced airway management, the use of pneumatic antishock garmet, and increased skill in primary and secondary assessment of patients. The minimum hours required are: 60 classroom; 50 clinical and 50 ambulance internship. The course is approved by the Texas Department of Health Emergency Medical Services Division. Prerequisites: certification as a basic E.M.T. and admission to the Advanced E.M.T. program.

**EMERGENCY MEDICAL TECHNICIAN 282. ADVANCED E.M.T. COMPLETION. (lecture 6, lab 12) CREDIT 8.**
A course which provides the emergency medical technician with all advanced skills necessary to treat emergency situations. In addition to administration of intravenous fluids, advanced management of airway emergencies, the advanced E.M.T. student will receive indepth instruction in assessment and treatment of the injured person with emphasis on cardiac care and drug administration. Prerequisite: E.M.T. 281

**EMERGENCY MEDICAL TECHNICIAN 222. EMERGENCY VEHICLE DRIVING. (lecture 16 hours, lab 16 hours) CREDIT 2.**
The techniques and judgement skills necessary in driving an emergency vehicle used to transport sick and/or injured patients safely and expeditiously to a hospital. Prerequisite: Possession of a current, valid Texas Chauffer's Driver's License, enrollment in the Advanced E.M.T. program, or permission of the instructor.



## ENGINEERING

**ENGINEERING 131. PROGRAMMING FOR ENGINEERING AND SCIENCE. (lecture 3, lab 3). CREDIT 3.**
Introduction to computer programming using FORTRAN IV; emphasis is on engineering and scientific problem solving through flowcharting, programming, and actually running the programs. Prerequisite: Math 133. Fall, Spring, Summer I.

**ENGINEERING 231. MECHANICS I. (lecture 3, lab 0). CREDIT 3.**
Composition and resolution of forces, free-body diagrams, analysis of forces acting on structures and machines, friction, centroids, and moments of inertia. Prerequisite: Physics 241, Math 231 or registration therein. Fall.

**ENGINEERING 232. MECHANICS II. (lecture 3, lab 0). CREDIT 3.**
Dynamics of rigid bodies. Force-mass-acceleration, work-energy, impulse-momentum, and an introduction to mechanical vibrations. Prerequisite: Engr 231; Math 242 or registration therein. Spring.

## ENGLISH

**ENGLISH 131. COMPOSITION AND RHETORIC IN COMMUNICATION. (lecture 3, lab 0). CREDIT 3.**
Learning skills in communication-listening, talking, discussing, reading and writing; the emphasis is on organization, precision, and convention. Prerequisite: English Appraisal or Com 136. Credit by examination available. Fall, Spring, Summer I, Summer II.

**ENGLISH 132. COMPOSITION AND READING. (lecture 3, lab 0). CREDIT 3.**
An introduction to major literary genres: fiction, poetry, drama. Includes analysis, interpretation and discussion of representative works. Expository essays and research paper are required. Prerequisite: English 131. Credit by Examination available. Fall, Spring, Summer I, Summer II.

**ENGLISH 231. LITERATURE OF THE ENGLISH SPEAKING PEOPLE. (lecture 3, lab 0). CREDIT 3.**
Selected works from the literature of England; medieval period to the present day. Independent study activities included. Prerequisite: English 132. Credit by examination available. Fall, Spring, Summer I, Summer II.

**ENGLISH 232. LITERATURE OF THE ENGLISH SPEAKING PEOPLE. (lecture 3, lab 0). CREDIT 3.**
The study of American Literature, including traditional material, but the emphasis is upon the literature of the American Indian, the Afro-American, and the Mexican-American. Independent study activities included. Prerequisite: English 132. Fall, Spring, Summer I, Summer II.

**ENGLISH 233. WORLD LITERATURE. (lecture 3, lab 0). CREDIT 3.**
Survey masterpieces of world literature; classical to early Renaissance. Prerequisite: English 132.

**ENGLISH 234. WORLD LITERATURE. (lecture 3, lab 0). CREDIT 3.**
Survey of masterpieces of world literature. Renaissance to present. Prerequisite: English 132.

**ENGLISH 235. CREATIVE WRITING. (lecture 3, lab 0). CREDIT 3.**
Writing of short stories, poetry, and short drama. Includes work on a literary magazine. Includes a survey of the publishing industry as it pertains to literature (markets, the small press movement, and manuscript preparation). Prerequisite: English 132 or permission of instructor. Fall, Spring.

**ENGLISH 236. TECHNICAL WRITING. (lecture 3, lab 0). CREDIT 3.**
The writing of technical reports, proposals, progress papers and interoffice memoranda. Prerequisite: Six hours of English or permission of instructor. Spring.

**ENGLISH 237. SPECIAL LITERARY TOPICS. (lecture 3, lab 0). CREDIT 3.**
Selected readings from various genre, styles, and time periods. Examples include Literature of Science, The American Novel, Studies of Science Fiction, among others. Prerequisite: six hours of English or permission of the instructor.



## FINANCE

**FINANCE 131. PERSONAL FINANCE. (lecture 3, lab 0). CREDIT 3.**
Study of financial problems encountered in managing a family unit. Includes financial planning, insurance, budgeting, use of credit, home ownership, savings, investment, and tax problems. Fall, Spring.

**FINANCE 231. MANAGERIAL FINANCE. (lecture 3, lab 1.5). CREDIT 3.**
An introduction to the quantitative techniques underlying business decision process. Areas such as probability, inventory and queuing models, decision making under risk, PERT, CPM and other mathematical tools will be studied. Prerequisite: Business Math 141 or equivalent.

## FIRE PROTECTION TECHNOLOGY

**FIRE 131. FUNDAMENTALS OF FIRE PROTECTION. (lecture 3, lab 0). CREDIT 3.**
History and philosophy of fire protection; review of statistics of loss of life and property by fire; introduction to agencies involved in fire protection; current legislative developments and career orientation; recruitment and training for fire departments; position classification and pay plans; employee organizations; a discussion of current related problems and review of expanding future fire protection problems. No prerequisite. Fall.

**FIRE 132. INDUSTRIAL FIRE PROTECTION I. (lecture 3, lab 0). CREDIT 3.**
Specific concerns and safeguards related to business and industrial organizations. A study of industrial fire brigade organization and development, plant lay-out, fire prevention programs, extinguishing factors and techniques, hazardous situations and prevention methods. Gaining cooperation between the public and private fire department organization. Study of elementary industrial fire hazards in manufacturing plants. No prerequisite. Fall.

**FIRE 133. FIRE PROTECTION SYSTEMS. (lecture 3, lab 0). CREDIT 3.**
Study of the required standard for water supply; special hazards protection systems; automatic sprinklers and special extinguishing systems; automatic signaling and detection systems; rating organizations and underwriting agencies. No prerequisite. Spring.

**FIRE 134. FIRE PREVENTION. (lecture 3, lab 0). CREDIT 3.**
The objectives and views of inspections, fundamental principles, methods, techniques, and procedures of fire prevention administration. Fire prevention organization; public cooperation and image; recognition of fire hazards; insurance problems and legal aspects; development and implementation of a systematic and deliberate inspection program; survey of local, state, and national codes pertaining to fire prevention and related technology; relationship between building inspection agencies and fire prevention organizations. Engineering as a solution to fire hazards. No prerequisite. Spring.

**FIRE 135. INDUSTRIAL FIRE PROTECTION II. (lecture 3, lab 0). CREDIT 3.**
Development of fire and safety organizations in industry; relation between private and public fire protection organizations; current trends, deficiencies and possible solutions for industrial fire problems; role of insurance and other special organizations; an in-depth study of specific industrial processes, equipment, facilities and work practices to understand the potential hazards and techniques to detect and control such hazards. Field trips to selected plants and demonstrations of new techniques, equipment and innovations. Prerequisite: Fire 132. Spring.

**FIRE 231. FIRE ADMINISTRATION I. (lecture 3, lab 0). CREDIT 3.**
An in-depth study of the organization and management as related to a fire department including budgeting, maintenance of records and reports, and management of fire department officers. Personnel administration and distribution of equipment and personnel and other related topics, including relation of various government agencies to fire protection areas. Fire service leadership as viewed from the company officer's position. No prerequisite. Fall.



**FIRE 232. BUILDING CODES AND CONSTRUCTION. (lecture 3, lab 0). CREDIT 3.**
Fundamental consideration and exploration of building construction and design with emphasis on fire resistance of building materials and assemblies, exposures, and related data focused on fire protection concerns; review of related statutory and suggested guidelines, both local and national in scope. Review of Model Building Codes and Life Safety Code. No prerequisite. Fall.

**FIRE 233. FIRE AND ARSON INVESTIGATION. (lecture 3, lab 0). CREDIT 3.**
A study of the detection of arson, investigation techniques, case histories, gathering and preserving of evidence; preparing for a court case; selected discussion of laws, decisions and opinions; kinds of arsonists, interrogation procedures, cooperation and coordination between fire fighters and arson investigators and other related topics. No prerequisite. Fall.

**FIRE 234. HAZARDOUS MATERIALS I. (lecture 3, lab 0). CREDIT 3.**
Study of chemical characteristics and behavior of various materials that burn or react violently related to storage, transportation, handling hazardous materials, i.e., flammable liquids, combustible solids, and gases. Emphasis on emergency situations and most favorable methods of handling fire fighting and control. No prerequisite. Spring.

**FIRE 235. FIRE ADMINISTRATION II. (lecture 3, lab 0). CREDIT 3.**
Study to include insurance rates and ratings, preparation of budgets, administration and organization of training in the fire department; city water requirements, fire alarm and communications systems; importance of public relations, report writing and record keeping; measurements of results, use of records to improve procedures, and other related topics; legal aspects relating to fire prevention and fire protection with stress on municipal and state agencies; design and construction of fire department buildings. Prerequisite: Fire 231. Spring.

**FIRE 236. LEGAL ASPECTS OF FIRE PROTECTION. (lecture 3, lab 0). CREDIT 3.**
A study of legal rights and duties, liability concerns and responsibilities of the fire department while carrying out their duties. Introduction and basic concepts of Civil and Criminal law, the Texas and Federal judicial structure, and cities liability for acts of the fire department and fire prevention bureaus. An in-depth study of various cases concerning fire fighters, fire departments, and municipalities. No prerequisite.

**FIRE 237. HAZARDOUS MATERIALS II. (lecture 3, lab 0). CREDIT 3.**
Hazardous materials covering storage, handling, laws, standards, and fire fighting techniques associated with chemicals, gases, flammable liquids, corrosives, poisons, explosives, rocket propellants and exotic fuel, and radio-active materials. The formation of toxic fumes and health hazards is also stressed. Ignition and combustion characteristic of gases, liquids, and solids related to free-burning fire and explosion phenomena. Familiarization and radiological instruments, human exposure to radiation, decontamination procedures, common uses of radio-active materials and operational procedures. Prerequisite: Fire 234.

**FIRE 238. FIRE INSURANCE FUNDAMENTALS. (lecture 3, lab 0). CREDIT 3.**
The relationships between fire defenses, fire losses, and insurance rates are studied. Basic insurance principles, fire loss experience, loss ratios, state regulations of fire insurance, key rate system, applying the I.S.O. grading schedule and other topics are stressed. Relationship of insurance to modern business; principles of property and casualty insurance contracts; corporate contracts; corporate structure of insurance companies. No prerequisite.

**FIRE 239. FIRE SAFETY EDUCATION. (lecture 3, lab 0). CREDIT 3.**
A survey of physical, chemical, and electrical hazards and their relationship to loss of property and/or life. Study of codes, laws, problems, and cases. Detailed examination and study of the physical and psychological variables related to the occurrence of casualties. Safe storage, transportation and handling techniques are stressed to eliminate or control potential risks. No prerequisite.



**FIRE 241. FIRE FIGHTING TACTICS AND STRATEGY. (lecture 3, lab 0). CREDIT 3.**
Essential elements in analyzing the nature of fire and determining the requirements. Efficient and effective utilization of manpower, equipment and apparatus. Emphasis to be placed on pre-planning, study of conflagration problems, fire ground organization, problem solving related to fire ground decision-making and attack tactics and strategy. No prerequisite.

## FINE ARTS

**FINE ARTS 131, 132. INTRODUCTION TO THE ARTS I & II. (lecture 3, lab 0) CREDIT 3.**
For General College Students; The study of art, music and theatre arts through special projects and interaction with artists, actors, and musicians. 131 — Fall; 132 — Spring

## GEOGRAPHY

**GEOGRAPHY 131, WORLD GEOGRAPHY. (lecture 3, lab 0). CREDIT 3.**
An introduction to world geography in which consideration is given to social, economic, and political movements, as they are produced by location, climate, and natural resources. A basic course for teachers. Spring.

## GEOLOGY

**GEOLOGY 141. PHYSICAL GEOLOGY. (lecture 3, lab 3). CREDIT 4.**
A study of geological features and materials of the earth's crust; the processes modifying the earth's surface. Foundation course for all advanced studies in Geology. Required Field Trip. Fall, Summer I.

**GEOLOGY 142. HISTORICAL GEOLOGY. (lecture 3, lab 3). CREDIT 4.**
A study of the geological history of the earth revealed through stratification and fossils Course content basic for advanced studies in Geology. Required Field Trip. Spring, Summer II.

**GEOLOGY 241. MINERALOGY AND PETROLOGY. (lecture 3, lab 3). CREDIT 4.**
A study of the origin, mode of occurrence, crystallography and physical and chemical properties of igneous, sedimentary and metamorphic rock material. Prerequisites Geology 141 and Chemistry 141. Spring.

**GEOLOGY 242. INVERTEBRATE PALEONTOLOGY. (lecture 3, lab 3). CREDIT 4.**
The morphology, ecology, and geological significance of fossil invertebrates, their stratigraphic importance and application to geologic problems. Required Field Trip. Prerequisite Geology 142. Fall.

## GRAPHIC ARTS

**GRAPHIC ARTS 141. FUNDAMENTALS OF OFFSET PRINTING. (lecture 3, lab 3). CREDIT 4.**
An introduction of Offset Printing and study of basic machines and printing techniques. Fall.

**GRAPHIC ARTS 142. OFFSET CAMERA AND DARKROOM PROCEDURES (lecture 3, lab 3). CREDIT 4.**
Fundamentals of the photolithographic camera, chemicals, films, and darkroom techniques. Spring.

**GRAPHIC ARTS 143. FUNDAMENTALS OF PHOTOTYPESETTING. (lecture 3, lab3). CREDIT 4.**
An introduction to typography, typesetting techniques, information processing, and forms design. Machine operation develops skill, primarily in phototypesetting areas. Prerequisite: Basic typewriting skills or typewriting 131 or 111. Fall.

**GRAPHICS 144. OFFSET PRESS PLATEMAKING. (lecture 3, lab 3). CREDIT 4.**
Theory and practice in the technique of offset platemaking using metal and non-metal plates and processes. Prerequisite: GA 141 or approval of the Chairman. Spring.



**GRAPHIC ARTS 145. FUNDAMENTALS OF LAYOUT AND DESIGN. (lecture 3, lab 3). CREDIT 4.**
An introduction to the preparation of layout and design of materials used in offset printing, such as brochures, catalogs and bulletins. Fall.

**GRAPHIC ARTS 146. OFFSET PRESS OPERATION. (lecture 3, lab 3). CREDIT 4.**
A basic study of Offset Presses and operation, safety, chemical, and differences in offset principles. Prerequisite: GA 141. Spring.

**GRAPHIC ARTS 243. ADVANCED PHOTOTYPESETTING/TYPOGRAPHY. (lecture 3, lab 3). CREDIT 4.**
A continuing study of GA 143, leading to the actual design and phototypesetting of forms, business cards, letterheads, envelopes, booklets, brochures, flyers and advertising copy with legal and postal regulations. Finished camera-ready copy employing the use of prepared artwork. Copyfitting, coding, computer filing, and other sophisticated typesetting methods meeting the needs of the industry today. Prerequisite: GA 143, 145. Spring.

## HISTORY

**HISTORY 131. TEXAS HISTORY. (lecture 3, lab 0). CREDIT 3.**
A study of the history of Texas from early explorations to the present day. Fall, Spring.

**HISTORY 133. WESTERN CIVILIZATION. (lecture 3, lab 0). CREDIT 3.**
The development of western civilization from ancient times to the Age of Revolution. Credit by examination available. Fall.

**HISTORY 134. WESTERN CIVILIZATION. (lecture 3, lab 0). CREDIT 3.**
The development of western civilization from the Age of Revolution to the present day. Credit by examination available. Spring.

**HISTORY 135. UNITED STATES HISTORY. (lecture 3, lab 0). CREDIT 3.**
The development of American characteristics and nationality from the early European exploration to the preservation of the Union in 1865. Credit by examination available. Fall, Spring, Summer I, Summer II.

**HISTORY 136. UNITED STATES HISTORY. (lecture 3, lab 0). CREDIT 3.**
A study of the United States from the Civil War to the present time. Fall, Spring, Summer I, Summer II.

**HISTORY 136H. UNITED STATES HISTORY. (lecture 3, lab 0). CREDIT 3.**
Honors course in United States History open to qualified students. The course will comprise the analysis of selected topics, the student of conflicting interpretations, and independent student research relevant to United States History since 1865. Fall, Pre-Summer.

**HISTORY 236. INTRODUCTION TO EASTERN CIVILIZATION. (lecture 3, lab 0). CREDIT 3.**
Interdisciplinary background on India, China, and Japan including the development of the religious and ethical systems that characterize much of the Eastern way of life.

**HISTORY 237. HISTORY OF LATIN AMERICA. (lecture 3, lab 0). CREDIT 3.**
A study of Spanish and Portuguese colonial history from the period of discovery to independence. Prerequisite: History 135, History 136, or permission of instructor. Fall.

**HISTORY 238. SURVEY OF AFRO-AMERICAN HISTORY. (lecture 3, lab 0). CREDIT 3.**
The historical, economic, social, and cultural development of Afro-American people with particular emphasis upon their contribution to American society. Credit by examination available.

**HISTORY 239. HISTORY OF LATIN AMERICA. (lecture 3, lab 0). CREDIT 3.**
A study of the history of the Latin American Republics from Independence to the present. Prerequisite: History 135, History 136, or permission of instructor. Spring.



## HUMAN DEVELOPMENT

**HUMAN DEVELOPMENT 110. SKILLS IMPROVEMENT. (lecture 1, lab 0). CREDIT 1.**
A multi-dimensional approach to aid the college student in developing those skills which will lead to a greater probability of success in his college life and/or career. The course is built around training in skills to increase college academic performance with support provided by diagnostic testing, individual appraisal, motivational counseling and career guidance. Fall, Spring.

**HUMAN DEVELOPMENT 131. INTRODUCTION TO HUMAN BEHAVIOR. (lecture 3, lab 0). CREDIT 3.**
A course covering, study skills, problem solving techniques, career decision making, goal setting, and personal awareness. Designed to assist students who are not quite comfortable with college work.

**HUMAN DEVELOPMENT 132. HUMAN POTENTIAL SEMINAR. (lecture 3, lab 0). CREDIT 3.**
A seminar course, the intent of which is to acquire better self-understanding. The process takes place through group and/or couples interactions. Fall, Spring, Summer I.

**HUMAN DEVELOPMENT 135. EDUCATIONAL AND CAREER PLANNING. (lecture 3, lab 0). CREDIT 3.**
A course in human development designed to meet the needs of individuals desiring career directions and vocational exploration. It is for students who are undecided as to what college major to pursue or what occupation will satisfy their life goal. Areas of major emphasis include personal awareness, occupational information, and goal-setting/decision-making.

**HUMAN DEVELOPMENT 239. ADVANCED HUMAN POTENTIALS SEMINAR (lecture 3, lab 0). CREDIT 3.**
A seminar course designed for the student has gone through the basic course (HD-132). Expansion and maintenance of a positive self image, conflict control and life style planning are stressed. Fall, Spring.

## HUMANITIES

**HUMANITIES 231. MAN IN A DYNAMIC WORLD. (lecture 3, lab 0). CREDIT 3.**
Profiles of civilizations viewed through art, music, customs, literature, philosophy, architecture, and theatre. Spring.

**HUMANITIES 232. MAN IN A TECHNOLOGICAL SOCIETY. (lecture 3, lab 0). CREDIT 3.**
The study of significant technological developments and how society has responded through the arts and humanities. Fall.

## INDUSTRIAL INSTRUMENTATION

**INDUSTRIAL INSTRUMENTATION 241. INDUSTRIAL INSTRUMENTATION. (lecture 2, lab 4). CREDIT 4.**
Broad introduction to use of industrial electro-mechanical and electronic circuits and equipment. Analysis of sensing devices for detecting changes in pressure, temperature, humidity, sound, light, electricity, the associated circuitry, and indicating and recording devices. Prerequisite: EI 243. Fall.

**INDUSTRIAL INSTRUMENTATION 242. INDUSTRIAL INSTRUMENTATION. (lecture 1, lab 2). CREDIT 4.**
A broad introduction to electronic industrial instrumentation. Analysis of sensing devices for detecting changes in flows, pressures, temperatures and associated circuitry. Controller applications and the effects of their internal functions on process control. Analyzer application to process control, and interfacing with computers. Prerequisite: EI 144, EI 245 and Ind. Inst. 241. Spring.



## INSURANCE

**INSURANCE 231. PRINCIPLES OF INSURANCE. (lecture 3, lab 0). CREDIT 3.**
A survey of basic insurance principles pertaining to life, health, business, and social insurance involving aspects of contracts, coverage, rates, and consumer needs.

## JOURNALISM

**JOURNALISM 131. WRITING FOR THE MASS MEDIA. (lecture 3, lab 3). CREDIT 3.**
Basic techniques and fundamentals of fact-gathering and writing skills needed for journalism and advertising in both print and electronic media. Production of the student newspaper is included. Fall.

**JOURNALISM 132. COPY EDITING AND PRODUCTION. (lecture 2, lab 4). CREDIT 3.**
Introduction to copy editing for printed media which includes selection, processing, and display of news and information; studies in reader interest, readability, clarity, verification and style. Emphasis on fundamentals of copy preparation including headlines, rewrites and outlines. Production of student newspaper is included. Prerequisite: J131 or approval of advisor. Spring.

**JOURNALISM 211. FIREWHEEL LABORATORY. (lecture 0, lab 3). CREDIT 1.**
Participation in COM's oral history magazine. Production and writing for the magazine are emphasized. Non-Journalism majors are encouraged to enroll. May be repeated for credit. Fall, Spring.

**JOURNALISM 231. NES REPORTING. (lecture 3, lab 3). CREDIT 3.**
Advanced development of skills in gathering and writing for print media. Production of student newspaper or concurrent internship on local newspaper or magazine required as part of laboratory work. Prerequisites: J132 or J131 and approval of advisor. Summer.

**JOURNALISM 232. FEATURE WRITING. (lecture 3, lab 3). CREDIT 3.**
Procedure in gathering material for feature stories with emphasis on newspaper, magazine articles. Studies of reader interest, appeal; study of feature story structure; development of style by practical experience, marketing the finished product. Production of student newspaper or concurrent internship on local newspaper is required. Prerequisites: J132 or J131 and approval of advisor. Summer.

## LABOR STUDIES

**LABOR STUDIES 131. SURVEY OF LABOR RELATIONS. (lecture 3, lab 0). CREDIT 3.**
This course introduces you to the field of labor relations and provides you with an overview of those topics which will be studied in greater depth in the other six labor studies courses.

**LABOR STUDIES 231. AMERICAN LABOR HISTORY. (lecture 3, lab 0). CREDIT 3.**
This is a course about workers and working conditions in America from colonial times to the present. Topics will include the origins of the American working class, the formation of trade unions and the AFL, industrial conflicts, the immigrant experience the Great Depression, formation of the CIO, and public sector unionism.

**LABOR STUDIES 232. STRUCTURE AND FUNCTION OF UNIONS. (lecture 3, lab 0). CREDIT 3.**
This course will examine the different structures and functions of unions in the United States and will provide you with a better understanding of your own union, of how unions are governed, how they service their membership and the role that product markets, and geography have played in the development of unions. Topics will include local unions, multi-union organization, union administration and finance, political action, membership participation and organizational growth and change.



**LABOR STUDIES 233. ECONOMICS OF COLLECTIVE BARGAINING. (lecture 3, lab 0). CREDIT 3.**
The study of economics that deals with those issues which directly affect you as a worker and your job can be exciting, interesting and provide meaningful and useful knowledge which enables you to understand the terms and conditions of a negotiated collective bargaining agreement. Topics will include bargaining structures, economics issues, standards for wage bargaining, pensions, job security and inflation.

**LABOR STUDIES 234. CONTRACT ADMINISTRATION. (lecture 3, lab 0). CREDIT 3.**
Job rights that are negotiated by labor and management at the bargaining table will not be fully enjoyed unless the contract is enforced on a day-to-day basis. Knowing how contracts are administered promotes worker unity and increases the prospects of improved job rights in future contracts. Topics will include the jobs of stewards, grievance procedures, arbitration, the duty of fair representation and contract language interpretation.

**LABOR STUDIES 235. LABOR LAW. (lecture 3, lab 0). CREDIT 3.**
Public policy dictates the arena in which labor relations are conducted. An understanding of the laws which affect this relationship will help you understand the development and application of labor law and the ability to more effectively interpret the proposed legislative issues that can help or hinder your job and your work. Topics will include: National Labor Relations Act, representation issues, enforcement of collective bargaining agreements, internal union affairs, anti-discrimination in employment law and protective legislation.

**LABOR STUDIES 236. LABOR IN THE TWENTIETH CENTURY. (lecture 3, lab 0). CREDIT 3.**
Labor Relations in other countries are conducted in ways that are often different from those in the United States. The ability to compare various labor relations systems will enable you to both better understand and more effectively support programs that will improve your own job rights. The major focus in this course will be on Western Europe and will also include Canada, Latin America, Africa and Asia.

## MANAGEMENT

**MANAGEMENT 131. INTRODUCTION TO MANAGEMENT. (lecture 3, lab 0). CREDIT 3.**
A planned approach to the introductory study of management utilizing individual study and small group interactivities. Topics include business and the economic environments; management of human, material, financial, information, and control resources; marketing management; and management within a legal, governmental, and social framework.

**MANAGEMENT 132. PSYCHOLOGY OF MANAGEMENT. (lecture 3, lab 0). CREDIT 3.**
Study of psychological concepts involved in management with emphasis on the facilitating functions in a business enterprise.

**MANAGEMENT 231. PRINCIPLES OF MANAGEMENT. (lecture 3, lab 0). CREDIT 3.**
A study of modern management philosophy and decision-making processes utilizing the case study method. An insight into the management functions of planning, organizing, directing and controlling. Prerequisite: 9 semester hours of business including Introduction to Business 131 or Management 131 or approval of Chairperson, Division of Business.

**MANAGEMENT 232. HUMAN RESOURCE MANAGEMENT. (lecture 3, lab 0). CREDIT 3.**
A study of the broad functions which management must perform in order to maintain effective and enriched employees; emphasis on the management functions, structures, and principles which are significant in personnel interactions and management. Prerequisite: Management 231.



**MANAGEMENT 234. LOGISTICS MANAGEMENT. (lecture 3, lab 0). CREDIT 3.**
An overview of the logistic management process exploring the decisions involved in transportation, production scheduling, inventory planning, and material handling. Prerequisite: Management 231.

**MANAGEMENT 235. BUSINESS POLICY. (lecture 3, lab 0). CREDIT 3.**
An analysis and study of the decision process confronting managers. Emphasis on the total organization and interrelationships of decisions with the various functional areas both singular and in totality. Prerequisite: Management 231.

**MANAGEMENT 236. SMALL BUSINESS MANAGEMENT. (lecture 3, lab 0). CREDIT 3.**
An analysis and examination of the problems which are presently confronting small business and are unique to small operations. An integration of marketing and management principles with the small scale business operation. Prerequisite: Management 231.

**MANAGEMENT COOPERATIVE EDUCATION 241. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Approval of Chairperson.

**MANAGEMENT COOPERATIVE EDUCATION 242. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 241 and approval of Chairperson.

**MANAGEMENT COOPERATIVE EDUCATION 243. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 242 and approval of Chairperson.

## MARINE MAINTENANCE

**MARINE PRACTICE 131. (lecture 3, lab 0). CREDIT 3.**
Study of Marine Safety with emphasis on safety in the transportation and operation of boats, trailers, and other marine gear. The course includes procedures and policies for shop operation and service. Fall.

**MARINE ENGINES 141. (lecture 1, lab 5). CREDIT 4.**
Study of the electrical systems, fuel systems, the combustion cycle, shifting mechanisms, lubricating systems, power tilt systems, an introduction to the maintenance of the power head for Mercury, Evinrude, and Johnson outboards. Basic tune-up processes. Spring, Fall

**MARINE ENGINES 142. (lecture 1, lab 5). CREDIT 4.**
Study of the disassembly and reassembly of outboard engines. Includes the testing of mechanical condition, cleaning and inspection, cylinders and cylinder heads, shafts and bearings and lower unit gear train. Advanced tune-up processes. Prerequisite: MAR 141. Spring, Fall.

**MARINE ELECTRICAL 143. (lecture 2, lab 4). CREDIT 4.**
Study of Coast Guard rules and regulations encompassing electrical codes, inspection methods, and maintenance. Emphasis placed on 110, 220 Volts AC, and 12, 24, and 32 Volts DC systems. Ignition and power distribution. Prerequisite: EL 143. Spring.

**MARINE HULL MAINTENANCE 144. (lecture 2, lab 4). CREDIT 4.**
Study of the repair of fiberglass, wood, metal, and cement hulls. The course covers preparation, repair and matching color of different construction materials. Spring.



**MARINE ENGINES 241. (lecture 2, lab 4). CREDIT 4.**
Study of four-cycle gasoline inboard engines and outdrives. Emphasis is placed on troubleshooting, cleaning and inspection, advanced tune-up procedure, overhaul, and an introduction to shafts, bearings and related drive train mechanics. Prerequisites: MAR 141 or permission of the instructor. Spring, Fall.

**MARINE GEAR TRAINS 243. (lecture 2, lab 4). CREDIT 4.**
Study of maintenance and repair of outdrives, transmissions, marine gear, shaft bearings, power take-offs, wenches, and propellers. Fall.

## MARKETING

**MARKETING 131. PRINCIPLES OF SALESMANSHIP. (lecture 3, lab 0). CREDIT 3.**
Focus on the planning, organization, procedures, operation, and analysis of the selling function.

**MARKETING 231. PRINCIPLES OF MARKETING. (lecture 3, lab 0). CREDIT 3.**
A study of the economic and ecological impact of marketing in the business organization, using the case study method. An inquiry into the marketing strategies and the interfacing of management policies. Prerequisite: Introduction to Business 131 or Management 131 or approval of Chairperson, Division of Business.

**MARKETING 233. RETAIL MANAGEMENT. (lecture 3, lab 0). CREDIT 3.**
An overview of retailing management emphasizing the concepts and techniques underlying the planning and control of the merchandising process. Prerequisite: Marketing 231.

**MARKETING 234. PRINCIPLES OF ADVERTISING. (lecture 3, lab 0). CREDIT 3.**
A study of the policies and practices of advertising and sales promotion. Emphasis is on market analysis, planning, creation and use of the various media. Prerequisite: Marketing 231.

**MARKETING 235. PRINCIPLES OF SALES MANAGEMENT. (lecture 3, lab 0). CREDIT 3.**
The development of the sales management skills, including in-store and direct sales management techniques and procedures. Other areas include sales motivation, forecasting, policies, and training. Prerequisite: Marketing 231.

**MARKETING 236. DISTRIBUTION. (lecture 3, lab 0). CREDIT 3.**
Exploration of the processes involved with inventory planning, maintenance and control, materials handling and processing, and creating a distribution system. Prerequisite: Management 231.

**MARKETING COOPERATIVE EDUCATION 241. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Approval of Chairperson.

**MARKETING COOPERATIVE EDUCATION 242. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 241 and approval of Chairperson.

**MARKETING COOPERATIVE EDUCATION 243. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 242 and approval of Chairperson.



# MATHEMATICS

**MATHEMATICS 111. POSOLOGY (lecture 2, lab 0). CREDIT 1.**
The science and study of drug dosage calculation.

**MATHEMATICS 130. ARITHMETIC FOR COLLEGE STUDENTS. (lecture 4.5, lab 0). CREDIT 3.**
Whole numbers, common and decimal fractions, percentage, and ratio and proportion. Prerequisite: COM Math appraisal score greater than 16. Fall, Spring, Summer I, Summer II.

**MATHEMATICS 131. FUNDAMENTALS OF MATHEMATICS. (lecture 4.5, lab 0). CREDIT 3.**
Common and decimal fractions, percentages, interest, ratio and proportion, English and metric systems, approximate and signed numbers, converting units, introduction to algebra and geometry. Prerequisite: Math 130 or COM Math appraisal score greater than 16. Fall, Spring, Summer I, Summer II.

**MATHEMATICS 132. ALGEBRA. (lecture 4.5, lab 0). CREDIT 3.**
Sets, real number system, exponents and radicals, polynomials, rational expressions, equations, inequalities, graphing, systems of equations and inequalities. Prerequisite Mathematics 131 or COM Math Appraisal score greater than 31. Fall, Spring, Summer I, Summer II.

**MATHEMATICS 133. COLLEGE ALGEBRA. (lecture 4.5, lab 0). CREDIT 3.**
Numbers, polynomials, solution sets of equations, inequalities, systems functions and relations, theory of equations, exponential and logarithmic functions. Prerequisite: Math 132 or COM Math Appraisal score greater than 47. Credit by examination available. Fall, Spring, Summer I, Summer II.

**MATHEMATICS 134. TRIGONOMETRY. (lecture 4.5, lab 0). CREDIT 3.**
Trigonometric functions and their applications, identities, equations, complex numbers, Prerequisite: Mathematics 133 or COM Math Appraisal score greater than 61. Credit by examination available. Fall, Spring, Summer I, Summer II.

**MATHEMATICS 135. PRECALCULUS. (lecture 4.5, lab 0). CREDIT 3.**
A concise study of functions and their graphs including linear, quadratic, polynomial, rational, trigonometric, exponential and logarithmic functions. Also a study of the conic sections and their graphs. Prerequisite: Mathematics 134 COM Math Appraisal score greater than 77. Fall, Spring, Summer I, Summer II.

**MATHEMATICS 136. INTRODUCTION TO PROBABILITY AND STATISTICS. (lecture 3, lab 0). CREDIT 3.**
Measures of central tendency and dispersion, elementary probability theory, random variables, binomial and normal distributions, problems of estimation, hypotheses tests, with applications in the management, social, and biological sciences. Prerequisite: Mathematics 132 or Math Appraisal score greater than 47. Fall, Spring.

**MATHEMATICS 137. FINITE MATHEMATICS. (lecture 3, lab 0). CREDIT 3.**
Sets, counting, probability, relations, functions, matrices, linear inequalities, and introduction to linear programming with applications in the management, social, and biological sciences. Prerequisite: Mathematics 133 or Math Appraisal score greater than 59. Fall, Spring.

**MATHEMATICS 138. ANALYSIS. (lecture 3, lab 0). CREDIT 3.**
Relations, functions, coordinate systems, sequences, limits, summation, mathematical induction, series, differentiation and integration of elementary functions, with applications in the management, social and biological sciences. Prerequisite: Mathematics 137. Spring.

**MATHEMATICS 139. GEOMETRY. (lecture 3, lab 0). CREDIT 3.**
Geometric proofs, transformations, and constructions. Measurement, congruence, similarity in the Euclidean plane and space. This course is intended for students who graduated from high school without a course in geometry or for students who need a review of high school geometry. Prerequisite: Math 131 or COM Math Appraisal score greater than 31.



**MATHEMATICS 235. MATHEMATICS FOR ELEMENTARY TEACHERS I. (lecture 3, lab 0). CREDIT 3.**
A systematic presentation of contemporary mathematics for students majoring in elementary education. Topics include elementary set theory and relations, structure and properties of the real number system including the history and properties of systems of numeration, topics in elementary algebra and the metric system. Prerequisite: Math 132 or COM Math Appraisal score greater than 45. Fall.

**MATHEMATICS 236. MATHEMATICS FOR ELEMENTARY TEACHERS II. (lecture 3, lab 0). CREDIT 3.**
A continuation of a systematic presentation of contemporary mathematics for students majoring in elementary education. Topics include elementary number theory and the concept, nature and examples of mathematical systems including groups, rings, integral domains and fields, intuitive geometry and topology, and elementary applied probability and statistics. Prerequisite: Math 235. Spring.

**MATHEMATICS 237. LINEAR ALGEBRA. (lecture 3, lab 0). CREDIT 3.**
Selected topics from systems of Linear Equations and Matrices, determinants, vectors in 2-space and 3-space, general vector spaces, linear transformations and applications. Prerequisite Mathematics 241 or equivalent. Fall.

**MATHEMATICS 241. CALCULUS I. (lecture 4.5, lab 0). CREDIT 4.**
Limits, Continuity, derivatives and differentials of algebraic functions and applications, introduction to the definite integral, applications of the definite integral. Prerequisite Math 135 or equivalent or COM Appraisal Score greater than 92. Credit by examination available. Fall, Spring, and Summer I.

**MATHEMATICS 242. CALCULUS II. (lecture 4.5, lab 0). CREDIT 4.**
Applications of the definite integral, differentiation and integration of transcendental functions, techniques of integration, indeterminate forms, improper integrals, introduction to infinite series. Prerequisite Math 241. Fall, Spring, Summer II.

**MATHEMATICS 243. CALCULUS III. (lecture 4.5, lab 0). CREDIT 4.**
Three-dimensional spaces, vector functions in three-dimensional spaces, functions of two or more variables, partial derivatives, and multiple integrals. Prerequisite Math 242. Spring.

**MATHEMATICS 234. DIFFERENTIAL EQUATIONS. (lecture 3, lab 0). CREDIT 3.**
Analytical solution of ordinary differential equations with applications. Prerequisite: Mathematics 242 or equivalent. Spring.

## MECHANICS

**MECHANICS 131. MANUFACTURING MATERIALS AND PROCESSES. (lecture 3, lab 0). CREDIT 3.**
A study of non-metals, ferrous and non-ferrous materials, their application and fabrication and their applications to the manufacture of automatic machines will be covered in theory and materials testing. Fall

## MUSIC

### *APPLIED*

The music fee for all applied individual music courses is $20.00 per semester hour.

**MUSIC P 111, 112, 211, 212. INDIVIDUAL PIANO. (lecture 1, lab 0). CREDIT 1 EACH COURSE.**
For piano minors. One-half hour individual instruction per week. Minimum practice five hours each week. Prerequisite: Mus CP 116 or instructor's approval. Fall, Spring.



**MUSIC P 121, 122, 221, 222. INDIVIDUAL PIANO. (lecture 1, lab 1). CREDIT 2 EACH COURSE.**
For piano majors only. One hour individual instruction per week. Minimum practice 10 hours each week. Prerequisite: Approval of instructor. Fall, Spring.

**MUSIC V 111, 112, 211, 212. INDIVIDUAL VOICE. (lecture 1, lab 0). CREDIT 1 EACH COURSE.**
For voice minors. One-half hour individual instruction per week. Minimum practice five hours each week. Prerequisite: Mus CV 114 or approval of instructor. Fall, Spring.

**MUSIC V 121, 122, 221, 222. INDIVIDUAL VOICE. (lecture 1, lab 1). CREDIT 2 EACH COURSE.**
For voice majors only. One hour individual instruction per week. Minimum practice 10 hours each week. Prerequisite: Approval of instructor. Fall, Spring.

**MUSIC BR 111, 112, 211, 212. INDIVIDUAL BRASS INSTRUMENT. (lecture 1, lab 0). CREDIT 1 EACH COURSE.**
For brass instrument minors. One-half hour individual instruction per week. Minimum practice five hours each week. Prerequisite: Approval of instructor. Fall, Spring.

**MUSIC BR 121, 122, 221, 222. INDIVIDUAL BRASS INSTRUMENT. (lecture 1, lab 1). CREDIT 2 EACH COURSE.**
For brass instrument majors. One hour individual instruction per week. Minimum practice 10 hours each week. Prerequisite: Approval of instructor. Fall, Spring.

**MUSIC WW 111, 112, 211, 212. INDIVIDUAL WOODWIND INSTRUMENT. (lecture 1, lab 0). CREDIT 1 EACH COURSE.**
For woodwind instrument minor. One-half hour individual instruction per week. Minimum practice five hours each week. Prerequisite: approval of instructor. Fall, Spring.

**MUSIC WW 121, 122, 221, 222. INDIVIDUAL WOODWIND INSTRUMENT. (lecture 1, lab 1). CREDIT 2 EACH COURSE.**
For woodwind instrument major. One hour individual instruction per week. Minimum practice 10 hours each week. Prerequisite: Approval of instructor. Fall, Spring.

## *ENSEMBLES*

**MUSIC CH 110. MAINLAND CHORALE. (lecture 0, lab 3). CREDIT 1.**
Enrollment in this chorale is open to all students. The course is designed to provide the student with a variety of larger choral works. Course may be repeated for credit up to four hours. Fall.

**MUSIC BD 111. LAB BAND. (lecture 0, lab 4). CREDIT 1.**
This course is designed for students desiring experience and instruction in the techniques of modern jazz. Course may be repeated for credit up to four hours. Prerequisite: approval of instructor. Fall, Spring.



**MUSIC CH 112. COM SINGERS. (lecture 0, lab 4.5). CREDIT 1.**
Enrollment in the Singers is open to all students. The Chorus performs a wide variety of music and presents several public programs each semester. Course may be repeated for credit for a total of four hours. Fall, Spring.

**MUSIC CH 113. CHORAL ENSEMBLE. (lecture 0, lab 3). CREDIT 1.**
The Choral Ensemble is a select group of singers and instrumentalists for performance of popular and jazz styles of music. Course may be repeated for credit up to four hours. Prerequisite: Audition and approval of instructor. Fall, Spring.

**MUSIC BD 114. MIXED CHAMBER ENSEMBLE. (lecture 0, lab 3). CREDIT 1.**
This course is open to students who have previous experience in high school or college band or orchestra. A wide variety of instrumental chamber music will be rehearsed according to available instrumentation. Fall, Spring.

**MUSIC OP 115. OPERA WORKSHOP. (lecture 0, lab 3). CREDIT 1.**
Practical experience in producing portions of or complete operas including music, acting, and staging. Spring.

## *CLASS VOICE AND PIANO*

**MUSIC CV 113, 114, 213, 214. CLASS VOICE. (lecture 0, lab 3). CREDIT 1.**
This course is designed for voice minors and non-music majors interested in improving their singing voice. Class instruction in the fundamentals of correct breathing, tone production and diction. 113, 213 Fall; 114, 214 Spring.

**MUSIC CP 115, 116, 215, 216. CLASS PIANO. (lecture 3, lab 0). CREDIT 1.**
Class instruction in the fundamentals of keyboard technique for beginning piano students. To be taken concurrently with Mus TH 127, 128. 115, 215 Fall; 116, 216 Spring.

## *MUSIC*

**MUSIC AP 111. HISTORY OF POPULAR MUSIC. (lecture 1, lab 0). CREDIT 1.**
A look at American popular music from Colonial times to the present: Dixieland, Tin Pan Alley, Jazz, Advent of Recorded Music, Screen and Swing, musical comedy, radio and television, rock and roll, country and western, and from Broadway to Nashville. This course is designed for the non-music major with no previous musical training. Outside listening is required. Spring.

**MUSIC FD 131. FUNDAMENTALS OF MUSIC. (lecture 3, lab 2). CREDIT 3.**
An elementary course in the Fundamentals of Music; notation, scales, intervals, keys, primary chords, and basic rhythmic patterns. Emphasis on the skills necessary for teaching elementary classroom music or for students who need fundamental skills previous to enrolling in Freshman Theory. Spring, Summer II.

**MUSIC AP 133. INTRODUCTION TO THE WORLD OF MUSIC. (lecture 3, lab 0). CREDIT 3.**
This course is designed for students with no previous training in music to explore the meaning and forms of music: classical, jazz, and folk. The emphasis is on learning how to listen. Fall, Summer I.

**MUSIC LT 137, 138. MUSIC LITERATURE I & II. (lecture 3, lab 2). CREDIT 3.**
A survey of the principal forms, periods of style, and composers of music through lectures, and laboratory listening assignments. Required for music majors and minors. 137 Fall; 138 Spring.

## *THEORY*

**MUS 111. IMPROVISATION. (lecture 0, lab 3). CREDIT 1.**
This course is designed to provide the student with the fundamental skills required to develop an improvised solo. Course may be repeated once for credit. Fall, Spring.



**MUSIC SS 125, 126. SIGHT SINGING AND EAR TRAINING I & II. (lecture 2, lab 1). CREDIT 2.**
Sight singing and ear training study that parallels study in Music Theory I & II. To be taken concurrently with Mus TH 127 and 128. 125 Fall; 126 Spring.

**MUSIC TH 127. MUSIC THEORY I. (lecture 2, lab 1). CREDIT 2.**
Study of the Fundamentals of Traditional Harmony. Required for music majors. Prerequisite: Mus FD 131 or approval of instructor. Also concurrent enrollment in Mus SS 125 and Mus CP 115. Fall.

**MUSIC TH 128. MUSIC THEORY II. (lecture 2, lab 1). CREDIT 2.**
Continuation of Music TH 127 including harmonic progressions and melody harmonizations using all diatonic triads and the dominant seventh chords. Prerequisite: Mus TH 127. Also concurrent enrollment in Mus SS 126 and Mus CP 116. Spring.

**MUSIC SS 225, 226. SIGHT SINGING AND EAR TRAINING III, IV. (lecture 2, lab 1). CREDIT 2.**
Singing modulations to closely related keys and modal melodies. A study of unusual and mixed meters, remote modulation and altered chords. Prerequisite: Mus SS 126. To be taken concurrently with Mus TH 227 and 228. 225 Fall; 226 Spring.

**MUSIC TH 227. MUSIC THEORY III. (lecture 2, lab 1). CREDIT 2.**
Continuation of Music Theory II including part-writing of figured bass exercises utilizing all diatonic seventh chords and modulation. Prerequisite: Mus TH 128. Also concurrent enrollment in Mus SS 225. Fall.

**MUSIC TH 228. MUSIC THEORY IV. (lecture 2, lab 1). CREDIT 2.**
Continuation of Music Theory III with extended harmonic considerations. Prerequisite: Mus SS 225 and Mus TH 227. Spring.

# NURSING

**NURSING 111, 112; 211, 212. LABORATORY SKILLS.**
Designed as corequisite study with appropriate nursing course. The open laboratory, competency base approach to learning basic nursing skills is utilized. Individualized instruction, self pacing and mastery learning are emphasized. 111, 211-Fall; 112, 212-Spring.

**NURSING 131. MEDICAL TERMINOLOGY. (lecture 3, lab 0). CREDIT 3.**
This course introduces the student to medical terminology. Particular emphasis will be placed on the basic structure of medical words. Word roots, prefixes, and suffixes provide the key to understanding the terminology.

**NURSING 132. CONCEPTS OF FAMILY NURSING. (lecture 4, lab 12). CREDIT 3. (8 weeks)**
A study of health care based on the reproductive cycle. The normal and abnormal phases of pregnancy are presented. Emphasis is placed on family-centered care and on health teaching. Prerequisites: BIO 143, BIO 144, PSY 231, PSY 233, NU 181, NU 232. Spring.

**NURSING 133. CONCEPTS OF BEHAVIOR DISRUPTIONS. (lecture 4, lab 12). CREDIT 3. (8 weeks)**
An indepth study of factors that disrupt behavioral homeostasis. Emphasis is placed on providing care in various settings utilizing a variety of therapeutic interventions. Prerequisites: BIO 143, BIO 144, PSY 231, PSY 233, NU 181, NU 232. Spring.

**NURSING 181. CONCEPTS OF HOMEOSTASIS. (lecture 4, lab 16). CREDIT 8.**
Basic concepts of homeostasis are introduced. This is the basic course upon which all other courses build and expand. It is designed to provide an understanding of the role of the associate degree nurse in the health field. The problem solving process, selected nursing skills, and principles underlying basic human needs of various age groups are introduced. Principles of pharmacology, diet therapy, ethics, legal aspects, and nursing history are introduced and integrated throughout the curriculum. Prerequisite: Admission to Associate Degree Nursing Program. Prerequisites: Bio 143, Psy 231, Psy 233. Fall.



**NURSING 241. CONCEPTS OF HOMEOSTATIC DISRUPTIONS. (lecture 8, lab 16). CREDIT 4.**
The concepts of this course focus on the application of knowledge, skills, and interpersonal relationships related to comprehensive nursing care of clients of all age groups with physical and emotional needs. This course introduces concepts of nine factors considered disruptive to homeostasis. The biophysychosocial aspects of these disruptive concepts will be applied by students in real or simulated situations. Prerequisites: BIO 143, 144, NU 132, NU 133. Summer I.

**NURSING 282. HOMEOSTATIC DISRUPTIONS I. (lecture 4, lab 16). CREDIT 8.**
Four of the nine disruptive factors will be discussed with accompanying study of diseases (emphasizing the more common diseases) which are illustrative of each disruptive factor. An in-depth study of nursing care of the child and adult in complex health problems are associated with guided learning experiences. These experiences are directed towards increasing the student's knowledge and proficiencies in various clinical settings. Prerequisites: NU 241. Fall.

**NURSING 283. HOMEOSTATIC DISRUPTIONS II. (lecture 4, lab 16). CREDIT 8.**
The remaining disruptive factors will be covered in the same manner as in Nursing 282. Prerequisites: NU 282. Spring.

**NURSING 223. PROFESSIONAL DEVELOPMENT. (lecture 2, lab 0). CREDIT 2.**
This course encompasses trends in nursing with emphasis on ethical, historical, legal, professional and social aspects of nursing. Responsibility of the individual for the standards of the profession and various professional opportunities available to associate degree graduates will be discussed. Prerequisites: NU 282 or consent of the instructor. Spring.

**NURSING 231. MANAGEMENT OF NURSING CARE. (lecture 3, lab 3-0). CREDIT 3.**
A course designed to assist the graduate nurse to assume the responsibilities of the leadership role in team nursing and charge positions. Principles of management as they apply to the nursing situation will be the basis of the course. Topics such as patient assignments, personnel relations, time scheduling, and personnel evaluation will be discussed. Prerequisites: RN, LVN, or consent of the instructor.

**NURSING 232. PHARMACOLOGY. (lecture 3, lab 3). CREDIT 3.**
The introductory units of the course focus on concepts of drugs and solution calculations, medication administration, drug transportation throughout the body, drug actions and effects on body structure and functions, and excretion from the body. The latter units emphasize an indepth study of antibiotics and the central nervous system drug classifications. Utilization of authoritative sources of information pertaining to drugs (i.e. P.D.R., Hospital Formulary, and Drug Handbooks) are the resources for this course. Simulated and Clinical laboratory facilities are utilized to transfer concepts to the application level. A comprehensive final exam and 100% mastery on dosages and solutions are required. Prerequisite Math 131 or COM Appraisal Test with an equivalent of Math 132. Co-requisite NU 181.

## NUTRITION

**NUTRITION 133. FOOD AND NUTRITION. (lecture 3, lab 0). CREDIT 3.**
Stresses fundamental Principles of human nutrition; physiological bases for nutrient needs for all ages; factors to consider in meeting the needs for individuals and groups. Fall, Spring.

## OFFICE ADMINISTRATION



**OFFICE ADMINISTRATION 241. WORD PROCESSING PRACTICES AND PROCEDURES. (lecture 3, lab 3). CREDIT 4.**
An examination of the word processing system including an introduction to word processing — its concepts and structures, an overview of the five steps in the word processing cycle, the techniques and modern equipment used, computer and information integration, the procedure to analyze and implement new systems and equipment, word processing careers, machine transcription, basic language skills and proofreading, and mastery of text-editing typewriters. Prerequisite: Office Procedures 142 or equivalent or approval of Chairperson, Division of Business.

**OFFICE ADMINISTRATION 232. OFFICE MANAGEMENT. (lecture 3, lab 0). CREDIT 3.**
A study of problems and projects involving application of skill techniques and human relations related to office managers' responsibilities, such as effective work supervision and training techniques, work simplification, the work environment; requisitioning and maintaining office supplies; communications media; correspondence, use of business libraries and reference materials; handling executive travel; conferences and meetings; and equipment selection. Formerly Secretarial Administration 242. Prerequisite: Office Administration 241 or equivalent.

**OFFICE ADMINISTRATION 233. INFORMATION AND RECORDS MANAGEMENT. (lecture 3, lab 0). CREDIT 3.**
A study of principles and policies affecting creation, protection, retrieval, preservation, and control of records.

## OFFICE PROCEDURES

**OFFICE PROCEDURES 142. OFFICE PROCEDURES (lecture 3, lab 1.5). CREDIT 4.**
Study of modern office procedures. The student will acquire skills in machine dictation and transcription, telephone and office etiquette, reprographics, use of electric and automatic typewriters, travel arrangements and other current office practices. Co-requisite: Typing 132 or the equivalent or approval, Chairperson, Division of Business.

**OFFICE PROCEDURES 231. OFFICE PROCEDURES (lecture 3, lab 0). CREDIT 3.**
A study of machine transcription techniques, specialized vocabulary, dictation techniques, in-basket activities, and usage/punctuation.

## ORIENTATION

**ORIENTATION 110. CAREER DECISIONS FOR WOMEN. (lecture 1, lab 0). CREDIT 1.**
A course designed to assist women in clarifying career and educational objectives and the values inherent in them. By providing information and structured exercises you will be aided in mapping out career and educational routes of your choice.

**ORIENTATION 113. SURVIVING IN COLLEGE. (lecture 1, lab 0). CREDIT 1.**
This course is designed to help those persons preparing to be a successful college student. It anticipates and answers a broad spectrum of questions and helps you solve the problems which will be faced.

The following one-credit hour courses are designed to provide an intense study of occupations within specific fields of work. It will include an opportunity to assess personal characteristics needed for successful career entry; to clarify and/or develop your realistic career goals; to develop an appropriate career plan and an effective educational strategy to actualize your objectives.

**ORIENTATION 111. EXPLORING CAREERS IN EDUCATION. (lecture 1, lab 0). CREDIT 1.**
The intent of this course is to provide those services and objectives aforementioned for students planning careers in *Education* or *related fields*.

**ORIENTATION 112. EXPLORING CAREERS IN SOCIAL SERVICE. (lecture 1, lab 0). CREDIT 1.**
The intent of this course is to provide those services and objectives aforementioned for students planning careers in *Social Service* or *related fields* such as social work, psychology, rehabilitation, correctives, counseling, personnel, etc.



**ORIENTATION 114. EXPLORING CAREERS IN ALLIED HEALTH. (lecture 1, lab 0). CREDIT 1.**
The intent of this course is to provide those services and objectives aforementioned for students considering alternative careers in nursing in *Allied Health* fields such as physical therapy, occupational therapy, X-Ray technician, medical technician, Respirative therapy.

## PHILOSOPHY

**PHILOSOPHY 231. INTRODUCTION TO PHILOSOPHY. (lecture 3, lab 0). CREDIT 3.**
An examination of some of the main issues in western philosophy with an emphasis on exploring the contemporary conflicts involved in the open versus the closed cultures. Open to all students. Fall.

**PHILOSOPHY 232. INTRODUCTION TO ETHICS. (lecture 3, lab 0). CREDIT 3.**
A critical introduction to the theories and principles used in appraising human behavior. Spring.

**PHILOSOPHY 233. PHILOSOPHY OF RELIGION. (lecture 3, lab 0). CREDIT 3.**
A study of man's religious concepts and experience. Prerequisite: Philosophy 231.

## PHOTOGRAPHY — (See Art PH, Page 101.)

## PHYSICAL EDUCATION

**PHYSICAL EDUCATION 133. INTRODUCTION TO PHYSICAL EDUCATION. (lecture 3, lab 0). CREDIT 3.**
Designed to orient the student in the fields of health, physical education and recreation through presentation of the scope and organization of professional activities, vocational opportunities offered in the field, and essential qualification of members of the profession.

**PHYSICAL EDUCATION 134. FIRST AID. (lecture 3, lab 0). CREDIT 3.**
Introductory aspects of emergency care for the sick and injured, emphasizing principles and concepts for dealing intelligently with emergencies; includes instruction on cardiopulmonary resuscitation. Red Cross certification available upon successful completion of course.

**PHYSICAL EDUCATION 233. DRUG USE AND ABUSE. (lecture 3, lab 0). CREDIT 3.**
Study of the use and abuse of drugs in today's society, emphasizing physiological, sociological and psychological factors involved.

**PHYSICAL EDUCATION — AQUATICS 113. SCUBA DIVING I (lecture 0, lab 3). CREDIT 1.**
Instruction and practice in the use of equipment and techniques of scuba diving. Students must supply mask, fins and snorkle. Additional fees are assessed for equipment rental, text book, PADI Certification (approximately $25) and check-out dive (approximately $70).

**PHYSICAL EDUCATION — AQUATICS 115. SWIMMING I BEGINNING. (lecture 0, lab 3). CREDIT 1.**
Intended exclusively for non-swimmers. Instruction deals with basic skills for safety in and around water and beginning swimming strokes. Red Cross certification as Beginner or Advanced Beginner is offered. Available through Credit by Examination.

**PHYSICAL EDUCATION — AQUATICS 117. SAILING I. (lecture 0, lab 3). CREDIT 1.**
The course covers sailboat nomenclature, rigging, points of sailing, sailboat trim, safety and rescue techniques and docking techniques. By the end of the course the student should be able to sail the boat independently. Additional fee may be assessed for equipment use.

**PHYSICAL EDUCATION - AQUATICS 215. SWIMMING II, ADVANCED LIFESAVING. (lecture 0, lab 3). CREDIT 1.**
For students who have established intermediate swimming skills. The course is designed to provide an individual with the knowledge and skills needed to save one's own life or the life of another in an emergency. Students who successfully complete the course will receive the American Red Cross Advanced Lifesaving certificate. Available through Credit by Examination.



**PHYSICAL EDUCATION - AQUATICS 216. SWIMMING III, WATER SAFETY INSTRUCTOR. (lecture 0, lab 3). CREDIT 1.**
Students will be instructed in advanced skills and techniques. Successful completion will result in American Red Cross certification to teach all Red Cross swimming Classes below that W.S.I. Prerequisites include Advanced Life Saving Certification, 17 years of age or older, and Swimmer Level Skills.

**PHYSICAL EDUCATION — DANCE 115. BALLET. (lecture 0, lab 3). CREDIT 1.**
Students will be introduced to the terminology and basic steps in order to provide a general knowledge of the structure of classical ballet, improve positive, and general conditioning of the body.

**PHYSICAL EDUCATION — DANCE 117. INTERNATIONAL FOLK DANCE. (lecture 0, lab 3). CREDIT 1.**
Students will learn dances from Greece, Austria, Israel, Russia, Scotland, the United States and several other countries including such dances as the Hora, Waltz, Polka, Highland Fling, Square Dances and Country Western Dances.

**PHYSICAL EDUCATION — DANCE 118. DISCO DANCING I. (lecture 0, lab 3). CREDIT 1.**
Instruction in the basic skills of disco including dance steps, turns, contact and non-contact dances, freestyle and overall choreography. Course includes field trips for students to practice their skills in a variety of settings.

**PHYSICAL EDUCATION — DANCE 119. BELLY DANCING I. (lecture 0, lab 3). CREDIT 1.**
Instruction in the various components of Middle Eastern dancing including dance movements, music, costuming and history.

**PHYSICAL EDUCATION — HEALTH 111. FOUNDATIONS OF FITNESS AND HEALTH. (lecture 0, lab 3). CREDIT 1.**
Centered around the aerobics concept; deals with basic knowledge of physical fitness. Involves both classroom discussions and activity sessions. This course is required for all students seeking an A.A. or A.A.S. degree. Available through Credit by Examination.

**PHYSICAL EDUCATION — HEALTH 112. EXERCISE FOR WOMEN I. (lecture 0, lab 3). CREDIT 1.**
Students will be introduced to a variety of conditioning and training programs through active participation in aerobic dance, weight training, cardiovascular and aerobic programs, floor exercises, rope jumping, and others. Opportunity will also be given for additional information gathering and sharing in the areas of exercise, diet, and health.

**PHYSICAL EDUCATION — HEALTH 113. AEROBIC DANCE. (lecture 0, lab 3). CREDIT 1.**
A program of total exercise which combines the health benefits of aerobics with the fun and figure benefits of dance.

**PHYSICAL EDUCATION — HEALTH 114. WEIGHT TRAINING. (lecture 0, lab 3). CREDIT 1.**
This course is for both men and women, and is designed to aid them in improving their muscle tone or increasing muscular strength and endurance.

**PHYSICAL EDUCATION — HEALTH 117. HATHA YOGA I. (lecture 0, lab 3). CREDIT 1.**
Students are introduced to the art of relaxation through slow measured movements and to techniques that develop balance, agility, and flexibility. Benefits include improved equilibrium, breath control, increased energy, and a highlighted sense of awareness.

**PHYSICAL EDUCATION — HEALTH 210. WEIGHT REDUCTION AND MAINTENANCE (lecture 0, lab 3). CREDIT 1.**
Participation in this course will be limited to those individuals requiring a 10 lb. or greater loss. Participants will engage in a modern system of behavior modification techniques through an individualized weight loss program. A redirecting of eating habits, individually designed eating plans, nutrition and consumer related topics will be included in class discussions and lectures.



**PHYSICAL EDUCATION — HEALTH 211. ADVANCED FITNESS ACTIVITIES AND CONCEPTS. (lecture 0, lab 3). CREDIT 1.**
A continuation of P.E. 111; topics and activities related to physical fitness. Students establish and achieve goals of improvement on an independent study basis. Prerequisite: PEHLTH 111.

**PHYSICAL EDUCATION — HEALTH 217. HATHA YOGA II. (lecture 0, lab 3). CREDIT 1.**
A continuation of Hatha Yoga I. Prerequisite: PEHLTH 117 or approval of instructor.

**PHYSICAL EDUCATION — RECREATION 112. SNOW SKIING I. (lecture 0, lab 3). CREDIT 1.**
Instruction in the fundamentals of this great winter sport. The course lasts for ten weeks, with the class sessions being held on an indoor ski trainer at Ski Houston in Pasadena. Additional fee is assessed for special equipment use.

**PHYSICAL EDUCATION — RECREATION 113. BACKPACKING I. (lecture 0, lab 3). CREDIT 1.**
One of the best ways to experience the world's natural beauty — mountains, deserts, forests, etc.— is on foot. Learn about equipment, trip preparations and outdoor etiquette and put it all to use on special class trips.

**PHYSICAL EDUCATION — RECREATION 115. ANGLING I. (lecture 0, lab 3). CREDIT 1.**
An introduction to basic techniques, equipment selection and environmental factors associated with fresh and saltwater fishing. Practical experience through field trips will be an integral part of the course. Participants will be required to have a valid fishing license.

**PHYSICAL EDUCATION — RECREATION 116. FRISBEE I. (lecture 0, lab 3). CREDIT 1.**
An introduction to this popular recreational activity which is both physically and aesthetically rewarding at all levels of ability. Students have the opportunity to learn various throws and catches, improve accuracy and increase distance. Also, a number of frisbee games will be played such as ultimate, guts and frisbee golf.

**PHYSICAL EDUCATION — RECREATION 119. CANOEING & CAMPING (lecture 0, lab 3). CREDIT 1.**
Canoeing and camping are activities for adventuresome individuals who enjoy the outdoors. Students will be taught skills that will aid in their safe enjoyment of the outdoors. Some of those include the seven basic canoe strokes, canoe safety, selection and care of equipment, orienteering, fire building, knot tying, splicing, meal planning, camping ecology and first aid.

**PHYSICAL EDUCATION — SELF DEFENSE 114. JUDO I. (lecture 0, lab 3). CREDIT 1.**
This Olympic sport emphasizes the development of both mind and body while learning tactics of self-defense. Designed to accommodate all levels of ability students can progress at their own rate. Purchase of uniform required.



**PHYSICAL EDUCATION — SELF DEFENSE 115. AIKIDO I. (lecture 0, lab 3). CREDIT 1.**
This graceful martial art form teaches self-defense tactics which utilize an opponent's force to your own benefit. Ideal for both men and women. Purchase of uniform required.

**PHYSICAL EDUCATION — SELF DEFENSE 214. JUDO II (lecture 0, lab 3). CREDIT 1.**
A continuation of Judo I. Prerequisite: PESLFD 114 or approval of instructor.

**PHYSICAL EDUCATION — SELF DEFENSE 215. AIKIDO II. (lecture 0, lab 3). CREDIT 1.**
A continuation of Aikido I. Prerequisite: PESLFD 115 or approval of instructor.

**PHYSICAL EDUCATION — SPORTS 110 BOWLING I (lecture 0, lab 3). CREDIT 1.**
Instruction in the basic fundamentals related to approach and delivery, methods of aiming and spare conversion; also includes rules and scoring. Available through Credit by Examination. Additional fee is assessed for special facility use.

**PHYSICAL EDUCATION — SPORTS 112. RACQUETBALL I. (lecture 0, lab 3). CREDIT 1.**
An introduction to the basic skills, strategies, etiquette and rules of the games. Available through Credit by Examination.

**PHYSICAL EDUCATION — SPORTS 113. BASKETBALL (lecture 0, lab 3). CREDIT 1.**
An on-count analysis of the game, from basic individual fundamentals (dribbling, passing, shooting, etc.) to the more sophisticated aspects of team play (offenses, zones, presses, etc.).

**PHYSICAL EDUCATION — SPORTS 114. RACKET SPORTS. (lecture 0, lab 3). CREDIT 1.**
Instruction in the basic mechanics of badminton and tennis as recreational and fitness activities. One half semester to be devoted to each and to also include rules, scoring, terminology, and extensive tournament participation.

**PHYSICAL EDUCATION — SPORTS 115. SOFTBALL (lecture 0, lab 3). CREDIT 1.**
Students will be introduced to the basic skills, strategies, terminology and rules of the game.

**PHYSICAL EDUCATION — SPORTS 116. GOLF I. (lecture 0, lab 3). CREDIT 1.**
For the beginning student; instruction and practice in the fundamentals of grip, stance and various swings; also involves the rules, terminology and etiquette associated with the game. Additional fee is assessed for special facility use.

**PHYSICAL EDUCATION — SPORTS 117. TENNIS I. (lecture 0, lab 3). CREDIT 1.**
Basic instruction and practice in the grip, footwork, forehand and backhand drive, service and volley; familiarization with rules, terminology, scoring and etiquette. Available through Credit by Examination.

**PHYSICAL EDUCATION — SPORTS 118. VOLLEYBALL (lecture 0, lab 3). CREDIT 1.**
A great team sport that men and women can enjoy together! Class instruction will be designed to give players enough skill to feel comfortable playing the game.

**PHYSICAL EDUCATION — SPORTS 119. BADMINTON. (lecture 0, lab 3). CREDIT 1.**
A thorough analysis of the game of badminton for either the beginning recreational player or the competitive enthusiast. Concentration centers on stroke technique and strategy as utilized in tournament play.

**PHYSICAL EDUCATION — SPORTS 212. RACQUETBALL II (lecture 0, lab 3). CREDIT 1.**
Introduction of advanced skills and strategies in the game. Opportunities are provided to observe and participate in tournament competition. Prerequisite: PESPTS 112 or approval of instructor.

**PHYSICAL EDUCATION — SPORTS 217. TENNIS II (lecture 0, lab 3). CREDIT 1.**
Instruction and practice in the refinement of the basic skills plus additional work on more advanced shots and strategy. Prerequisite: PESPTS 117 or approval of instructor. Available through Credit by Examination.

## PHYSICS

*Continuous registration available in all Physics courses.*



**PHYSICS 140. ASTRONOMY. (lecture 3, lab 3). CREDIT 4.**
An introductory account of the earth, moon, planets, sun, stars, and galaxies. Theories of their origins. A laboratory consisting primarily of night-time viewing. Fall, Spring, Summer I.

**PHYSICS 141. GENERAL PHYSICS. (lecture 3, lab 3). CREDIT 4.**
An elementary course in fundamental concepts of mechanics, heat, gravitation and sound with emphasis on the scientific approach to solving problems. For elementary education and non-science students. Fall, Spring, Summer I.

**PHYSICS 142. GENERAL PHYSICS. (lecture 3, lab 3). CREDIT 4.**
An elementary course in fundamental concepts of electricity, magnetism, light, and atomic physics, with emphasis on the scientific approach to solving problems. For elementary education and non-science students. Fall, Spring, Summer I.

**PHYSICS 143. COLLEGE PHYSICS. (lecture 3, lab 3). CREDIT 4.**
A non-calculus approach to the principles of mechanics, heat gravitation and sound. For pre-medical, pre-dental, pre-physical therapy, pre-veterinary medicine, pre-pharmacy, pre-optometry and technology students. Prerequisite: Math 134 or equivalent. Credit by examination available. Fall, Spring, Summer I.

**PHYSICS 144. COLLEGE PHYSICS. (lecture 3, lab 3). CREDIT 4.**
A continuation of Physics 143 covering wave theory, light, electricity, magnetism, and atomic physics. Prerequisite: Physics 143. Credit by examination available. Fall, Spring, Summer I.

**PHYSICS 241. MECHANICS AND HEAT. (lecture 3, lab 3). CREDIT 4.**
A calculus approach to the study of statics and dynamics of particles and rigid bodies, fluid dynamics, and thermodynamics. For physics majors and pre-engineering students. Prerequisite: Eight hours of college physics or instructor approval. Corequisite: Mathematics 241. (Recommended as a prerequisite for part-time students.) Credit by examination available. Fall, Spring, Summer I.

**PHYSICS 242. ELECTRICITY, MAGNETISM AND LIGHT. (lecture 3, lab 3). CREDIT 4.**
A continuation of Physics 241. Electrostatics, electric and magnetic fields, DC and AC circuits, electromagnetic waves, interference, diffraction, polarization, and topics from modern physics. Prerequisite: Physics 241. Corequisite: Mathematics 242. (Recommended as a prerequisite for part-time students) Credit by examination available. Fall, Spring, Summer I.

**PHYSICS 243. MODERN PHYSICS. (lecture 3, lab 3). CREDIT 4.**
An elementary course in fundamental concepts of relativity, quantum, atomic, molecular, nuclear, and solid state physics with emphasis on the scientific approach to solving problems. Prerequisite: Physics 241/242. Fall, Spring, Summer I.

*Continuous Registration: Enrollment in a Physics course is possible anytime during a semester the course is offered. Contact Dr. John Hubisz for further information.

## POLITICAL SCIENCE

**POLITICAL SCIENCE 235. AMERICAN NATIONAL AND STATE GOVERNMENT (lecture 3, lab 0). CREDIT 3.**
A systemic and functional study with emphasis on the political system as a theoretical construct, the political culture, the politics of executive, legislative, administrative, and judicial policy making, public opinion and voting behavior, political parties and interest groups. Special attention is devoted to the Texas Constitution. Required for Texas Teacher Certification. Credit by examination available. Fall, Spring, Summer I, Summer II.

**POLITICAL SCIENCE 236. AMERICAN NATIONAL AND STATE GOVERNMENT (lecture 3, lab 0). CREDIT 3.**
A general study of American, State and Local (Texas in particular) political systems, with emphasis on political concepts, structures, processes, and functions as given meaning in cultural and other environmental settings. Fall, Spring, Summer I, Summer II.



**POLITICAL SCIENCE 236H. AMERICAN NATIONAL & STATE GOVERNMENT. (lecture 3, lab 0). CREDIT 3.**
Honors course in American national and state government open to qualified students. A seminar format is used in this advanced study of the moral, ethical, and ideological implications underlying national and state political institutions, processes, and policies Fall.

**POLITICAL SCIENCE 237. INTERNATIONAL RELATIONS. (lecture 3, lab 0). CREDIT 3.**
The theory and practice of international relations with particular attention to the forces and processes contributing to conflict and cooperation among nations. Prerequisite: Political Science 235 or 236 or equivalent.

**POLITICAL SCIENCE 238. INTRODUCTION TO PUBLIC ADMINISTRATION. (lecture 3, lab 0). CREDIT 3.**
Basic principles of administrative organization and personnel relations with emphasis on structure, direction and control of governmental departments and agencies. Prerequisite: Political Science 235 or 236 or instructor's approval.

## PSYCHOLOGY

**PSYCHOLOGY 138. EARLY CHILDHOOD GROWTH AND DEVELOPMENT. (lecture 3, lab 0). CREDIT 3.**
The pre-natal period, infancy, and early childhood development; physical, mental, and emotional factors. Fall.

**PSYCHOLOGY 139. CHILD GUIDANCE AND SELF CONCEPTS. (lecture 3, lab 0). CREDIT 3.**
Child/Child and Child/Adult relationships; positive self-concepts; redirecting inappropriate behavior; factors influencing child growth and development. Prerequisite: Psychology 138. Spring.

**PSYCHOLOGY 230. PSYCHOLOGY OF ADJUSTMENT. (lecture 3, lab 0). CREDIT 3.**
Principles and theories of psychology applied to everyday life, dynamics of personality development and interpersonal relationships in normal adjustment and growth. Fall, Spring.

**PSYCHOLOGY 231. INTRODUCTION TO PSYCHOLOGY. (lecture 3, lab 0). CREDIT 3.**
An introduction to the field of psychology, dealing with such topics as the scientific method in psychology, a survey of the different fields in psychology, heredity and environment, intelligence, emotions, motivation, the nervous system, and the learning process. Credit by examination available. Fall, Spring, Summer.

**PSYCHOLOGY 233. CHILD GROWTH AND DEVELOPMENT. (lecture 3, lab 0). CREDIT 3.**
A study of the physical, mental and emotional factors influencing growth and development. Particular attention to the first twelve years of life with a meticulous examination of the prenatal period, infancy, early and middle childhood. Prerequisite: Psy. 231 or consent of instructor. Fall, Spring, Summer.

**PSYCHOLOGY 234. CRISIS INTERVENTION (lecture 3, lab 0). CREDIT 3.**
The principles and theories of assisting the individual who is in a crisis situation. Crisis intervention methodology in the assistance of a person caught in the anxiety and tension of crisis and who feels unable to help himself will be used in simulation situations.

**PSYCHOLOGY 237. SOCIAL PSYCHOLOGY. (lecture 3, lab 0). CREDIT 3.**
A study of the origin and development of personal behavior in interpersonal situations. Prerequisite: Psychology 231 or Sociology 131. Spring.

**PSYCHOLOGY 238. STATISTICAL METHODS IN BEHAVIORAL SCIENCES. (lecture 3, lab 0). CREDIT 3.**
Statistical inference, normal distribution, measures of central tendency and variance; correlation and regression, hypothesis testing, experimental control and procedure with applications in psychology and social sciences. Prerequisite: Math 131 or instructor's approval.



## REAL ESTATE

**REAL ESTATE 131. PRINCIPLES OF REAL ESTATE. (lecture 3, lab 0). CREDIT 3.**
A study of fundamental principles and practices of real estate. Emphasis will be upon the professional ethics and activities of real estate brokers, property rights, property ownership, financing, and control and transfer of real properties.

**REAL ESTATE 132. REAL ESTATE LAW. (lecture 3, lab 0). CREDIT 3.**
An exploration of real estate law emphasizing the complex aspects of ownership, use and transferability of real property as encountered by brokers and those who deal with real estate. Topics include contracts, title, deeds, leases, liens, covenants, restrictions, easements, estates, and landlord-tenant relationships. Prerequisite: Real Estate 131 or approval of Chairperson, Division of Business.

**REAL ESTATE 231. REAL ESTATE APPRAISAL. (lecture 3, lab 0). CREDIT 3.**
Theories, functions and purposes of appraisal techniques with emphasis on the application and interpretation of appraisal information. Prerequisite: Real Estate 131 or approval of Chairperson, Division of Business.

**REAL ESTATE 232. REAL ESTATE FINANCE. (lecture 3, lab 0). CREDIT 3.**
Title business, closing procedures and policies in financing real estate sales, securing funds, and analyzing the legal aspects of mortgages and related instruments. Prerequisite: Real Estate 131 or approval of Chairperson, Division of Business.

**REAL ESTATE 233. REAL ESTATE BROKERAGE. (lecture 3, lab 0). CREDIT 3.**
Organizing brokerage operations, selecting and training sales associates, managing brokerage activities, marketing practices and policies, effective advertising practices, and the functions of the broker. Prerequisite: Real Estate 131 or approval of Chairperson, Division of Business.

**REAL ESTATE 234. REAL ESTATE PROPERTY MANAGEMENT. (lecture 3, lab 0). CREDIT 3.**
Management maintenance; rehabilitation of residential, commercial, and industrial properties; leases and lease negotiations; tenant relations; insurance; tax aspects; office management; public relations; and advertising. Prerequisite: Real Estate 131 or approval of Chairperson, Division of Business.

**REAL ESTATE 235. REAL ESTATE INVESTMENT. (lecture 3, lab 0). CREDIT 3.**
A study of the management, selection, and analysis of real estate investments, client portfolios. Consideration and analysis of tax shelter and income-producing opportunities. Trends in real estate economics and future real estate investment needs. Prerequisite: Real Estate 131 and Real Estate 231 or approval of Chairperson, Division of Business.

**REAL ESTATE 236. REAL ESTATE COMMERCIAL. (lecture 3, lab 0). CREDIT 3.**
A study of the Commercial class of real estate, considering the developing, appraising, marketing, contracting and financing functions related to business properties, including office buildings, shopping centers, stores, hotels and parking facilities. Prerequisites: Real Estate 131, Real Estate 132, Real Estate 231 and Real Estate 232 or approval of the Chairperson, Division of Business.

**REAL ESTATE COOPERATIVE EDUCATION 241. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Approval of Chairperson.

**REAL ESTATE COOPERATIVE EDUCATION 242. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 241 and approval of Chairperson.



**REAL ESTATE COOPERATIVE EDUCATION 243. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 242 and approval of Chairperson.

## SECRETARIAL

**SECRETARIAL COOPERATIVE EDUCATION 241. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Approval of Chairperson.

**SECRETARIAL COOPERATIVE EDUCATION 242. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 241 and approval of Chairperson.

**SECRETARIAL COOPERATIVE EDUCATION 243. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20).**
A comprehensive treatment of career related activities encountered in the student's area of specialization. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Cooperative Education 242 and approval of Chairperson.

## SECURITY

**SECURITY 131. INTRODUCTION TO PUBLIC AND PRIVATE SECURITY. (lecture 3, lab 0). CREDIT 3.**
The historical, philosophical and legal basis of security and the security of individuals in modern society. The concepts of professionalism; a survey of the administrative, personnel and physical aspects of the security field.

**SECURITY 225. PRIVATE INVESTIGATOR AND PRIVATE SECURITY. (lecture 2, lab0). CREDIT 2.**
The introduction and overview of the Board Rules and Regulations of the Texas Board of Private Investigators and Private Security agencies. This course deals with the law, evidence, report writing and procedures to be used by the investigators and their agencies. The State security officers training curriculum is offered.

**SECURITY 231. INDUSTRIAL SECURITY. (lecture 3, lab 0). CREDIT 3.**
Organization, administration and management of security and plant protection units. Policy and decision making. Concepts of physical security integrated with management systems; physical security requirements and standards. Introduction to governmental regulations, including self-inspection, the safeguarding of proprietary information. A survey of guard and fire departmental operation and function. Investigation, Pre and post employment background investigation disclosure of derogatory information, Bomb Threats, and Disaster preparedness/control.

**SECURITY 232. OPERATIONAL SECURITY. (lecture 3, lab 0). CREDIT 3.**
Fundamentals of security related investigating, legal restrictions, employee background investigations, pilferage and internal theft investigations, crime scene investigations. Procedures for handling and control of classified and other sensitive materials. A survey of control systems; governmental and proprietary concepts. An analysis of special problem areas including bank security, executive personnel protection, credit cards, emergency planning and disaster control, control of proprietary information and "white collar" crime.



**SECURITY 233. BUSINESS SECURITY. (lecture 3, lab 0). CREDIT 3.**
The operation of security departments, including functions of mercantile establishments, dishonest employees; shoplifters, management and public relations, receiving, shipping, warehousing and special procedures. Security surveys and loss prevention management in proprietary and governmental institutions.

## SHORTHAND

**SHORTHAND 131. PRINCIPLES OF SHORTHAND. (lecture 3, lab 1.5). CREDIT 3.**
Principles of shorthand, presentation of theory, development of related knowledge and pretranscription skills. Prerequisite: No previous credit in shorthand and preceded or accompanied by Typewriting 131 or the equivalent. Fall, Spring.

**SHORTHAND 132. INTERMEDIATE SHORTHAND. (lecture 3, lab 1.5). CREDIT 3.**
Application of principles of shorthand on advanced level, comprehensive knowledge of the system, further development of related knowledges, emphasis on transcription skills. Prerequisite: Completion of one year of high school shorthand and typewriting or Shorthand 131 and Typewriting 131 or the equivalent.

## SOCIOLOGY

**SOCIOLOGY 131. INTRODUCTORY SOCIOLOGY (lecture 3, lab 0). CREDIT 3.**
An introduction of the study of sociology dealing with group behavior, relationships of man, stressing the interaction of heredity, geographical environment, the group, and culture upon man's personality and upon his social life. Credit by examination available. Fall, Spring.

**SOCIOLOGY 132. SOCIAL PROBLEMS (lecture 3, lab 0). CREDIT 3.**
An analysis and study of contemporary social problems, their likely causes, how they affect us, and what can be done about them. Fall, Spring.

**SOCIOLOGY 234. INTRODUCTION TO MULTI-CULTURAL STUDIES. (lecture 3, lab 0). CREDIT 3.**
An interdisciplinary approach to the study of minority groups multicultural and multi-ethnic relations as they occur on the contemporary American scene. Fall.

**SOCIOLOGY 236. INTRODUCTION TO FUTURE STUDIES. (lecture 3, lab 0). CREDIT 3.**
Personal futures. Focus on hopes, fears, and expectations that the student has for the future. Future studies terminology, concepts and interpretation of social data and research writing is introduced. Spring.

## SPANISH

**SPANISH 111. CONVERSATIONAL SPANISH. (lecture 0, lab 3). CREDIT 1.**
A one semester introduction to oral communication in the Spanish language; conversation and pronunciation drill. Spring.

**SPANISH 141, 142. BEGINNING SPANISH. (lecture 3, lab 3). CREDIT 4.**
Introduction to Spanish designed for the student with no previous training; standard elementary grammar accompanied by written exercise; extensive oral exercise in language laboratory; conversation is stressed. Credit by examination available. 141-Fall; 142-Spring.

**SPANISH 231, 232. FIRST YEAR INTERMEDIATE SPANISH. (lecture 3, lab 2). CREDIT 3.**
Intensive review of grammar; emphasis is placed on conversation, correct pronunciation, and correct writing; recognition ability; comprehension, and selfexpression are stressed; readings from Spanish-American authors are studied. Prerequisite: Either Spanish 141-142 or two years of Spanish in an accredited high school. 231-Fall; 232-Spring.



## SPEECH

**SPEECH 130. DEVELOPMENTAL SPEECH. (lecture 3, lab 0). CREDIT 3.**
Developmental Speech 130 has been designed to be taken concurrently with COM. 136. Emphasis will be placed on speaking and listening skills including outlining, organizing, topic selecting, vocabulary, analyzing, and evaluating. Students will learn these skills through a series of informative and persuasive speeches. Fall, Spring.

**SPEECH 131. FUNDAMENTALS OF SPEECH. (lecture 3, lab 0). CREDIT 3.**
Survey of the Fundamentals of Speech. Emphasis on principles of communication in speaking and listening. The course deals with planning, organization, and delivery of different types of speeches. Prerequisite: English Appraisal, COM 136 or Speech 130. Fall, Spring, Summer I.

**SPEECH 132. VOICE AND DICTION. (lecture 3, lab 0). CREDIT 3.**
Fundamentals of Voice and Diction is designed for students who are desirous of improving all facets of correct vocal production. Emphasis will be placed on articulation, pronunciation, volume, pitch, rate, and the quality of the voice. Students who have learned English as a second language or who have difficulty being understood will benefit from the exercises designed for this course. This class is not designed to assist students with physical speech impairments.

## TECHNICAL MATH

**TECHNICAL MATHEMATICS 111. TECHNICAL MATHEMATICS. (lecture 2, lab 0). CREDIT 1.**
Introduction to Technical Mathematics, emphasizing common and decimal fractions, the Metric System, linear, area, and volumetric conversions. An introduction to Scientific Notation and practical problems using the electronic calculator are included along with experience on measuring tools. Prerequisite: None. Fall, Spring, Summer I.

**TECHNICAL MATHEMATICS 131. TECHNICAL MATHEMATICS. (lecture 3, lab 0). CREDIT 3.**
A basic study of the use of mathematical techniques as a professional tool. Includes functions, graphs and equations of particular interest to technology. Fall, Spring.

**TECHNICAL MATHEMATICS 132. TECHNICAL MATHEMATICS. (lecture 3, lab 0). CREDIT 3.**
Applications of analytical trigonometry, trigonometric functions, logarithms and geometry to industry. Fall, Spring.

**TECHNICAL MATHEMATICS 231. TECHNICAL MATHEMATICS. (lecture 3, lab 0). CREDIT 3.**
Theory and application of differential calculus to industry and technology. Prerequisite: TM 131.

**TECHNICAL MATHEMATICS 232. TECHNICAL MATHEMATICS. (lecture 3, lab 0). CREDIT 3.**
Applications and theory of integral calculus for the technicians. Prerequisite: TM 231.

**TECHNICAL MATHEMATICS 234. TECHNICAL MATHEMATICS. (lecture 3, lab 0). CREDIT 3.**
A study of differential and integral calculus emphasizing electronic applications. Prerequisite: TM 132. Spring.

## THEATRE ARTS

**THEATRE ARTS 111. THEATRE WORKSHOP. (lecture 0, lab 3). CREDIT 1.**
Laboratory course in all phases of theatre; emphasis on techniques and procedures; experience gained by participating in a production. May be repeated for credit for a total of four credits. Fall, Spring.



**THEATRE ARTS 112. READERS THEATRE. (lecture 0, lab 3). CREDIT 1.**
Laboratory course in all phases of reader's theatre techniques. Designed to encourage interpretation of materials, imagination skills and ensemble production. Students will participate in a planned program. The course involves both speaking theatre and writing skills. Student written editorials will be performed. Spring.

**THEATRE ARTS 113. MUSICAL THEATRE. (lecture 0, lab 3). CREDIT 1.**
Laboratory course in all phases of musical theatre, emphasis on techniques and procedures, experience gained by participating in a production. May be repeated for credit for a total of four credits.

**THEATER ARTS 131. INTRODUCTION TO THEATRE. (lecture 3, lab 3). CREDIT 3.**
General Appreciation course surveying theatre as an art. Attention is given to such topics as "Contemporary Problems in Theatre", "how theatre is discovered", "the nature and elements of good drama", and a look at each of the major forms and styles of dramatic literature. The course concludes with a look at the people we call "the image makers: actors, directors, designers. Fall, Spring.

**THEATER ARTS 231. BEGINNING ACTING. (lecture 3, lab 3). CREDIT 3.**
Lecture/laboratory course with emphasis on the beginning techniques employed in acting. Course emphasizes the Stanislavsky "Method" of personalizing and disciplining the mental and physical being into that of a character. Exercises include relaxation, body dynamics, concentration, sensory awareness, imagination and improvisation, and the freeing of emotions. Fall.

**THEATRE ARTS 232. INTERMEDIATE ACTING. (lecture 3, lab 3). CREDIT 3.**
Lecture/laboratory course with emphasis on the styles of acting including dramatic production styles, period styles, and modern styles. Students are required to perform monologues for vocal adaptation to style, and acting scenes to develop body movement unique to each style they perform. Spring.

**THEATRE ARTS 235. HISTORY OF THE THEATRE. (lecture 3, lab 0). CREDIT 3.**
Lecture survey course tracing the origin of theatre as an art form and its development and relationship to contemporary drama. Emphasis is placed on the history and development of theatre architecture, technology, and the evolution of acting practices. Spring.

### *DANCE*

**DANCE 111. THEATRE DANCE FORMS. (lecture 0, lab 3).**
Beginning and Intermediate Techniques are studied in ballet, jazz, modern dance and stage movements.

## THERMAL TECHNOLOGY

**THERMAL TECHNOLOGY 141. REFRIGERATION FUNDAMENTALS. (lecture 2, lab 4). CREDIT 4.**
A basic course in refrigeration and mechanical principles and applications. Learning activities will cover basic systems, working copper tubing, gauge installations, charging systems, and operating principles of compressors and metering devices with various refrigerants. Prerequisite: None. Fall, Spring, Summer I.

**THERMAL TECHNOLOGY 142. ELECTRICITY FUNDAMENTALS. (lecture 2, lab 4). CREDIT 4.**
A basic course in electrical principles and principles and applications. Learning activities will include AC/DC theory, control and power circuits, relays, overloads, capacitors and wiring diagrams. Prerequisite: TT 141 or approval of Division Chairman. Fall, Spring, Summer I.

**THERMAL TECHNOLOGY 143. AIR CONDITIONING FUNDAMENTALS. (lecture 2, lab 4). CREDIT 4.**
A basic course in air as it moves through ducts and the way in which the condition of air affects human comfort. Learning activities will include psychrometic chart, temperature, relative humidity, air movement, air filtration, insulation, total heat loads, and degree days. Student will evaluate the various conditions of air and recommend the necessary adjustments to correct deficiencies. Prerequisite: None. Fall.



**THERMAL TECHNOLOGY 144. ELECTRIC MOTORS-COMPRESSORS. (lecture 2, lab 4), CREDIT 4.**
A basic course in the electric motor which includes operation, installation, maintenance, and service. Start and run capacitors, relays, overloads, and wiring circuits will be the components covered. Prerequisite: TT 141, 142. Spring, Summer I.

**THERMAL TECHNOLOGY 241. DOMESTIC REFRIGERATION PRINCIPLES & APPLICATIONS. (lecture 2, lab 4). CREDIT 4.**
A course in installation and service of home refrigeration equipment, which includes refrigerators, freezers, water coolers and ice makers. Studies include changing of components, evacuation, charging systems, and electrical wiring of cabinets. Prerequisites: TT 141, 142, 144. Spring.

**THERMAL TECHNOLOGY 242. COMMERCIAL REFRIGERATION PRINCIPLES & APPLICATIONS. (lecture 2, lab 4). CREDIT 4.**
A course in the installation, maintenance, and service of commercial refrigeration equipment, which includes display cabinets, walk-in-coolers, ice makers, freezers, and multiple-temperature systems. Service procedures include charging, evacuation, pump-downs, defrosts, and trouble-shooting. Prerequisites: TT 141, 142. Fall.

**THERMAL TECHNOLOGY 243. DOMESTIC AIR CONDITIONING PRINCIPLES & APPLICATIONS. (lecture 2, lab 4). CREDIT 4.**
A course in the installation, operation, maintenance, and service of home air conditioners. Studies will include the control of temperature, humidity, filtration and circulation of window coolers, central systems, heat pumps and water chillers. Prerequisites: TT 141, 142, 143, 144. Fall.

**THERMAL TECHNOLOGY 244. COMMERCIAL AIR CONDITIONING PRINCIPLES & APPLICATIONS. (lecture 2, lab 4). CREDIT 4.**
A course in the installation, operation, maintenance, and service of commercial air conditioning equipment. Studies will include the control of temperature, humidity filtration, and circulation of climate in business applications. Prerequisites: TT 141, 142. Spring.

**THERMAL TECHNOLOGY 246. PASSIVE SOLAR FUNDAMENTALS (Heating and Cooling). (lecture 2, lab 4). CREDIT 4.**
A course in the design, installation, operation, maintenance, and service of passive solar equipment. Studies include heating water and the heating and cooling of domestic dwellings. Fall.

**THERMAL TECHNOLOGY 247. ACTIVE SOLAR FUNDAMENTALS (Heating and Cooling). (lecture 2, lab 4). CREDIT 4.**
A course in design, installation, operation, maintenance, and service of solar energy equipment. Studies include heating water in dwellings; also, energy to aid in central cooling systems. Prerequisite: TT 143. Spring.

**THERMAL TECHNOLOGY COOP 241, 242, & 243. SEMINAR AND WORK EXPERIENCE. (lecture 1.5, lab 20). CREDIT 4 (each).**
A comprehensive treatment of career related activities encountered in the student area of specialization, i.e., business occupations, industrial/public services occupations. Under supervision of the College and the employer, the student combines classroom learning with work experience. Prerequisite: Approval of Chairperson. Fall, Spring & Summer.

## TYPEWRITING

**TYPEWRITING 111. BEGINNING TYPEWRITING/KEYBOARDING. (lecture 3, lab 1.5). CREDIT 1.**
Application of and instruction in the basic facility in typewriting, basic keyboard knowledge and skillbuilding; technique in basic machine operations.



**TYPEWRITING 112. BEGINNING TYPEWRITING/PERSONAL APPLICATIONS. (lecture 3, lab 1.5). CREDIT 1.**
Application of and instruction in the basic facility in typewriting and skill-building; proficiency in centering, tabulating, typing personal and business letters, memorandums, and themes. Prerequisite: Typewriting 111 or equivalent.

**TYPEWRITING 113. BEGINNING TYPEWRITING/BUSINESS APPLICATIONS. (lecture 3, lab 1.5). CREDIT 1.**
Application of and instruction in the basic facility in typewriting; skill in typing manuscripts or reports, tabulations, business letters, and outlines. Prerequisite: Typewriting 112 or equivalent.

**TYPEWRITING 131. BEGINNING TYPEWRITING. (lecture 3, lab 1.5). CREDIT 3.**
Application of and instruction in the basic facility in typewriting; basic keyboard knowledge and skill; technique in basic machine operations; and skill in centering, tabulating, typewriting reports, typewriting business letters, and composition.

**TYPEWRITING 132. INTERMEDIATE TYPEWRITING. (lecture 3, lab 1.5). CREDIT 3.**
Development of skills, knowledge, and techniques applicable to production typewriting; problem solving; advanced corrective drills; tabulating problems; report typing; composition; and letter writing. Prerequisite: Typewriting 131 or one year of high school typewriting or the equivalent.

## WELDING

**WELDING 131. OXY-ACETYLENE WELDING AND CUTTING. (lecture 2, lab 5). CREDIT 3.**
Theory and practice in techniques of oxy-acetylene welding and cutting. Layout and preparation of commonly used joints. Servicing and regulation of oxy-acetylene equipment. Fall, Spring, Summer I & II.

**WELDING 136. GAS SHIELDED ARC WELDING I. (lecture 2, lab 5). CREDIT 3.**
Theory of Tungsten Inert Gas Welding and Metallic Inert Gas Welding. Laboratory experiences in gas shielded arc welding. Prerequisite: W 131 or W 141 or approval of Chairman, Division of Industrial Education. Spring.

**WELDING 141. PLATE WELDING I. (lecture 2, lab 6). CREDIT 4.**
Metal cutting with oxygen and acetylene equipment. Theory of plate welding in three positions: flat, vertical up, and horizontal. Fall, Spring.

**WELDING 142. PLATE WELDING II. (lecture 2, lab 6). CREDIT 4.**
Advanced theory of plate welding. Plate welding in five positions: flat, vertical up, horizontal, vertical down and overhead. Root and Face Bend tests for qualification of plate welders. Prerequisite or Corequisite: W 141. Fall, Spring.

**WELDING 144. DESIGN, LAYOUT, AND FABRICATION I. (lecture 3, lab 5). CREDIT 4.**
Introduction to design and construction of various types of layouts according to specifications. Related welding experiences involved in structure fabrication. Prerequisite: W 141 and Dft 131 or approval of Chairman, Division of Industrial Education. Fall, Spring.

**WELDING 146. INTRODUCTORY MACHINE SHOP PRACTICES. (lecture 2, lab 5). CREDIT 4.**
An introductory course in machine shop practice, which includes technical and related information. Basic skills and techniques focus on the operations of the lathe, milling machine, grinder, drill press, and power hack saw.

**WELDING 181. SHIPFITTERS, TACKING & BLUE PRINT READING. (lecture 7, lab 28, 6 weeks). CREDIT 8.**
For the individual desirous of obtaining an entry level position in the area's ship yards, this course provides basic competencies in cutting, beveling, washing with and care of oxy-fuel gas equipment, tacking with shielded metal arc in all positions, and blue print reading for shipfitters.



**WELDING 237. GAS SHIELDED ARC WELDING II. (lecture 2, lab 5). CREDIT 3.**
Advanced theory of Tungsten Inert Gas Welding and Metallic Inert Gas Welding. Advanced laboratory experiences in gas shielded arc welding. Prerequisite: W 136 or approval of Chairman, Division of Industrial Education. Spring.

**WELDING 241. PLATE WELDING III. (lecture 2, lab 6). CREDIT 4.**
Advanced techniques of Plate Welding using Special Purpose electrodes on various grades of metal. The course will require all positions of welding and at least one individualized learning experience to be developed by the student and teacher. Prerequisite or Corequisite: Welding 142 or approval of Chairman of The Division of Industrial Education.

**WELDING 243. PIPE WELDING I. (lecture 2, lab 6). CREDIT 4.**
Theory of pipe welding. Cutting and beveling pipe with oxygen and acetylene equipment. Pipe welding in two positions: Rolling and horizontal. Prerequisite: W 142 or approval of Chairman, Division of Industrial Education. Fall.

**WELDING 244. PIPE WELDING II. (lecture 2, lab 6). CREDIT 4.**
Advanced theory of pipe welding. Pipe welding in four positions: Rolling, horizontal, downhill, and overhead. Code test under Section IX, A.W.S. Prerequisite: W 243 or approval of Chairman, Division of Industrial Education. Spring.

**WELDING 246. DESIGN, LAYOUT, AND FABRICATION II. (lecture 3, lab 5). CREDIT 4.**
Advanced design and construction of various types of layouts according to specifications. Related welding experiences involved in piping fabrication. Prerequisite: W 243 or approval of Chairman, Division of Industrial Education. Spring.

**WELDING 247. ADVANCED MACHINE SHOP PRACTICE. (lecture 2, lab 5). CREDIT 4.**
An advanced course in machine shop practice, which includes technical and related information. Instruction focuses on the operation of the lathe, milling machine, grinder, drill press, and power hack saw, including external and internal acme threads, spur gears, flutes, couplings, shafts, bearings, and heat treatment.

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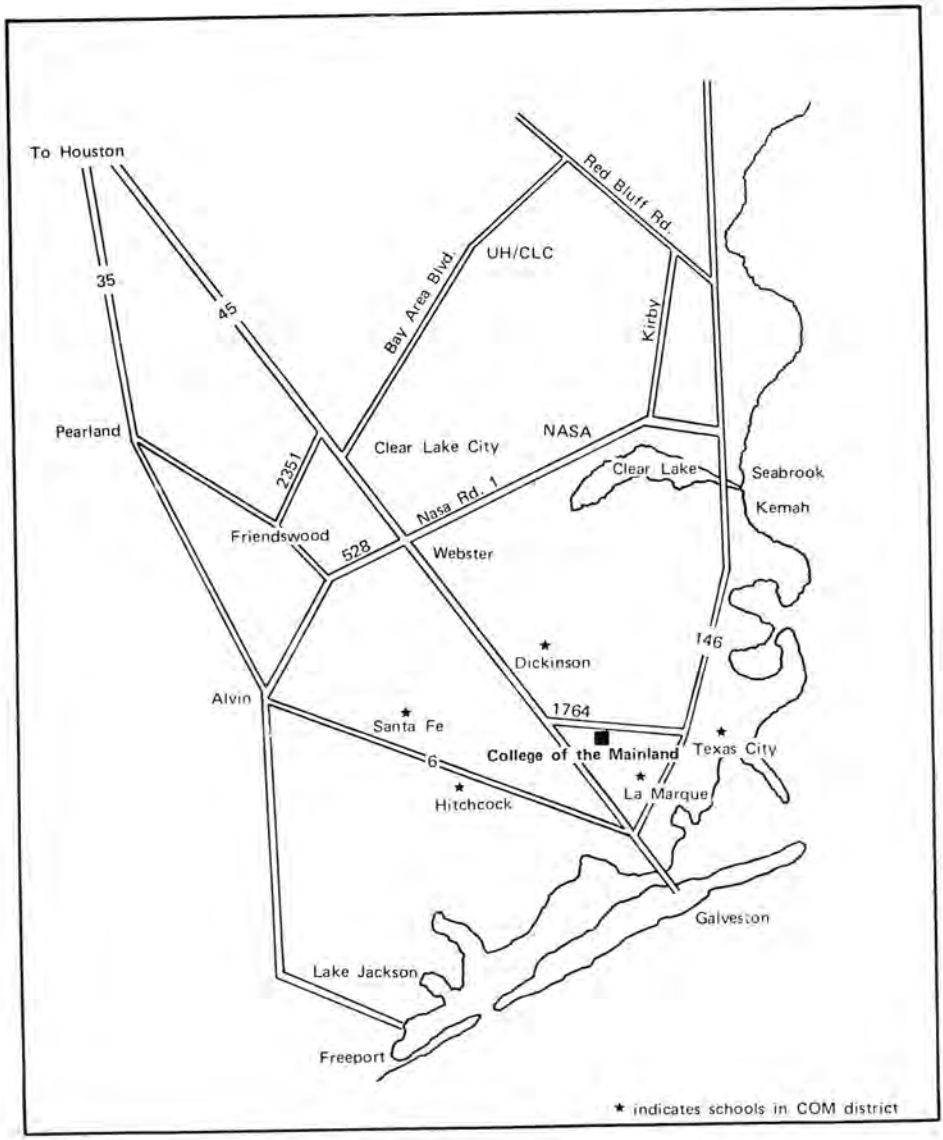
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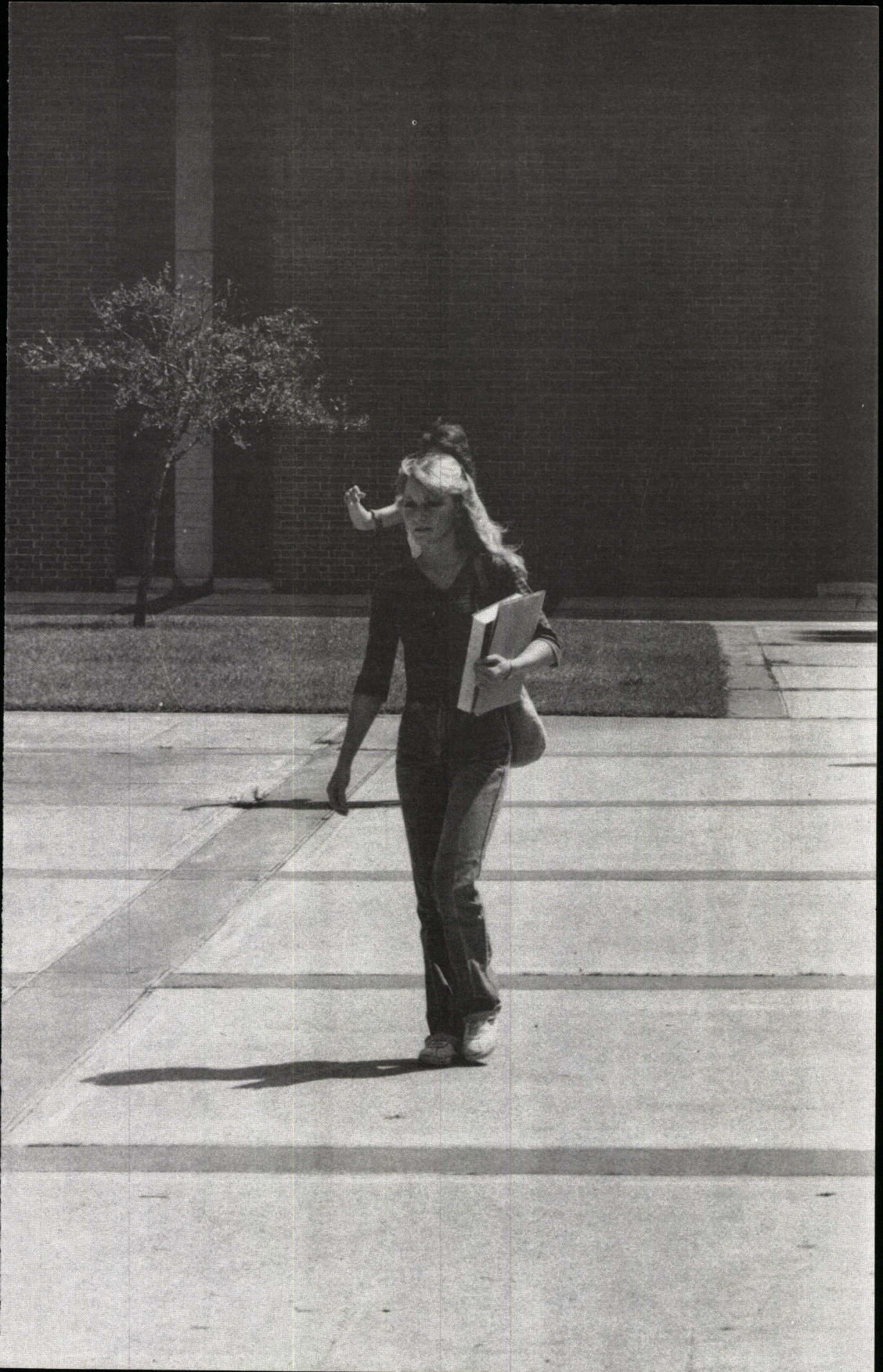

# NOTES

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