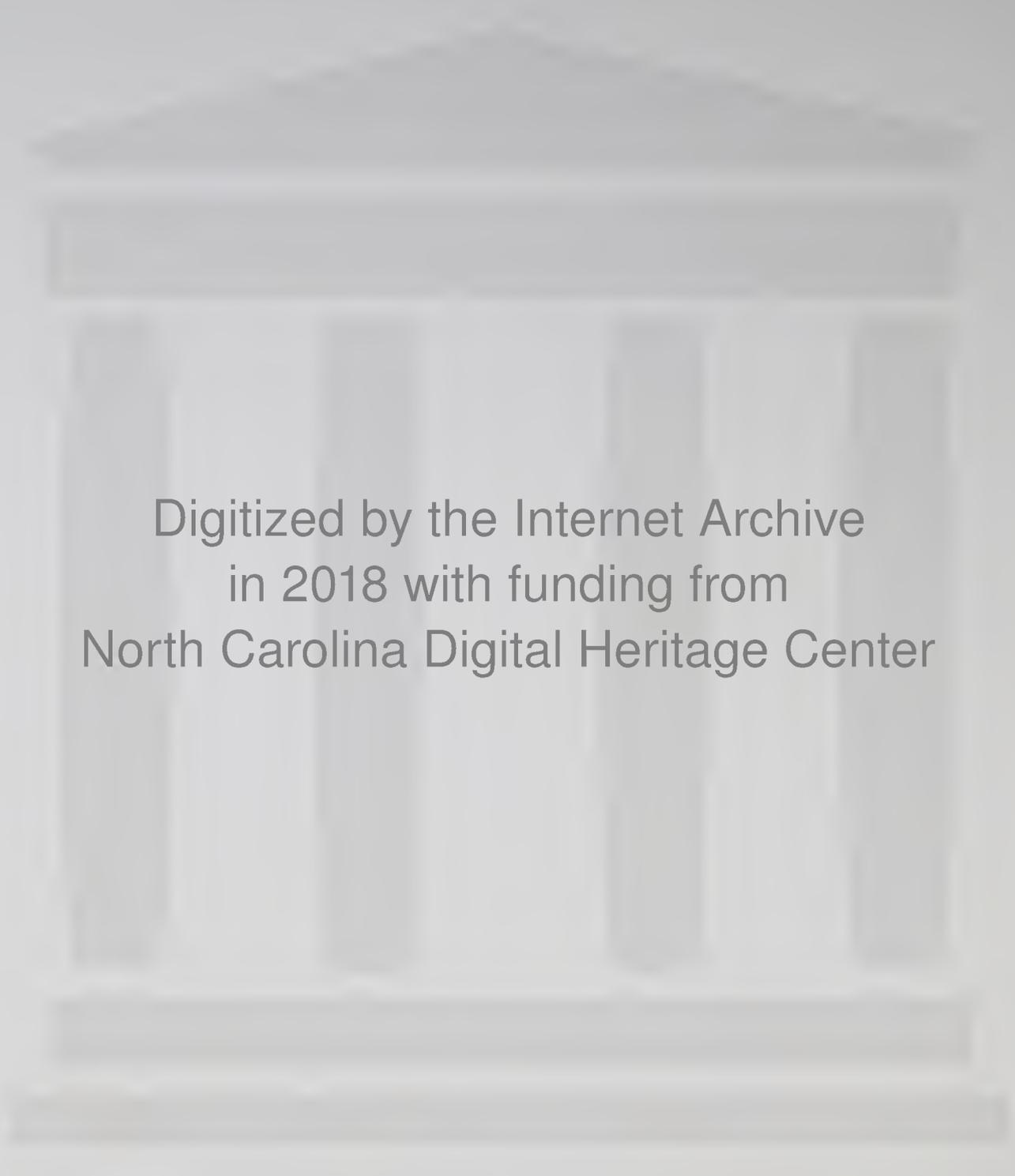


OFFICIAL COLLECTION  
Gaston College  
Dallas, N.C.

# GASTON COLLEGE

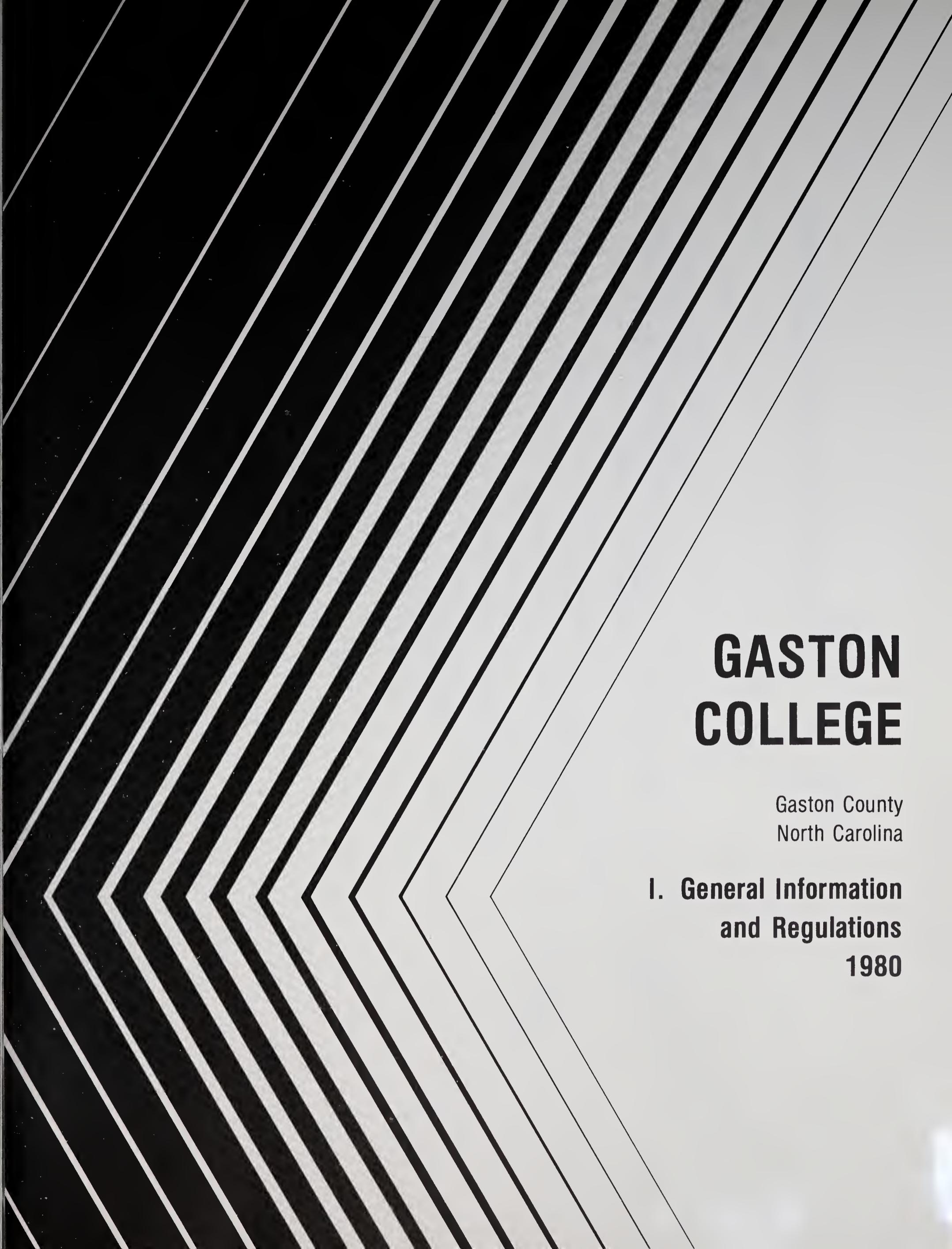
Gaston County  
North Carolina

General Catalog  
1980



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# **GASTON COLLEGE**

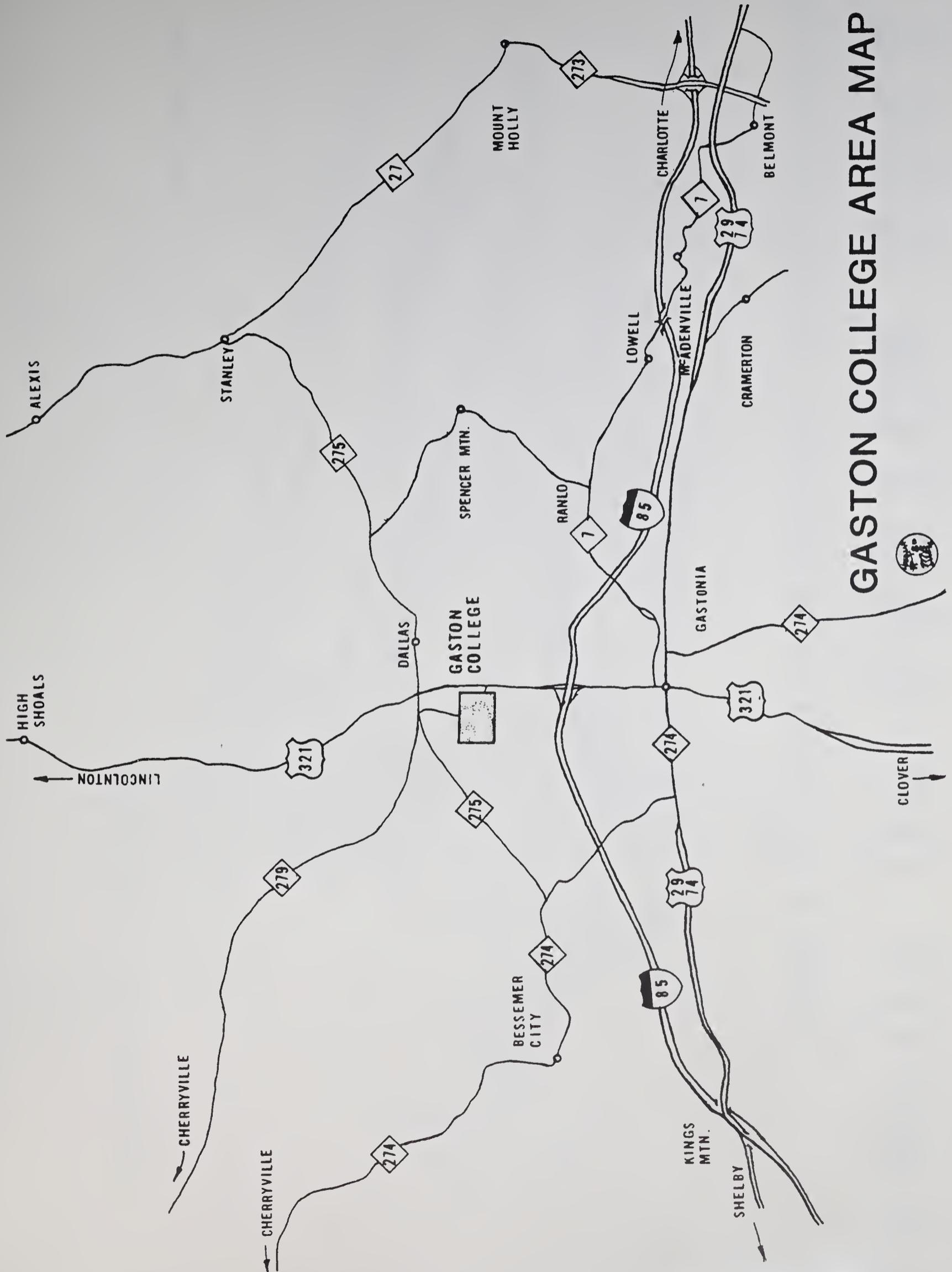
Gaston County  
North Carolina

**I. General Information  
and Regulations  
1980**



# LOCATION

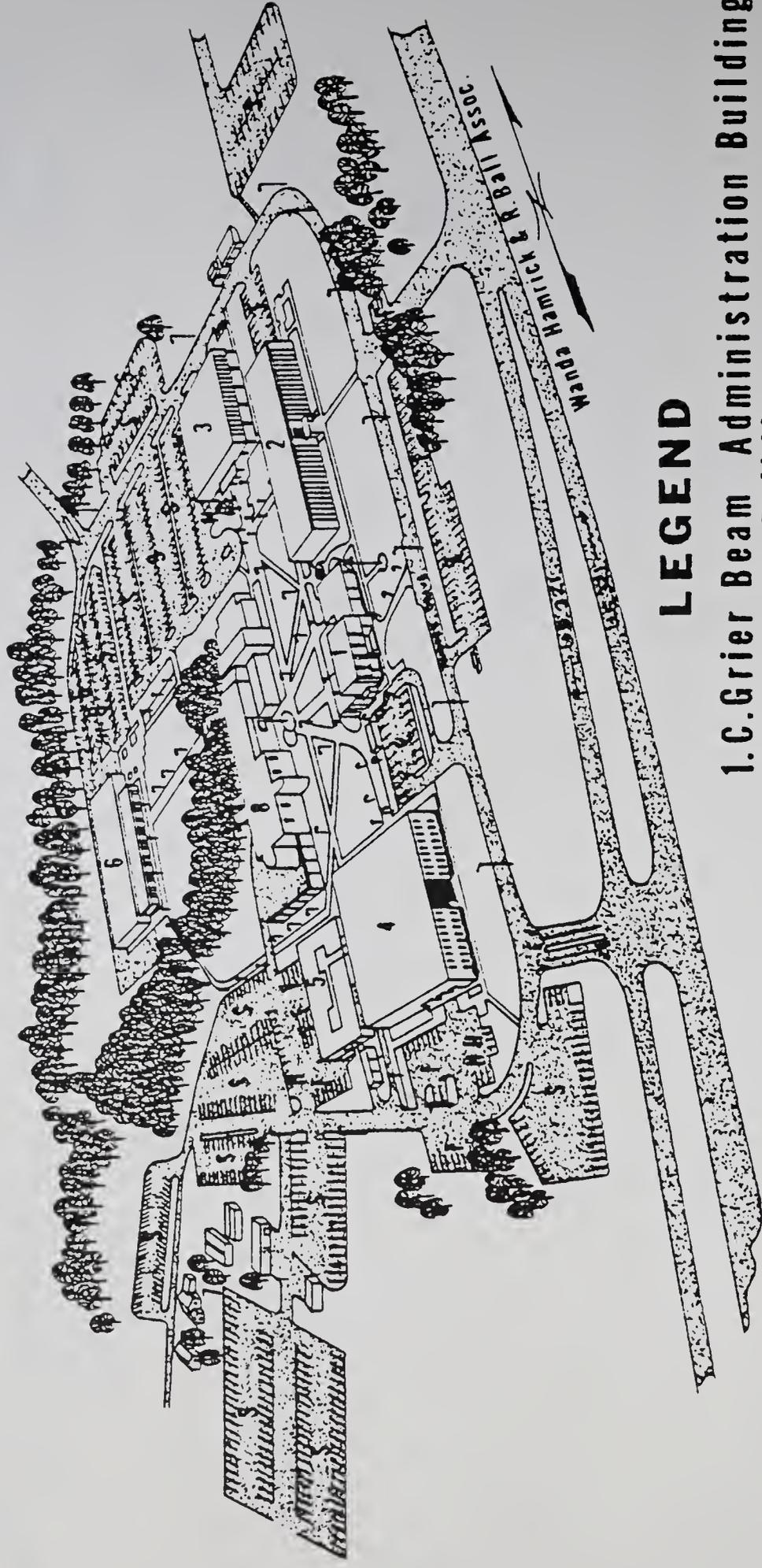
Gaston College is located near Dallas, North Carolina, on U.S. Highway No. 321, approximately three miles north of Gastonia. Interstate 85 lies about two miles south of the College, and travel to the campus may be effected by exiting from the interstate onto U.S. Highway 321 and travelling northward.



## GASTON COLLEGE AREA MAP

# CAMPUS OF GASTON COLLEGE

## TRAFFIC AND PARKING REGULATIONS



### DESIGNATED PARKING

- S- Students
- F- Faculty
- V- Visitors
- H- Handicapped
- M- Motorcycles

### LEGEND

1. C. Grier Beam Administration Building
2. Classroom Building
3. Library—Science Building
4. Technical Building
5. Vocational Building
6. Industrial Building
7. Art Complex
8. Myers Center
9. Athletic Field (Tennis Courts, etc.)

# **Gaston College**

Gaston County, North Carolina

General Catalog

1980

Volume 16

Accredited: Southern Association of  
Colleges and Schools  
North Carolina State  
Board of Education

The Gaston College Catalog is not an irrevocable contract. Regulations within it are subject to change by the College at any time. College regulations are policy statements to guide students, faculty and administrative officers in achieving the purposes of the institution. Necessary interpretations of these policies will be made by the appropriate authorities with the interests of the students and the institution in mind. Students are encouraged to seek information as they require it pertaining to the application or meaning of any policy.

Gaston College

Dallas, North Carolina 28034

(704) 922-3136

OFFICIAL COLLECTION

Gaston College

Dallas, N.C.

# Calendar Of Events

## Fall Quarter 1980 through Spring Quarter 1982

### FALL QUARTER 1980 (55 Days)

Mon.	Sept.	1	Official Holiday
Wed.	Sept.	3	Registration
Mon.	Sept.	8	First Day of Classes
Fri.	Nov.	21	Last Day of Classes
Th/F	Nov.	27-28	Legal Holiday

### WINTER QUARTER 1980-81 (50 Days)

Thur.	Dec.	4	Registration
Mon.	Dec.	8	First Day of Classes
Fri.	Dec.	19	Last Day of Classes-Holiday
Mon.	Jan.	5	Classes Resume
Fri.	Feb.	27	Last Day of Classes

### SPRING QUARTER 1981 (50 Days)

Mon.	Mar.	9	Registration
Wed.	Mar.	11	First Day of Classes
Fri.	Apr.	17	Official Holiday
Mon.	Apr.	20	Official Holiday
Thur.	May	21	Last Day of Classes
Sun.	May	24	Graduation

### SUMMER QUARTER 1981 (55 Days)

Thur.	June	4	Registration
Mon.	June	8	First Day of Classes
Mon.	July	6	Official Holiday
Mon.	Aug.	24	Last Day of Classes
Wed.	Aug.	26	Graduation (P.M.)

### FALL QUARTER 1981 (55 Days)

Thur.	Sept.	3	Registration
Mon.	Sept.	7	Official Holiday
Tue.	Sept.	8	First Day of Classes
Mon.	Nov.	23	Last Day of Classes

### WINTER QUARTER 1981-82 (55 Days)

Thur.	Dec.	3	Registration
Mon.	Dec.	7	First Day of Classes
Tues.	Dec.	22	Last Day of Classes-Holidays
Mon.	Jan.	4	Classes Resume
Wed.	Mar.	3	Last Day of Classes

### SPRING QUARTER 1982 (50 Days)

Wed.	Mar.	10	Registration
Fri.	Mar.	12	First Day of Classes

# General Information

## STATEMENT OF PURPOSES

Gaston College is a comprehensive community college which seeks to be of optimum educational service to the people within its geographic area. Gaston College, concerned equally with the needs of individuals and the needs of the community, commits its resources to fulfill the following purposes:

To provide for the college oriented student the first two years of academic college courses.

To meet for industry, business, government, and service occupations the pre-service and in-service manpower training needs that require up to and including the Associate in Arts degree.

To provide educational opportunity for the population of this area, including the numerous individuals who are experiencing social and economic difficulty that is due to handicapping attitudes and work habits or who have inadequate basic general education or who lack salable skills.

To raise the level of personal fulfillment, of responsible citizenship, and the standards of living of the people of the area through advanced general and continuing educational opportunities.

## PROGRAMS OF STUDY

Opportunities for learning are provided in five general programs of instruction. A full program of day and evening classes is offered for students who would like to enroll.

## COLLEGE PARALLEL PROGRAMS

Gaston College offers course work and programs leading to three distinct two-year based, fully accredited Associate Degrees; 1) the Associate of Arts, 2) the Associate of Fine Arts, and 3) the Associate of Science. These degrees are a culmination of six quarters of full-time course-work paralleling the freshman and sophomore years at accredited colleges and universities. Within these degree programs, the student receives a general education in the areas of English, humanities, mathematics, science and the social sciences; in addition, the student may begin specialized work in a major field of interest.

## ASSOCIATE IN ARTS

Students who select the Associate in Arts Degree at Gaston College transfer to senior colleges to pursue such majors as:

Art	Ministry
Business Administration	Music
Early Childhood Education	Social Work
Journalism	Teaching, Elementary Education
Law	Teaching, Secondary Education

## ASSOCIATE IN FINE ARTS

Students who select the Associate in Fine Arts Degree at Gaston College transfer to senior colleges to pursue such majors as:

Art  
Drama  
Music

## ASSOCIATE IN SCIENCE

Students who select the Associate in Science Degree at Gaston College transfer to senior colleges to pursue such majors as:

Agriculture	Pharmacy
Dentistry	Physical Therapy
Engineering	Science-Biology Option
Forestry	Science-Chemistry Option
Mathematics	Science-Physics Option
Medicine	Veterinary Medicine
Optometry	

## OCCUPATIONAL TECHNOLOGY — ASSOCIATE IN APPLIED SCIENCE

Gaston College offers a variety of Occupational Technology Programs designed to prepare students for entry level jobs upon graduation in paraprofessional fields that meet community needs. They are as follows:

T-016 Accounting	T-030 Secretarial-Executive
T-018 Business Administration	T-031 Secretarial-Legal
T-022 Computer Science	T-032 Secretarial-Medical
T-073 Early Childhood Associate	T-107 Social Services Assistant
T-063 Fire Science	T-088 Teachers' Assistant, Reading
T-058 Medical Office Assistant	T-034 Transportation
T-162 Museum Technology	
T-064 Police Science	

## ENGINEERING AND ALLIED TECHNOLOGY — ASSOCIATE IN APPLIED SCIENCE DEGREE

A student may seek immediate employment after graduation, or he may transfer to a senior college or university to study toward a bachelor's degree. He may complete a two-year curriculum leading to the Associate in Applied Science degree in one of the following engineering and allied technologies listed below:

T-038 Civil Engineering Technology
T-044 Electrical Engineering Technology
T-045 Electronics Engineering Technology
T-047 Industrial Engineering Technology
T-050 Mechanical and Production Engineering Technology
T-049 Industrial Management Technology

## HEALTH OCCUPATIONS— ASSOCIATE IN APPLIED SCIENCE DEGREE, DIPLOMA

Through its Health Occupations Division, Gaston College offers three programs:

Associate in Applied Science Degree in Nursing
Associate in Applied Science Degree in Medical Office Assistant
Diploma in Vocational Education in Practical Nursing

## VOCATIONAL EDUCATION PROGRAMS — DIPLOMA

Vocational education programs of study are designed to prepare graduates with specific job skills which are in demand in the industrial area served by Gaston College. A student may complete a one-year program in one of the occupational curricula listed below:

V-024 Air Conditioning and Refrigeration
V-003 Automotive and Diesel Mechanics
V-043 Broadcasting/Radio/Television
V-017 Drafting
V-018 Electrical Installation and Maintenance
V-042 Electronics Servicing
V-032 Machinist
V-038 Practical Nursing
V-050 Welding

The above codes represented are the approved curriculum codes by the North Carolina Department of Community Colleges.

## CONTINUING EDUCATION PROGRAMS

The Division of Continuing Education has been given the responsibility to implement certain elements of the purpose of Gaston College. In assuming this responsibility, the Division commits its resources to serving the adults of Gaston and Lincoln Counties having educational needs which cannot be met by the other divisions of the college by offering non-credit educational and training courses and programs.

Academic Extension Programs	Public Safety Extension Programs
General Educational Development Testing	Human Resources Development Extension Programs
Industrial Extension Programs	Family Life Center Programs
Occupational Extension Programs	Visiting Artist Program

## SPECIAL PROGRAMS

The College endeavors to meet the needs of its community through the development of specific courses and programs which utilize innovative teaching techniques and close association of teachers and students.

## COLLEGE PARALLEL PROGRAMS

Gaston College offers course work and programs leading to three distinct two-year based, fully accredited Associate Degrees; 1) the Associate in Arts, 2) the Associate in Fine Arts and 3) the Associate in Science. These degrees are a culmination of six quarters of full-time course-work paralleling the freshman and sophomore years at accredited colleges and universities. Within these degree programs, the student receives a general education in the areas of English, humanities, mathematics, science and the social sciences; in addition, the student may begin specialized work in a major field of interest.

Students who maintain a 2.00 grade point average and complete the respective degree requirements should be able to transfer to the junior year of most senior institutions without loss of time or credit. In instances where Institutional requirements vary, students, by knowing the specific Institutions to which they intend to transfer, may with the assistance of the counselors arrange for the Gaston College two-year Associate Degree program to conform with their intended transfer institution.

## GENERAL STUDIES

A student may enroll in a first-year General Studies curriculum of general education. This curriculum provides a broad, integrated educational experience that is characterized by individual attention by instructors, close personal associations among students, comprehensive testing, test interpretation, and counseling to aid students in making realistic educational-vocational choices. It involves students and faculty in a variety of cultural, recreational, and social activities. It also provides courses which emphasize student interest, critical thinking, contemporary life, and community involvement.

After completion of the General Studies curriculum, a student is encouraged to continue his education by study in occupational or liberal arts curricula.

## DEVELOPMENTAL COURSES

Within the general programs, the College provides developmental courses in English, mathematics, and reading for those students who need additional preparation or who need a refresher course before continuing study in these subject areas. Students who have not met the suggested entrance requirements for percentile ranks on the ACT test are directed to enroll in developmental courses.

## ACCREDITATION AND INSTITUTIONAL MEMBERSHIP

Gaston College is accredited by the Southern Association of Colleges and Schools and the North Carolina State Board of Education. Five engi-

neering technology curricula are accredited by the Accreditation Board for Engineering and Technology, Inc. (ABET) is recognized by the National Commission of Accrediting as the appropriate accrediting agency for the accreditation of engineering technology curricula as well as the curricula leading to first degrees in engineering. The nursing curricula are accredited by the North Carolina Board of Nursing, which is designated as the legal accrediting body for educational programs in nursing.

Gaston College is an institutional member of the following:

- Southern Association of Colleges and Schools
- North Carolina Association of Broadcasters, Inc.
- American Association of Collegiate Registrars and Admissions Officers
- American Society for Engineering Education
- Southeastern Section of the American Society for Engineering Education
- Accreditation Board for Engineering and Technology, Inc.
- North Carolina Trustees Association of Community Education Institutions
- Charlotte Area Educational Consortium
- North Carolina Association of Colleges and Universities
- North Carolina Association of Public Community College Presidents
- Adult Education Association of the United States of America
- National Association for Foreign Student Affairs
- North Carolina Association of Community College Public Information Officers
- American Association of Community Junior Colleges-Council of Associate Degree Programs-National League for Nursing
- Chamber of Commerce Lincolnton-Lincoln County
- Blue Ridge Safety Council
- International Management Council-Gaston County Chapter
- Carolinas Association of Collegiate Registrars and Admissions Officers

## HISTORY

The urgent need for a college to serve the Gaston County community became apparent in the 1940's. During the period between 1945 and 1960, the boards of education, the area newspapers, the chambers of commerce, and several groups of interested and influential citizens kept this need before the people of Gaston County. In October, 1961, a committee, under the chairmanship of Ray P. Craig, was appointed and charged with the responsibility of investigating the possible need of a community college for this area. The efforts of this committee resulted in tentative approval from the North Carolina Board of Higher Education, and in June, 1962, subsequently, the Advisory Budget Commission approved the plans for a community college. The citizens of Gaston County voted a tax levy for the college, and a charter was granted to the institution on January 10, 1963, by the State of North Carolina. The college was chartered under the name of Gaston College.

The initial Board of Trustees of Gaston College secured Dr. C. Robert Benson as the first president. Under his leadership and guidance, Gaston College rapidly assumed form. New buildings were planned and constructed. An administrative staff, faculty, and student body were recruited. The College began operation in temporary headquarters in the Education Building of Gastonia's First United Methodist Church on September 23, 1964. In November, 1964, the College moved to its new permanent campus, located on U.S. Highway 321 between Dallas and Gastonia.

Two related public educational institutions were in existence in Gaston County at the time of the organization of Gaston College. The Gaston Technical Institute, founded in 1952 under the sponsorship of North Carolina State University, offered programs in engineering technologies. The Gastonia Industrial Education Center, founded in 1958 under the sponsorship of the Gastonia Board of Education, offered vocational programs. These two institutions were merged with Gaston College on July

1, 1965. This established Gaston College as a pioneer comprehensive community college, offering programs in the liberal arts, engineering technologies, occupational skills, and continuing education.

Dr. C. Robert Benson resigned as president in February, 1967. Dr. W. Thomas Cottingham, Dean of Instruction, was appointed acting president by the Board of Trustees to serve until the appointment of a new president. In April, 1967, Dr. Woodrow B. Sugg was appointed president of Gaston College. His term of office began on July 1, 1967.

On July 1, 1975, Dr. Woodrow B. Sugg resigned as president. Dr. Joseph L. Mills, Vice President, was appointed by the Board of Trustees to serve as the third president of Gaston College. Dr. Mills served four years until his resignation effective August 31, 1979. Dr. Robert M. Howard, Dean of Instruction, was appointed acting president. Dr. Howard was appointed president by the Board of Trustees effective September 1, 1979.

The college continues to expand in services to the community and to grow in enrollment. The Board of Trustees has approved the construction of a new art center to replace the temporary quarters it now occupies. A new child care center is now under construction to be completed in August, 1980. A new extension campus in Lincolnton, North Carolina, was opened in September, 1979, in the building formerly occupied by the First Baptist Church. The Garrison Center on South York Street continues to provide continuing education courses in a downtown location in Gastonia, North Carolina. Plans are being studied and considered for the development of certificate programs designed to meet specific business and industrial needs.

## BOOKSTORE

The college maintains a bookstore on campus. It is operated as a service to the student body, faculty, and staff. Textbooks, school supplies, and other course-related materials are available at the bookstore. The bookstore also offers for sale other items of special interest to Gaston College students.

## FOOD SERVICE

A full service, fast food cafeteria is located in the Myers Center. Breakfast and lunch menus are available as well as hot sandwiches, salads, pizza, desserts, and beverages.

Vending machines are located in the Technical/Vocational building, Industrial building, in the Classroom building, and in the Myers Center. These machines offer snacks, soft drinks, and cigarettes.

## HOUSING

As a college primarily for commuting students, Gaston College does not provide dormitory or other on-campus housing facilities. It is the responsibility of the individual student who requires housing to arrange his own accommodations.

## LEARNING RESOURCES CENTER

The Learning Resources Center is composed of utilization, instructional, and audiovisual services. The main facility, located on the first floor of the Library/Science building, contains a study and reference room, a current periodicals and lounging area, general stacks for circulating materials, listening-viewing areas, a periodicals storage and study room, areas for typing and previewing films, and offices of the LRC staff. The main circulation desk and the card catalog are located here, also.

A photographic dark room is located on the second floor of this building. Television and audiovisual production facilities are located in the Control Room of the Myers Center Auditorium.

The Learning Resources Center's collections include books, magazines, newspapers, pamphlets, periodic services, films, filmstrips, recordings, transparencies, and other audiovisual materials. The book collection numbers over 42,000; the periodicals collection consists of

over 300 titles; and the audiovisuals collection numbers as follows: 510 filmstrips, 1407 recordings, 169 film loops, 203 filmstrips, 603 sound filmstrips, 2366 rolls of microfilm, 963 microfiche cards, and a number of slides, transparencies, media kits, and reproduction of art works. A guide to the location and regulations for circulation of these materials are found in the Learning Resources Center Handbook.

Microfilm of back issues of periodicals and microfiche cards of selected newspaper articles along with microfilm and microfiche readers and reader-printers are available for use in research. Periodical services are maintained for use in locating references.

The Learning Resources Center's services are coordinated by professional personnel. Technical, clerical, and student personnel are a very important part of the staff.

Students are urged to acquaint themselves with the regulations which have been established for the interest of all who use the Learning Resources Center. These procedures, along with other items designed to aid the student in his use of the Learning Resources Center, will be found in the Learning Resources Center Handbook available at the circulation desk.

## ADMISSION TO GASTON COLLEGE

### I. Administration of Admissions:

In accordance with state procedure, Gaston College has an "open door" admission policy which was established by the Department of Community Colleges of North Carolina. The Student Services Division of the college is responsible for the criteria for admission of curriculum students. A Dean of Admissions directs this office and is responsible to the Dean of Students.

### II. Applications:

Any person who wishes to take courses for credit or audit in the Academic, Technical, or Vocational Divisions must complete the official Gaston College application. These applications may be obtained through the Admissions Office of Gaston College.

### III. Admission of New Freshmen:

Admission to Gaston College is open to all high school graduates and adults who have earned a high school equivalency diploma issued by the North Carolina State Department of Education or by the Department of Education of any one of the other states. Any adult eighteen years or older who does not possess a high school diploma or its equivalency may be admitted to the Technical or Academic Division on a probationary status. Upon completion of the first ten credit hours of college work attempted, the student's progress and potential will be evaluated and he/she may qualify for regular degree status. A high school diploma or its equivalent is recommended for those students entering the Vocational Division, but it is not a requirement. Any adult eighteen years of age or older may be admitted into the Vocational or Adult Education courses.

#### The New Freshman Should:

1. Completely fill out the Gaston College Application.
2. Arrange to take the American College Testing (except for Vocational or Non-Degree students). One exception is that applicants for the Practical Nursing Diploma are required to take the American College Test. All Health Occupational Programs have limited enrollment and applicants should apply early.
3. Have high school send an official copy of your school records (transcript) to the Admissions Office at Gaston College.
4. A student cannot be accepted in a program leading to a degree at Gaston College until these requirements have been met.
5. Bring or mail your application to:

Dean of Admissions  
GASTON COLLEGE  
Dallas, North Carolina 28034

### IV. Admission of Transfer Students:

Students are eligible to transfer from all accredited colleges and universities. Transfer students whose status with the institution last attended is other than "Good Standing" or whose accumulative grade point average is below the sliding scale used by Gaston College may be admitted only on probation. If the transfer student is not eligible to return to the institution from which he wishes to transfer, he may be refused admission to Gaston College.

#### A Transfer Student Should:

1. Complete the Gaston College application.
2. Have an official high school transcript and official transcripts from previous colleges attended sent to the Admissions Office at Gaston College.
3. Take the American College Test if the student has not successfully completed a college English and Math course at another accredited college.
4. Request that the Admissions Office have your transcripts evaluated from previous colleges for credits which could apply toward your degree at Gaston College.
5. A student cannot be accepted in a program leading to a degree at Gaston College until these requirements have been met.

#### Procedural Note:

#### Transfer Regulations:

### ACCREDITATION

Gaston College accepts the accreditation of the North Carolina State Board of Education for college in North Carolina and the Southern Association of Colleges and School Agency. Colleges and universities outside North Carolina must have accreditation from the appropriate regional accrediting agency for transfer to be accepted unconditionally.

### EVALUATION OF TRANSFER CREDIT

Transcripts will be evaluated by deans of the curricular divisions for transfer credit. The chairperson of the receiving department will inform the student the extent to which the credits accepted in transfer will apply toward the degree sought. This procedure is initiated in the Admissions Office.

### VALIDATING EXAMINATIONS

Some departments at Gaston College require an examination to validate transfer credit. These examinations are administered by the department or division involved.

#### V. Readmission of Former Students:

Former students in good standing will be readmitted as returning students and do not need to complete a new application for admission. Former students who are not in good standing (debts owed, academic or disciplinary suspension, etc.) must remove these deficiencies before they can be readmitted in good standing.

#### VI. Admission and Enrollment of International Students:

### INTERNATIONAL (F-1 STATUS) STUDENTS

Gaston College and international students are subject to the following regulations.

#### Definition of F-1 Status

An F-1 visa and F-1 Student status may be granted to an alien who is a bona fide student "qualified to pursue a full course of study" at an academic institution authorized to admit foreign students. When applying for an F-1 visa, the individual must prove to a U.S. consular official that he wishes to enter the U.S. temporarily and solely for purposes of study and that he has a permanent residence in a foreign country which he has no intention of abandoning.

The responsibilities assumed by Gaston College as an approved school are as follows:

1. To furnish a properly executed Form I-20 to a nonimmigrant alien student who is accepted for attendance at the college.

2. To report in writing on form I-20B to the Immigration and Naturalization Service Office having jurisdiction over this area if an F-1 status student assigned to Gaston College
  - a. fails to register personally at the school within 60 days of the time he is expected to do so.
  - b. fails to carry a full course of study.
  - c. fails to attend classes to the extent normally required.
  - d. terminates his attendance at the institution.

#### Regulations pertinent to the F-1 status student:

Once an alien is admitted to the U.S. in F-1 status, he must meet certain obligations in order to maintain that status. First, he must continue to pursue a full course of study. This is defined as undergraduate study at a college or university which consists of at least 12 hours of instruction a week or its equivalent as certified by an authorized official of the institution. Secondly, the authorized school official must certify that successful completion of the course of study will lead to the attainment of stated educational, professional, or vocational objective.

An F-1 student may accept off-campus employment only with prior Immigration and Naturalization Service approval.

Nonimmigrant F-1 students must keep valid their permission to stay in the U.S. (Form I-94). Application for renewal of this permission is to be made every year (or as necessary) on Form I-538.

An F-1 student who transfers from one school to another in the U.S. must secure permission from Immigration and Naturalization Service to transfer. Such permission should be sought before the student undertakes studies at another school in the U.S.

When an F-1 student fails to maintain his status or terminates his program, the authorized school official is required to report these facts to the Immigration and Naturalization Service on Form I-20B.

The Foreign Student Advisor is responsible for insuring that all of these results and regulations are properly administered. Therefore all academic transactions must be approved prior to any administrative processing.

### PROCEDURES FOR ADMISSION OF INTERNATIONAL STUDENTS

All applicants seeking admission to Gaston College must submit the following to the Admissions Office:

1. An official Gaston College Application.
2. An official high school transcript and any other official transcript(s) of college work completed.
3. Proof of English proficiency. (Suggested—TOEFL-500, Michigan TELP 70, ELS proficiency at university level curricula or successful course work at another U.S. institution of higher education.)
4. A letter of financial responsibility.

When all requirements have been received, the Foreign Student Advisor and the Director of Admissions will evaluate the records and make a final decision.

ALL APPLICANTS SHOULD HAVE COMPLETED THESE REQUIREMENTS AT LEAST FOUR WEEKS PRIOR TO THE QUARTER FOR WHICH THEY ARE SEEKING ADMISSION.

At the time the student comes to register, he must present a letter of acceptance from the Gaston College Admissions Office and/or an I-20 issued by Gaston College to attend Gaston College before he is given any registration packets.

#### VII. Special Admissions:

A North Carolina State Board of Education Policy grants permission for non-high school graduates sixteen or seventeen years of age to attend classes at state supported community colleges. Persons in this category, who have withdrawn from high school for at least six months, may be admitted to a high school completion program at Gaston College. Those who have withdrawn for less than six months must have written consent of the superintendent of the administrative unit in which the high school is located.

### Dual Enrollment:

Selected high school students may be admitted to some courses at Gaston College under certain conditions. The student must be sixteen years old or older. He/she must have the approval of an official of their public school system and the Admissions Office of Gaston College for credit courses or the Continuing Education Office for non-credit courses. The student must be taking at least three courses at his/her high school and be making appropriate progress toward graduation as determined by the school principal. High school students will pay regular tuition and fees. For additional information concerning special admission to Gaston College the student should contact his/her high school principal. All admissions are contingent upon availability of adequate classroom space.

Applicants are admitted to Gaston College without regard to race, color, creed, national origin, sex, or handicap.

### TESTING

Gaston College provides a variety of aptitude, achievement, intelligence, interest, personality tests, and inventories for its students according to interest and need. These tests and inventories are administered, scored, and interpreted to the student by the counselors and the Director of Testing free of charge.

Gaston College and the Lincoln Center of Gaston College are official testing centers for the High School Equivalency Diploma Examination (GED).

### GUIDANCE AND COUNSELING

Gaston College provides complete guidance and counseling services. After completing admission requirements, each student will be given an appointment with a member of the counseling staff or the Dean of Student Personnel. At this time the counselor will review the student's past academic record and the test results. The student will also be given information on the curricula available and the requirements for pursuing the program of his choice. If necessary, developmental courses are provided in English, mathematics, and reading improvement.

College parallel should seek counseling from the Coordinator of Advisement or a counselor during their program of study, particularly after completing the first quarter.

Students in the Technical and Vocational Divisions will be advised by persons in their respective departments.

## Financial Information

### TUITION AND FEES: Curricula Students

The following tuition and fees are payable each quarter:

Hours	Academic	Technical	Vocational
Residents of North Carolina			
12 or more	\$ 39.00	\$ 39.00	\$ 39.00
Part-time	3.25 per credit hour	3.25 per credit hour	3.25 per credit hour
Nonresidents			
12 or more	\$198.00	\$198.00	\$198.00
Part-time	16.50 per credit hour	16.50 per credit hour	16.50 per credit hour

Other fees or cost include:

Student Activity Fee	\$6.50 fall, winter, and spring
Graduation Fee	\$15.00
Parking Fee	\$2.00
Books and Supplies	Will vary according to the program of study and the course load.

All fees are subject to change without prior notice.

A fee of \$5 will be assessed any student whose check is returned.

For those students required to take the American College Test for guidance purposes, the current cost is \$7.50, and is subject to change without notice.

### RESIDENT STATUS FOR TUITION PAYMENT

- General:** The tuition charge for legal residents of North Carolina is less than for nonresidents. To qualify for in-state tuition, a legal resident must have maintained domicile in North Carolina for at least the twelve months next preceding the date of first enrollment or re-enrollment in an institution of higher education in this state. Student status in an institution of higher education in this state shall not constitute eligibility for residence to qualify said student for in-state tuition.
- Minors:** A minor is any person who has not reached the age of eighteen years. The legal residence of a person under eighteen years of age at the time of first enrollment in an institution of higher education in this state is that of his parents, surviving parent, or legal guardian. In cases where parents are divorced or legally separated, the legal residence in North Carolina, based upon residence of guardian in North Carolina, will be considered if either parent is living unless the action of the court appointing the guardian antedates the student's first enrollment in a North Carolina institution of higher education by at least twelve months.
- Adults:** An adult is any person who has reached the age of eighteen years. Persons reaching the age of eighteen, whose parents are and have been domiciled in North Carolina for at least the preceding twelve months, retain North Carolina residence for tuition payment purposes until domicile in North Carolina is abandoned. If North Carolina residence is abandoned by an adult, maintenance of North Carolina domicile for twelve months as a non-student is required to regain in-state status for tuition payment purposes.
- Married Students:** Any non-resident person, irrespective of sex, who marries a legal resident of this State or marries one who later becomes a legal resident, may upon becoming a legal resident of this State, accede to the benefit of the spouse's immediately precedent duration as a legal resident for purposes of satisfying the 12-month durational requirement of this section.
- Military Personnel:** No person shall lose in-state resident status by serving in the Armed Forces outside of the State of North Carolina. A member of the Armed Forces may obtain in-state residence status for himself, his spouse, or his children after maintaining his domicile in North Carolina for at least the twelve months next preceding his or their enrollment or reenrollment in an institution of higher education in this state.
- Allens:** Aliens lawfully admitted to the United States for permanent residence may establish North Carolina residence in the same manner as any other nonresident.
- Property and Taxes:** Ownership of property in or payment of taxes to the State of North Carolina apart from legal residence will not qualify one for the in-state tuition rate.
- Change of Status:** The residence status of any student is determined as of the time of first enrollment in an institution of higher education in North Carolina except for one of these reasons:
  - In the case of a nonresident student at the time of first enrollment who has subsequently maintained domicile as a non-student for at least twelve consecutive months or
  - In the case of a resident who abandoned legal residence in North Carolina. In either case, the appropriate tuition rate will become effective at the beginning of the first subsequent term enrolled.
- Responsibility of Students:** The Dean of Admissions determines the in-state or out-of-state status of all students applying for admission to Gaston College. Any student or prospective student in doubt concerning residence status must bear the responsibility for securing a

ruling by stating his case in writing to the Director of Admissions. The student who, because of subsequent events, becomes eligible for a change in classification, whether from out-of-state to in-state or the reverse, has the responsibility of immediately informing the Dean of Admissions of the circumstance in writing. Failure to give complete and correct information regarding residence constitutes grounds for disciplinary action.

#### **REGISTRATION FEE: Continuing Education Division**

There is a \$5.00 registration fee per person per course (with certain exceptions).

Registration dates for student who wish to enroll in the Continuing Education Division are scheduled both during the regular registration period and during the first week of class. Announcements of subjects offered and registration dates are issued regularly by the College.

Continuing Education students pay no activity fee; however, they are to pay the current parking fee. The cost of books and supplies will vary according to the course.

#### **REFUND POLICY**

On the quarter system, a student shall not be allowed a tuition refund unless compelled to withdraw for unavoidable reasons. In such cases two-thirds of the tuition may be refunded if the student withdraws within ten calendar days after the beginning of the quarter. Tuition refunds will not be considered for tuition of \$5 or less. If a course or curriculum fails to materialize, all of the student's tuition will be refunded.

The student activity fee is not refundable.

The \$5.00 registration fee for Continuing Education students will be refunded in the event the class is cancelled.

#### **STUDENT ACTIVITY FEE**

The student activity fee for each student carrying eight quarter hours or more is \$6.50 per quarter. Students with fewer than eight quarter hours may elect to pay the student activity fee and enjoy its benefits if they wish. Student activity fees will only be collected fall, winter, and spring quarters.

The student activity fee supports cultural, entertainment, and recreational activities. It provides admission to college dramatic productions, Student Government Association activities, socials and entertainments furnished and sponsored by Gaston College, and subscriptions to the college newspaper.

#### **STUDENT FINANCIAL AID**

Gaston College coordinates a financial aid program which assists students with financial need to meet the necessary expenses of attending college. The financial aid program is divided into four general areas: Loans, Scholarships and Grants, Student Employment and Special Program.

#### **LOANS**

##### **The Charlotte Chapter of the Professional Construction Estimators Association Loan Fund**

A revolving loan fund for students in engineering technology curricula has been established at Gaston College. Loans are normally limited to a maximum of \$200. Recipients will be expected to repay the loan within one year after graduation. If, however, the loan is not repaid within one year after graduation, the principal sum will accrue interest at the rate of 6 percent per annum until paid.

##### **Gaston County Medical Auxiliary Loan Fund**

The Gaston County Medical Auxiliary has made available to Gaston College a sum which is to be used for nursing loans. The basis for selec-

tion is financial need, and the recipient is to begin repayment of the loan ninety days after the completion of the Nursing Curricula.

#### **Guaranteed Loan Program**

Gaston College participates in the Federal Guaranteed Loan Program. This program is known as 'The North Carolina Bankers' Student Loan Plan' and is coordinated by the College Foundation, inc., P.O. Box 1487, Raleigh, North Carolina 27600. This foundation also administers the James E. and Mary Z. Bryan Foundation Student Loan Plan. Students interested in receiving loans through either of the sources must be enrolled or accepted for enrollment in Gaston College.

#### **Nursing Student Loan Program**

The Federal Government makes an award to Gaston College which is to be used for loans to students who are enrolled in the Nursing Curricula. Awards are made to nursing students on the basis of financial need. When a loan is made, a schedule of repayment is selected; and the student has a period of ten years in which to repay the loan.

#### **SCHOLARSHIPS AND GRANTS**

Gaston College has a limited number of scholarships and grants available for students who have superior academic records. Because of the low tuition charge, the college does not award large scholarship grants. These generally range in value from \$100 to \$300 per academic year. Funds for scholarships and grants are donated by civic clubs, friends of the college, high schools, and local businesses. The following awards are provided by individuals, organizations, and the Federal Government and are administered through the College:

##### **Pearl Dixon Balthis Foundation Scholarship**

The trustees of the Pearl Dixon Balthis Foundation have made available \$2,000 to the students of Gaston College. These funds are administered through the Financial Aid Office, and eight scholarships of \$250 are awarded to students each year. The selection of recipients is made by Gaston College on the basis of character, academic standing, and financial need. The Foundation receives periodic reports of the academic progress of the recipients.

##### **Basic Educational Opportunity Grants**

The Basic Educational Opportunity Grant Program is a Federal aid program designed to provide financial assistance to those who need it to attend post-high school educational institutions. The first step in qualifying for a Grant is to complete the application for determination of family contribution and to send it to the address on the envelope received with these materials. A notice should be received of the amount of your expected family contribution within four weeks. Once this is received, submit it to the student Financial Aid Office at Gaston College. This Institution will then notify you as to the amount that you should expect through the Basic Educational Opportunity Grant Program and when the Grant check will be available. It is important that you read the instructions while completing the form. If the form is completed correctly, your application can be processed without unnecessary delay. Every attempt has been made to include only those questions that are absolutely necessary. All information will, of course, be treated confidentially. If assistance is needed in completing the form, contact the guidance counselor at the local high school or the Student Financial Aid Officer at Gaston College.

##### **Belmont Savings and Loan Association Scholarship**

The Board of Directors of the Belmont Savings and Loan Association has made two scholarships of \$250 each available annually to students from the Belmont area. The scholarships are awarded to students who show academic potential and financial need.

##### **Herrick Brumley Memorial Scholarship**

The Gastonia Kiwanis Club makes an annual award to Gaston College

of \$200. This is to be administered as a scholarship for any Gaston County student enrolled at Gaston College who has a financial need.

#### **David Belk Cannon Scholarships**

Three scholarships are donated in memory of Mrs. Rebecca Stearns Cannon, David Belk Cannon, Jr., and Rebecca Belk Cannon. These scholarships are awarded annually to freshmen and sophomores.

#### **Concrete Supply Company Scholarship**

A \$100 scholarship is given each year to a freshman student in Civil Engineering Technology.

#### **Concrete Supply Company Scholarship**

A \$150 scholarship is given each year to a freshman student in Civil Engineering Technology.

#### **The Oliver J. Davis Scholarship**

This scholarship is awarded to a black incoming freshman from North Carolina who is enrolled in credit courses at least half time. The recipient is selected on the basis of need. It will cover expenses as outlined in the Student Handbook.

#### **John Reeves Gamble, Sr., M.D., Memorial Scholarship**

A \$250 scholarship is awarded annually to a student from Lincoln County attending Gaston College.

#### **The Gamma Beta Phi Scholarship**

The Gamma Beta Phi Society awards a scholarship annually for tuition and fees. The scholarship is for an incoming freshman from a local high school who has a high scholastic average and is a Beta Club member. The recipient is selected on the basis of need. The scholarship can be renewed.

#### **The Gastonia Business and Professional Women's Club**

This is an annual award sponsored by the Gastonia Business and Professional Women's Club. The award is granted to a student in the Nursing Program who shows a financial need.

#### **Gastonia East Rotary Scholarship**

A \$500 scholarship is awarded annually to a student from Ashbrook or Hunter Huss High School. This scholarship is not restricted to any program of study. Contact your High School Counselor at Hunter Huss or Ashbrook for an application.

#### **Gastonia Evening Civitan Club Scholarship**

The Gastonia Evening Civitan Club has established a \$250 scholarship to be awarded annually to a full-time student at Gaston College. The basis for selection of this scholarship is financial need and the ability to pursue the educational objective selected by the student. The recipient will be eligible to continue the award the second year if he maintains satisfactory grades the first year.

#### **Gastonia Kiwanis Club Nursing Scholarship**

The Gastonia Kiwanis Club has established a nursing scholarship of \$250 per year. This scholarship is to be awarded to a Gaston County resident. The recipient of this initial award will also receive \$250 the second year of the Nursing Curriculum. The recipient is selected on the basis of need and ability to complete the Nursing Curriculum.

#### **Gastonia Music Education Foundation, Inc. Scholarship**

Two annual music scholarships of \$100 each are to be awarded to graduates of Ashbrook or Hunter Huss High Schools. The recipients will be selected on the basis of an audition or interview with the faculty of the Music Department of Gaston College. This scholarship may be renewed for a second year.

#### **Gastonia Rotary Club Scholarship**

A scholarship is given each year to a graduate of Hunter Huss High School and to a graduate of Ashbrook High School. Selection is based upon scholarship and financial need.

#### **Gastonia Traffic and Transportation Club**

A scholarship is awarded to a student who is full-time, from Gaston, Mecklenburg, Cleveland and Lincoln Counties, for passing grades, majors in Transportation, and is receiving no other aid. The amount of this award varies.

#### **Mickey Joel Helms Memorial Scholarships**

A \$150 scholarship is awarded annually to a graduate of Cherryville High School who plans to attend Gaston College.

#### **Maurice Honigman Memorial Scholarship**

Mr. and Mrs. Ralph Sarlin of Liberty, South Carolina, have made a grant to the college's student financial aid program in memory of Mr. Maurice Honigman, the father of Mrs. Sarlin, and a long-time citizen of Gastonia. The grant will finance a \$250 scholarship to be awarded annually to a graduate of one of the Gastonia high schools. The recipient must be a full-time student, and the award will be made on the basis of academic potential and financial need.

#### **Hunter Huss Scholarship Award**

A scholarship of \$250 is awarded annually to a graduate of a Gaston County high school. This award is in honor of Mr. Hunter Huss, former Superintendent of the Gaston County Schools, and it is awarded on the basis of financial need and academic potential.

#### **Jefferson-Pilot Foundation Scholarship**

Two scholarships of \$275 each are awarded annually to entering students taking Electronics Engineering Technology. The recipients must be graduates of high school in North or South Carolina.

#### **Law Enforcement Education Program Grants**

The Federal Government makes an award to Gaston College which may be used as grants. The grants are used for in-service training, and the law enforcement officer must remain in law enforcement for a period of two years. The grant can be used to cover the cost of tuition.

#### **The Dallas Lions Club (District 31-C)**

A \$300 scholarship is awarded to a male student from the Dallas Township. The recipient of this scholarship must show a financial need and must exhibit academic promise.

#### **The Jake L. McAteer Scholarship**

A scholarship is awarded to a student in the Engineering Technology Division of Gaston College for three quarters each year—Fall, Winter, and Spring.

#### **Nursing Scholarship**

The Federal Government makes an annual award to Gaston College which is to be used for nursing scholarships. The award of scholarships is based upon a demonstrated financial need.

#### **Pilot Club of Gastonia Scholarship**

The Pilot Club of Gastonia awards two \$100 scholarships to two female students enrolled at Gaston College. The selection of students is made by the Pilot Club in conjunction with the Financial Aid Office and the criteria used for the selection of recipients are need, academic achievements, and involvement in student activities.

#### **Pearl Davidson Rhodes Memorial Scholarship**

A \$250 scholarship is awarded annually to a student from Lincoln County attending Gaston College.

### **Pauline Scruggs Memorial Scholarship**

The Gastonia Altrusa Club has established a scholarship in memory of Pauline Scruggs. This scholarship is an annual \$150 tuition grant. The recipient of this scholarship must be a female from Gastonia. The recipient is selected on the basis of need and ability to successfully complete college work. The recipient is selected by the Altrusa Club of Gastonia.

## **STUDENT EMPLOYMENT**

### **Federal Work-Study Program**

Students from low-income families who need a part-time job to help pay their college expenses are eligible for employment at the college under the federal work-study program. All applicants must be taking at least six credit hours. Students employed in this program may not average more than fifteen hours per week while attending classes.

### **Prospective Teachers' Scholarship Loan Fund**

In 1957 the General Assembly of North Carolina established a revolving loan fund known as the Scholarship Loan Fund for Prospective Teachers. From this fund a limited number of \$600 scholarship loans will be awarded each year to prospective teachers. Students interested in applying for one of these scholarship loans should write to the Superintendent of Public Instruction, Educational Building, Raleigh, North Carolina 27600. Only legal residents of North Carolina are eligible to apply, and applications must be made by March 1.

### **Veteran's Benefits**

The G.I. Bill provides educational assistance for veterans who are eligible. Eligibility is established after active duty of 181 days or more for other than training purposes with a discharge under other than dishonorable conditions. Eligibility remains in effect until consumed or ten years from active duty release date.

Any veteran who has attended another college or university cannot be certified for Veterans Benefits until his transcript has been evaluated by the Admissions Office at Gaston College. When the Veterans Affairs Office has been informed of the number of transfer credits accepted, an Enrollment Certificate can then be sent to the Veterans Administration Office.

Qualified students should contact the Gaston College Veterans Affairs Office or the county Veterans Service Officer.

Applicants who are children of disabled or deceased veterans may be eligible for financial aid. The Gaston College Veterans Affairs Office, the local County Veterans Service Officer, or private veterans organizations may help in determining a student's eligibility for such assistance.

Veteran Students receive G.I. Benefits under Chapters 31, 34, or 35 of title 38 of the U.S. Code for the successful pursuit of an approved program of study, only as it is shown in the Gaston College Catalog. Marks of "W" (Withdrawal), "AU" (Audit) and "I" (Incomplete) are not accepted by the Veterans Administration for payment purposes. All questions and problems pertaining to certification or programs are to be directed to the Veterans Affairs Office.

### **Vocational Rehabilitation**

The State of North Carolina provides financial assistance for residents who have permanent handicaps. Information concerning such aid is available through the Director of Vocational Rehabilitation, State Department of Public Instruction, Raleigh, North Carolina 27600.

## **APPLICATION FOR FINANCIAL AID**

### **Forms**

Gaston College has one application form for financial aid, the Family Financial Statement, developed by the American College Testing Program. The Family Financial Statement should be filled out by all students who are applying for financial assistance, dependent or self-supporting. Copies of the financial aid application mentioned above can be

obtained from high school guidance counselors; Gaston College Director of Financial Aid; or The American College Testing Program, Educational Services Division, P.O. Box 168, Iowa City, Iowa 52240. This application form should be completed and sent to the American College Testing Program in Iowa City, Iowa.

Any student interested in a Jefferson-Pilot Foundation Scholarship should contact the Financial Aid Office of Gaston College for a special application.

The following procedures should be used in seeking financial help:

1. The applicant must apply and be accepted for enrollment (or be enrolled) for the term in which financial aid is sought. Entering students should complete the College's testing program and submit the Gaston College Application for Admission.
2. The applicant must submit the Family Financial Statement to the Director of Financial Aid at Gaston College to be considered for any financial assistance.
3. After receiving the financial aid application and notification of acceptance to Gaston College, the Financial Aid Committee will approve or disapprove the application for financial aid. (For new students entering college in September, applications for financial aid will not be processed before the preceding April.)
4. The applicant should be interviewed by a member of the Financial Aid staff.
5. As soon as each application has been evaluated, the applicant will be notified of the final decision of the Financial Aid Committee by the Director of Financial Aid.

### **Determination of Need**

The financial need of an applicant is determined by the Family Financial Statement and a personal interview. The College subscribes to the principle that the amount of money granted to a student should be based on demonstrated financial need. For this reason, the Family Financial Statement is the primary instrument for assessing individual student need.

In some cases, the Financial Aid Committee will award a "financial aid package" made up of two or more aid programs. This is done in order to meet the individual student's needs in order that more students may receive some financial assistance.

### **Financial Aid To Married Students**

Married students should complete the same forms as unmarried students and follow the same procedures. The Financial Aid Committee recognizes that the needs of married students vary considerably from those of the single student, and in making the awards, an attempt is made to take all of the relevant facts into consideration.

### **Renewal of Financial Aid**

Most programs of financial assistance are awarded for one academic year. However, if funds are available, a student may apply for a particular program during the academic year. In order to renew any financial aid, an evaluation is made of each student's record for the year. Eligibility for renewal is based on the recipient's academic work, his continuing need, his good conduct, and the availability of funds. It is the student's responsibility to initiate an application for the renewal of financial aid for another year.

If a recipient of financial aid is placed on academic or disciplinary probation during the academic year, financial assistance may be discontinued.

Financial aid is administered without regard to race, color, creed, national origin, sex, or handicap.

## **STUDENT RESPONSIBILITY**

A student who is receiving Federal monies from grants, loans, or college workstudy must maintain satisfactory progress in the pursuit of his/her course study. Satisfactory progress is defined as maintaining a minimum grade point average of 1.5 on credits attempted. The student

must be enrolled for at least six quarter hours credit (half-time status) each quarter.

If the student does not comply with this definition of satisfactory progress, he/she will lose the eligibility to receive Federal funds the next quarter. To reinstate this eligibility the student must complete one quarter without Federal assistance. If the student makes satisfactory progress as defined above on this quarter's work, he/she would again be eligible to receive Federal monies.

## **JOB PLACEMENT**

Gaston College maintains a placement service to assist interested students and alumni. Information on career opportunities is available for the student's use in exploring vocations as well as assistance in securing employment.

The Placement Service maintains a file of job opportunities in this area for students interested in part-time or full-time employment. Interested students who have completed or expect to complete any of the programs at Gaston College may register for the Placement Services.

# **Student And Alumni Activities**

## **INTRAMURAL ACTIVITIES**

Gaston College provides a number of varied intramural activities in a structured and a non-structured atmosphere. These activities consist of team sports, dual sports, individual sports, and recreational leisure time pursuits. Participation is open to all students and members of the college staff. The Intramural Program is funded by the Student Government Association and operates under the auspices of the Department of Physical Education and Recreation. The program is student oriented and is limited only by the extent of participation.

## **MYERS CENTER**

The Myers Center provides students with the opportunity to relax in lounge areas; to participate in games in the recreation areas; to eat in an attractive, comfortable dining area; to purchase books, supplies, and other materials from the bookstore; and to enjoy dramatic productions, movies, concerts, speakers, and pageants in the auditorium. The Myers Center also houses the offices of the Student Government Association, the GASLIGHT, the REVELEER, and the Music Department.

## **FRESHMAN ORIENTATION**

At the beginning of each quarter, an Orientation Program is provided for students entering Gaston College for the first time. Orientation informs the students about the academic and social policies of the college and acquaints the student with the library and other facilities. Throughout the orientation period a group of upper classmen will be available to make the incoming freshmen feel at home and to answer any questions they may have about college policies and procedures.

## **SCHOLASTIC ORGANIZATION**

The Gamma Beta Phi Society is an honor-service organization. This society promotes scholarship, leadership, and good character. Membership is open to all students who have successfully completed twelve or more quarter hours of college level work. The student must be in the upper 20 percent of his class. The Gaston College Chapter, which was chartered on March 23, 1966, is a member of the national organization.

## **INTEREST CLUBS**

### **Society of Manufacturing Engineers, Student Chapter No. 28 (SME)**

The Society of Manufacturing Engineers is designed to help its mem-

bers broaden their knowledge in the area of tool manufacturing. Membership is open to any interested student.

### **Civil Engineering Technology Club**

The Civil Engineering Club's purpose is to further the member's knowledge in civil engineering, to encourage academic achievement, and to participate in all school activities and functions.

### **Industrial Engineering Technology Club**

The Industrial Engineering Club provides an opportunity for students to broaden their experience in the industrial field, to participate in school sponsored functions, and to create an atmosphere in which learning is encouraged.

### **The Student Association Branch of the Institute of Electrical and Electronics Engineers (IEEE)**

The IEEE is organized to disseminate knowledge of theories and practices of all aspects of electronics and related fields of electrical engineering. Membership is open to any student in the technical programs.

## **SERVICE CLUBS**

### **Association for the Education of Young Children**

The AEYC is a service organization whose purpose is to assist in the education of students and faculty in the field of young children. In pursuit of this purpose, workshops will be conducted, speakers invited to meetings, and an interchange of ideas relating to Early Childhood Education will be provided. Child Development Services for children of students and faculty will be furnished when the public schools are not in session.

### **Brothers & Sisters United**

The Brothers and Sisters United was organized to bring together people with common outlooks and interests, as well as to provide an official voice through which black students' opinions can be voiced and expressed. The members seek to establish links between the organization and the community through service, projects, programs, and discussions.

### **Christian Fellowship Club**

The Christian Fellowship Club promotes Christian ethics as related to campus life, fellowship among students, and service to the institution and community.

### **The Psychology Club**

The Psychology Club is open to any student or staff member interested in psychology. Its purpose is to disseminate information about psychology through the use of workshops, speakers, and films.

### **The Foreign Language Society**

The Foreign Language Society has as its purpose the development of an interest in foreign languages and an understanding of foreign culture. Membership in the club is open to any student or staff member with an interest in foreign languages and cultures.

### **Student Nurses Association**

The Student Nurses Association fosters leadership skills, promotes rules and regulations of self-government as established by the Student Government Association of the College, establishes a communication media, enlarges extra-curricular opportunities for nursing students, insures a better understanding between faculty and students, promotes better interest and good citizenship among "all students," and advances high educational and professional standards within the school.

### **Inter-club Council**

The ICC coordinates the various activities sponsored by campus student organizations. It is charged with the responsibility of approving all

fund-raising efforts by Gaston College Clubs. Membership is composed of representatives from each of the campus clubs.

## **STUDENT PUBLICATIONS**

The students publish a monthly newspaper, the GASLIGHT, a yearly literary magazine, and the annual, the REVELEER.

The student publications are under the supervision of the Gaston College Publications Review Board. This Board is composed of the faculty advisors to the student publications, the president and treasurer of the Student Government Association, and a representative from the general administration. The primary purpose of this Board is to coordinate and to organize activities of the staffs of the publications.

Students interested in any aspect of work of these publications are invited to participate by contacting the advisors of the publications.

## **ALUMNI ASSOCIATION**

The Alumni Association provides a broad-based program encouraging community support and a continuing interest by former students in their Alma Mater. The Association, which is composed of a variety of chartered clubs representing the various curricula and programs of study, helps to maintain the excellent reputation of Gaston College as an institution of higher learning.

All former students regardless of length of attendance at Gaston College, affiliates, honorees, friends of Gaston College, and all enrolled students anticipating pending graduation are eligible and welcome to become members. The Association meets annually for a business meeting and banquet in the spring near the time of commencement exercises. The officers of the Association are elected at this spring business meeting and serve for a one-year term. The officers and faculty advisor serve on an executive committee which meets at the College several times throughout the year to discuss and to plan the activities of the Association. The alumni awards for scholastic achievement are presented at the commencement exercises. Plaques are presented to the graduates who have maintained the highest scholastic averages in the Associate degree field and in the Diploma field.

## **STUDENT GOVERNMENT ASSOCIATION**

The Student Government Association, which is composed of all students who have paid a student activity fee, is an exercise in student self-government. Students select representatives from their membership to participate in one of the decision-making bodies of the Student Government Association: the executive, the legislative, and the judicial branches.

With limited faculty and administrative assistance, the SGA student representatives receive valuable practical experience in establishing and in allotting a large budget, in providing leadership for student activities, and in establishing lines of communications between students and staff.

### **The Executive Branch**

The executive branch consists of the president, the vice-president, the secretary, and the treasurer. This executive council gives direction and leadership to the efforts of the SGA.

## **ACADEMIC REGULATIONS**

Gaston College has established a set of regulations, policies, and standards in order to provide an academic environment that will promote the educational outcomes of quality education and assured compliance with state, federal, accreditation, and certification directives and statutes. These regulations and policies are consistent with the needs of mature students and professional staff for published due processes by which all may achieve their rights, opportunities, and goals within the academic environment.

Students are responsible for the proper completion of their academic programs based upon the requirements stated in the GASTON COLLEGE

GENERAL CATALOG in conjunction with the current BULLETIN. Faculty members, staff members, counselors, and administrators are available to help students with planning, academic, and other problems, but the responsibility rests upon the individual student.

## **Grounds for Student Dismissal**

Academic standards and compliance with accreditation and legal requirements are maintained, in part, through regulations and policies related to student behavior both in and out of the classroom, i.e., matriculation for scholarly pursuit and citizenship. The College has the right to dismiss a student if in violation of regulations or policies.

A student may be dismissed from a course or a program under academic regulations or from the College for violations of citizenship regulations (for other than "Standards of Honesty," see STUDENT HANDBOOK).

Dismissal from Gaston College for academic reasons is initiated by faculty, chairpersons, divisional deans, or the Suspension Committee upon petition to the Dean of Instruction.

Academic dismissal is based upon the concept of "Satisfactory Progress" in a specific course or program which is stated in terms of minimum grades, completion of course sequences, and the achievement of certain knowledges, skills, and abilities.

Reinstatement of a dismissed student is possible only through the auspices of the Dean of Instruction. Note: Dismissal is to be distinguished from academic suspension. Academic suspension is a temporary sanction administered by the Suspension Committee or the program director in terms of a "Satisfactory Progress" statement. (The program director refers to the specific individual responsible for directing a curricular program.) That committee or program director establishes the conditions of the suspension, i.e., duration, remediation, proficiency demonstration. Appeal of a suspension is only to the Dean of Instruction through the Suspension Committee or the divisional dean of the respective division.

## **Dismissal from an Occupational Program.**

If the program director determines that a student is not a safe and dependable practitioner in the lab, shop, clinic, or field area in the progress of a course, then the student may be dismissed from the program with the concurrence of the Dean of Instruction through the due process procedures.

Due to the fact that certain courses of many occupational programs are prescribed in a one or two year sequential pattern and are offered only once during the sequence, a student has no opportunity to repeat one of these courses or to elect a substitute course. Therefore, a student who fails one of these courses will be dismissed from the program at the end of the quarter in which the failure occurs.

Students dismissed from an occupational program under this policy may petition the program director for enrollment in a later class.

## **STANDARDS OF HONESTY**

The College is conducted on basis of common honesty. Dishonesty, cheating and plagiarism, or knowingly furnishing false information to the College are regarded by the College as particularly serious offenses. Within the respective curricular divisions of Gaston College, faculty members handle cases of dishonesty in their classes by levying certain penalties. However, in flagrant cases, the penalty may be dismissal from Gaston College by a ruling from the Gaston College Judiciary.

## **CLASS ATTENDANCE**

The instructional work of the College is designed for class attendance, and it is assumed the students will be present. Accordingly, the responsibility for class attendance is specifically placed on the individual student. The student must appreciate the necessity and privilege of regular class attendance, accept this personal responsibility, and accept the consequences of failure to attend class. An instructor may prescribe such reasonable regulations as deemed necessary. At the outset of each

course it is the responsibility of each instructor to notify classes in writing of the attendance requirements to which the students must adhere. The instructor is further required to keep a current record of the attendance of students in his class.

The College reserves the right to sever its relationship with any student who fails to maintain the respective attendance requirements, and such a student can be dismissed from a given class upon recommendation of the instructor and acceptance by the Registrar.

When it appears to an instructor that a student has discontinued a class without authority, the instructor will report this fact to the Registrar, via the Instructor Withdrawal Form through the seventh week of the quarter or the published deadline for student withdrawal.

The student is responsible for all material covered in each course for which he is registered. In no instance does absence from class relieve the student from the responsibility for the performance of any part of the course work. The student is further responsible for initiating any request to make up work because of class absence. The decision to assist the student with makeup work, including tests, in every case rests with the instructor. The instructor may require verification of medical or personal circumstances presented by the student to influence this decision. Accordingly, course work, not made up, may cost a student grade advantage in the final evaluation since the instructor is not required to offer the student an opportunity to make up course work.

A student may seek reinstatement into a class by submitting a written request to the respective instructor. If the request is denied, the student can petition for reinstatement directly to the Dean of Instruction, who will make a final ruling upon the petition.

## COURSE OVERLOAD

No student may carry in excess of eighteen credit hours except with the written permission of the appropriate division dean.

## TRANSCRIPT OF GRADES

In order for Gaston College to comply with the Family Education Rights and Privacy Act of 1974, a student must give written consent for the release of a transcript of college credits earned at Gaston College. The transcript must be sent directly from the Registrar's Office to another institution, employer, etc., in order for the copy to bear the Gaston College seal, thus making it an official copy. A student may request a student copy of his transcript at any time. There is no charge for transcripts.

## CREDIT AND GRADES

The quarter hour is defined as the unit of credit value of work involved in attending lectures for one class meeting a week for one quarter, or for laboratory session varying from two to three hours a week for one quarter.

### Grade Symbols

A final grade is the instructor's evaluation of the student's work and achievement throughout a course. Factors upon which the final grade may be based are attendance, recitation, written and oral quizzes, reports, papers, final examination, and other class activities. The evaluation will be expressed according to the following letter system:

Grades	Marks
A Superior	W Withdrawal
B Above Average	AU Audit
C Average	X No grade reported by instructor
D Lowest Passing Grade	S Satisfactory Progress
CE Credit by Examination Granted	U Unsatisfactory Progress
F Failure	R Repeated Course
NC No Credit	
Z Credit Granted	
I Incomplete	

Qualitative Grade Points—A, 4.00; B, 3.00; C, 2.00; D, 1.00; F, 0.00; NC, 0.00

An average of C is defined as a grade-point average of 2.00 on all computed grades.

**F Grade.** The grade F is recorded if the student has failed on the combined evaluation of work through the quarter.

**CE Grade.** At anytime during the period of enrollment in a given course at Gaston College, a student must petition the respective department head and the respective division dean for permission to seek course credit by examination. If both grant their permission, the department head, upon the student's successful completion of the examination, will notify the division dean and the Registrar of this outcome. Credit by examination can be permitted for courses number 100-299 and 1100-1199. No student may request credit by examination for more than eighteen credit hours.

The student must present the instructor(s) conducting the examination with the permit for the examination and a receipt from the Business Office.

The grade of CE will be earned by successful completion of the credit by examination and entered in the student's record. Credits by examination will be applied toward graduation requirements. Quality points are not computed for the grade CE.

**Z Grade.** The Z grade is assigned to credits accepted in transfer by the appropriate curricular dean or other credits granted. The grade authorizes credit without further qualification of student performance. The Z grade does not affect a student's grade-point average in any way and is not used in determining whether a student qualified to graduate with academic honors.

**I Grade.** The grade I is used to postpone course evaluation. It is to be given only when unusual circumstances, such as illness, prevent a student from completing all the requirements of a course by the end of the regular term. An I must be removed from the student's record on or before the end of the eighth week of the following quarter. If the I grade is not removed by the end of the eighth week of the quarter, the student will be evaluated. The grade I is not computed into the grade-point average until the course requirements are met to the instructor's satisfaction.

**W Mark and NC Grade.** A student who wishes to withdraw from a course, or courses, within the first seven weeks of the quarter may do so without the credit hours being computed as hours attempted.

Withdrawal from a course or courses after the first seven weeks for other than an appropriate cause determined by medical, counseling, or administrative circumstances shall be counted as NC and computed in the grade-point average.

The mark W indicates the student withdrew from the course within the first seven weeks or at a later date for appropriate cause determined by medical, counseling, or administrative circumstances.

A grade of NC indicates unsatisfactory achievement or withdrawal from the course after completion of seven weeks of the course without passing grades. Quarter hours are included as work taken in computation of grade-point average. No quality points or credits are earned.

A student wishing to withdraw from a course or courses must follow the official procedure which is initiated in the Registrar's Office.

**AU Mark.** Students who wish to audit courses must follow the regular registration procedures and then declare the audit status to the respective course instructor. A student who registers for an audit may not receive a grade for the course. The fees are the same as for regular college credit.

**S Mark.** S indicates satisfactory progress toward the completion of course work involving individually guided study, internships, externships, and independent study. When the work has been concluded, the S is changed to a regular letter grade and computed accordingly.

**U Mark.** U indicates unsatisfactory progress toward the completion of course work involving individually guided study, internships, externships, and independent study. When the work has been concluded, the U is changed to a regular letter grade and computed accordingly.

## PROBATION-SUSPENSION

Academic status is determined according to the scale listed below:

Credit Hours Carried (Passed & Failed)	Grade Point Average below which student is placed on probation	Grade Point Average below which student can be suspended
0-18	1.50	No Requirement
19-36	1.50	1.00
37-54	1.65	1.25
55-78	1.85	1.50
79 or more	2.00	1.75

For any given quarter's work, any student whose grade-point average is less than .75 will be placed on academic probation.

The grade-point average is computed on all work attempted, including courses for which a grade of A, B, C, D, F, or NC is earned. A course for which a mark of W, AU, X, or I grade is received will not be computed. The grades of CE and Z are recorded only as credit earned. Grade-point averages will not be rounded off. For example, a 1.99 is not equivalent to a 2.00.

### Probation

Students on academic probation may not pre-register until they have seen a counselor (not a faculty advisor) and have their credit hours and courses approved, as signified by the counselor's signature on their course request work sheets prior to any registration.

### Suspension

Students on academic suspension may be reinstated in the division from which suspended, following the passage of at least one quarter from the date that the student was suspended. Any exception to this policy must be determined by the Suspension Committee. The Suspension Committee meets on registration day each quarter.

Students who have achieved a grade-point average of 2.25 or better during the previous quarter, but whose grade-point average is such that they remain on academic suspension, are not required to appeal to the Suspension Committee, but each must see a member of the Gaston College Counseling Staff either prior to early registration or at registration time to obtain approval for election of credit hours and course schedules.

## ADVANCED PLACEMENT

A student may be granted advanced standing by obtaining permission to take a placement examination from the respective department head and the divisional dean. The advanced placement procedure is specifically designed to verify credit being sought in transfer from institutions whose accreditation or grading system is not accepted by Gaston College. The department head will notify the division dean and the Registrar of the student's course placement. Advanced placement reduces the credit hours a student must take to meet graduation requirements.

Students who plan to transfer to a four-year institution should be aware that the receiving four-year institution may require the courses in question. No student may request advanced placement for more than fifteen credit hours or after earning thirty-six hours of college credit. The grade Z is recorded for credit so granted.

### Duplicated Courses

If two or more final grades (not including the W mark) are recorded for the same course, only the highest grade will be computed or applied toward a degree or diploma. (Exception: certain courses can be duplicated. See the following sections on Description of Courses.) NOTE: This is an academic forgiveness policy.

## FRESH START PROGRAM

A student formerly enrolled at Gaston College five years past or longer, from the current quarter, is eligible to petition for the Fresh Start Program. This program permits eligible students to have their former course work evaluated under the procedures which are used to admit and re-

ceive transfer students into the College. The former course work will remain on the transcript, unaltered, with the credits accepted being separately listed with the Z grade assigned. Course work not accepted in the Fresh Start Program evaluation **will not** be computed into the overall grade-point average. NOTE: This is an academic forgiveness policy.

A student wishing to petition for the Fresh Start Program must follow the official procedure which is initiated in the Dean of Instruction's Office.

## STUDENT CLASSIFICATION

- Evening: A student who is enrolled for a majority of course work scheduled after 4:30 p.m.
- Day: A student who is enrolled for a majority of course work scheduled before 4:30 p.m.
- Full-Time: A student who is enrolled for twelve or more quarter hours.
- Part-Time: A student who is enrolled for fewer than twelve quarter hours.
- Freshman: A student who has completed fewer than forty-two quarter hours of course work.
- Sophomore: A student who has completed forty-two or more quarter hours of course work.

Only course work taken at Gaston College is used in computing grade-point averages and class standing.

## GRADUATION REQUIREMENTS

Formal graduation exercises are held each year at the conclusion of the Spring and Summer quarters on the dates announced in the Calendar of Events. Students who complete graduation requirements at the end of the Fall or Winter quarters will be included in the graduation program the following Spring Quarter. Under these circumstances, a student will be issued an institutional letter certifying the student's completion of the graduation requirement and the date of conference upon request.

Even though the College reserves the right to modify curriculum requirements, a student can obtain a degree or diploma by completing the curriculum requirements in the college catalog which is in effect at the time of his first registration, provided that the student graduates within five years of the date of entry or by the conclusion of the Winter Quarter of the 1980-81 school year, whichever comes later. The one exception to this policy is that of a terminated curricular program. In that case, the respective students will be formally notified of such termination by the program dean and given a deadline for the completion of program requirements. Substitution of courses or the election of graduation under the terms of a later catalog edition must be approved by the appropriate program dean.

A student is eligible for graduation upon completion of the required number of credit hours as specified by a chosen curriculum of study. The total required hours may be reduced if credit is granted from an accredited institution; however, a minimum of thirty credit hours must be completed at Gaston College. Any additional credit hour reductions, not originally granted, will require the approval of the appropriate division dean.

A candidate for graduation is requested to petition for graduation one quarter prior to completion of the requirements for graduation.

A student wishing to petition for graduation must follow the official procedure which is initiated in the Registrar's Office.

Specific requirements for graduation from the various programs of the College are listed in the specific program listings.

## GRADUATION MARSHALS

The rising sophomores who have attempted 36-50 credit hours at Gaston College, and who have maintained the highest scholastic averages during their freshman year, are honored by being named Graduation Marshals. The marshal who has earned the highest academic record is

designated Chief Marshal.

## HONOR LISTS

**PRESIDENT'S HONOR LIST:** This is a quarterly honor roll for students attaining a grade-point average of 4.00 on twelve or more hours of work (not including CE or Z credits) in any given quarter and with no withdrawals and/or incompletes being recorded.

**DEAN'S LIST:** In order to honor outstanding scholarship, the deans of the various programs will publish a Dean's List after each regular term. In order to qualify for a Dean's List, a student must take a minimum course load of not fewer than twelve quarter hours (not including CE or Z credit), and maintain at least a 3.50 average with no grade lower than a B and with no withdrawals or incompletes being recorded.

## GRADUATION WITH HONORS

Gaston College recognizes excellent scholarship by designating the status of HONOR or HIGH HONOR to selected graduates receiving associate degrees or vocational education diplomas. To be eligible for graduation with HONOR, a student must have a grade-point average of 3.50 or above but below 3.80 on all college work for which grades and quality points are given while at Gaston College and meet the additional requirements below.

To be eligible for graduation with HIGH HONOR, a student must have a grade-point average of 3.80 or above on all work for which grades and quality points are given while at Gaston College and meet the additional requirements as follows.

All graduating students are eligible for HONORS who at the formal completion of their program have earned at least sixty-four evaluated credit hours in an associate degree program or fifty-four evaluated credit hours in a vocational education program in residence at Gaston College. The awarding of HONORS to a student must be recommended by the program sponsoring faculty. The student must not have been dismissed from Gaston College or have incomplete (I) work on his record.

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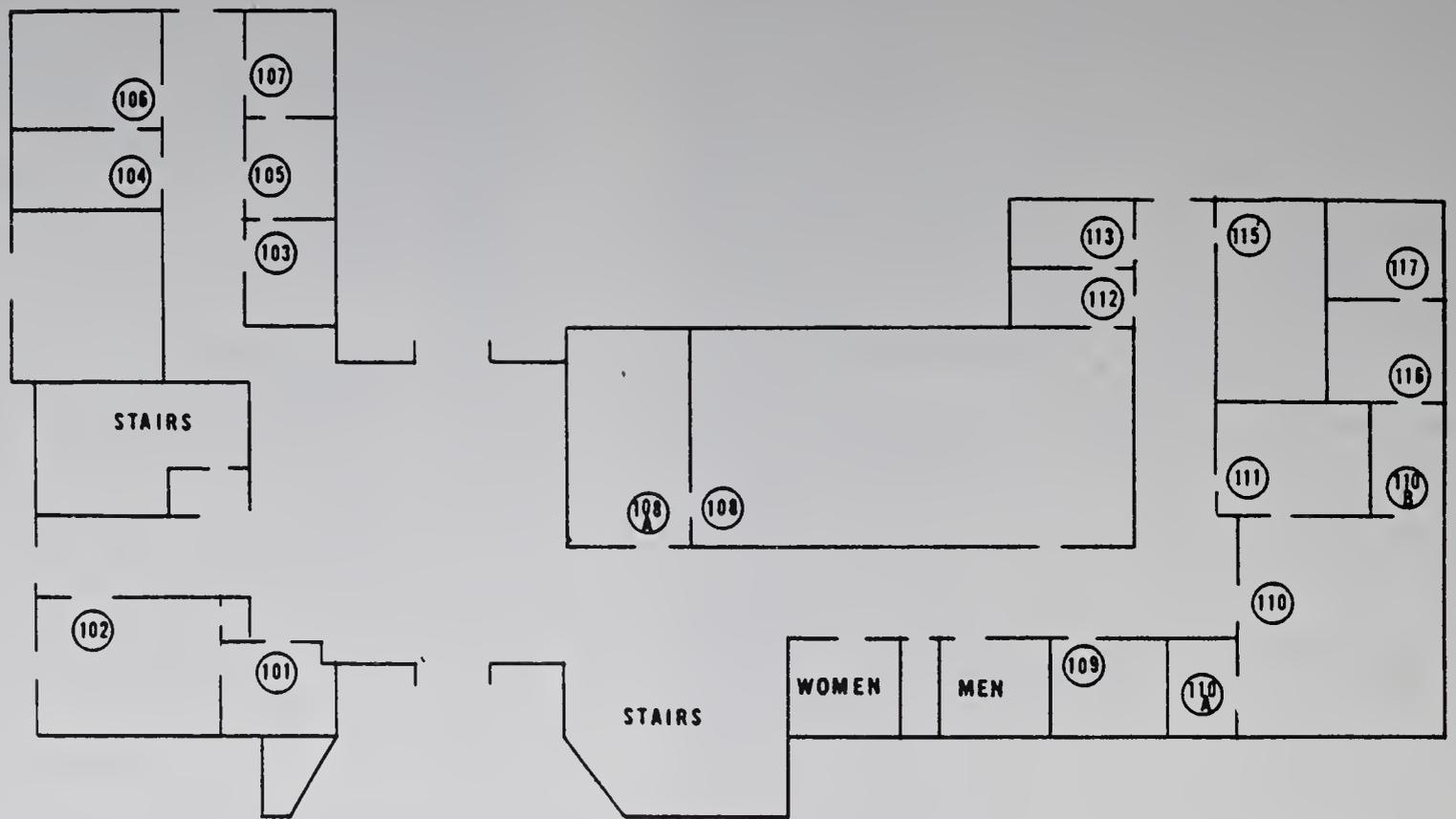
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**GASTON COLLEGE INSTITUTIONAL PERSONNEL**

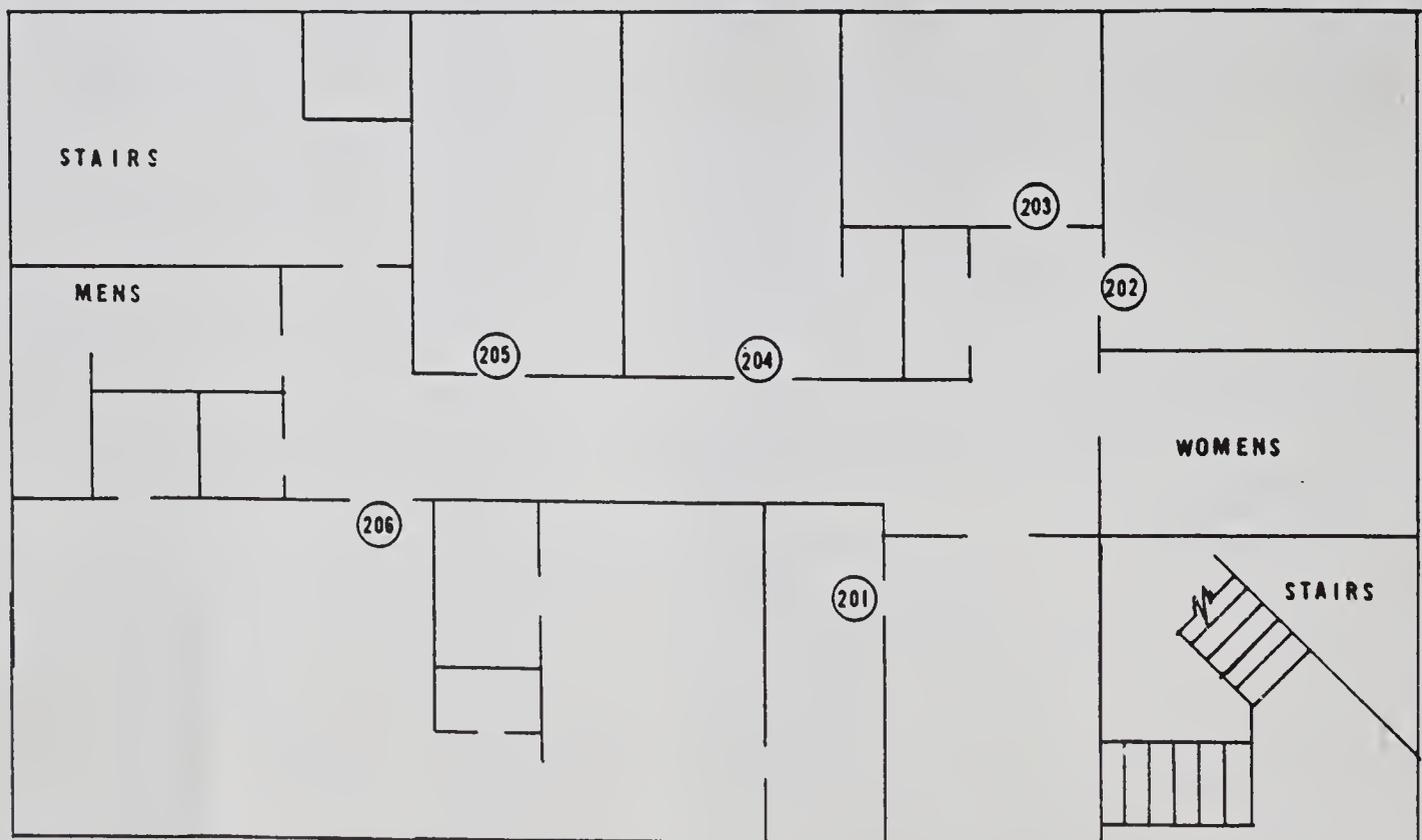
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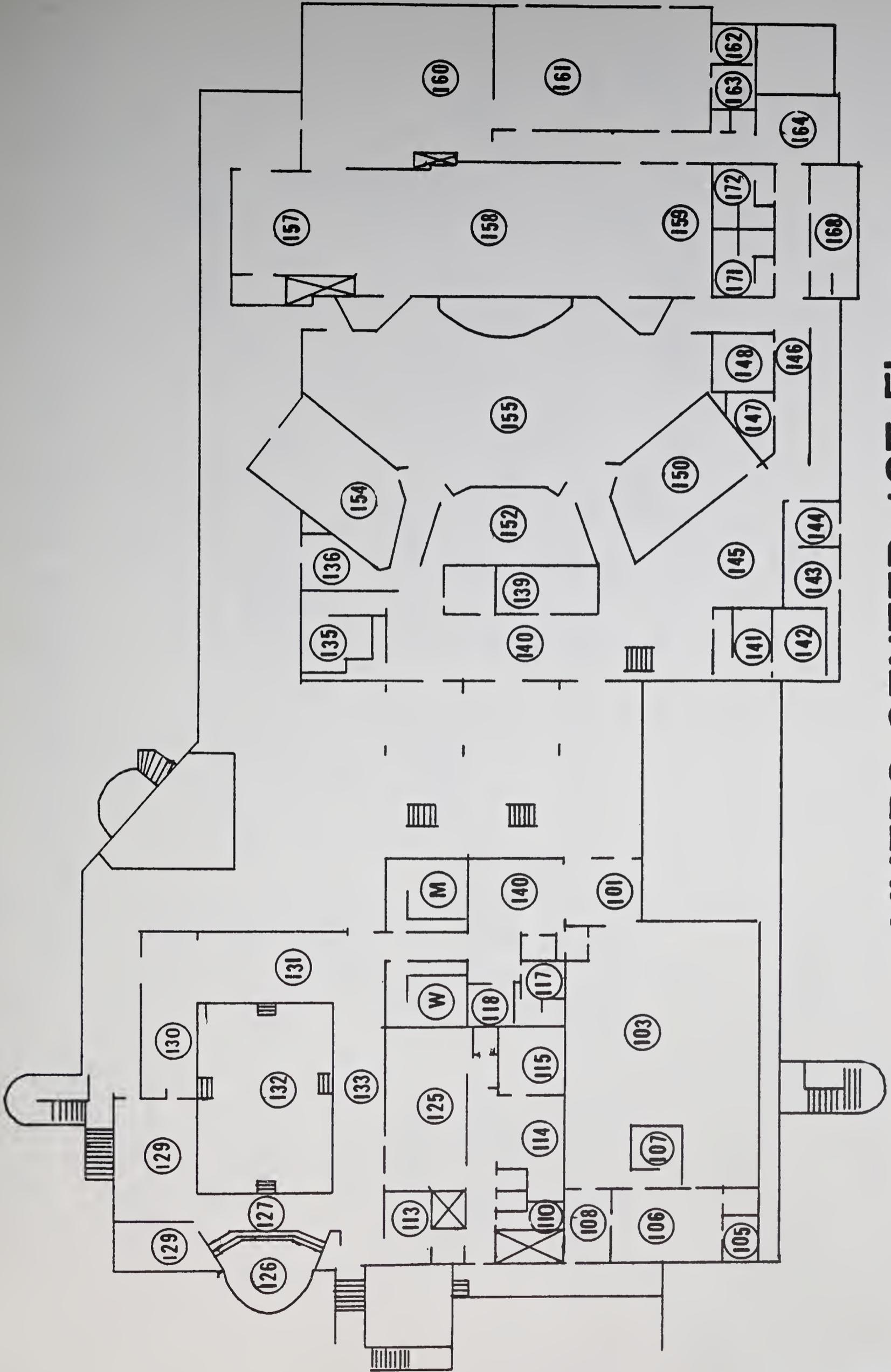




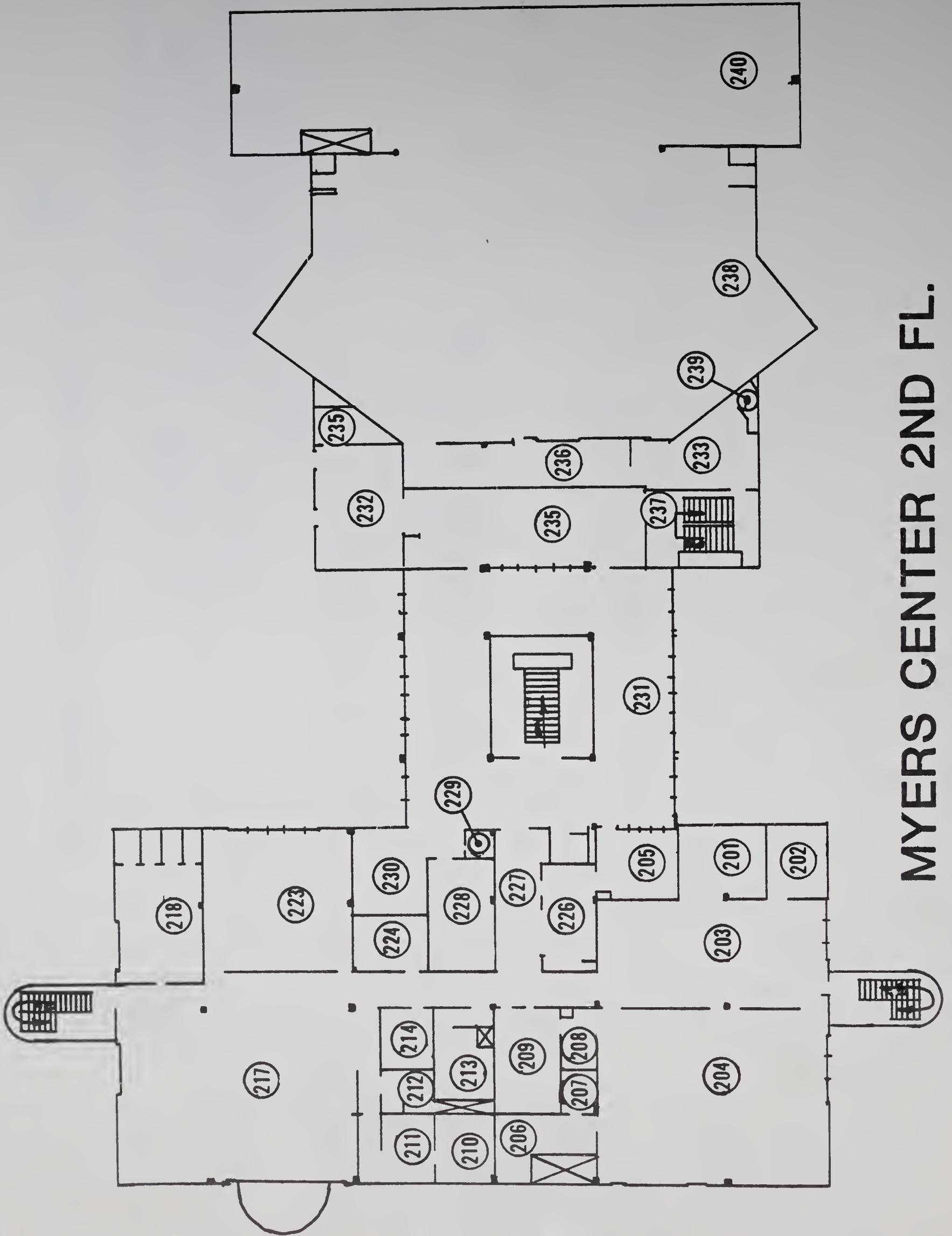
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ADMINISTRATION BLDG. 2ND FL.

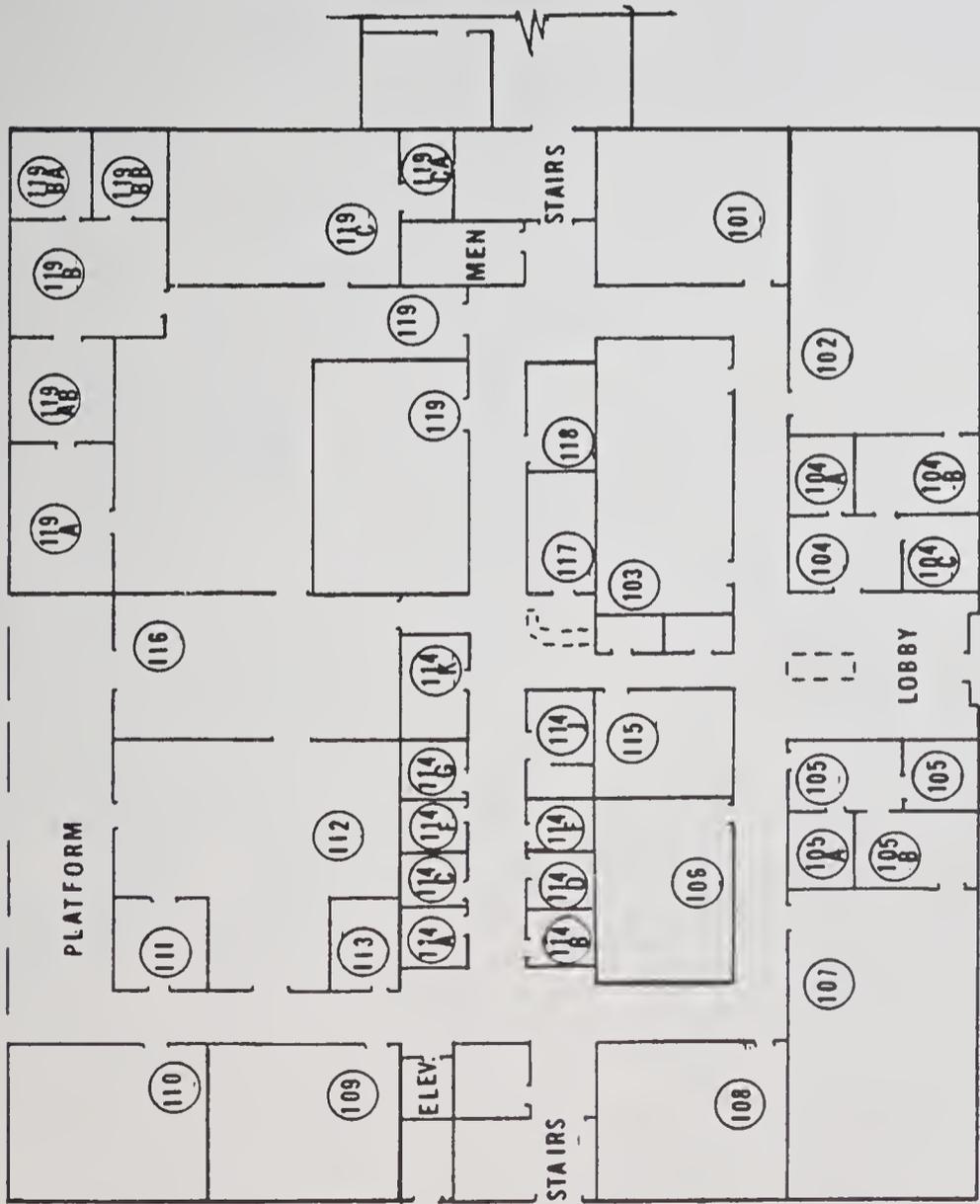


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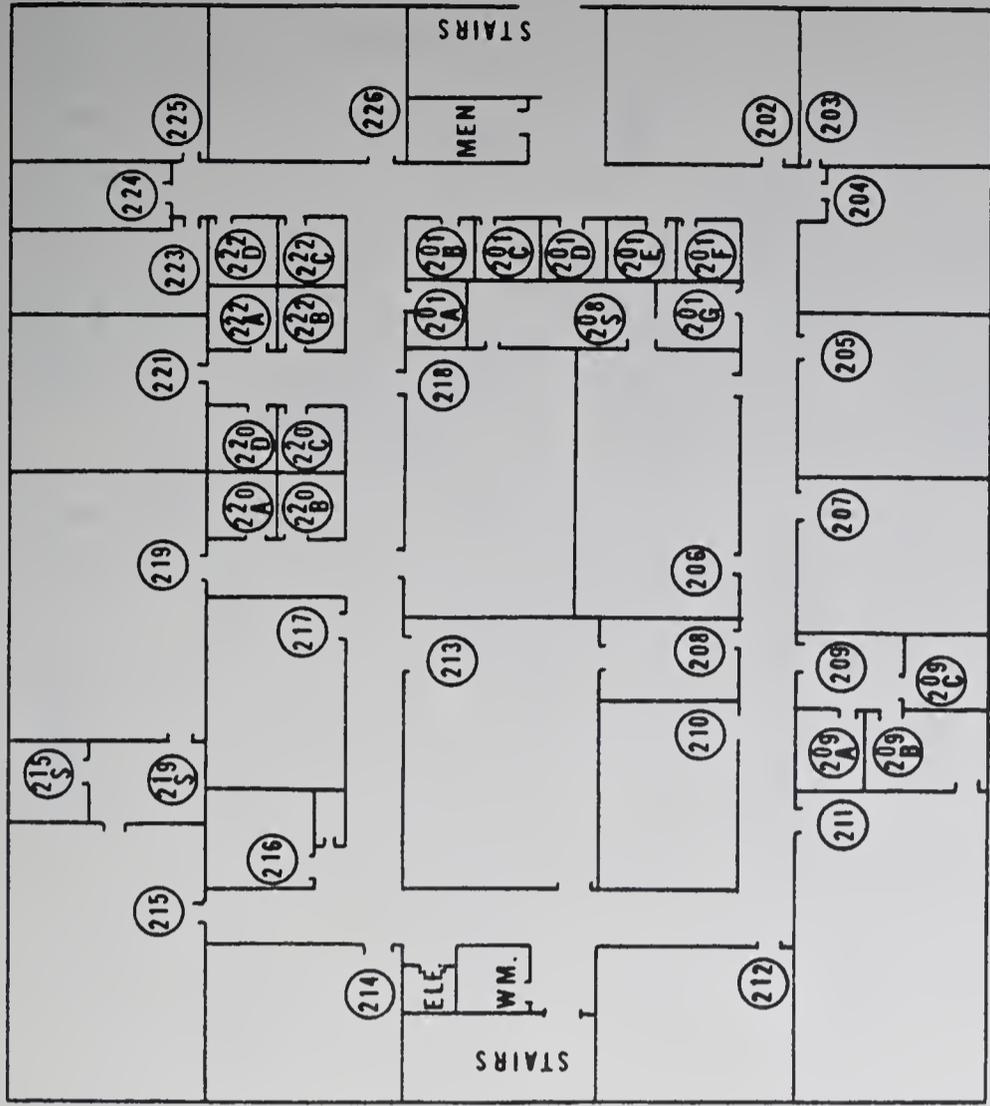


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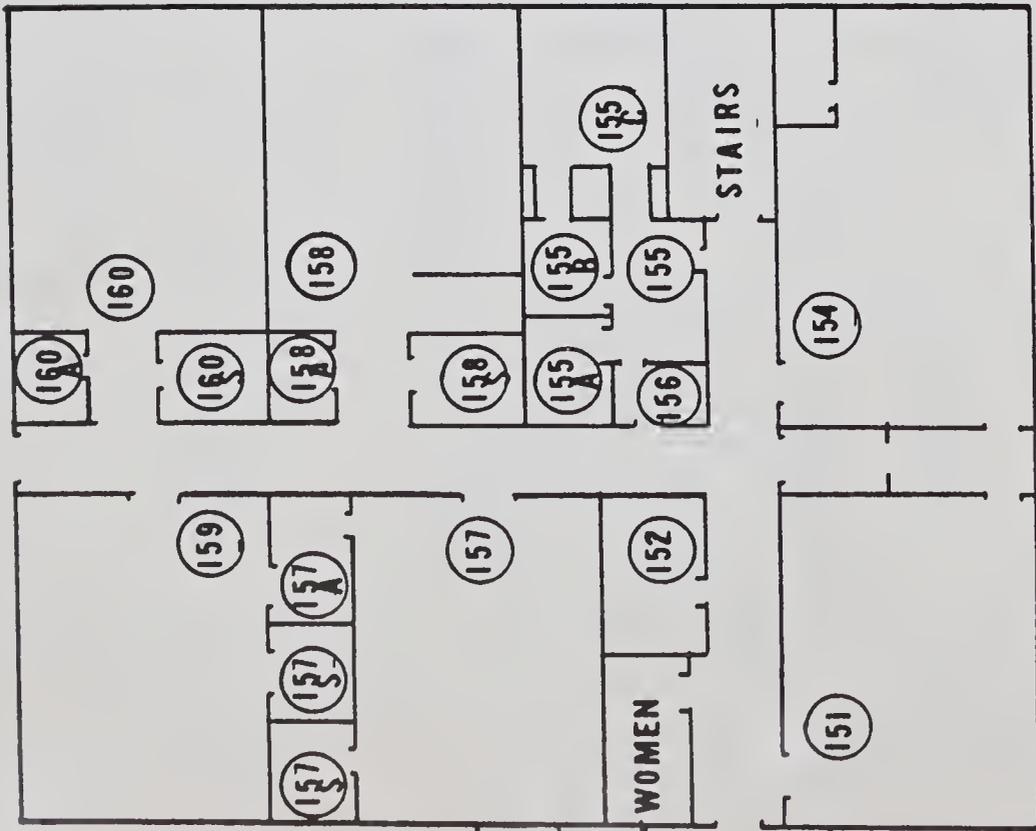


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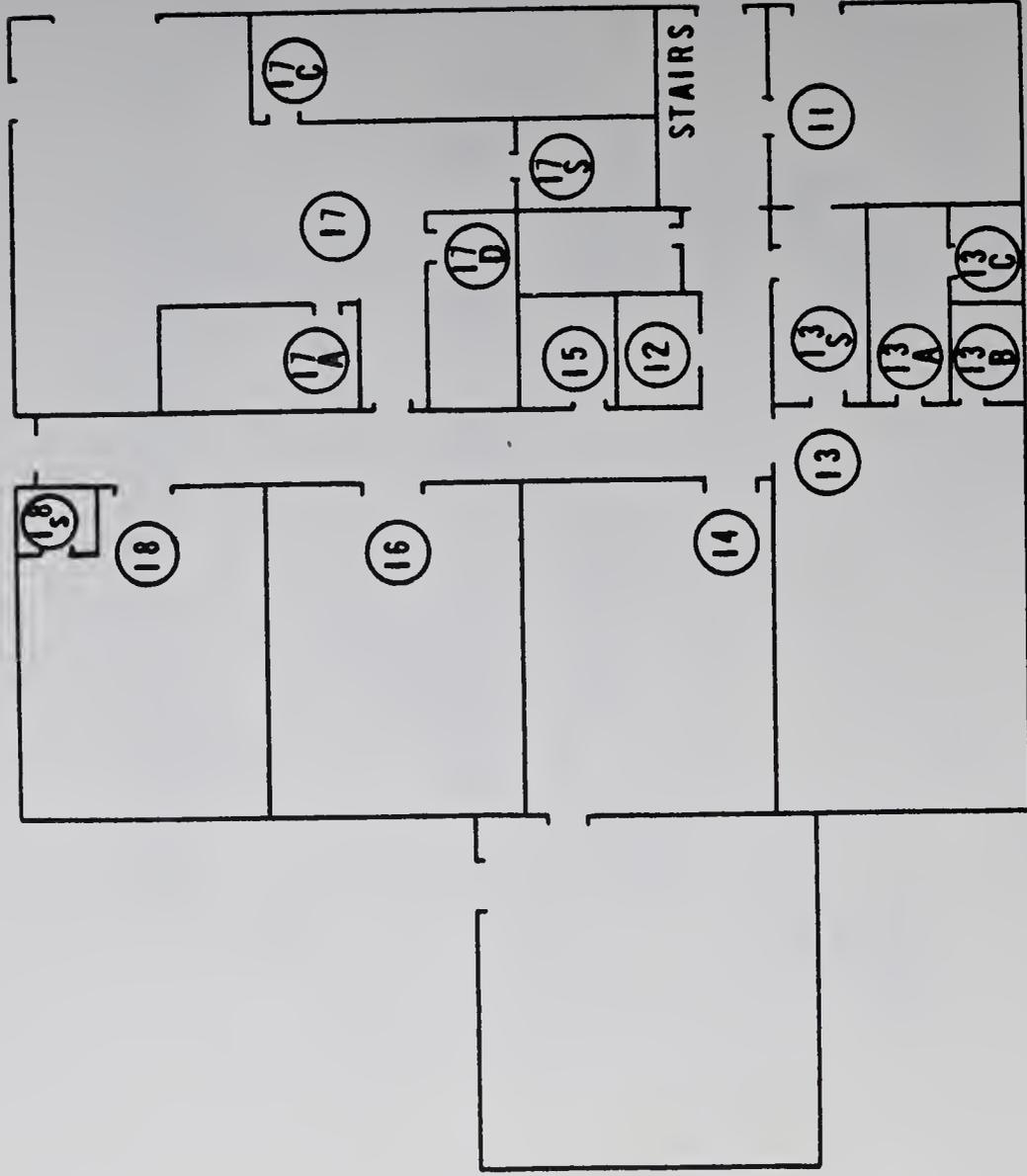


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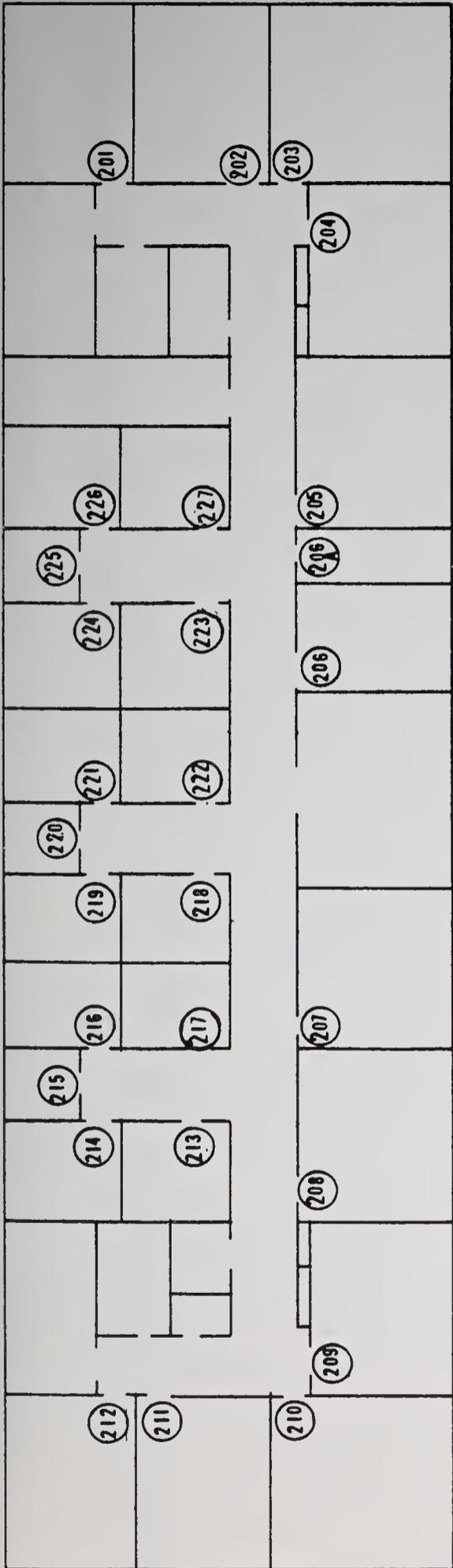




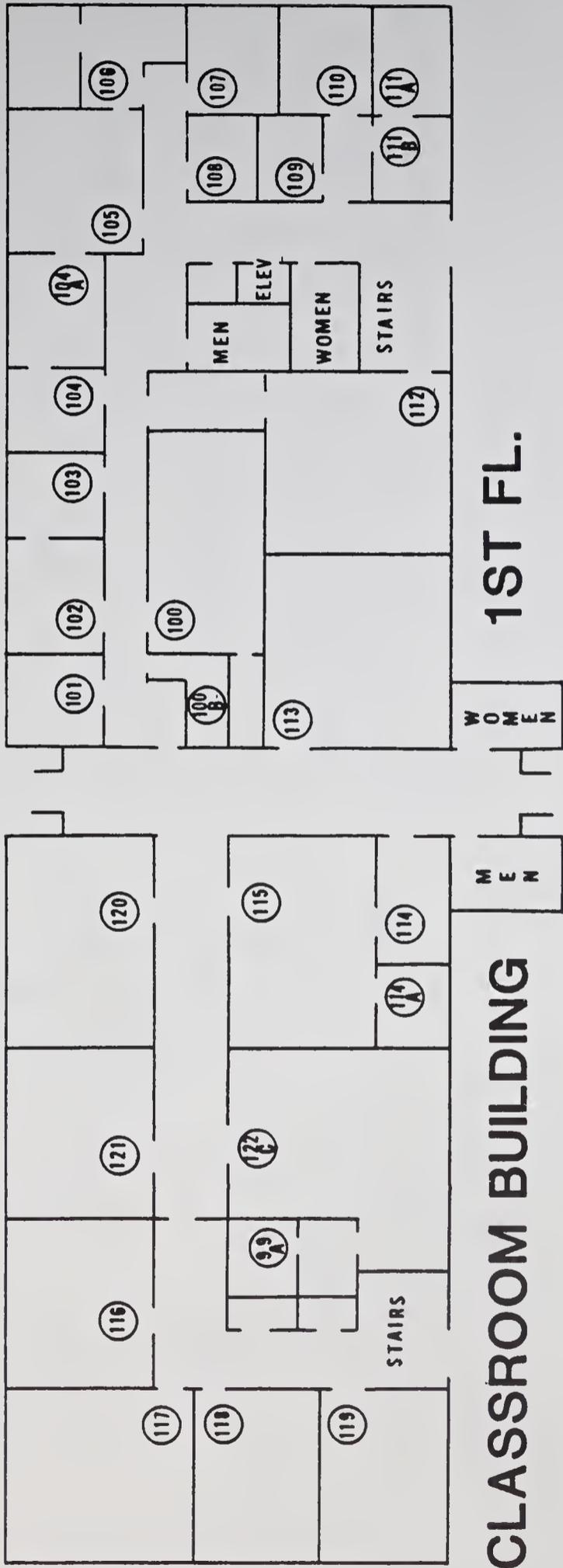
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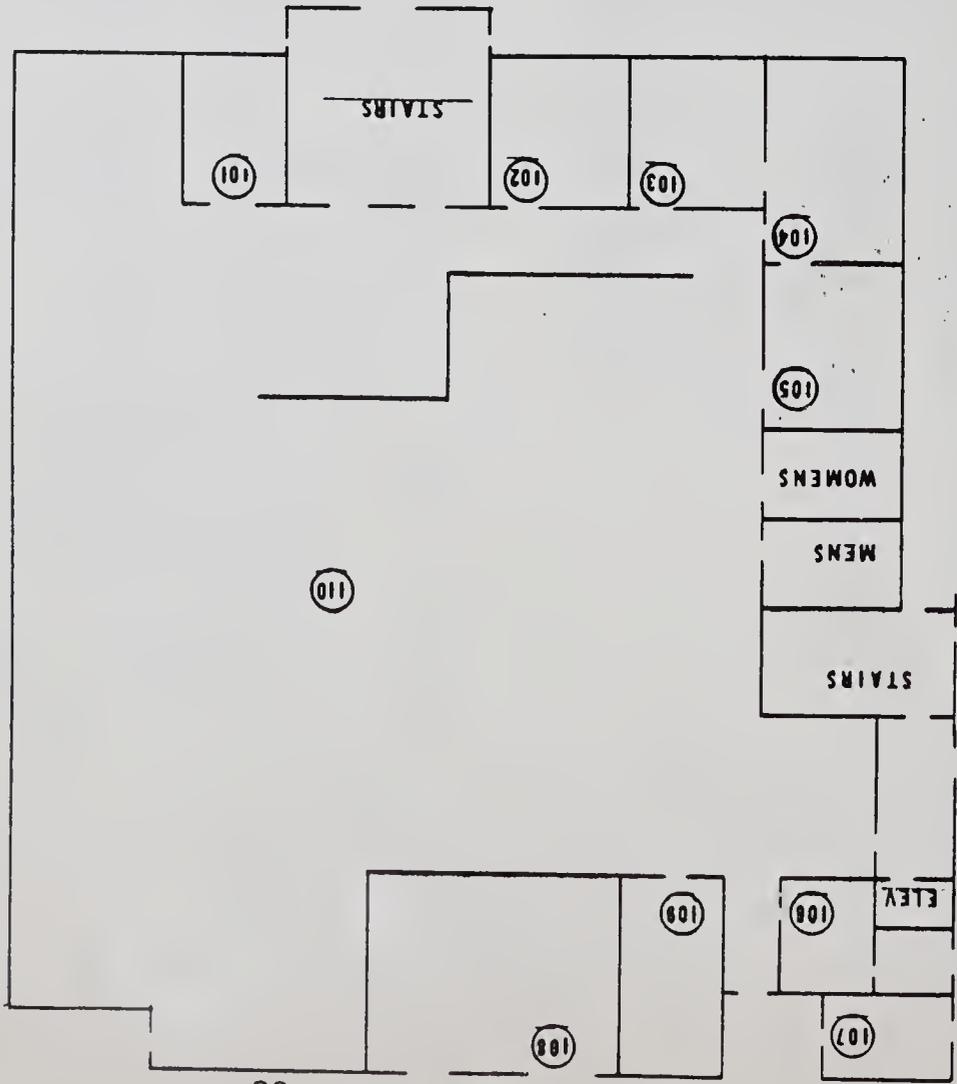


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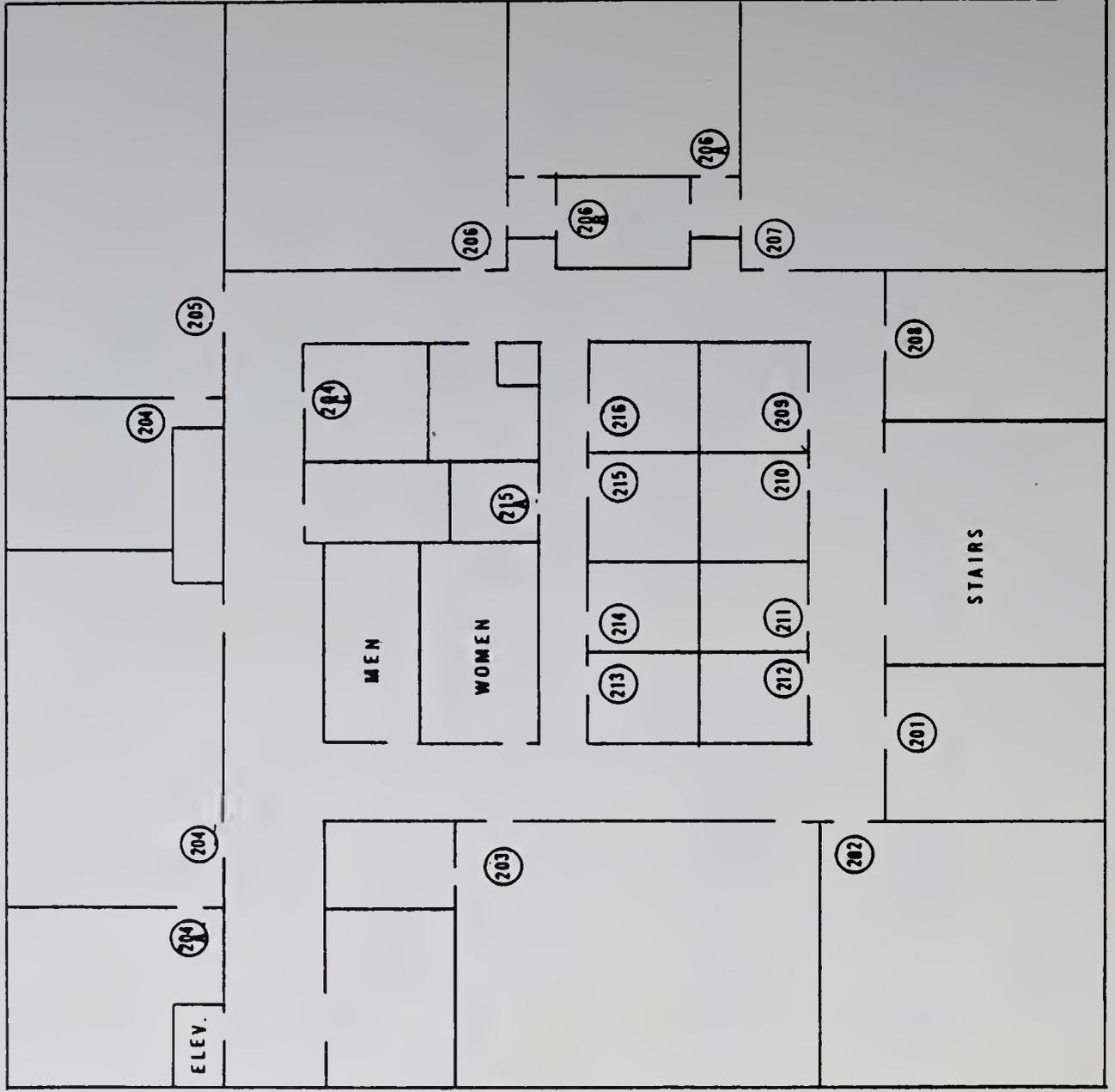


J.K.



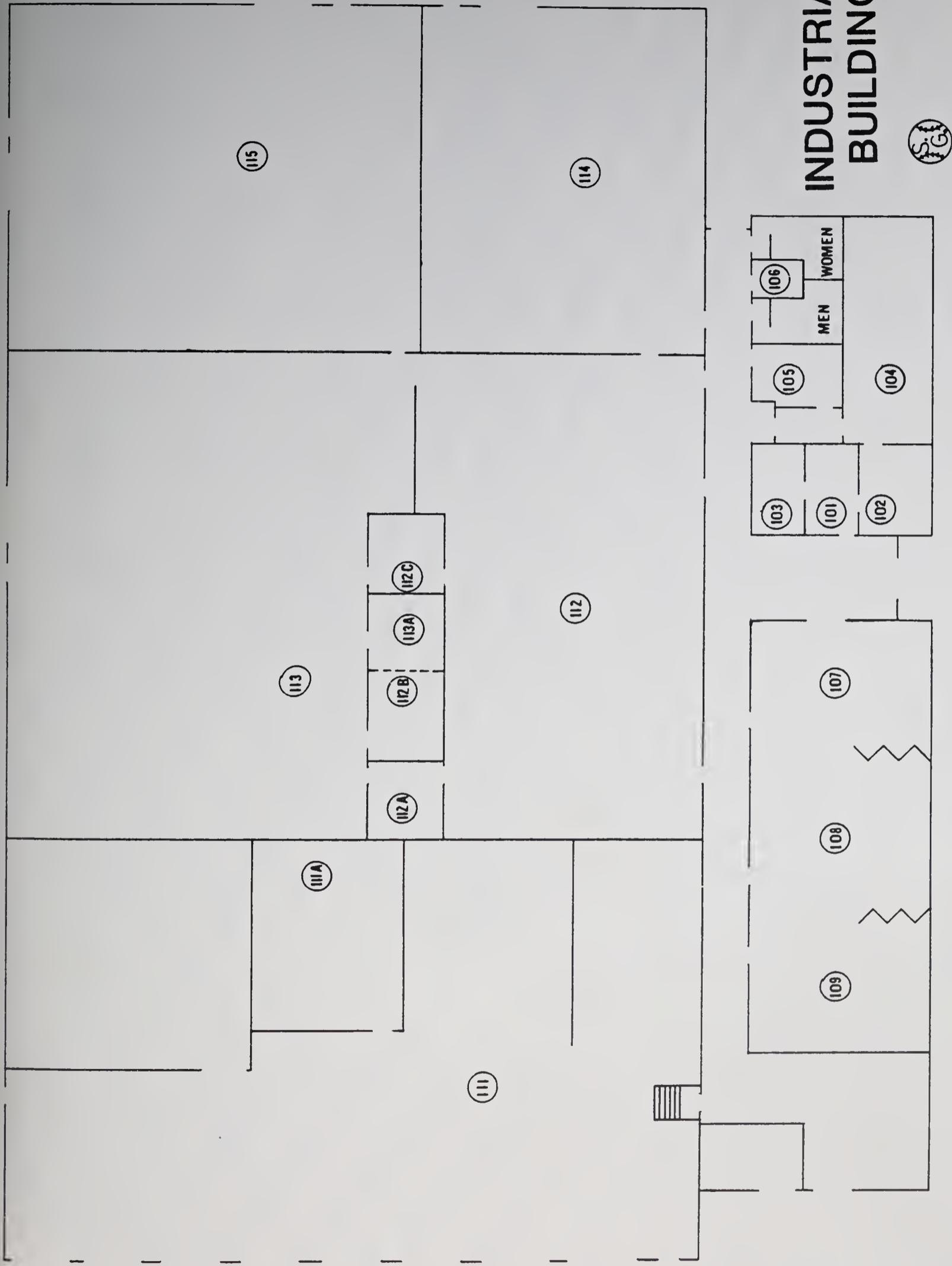


LEARNING RESOURCE CENTER 1ST FL.



SCIENCE BUILDING  
(OVER LIBRARY)





# INDUSTRIAL BUILDING



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# **GASTON COLLEGE**

**Gaston County  
North Carolina**

**II. College Parallel  
Programs**

**1980**



# COLLEGE PARALLEL PROGRAMS

## CURRICULAR INFORMATION

Gaston College offers course work and programs leading to three distinct two-year based, fully accredited Associate Degrees; 1) the Associate in Arts, 2) the Associate in Fine Arts and 3) the Associate in Science. These degrees are a culmination of six quarters of full-time course work paralleling the freshman and sophomore years at accredited colleges and universities. Within these degree programs, the student receives a general education in the areas of English, humanities, mathematics, science and the social sciences; in addition, the student may begin specialized work in a major field of interest.

Students who maintain a 2.00 grade point average and complete the respective degree requirements should be able to transfer to the junior year of most senior institutions without loss of time or credit. In instances where institutional requirements vary, students, by knowing the specific institutions to which they intend to transfer, may with the assistance of the counselors arrange for the Gaston College two-year Associate Degree program to conform with their intended transfer institution.

## ASSOCIATE IN ARTS

Students who select the Associate in Arts Degree at Gaston College transfer to senior colleges to pursue such majors as:

Art	Ministry
Business Administration	Music
Early Childhood Education	Social Work
Journalism	Elementary Education
Law	Secondary Education

## ASSOCIATE IN FINE ARTS

Students who select the Associate in Fine Arts Degree at Gaston College transfer to senior colleges to pursue such majors as:

Art  
Drama  
Music

## ASSOCIATE IN SCIENCE

Students who select the Associate in Science Degree at Gaston College transfer to senior colleges to pursue such majors as:

Agriculture	Pharmacy
Dentistry	Physical Therapy
Engineering	Science-Biology Option
Forestry	Science-Chemistry Option
Mathematics	Science-Physics Option
Medicine	Veterinary Medicine
Optometry	

## SUGGESTED CURRICULA

The suggested curricula shown on succeeding pages should serve as a guide to a student who is contemplating a course of study. An attempt has been made to make the various curricula as flexible as possible. A student should plan to take an average of 16 hours credit per quarter chosen from the courses suggested. The requirement for an Associate in Arts, Associate in Fine Arts, and Associate in Science degree is a minimum of 96 quarter hours of work numbered 100 or above.

The counseling service of Gaston College is available to students who have special curriculum or educational needs. The curricula are subject to modification to meet students' needs. A counselor should be consulted if a student wishes to depart from the recommended curricula; otherwise, deficiencies in transfer credit may arise.

Students may receive credit for only one course of cross-listed courses.

Gaston College reserves the right to make changes in the suggested curricula if it seems desirable to do so.

## SELECTING A PROGRAM OF STUDIES

When all admission requirements have been met, new students are given appointments with counselors. The counselor will help the student select courses for the first quarter at Gaston College. Students requiring assistance thereafter should meet with an advisor and/or a counselor. Students on probation will be referred to counselors. Special students who do not wish to pursue a degree will not have to select a program.

New students will be given ACT results, a curriculum guide, and graduation requirements.

Changes within an approved program must be approved by the Coordinator of Academic Advisement or the Divisional Dean.

When students desire to change from one approved program to another, they should meet with a counselor or the Coordinator of Academic Advisement.

## DEGREE REQUIREMENTS FOR ASSOCIATE IN ARTS

	Quarter Hours Required
Communications English 101 and 102	10
Humanities* Courses selected from Art, Drama, Literature, Modern Language, Music, Philosophy (except 203) or Religion	14-18
Mathematics* Where one course is required, Mathematics 100 or 101 will satisfy this area. Where two courses are required, they should be selected from either Mathematics 100 or 101 (not both) and Mathematics 102 or 104. Philosophy 203 may be used as a second mathematics course.	5-10
Science* *Two courses in sequence from a biological or physical laboratory science, Biology, Chemistry, Earth Science, Geography, Geology, Physics, Psychology 201 and Psychology 205. Courses selected may be used to satisfy either Science or Social Science requirements but not both.	12
Social Science* Courses selected from: Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology. Courses selected may be used to satisfy either Science or Social Science requirements but not both.	12-15
Physical Education* Three Physical Education activity courses 100 thru 120 or 225 and Physical Education 210	3-6
Electives** Total Credit Hours for Degree	25-44 96
Elective Courses Areas: Accounting (future business majors) Anthropology Art	

Biology  
 Chemistry  
 Data Processing  
 Drafting (future engineering majors)  
 Drama  
 Earth Science  
 Economics (future business majors)  
 Education (future teachers)  
 English  
 French  
 Geography  
 Geology  
 History  
 Mathematics  
 Music  
 Philosophy  
 Photography  
 Physical Education  
 Physics  
 Political Science  
 Psychology  
 Reading  
 Recreation  
 Religion  
 Sociology

Note cross listings—credit in one area but not more

\*Different colleges and universities have requirements which vary in their basic courses (first two years). For specific information about a particular college's or university's requirements, see their catalog or a Gaston College counselor.

\*\*Selection of elective courses to satisfy future major or minor requirements is very important and selection of courses should be carefully made. Assistance is available from the Gaston College counseling staff. Students are responsible for the proper course selection to satisfy graduation and/or transfer requirements.

## GENERAL STUDIES

The General Studies Program is a specially designed program to fulfill the first year of college with the exception of mathematics and science courses. It includes a comprehensive, integrated study of English, Social Studies, Humanities, Career Preparation and Personal Development. Classes are restricted to allow for closer student-teacher relationships and academic supervision.

Credits earned in the General Education Program at Gaston College may be interpreted as follows:

Course	Equivalent
Communications 101	Reading 101
Communications 102	English 101
Communications 103	English 103
Humanities 101	Music 101
Humanities 102	Art 101
Humanities 103	English 102
Social Science 101	History 101
Social Science 102	History 102
Social Science 103	History 103

The General Studies Program schedules the student for four hours per day, five days a week, for nine months.

## DEGREE REQUIREMENTS FOR ASSOCIATE IN SCIENCE

### Degree Requirements for Associate in Science

	Quarter Hours Required
Communications English 101 and 102	10
Humanities* Courses selected from Art, Drama, Literature, Modern Language, Music, Philosophy (except 203) or Religion	6
Mathematics* Two years of mathematics. Mathematics 105, 106, 107, 206, 207. In majors requiring a course in Statistics, Math 210 is recommended. Mathematics 101 and 104 may be substituted for Mathematics 105 in the above sequence.	18-20
Science* Biology, Chemistry, Physics. Two years of laboratory science.	24
Social Science* Courses selected from: Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology	9
Physical Education* Three physical education activity courses numbered 100 thru 120 and 125 and Physical Education 210	3-6
Electives** Total Credit Hours for Degree	21-27 96
Electives Courses may be chosen from the following areas:	
Anthropology	
Art	
Biology	
Chemistry	
Data Processing	
Drafting	
Drama	
Economics	
English	
French	
Geography	
Geology	
History	
Mathematics	
Music	
Philosophy	
Photography	
Physical Education	
Physics	
Political Science	
Psychology	
Reading	
Religion	
Sociology	
Spanish	

Note where courses are cross listed, credit is granted in one area only not both listings)

\*Different colleges and universities have requirements which vary in their basic courses (first two years). For specific information about a particular college's or university's requirements, see their catalog or a Gaston College counselor.

\*\*Selection of elective courses to satisfy future major or minor requirements is very important and selection of courses should be carefully made. Assistance is available from the Gaston College counseling staff. Students are responsible for the proper course selection to satisfy graduation and/or transfer requirements.

## DEGREE REQUIREMENTS FOR ASSOCIATE IN FINE ARTS

	<b>Quarter Hours Required</b>
Communications English 101 and 102	10
Humanities* Course selected from Art, Drama, Literature, Modern Language, Music, Philosophy (except 203) or Religion	12
Science/Mathematics* Courses selected from Biology 101, Chemistry 100, 101, Earth Science 101, 102, Geography 101, 202, Physics, 211, Mathematics 100 or 101	
Social Science* Courses selected from: Anthropology, Economics, Geography, History, Political Science, Psychology or Sociology	9
Physical Education* Three activity courses selected from courses numbered 100 thru 120 and/or 225	3
Professional Program Courses* Total Credit Hours for Degree	36-54 96

### Professional Program Courses:

Art 102, 103, 111, 112, 113, 121, 122, 123, 125, 131, 132, 133, 141, 142, 143, 145, 151, 152, 153, 155, 161, 162, 163, 165  
 Drama 101, 102, 103, 104, 105, 106, 107, 201, 202, 203, 204, 205, 206  
 Music 102, 103, 104, 111, 112, 113, 125, 126, 127, 131, 134, 135, 136, 141, 142, 143, 144, 154, 155, 156, 161, 211, 212, 213

Electives Courses may be chosen from the following areas:

Anthropology  
 Art  
 Biology  
 Chemistry  
 Data Processing  
 Drafting  
 Drama  
 Earth Science  
 Economics

English  
 French  
 Geography  
 Geology  
 History  
 Mathematics  
 Music  
 Philosophy  
 Photography  
 Physical Education  
 Physics  
 Political Science  
 Psychology  
 Reading  
 Religion  
 Sociology  
 Spanish

Note where courses are cross listed, credit is given in one area but not both)

\*Different colleges and universities have requirements which vary in their basic courses (first two years). For specific information about a particular college's or university's requirements, see their catalog or a Gaston College counselor.

\*\*Selection of elective courses to satisfy future major or minor requirements is very important and selection of courses should be carefully made. Assistance is available from the Gaston College counseling staff. Students are responsible for the proper course selection to satisfy graduation and/or transfer requirements.

### DESCRIPTION OF COURSES IN COLLEGE PARALLEL PROGRAMS ACCOUNTING

**ACT 201 Principles of Accounting, Introductory (5-0-5)**  
 Prerequisite: None  
 An introductory course in standard accounting practice. Recognized procedures and conventions are explained and used for recording, analyzing, and interpreting the records of business.

**ACT 202 Principles of Accounting (5-0-5)**  
 Prerequisite: ACT 201  
 A continuation of Accounting 201 with emphasis on Partnerships, Corporations, Manufacturing Operations, and problems of departments and branches.

### ANTHROPOLOGY

**ANT 201 The Ascent of Man (3-0-3)**  
 Prerequisite: None  
 A series of thirteen films by Jacob Bronowski tracing the ascent of man from his beginnings on the savannahs of Africa several million years ago to his present space-age and atomic technology. The films present a wholistic view of man's ascent, involving a study of biology, history, sociology, cultural variation, genetics, technology, etc.

**ANT 204 General Cultural Anthropology (5-0-5)**  
 Prerequisite: None  
 The science of man and the development of his culture; culture of ancient and contemporary preliterate societies; dynamics of cultural change and acculturation.

**ANT 206 General Physical Anthropology (3-0-3)**  
 Prerequisite: SOC 204  
 The study of the physical evolution of mankind; modern racial types and genetics.

**ANT 280 Study Tour (2-12-6)**

Prerequisite: None

A five week, condensed course involving three weeks of intensive study on the campus of Gaston College, followed by two weeks of off-campus study and travel. This course may involve travel within the United States or abroad as an open laboratory experience for students. This course involves an interdisciplinary study including history, culture, art, architecture, music, politics, etc., with special emphasis given to one or more of these topics. Also offered as HIS 280, SOC 280, and POL 280. (Course prefix designated at the time the area of study is determined.)

**ART****ART 101 Art Appreciation (3-0-3)**

Prerequisite: None

A general lecture course examining the different functions, the visual and stylistic traits of art, and the traditional and contemporary design concepts used in the visual arts. Open to all students except art majors.

**ART 102 Art Seminar (3-0-3)**

Prerequisite: None

Art Seminar is specifically designed for art majors, but it is open to all students. Special emphasis is given to assigned readings, reports, or projects. The seminar will mainly deal with the role of art in the Contemporary World.

**ART 103 Art History (5-0-5)**

Prerequisite: None

This course is a survey of the visual arts during the various cultural periods of Western Civilization. The major art works of the period, the various design concepts and theories, the cultural and stylistic characteristics of works and the impact visual arts have had on man and his environment are emphasized. This course is required for art majors, but it is open to all students.

**ART 111 Two Dimensional Design (0-10-5)**

Prerequisite: None

This is a basic course in two dimensional design for art majors. Concentration is on the psychological and physiological aspects of design elements and principles. Development of basic skills in the use of various tools and materials is stressed in solving visual problems.

**ART 112 Color and Design (0-10-5)**

Prerequisite: None

An investigation of the elements and principles of two and three dimensional design, this basic course is designed to meet state requirements for elementary teachers' certification. Emphasis is on the development of design concepts, teaching methods, tool and material processes, and other visual communication skills. Open to the general college student.

**ART 113 Jewelry Design (0-6-3)**

Prerequisite: Departmental Approval

Jewelry design is a studio course involving the relationship of idea and design to the tool and material process of creating handmade jewelry.

**ART 117 Illustration (0-6-3)**

Prerequisite: None

Development of illustration competence and personal style as related to the commercial art field. Various media and design assignments will be included.

**ART 121 Ceramics I (0-6-3)**

Prerequisite: None

A beginning studio course introducing the basic characteristics and concepts of clay for the production of aesthetic forms and utilitarian objects. Emphasis will be on limitations and possibilities of clay as a medium, development of hand-building skills and processes and the investigation into traditional and contemporary three-dimensional design concepts employed in the production of ceramic objects.

**ART 122 Ceramics II (0-6-3)**

Prerequisite: ART 121 or Departmental Approval

This intermediate studio course is a continuation of Ceramics I, but with a special emphasis and concentration on the following development of the continuity of idea and design and craftsmanship in the ceramics process; student ability to select design problems related to functional and non-functional ceramic objects; and involvement and refinement of new and different ceramics processes. It is assumed that the student is familiar with the basic ceramics processes. Hand built and thrown works will be required.

**ART 123 Ceramics III (0-6-3)**

Prerequisite: ART 121, 122, and Departmental Approval

This is an advanced studio course for the individual who is seriously considering ceramics as a major area of concentration. Development and refinement of those concepts, principles, and techniques and methods introduced in Ceramics I and II will be continued. Production of either utilitarian or non-functional ceramic ware of high quality and excellence in craftsmanship is emphasized.

**ART 125 Special Studies in Ceramics (0-6-3)**

Prerequisite: ART 121-123

An advanced course for students who have a keen interest in specific problems in ceramics. The student is expected to select and research the area of specialization and to put to practical application the knowledge and information gathered. Areas of specialization may include clays, glaze formulation, kiln construction, fuels, firings, advanced ceramic design. This course may be repeated twice for maximum of nine hours credit.

**ART 131 Drawing I (0-6-3)**

Prerequisite: Departmental Approval

A beginning studio course in which the expressive and descriptive elements of drawing are examined. The course consists of various drawing experiences, dealing with a variety of subject matter, techniques, tool and material processes, and individuality of expression. It is assumed the students have a basic understanding of design concepts and principles upon beginning this course.

**ART 132 Drawing II (0-6-3)**

Prerequisite: ART 131

Drawing II is a continuation of Drawing I. A broad range of subject matter is considered and dealt with, and approached from realism to the non-objective. Emphasis is placed on the choice of subject matter, technique, composition, and uniqueness of individual expression.

**ART 133 Figure Drawing (0-6-3)**

Prerequisite: ART 131 &amp; 132 or Departmental Approval

This studio course is designed to build competence in drawing the human figure. Exploration and examination of the human figure through the use of various drawing concepts, tool and material processes and techniques are stressed throughout the course.

**ART 141 Painting I (0-6-3)**

Prerequisite: Departmental Approval

A beginning painting studio course consisting of experiences in solving visual problems with traditional and contemporary design concepts, techniques and materials.

**ART 142 Painting II (0-6-3)**

Prerequisite: ART 141

This intermediate painting studio course is a continuation of those visual concepts, processes and techniques taught in Painting I. A special emphasis is placed on the student's interpretation, continuity, and maturity of idea, technique and design.

**ART 143 Painting III (0-6-3)**

Prerequisite: ART 141 &amp; 142

Continuation of Painting II, but more of a directed individual study with the student determining, under the instructor's guidance, the problems to be solved. Several major works are expected by the end of the quarter.

**ART 145 Special Studies in Painting (0-6-3)**

Prerequisite: ART 141-143

An advanced studio course in Painting in which the student, with the instructor's approval, selects an area of specialization. These areas may include research and application of a material and tool processes, advanced composition and color theory, and idea development. This course may be repeated twice for maximum nine hours credit.

**ART 151 Sculpture I (0-6-3)**

Prerequisite: None

Introduction to use of materials and tools with emphasis on technique and craftsmanship. Clay plaster, oxyacetylene welding, arc welding, and basic metal casting are investigated.

**ART 152 Sculpture II (0-6-3)**

Prerequisite: ART 151

Continuation of ART 151 with more involvement in sculptural concepts, development of sculpture through knowledge of technique, development of individual ideas.

**ART 153 Sculpture III (0-6-3)**

Prerequisite: ART 151, 152

Continuation of ART 152 with more freedom in choosing main area of involvement. Students may elect to work in a variety of materials such as wood, stone, plastics terrecatta, steel cast aluminum, bronze, etc. Emphasis will be placed on sculptural concept.

**ART 155 Special Studies in Sculpture (0-6-3)**

Prerequisite: ART 151-153 and Departmental Approval

Student's work should show some development of sculptural concept and demonstrate control of materials. Student must have the ability and direction to work independently. Criticism or conferences with instructor are weekly. The development of working habits and techniques should coincide with his intentions. This course may be repeated twice for maximum of nine hours credit.

**ART 161 Graphics I (0-6-3)**

Prerequisite: None

Graphics I is a beginning studio course in the intaglio painting process. An emphasis is placed on introducing the student to basic printing concepts and methods used in the intaglio process: such as etching, engraving, collagraphy, et cetera. Students will also have an opportunity to study and learn the use of variety of printing tools, equipment, and materials.

**ART 162 Graphics II (0-6-3)**

Prerequisite: ART 161

An intermediate studio course in printmaking. Graphics II students will concentrate on the techniques, materials, and methods used in serigraphy, or silkscreen, printing. In addition, students will continue to explore concepts and methods used in the intaglio and relief processes. Emphasis will be placed on technical skills, maturity of idea, and sensitivity to the media.

**ART 163 Graphics III (0-6-3)**

Prerequisite: ART 161 and ART 162

A continuation of Graphics II, but a directed individual study of student's choice of method (intaglio, relief, or serigraphy) is stressed. Emphasis will be placed on individual imagery, technical skills, and sensitivity to the media.

**ART 165 Special Studies In Graphics (0-6-3)**

Prerequisite: ART 161-163

An advanced course for the well-motivated print making student, taught entirely on an individual basis. The student is expected to select a narrow field of study, involving one printmaking process, i.e., intaglio, relief, or serigraphy. Working closely with the instructor, the student will endeavor to master the necessary technical skills in the chosen area, achieve a mature individual imagery, and experiment with new, innovative approaches to printmaking in that area. This course may be repeated twice for maximum nine hours credit.

**ART 215 Commercial Art Techniques (0-6-3)**

Prerequisite: ART 114

A more specialized study in commercial art with emphasis on techniques unique to printed reproduction.

**ART 290 Seminar/Workshop (1-0-1)**

Prerequisite: None

A workshop in which a specialized area of the visual arts is studied in a concise time period. Must meet 11 hours.

**BIOLOGY****BIO 101 General Biology (5-3-6)**

Prerequisite: None

A course which stresses biology as a conceptual Unit through the study of cellular and protoplasmic organization, growth, differentiation, ecology, genetics, and the process of evolution.

**BIO 102 General Botany (4-4-6)**

Prerequisite: BIO 101

A study of the morphology, physiology, taxonomy, genetics, evolution and ecology with emphasis on flowering plants and conifers.

**BIO 103 General Zoology (4-4-6)**

Prerequisite: BIO 101

A study of the anatomy, physiology, evolution, taxonomy and ecology of animals with special emphasis on the vertebrates.

**BIO 104 General Microbiology (4-4-6)**

Prerequisite: BIO 101

An introductory course covering the fundamental principles and techniques of microbiology with emphasis on morphology, physiological processes, and parasitic implications of microorganism (bacteria, molds, yeasts, viruses, rickettsiae, protozoa, and algae), methods of control, and applied microbiology.

**BIO 105 Ecology of Man (5-2-6)**

Prerequisite: BIO 101, BIO 121, or GEO 101

A course which examines the past and present relationships of man with his biophysical environment. Consideration will be given to ecological concepts, population growth, pollution, human variation, and conservation of natural resources.

**BIO 210 Field Biology (1-4-3)**

Prerequisite: BIO 101

A course designed to introduce a variety of techniques used to study Biology in the outdoors. Consideration will be given to soils, water, plants, animals, and climate in a selected study area.

## CHEMISTRY

### CMH 100 An Introduction to Chemical Concepts (3-0-3)

Prerequisite: None

This course is primarily designed to provide an introduction to college chemistry courses for those who have not obtained an adequate background and for students investigating the nature of chemistry courses. Performance on the ACS High School Chemistry Exam will be used to indicate a student's need for the course.

### CMH 101 Principles of Chemistry (4-6-6)

Prerequisite: MAT 101 or eligibility to enroll MAT 101

A course designed for the student who intends to major in chemistry or who wishes credit in physical science to meet graduation requirements. The course meets the needs of those in pre-medical, pre-dental, pre-engineering, and other pre-science curricula.

### CHM 102 Principles of Chemistry (4-6-6)

Prerequisite: CHM 101

A continuation of CHM 101. The laboratory includes Qualitative Analysis.

### CHM 107 Quantitative Analysis (3-9-6)

Prerequisites: CHM 101, 102

A course in the theory and practice of classical volumetric and gravimetric chemical analysis with an introduction to modern instrumental analysis.

### CHM 211 Organic Chemistry (4-4-6)

Prerequisite: CHM 102

The presentation of the classification, nomenclature, reactions, bonding, and reaction mechanisms of the compounds of carbon.

### CHM 212 Organic Chemistry (4-4-6)

Prerequisite: CHM 211

A continuation of CHM 211.

## DATA PROCESSING

### DAP 111 Data Processing Fundamentals (3-2-4)

Prerequisite: None

A basic introductory course in the fundamentals of collecting, recording, interpreting, and processing data. Common applications of data processing as performed by manual, mechanical, and electronic methods will be studied. Class exercises in flow-charting and analysis will be conducted. Students will write one or more simple computer programs.

### DAP 112 Computer Concepts (3-0-3)

Prerequisite: None

An introductory course in the internal workings of a computer, its components, and programming fundamentals. Number systems, data representation, electronic data processing system components, processing methods, and the concept of programming languages will be studied.

### DAP 121 Fortran Programming I (3-4-5)

Prerequisite: DAP 112 or Departmental Approval

A fundamental course in computer programming. The FORTRAN IV compiler language will be used to develop program logic and write computer programs to solve sample problems.

### DAP 122 Computer Systems I (3-0-3)

Prerequisite: DAP 112 or Departmental Approval

The general nature of a computing system will be studied. In particular, the IBM 360 internal structure and operation will be investigated. Computable problems and programming techniques for their solution will be discussed.

### DAP 123 Computer Systems II (3-0-3)

Prerequisite: DAP 122

Operating system control program, interrupts, and machine language format will be covered.

### DAP 131 Fortran Programming II (3-4-5)

Prerequisite: DAP 121

The complete capabilities of FORTRAN IV will be studied and used to solve sample problems. Teams will be used to solve one sample problem through a series of sub-programs.

### DAP 132 BASIC Programming (3-4-5)

Prerequisite: DAP 121

The BASIC language will be used to develop the program logic needed to solve a representative sample of business problems. The students will also write, compile, correct their errors, and test their solutions to the above problems.

### DAP 241 COBOL Programming I (3-4-5)

An introductory course to a second compiler language. COBOL will be used to develop program logic and write computer programs to solve sample problems.

### DAP 242 Systems and Procedures (5-0-5)

Prerequisite: DAP 111

Business organization, system communication, work measurement, records management, flowcharting, forms design, condensation of data, and practical EDP applications and procedures for various business processes will be studied.

### DAP 251 COBOL Programming II (3-4-5)

Prerequisite: DAP 241

The complete capabilities of COBOL will be used to solve sample problems. Emphasis will be placed on working as a team in the solution of a problem.

### DAP 252 Report Program Generator Programming (3-4-5)

Prerequisite: DAP 112

The Report Program Generator language will be used to develop the program logic and write computer programs to solve sample problems.

### DAP 253 Report Program Generator II Programming (3-4-5)

Prerequisite: DAP 112

The Report Program Generator Language will be used to develop program logic needed to solve a representative sample of business problems. The students will also write, compile, correct their errors, and test their solutions to the above problems.

### DAP 261 Assembler Language Programming (3-4-5)

Prerequisite: DAP 131 or DAP 251

An introductory course to a symbolic language. The language will be taught using a particular example that emphasized the capabilities of the language. The student will be required to solve sample problems using the assembler language.

### DAP 262 Data Processing Project (1-8-5)

Prerequisite: Permission of Instructor

This course provides the student with an opportunity to develop, program, test, and document the installation of a significant computer application.

### DAP 263 Introduction to PL/I Programming (3-4-5)

Prerequisite: DAP 121

The basic elements of PL/I will be used to write computer programs to solve a representative sample of simple problems.

## DRAFTING

### DFT 101 Engineering Drawing I (0-6-2)

Prerequisite: None

A study is made of the graphical methods and techniques used in expressing, interpreting, and communicating engineering ideas. Practical introductory engineering design problems are considered.

### DFT 102 Engineering Drawing II (0-6-2)

Prerequisite: DFT 101

A continuation of DFT 101. The course is primarily devoted to drafting room practices, and working drawings of engineering requirements.

### DFT 103 Descriptive Geometry (0-3-1)

Prerequisite: DFT 101

Theory of projection drawing and its application in solving practical problems by projection and revolution of points, lines, planes, and solids.

## DRAMA

### DRA 101 Introduction to Theatre (3-0-3)

Prerequisite: None

This course is an exploration of the theatre as an art form: how the actor, director, and designer function. Outstanding plays of major periods are used to demonstrate the technical and aesthetic aspects of theatrical production.

### DRA 102 Oral Interpretation (3-0-3)

Prerequisite: None

A course designed to promote the student's skill in interpreting and presenting various selections from literature, poetry, and plays. Students are given an opportunity for delivery of selections of their own choice.

### DRA 103 Acting I (1-4-3)

Prerequisite: ENG 103 or Permission of Instructor

This course is designed to train the actor to convey thought and emotion through the use of the body and the voice. Mime, oral exercises and improvisations are studied.

### DRA 104 Play Production I (0-9-3)

Prerequisite: DRA 101 or Consent of Instructor

This course provides students with guided practice in producing a play for audience approval. Students are required to play roles and serve on at least one of the following committees: scenery, sound, property, lighting, costume, publicity, or make-up.

### DRA 105 Play Production II (0-9-3)

Prerequisite: DRA 101 or Permission of Instructor

This course provides students with guided practice in carrying out responsibilities in play production under the pressure of preparing plays for audience approval. Students enrolled may expect to play roles and serve as members of the scenery, sound, property, lighting, costume, publicity or make-up staffs.

### DRA 106 Stage Crafts (1-4-3)

Prerequisite: DRA 101 or Consent of Instructor

This course is designed to familiarize the student with all the theatre crafts including scenery construction and painting property construction and acquisition, stage lighting and sound.

### DRA 107 Stage Make-up (1-2-2)

Prerequisite: None

The student will study and practice creating straight, middle-age, old-age, and character make-ups.

### DRA 201 History of Theatre—Ancient (3-0-3)

Prerequisite: DRA 101 or Permission of Instructor

This course is a study of the specific conditions under which the great plays of the world have been produced. Consideration of audience, actors, physical conditions, social conditions, and playwright are studied. Representative plays are studied from the Ancient to the Renaissance Period.

### DRA 202 History of Theatre—Renaissance (3-0-3)

Prerequisite: DRA 101 or Permission of Instructor

This course is a study of the specific conditions under which the great plays of the world have been produced. Consideration of audience, actors, physical conditions, social conditions, and the playwright are studied. Representative plays are studied from the Renaissance to the Realistic Period.

### DRA 203 History of Theatre—Realistic (3-0-3)

Prerequisite: DRA 101 or Permission of Instructor

This course is a study of the specific conditions under which the great plays of the world have been produced. Consideration of audience, actors, physical conditions, social conditions, and the playwright are studied. Representative plays are studied from Realistic Period to the present.

### DRA 204 Play Production III (0-9-3)

Prerequisite: DRA 101 or Permission of Instructor

This course provides students with guided practice in carrying out responsibilities in play production under the pressure of preparing plays for audience approval. Students enrolled may expect to play roles and serve as members of the scenery, sound, property, lighting, costume, publicity, or make-up staffs.

### DRA 205 Play Production IV (0-9-3)

Prerequisite: DRA 101 or Permission of Instructor

This course provides students with guided practice in carrying out responsibilities in play production under the pressure of preparing for audience approval. Students enrolled may expect to play role and serve as members of the scenery, sound, property, lighting, costume, publicity or make-up staffs.

### DRA 206 Costuming for the Stage (1-4-3)

Prerequisite: DRA 101 or Permission of Instructor

This course is a study of historical costume styles in relation to costuming for the modern theatre.

## EARTH SCIENCE

### ESC 101 Earth Science I (5-2-6)

Prerequisite: None

A study of the earth's astronomical relations, factors of weather and climate, and physiographic features, and resources such as minerals, water, soils, and seasons. Also listed as GEO 101.

### ESC 102 Earth Science II (5-2-6)

Prerequisite: None

A study of the basic principles and processes of the earth, its composition, formation, and features. Also listed as GLY 102.

## ECONOMICS

### ECO 201 Principles of Economics (5-0-5)

Prerequisite: None

A study of economic principles, problems, and issues. Economic theory of capitalism; and the facts of American Capitalism are studied. Emphasis is on the price system; importance of households, businesses, and government; national income and employment; and money and monetary policy in American Capitalism.

**ECO 202 Principles of Economics (5-0-5)**

Prerequisite: ECO 201

A continuation of ECO 201. Emphasis is on the economics of the firm and resource allocation; current economic problems; and international economics.

**ECO 209 Money and Banking (5-0-5)**

Prerequisite: None

A study of money, its nature and history, the commercial banking process, the structure and operations of the Federal Reserve System, significance and measurement of money and the national income, review of U.S. monetary policy, financial institutions other than commercial banks, and international banking.

**EDUCATION**

**EDU 234 Production & Utilization of Audio-Visual Materials (3-3-4)**

Prerequisite: None

An introduction to the various nonprint approaches to instructing children. Emphasis will be placed upon actual making of materials plus the instructional theory underlying non print media.

**ENGLISH**

**ENG 090 Preparatory Grammar & Composition (5-0-5)**

Prerequisite: None

Upon recommendation of the guidance department or the English department, students who need additional preparation in English should be enrolled in English 090. The course includes a thorough review of English fundamentals. Special attention is given to improvement of basic writing skills. Students placed by recommendation in English 090 should successfully complete this course before enrolling in additional English courses at Gaston College.

**ENG 101 Freshman Grammar & Composition (5-0-5)**

Prerequisite: ENG 090 or Departmental Approval

English 101 includes a review of correct usage in grammar, mechanics, punctuation, and spelling, and the writing of numerous themes. Various types of themes are considered, and students write themes based upon the principles exemplified in the sample themes which are studied. Students are trained in the preparation of the library research paper.

**ENG 102 Freshman Literature (5-0-5)**

Prerequisite: Successful completion of ENG 101

English 102 includes an introduction to the types of literature, including prose, poetry, and drama. Students are given training and experience in the analysis and criticism of literature.

**ENG 103 Public Speaking (5-0-5)**

Prerequisite: None

English 103 is a course in speech preparation, composition, and delivery. Students are given frequent opportunities to prepare and deliver short speeches of various types.

**ENG 105 Introduction to Journalism (3-0-3)**

Prerequisite: None

Introduction to Journalism consists of a study of a newspaper from the time an event occurs until the paper reaches the newsstands. Special emphasis is placed on responsible reporting and editorializing with respect to accuracy, fairness, slant, and the obligation to the social levels served by the newspaper.

**ENG 201 English Literature (5-0-5)**

Prerequisites: ENG 101 & 102

English 201 is a study of selected works of the major British writers, including discussion of the milieu in which they wrote. Students pre-

pare research papers in which they analyze and criticize authors and their works. ENG 201 covers major British writers from Chaucer through Samuel Johnson.

**ENG 202 English Literature (5-0-5)**

Prerequisites: ENG 101 and 102

English 202 is a continuation of English 201 starting with the Romantic period and continuing through the Twentieth Century.

**ENG 203 American Literature (5-0-5)**

Prerequisites: ENG 101 and 102

English 203 is a study of important American authors, their literary works and environment from the Colonial period to the Civil War period.

**ENG 204 American Literature (5-0-5)**

Prerequisites: ENG 101 and 102

English 204 begins with the Civil War writers and continues through the Twentieth Century.

**ENG 208 World Literature (5-0-5)**

Prerequisites: ENG 101 and 102

English 208 will survey ancient Greek, Roman, and Oriental literature. Selections representing the major themes and genres will be presented.

**ENG 209 World Literature (5-0-5)**

Prerequisites: ENG 101 and 102

English 209 is a continuation of ENG 208 emphasizing European literature as it evolved from the classical, stressing trends and genres from the Renaissance to the modern.

**ENG 217 Children's Literature (3-0-3)**

Prerequisite: None

A study of children's literature which includes the various types of literature appropriate for young children. Evaluation of modern writers, illustrations, and books will be emphasized.

**FRENCH**

**FRE 100 Conversational French (5-0-5)**

Prerequisite: None

Conversational French is a one-quarter course for students desiring a basic vocabulary and the ability to engage in simple conversation. This course is designed as a study of the French people, their language, and their culture with emphasis on fundamental sounds and structures of the language. This course is planned for beginning students or for those desiring to up-grade previously acquired skills in French.

**FRE 101 Elementary French (5-0-5)**

Prerequisite: None

Elementary French is a beginning course which stresses the four basic skills—listening, speaking, reading, and writing—along with cultural aspects.

**FRE 106 French Civilization (3-0-3)**

Prerequisite: None

This is a course designed to foster a greater understanding and appreciation of French culture and civilization with emphasis on history, geography, culture, society, economics, politics, and government. The course consists of lecture, outside readings, class reports, a research project and is taught in English. It is also offered as HIS 106.

**FRE 201 Intermediate French (5-0-5)**

Prerequisites: FRE 101, 102 or 2 years high school French  
This course reinforces the basic skills and includes emphasis on reading and writing. Also a review of grammar and cultural studies are included.

## GENERAL STUDIES

The General Studies Program is designed to give first year college students a comprehensive, integrated study of English, Social Studies, Humanities, Career Preparation, and Personal Development.

The classes are deliberately kept small in order to allow for closer teacher-student relationship and academic supervision.

The enrolling student must sign up for the entire block of courses covering three quarters. At the completion of the year's work, the student will have completed the necessary work to receive credit for English 101, 102, and 103; History 101, 102, 103, and 104; Music 101; Art 101; Psychology 100; Education 103 and 104; and Reading 101.

### COMMUNICATIONS:

Communications is an integrated approach to Reading Improvement 101, English 101, and English 103.

**COM 101 Communications (5-0-5)**

Prerequisite: None

This course is designed to include a review of the basic study skills essential for the pursuit of college level demands. It further is designed to cover rapid visual perception, skimming, scanning, vocabulary building, and critical reading.

**COM 102 Communications (5-0-5)**

Prerequisite: None

This course is designed to increase the students' skills in composition writing and the techniques of the literary research paper. It includes techniques acquired in Communication 101 which are applicable to good expository writing, particularly the following: pattern of development, general statements, specific statements, and fallacious reasoning. The topics for research as well as many of the topics for themes are drawn from the humanities and the social science instructors.

**COM 103 Communications (5-0-5)**

Prerequisite: None

This is a course in public speaking. It is designed to train the student in the mechanics of speech preparation, and to give the student many opportunities to develop the feeling of self-adequacy. It utilizes the techniques acquired in Communications 101 and Communications 102 which are applicable to good speech preparation, particularly the development of an idea, the recognition of general statements, and the recognition of fallacious reasoning. Many of the topics for speeches are drawn from the humanities and the social science instructors.

### EDUCATION

**EDU 103 Career Planning (2-0-2)**

Prerequisite: None

A course designed to aid students to assess their abilities and interest in order to make a more meaningful choice. Tests will be administered to assess the students interests and abilities in planning their educational needs.

**EDU 104 Career Planning (2-0-2)**

Prerequisite: None

A continuation of EDU 103. Exploring occupations, written job applications, resumes, job interviews and educational planning in the world of work.

### HUMANITIES:

The Humanities Curriculum in General Studies is an integrated survey of literature, visual arts, and music from ancient Greece to the present. It provides a framework for understanding the arts and ideas within their proper historical and cultural settings. The fifteen quarter hours (5 hours each quarter) are equivalent in content to Music Appreciation 101, Art Appreciation 101, and English 102 (Freshman Literature).

**HUM 101 Humanities (5-0-5)**

Prerequisite: Departmental Approval

Designed to help students to understand that the fine arts comment upon man's concept of himself and the world in which he lives, and to help students to become acquainted with some of the outstanding works in the fields of literature, music, and the visual arts from Greek Civilization through the Middle Ages.

**HUM 102 Humanities (5-0-5)**

Prerequisite: Departmental Approval

A continuation of Humanities 101 from the Renaissance through the Classical Period.

**HUM 103 Humanities (5-0-5)**

Prerequisite: Departmental Approval

A continuation of Humanities 102 from the Romantic Era through the Modern Period.

### PSYCHOLOGY:

**PSY 100 Individual Human Potential (2-0-2)**

Prerequisite: None

The course is designed to help each student discover and actualize his unique capacities, strengths, talents, and abilities. Through this experience, persons are led to live more creative, productive, satisfying lives.

### SOCIAL SCIENCE:

The Social Science Curriculum in General Studies is a survey of the development of Western man from the period of pre-history through the Cold War of the Twentieth Century. The fifteen quarter hours (5 hours each quarter) which comprise the course are equivalent in content to the 12 quarter hours of History 101, 102, 103, and 104.

**SSC 101 Social Science (5-0-5)**

Prerequisite: None

Historically traces man's development from the era of pre-history through the Fall of the Roman Empire. Emphasis is placed on the influence of the history and philosophy of the ancient Mesopotamians, Egyptians, Greeks, and Romans upon western thought and development.

**SSC 102 Social Science (5-0-5)**

Prerequisite: None

Surveys the cultural, economic, and political development of western thought from the Age of Faith through the Reformation. Included in the survey are examinations of the Byzantine World, the Islamic Influence, the Medieval Church, the Crusades, the Age of Exploration, the Renaissance, and the Reformation.

**SSC 103 Social Science (5-0-5)**

Prerequisite: None

Scans western development from the Ramifications of the Peace of Westphalia to the Cold War of the Twentieth Century. Emphasis is placed upon the effects of the English, American, and French Revolutions, The Industrial Revolution, World Wars I and II, and the Confrontation between Democracy, Communism, and Modern Nationalism.

This program offers the possibility of a wide variety of learning activities which are designed to increase the overall effectiveness of its students. It attempts to prepare the individuals to successfully pursue their goals. Students earn transferable liberal arts credit; however, many students choose areas of interest other than liberal arts upon completion of the program.

## GEOGRAPHY

### **GEO 101 Physical Geography (5-2-6)**

Prerequisite: None

A study of the earth's astronomical relations, factors of weather and climate, and physiographic features, and resources such as minerals, water, soils, and seas. Also offered as ESC 101.

### **GEO 105 Ecology of Man (5-2-6)**

Prerequisites: BIO 101, BIO 121, or GEO 101

A course which examines the past and present relationships of man with his biophysical environment. Consideration will be given to ecological concepts, population growth, pollution, human variation, and conservation of natural resources. This course is also offered as BIO 105 Ecology of Man.

### **GEO 111 World Regional Geography I (3-0-3)**

Prerequisite: None

An attempt is made to describe and explain many of the similarities and differences that exist from place to place on the earth. Emphasis is on the cultural characteristics and related problems of selected regions. Europe, USSR, and Anglo-America are covered in GEO 111.

### **GEO 112 World Regional Geography II (3-0-3)**

Prerequisite: GEO 111 recommended.

An attempt is made to describe and explain many of the similarities and differences that exist from place to place on the earth. Emphasis is on the cultural characteristics and related problems of selected regions. Mid-east, the Orient, Pacific World, Africa, and Latin America are covered in GEO 112.

### **GEO 202 Geography of Anglo-America (3-0-3)**

Prerequisite: None

A consideration of the geographical regions of the continent—its climates, industries, natural resources, and human response to environment. Geomorphology, provinces, urban pattern, and political geography of the United States are treated. The student prepares numerous maps and tables.

### **GEO 204 Economic Geography (3-0-3)**

Prerequisite: None

A study of the economic, social, political aspects of the distribution of natural resources and their utilization. The influence of industry, agriculture, and natural resources on the population density is developed.

### **GEO 205 Conservation of Natural Resources (3-0-3)**

Prerequisite: None

Problems and techniques of conserving water, soil, minerals, plants, animals, and human resources. This course is also offered as BIO 205.

## GEOLOGY

### **GLY 102 Introduction to Geology (5-2-6)**

Prerequisite: None

A study of the basic principles and processes of the earth; its composition, formation, and features. Also listed as ESC 102.

## HISTORY

### **HIS 101 World Civilization—Ancient (3-0-3)**

Prerequisite: None

A history of civilizations in the Ancient period. A survey of political, social, and artistic developments in Mesopotamia, Egypt, Greece, and Rome.

### **HIS 102 World Civilization—Medieval (3-0-3)**

Prerequisite: None

A survey of European social, political, and cultural history from the fall of Rome to 1715, including the Middle Ages, the Renaissance and Reformation, and Early Modern France, England, Germany, and Italy. This course examines the influences of the Byzantine and Islamic cultures of European society.

### **HIS 103 World Civilization—Modern (3-0-3)**

Prerequisite: None

The history of Europe from 1715 to 1945. A survey of life in Europe from the French Revolution and Enlightenment through the early Twentieth Century, including the effects on the United States and Soviet Union.

### **HIS 104 World Civilization—Contemporary (3-0-3)**

Prerequisite: None

The history of the world since 1945 to the present. A survey of the political, social, and economic developments of Europe, Asia, Africa, and Latin America, and how they have affected world affairs.

### **HIS 106 French Civilization (3-0-3)**

Prerequisite: None

This is a course designed to foster a greater understanding and appreciation of French culture and civilization with emphasis on history, geography, culture, society, economics, politics, and government. The course consists of lecture, outside readings, class reports, a research project, and is taught in English.

### **HIS 201 United States History to 1877 (5-0-5)**

Prerequisite: None

American history from the period of discovery and colonization through Reconstruction. Emphasis is upon promoting an understanding of and an appreciation for the fundamental themes and patterns in the social, economic, and cultural development of the nation. Special attention is focused upon the origin and development of constitutional government, geographic expansion, and the controversy growing out of sectional issues.

### **HIS 202 United States History from 1877 (5-0-5)**

Prerequisite: None

American history from 1865 to the present, with emphasis upon the emergence of the U.S. as a modern industrial nation and world power, the "big change" in social, political, and economic development of the Twentieth Century, and the diplomatic complexities confronting the U.S. in the contemporary world.

**HIS 203 North Carolina History (5-0-5)**

Prerequisite: None

The history of North Carolina from its discovery by the French and Spanish to the present. Political, agricultural, industrial, religious, educational, literary, and social developments receive proper attention.

**HIS 204 Afro-American Studies (5-0-5)**

Prerequisite: SOC 102 or Instructor's Permission

A general study of the contributions of the black race to American Society. A study of slavery, Black intellectuals, the attempt of the Black man to understand himself and his place in modern U.S. society, and the Black-White confrontation. The course will be based on the case-study approach.

**HIS 220 Women In Society (5-0-5)**

Prerequisite: None

This course is a survey of women's place in society beginning with ancient times, although the primary emphasis is on women in American society. The subject will be treated historically, with emphasis on the 20th century, but it will also include elements of sociology, psychology, biology, and literature.

**HIS 280 Study Tour (2-12-6)**

Prerequisite: None

See ANT 280 for course description.

**HIS 291 Educational Travel (1-6-3)**

A social sciences course designed to allow students to obtain limited college credit for valid educational travel, both domestic and foreign. Permission for such Educational Travel must be obtained from the Director of Study Tours before such travel is conducted, and all classwork, written exams, and projects must be submitted to the appropriate department chairman before academic credit is granted. Students are required to register for the course before travel is undertaken. (Course prefix designated at the time the area of study is determined.)

**LAW****LAW 108 Nature & Function of Law in Society (3-0-3)**

Prerequisite: None

The presentation of a philosophical and historical appreciation of what law is within the framework of social order. In addition to an analysis of how present laws came to be, particular emphasis will be placed on the way in which our present day society utilizes the law as a social control device. Also offered as POL 108.

**LAW 120 Family Law (5-0-5)**

Prerequisite:

A study of the laws governing domestic relations under common law and as changed by statute. The laws dealing with sex relations, marriage, divorce, and children. Child custody, juvenile delinquency, and the juvenile court system.

**LAW 215 Consumer Law (5-0-5)**

Prerequisite: None

A survey of the methods by which individuals and communities can protect themselves against misleading advertising and labeling, unsafe products, and pollution. Land use planning. Environmental protection.

**LAW 216 Property Law (3-0-3)**

Prerequisite: None

The law of real property and personal property; estates in land and future interests. Leasing, transferring, mortgages, recording, covenants, easements, licenses, landlord and tenant, wills, and successions, probate.

**MATHEMATICS****MAT 081 Elementary Algebra (5-0-5)**

Prerequisite: None

MAT 081 and MAT 082 together contain the essentials of the first year of high school algebra from the "modern" viewpoint.

**MAT 082 Elementary Algebra (5-0-5)**

Prerequisite: MAT 081 or Departmental Approval.

A continuation of MAT 081.

**MAT 090 Intermediate Algebra (5-0-5)**

Prerequisite: None

This course is essentially the second year of high school algebra. For students having a deficiency in algebra or needing a refresher course before entering MAT 101.

**MAT 100 Principles of Mathematics (5-0-5)**

Prerequisite: Departmental Approval

This course is primarily intended for non-science or liberal arts majors. Some background in algebra is required. Applications of principles are made in a wide variety of areas. This course is designed to precede MAT 102. A student will not receive credit for both 100 and 101.

**MAT 101 College Algebra (5-0-5)**

Prerequisite: Departmental Approval

A study of the real numbers from a postulational point of view and some of their derived properties. Included are such topics as: sets, relations, functions, theory of equations, systems of equations, matrices and determinants, complex numbers, inequalities, mathematical induction, partial fractions, the binomial theorem, and elementary analytic geometry.

**MAT 102 Topics In Mathematics (5-0-5)**

Prerequisite: MAT 100, or MAT 101

A continuation of the study begun in MAT 101 including an introduction to trigonometry, permutations, and combinations, probability, statistics, progressions, and analytic geometry. The course also includes a discussion of the fundamental concepts of both differential and integral calculus with applications.

**MAT 104 Trigonometry (5-0-5)**

Prerequisite: MAT 100 or MAT 101

A study of the trigonometric functions, complex numbers, and logarithms.

**MAT 105 Advanced Algebra & Trigonometry (5-0-5)**

Prerequisite: Departmental Approval

Selected topics in advanced algebra and an intensive study of analytic trigonometry. This course is designed as a precalculus course.

**MAT 106 Analytic Geometry & Calculus (5-0-5)**

Prerequisite: MAT 105, or MAT 104

The first quarter of four quarter sequence. Most of plane analytic geometry is covered as well as the basic elements of differential and integral calculus.

**MAT 107 Analytic Geometry & Calculus (5-0-5)**

Prerequisite: MAT 106

A continuation of MAT 106. MAT 107 continues with the differentiation and integration of trigonometric, logarithmic, and exponential functions and techniques of integration.

**MAT 206 Analytic Geometry & Calculus (5-0-5)**

Prerequisite: MAT 107

A continuation of MAT 107. Included are indeterminate forms, improper integrals, polar coordinates, infinite series, and vectors in both two and three dimensions.

**MAT 207 Analytic Geometry & Calculus (5-0-5)**  
Prerequisite: MAT 206

A continuation of MAT 206. Included are physical applications including moments and centroids, multiple integrals, and an introduction to differential equations.

**MAT 210 Elementary Statistics (5-0-5)**  
Prerequisite: MAT 101 or its equivalent

A non-calculus treatment of techniques and procedures for handling data. Topics include: analysis of data, probability, binomial and normal distributions, hypothesis testing T-Distribution, Chi-square distribution, F-distribution, non-parametric statistics, regression and correlation, and analysis of variance. This course is also offered as PSY 210.

## MUSIC

**MUS 90 Basics of Music (1-0-1)**  
Prerequisite: None

The course is designed for those with little or no musical background who wish to enroll in the music theory or in the applied music courses. A systematic study is made of musical notation, music symbols, musical forms, elementary sight reading.

**MUS 101 Music Appreciation (3-0-3)**  
Prerequisite: None

A course designed primarily for students with a limited background in music. An investigation into the component parts of music—rhythm, melody, harmony, texture, and design—and how these elements interact. A comprehensive survey of the history of music from its earliest beginnings to the present, with particular emphasis on the music literature, both vocal and instrumental, of well-defined periods: Middle Ages, Renaissance, Baroque, Classical, Romantic, Impressionistic, and Modern. This course meets the requirements for North Carolina certification in elementary education. For non-music majors.

**MUS 102 Musical Literature (3-0-3)**  
Prerequisite: None  
Same course description as MUS 101 with additional work required for music majors.

**MUS 103 Music Literature (3-0-3)**  
Prerequisites: MUS 101, 102 or Departmental Approval  
A study of opera and oratorio from the earliest beginnings to the present. A survey is made of the masterpieces in each category, with one opera and one oratorio studied in depth.

**MUS 104 Introduction to Symphonic Literature (3-0-3)**  
Prerequisites: MUS 101, 102 or Departmental Approval  
The course is designed for those with an elementary knowledge of music appreciation who wish to increase their enjoyment of music for the symphony orchestra. A systematic study is made of the development of the symphony as an art form, with illustrations for listening selected from the works of Bach, Handel, Mozart, Haydn, Beethoven, and the Nineteenth Century composers.

**MUS 111 Fundamentals of Musicianship (3-0-3)**  
Prerequisite: Departmental Approval  
Sight-singing, scales, major and minor keys, elementary harmony, melodic and harmonic dictation, key signature, rhythm, simple and compound meter. Designed for music majors.

**MUS 112 Fundamentals of Musicianship (3-0-3)**  
Prerequisite: Departmental Approval  
A continuation of MUS 111.

**MUS 113 Fundamentals of Musicianship (3-0-3)**  
Prerequisite: MUS 112, or Departmental Approval  
A continuation of MUS 112.

**MUS 125 Class Voice (2-0-2)**  
Prerequisite: None

Group instruction in the fundamentals of singing, for both solo and choral performance: correct posture and breathing, tone production, resonance, musical phrasing, diction, and artistic interpretation. Songs for study are chosen from the basic repertory, including folk-songs, classics, artsongs, musical comedy, and religious songs. May be repeated for six hours credit.

**MUS 126 Class Voice (2-0-2)**  
Prerequisite: MUS 125 or Departmental Approval

A continuation of basic vocal tone production plus techniques of good diction. Will include study of various songs and arias.

**MUS 127 Class Voice (2-0-2)**  
Prerequisite: MUS 126 or Departmental Approval

A continuation of MUS 126. Repertoire of all styles and periods will be selected by the instructor as determined by the ability of the students.

**MUS 131 Mixed Chorus (0-2-1)**  
Prerequisite: Departmental Approval

A laboratory type performing group for students who like to sing. A study is made of choral literature from the Renaissance to the present, including current popular tunes and excerpts from musical comedies. May be repeated for six hours credit.

**MUS 134 Class Piano (0-2-1)**  
Prerequisite: None

Group instruction in the basic principles of piano playing. Limited enrollment. Required for all music majors and minors unless exempt by virtue of an examination in piano proficiency.

**MUS 135 Class Piano (0-2-1)**  
Prerequisite: MUS 134, or Departmental Approval  
A continuation of MUS 134.

**MUS 136 Class Piano (0-2-1)**  
Prerequisite: MUS 135, or Departmental Approval

A continuation of MUS 134, 135. May be repeated for six hours credit.

**MUS 141 Instrumental Ensemble—Stage Band (0-2-1)**  
Prerequisite: Departmental Approval

A laboratory type performing group. Emphasis on intonation, blend, phrasing, sightreading, interpretation. Music selected to meet the needs of the instrumentation available. May be repeated for six hours credit.

**MUS 142 Instrumental Ensemble—Strings (0-2-1)**  
Prerequisite: Departmental Approval

A laboratory type performing group to gain experience in ensemble playing. Music selected to meet the needs of the instrumentation available.

**MUS 143 Instrumental Ensemble—Brass (0-2-1)**  
Prerequisite: Departmental Approval

A laboratory type performing group to develop ability and experience to perform in small groups. Emphasis on quality of tone, intonation, style, breathing.

**MUS 144 Instrumental Ensemble—Woodwinds (0-2-1)**

Prerequisite: Departmental Approval

A laboratory course to gain experience and background in small group playing. Emphasis on quality of tone, intonation, style, and breathing.

**MUS 154 Beginning Class Strings (2-0-2)**

Prerequisite: None

Fundamentals of violin playing; how to select an instrument and take proper care of it; how to hold the instrument; how to use the bow.

**MUS 155 Intermediate Class Strings (2-0-2)**

Prerequisite: MUS 154 or Special Permission

Continuation of MUS 154, including the teaching of position work.

**MUS 156 Advanced Class Strings (2-0-2)**

Prerequisite: MUS 155 or Permission of Music Department

Continuation of MUS 155, with additional emphasis on advanced position work; major and minor scales and arpeggios; introduction to simple orchestral works. May be repeated for six hours credit.

**MUS 161 Orchestra (0-2-1)**

Prerequisite: Departmental Approval

A laboratory-type performing group. Correct balance of different choirs, good intonation, blend, phasing, sight-reading, interpretation stressed. Music selected according to the needs and abilities of the orchestra. May be repeated for six hours credit.

**MUS 211 Intermediate Music Theory (3-0-3)**

Prerequisite: MUS 113, or Departmental Approval

Intermediate level dictation, both melodic and harmonic, in major and minor keys. Sight-seeing in treble, bass, and movable "C" clefs, in all major and minor keys.

**MUS 212 Intermediate Music Theory (3-0-3)**

Prerequisite: MUS 211, or Departmental Approval.

Continuation of MUS 211. Analysis of Harmonic structure in Bach chorales. Introduction of figured bass.

**MUS 213 Intermediate Music Theory (3-0-3)**

Prerequisite: MUS 212, or Departmental Approval

Continuation of MUS 212. Realization of figured bass at the piano, harmonization of Bach chorales. Introduction of major-minor seventh and ninth chords above the four basic triads: major, minor, diminished, and augmented.

**MUS 290 Seminar/Workshop (1-0-1)**

Prerequisite: To be specified for particular subjects.

A seminar/workshop approach featuring specialized instruction and extensive practical application of musical techniques in the fields of vocal and instrumental music.

**PHILOSOPHY****PHL 200 Introduction to Philosophy (3-0-3)**

Prerequisite: None

Philosophy 200 is designed to provide an introduction to the nature and scope of questions arising in the ever-changing arena of life through an introduction to the kinds of philosophy that men live by. Consideration will be given to the following subjects: metaphysics, epistemology, axiology, logic, idealism, realism, pragmatism, neo-thomism, naturalism, and existentialism.

**PHL 201 Ethics: Problems for a Just Society (3-0-3)**

Prerequisite: None

This course is to acquaint student with primary sources of significant thinking on contemporary issues and how they relate to the leading developments in the history of moral philosophy.

**PHL 203 Introduction to Logic (5-0-5)**

Prerequisite: None

A course designed to acquaint the student with the principles, methods, structures of induction, deduction, verification, and logical implications of ordinary language.

**PHOTOGRAPHY****PHO 101 Introduction to Photography (0-6-3)**

Prerequisite: None

Photography 101 is an introductory study of basic theory, principles, and techniques of black and white and color picture photography. Photography as an art, a profession, a tool, and a hobby will be discussed. The use of the 35mm camera and basic development and enlargement practices will be of primary lab concern.

**PHYSICAL EDUCATION****PED 100 Volleyball (0-2-1)**

Prerequisite: None

Includes fundamental skills, strategy, and rules through participation in volleyball.

**PED 101 Football, Soccer (0-2-1)**

Prerequisite: None

Includes fundamental skills, strategy, and rules through participation in flag football and soccer.

**PED 102 Softball (0-2-1)**

Prerequisite: None

Includes rules and skills through participation in softball.

**PED 103 Swimming (0-2-1)**

Prerequisite: None

Beginning swimming and/or swimming skills for advanced swimmers.

**PED 104 Bowling (0-2-1)**

Prerequisite: None

Includes fundamental skills, scoring, rules, and etiquette through participation.

**PED 105 Archery (0-2-1)**

Prerequisite: None

Includes fundamental skills and knowledge through participation in the activity.

**PED 106 Golf (0-2-1)**

Prerequisite: None

Includes skills and knowledges stressing social value. Beginning.

**PED 107 Basketball (0-2-1)**

Prerequisite: None

This course includes rules and strategies, scoring, officiating, and participation in basketball.

**PED 108 Skiing (0-3-1)**

Prerequisite: None

Includes fundamental skills, techniques, and knowledge through participation. Beginning.

**PED 111 Tennis (0-2-1)**

Prerequisite: None

A thorough coverage of fundamental skills, strategy, rules, and scoring through participation in the sport. Beginning.

**PED 112 Modern Dance (0-2-1)**

Prerequisite: None

A course designed to include the study of basic rhythmic and fundamental movements of modern dance. Beginning.

**PED 113 Gymnastics & Tumbling (0-2-1)**

Prerequisite: None

The course will include participation in tumbling, gymnastics, apparatus, stunts, and pyramid building.

**PED 114 Karate (0-2-1)**

Prerequisite: None

Karate is an ultimate form of unarmed self-defense. It is regarded as an excellent way to exercise, control weight, and develop fitness. It is approached as a beautiful and highly skilled oriental art, and as a highly skilled sport using skills and control techniques without bodily contact.

**PED 117 Roller Skating (0-3-1)**

Prerequisite: None

An analysis of the fundamental skills, techniques, and knowledge through participation in skating. Beginning.

**PED 118 Square Dancing (0-2-1)**

Prerequisite: None

Includes a study of the basic figures found in American square dances and the performance of the dances themselves.

**PED 120 Intermediate Tennis (0-2-1)**

Prerequisite: PED 111 and Instructor Approval

A continuation of skills from basic to more advanced fundamentals. Emphasis is given to improving skills, strategy, and techniques. Doubles and mixed doubles are thoroughly covered. Special emphasis is given to the competitive aspects.

**PED 201 Introduction to Physical Education (5-0-5)**

Prerequisite: None

Designed for students who expect to teach or coach. Includes the history of health education and physical education; philosophical, psychological, physiological, and sociological background for the teaching of health and physical education; basis for program and organization of activities.

**PED 210 Health Education (3-0-3)**

Prerequisite: None

A course designed to present basic personal health knowledge, and to develop proper health habits and attitudes in the individual.

**PED 220 Theory and Practice of Coaching Baseball (1-2-2)**

Prerequisite: None

This course deals with the theory and methods of coaching baseball. Emphasis is given to rules, strategies, and techniques.

**PED 221 Theory and Practice of Coaching Basketball (1-2-2)**

Prerequisite: None

This course deals with the theory and methods of coaching basketball. Emphasis is placed on rules, game strategy, and selected techniques of coaching basketball.

**PED 222 Theory and Practice of Coaching Football/Soccer (1-2-2)**

Prerequisite: None

This course deals with the theory and methods of coaching football/soccer. Emphasis is placed on rules, game strategy and selected techniques of coaching football/soccer.

**PED 225 Physical Fitness (0-2-1)**

Prerequisite: None

This course is designed to provide an individualized approach to physical fitness. Major emphasis will be given to the scientific basis for setting up and engaging in personalized physical fitness programs.

**PED 230 First Aid (3-0-3)**

Prerequisite: None

This course deals with emergency treatment of various types of injuries, control of bleeding, artificial respiration, transportation, splinting and bandaging, and legal responsibilities. It includes cardiopulmonary resuscitation. (CPR)

**PED 231 Advanced Life Saving (2-2-3)**

Prerequisite: All candidates must pass a swimming competency exam.

The course is designed to provide the individual with the abilities to protect himself and others around water. The course deals more specifically with rescues related to water type emergencies. Successful completion results in certification as an Advanced Life Saver by the American National Red Cross.

**PED 240 Sports Officiating (1-2-2)**

Prerequisite: None

Study of rules, officiating techniques, and the teaching of procedures concerning football and soccer. A definite number of hours also will be assigned for practical experience in officiating during the respective intramural activities.

**PED 241 Sports Officiating (1-2-2)**

Prerequisite: None

Study of rules, officiating techniques, and the teaching of procedures concerning basketball and volleyball. A definite number of hours also will be assigned for practical experience in officiating during the respective intramural activities.

**PED 242 Sports Officiating (1-2-2)**

Prerequisite: None

Study of rules, officiating techniques, and the teaching of procedures concerning baseball and softball. A definite number of hours also will be assigned for practical experience in officiating during the respective intramural activities.

**PED 260 Outdoor Living (1-2-2)**

Prerequisite: None

Outdoor living is designed to acquaint the beginning camper with various aspects of the camping experience ranging from elementary camp procedures to more advanced outdoor survival. Emphasis is given to both classroom knowledge and the practical application of camping techniques and procedures. Field experience is interspersed throughout the quarter.

**PED 270 Motor Development and Movement in Early Childhood (4-2-5)**

Prerequisite: None

A study of the motor development of the young child with emphasis given to physical and psychological development through the medium of physical activity. This course is designed to assist individuals who plan to work with young children by providing knowledge, skills and concepts for planning, organizing, teaching, and evaluating a program of activities.

**PHYSICS**

**PHY 211 Mechanics (4-3-5)**

Prerequisite: MAT 106

An introduction to mechanics. Subject matter includes vector and scalar quantities, static & dynamic systems of forces, translational

and rotational motion with variable acceleration, work, and energy, hydrostatics and hydrodynamics, elastic properties of matter and harmonic motion. Laboratory exercises are coordinated with classroom work. Designed for students whose curriculum requires a calculus oriented course.

**PHY 212 Heat, Sound and Light (4-3-5)**

Prerequisite: PHY 211 and MAT 107

An introduction to the principles of heat, sound, and light. Subject matter includes heat measurements, heat transfer, the laws of thermodynamics; wave motion; acoustical phenomena; the nature and propagation of light; reflection and refraction; lenses and optical instruments; interference and diffraction; and polarization. Emphasis is placed on problem solving and engineering applications. Laboratory exercises are coordinated with classroom work. Designed for students whose curriculum requires a calculus oriented course.

**PHY 213 Electricity and Magnetism: Atomic Physics (4-3-5)**

Prerequisites: MAT 206 and PHY 212

An introduction to electricity and magnetism and atomic physics. Subject matter includes electrostatics, capacitance and dielectrics, potential; chemical and thermal electromotive force; electromagnetism; electrical instruments; electromagnetic induction; motors and generators; alternating currents; transient circuits; thermionic emission; wave mechanics; radioactivity; and nuclear reactions. Emphasis placed on problem solving and engineering applications. Laboratory exercises are coordinated with classroom work. Designed for students whose curriculum requires a calculus oriented course.

**POLITICAL SCIENCE**

**POL 108 Nature & Function of Law in Society (3-0-3)**

Prerequisite: None

The presentation of a philosophical & historical appreciation of what law is within the framework of social order. In addition to an analysis of how our present laws came to be, particular emphasis will be placed on the way in which our present day society utilizes the law as a social control device. Also offered as LAW 103.

**POL 110 Introduction to American Federal Government (5-0-5)**

Prerequisite: None

A basic course dealing with democratic theory, the evolution of the American constitution and political institutions in the U.S., and the role of the people in American politics, and the relationship of the individual to the federal government in the area of civil rights and liberties.

**POL 201 International Relations (3-0-3)**

Prerequisite: None

A study discussion course on key foreign policy topics based on the "Great Decisions" program outlined each year by the non-partisan Foreign Policy Association.

**POL 203 State and Local Government (5-0-5)**

Prerequisite: None

A study of typical state and local political institutions and practices in America, with special emphasis upon the governmental organization and political problems of the state of North Carolina and its communities.

**POL 280 Topical Travel Study (2-12-6)**

Prerequisite: None

See ANT 280 for course description.

**PSYCHOLOGY**

**PSY 100 Individual Human Potential (2-0-2)**

Prerequisite: None

This course is designed to help each student discover and actualize his unique capacities, strengths, talents, and abilities. Emphasis is placed on releasing the potentialities that are latent in every person. Through this experience, persons are led to live more creative, productive, satisfying lives.

**PSY 203 Child Psychology (5-0-5)**

Prerequisite: PSY 201 or permission of Department Head

The study of the child from conception through pre-adolescence. Physical, biological, social, intellectual, emotional and personality development are emphasized in the course designed to promote an understanding of the behavior and needs of the child.

**PSY 204 Adolescent Psychology (5-0-5)**

Prerequisite: PSY 201 or permission of Department Head

The physical, biological, social, intellectual, and emotional changes occurring during adolescence are considered in relation to their effect on the development and personality in the individual. School, social, and personality problems are considered in the understanding and guidance of youth.

**PSY 205 General Psychology Lab (1-2-2)**

Prerequisite: PSY 201 or permission of Department Head

An introduction to the scientific study of behavior, to laboratory procedures, and to laboratory equipment. The goals of the course include familiarizing students with the principles and vocabulary of experimentation, sources of psychological information, practice in conducting and serving in laboratory projects, and writing in APA format.

**PSY 206 Psychology of Adjustment (5-0-5)**

Prerequisite: PSY 201 or Permission of Department Head

The study of the process of adjustment. Consideration is given to psychological reactions to critical problems encountered in modern life. Different approaches to psychotherapy will be introduced.

**PSY 210 Elementary Statistics (5-0-5)**

Prerequisite: MAT 101 or equivalent

A non-calculus treatment of technique and procedures for handling data. Topics include: analysis of data, probability, binomial and normal distributions, hypothesis testing, t-distribution, Chi-square distribution, F distribution, and analysis of variance. Also offered as MAT 210.

**PSY 230 The Psychology of Aging (5-0-5)**

Prerequisite: PSY 201 or permission of Department Head

A survey course concerning the physical and psychological changes occurring in late middle age and old age. The care and treatment of the aged in our society will be discussed.

**PSY 290 Psychology Seminar/Workshop (1-0-1)**

Prerequisite: May be specified for particular subjects.

A seminar/workshop approach involving the student in discussions and/or projects on a topic in psychology.

**READING**

**RDG 090 Reading Improvement (5-0-5)**

Prerequisite: None

This course is designated for those whose degree of reading proficiency may be inadequate for the successful pursuit of a college career at present. The course will cover basic skills of reading (comprehension, vocabulary, and rate) as well as study skills related to reading.

**RDG 101 Reading Improvement (5-0-5)**

Prerequisite: None

The course is designed for students interested in improving their skills of reading, and to promote each reader's understanding of his own potential by knowing his strengths, weaknesses, and levels of reading achievement. The course will cover critical reading, rapid visual perception surveying, vocabulary, scanning, and other skills necessary for reading efficiently during and after the college years.

**RELIGION**

**REL 101 World Religion (3-0-3)**

Prerequisite: None

A historical survey of the origin, development, beliefs, and practices of the major living faiths. To introduce the student to the origin and development of religions, contemporary "primitive" religions, ancient national religions, and the religions of India.

**REL 102 Old Testament Survey (3-0-3)**

Prerequisite: None

An introduction to the history, literature, religion, and personalities of the Old Testament.

**REL 103 New Testament Survey (3-0-3)**

Prerequisite: None

An introduction to the history, literature, personalities, and religion of the New Testament.

**SOCIOLOGY**

**SOC 102 Introductory Sociology (5-0-5)**

Prerequisite: None

A consideration of the origins and development of culture, the nature of personality and its relation to society, forms of collective behavior, and community and social organization.

**SOC 103 Marriage & Family Relations (3-0-3)**

Prerequisite: None

A practical consideration and discussion of the factors leading to successful marital adjustment; attention is given to the period from early dating to marriage, the coming of children, and the problems of child rearing. The course also deals with sex adjustment, in-law relationships, religion, and money management. Not to be taken by Sociology majors.

**SOC 109 Community Resources (3-0-3)**

Prerequisite: None

A study of the resource and service agencies in the community that may be used as a supportive service to industry, education, and other human service institutions. A practicum experience is closely correlated with classroom activities so that students may apply knowledge and skills to an on-the-job learning situation.

**SOC 202 Contemporary Social Problems (5-0-5)**

Prerequisite: SOC 102

A course designed to study contemporary personal and social disorganization and possible ameliorative action on the part of the community and society.

**SOC 280 Study Tour (2-12-6)**

Prerequisite: None

See ANT 280 for course description.

**SPANISH**

**SPA 100 Conversational Spanish (5-0-5)**

Prerequisite: None

Conversational Spanish is a one-quarter course for students desiring a basic vocabulary and the ability to engage in simple conversation. This course is designed as a study of the Spanish people, their language, and their culture with emphasis on fundamental sounds and structures of the language. This course is planned for beginning students or for those desiring to up-grade previously acquired skills in Spanish.

**SPA 101 Elementary Spanish (5-0-5)**

Prerequisite: None

Elementary Spanish is a beginning course which stresses the four basic skills—listening, speaking, reading, and writing—along with cultural aspects.

**SPA 102 Elementary Spanish (5-0-5)**

Prerequisite: SPA 101

A continuation of SPA 101.

**SPA 201 Intermediate Spanish (5-0-5)**

Prerequisites: SPA 101, 102 or 2 years high school Spanish

This course reinforces the basic skills and includes emphasis on reading and writing. Also a review of grammar and cultural studies are included.

**SPA 202 Intermediate Spanish (5-0-5)**

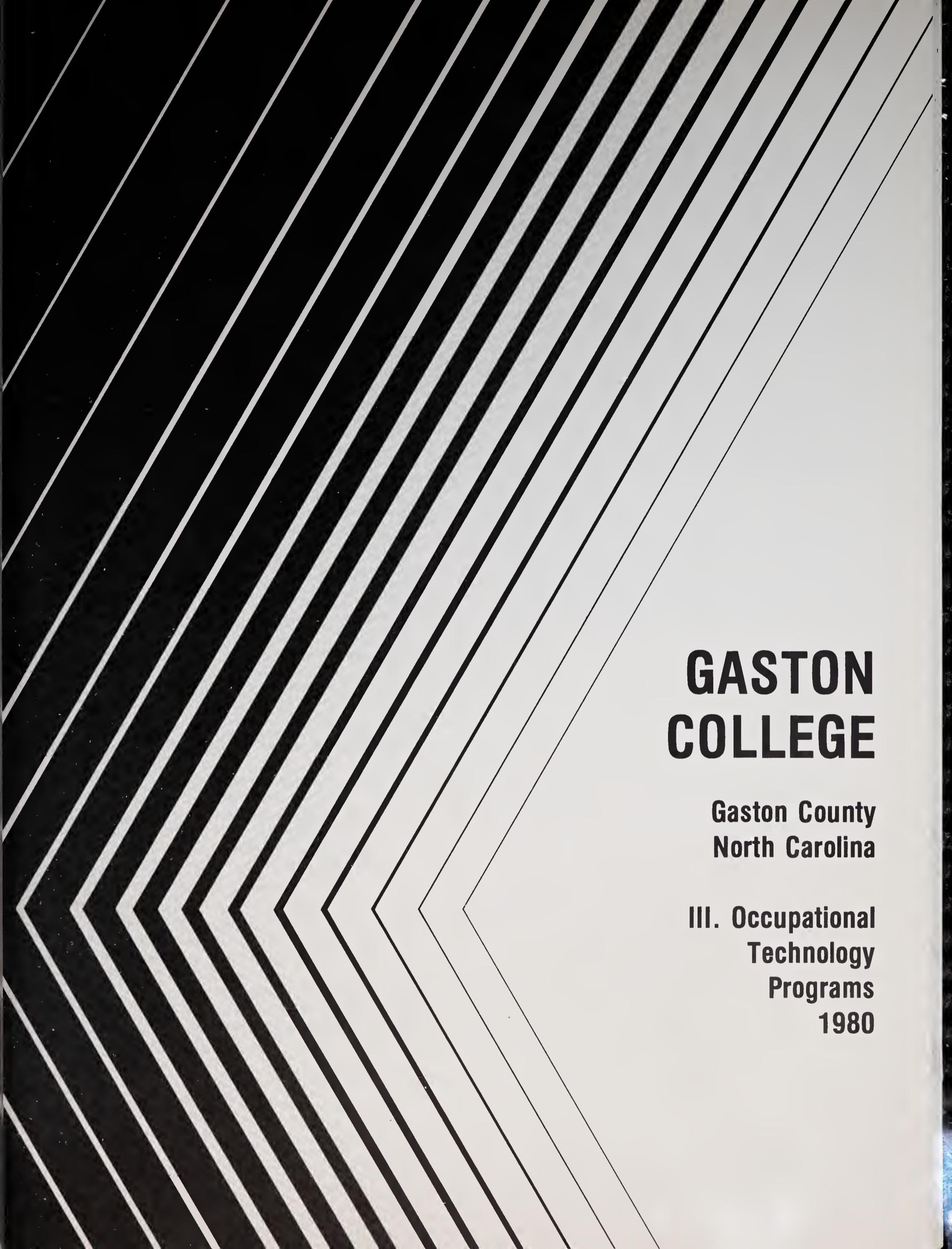
Prerequisite: SPA 201

A continuation of SPA 201.

**SPA 250 Independent Study (5-0-5)**

Prerequisite: Departmental Approval

A student who has completed the first two years of Spanish may elect this course. The nature of the course and the amount may be determined by consultation with the instructor.



# **GASTON COLLEGE**

**Gaston County  
North Carolina**

**III. Occupational  
Technology  
Programs  
1980**



## OCCUPATIONAL TECHNOLOGY PROGRAMS

Gaston College offers a variety of Occupational Technology Programs designed to prepare students for entry level jobs upon graduation in paraprofessional fields that meet community needs. These programs are generally two years in length and award an Associate degree in Applied Science upon completion of the program. With experience, many technicians can expect to move into professional and managerial positions.

The graduate of an Occupational Technology Program usually works in close cooperation with and under the direct supervision of a professionally trained person.

Students enrolled in the Occupational Technology Programs, in addition to taking courses that are occupational in nature, take general education courses in the area of English and Social Science. The Occupational Programs are college level and are specifically designed for entry level employment. However, certain courses may be accepted by specific four-year colleges or universities for transfer credit, usually on the basis of qualifying examinations.

In pursuit of this objective, students may wish to investigate an inverted degree program whereby the student will take the concentration of specialty course requirements of a number of professional Bachelor degree programs as the core of the Associate in Applied Science degree at Gaston College. Upon transfer to a senior institution the student will then complete the freshman and sophomore baccalaureate degree course requirements in the areas of humanities, mathematics, social science, foreign language, etc. One such program, a new field based Bachelor of Technology Program offered by Appalachian State University will begin in the Fall of 1980 at Gaston College.

The Bachelor of Technology degree is especially designed for graduates of community colleges or technical colleges with an Associate in Applied Science degree in Business, Data Processing, or Engineering Technology.

The following programs serve as a guide for those students who wish to pursue an Associate degree in an Occupational Technology Program at Gaston College:

Accounting	Police Science
Business Administration	Secretarial-Executive
Computer Science	Secretarial-Legal
Early Childhood	Secretarial-Medical
Fire Science	Social Services Associate
Medical Office Assistant	Teachers' Associate, Reading
Museum Technology	Transportation

The various curricula shown on succeeding pages have been made as flexible as possible. They should serve as a guide to a student contemplating an Occupational Technology course of study. A student should plan to take an average of sixteen hours credit per quarter chosen from the courses suggested.

The minimum requirement for an Associate in Applied Science degree varies with the field of concentration, ranging from 101 to 108 quarter hours of work numbered 100 or above: with a 2.000 grade-point average on courses presented.

NOTE: A student who plans to transfer should be aware that the receiving institution will usually require a 2.000 on all work attempted.

The counseling service of Gaston College is available to students who have special curriculum or educational needs. The curricula are subject to modification to meet students' needs. A counselor should be consulted if a student wishes to depart from the recommended curricula; otherwise, deficiencies in transfer credit may arise.

**Students may receive credit for only one course of cross-listed courses.**

Gaston College reserves the right to make changes in the suggested curricula if it seems desirable to do so.

### SELECTING A PROGRAM OF STUDIES

When all admission requirements have been met, new students are given appointments with counselors. The counselor will help the student select courses for his first quarter at Gaston College. If a student needs help thereafter he should meet with an advisor and/or counselor. Students on probation will be referred to counselors. Special students who do not wish to pursue a degree will not have to select a program.

New students will be given ACT results, a curriculum grade, and graduation requirements.

Changes within an approved program must be approved by the Coordinator of Academic Advisement or the Divisional Dean and/or the Department Head.

When students desire to change from one approved program to another, the Coordinator of Academic Advisement should be informed.

**Suggested Curriculum Leading to The  
Associate In Applied Science Degree  
in  
ACCOUNTING  
Total Quarter Credit Hours Required for Graduation—101  
(Curriculum Code T-016)**

The purpose of the Accounting curriculum is to prepare the individual to enter the accounting profession through study of accounting, principles, theories and practices with related study in law, finance, management and data processing operations.

The curriculum is designed to prepare the individual for entry-level accounting positions, such as junior accountant, bookkeeper, accounting clerk, cost clerk, payroll clerk and various data processing occupations.

With experience and additional education, the individual will be able to advance to positions such as auditor, systems manager, systems analyst, data processing manager and cost accountant.

			Class	Lab	Credit
<b>FIRST QUARTER</b>					
BUS	104	Introduction to Business	5	0	5
BUS	111	Business Mathematics	5	0	5
ENG	101	Freshman Grammar & Composition	5	0	5
<b>SECOND QUARTER</b>					
ACT	201	Principles of Accounting, Int.	5	0	5
BUS	121	Principles of Management	5	0	5
DAP	241	COBOL Programming I	3	4	5
<b>THIRD QUARTER</b>					
ACT	202	Principles of Accounting	5	0	5
BUS	213	Principles of Finance	5	0	5
BUS	112	Business Report Writing	5	0	5
		Humanities Course	3	0	3
<b>FOURTH QUARTER</b>					
ACT	203	Intermediate Accounting	5	0	5
ACT	206	Income Tax Accounting	5	0	5
BUS	209	Business Law	5	0	5
ACT	209	Advanced Accounting or	5	0	5
ACT	208	Managerial Accounting			
<b>FIFTH QUARTER</b>					
ACT	200	Payroll Accounting	3	0	3
ACT	204	Intermediate Accounting	5	0	5
ACT	205	Cost Accounting	5	0	5
ECO	201	Principles of Economics	5	0	5
<b>SIXTH QUARTER</b>					
ACT	207	Auditing	5	0	5
BUS	210	Business Law	5	0	5
ECO	202	Principles of Economics	5	0	5
<b>TOTAL</b>					<b>101</b>

Humanities Courses: Art, Literature, Modern Language, Music, Philosophy (except PHL 203), Religion

**Suggested Curriculum Leading to The  
Associate In Applied Science Degree  
in  
BUSINESS ADMINISTRATION  
Total Quarter Credit Hours Required for Graduation—101  
(Curriculum Code T-018)**

The Business Administration curriculum is designed to provide the individual with an overview of the business world—its organization and management.

Through study and concentration in areas such as selling, advertising, marketing, banking, finance, credit procedures, data processing, bookkeeping and economics the individual will be able to enter middle-management occupations in various businesses and industries such as production marketing, sales and finance.

FIRST QUARTER			Class	Lab	Credit
BUS	104	Introduction to Business	5	0	5
BUS	111	Business Mathematics	5	0	5
DAP	241	COBOL Programming I	3	4	5
		Elective			3
SECOND QUARTER					
BUS	121	Principles of Management	5	0	5
ENG	101	Freshman Grammar & Composition	5	0	5
GEO	204	Economic Geography or	3	0	3
PSY	103	Psychology of Human Relations			
		Elective			2
THIRD QUARTER					
BUS	107	Office Management	5	0	5
BUS	112	Business Report Writing	5	0	5
		Elective(s)			7
FOURTH QUARTER					
ACT	201	Principles of Accounting, Int.	5	0	5
BUS	209	Business Law	5	0	5
ECO	201	Principles of Economics	5	0	5
FIFTH QUARTER					
ACT	202	Principles of Accounting	5	0	5
ECO	202	Principles of Economics	5	0	5
		Elective(s)			8
SIXTH QUARTER					
ACT	202	Payroll Accounting	3	0	3
BUS	210	Business Law	5	0	5
		Elective(s)			10
TOTAL					101

Electives: 25 of the 30 hours of electives must be taken from the following:

ACT	205	Cost Accounting	BUS	152	Traffic Management
ACT	206	Income Tax Accounting	BUS	219	Marketing
ACT	207	Auditing	BUS	220	Advertising
BUS	101	Beginning Typewriting	BUS	222	Retailing
BUS	120	Personal Finance	BUS	233	Personnel Management
BUS	151	Principles of Transportation	DAP	251	COBOL Programming II
BUS	162	Fundamentals of Real Estate	BUS	292	Real Estate Appraisal
BUS	164	Real Estate Law	ECO	209	Money and Banking
BUS	213	Principles of Finance			

**Suggested Curriculum Leading to The  
Associate In Applied Science Degree  
in  
COMPUTER SCIENCE  
Total Quarter Credit Hours Required for Graduation—101  
(Curriculum Code T-022)**

The primary objective of the Computer Science curriculum is to prepare individuals for gainful employment as computer programmers. The objective is fulfilled through study and application in such areas as computer and systems theories and concepts, data processing techniques, business operations, logic, flow charting, programming procedures and languages and types, uses and operation of equipment. Entry-level jobs as computer operator, programmer trainee and data processor are available. With experience and additional education the individual may enter jobs such as data processing manager, computer programmer manager, systems analyst and systems manager.

			Class	Lab	Credit
<b>FIRST QUARTER</b>					
BUS	111	Business Mathematics or	5	0	5
MAT	101	College Algebra or			
MAT	100	Principles of Mathematics			
DAP	111	Data Processing Fundamentals	3	2	4
DAP	112	Computer Concepts	3	0	3
ENG	101	Freshman Grammar & Composition	5	0	5
<b>SECOND QUARTER</b>					
ACT	201	Principles of Accounting, Int.	5	0	5
DAP	121	Fortran Programming I	3	4	5
DAP	122	Computer Systems I	3	0	3
		Humanities Course	3	0	3
<b>THIRD QUARTER</b>					
ACT	202	Principles of Accounting	5	0	5
DAP	123	Computer Systems II	3	0	3
DAP	131	Fortran Programming II	3	4	5
DAP	252	Report Program Generator, Programming	3	4	5
<b>FOURTH QUARTER</b>					
DAP	241	COBOL Programming I	3	4	5
DAP	261	Assembler Language Programming	3	4	5
		Social Science Course			5
		Elective(s)			3
<b>FIFTH QUARTER</b>					
DAP	242	Systems and Procedures	5	0	5
DAP	251	COBOL Programming II	3	4	5
		Elective(s)			6
<b>SIXTH QUARTER</b>					
DAP	262	Programming Project	1	8	5
DAP	263	Introduction to PL/1 Programming	3	4	5
		Elective(s)			6
<b>TOTAL</b>					<b>101</b>

Humanities Courses: Art, Literature, Modern Language, Music, Philosophy (PHL 203), Religion  
Social Science Courses: Anthropology, Economics, Geography, History, Political Science,  
Psychology, Sociology

Electives: 15 hours chosen from the following:

ACT	202	Payroll Accounting	ACT	206	Income Tax Accounting
ACT	203	Intermediate Accounting	ACT	208	Managerial Accounting
ACT	204	Intermediate Accounting	BUS	112	Business Report Writing
ACT	205	Cost Accounting	MAT	210	Elementary Statistics

**Suggested Curriculum Leading to The  
Associate In Applied Science Degree  
in  
EARLY CHILDHOOD ASSOCIATE  
Total Quarter Credit Hours Required for Graduation—101  
(Curriculum Code T-073)**

The Early Childhood Associate curriculum is designed to prepare individuals to work with programs and/or centers concerned with the care and development of infants and younger children. Through study and application in such areas as the developmental stages of children, physical and nutritional needs of children, communication techniques to use with children and care and guidance of children in the home, the individual will be able to function effectively in various programs and/or centers dealing with pre-school children. Job opportunities are available in such areas as day care centers, nursery schools, kindergartens, child development centers, hospitals, rehabilitation clinics, evaluation clinics, camps and recreational centers.

			Class	Lab	Credit
<b>FIRST QUARTER</b>					
EDU	101	Introduction to Early Childhood Education	4	2	5
EDU	113	The Behavior of Children	4	2	5
ENG	101	Freshman Grammar & Composition	5	0	5
MUS	134	Class Piano	0	2	1
<b>SECOND QUARTER</b>					
EDU	207	Music in Early Childhood Program	4	2	5
ENG	102	Freshman Literature	5	0	5
		Elective(s)	8	0	8
<b>THIRD QUARTER</b>					
EDU	116	Communicating with the Young Child	4	2	5
ENG	103	Public Speaking	5	0	5
PED	230	First Aid	3	0	3
RDG	101	Reading Improvement	5	0	5
<b>FOURTH QUARTER</b>					
EDU	211	Science in the Early Childhood Program	4	2	5
PSY	201	General Psychology	5	0	5
SOC	103	Marriage and Family Relations	3	0	3
		Elective	5	0	5
<b>FIFTH QUARTER</b>					
EDU	106	Practicum: Early Childhood Education	1	4	3
EDU	114	Health and Safety for Young Children	2	2	3
EDU	208	Art in the Early Childhood Program	4	2	5
PED	270	Motor Development and Movement in Early Childhood	4	2	5
<b>SIXTH QUARTER</b>					
EDU	210	Mathematics for Young Children	2	2	3
PSY	203	Child Psychology	5	0	5
		Elective(s)	7	0	7
<b>TOTAL</b>					<b>101</b>

**Suggested Curriculum Leading to The  
Associate In Applied Science Degree  
in  
FIRE SCIENCE  
Total Quarter Credit Hours Required for Graduation—105  
(Curriculum Code T-063)**

The Fire Science curriculum is designed to enable the individual to draw from a vast store of technical and professional knowledge in making effective decisions concerning fire protection. Through technical education, the individual acquires specialized knowledge in this vital field of public service and develops specific competencies for the performance of fire service administrative and supervisory duties. The curriculum includes areas such as the scientific understanding of fire hazards and their control and general courses that prepare one to work with people harmoniously.

Opportunities are excellent for the individual with adequate training and ability. Students seeking gainful employment may be hired by governmental agencies, industrial firms, educational organizations and insurance rating organizations. Employed persons should have opportunities for positions requiring increased skill and responsibility as they increase their job competence.

FIRST QUARTER			Class	Lab	Credit
ENG	111	Composition I	3	0	3
FIP	101	Introduction to Fire Protection Haards	3	0	3
FIP	115	Fire Prevention Programs	3	0	3
MAT	111	Algebra & Trigonometry I	5	0	5
PHY	101	Physics: Properties of Matter**	3	2	4
SECOND QUARTER					
BUS	272	Principles of Supervision**	3	0	3
ENG	112	Composition II	3	0	3
FIP	102	Municipal Fire Protection	3	0	3
FIP	211	Grading of Fire Defenses	3	0	3
PSY	103	Psy. of Human Relations	3	0	3
THIRD QUARTER					
DFT	136	Drafting & Blueprint Interpretation**	0	6	2
ENG	113	Public Speaking	3	0	3
FIP	105	Applied Electricity for Fire Protection	3	2	4
FIP	120	Municipal Finance	5	0	5
FIP	135	Training Programs and Methods of Instruction	3	0	3
FOURTH QUARTER					
CMH	100	Introduction to Chemical Concepts**	3	0	3
ENG	213	Report Writing	3	0	3
FIP	103	Construction Codes and Material Rating	2	2	3
FIP	201	Fire Detection & Investigation	3	0	3
FIP	230	Hydraulics & Water Distribution Systems	3	2	4
FIFTH QUARTER					
FIP	208	Municipal Public Relations	3	0	3
FIP	218	Chemistry of Hazardous Materials	3	2	4
FIP	220	Fire Fighting Strategy	3	2	4
FIP	231	Sprinkler & Standpipe Systems	3	2	4
		Social Studies Elective	3	0	3
		Technical Elective	3	0	3
SIXTH QUARTER					
BUS	233	Personnel Management**	3	0	3
FIP	225	Fire Protection Law	3	0	3
FIP	226	Industrial Safety	3	0	3
FIP	235	Inspection Principles & Practices	3	4	5
FIP	245	Automatic Alarm & Extingulshing Systems*	3	2	4
		TOTAL			105

\*All courses except several which require specialized fire equipment can be taken at Gaston College. The lecture portion of these courses will be taught at Gaston College with the lab portion being offered at Rowan Technical Institute.

\*\*See academic programs for course descriptions.

**Suggested Curriculum Leading to The  
Associate In Applied Science Degree  
in  
MEDICAL OFFICE ASSISTANT  
Total Quarter Credit Hours Required for Graduation—103  
(Curriculum Code T-058)**

The Medical Office Assistant curriculum is designed to prepare the individual to perform a variety of administrative and clinical tasks under the supervision of a physician. This program provides a foundation of knowledge from the humanities and the biological and social sciences, with clinical experiences in procedures and bookkeeping and insurance in qualified physicians' office or accredited hospitals. The ability to perform clinical tests under the supervision of the physician distinguishes the medical assistant from the medical secretary.

Advanced credit may be allowed for completion of the Medical Assistant Grade I program approved by the Council on Medical Education of the American Medical Association in collaboration with the American Association of Medical Assistants.

FIRST YEAR

FIRST QUARTER			Class	Lab	Credit
ENG	111	Composition I	3	0	3
BUS	102	Intermediate Typing	2	3	3
MOA	100	Medical Terminology and Vocabulary I	1	2	2
MOA	103	Orientation to Medical Office Assisting	3	0	3
ACT	201	Principles of Accounting	5	0	5
BIO	121	Human Biology	3	2	4

SECOND QUARTER

PSY	201	General Psychology	5	0	5
BIO	122	Human Biology	3	2	4
ENG	112	Composition II	3	0	3
MOA	101	Medical Terminology and Vocabulary II	1	2	2
MOA	105	Interpersonal Relationships	5	0	5

THIRD QUARTER

ENG	113	Public Speaking	3	0	3
MOA	200	Medical Office Assisting I	2	6	4
MOA	110	Medical Law, Ethics and Economics	3	0	3
MOA	102	Medical Terminology and Vocabulary III	1	2	2
DAP	111	Data Processing Fundamentals	3	2	4

SECOND YEAR

FOURTH QUARTER

MOA	211	Medical Transcription	3	0	3
MOA	201	Medical Office Assisting II	3	6	5
MOA	206	Laboratory Orientation I	2	6	4
MOA	220	Medical Office Assisting Administrative I	2	4	4

FIFTH QUARTER

MOA	202	Medical Office Assisting III	3	6	5
MOA	207	Laboratory Orientation II	3	6	5
MOA	221	Medical Office Assisting Administrative II	2	4	4

SIXTH QUARTER

MOA	208	Medical Office Practicum	0	24	8
MOA	210	Medical Office Assisting Seminar	4	0	4
		Social Science Elective	3	0	3
		TOTAL	73	80	103

\*Pre requisite to admission

MAI 070 Math for Nurses

Type 35 words per minute or Beginning Typing prior to admission.

**Suggested Curriculum Leading to The  
Associate In Applied Science Degree  
in  
MUSEUM TECHNOLOGY  
Total Quarter Credit Hours Required for Graduation—101  
(Curriculum Code T-162)**

Museum Technology is a two-year program designed to provide education and experience training for candidates who would be qualified to fill mid-level positions on the staffs of museums and related institutions.

These positions would include: administrative assistants, artists, bookkeepers, catalogs and accessions, clerks, curators and assistants, design assistants, exhibit technicians, graphics, interpreters, park maintenance, public relations, and registrars and assistants.

This program includes a strong academic background and an active internship. Students are placed in one of several cooperative museums for their intern service. Intern positions are limited so that it is unlikely that a student will have a choice of the museum where he or she will be placed. Often, it will be necessary to do intern service at a museum at some distance from Gaston College with the student doing a year's intern service in an entire quarter.

Admission to the Museum Technology Program is by application, by high school record, by ACT scores, and by interview. The space in the program is limited so that it is possible that not all applicants can be admitted. Applicants will be screened and will be interviewed during the month of August. Letters of notification will be sent prior to fall registration. Applications will be accepted for the beginning of fall quarter only.

			Class	Lab	Credit
<b>FIRST QUARTER (FALL)</b>					
ART	111	Two Dimensional Design	0	10	5
BIO	101	General Biology	5	3	6
ENG	101	Fresh Grammar & Composition	5	0	5
MUE	180	Museum Science	0	10	1
<b>SECOND QUARTER (WINTER)</b>					
ART	112	Color & Design	0	10	5
ENG	102	Freshman Literature	5	0	5
MUE	180	Museum Science	0	10	1
_____	_____	Elective(s)			6
<b>THIRD QUARTER (SPRING)</b>					
ART	114	Commercial Art Fundamentals	0	6	3
ENG	103	Public Speaking	5	0	5
MUE	180	Museum Science	0	10	1
POL	203	State and Local Government	5	0	5
_____	_____	Elective(s)			5
<b>SUMMER QUARTER (ELECTIVE)</b>					
ANT	280	Study Tour	2	12	6
<b>FOURTH QUARTER (FALL)</b>					
ART	116	Lettering for Commercial Art	0	6	3
ART	161	Graphics I	0	6	3
BIO	105	Ecology of Man	5	2	6
MUE	180	Museum Science	0	10	1
PHO	101	Introduction to Photography	0	6	3
<b>FIFTH QUARTER (WINTER)</b>					
ANT	204	Gen. Cultural Anthropology	5	0	5
GEO	101	Physical Geography	5	2	6
HIS	101	World Civilization—Ancient	3	0	3
MUE	180	Museum Science	0	10	1
_____	_____	Archeology or Elective			3
<b>SIXTH QUARTER (SPRING)</b>					
ANT	206	Gen. Physical Anthropology	3	3	3
GLY	102	Introduction to Geology	5	2	6
MUE	180	Museum Science	0	10	1
_____	_____	Elective(s)			6
<b>TOTAL</b>					<b>101</b>

Electives to Art and History Specialization:

ACT 201, ART 103, ART 131, ART 141, ART 151, HIS 102, HIS 103, HIS 201, HIS 202

Electives for Science and Natural History Specialization:

ACT 201, BIO 102, BIO 103, BIO 210

Electives for Museum Education Specialization:

ACT 201, EDU 105, EDU 115, EDU 191, EDU 201

**Suggested Curriculum Leading to The  
Associate In Applied Science Degree  
in  
POLICE SCIENCE  
Total Quarter Credit Hours Required for Graduation—101  
(Curriculum Code T-064)**

The Police Science Technology curriculum is designed to prepare the student for entry into the field of police work and other allied occupations. Police science vocations require a thorough understanding of behavior patterns, law, criminal activities, investigation and psychology. This curriculum provides courses in each of these areas as well as courses in the administration of law enforcement agencies.

Job opportunities are available on the federal, state, county and municipal levels. Many industries now employ skilled technicians trained in protective techniques.

FIRST QUARTER		Class	Lab	Credit
ENG 101	Freshman Grammar & Composition	5	0	5
*PED 113	Gymnastics & Tumbling	0	2	1
PSC 101	Introduction to Criminal Justice	5	0	5
PSC 110	Introduction to Criminology	5	0	5
SECOND QUARTER				
ENG 102	Freshman Literature	5	0	5
*PED 114	Karate	0	2	1
POL 110	Introduction to American Federal Government	5	0	5
PSC 115	Criminal Law	5	0	5
THIRD QUARTER				
**ENG 103	Public Speaking	5	0	5
	Elective			3
PSC 205	Evidence	5	0	5
PSY 201	General Psychology	5	0	5
FOURTH QUARTER				
POL 203	State and Local Government	5	0	5
PSC 210	Criminal Investigation	5	0	5
SOC 102	Introductory Sociology	5	0	5
FIFTH QUARTER				
***POL 108	Nature & Function of Law in Society or	3	0	3
***LAW108	Nature & Function of Law in Society			
PSC 220	Police Organization & Administration	5	0	5
PSC 225	Criminal Procedure	5	0	5
	Elective			5
SIXTH QUARTER				
PSC 211	Introduction to Criminalistics	4	2	5
****PSY 103	Psychology of Human Relations	3	0	3
****PSY 205	General Psychology Laboratory	1	2	2
****PSY 203	Child Psychology or	5	0	5
****PSY 204	Adolescent Psychology			
	Elective			3
	TOTAL			101

\*PED 103, 105, 210, 225, 231, or 260 may be substituted for PED 113 and/or PED 114

\*\*ENG 201, 202, 203, or 204 may be substituted for ENG 103

\*\*\*A law course or a humanities course may be substituted for POL 108 or LAW 108

\*\*\*\*A math, science, or other approved social science course may be substituted for PSY 103, PSY 205, PSY 203, or PSY 204

\*\*\*\*\*PHO 101 is a suggested elective

**Suggested Curriculum Leading to The  
Associate In Applied Science Degree  
in  
SECRETARIAL-EXECUTIVE  
Total Quarter Credit Hours Required for Graduation—101  
(Curriculum Code T-030)**

The purposes of the Executive Secretarial curriculum are to: Prepare the individual to enter the secretarial profession; provide an educational program for individuals wanting education for upgrading (moving from one secretarial position to another) or retraining (moving from present position to secretarial position); and provide an opportunity for individuals wanting to fulfill professional or general interest needs.

These purposes will be fulfilled through skill development in the areas of typewriting, shorthand, transcription and office machines operation. Through these skills the individual will be able to perform office-related activities and through the development of personal competencies and qualities will be provided the opportunity to enter the secretarial profession.

			CLASS	LAB	CREDIT
<b>FIRST QUARTER</b>					
*BUS	101	Beginning Typewriting	2	3	3
BUS	104	Introduction to Business	5	0	5
BUS	201	Beginning Shorthand	5	0	5
ENG	101	Freshman Grammar & Composition	5	0	5
<b>SECOND QUARTER</b>					
BUS	102	Intermediate Typewriting	2	3	3
BUS	111	Business Mathematics	5	0	5
BUS	202	Intermediate Shorthand	5	0	5
DAP	111	Data Processing Fundamentals	3	2	4
<b>THIRD QUARTER</b>					
BUS	103	Advanced Typewriting	2	3	3
BUS	120	Personal Finance	5	0	5
BUS	203	Advanced Shorthand	5	0	5
		Humanities Course	3	0	3
<b>FOURTH QUARTER</b>					
BUS	209	Business Law	5	0	5
ECO	201	Principles of Economics	5	0	5
ENG	103	Public Speaking	5	0	5
		Elective			3
<b>FIFTH QUARTER</b>					
ACT	201	Principles of Accounting, Int.	5	0	5
BUS	108	Business Communications	5	0	5
BUS	208	Word Processing	2	3	3
PSY	103	Psychology of Human Relations	3	0	3
<b>SIXTH QUARTER</b>					
ACT	200	Payroll Accounting	3	0	3
BUS	109	Secretarial Practice	2	3	3
BUS	204	Advanced Shorthand-Executive	5	0	5
		Social Science Course	3	0	3
		Elective			2
		<b>TOTAL</b>			<b>101</b>

\*Students who have taken typewriting and/or shorthand in high school may, with permission of the department chairman, omit BUS 101 and/or BUS 201. Other courses must be substituted for any omitted.

Humanities Courses: Art, Literature, Modern Language, Music, Philosophy (except PHL. 203), Religion

Social Science Courses: Anthropology, Economics, Geography, History, Political Science, Psychology, Sociology

**Suggested Curriculum Leading to The  
Associate In Applied Science Degree  
in  
SECRETARIAL-LEGAL  
Total Quarter Credit Hours Required for Graduation—101  
(Curriculum Code T-031)**

The purposes of the Legal Secretarial curriculum are to: Prepare the individual to enter the legal secretarial profession through work in a lawyer's office in city, county, state or government offices; provide an educational program for individuals wanting education for upgrading (moving from one legal secretarial position to another) or retraining (moving from present position to legal secretarial position); and provide an opportunity for individuals wanting to fulfill professional or general interest needs.

These purposes will be fulfilled through skill development in the areas of legal typewriting, shorthand transcription and machines operation. Through these skills the individual will be able to perform legal, office-related activities and through the development of personal competencies and qualities will be provided the opportunity to enter the legal secretarial profession.

FIRST QUARTER			Class	Lab	Credit
*BUS	101	Beginning Typewriting	2	3	3
BUS	104	Introduction to Business	5	0	5
ENG	101	Freshman Grammar & Composition	5	0	5
**PSC	101	Introduction to Criminal Justice	5	0	5
SECOND QUARTER					
BUS	102	Intermediate Typewriting	2	3	3
BUS	111	Business Mathematics	5	0	5
*BUS	201	Beginning Shorthand	5	0	5
POL	203	State and Local Government	5	0	5
THIRD QUARTER					
BUS	103	Advanced Typewriting	2	3	3
BUS	202	Intermediate Shorthand	5	0	5
BUS	208	Word Processing	2	3	3
		Humanities Course	3	0	3
		Social Science Course	3	0	3
FOURTH QUARTER					
ACT	201	Principles of Accounting, Int.	5	0	5
BUS	203	Advanced Shorthand	5	0	5
BUS	209	Business Law	5	0	5
		Elective			2
FIFTH QUARTER					
BUS	108	Business Communications	5	0	5
BUS	205	Advanced Shorthand—Legal	5	0	5
DAP	111	Data Processing Fundamentals	3	2	4
		Elective			3
SIXTH QUARTER					
ACT	200	Payroll Accounting	3	0	3
BUS	109	Secretarial Practice	2	3	3
BUS	210	Business Law	5	0	5
PSY	103	Psychology of Human Relations	3	0	3
		TOTAL			101

\*Students who have taken typewriting and/or shorthand in high school may, with permission of the department chairman, omit BUS 101 and/or BUS 201. **Other courses must be substituted for any omitted.**

\*\*PSC 115—Criminal Law or PSC 225—Criminal Procedure may be substituted for PSC 101 if necessary in scheduling classes.

Students who plan to complete course work in less than two calendar years should take shorthand in the first quarter.

Humanities Courses: Art, Literature, Modern Language, Music, Philosophy (except PHL. 203), Religion

Social Science Courses: Anthropology, Economics, Geography, History, Political Science, Psychology, Sociology

**Suggested Curriculum Leading to The  
Associate in Applied Science Degree  
in  
SECRETARIAL-MEDICAL  
Total Quarter Credit Hours Required for Graduation—101  
(Curriculum Code T-032)**

The purposes of the Medical Secretarial curriculum are to: Prepare the individual to enter the medical secretarial profession through work in a doctor's office in city, county, state or government offices; provide an educational program for individuals wanting education for upgrading (moving from one medical position to another) or retraining (moving from present position to medical secretarial position); and provide an opportunity for individuals wanting to fulfill professional or general interest needs.

These purposes will be fulfilled through skill development in the areas of medical typewriting, shorthand transcription and machines operation. Through these skills the individual will be able to perform medical, office-related activities and through the development of personal competencies and qualities will be provided the opportunity to enter the medical secretarial profession.

			Class	Lab	Credit
<b>FIRST QUARTER</b>					
BIO	121	Human Biology	3	2	4
*BUS	101	Beginning Typewriting	2	3	3
BUS	104	Introduction to Business	5	0	5
BUS	120	Personal Finance	5	0	5
<b>SECOND QUARTER</b>					
BIO	122	Human Biology	3	2	4
BUS	102	Intermediate Typewriting	2	3	3
*BUS	201	Beginning Shorthand	5	0	5
ENG	101	Freshman Grammar & Composition	5	0	5
<b>THIRD QUARTER</b>					
BUS	103	Advanced Typewriting	2	3	3
BUS	111	Business Mathematics	5	0	5
BUS	202	Intermediate Shorthand	5	0	5
DAP	111	Data Processing Fundamentals	3	2	4
<b>FOURTH QUARTER</b>					
ACT	201	Principles of Accounting, Int.	5	0	5
BUS	203	Advanced Shorthand	5	0	5
BUS	208	Word Processing	2	3	3
ECO	201	Principles of Economics	5	0	5
<b>FIFTH QUARTER</b>					
BUS	206	Advanced Shorthand—Medical	5	0	5
BUS	209	Business Law	5	0	5
PSY	201	General Psychology	5	0	5
		Humanities Course	3	0	3
<b>SIXTH QUARTER</b>					
ACT	200	Payroll Accounting	3	0	3
BUS	108	Business Communications	5	0	5
BUS	109	Secretarial Practice	2	3	3
		Elective			3
		<b>TOTAL</b>			<b>101</b>

\*Students who have taken typewriting and/or shorthand in high school may, with permission of the department chairman, omit BUS 101 and/or BUS 201. **Other courses must be substituted for any omitted.**

Humanities Courses: Art, Literature, Modern Language, Music, Philosophy (except PHL 203), Religion

**Suggested Curriculum Leading to The  
Associate In Applied Science Degree  
in  
SOCIAL SERVICE ASSOCIATE  
Total Quarter Credit Hours Required for Graduation—103  
(Curriculum Code T-107)**

The Social Service Associate curriculum is designed to prepare individuals for work in service delivery to people and to deliver concrete, specific services to individuals, groups and communities. Study and application will be employed in improving the functions of individuals in areas such as income maintenance, family services, child welfare services, rehabilitation services, senior citizen services and other special group services such as juvenile delinquents, unwed mothers or unskilled, disadvantaged minorities.

Graduates will find career opportunities in organizations which provide income maintenance, mental health services, medical social services, correctional services, services to children and families, gerontological services and community organizational program.

FIRST QUARTER			Class	Lab	Credit
ENG	101	Freshman Grammar & Composition	5	0	5
SOC	102	Introductory Sociology	5	0	5
SOC	103	Marriage and Family Relations	3	0	3
SOC	110	Human Sexuality	3	0	3
SECOND QUARTER					
BUS	111	Business Mathematics or	5	0	5
MAT	100	Principles of Mathematics			
ENG	102	Freshman Literature	5	0	5
PSY	201	General Psychology	5	0	5
SOC	214	Introduction to Social Services	3	0	3
THIRD QUARTER					
BUS	120	Personal Finance or	5	0	5
BUS	209	Business Law			
ENG	103	Public Speaking	5	0	5
POL	110	Introduction to Federal Government or	5	0	5
POL	203	State and Local Government	5	0	
SOC	109	Community Resources	3	0	3
FOURTH QUARTER					
BUS	112	Business Report Writing	5	0	5
EDU	101	Introduction to Early Childhood Education or	4	2	5
EDU	113	The Behavior of Children			
SOC	202	Social Problems	5	0	5
SOC	230	Seminar and Practicum	1	6	3
FIFTH QUARTER					
PED	210	Health Education	3	0	3
PHL	200	Introduction to Philosophy or	3	0	3
PHL	201	Ethics			
PSY	204	Adolescent Psychology	5	0	5
SOC	215	Interpersonal Relations	3	0	3
SOC	231	Seminar and Practicum	1	6	3
SIXTH QUARTER					
PSY	203	Child Psychology	5	0	5
ANT	204	Cultural Anthropology	5	0	5
SOC	218	Group Dynamics	3	0	3
SOC	232	Seminar and Practicum	1	6	3
		TOTAL			103

**Suggested Curriculum Leading to The  
Associate In Applied Science Degree  
In  
TEACHER ASSOCIATE-READING  
Total Quarter Credit Hours Required for Graduation—108  
(Curriculum Code T-088)**

The Teacher Associate curriculum with reading emphasis is designed to prepare individuals as assistants to classroom teachers in social and educational fields. The curriculum is designed to provide a course of study for individuals who have the desire and capability to work with primary and elementary school children in the specialized area of reading under the supervision of the classroom

The graduate of this curriculum will be qualified to enter the field as a paraprofessional, performing all duties required of a teacher aide.

			Class	Lab	Credit
<b>FIRST QUARTER</b>					
BUS	101	Typewriting	2	3	3
EDU	116	Communicating with Young Children	4	2	5
PSY	201	General Psychology	5	0	5
RED	101	Introduction to Reading Education	3	3	4
<b>SECOND QUARTER</b>					
EDU	113	The Behavior of Children	4	2	5
ENG	101	Freshman Grammar and Composition	5	0	5
RED	102	Methods, Materials, and Techniques of Teaching Reading I	5	6	7
<b>THIRD QUARTER</b>					
EDU	210	Mathematics for Young Children	2	2	3
EDU	234	Production and Utilization of Audio-Visual Materials	3	3	4
PED	210	Health Education	3	0	3
RED	103	Methods, Materials, and Techniques of Teaching Reading II	5	6	7
<b>FOURTH QUARTER</b>					
EDU	203	The Exceptional Child	3	0	3
ENG	103	Public Speaking	5	0	5
ENG	217	Children's Literature	3	0	3
PED	230	First Aid	3	0	3
<b>FIFTH QUARTER</b>					
EDU	211	Science in the Early Childhood Program	4	2	5
RED	202	Evaluation of Reading Programs, Teaching Materials, & Achievement Tests	4	3	5
RED	204	Seminar and Practice in Reading Education I	2	6	4
<b>SIXTH QUARTER</b>					
RED	203	Reading in Content Areas	3	6	5
RED	205	Seminar and Practice in Reading Education II	2	6	4
SOC	215	Interpersonal Relationships and Communication Elective	3	0	3
<b>SEVENTH QUARTER</b>					
RED	206	Supervised Internship in Reading Education	4	30	14
<b>TOTAL</b>					<b>108</b>

**Suggested Curriculum Leading to The  
Associate In Applied Science Degree  
in  
TRANSPORTATION  
Total Quarter Credit Hours Required for Graduation—101  
(Curriculum Code T-034)**

The Traffic and Transportation curriculum is designed to provide an educational program in the techniques of state and federal laws and regulations applicable to traffic and transportation which would prepare this individual to enter such careers as dispatcher, claims clerk, rate clerk, operational clerk, dock supervisor, billing clerk, rate analysis, operations supervisor, dock and loading foreman and moving counselor. Objectives of this curriculum are to develop knowledge and skills in (1) the principles of organization and management in the traffic and transportation industry, (2) the Interstate Commerce Act and other related traffic and transportation acts, (3) the communication responsibility of traffic and transportation, and (4) the role and influence of traffic and transportation on the economy.

			Class	Lab	Credit
<b>FIRST QUARTER</b>					
BUS	104	Introduction to Business	5	0	5
BUS	151	Principles of Transportation	5	0	5
ENG	101	Freshman Grammar & Composition	5	0	5
<b>SECOND QUARTER</b>					
BUS	111	Business Mathematics	5	0	5
BUS	152	Traffic Management	5	0	5
DAP	241	Cobol Programming I	3	4	5
GEO	204	Economic Geography	3	0	3
<b>THIRD QUARTER</b>					
BUS	153	Carrier Rates	3	0	3
BUS	209	Business Law	5	0	5
ENG	103	Public Speaking	5	0	5
		Elective			4
<b>FOURTH QUARTER</b>					
ACT	201	Principles of Accounting, Int.	5	0	5
BUS	154	Transportation Law & Procedure	5	0	5
ECO	201	Principles of Economics	5	0	5
<b>FIFTH QUARTER</b>					
ACT	202	Principles of Accounting	5	0	5
BUS	121	Principles of Management	5	0	5
BUS	155	Transportation Seminar	3	0	3
ECO	202	Principles of Economics	5	0	5
<b>SIXTH QUARTER</b>					
BUS	112	Business Report Writing	5	0	5
BUS	210	Business Law	5	0	5
BUS	219	Marketing	5	0	5
		Elective			3
		<b>TOTAL</b>			<b>101</b>

## Description Of Courses In Occupational Technology Programs

### ACCOUNTING

**ACT 200 Payroll Accounting (3-0-3)**

Prerequisite: ACT 201

A detailed study of federal and state regulations, computations, deductions, and accounting for payrolls.

**ACT 201 Principles of Accounting, Introductory (5-0-5)**

Prerequisite: None

An introductory course in standard accounting practice. Recognized procedures and conventions are explained and used for recording, analyzing, and interpreting the records of business.

**ACT 202 Principles of Accounting (5-0-5)**

Prerequisite: ACT 201

A continuation of Accounting 201 with emphasis on Partnerships, Corporations, Manufacturing Operations, and problems of departments and branches.

**ACT 203 Intermediate Accounting (5-0-5)**

Prerequisites: ACT 201, 202

The course presents the basic concepts underlying modern accounting. The material includes principles, procedures, and methods that are applied in the preparation of financial statements. Attention is given to the proper uses that can be made of financial data. Changes in the form and content of the basic financial statements receive special emphasis.

**ACT 204 Intermediate Accounting (5-0-5)**

Prerequisites: ACT 201, 202, 203

A continuation of Accounting 203 with discussions relative to non-current assets and liabilities. Legal factors governing accounting for the corporation receive particular emphasis.

**ACT 205 Introductory Cost Accounting (5-0-5)**

Prerequisite: ACT 201

A study of the theory and practice of accounting for the costs of manufacturing and selling. The treatment of labor, material, and overhead are given detailed consideration. Designed to develop an appreciation of the uses of cost information in the administration and control of business organizations.

**ACT 206 Income Tax Accounting (5-0-5)**

Prerequisite: None

A study of the Internal Revenue Code, regulations, and cases which apply to the determination of taxation for individuals, partnerships, and corporations. Consideration is given to income, deductions, and filing.

**ACT 207 Auditing (5-0-5)**

Prerequisite: ACT 202 or Departmental Permission

A survey of auditing principles, procedures, and standards. Attention is given to the concepts underlying the examination of accounting records and financial statements to ascertain their accuracy and the acceptability of the accounting principles used in their preparation.

**ACT 208 Managerial Accounting (5-0-5)**

Prerequisites: ACT 201, 202

Managerial Accounting emphasizes how accounting data can be interpreted and used by management in planning and controlling business activities of the firm. The use of accounting data by investors is discussed whenever appropriate.

**ACT 209 Advanced Accounting (5-0-5)**

Prerequisite: ACT 204

An examination of the special problems in accounting for the combined corporate entity. Topics emphasized include partnerships, home office and branch, foreign operations, and consolidations.

### ANTHROPOLOGY

**ANT 201 The Ascent of Man (3-0-3)**

Prerequisite: None

A series of thirteen films by Jacob Bronowski tracing the ascent of man from his beginnings on the savannahs of Africa several million years ago to his present space-age and atomic technology. The films present a wholistic view of man's ascent, involving a study of biology, history, sociology, cultural variation, genetics, technology, etc.

**ANT 204 General Cultural Anthropology (5-0-5)**

Prerequisite: None

The science of man and the development of his culture; culture of ancient and contemporary preliterate societies; dynamics of cultural change and acculturation.

**ANT 206 General Physical Anthropology (3-0-3)**

Prerequisite: None

The study of the physical evolution of mankind; modern racial types and genetics.

**ANT 280 Study Tour (2-12-6)**

Prerequisite: None

A five week, condensed course involving three weeks of intensive study on the campus of Gaston College, followed by two weeks of off-campus study and travel. This course may involve travel within the United States or abroad as an open laboratory experience for students. This course involves an interdisciplinary study including history, culture, art, architecture, music, politics, etc., with special emphasis given to one or more of these topics. Also offered as HIS 280, SOC 280, and POL 280.

### ART

**ART 103 Art History (5-0-5)**

Prerequisite: None

This course is a survey of the visual arts during the various cultural periods of Western Civilization. The major art works of the period, the various design concepts and theories, the cultural and stylistic characteristics of works and the impact visual arts have had on man and his environment are emphasized. This course is required for art majors, but it is open to all students.

**ART 111 Two Dimensional Design (0-10-5)**

Prerequisite: None

This is a basic course in two dimensional design for art majors. Concentration is on the psychological and physiological aspects of design elements and principles. Development of basic skills in the use of various tools and materials is stressed in solving visual problems.

**ART 131 Drawing I (0-6-3)**

Prerequisite: Departmental Approval

A beginning studio course in which the expressive and descriptive elements of drawing are examined. The course consists of various drawing experiences, dealing with a variety of subject matter, techniques, tool and material processes, and individuality of expression. It is assumed the students have a basic understanding of design concepts and principles upon beginning this course.

**ART 141 Painting I (0-6-3)**  
Prerequisite: Departmental Approval  
A beginning painting studio course consisting of experiences in solving visual problems with traditional and contemporary design concepts, techniques and materials.

**ART 161 Graphics I (0-6-3)**  
Prerequisite: None  
Graphics I is a beginning studio course in the intaglio painting process. An emphasis is placed on introducing the student to basic printing concepts and methods used in the intaglio process; such as etching, engraving, collagraphy, et cetera. Students will also have an opportunity to study and learn the use of variety of printing tools, equipment, and materials.

**ART 162 Graphics II (0-6-3)**  
Prerequisite: ART 161  
An intermediate studio course in printmaking. Graphics II students will concentrate on the techniques, materials, and methods used in serigraphy or silkscreen printing. In addition, students will continue to explore concepts and methods used in the intaglio and relief processes. Emphasis will be placed on technical skills, maturity of idea, and sensitivity to the media.

**ART 163 Graphics III (0-6-3)**  
Prerequisite: ART 161, 162  
A continuation of Graphics II, but a directed individual study of student's choice of method (intaglio, relief, or serigraphy) is stressed. Emphasis will be placed on individual imagery, technical skills, and sensitivity to the media.

## BIOLOGY

**BIO 101 General Biology (5-3-6)**  
Prerequisite: None  
A course which stresses biology as a conceptual unit through the study of cellular and protoplasmic organization, growth, differentiation, ecology, genetics, and the process of evolution.

**BIO 102 General Botany (4-4-6)**  
Prerequisite: BIO 101  
A study of the morphology, physiology, taxonomy, genetics, evolution and ecology with emphasis on flowering plants and conifers.

**BIO 103 General Zoology (4-4-6)**  
Prerequisite: BIO 101  
A study of the anatomy, physiology, evolution, taxonomy and ecology of animals with special emphasis on the vertebrates.

**BIO 105 Ecology of Man (5-2-6)**  
Prerequisite: BIO 101, BIO 121, or GEO 101  
A course which examines the past and present relationships of man with his biophysical environment. Consideration will be given to ecological concepts, population growth, pollution, human variation, and conservation of natural resources.

**BIO 121 Human Biology (3-2-4)**  
Prerequisite: Admission to Nursing Program or Permission Department of Science  
An integrated study of human anatomy, physiology, microbiology, nutrition, epidemiology and related areas. A course designed for the two-year nursing program and other paramedical curricula.

**BIO 122 Human Biology (3-2-4)**  
Prerequisite: BIO 121  
A continuation of BIO 121.

**BIO 123 Human Biology (3-2-4)**  
Prerequisite: BIO 122  
A continuation of BIO 122.

**BIO 210 Field Biology (1-4-3)**  
Prerequisite: BIO 101  
A course designed to introduce a variety of techniques used to study Biology in the outdoors. Consideration will be given to soils, water, plants, animals, and climate in a selected study area.

**BIO 1211 Human Biology (2-4-4)**  
Prerequisite: None  
An integrated study of human anatomy, physiology, microbiology, nutrition, epidemiology, and related areas.

## BUSINESS

**BUS 101 Beginning Typewriting (2-3-3)**  
Prerequisite: None  
General theory and techniques in the skill of typewriting are stressed, as well as mastery of the keyboard operation, care of the machine, business forms and letter styles, short manuscripts, composing at the typewriter, and drills on simple tabulation.

**BUS 102 Intermediate Typewriting (2-3-3)**  
Prerequisite: BUS 101 or typing proficiency  
Extensive drill on business letter styles, carbon copies, tabulations, and business forms. Emphasis on accuracy in continuity writing; production typewriting drills.

**BUS 103 Advanced Typewriting (2-3-3)**  
Prerequisite: BUS 102  
Advanced problems in business forms and reports; composition; review and basic theory and techniques; development of maximum speed and accuracy in all phases of the typewriting skill.

**BUS 104 Introduction to Business (5-0-5)**  
Prerequisite: None  
A general course covering modern business activities as a whole, including a study of basic industries, forms of organization, marketing, finance, credit, problems of management, business risks, and the relation of government to business.

**BUS 107 Office Management (5-0-5)**  
Prerequisite: None  
Designed to enable students to understand and apply the basic principles relating to efficient office management, this course includes organization, planning and control of physical factors, and personnel practices.

**BUS 108 Business Communications (5-0-5)**  
Prerequisite: ENG 101  
Prerequisite or co-requisite: BUS 101  
This course is designed to assist the student in developing an awareness of the role communications play in the business environment and to increase his skill in using the English language in writing business letters that will project the company image to the public effectively and that will strengthen management-employee understanding.

**BUS 109 Secretarial Practice (2-3-3)**  
Prerequisite: BUS 102, 202  
This course is designed to acquaint the student with the responsibilities encountered by a secretary during the work day. Some of these responsibilities include the following: receptionist duties, handling the mail, using the business library, the purchasing of supplies, and copying and duplicating processes.

- BUS 111 Business Mathematics (5-0-5)**  
Prerequisite: None  
Basic math involving arithmetic processes, fractions, and aliquot parts will be taught traditionally. Electronic calculators will then be used to solve problems involving checking accounts, payroll, percentage, interest, notes, consumer loans, analyzing accounting statements, markup and depreciation.
- BUS 112 Business Report Writing (5-0-5)**  
Prerequisite: ENG 101  
Key steps in preparing reports required of men and women in business—problem definition, research, planning, development, and design. To prepare students for report writing that leads to decision making.
- BUS 120 Personal Finance (5-0-5)**  
Prerequisite: None  
This course is designed to enable the student to analyze and direct his own financial affairs. The course includes the study of money management, insurance, principles of budgeting, investment principles, retirement, borrowing, housing and stocks.
- BUS 121 Principles of Management (5-0-5)**  
Prerequisite: None  
An introductory course in management that combines the systems and behavioral approaches with the traditional analysis of the management process. The major functions of planning, organizing, staffing, and controlling are carefully integrated with case studies and a company analysis.
- BUS 151 Principles of Transportation (5-0-5)**  
Prerequisite: None  
An introductory course designed to orient students in the economic, social, and political aspects of transportation. An analysis of the economic characteristics of air, motor, rail, and water transportation and public utility agencies.
- BUS 152 Traffic Management (5-0-5)**  
Prerequisite: None  
An intermediate course in Traffic Management which is also designed as an introduction to the study of rates. Emphasis is placed on the problems and relationships between the shipper and receiver of traffic on the one hand, and the various types of carriers on the other. Importance and place of modern industrial traffic management, traffic organizations, shipping documents, carrier liability, shipper responsibility, routing, diversion, reconsignment and transit privileges. Attention is given to the types of rates, classification, tariffs, rate bureaus and the rate making process. A portion of the quarter is devoted to the classification rules and the construction and solution of classification problems.
- BUS 153 Carrier Rates (3-0-3)**  
Prerequisite: BUS 152  
The purpose of this course is to assist the beginner in bridging the gap between the theoretical and the practical aspects of freight tariffs. It deals in the mechanics and the exposition of these tariffs, therein.
- BUS 154 Transportation Law and Procedure (5-0-5)**  
Prerequisite: BUS 151, 152, 153, or Special Permission  
A detailed analysis of transportation law, appropriate court and Commissions' decisions and procedure before the Commissions.
- BUS 155 Transportation Seminar (3-0-3)**  
Prerequisite: None  
A seminar covering contemporary problems in transportation from the carrier, shipper, and federal government viewpoints.
- BUS 162 Fundamentals of Real Estate (5-0-5)**  
Prerequisite: None  
This introductory course is designed to introduce students to the real estate industry. Fundamental principles and theories of real estate are covered including terminology, Real Estate Licensing Law, ethics, and organizational structure, Financing, appraising and law, and listing and closing real estate.
- BUS 164 Real Estate Law (5-0-5)**  
Prerequisite: BUS 162 or Salesman's or Broker's License  
A survey course of real estate law including legal aspects of the sale, purchase, and management of real property. Special emphasis is placed on the legal steps required to handle a real estate transaction from the preparation of the listing contract to the closing of the sale.
- BUS 165 Speedwriting I (5-0-5)**  
Prerequisite: ENG 101  
A study of the theory of Stenoscrypt with emphasis on reading and drill in rapid execution and recall. Some dictation practice is provided. Non-Stenoscrypt and transcription factors are studied.
- BUS 166 Speedwriting II (5-0-5)**  
Prerequisite: BUS 165  
A systematic review of stenoscrypt theory with emphasis on skill building through dictation practice.
- BUS 201 Beginning Shorthand (5-0-5)**  
Prerequisite: None  
A study of the theory of the Diamond Jubilee Series 90 with emphasis on reading and drill in rapid execution and recall. Some dictation practice is provided. Non-shorthand and transcription factors are studied.
- BUS 202 Intermediate Shorthand (5-0-5)**  
Prerequisite: BUS 101, 201 or Proficiency  
A systematic review of shorthand theory with emphasis in skill building through dictation practice.
- BUS 203 Advanced Shorthand (5-0-5)**  
Prerequisite: BUS 202  
A continuation of Intermediate Shorthand with emphasis on rapid dictation and transcription development.
- BUS 204 Advanced Shorthand-Executive (5-0-5)**  
Prerequisite: BUS 203  
This high speed dictation and transcription course is designed for Executive Secretarial students, with emphasis on business vocabulary dictation.
- BUS 205 Advanced Shorthand-Legal (5-0-5)**  
Prerequisite: BUS 203  
This high speed dictation and transcription course is designed for Legal Secretarial students with emphasis on legal vocabulary dictation.
- BUS 206 Advanced Shorthand-Medical (5-0-5)**  
Prerequisite: BUS 203  
This dictation and transcription course is designed for Medical Secretarial students with emphasis on medical vocabulary, medical vocabulary dictation, and medical office simulations.
- BUS 208 Word Processing (2-3-3)**  
Prerequisite: ENG 101 and BUS 102  
Instruction is given to students in alphabetic and other filing systems and in the operation of transcribing equipment, the IBM Memory typewriter, and the IBM Electronic typewriter with proportional spacing.

**BUS 209 Business Law (5-0-5)**

Prerequisite: None

A study of contracts, sales, bailments, negotiable instruments, the law of employment, partnerships and corporations, and risk-bearing devices. Several digests and decided cases are studied with each topic to make the discussion of principles specific and meaningful.

**BUS 210 Business Law (5-0-5)**

Prerequisite: BUS 209

A continuation of Business 209. This course includes agency and employment; business organizations; real property, leases and mortgages; insurance; trusts, descendents' estates, and bankruptcy.

**BUS 213 Principles of Finance (5-0-5)**

Prerequisite: ACT 202

Study of the financial function of the business enterprise with special emphasis on capital budgeting and the rate of return. Sources and uses of funds included with study conducted from the standpoint of the financial manager.

**BUS 214 Real Estate Finance (5-0-5)**

Prerequisite: BUS 162 or Permission of Department Head

A study of real estate finance including an analysis of financial techniques and instruments necessary in real estate financing. Topics include the structure of the mortgage market, the sources of funds, types of mortgages, role of government agencies, interest rates, loan organization and servicing, and competition in the money market.

**BUS 219 Marketing (5-0-5)**

Prerequisite: None

A general survey of the field of marketing, with a detailed study of the functions, policies, and institutions involved in the marketing process.

**BUS 220 Advertising (5-0-5)**

Prerequisite: None

The role of advertising in a free economy and its place in the media of mass communications. A study of advertising appeals; products and market research; selection of media; means of testing effectiveness of advertising. Theory and practice of writing advertising copy of various media.

**BUS 222 Retailing (5-0-5)**

Prerequisite: None

Critical analysis of retailing strategy and management with examination of selected current major problem areas unique to the retail sector of the economy.

**BUS 233 Personnel Management (3-0-3)**

Prerequisite: None

Principles of organization and management of personnel, procurement, placement, training, performance checking, supervision, remuneration, labor relations, fringe benefits, and security.

**BUS 272 Principles of Supervision (3-0-3)**

Prerequisite: None

Introduces the basic responsibilities and duties of the supervisor and his relationship to superiors, subordinates, and associates. Emphasis on securing an effective work force and the role of the supervisor. Methods of supervision are stressed.

**BUS 290 Seminar/Workshop (1-0-1)**

Prerequisite: None

A workshop in which a specialized area of Business is studied in a concise time period. Must meet eleven hours.

**BUS 292 Real Estate Appraisal (5-0-5)**

Prerequisite: BUS 162 or Salesman's or Broker's License

A study of the principles and theory of appraising real property. Topics include site evaluation, building materials and components, methods of appraising property, which include the income approach, the market approach, and the cost approach

**CHEMISTRY****CMH 100 An Introduction to Chemical Concepts (3-0-3)**

Prerequisite: None

This course is primarily designed to provide an introduction to college chemistry courses for those who have not obtained an adequate background and for students investigating the nature of chemistry courses. Performance on the ACS High School Chemistry Exam will be used to indicate a student's need for the course.

**DATA PROCESSING****DAP 111 Data Processing Fundamentals (3-2-4)**

Prerequisite: None

A basic introductory course in the fundamentals of collecting, recording, interpreting, and processing data. Common applications of data processing as performed by manual, mechanical, and electronic methods will be studied. Class exercises in flowcharting and analysis will be conducted. Students will write one or more simple computer programs.

**DAP 112 Computer Concepts (3-0-3)**

Prerequisite: None

An introductory course in the internal workings of a computer, its components, and programming fundamentals. Number systems, data representation, electronic data processing system components, processing methods, and the concept of programming languages will be studied.

**DAP 121 Fortran Programming I (3-4-5)**

Prerequisite: DAP 112 or Departmental Approval

A fundamental course in computer programming. the FORTRAN IV compiler language will be used to develop program logic and write computer programs to solve sample problems.

**DAP 122 Computer Systems I (3-0-3)**

Prerequisite: DAP 112 or Departmental Approval

The general nature of a computing system will be studied. In particular, the IBM 360 internal structure and operation will be investigated. Computable problems and programming techniques for their solution will be discussed.

**DAP 123 Computer Systems II (3-0-3)**

Prerequisite: DAP 122

Operating system control program, interrupts, and machine language format will be covered.

**DAP 131 Fortran Programming II (3-4-5)**

Prerequisite: DAP 121

The complete capabilities of FORTRAN IV will be studied and used to solve sample problems. Teams will be used to solve one sample problem through a series of subprograms.

**DAP 132 BASIC Programming (3-4-5)**

Prerequisite: DAP 121

The BASIC language will be used to develop the program logic needed to solve a representative sample of business problems. The students will also write, compile, correct their errors, and test their solutions to the above problems.

**DAP 241 COBOL Programming I (3-4-5)**

An introductory course to a second compiler language. COBOL will be used to develop program logic and write computer programs to solve sample problems.

**DAP 242 Systems and Procedures (5-0-5)**

Prerequisite: DAP 111

Business organization, system communication, work measurement, records management, flowcharting, forms design, condensation of data, and practical EDP applications and procedures for various business processes will be studied.

**DAP 251 COBOL Programming II (3-4-5)**

Prerequisite: DAP 241

The complete capabilities of COBOL will be used to solve sample problems. Emphasis will be placed on working as a team in the solution of a problem.

**DAP 252 Report Program Generator Programming (3-4-5)**

Prerequisite: DAP 112

The Report Program Generator language will be used to develop the program logic and write computer programs to solve sample problems.

**DAP 253 Report Program Generator II Programming (3-4-5)**

Prerequisite: DAP 112

The Report Program Generator Language will be used to develop the program logic needed to solve a representative sample of business problems. The students will also write, compile, correct their errors, and set their solutions to the above problems.

**DAP 261 Assembler Language Programming (3-4-5)**

Prerequisite: DAP 131 or DAP 251

An introductory course to a symbolic language. The language will be taught using a particular example that emphasized the capabilities of the language. The student will be required to solve sample problems using the assembler language.

**DAP 262 Data Processing Project (1-8-5)**

Prerequisite: Permission of Instructor

This course provides the student with an opportunity to develop, program, test, and document the installation of a significant computer application.

**DAP 263 Introduction of PL/1 Programming (3-4-5)**

Prerequisite: DAP 121

The basic elements of PL/1 will be used to write computer programs to solve a representative sample of simple problems.

**DRAFTING****DFT 101 Engineering Drawing I (0-6-2)**

Prerequisite: None

A study is made of the graphical methods and techniques used in expressing, interpreting, and communicating engineering ideas. Practical introductory engineering design problems are considered.

**DFT 102 Engineering Drawing II (0-6-2)**

Prerequisite: DFT 101

A continuation of DFT 101. The course is primarily devoted to drafting room practices and working drawings of engineering requirements.

**DFT 103 Descriptive Geometry (0-3-1)**

Prerequisite: DFT 101

Theory of projection drawing and its application in solving practical problems by projection and revolution of points, lines, planes, and solids.

**DFT 136 Drafting & Blueprint Reading (0-6-2)**

Prerequisite: None

Basic drafting techniques are covered to provide a working knowledge of drafting as a tool for communicating ideas. Reading and interpreting of blueprints is emphasized.

**DRAMA****DRA 101 Introduction to Theatre (3-0-3)**

Prerequisite: None

This course is an exploration of the theatre as an art form: how the actor, director, and designer function. Outstanding plays of major periods are used to demonstrate the technical and aesthetic aspects of theatrical production.

**DRA 102 Oral Interpretation (3-0-3)**

Prerequisite: None

A course designed to promote the student's skill in interpreting and presenting various selections from literature, poetry, and plays. Students are given an opportunity for delivery of selections of their own choice.

**DRA 103 Acting I (1-4-3)**

Prerequisite: ENG 103 or Permission of Instructor

This course is designed to train the actor to convey thought and emotion through the use of the body and the voice. Mime, oral exercises, and improvisations are studied.

**DRA 106 Stage Crafts (1-4-3)**

Prerequisite: DRA 101 or Consent of Instructor

This course is designed to familiarize the student with all the theatre crafts including scenery construction and painting property construction and acquisition, stage lighting and sound.

**DRA 107 Stage Make-up (1-2-2)**

Prerequisite: None

The student will study and practice creating straight, middle-age, old-age, and character make-ups.

**DRA 201 History of Theatre—Ancient (3-0-3)**

Prerequisite: DRA 101 or Permission of Instructor

This course is a study of the specific conditions under which the great plays of the world have been produced. Consideration of audience, actors, physical conditions, social conditions, and the playwright are studied. Representative plays are studied from the Ancient to the Renaissance Period.

**DRA 202 History of Theatre—Renaissance (3-0-3)**

Prerequisite: DRA 101 or Permission of Instructor

This course is a study of the specific conditions under which the great plays of the world have been produced. Consideration of audience, actors, physical conditions, social conditions, and the playwright are studied. Representative plays are studied from the Renaissance to the Realistic Period.

**DRA 203 History of Theatre—Realistic (3-0-3)**

Prerequisite: DRA 101 or Permission of Instructor

This course is a study of the specific conditions under which the great plays of the world have been produced. Consideration of audience, actors, physical conditions, social conditions and the playwright are studied. Representative plays are studied from Realistic Period to the present.

**DRA 204 Play Production III (0-9-3)**

Prerequisite: DRA 101 or Permission of Instructor

This course provides students with guided practice in carrying out responsibilities in play production under the pressure of preparing plays for audience approval. Students enrolled may expect to play roles and serve as members of the scenery, sound, property, lighting, costume, publicity, or make-up staffs.

**DRA 205 Play Production IV (0-9-3)**

Prerequisite: DRA 101 or Permission of Instructor

This course provides students with guided practice in carrying out responsibilities in play production under the pressure of preparing plays for audience approval. Students enrolled may expect to play roles and serve as members of the scenery, sound, property, lighting, costume, publicity or make-up staffs.

**DRA 206 Costuming for the Stage (1-4-3)**

Prerequisite: DRA 101 or Permission of Instructor

This course is a study of historical costume styles in relation to costuming for the modern theatre.

### ECONOMICS

**ECO 201 Principles of Economics (5-0-5)**

Prerequisite: None

A study of economic principles, problems, and issues. Economic theory of capitalism; and the facts of American Capitalism are studied. Emphasis is on the price system; importance of households, businesses, and government; national income and employment; and money and monetary policy in American Capitalism.

**ECO 202 Principles of Economics (5-0-5)**

Prerequisite: ECO 201

A continuation of ECO 201. Emphasis is on the economics of the firm and resource allocation; current economic problems; and international economics.

**ECO 209 Money and Banking (5-0-5)**

Prerequisite: ECO 201

A study of money, its nature and history, the commercial banking process, the structure and operations of the Federal Reserve System, significance and measurement of money and the national income, review of U.S. monetary policy, financial institutions other than commercial banks, and international banking.

### EDUCATION

**EDU 101 Introduction to Early Childhood Education (4-2-5)**

Prerequisite: None

An introduction to the various types of child-care provided for pre-school children. Emphasis will be placed upon understanding the concepts of readiness, motivation, and discipline as well as upon planning techniques for lessons and experiences which are appropriate to each child's developmental stage. Consideration will be given to developing professional attitudes and behavior.

**EDU 105 Practicum—The Teacher Aide (1-4-3)**

Prerequisite: None

Practicum in teaching/learning. Includes a one-hour seminar each week plus field experiences. Each student will be assigned to a qualified teacher and will be directly involved in special assignments (e.g. tutoring, learning centers, preparation of AV materials.)

**EDU 106 Practicum: Early Childhood Education (1-4-3)**

Prerequisite: Permission of Department Head

Practicum in teaching/learning. Includes a one-hour seminar each week plus field experience. Each student will be assigned to a qualified teacher and will be directly involved in special assignments (e.g. tutoring, setting up learning centers, presentation of small and large group activities.) This course is designed to be a terminal course.

**EDU 113 The Behavior of Children (4-2-5)**

Prerequisite: None

The course will deal with the "whole child" in terms of his interaction with the social, emotional and physical aspects of his world. Behavior of children will cover pre-natal development through the middle years of childhood. Stress will be placed on real life situations as well as academic proficiency. Course is particularly designed for individuals who plan on working with pre-school age children.

**EDU 114 Health and Safety for Young Children (2-2-3)**

Prerequisite: None

This course will deal with all aspects of health (physical, mental, emotional) and safety for young children. Emphasis will be placed on the construction of teaching units for use with young children.

**EDU 116 Communicating with the Young Child (4-2-5)**

Prerequisite: None

Study of language development in relation to adult models and the child's early experiences. Remedial approaches to improving the student's oral communication, in order to serve as an effective model. Case studies provide opportunities to analyze problems of adult-child communication and to derive guidelines for establishing effective communication patterns with young children.

**EDU 190 Workshop In Stories for Young Children (1-0-1)**

Prerequisite: None

This course will deal with the art of presenting literature to young children. Stress will be placed upon storytelling and oral reading as well as the importance of literature in helping children develop sex-role identification, achievement motivation, career awareness, and emotional security. This course is designed to be a terminal course.

**EDU 191 Workshop In Planning and Organization (1-0-1)**

Prerequisite: None

Class will deal with aspects of classroom organization such as integrated day and use of learning stations. Practice will be given in formulating objectives and choosing methods for evaluating outcomes. Lesson plans, game making, and unit construction will be discussed. This course is designed to be a terminal course.

**EDU 192 Workshop In Phonics (1-0-1)**

Prerequisite: None

Practical experience will be given in auditory discrimination and use of phonetic clues to assist reading skill development. Methods of teaching phonetic skills to young children will be explored and practiced.

**EDU 201 Introduction to Education (5-0-5)**

Prerequisite: None

A course designed for students beginning professional training in teacher education. It aims to acquaint the prospective teacher with four major aspects of education: the teaching profession, the school system, the teacher and the pupil.

**EDU 203 The Exceptional Child (3-0-3)**

Prerequisite: None

The study of children with developmental variations. Consideration is given to recognition of problems, community resources, and selection of appropriate activities for the child with exceptional mental or physical development.

**EDU 207 Music in the Early Childhood Program (4-2-5)**

Prerequisite: None

Study of music which is appropriate for young children and ways of integrating music into the total program of activities. Students learn to utilize a wide variety of materials for rhythm, instrumental performance, and dramatic play. Laboratory sessions provide opportunities for learning songs and developing extensive files; field experience provides opportunities to participate in and evaluate music activities for various age groups.

**EDU 208 Art in the Early Childhood Program (4-2-5)**

Prerequisite: None

Study of art media in relation to the creative process in young children, of the educational component that each medium reinforces, and of the ways a variety of low-cost art activities can be incorporated into a program for young children. Laboratory sessions provide first-hand experience with all of the media, opportunities to explore the uses of each, and practice in the care and storage of materials. Each student will plan a meaningful sequence of art activities which could be incorporated into a program for young children.

**EDU 210 Mathematics for Young Children (2-2-3)**

Prerequisite: None

This course will help prospective teachers prepare materials to develop basic mathematical concepts dealing with conservation, seriation, and geometry. Emphasis will be placed upon preparing lessons in developmental sequence and upon the development of materials and language skills necessary for presentation of lessons.

**EDU 211 Science in the Early Childhood Program (4-2-5)**

Prerequisite: None

Study of those scientific facts, concepts, and phenomena that are of interest to young children. Laboratory experiences provide opportunities to carry out simple experiments in which young children could participate. Each student will plan a science program which could be used as an integral component of the overall program for young children in group care.

**EDU 234 Production & Utilization of Audio-Visual Materials (3-3-4)**

Prerequisite: None

An introduction of the various nonprint approaches to instructing children. Emphasis will be placed upon actual making of materials plus the instructional theory underlying nonprint media.

**EDU 290 Seminar/Workshop (1-0-1)**

Prerequisite: May be specified for particular subject

A seminar/workshop approach involving the student in discussions and/or projects on a topic in education.

**ENGLISH****ENG 090 Preparatory Grammar & Composition (5-0-5)**

Prerequisite: None

Upon recommendation of the guidance department or the English department, students who need additional preparation in English should be enrolled in English 090. The course includes a thorough review of English fundamentals. Special attention is given to improvement of basic writing skills. Students placed by recommendation in English 090 should successfully complete this course before enrolling in additional English courses at Gaston College.

**ENG 101 Freshman Grammar & Composition (5-0-5)**

Prerequisite: ENG 090 or Departmental Approval

English 101 includes a review of correct usage in grammar, mechanics, punctuation, and spelling, and the writing of numerous

themes. Various types of themes are considered, and students write themes based upon the principles exemplified in the sample themes which are studied. Students are trained in the preparation of the library research paper.

**ENG 102 Freshman Literature (5-0-5)**

Prerequisite: Successful completion of ENG 101

English 102 includes an introduction to the types of literature, including prose, poetry, and drama. Students are given training and experience in the analysis and criticism of literature.

**ENG 103 Public Speaking (5-0-5)**

Prerequisite: None

English 103 is a course in speech preparation, composition, and delivery. Students are given frequent opportunities to prepare and deliver short speeches of various types.

**ENG 105 Introduction to Journalism (3-0-3)**

Prerequisite: None

Introduction to Journalism consists of a study of a newspaper from the time an event occurs until the paper reaches the newsstands. Special emphasis is placed on responsible reporting and editorializing with respect to accuracy, fairness, slant, and the obligation to the social levels served by the newspaper.

**ENG 111 Composition I (3-0-3)**

Prerequisite: None

A study of the essentials of standard usage and basic principles of English grammar with emphasis on vocabulary building and proficiency in writing and speaking clearly, effectively, and appropriately.

**ENG 112 Composition II (3-0-3)**

Prerequisite: ENG 111

A course presenting a comprehensive treatment of the major principles of effective business communication, and applying these principles to specific types of everyday, practical writing. Continuation of correct English usage.

**ENG 113 Public Speaking (3-0-3)**

Prerequisite: ENG 112

A practical course designed to train technicians in the principles and mechanics of oral composition. Vocabulary study of technical terms and phraseology. Training by participation in formal, extemporaneous, and impromptu speaking as well as in conversation and interviewing. Special emphasis on poise and presentation of material.

**ENG 201 English Literature (5-0-5)**

Prerequisites: ENG 101 and 102

English 201 is a study of selected works of the major British writers, including discussion of the milieu in which they wrote. Students prepare research papers in which they analyze and criticize authors and their works. ENG 201 covers major British writers from Chaucer through Samuel Johnson.

**ENG 202 English Literature (5-0-5)**

Prerequisites: ENG 101 and 102

English 202 is a continuation of English 201 starting with the Romantic period and continuing through the Twentieth Century.

**ENG 203 American Literature (5-0-5)**

Prerequisites: ENG 101 and 102

English 203 is a study of important American authors, their literary works and environment from the Colonial period to the Civil War period.

**ENG 204 American Literature (5-0-5)**

Prerequisites: ENG 101 and 102

English 204 begins with the Civil War writers and continues through the Twentieth Century.

**ENG 213 Report Writing (3-0-3)**

Prerequisite: ENG 113

A seminar course designed for study and practice in the fundamentals of technical writing. Included for discussion are style, arrangement, format, and mechanics of report writing. Practice in all phases of technical writing.

**ENG 217 Children's Literature (3-0-3)**

Prerequisite: None

English 217 is a study of children's literature which includes the various types of literature appropriate for young children. Evaluation of modern writers, illustrations, and books will be emphasized.

**FIRE SCIENCE**

**FIP 101 Introduction to Fire Protection Hazards (3-0-3)**

Prerequisite: None

History and development of fire service, safety and security movements. The role of the fire service, protection and safety personnel. Ancillary organizations. Identification of general fire hazards and their causes and the application of fire protection principles to them.

**FIP 102 Municipal Fire Protection (3-0-3)**

Prerequisite: FIP 101

Fire department organization, personnel management, and the department's relationship with other city departments. Evaluation of public fire protection needs, financial factors, records and reports, equipment procurement policies, apparatus, tools, training needs and programs, maintenance needs and facilities, and other equipment necessary for modern fire protection.

**FIP 103 Construction Codes and Material Rating (2-2-3)**

Prerequisite: FIP 101

A thorough study of building codes applicable to fire prevention, and principles and practices used in various types of building construction. Fire resistance tests and ratings of building materials.

**FIP 105 Applied Electricity for Fire Protection (3-2-4)**

Prerequisite: None

A thorough study of methods and means of utilizing electricity to provide power. The installation and maintenance of electric circuit and machinery.

**FIP 115 Fire Prevention Programs (3-0-3)**

Prerequisite: None

Principles and application of fire prevention related to the community and industrial plants. The development and maintenance of fire prevention programs, educational programs, and inspection programs. Specific applications of related disciplines to fire prevention problems.

**FIP 120 Municipal Finance (5-0-5)**

Prerequisite: None

Municipal finance based on sound government principles and practice. A study of budget items, preparation of budget, justifying budgets, financial statements, cost accounting and record systems, taxation and audits.

**FIP 135 Training Programs and Methods of Instruction (3-0-3)**

Prerequisite: FIP 115

Purposes of fire service drills and training programs. The development and operation of the departments' training programs. Facilities

and equipment necessary for modern training. Selecting and training the instructional staff. Suitable methods of instruction.

**FIP 201 Fire Detection and Investigation (3-0-3)**

Prerequisite: None

Determination of cause of accidental and incendiary fire, fire losses and loss of records, points of origin, location and preservation of physical evidence, and scientific aid to investigation. Courtroom procedure in presenting evidence. Motives and methods for fire setting and investigative methods are covered.

**FIP 205 Industrial Hazards (3-2-4)**

Prerequisite: FIP 101

A study of hazardous processes in industries such as petroleum, furniture, chemical, tobacco, metal, and textile, and the protection and precautions needed for personnel and property safety. Hazards that are related to heating plants, electrical systems, and storage in all industries.

**FIP 208 Municipal Public Relations (3-0-3)**

Prerequisite: None

A general survey of municipal public relations and their effect on the governmental process. Principles of public relations such as planning, staffing, controlling and directing information to the general public is studied. Emphasis is placed upon personal responsibilities, means of communications, policies and organization of an effective public relations program.

**FIP 211 Grading of Fire Defenses (3-0-3)**

Prerequisite: Consent of Advisor

Insurance grading schedules and their principles of application. Methods of analyzing fire hazards and the effects of fire hazards on fire insurance rates. A study of the National Board Grading Schedule is made in detail with other schedules covered briefly.

**FIP 216 Chemical & Radiation Hazards (3-2-4)**

Prerequisite: FIP 218, FIP 101

Intensive study and analysis of the special hazards encountered in the chemical and petroleum industries. Radiation hazards, effects of radiation on humans, exposure control, radiological instruments, operational and decontamination procedures, common uses of radioactive materials, transportation, storage, application of special inspection procedures.

**FIP 218 Chemistry of Hazardous Materials (3-2-4)**

Prerequisite: CHM 101

Theories of combustion and extinguishment, including the analysis of flammable materials and the nature of extinguishing agents. The properties of matter affecting fire behavior. The application of the laws and principles of chemistry and physics to the use, storage, and disposal of flammable liquids, solids, gases and dusts.

**FIP 220 The Fighting Strategy (3-2-4)**

Prerequisite: FIP 102

The aspects of tactics and strategy in extinguishing fires. Pre-fire plans, mutual and problems, techniques of using available equipment and manpower, conflagrations, techniques of predicting fires by fuel analysis. Emphasis will be on developing thinking skill in relation to crises.

**FIP 225 Fire Protection Law (3-0-3)**

Prerequisite: FIP 102

A study of law in relation to fire protection. Torts. Terms and Contracts studied by case method. Liability of fire protection personnel when making inspections, recommendations, fighting fires, and other tasks. Pertinent laws, ordinances, and codes and the responsibilities and powers of the individual or organization concerning enforcement.

**FIP 226 Industrial Safety (3-0-3)**

Prerequisite: FIP 101

A fundamental study of industrial safety records, development of safeguards, accident costs and causes, job safety analysis, plants designed for safety, and safety maintenance. Methods of eliminating hazards including color coding, guards, and personal protective equipment. A study of the precautions and safeguards essential to protecting lives during fires in various types of occupancies. Exit code requirements, personnel protective devices, and practical safeguards will be studied. Review of case histories of fires and explosions which have resulted in loss of life to determine how these types of tragedies can be prevented.

**FIP 230 Hydraulics and Water Distributive Systems (3-2-4)**

Prerequisites: MAT 101, PHY 101

Mechanics of the flow of fluids through fire hose, nozzles, and appliances, pumps, standpipes, watermains, and other devices. Design, testing, and use of nozzles, and appliances, pumps, and water distribution systems. Measurement of fluid flow and methods of determining quantities of water available from a distribution system. Practical applications of principles.

**FIP 231 Sprinkler and Standpipe Systems (3-2-4)**

Prerequisite: FIP 230

Types of sprinkler and standpipe systems, system devices and their operation, advantages of sprinkler systems, codes governing installation, water supply requirements, testing, inspection, and maintenance.

**FIP 235 Inspection Principles and Practices (3-4-5)**

Prerequisites: FIP 103, DFT 136

A study of the fundamentals of fire inspections including standards, techniques of evaluation of hazards as to degree of the hazard and practical recommendations. Reports including maps and sketches of each building inspected. On-the-site inspections of buildings to locate hazards and to recommend safe practices and improvements.

**FIP 240 Multiple Line Insurance & Rating Schedules (4-0-4)**

Prerequisite: FIP 211

A study of multiple line insurance, types of policies, selection, rate making, settlement of claims, handling of risks, and self-insurance. Types of rating schedules including the analytic and mercantile schedule. Methods of determining fire rating classification.

**FIP 245 Automatic Alarm and Extinguishing Systems (3-2-4)**

Prerequisite: FIP 105

A study of the types of fixed extinguishing systems, standard and special fire alarm and fire detection systems; their operation, installation requirements, testing, inspection, and maintenance.

**GEOGRAPHY****GEO 101 Physical Geography (5-2-6)**

Prerequisite: None

A study of the earth's astronomical relations, factors of weather and climate, and physiographic features, and resources such as minerals, water, soils, and seas. Also offered as ESC 101.

**GEO 204 Economic Geography (3-0-3)**

Prerequisite: None

A study of the economic, social, political aspects of the distribution of natural resources and their utilization. The influence of industry, agriculture, and natural resources on the population density is developed.

**GEOLOGY****GLY 102 Introduction to Geology (5-2-6)**

Prerequisite: None

A study of the basic principles and processes of the earth; its composition, formation, and features. Also offered as ESC 102.

**HISTORY****HIS 101 World Civilization—Ancient (3-0-3)**

Prerequisite: None

A history of civilizations in the Ancient period. A survey of political, social, and artistic developments in Mesopotamia, Egypt, Greece, and Rome.

**HIS 102 World Civilization—Medieval (3-0-3)**

Prerequisite: None

A survey of European social, political, and cultural history from the fall of Rome to 1715, including the Middle Ages, the Renaissance and Reformation, and Early Modern France, England, Germany, and Italy. This course examines the influences of the Byzantine and Islamic cultures of European society.

**HIS 103 World Civilization—Modern (3-0-3)**

Prerequisite: None

The history of Europe from 1715 to 1945. A survey of life in Europe from the French Revolution and Enlightenment through the early Twentieth Century, including the effects on the United States and Soviet Union.

**HIS 104 World Civilization—Contemporary (3-0-3)**

Prerequisite: None

The history of the world since 1945 to the present. A survey of the political, social, and economic developments of Europe, Asia, Africa, and Latin America, and how they have affected world affairs.

**HIS 201 United States History to 1877 (5-0-5)**

Prerequisite: None

American history from the period of discovery and colonization through Reconstruction. Emphasis is upon promotion and understanding of and an appreciation for the fundamental themes and patterns in the social, economic, and cultural development of the nation. Special attention is focused upon the origin and development of constitutional government, geographic expansion, and the controversy growing out of sectional issues.

**HIS 202 United States History from 1877 (5-0-5)**

Prerequisite: None

American history from 1865 to the present, with emphasis upon the emergence of the U.S. as a modern industrial nation and world power, the "big change" in social, political, and economic development of the Twentieth Century, and the diplomatic complexities confronting the U.S. in the contemporary world.

**HIS 280 Study Tour (2-12-6)**

Prerequisite: None

A five week, condensed course involving three weeks of intensive study on the campus of Gaston College, followed by two weeks of off-campus study and travel. This course may involve travel within the United States or abroad as an open laboratory experience for students. This course involves an interdisciplinary study including history, culture, art, architecture, music, politics, etc. with special emphasis given to one or more of these topics. Also offered as ANT 280, SOC 280, and POL 280.

**HIS 291 Educational Travel (1-6-3)**

Prerequisite: Permission of Study Tour Director

A social sciences course designed to allow students to obtain limited college credit for valid educational travel, both domestic and foreign. Permission for such Educational Travel must be obtained from the Director of Study Tours before travel is conducted, and all classwork, written exams, and projects must be submitted to the appropriate Department Chairman before academic credit is granted.

**LAW****LAW 108 Nature and Function of Law in Society (3-0-3)**

Prerequisite: None

The presentation of a philosophical and historical appreciation of what law is within the framework of social order. In addition to an analysis of how present laws came to be, particular emphasis will be placed on the way in which our present day society utilizes the law as a social control device. Also offered as POL 108.

**LAW 120 Family Law (5-0-5)**

Prerequisite: None

A study of the laws governing domestic relations under common law and as changed by statute. The laws dealing with sex relations, marriage, divorce, and children. Child custody, juvenile delinquency, and the juvenile court system.

**LAW 215 Consumer Law (5-0-5)**

Prerequisite: None

A survey of the methods by which individuals and communities can protect themselves against misleading advertising and labeling, unsafe products, and pollution. Land use planning. Environmental protection.

**LAW 216 Property Law (3-0-3)**

Prerequisite: None

The law of real property and personal property; estates in land and future interests. Leasing, transferring, mortgages, recording, covenants, easements, licenses, landlord and tenant, wills, and successions, probate.

**MATHEMATICS****MAT 081 Elementary Algebra (5-0-5)**

Prerequisite: None

MAT 081 and MAT 082 together contain the essentials of the first year of high school algebra from the "modern" viewpoints.

**MAT 082 Elementary Algebra (5-0-5)**

Prerequisite: MAT 081 or Departmental Approval.

A continuation of MAT 081.

**MAT 090 Intermediate Algebra (5-0-5)**

Prerequisite: None

This course is essentially the second year of high school algebra. For students having a deficiency in algebra or needing a refresher course before entering MAT 101.

**MAT 100 Principles of Mathematics (5-0-5)**

Prerequisite: Departmental Approval

This course is primarily intended for non-science or liberal arts majors. Some background in algebra is required. Applications of principles are made in a wide variety of areas. This course is designed to precede MAT 102. A student will not receive credit for both MAT 100 and MAT 101.

**MAT 101 College Algebra (5-0-5)**

Prerequisite: Departmental Approval

A study of the real numbers from a postulational point of view and some of their derived properties. Included are such topics as: sets, relations, functions, theory of equations, systems of equations, matrices and determinants, complex numbers, inequalities, mathematical induction, partial fractions, the binomial theorem, and elementary analytic geometry.

**MAT 111 Algebra and Trigonometry I (5-0-5)**

Prerequisite: None

Review of fundamental algebraic operations; analysis of linear and quadratic functions including the conic sections; basic trigonometric functions, graphs of trigonometric functions, the complex number system and vector algebra. A concerted effort is made to blend the physical applications and the theoretical principles involved into a homogeneous unit. Slide rule instruction is integrated to coincide with the appropriate lecture materials and physical applications.

**MAT 210 Elementary Statistics (5-0-5)**

Prerequisite: MAT 101 or its equivalent

A non-calculus treatment of techniques and procedures for handling data. Topics include: analysis of data, probability, binomial and normal distributions, hypothesis testing, T-Distribution, Chi-square distribution, F-Distribution, non-parametric statistics, regression and correlation, and analysis of variance. This course is also offered as PSY 210.

**MUSEUM SCIENCE****MUE 180 Museum Science (0-10-1)**

Prerequisite: Admission to the Museum Technician Program

A course designed to provide a student with experience in museum work to include display construction, research, library work, museum education, museum business, and other phases of museum operation, under the guidance of the director and staff of a museum. (May be repeated for six hours credit—Multiple hours may be earned in one quarter.)

**MUSIC****MUS 134 Class Piano (0-2-1)**

Prerequisite: None

Group instruction in the basic principles of piano playing. Limited enrollment. Required for all music majors and minors unless exempt by virtue of an examination in piano proficiency.

**PHILOSOPHY****PHL 200 Introduction to Philosophy (3-0-3)**

Prerequisite: None

Philosophy 200 is designed to provide an Introduction to the nature and scope of questions arising in the ever-changing arena of life through an introduction to the kinds of philosophy that men live by. Consideration will be given to the following subjects: metaphysics, epistemology, axiology, logic, idealism, realism, pragmatism, neo-thomism, naturalism, and existentialism.

**PHL 201 Ethics: Problems for a Just Society (3-0-3)**

Prerequisite: None

This course is to acquaint students with primary sources of significant thinking on contemporary issues and how they relate to the leading developments in the history of moral philosophy.

## PHOTOGRAPHY

### PHO 101 Introduction to Photography (0-6-3)

Prerequisite: None

Photography 101 is an introductory study of basic theory, principles, and techniques of black and white and color picture photography. Photography as an art, a profession, a tool, and a hobby will be discussed. The use of the 35mm camera and basic development and enlargement practices will be of primary lab concern.

## PHYSICAL EDUCATION

### PED 103 Swimming (0-2-1)

Prerequisite: None

Beginning swimming and/or swimming skills for advanced swimmers.

### PED 105 Archery (0-2-1)

Prerequisite: None

Includes fundamental skills and knowledge through participation in the activity.

### PED 113 Gymnastics & Tumbling (0-2-1)

Prerequisite: None

The course will include participation in tumbling, gymnastics, apparatus, stunts, and pyramid building.

### PED 114 Karate (0-2-1)

Prerequisite: None

Karate is an ultimate form of unarmed self-defense. It is regarded as an excellent way to exercise, control weight, and develop fitness. It is approached as a beautiful and highly skilled oriental art, and as a highly skilled sport using skills and control techniques without bodily contact.

### PED 201 Introduction to Physical Education (5-0-5)

Prerequisite: None

Designed for students who expect to teach or coach. Includes the history of health education and physical education; philosophical, psychological, physiological, and sociological background for the teaching of health and physical education; basis for program and organization of activities.

### PED 210 Health Education (3-0-3)

Prerequisite: None

A course designed to present basic personal health knowledge, and to develop proper health habits and attitudes in the individual.

### PED 225 Physical Fitness (0-2-1)

Prerequisite: None

This course is designed to provide an individualized approach to physical fitness. Major emphasis will be given to the scientific basis for setting up and engaging in personalized physical fitness programs.

### PED 230 First Aid (3-0-3)

Prerequisite: None

This course deals with emergency treatment of various types of injuries, control of bleeding, artificial respiration, splinting and bandaging, and legal responsibilities. It includes cardiopulmonary resuscitation (CPR).

### PED 231 Advanced Life Saving (2-2-3)

Prerequisite: All candidates must pass a swimming competency exam.

The course is designed to provide the individual with the abilities to protect himself and others around water. The course deals more specifically with rescues related to water type emergencies. Successful

completion results in certification as an Advanced Life Saver by the American National Red Cross.

### PED 260 Outdoor Living (1-2-2)

Prerequisite: None

Outdoor living is designed to acquaint the beginning camper with various aspects of the camping experience ranging from elementary camp procedures to more advanced outdoor survival. Emphasis is given to both classroom knowledge and the practical application of camping techniques and procedures. Field experience is interspersed throughout the quarter.

### PED 270 Motor Development and Movement in Early Childhood (4-2-5)

Prerequisite: None

A study of the motor development of the young child with emphasis given to physical and psychological development through the medium of physical activity. This course is designed to assist individuals who plan to work with young children by providing knowledge, skills, and concepts for planning, organizing, teaching, and evaluating a program of activities.

## PHYSICS

### PHY 101 Physics: Properties of Matter (3-3-4)

Prerequisite: None

A fundamental course covering several basic principles of physics. The divisions included are solids and their characteristics, liquids at rest and in motion, gas laws and applications. Laboratory experiments and specialized problems dealing with heat, electricity, and magnetism, which are topics included in this course.

## POLICE SCIENCE

### PSC 101 Introduction To Criminal Justice (5-0-5)

Prerequisite: None

This course introduces the student to the criminal justice system. It deals with the components of the system—police, courts, and corrections. Included in the course are the historical development and present status of each of these component parts: the jurisdiction of the various courts, the responsibilities of police officers, arrest, booking, the initial appearance, the preliminary hearing, the grand jury, trial process, sentencing, jails, prisons, post conviction remedies, the functions of the prosecutor and defense counsel, the uniform crime report, decriminalization, victimology, and victimless crimes.

### PSC 110 Introduction to Criminology (5-0-5)

Prerequisite: None

The study primarily concerned with scientific efforts to understand crime and to understand man in relation to crime phenomena. It deals with those definitions and formulations of crime and criminals upon which an adaptation system criminology must be based. It examines the law as the basic framework within which social deviations of a peculiar character assumes their functions as criminal acts and those broad principles upon which a science of criminology must rest.

### PSC 115 Criminal Law (5-0-5)

Prerequisite: None

This course deals with crimes against the person, property, habitation, public decency, the administration of justice, and public disorder. The course includes the concept of criminal responsibility, corpus delicti, and the specific crimes of homicide, assault, robbery, kidnapping, arson, burglary, attempts to commit a crime, solicitation, theft, and sexual offenses. Leading cases are reviewed and discussed.

**PSC 205 Evidence (5-0-5)**

Prerequisite: PSC 101 or PSC 115

The kinds of legal evidence and the rules governing the admissibility of evidence that apply in criminal cases are discussed. Topics include relevancy, materiality and competency of witness and evidence, cross examination and impeachment of witnesses, privileged communications, reputation evidence, opinion evidence, hearsay evidence and the exceptions: admissions, confessions, dying declarations, and the business record rule, and ordinary and expert witnesses. Leading cases are reviewed and discussed.

**PSC 210 Criminal Investigation (5-0-5)**

Prerequisite: Permission of the instructor-coordinator

This course introduces the student to fundamentals of investigation; crime scene arch recording, collection, and preservation of evidence; sources of information; interview and interrogation; case preparation and court presentation; and the investigation of specific offenses such as arson, narcotics, sex, larceny, burglary, robbery and homicide.

**PSC 211 Introduction to Criminalistics (4-2-5)**

Prerequisite: PSC 210

Continuation of the study of criminal investigation including a general survey of the methods and techniques used in modern scientific investigation of crime, with emphasis upon the practical use of these methods by the students. Laboratory techniques will be demonstrated and the student will participate in practical application of the scientific equipment.

**PSC 220 Police Organization and Administration (5-0-5)**

Prerequisite: None

Introduction to principles of organization and administration, discussion of the service function: e.g., personnel management, police management, training, communication, records, property maintenance, and miscellaneous services.

**PSC 225 Criminal Procedure (5-0-5)**

Prerequisite: PSC 101 or PSC 115

Procedural due process—the fourth, fifth, sixth, eighth, and fourteenth amendments—is covered in this course by an analysis of the past and present decisions dealing with these amendments. Also dealt with in this course are the exclusionary rule, stop and frisk laws, preliminary hearings, indictments, and informations, the identification process, bail, habeus corpus hearings, extradition, double jeopardy and eavesdropping-wiretapping and bugging.

### POLITICAL SCIENCE

**POL 108 Nature & Function of Law in Society (3-0-3)**

Prerequisite: None

The presentation of a philosophical & historical appreciation of what law is within the framework of social order. In addition to analysis of how our present laws came to be, particular emphasis will be placed on the way in which our present day society utilizes the law as a social control device. Also offered as LAW 108.

**POL 110 Introduction to American Federal Government (5-0-5)**

Prerequisite: None

A basic course dealing with democratic theory, the evolution of the American constitution and political institutions in the U.S., and the role of the people in American politics, and the relationship of the individual to the federal government in the area of civil rights and liberties.

**POL 203 State and Local Government (5-0-5)**

Prerequisite: None

A study of typical state and local political institutions and practices in America, with special emphasis upon the governmental organization

and political problems of the state of North Carolina and its communities.

**POL 280 Study Tour (2-12-6)**

Prerequisite: None

A five week, condensed course involving three weeks of intensive study on the campus of Gaston College, followed by two weeks of off-campus study and travel. This course may involve travel within the United States or abroad as an open laboratory experience for students. This course involves an interdisciplinary study including history, culture, art, architecture, music, politics, etc. with special emphasis given to one or more of these topics. Also offered as ANT 280, HIS 280, and SOC 280.

### PSYCHOLOGY

**PSY 103 Psychology of Human Relations (3-0-3)**

Prerequisite: None

A basic knowledge of psychological principles is studied to provide insight into personal behavior and recognition of human relations skills needed in the business world.

**PSY 201 General Psychology (5-0-5)**

Prerequisite: None

A survey of the field including learning, emotions, motivation, abnormal behavior, psychotherapy, and developmental psychology. (Credit will not be given for PSY 201 and PSY 101 or PSY 102.)

**PSY 203 Child Psychology (5-0-5)**

Prerequisite: PSY 201 or Permission of Department Head

A study of the child from conception through pre-adolescence. Physical, biological, social, intellectual, emotional and personality development are emphasized in the course designed to promote an understanding of the behavior and needs of the child.

**PSY 204 Adolescent Psychology (5-0-5)**

Prerequisite: PSY 201 or Permission of Department Head

The physical, biological, social, intellectual, and emotional changes occurring during adolescence are considered in relation to their effect on the development and personality in the individual. School, social, and personality problems are considered in the understanding and guidance of youth.

**PSY 205 General Psychology Lab (1-2-2)**

Prerequisite: PSY 201 or Permission of Department Head

An introduction to the scientific study of behavior, to laboratory procedures, and to laboratory equipment. The goals of the course include familiarizing students with the principles and vocabulary of experimentation, sources of psychological information, practice in conducting and serving in laboratory projects, and writing in APA format.

**PSY 206 Psychology of Adjustment (5-0-5)**

Prerequisite: PSY 201 or Permission of Department Head

The study of the process of adjustment. Consideration is given to psychological reactions to critical problems encountered in modern life. Different approaches to psychotherapy will be introduced.

**PSY 230 The Psychology of Aging (5-0-5)**

Prerequisite: PSY 201 or Permission of Department Head

A survey course concerning the changing process and the changed individual from adolescence through old age. Physical, social, and psychological changes occurring in late middle age and old age will be emphasized.

**PSY 290 Psychology Seminar/Workshop (1-0-1)**

Prerequisite: May be specified for particular subjects  
A seminar/workshop approach involving the student in discussions and/or projects on a topic in psychology.

**RADIO-TELEVISION**

**RTV 101 Introduction to Television (2-2-3)**

Prerequisite: None  
A survey course of television including history, utilization, and an introduction to basic phases of television production.

**READING**

**RDG 090 Reading Improvement (5-0-5)**

Prerequisite: None  
This course is designated for those whose degree of reading proficiency may be inadequate for the successful pursuit of a college career at present. The course will cover basic skills of reading (comprehension, vocabulary, and rate) as well as study skills related to reading.

**RDG 101 Reading Improvement (5-0-5)**

Prerequisite: None  
This course is designed for students interested in improving their skills of reading, and to promote each reader's understanding of his own potential by knowing his strengths, weaknesses, and levels of reading achievement. The course will cover critical reading, rapid visual perception surveying, vocabulary, scanning, and other skills necessary for reading efficiently during and after the college years.

**READING EDUCATION**

**RED 101 Introduction to Reading Education (3-3-4)**

Prerequisite: None  
Identification of the role of the Teaching Associate or aide in the public school with particular emphasis upon assisting with the reading program. The student will study the organization of public school at all levels and look at varying school environments, the relationship among school personnel and professional work behavior. Laboratory experiences will consist of observation in various elementary school settings and a variety of reading teaching settings.

**RED 102 Methods, Materials, & Techniques of Teaching Reading I (5-6-7)**

Prerequisite: None  
An overview of the major approaches to the teaching of children/adults to read. A major emphasis will be the study and utilization of materials actually found in the laboratory setting. Additional stress will be placed upon the acquisition of the vocabulary specific to reading education and to the piloting of reading lessons with small groups of school children.

**RED 103 Methods, Materials, & Techniques of Teaching Reading II (5-6-7)**

Prerequisite: RED 102  
An overview of the major approaches to the teaching of children/adults to read. A major emphasis will be the study and utilization of materials actually found in the laboratory setting. Additional stress will be placed upon the acquisition of the vocabulary specific to reading education and to the piloting of reading lessons with small groups of school children.

**RED 202 Evaluation of Reading Programs, Teaching Materials, & Achievement Tests (4-3-5)**

Prerequisite: None  
A study of the formal and informal methods of assessing pupil growth

in reading. The course will also touch upon those other areas of educational evaluation that parallel reading assessment. Students will acquire a systematic method of evaluating instructional materials. Attention will be devoted to role of the Teaching Associate within a school-wide reading program and a school or system-wide scheme of pupil assessment.

**RED 203 Reading in Content Areas (3-6-5)**

Prerequisite: None  
An exploration of the role of reading abilities in mastering content (mathematics, science, social studies, etc.) materials. The student will be required to translate knowledge of reading and the reading process into lessons designed to teach "content." It is expected that the student will rely upon the expected non-reading textbooks.

**RED 204 Seminar & Practice in Reading Education I (2-6-4)**

Prerequisite: None  
A guided field experience designed to implement earlier course work. The student will be required to provide instruction in reading to small groups of children. Direct supervision and weekly discussion of the Associate's progress will be a feature of the course. It is expected that the student will actively participate in the seminar under the guidance of a faculty member.

**RED 205 Seminar & Practice in Reading Education II (2-6-4)**

Prerequisite: RED 204  
An extension of 204. Specific attention will be devoted to assessing the extent to which the Associate can integrate concurrent coursework in Content Reading into reading instruction. Weekly seminars will center upon community and school influences for the evolution of the teaching of reading. Seminar topics will also be drawn from the Associate's laboratory work during the previous week.

**RED 206 Supervised Internship in Reading Education (4-30-14)**

Prerequisites: RED 103 and RED 205  
A course designed to meet in the laboratory setting for four complete days each week. The Associate will be expected to demonstrate those competencies acquired during the program's earlier coursework. On-going supervision of the Associate will center upon techniques for incorporating knowledge of children, reading, the community and the school into a coherent instructional program of reading education. In addition to individual and small-group teaching, large-group instruction will be expected.

**RECREATION**

**REC 103 Swimming (0-2-1)**

Prerequisite: None  
Beginning swimming and/or swimming skills for advanced swimmers. Also offered as PED 103.

**REC 104 Bowling (0-2-1)**

Prerequisite: None  
Includes fundamental skills, scoring, rules and etiquette through participation. Also offered as PED 104.

**RED 105 Archery (0-2-1)**

Prerequisite: None  
Includes fundamental skills and knowledge through participation in the activity. Also offered as PED 105.

**REC 108 Skiing (0-3-1)**

Prerequisite: None  
Includes fundamental skills, techniques, and knowledge through participation. Beginning. Also offered as PED 108.

**REC 112 Modern Dance (0-2-1)**

Prerequisite: None

A course designed to include the study of basic rhythmic and fundamental movements of modern dance. Beginning. Also offered as PED 112.

**REC 114 Karate (0-2-1)**

Prerequisite: None

Karate is an ultimate form of unarmed self defense. It is regarded as an excellent way to exercise, control weight, and develop fitness. It is approached as a beautiful and highly skilled oriental art and as a highly skilled sport using skills and control techniques without bodily contact. Also offered as PED 114.

**RED 117 Roller Skating (0-3-1)**

Prerequisite: None

An analysis of the fundamental skills, techniques, and knowledge through participation in skating. Beginning.

**REC 260 Outdoor Living (1-2-2)**

Prerequisite: None

Outdoor living is designed to acquaint the beginner camper with various aspects of the camping experience ranging from elementary camp procedures to more advanced outdoor survival. Emphasis is given to both classroom knowledge and the practical application of camping techniques and procedures. Field experience is interspersed throughout the quarter. COED. Also offered as PED 260.

**SOCIOLOGY**

**SOC 102 Introductory Sociology (5-0-5)**

Prerequisite: None

A consideration of the origins and development of culture, the nature of personality and its relation to society, forms of collective behavior, and community and social organization.

**SOC 103 Marriage & Family Relations (3-0-3)**

Prerequisite: None

A practical consideration and discussion of the factors leading to successful marital adjustment; attention is given to the period from early dating to marriage, the coming of children, and the problems of child rearing. The course also deals with sex adjustment, in-law relationships, religion, and money management. Not to be taken by Sociology majors.

**SOC 109 Community Resources (3-0-3)**

Prerequisite: None

A study of the resource and service agencies in the community that may be used as a supportive service to industry, education, and other human service institutions. A practicum experience is closely correlated with classroom activities so that students may apply knowledge and skills to an on-the-job learning situation.

**SOC 110 Human Sexuality (3-0-3)**

Prerequisite: Recommend PSY 201 or SOC 102

A study of male and female sexuality including such relevant subjects as: reproductive anatomy and physiology, male and female sexual responses, the development of sexual attitudes and values, and the development of a healthy personal and interpersonal sexuality.

**SOC 202 Contemporary Social Problems (5-0-5)**

Prerequisite: SOC 102

A course designed to study contemporary personal and social disorganization and possible ameliorative action on the part of the community and society.

**SOC 203 Sociology of the Family (5-0-5)**

Prerequisite: SOC 102

A study of the family as a social institution and of such related institutional patterns as dating, courtship, marriage, and divorce. Offered On Demand.

**SOC 214 Introduction to Social Service (3-0-3)**

Prerequisite: None

This course is designed to introduce the student to those institutions, public and private, which perform designated human and social service functions in society. Agencies may include those whose primary function is financial assistance, corrections, mental health services, family counseling, and child welfare services. Examination is made of social interventive methods utilized to solve social problems.

**SOC 215 Interpersonal Relations (3-0-3)**

Prerequisite: None

A basic course dealing with interpersonal and communicative skills utilized in helping relationships. Examination is made of barriers which prohibit communication and hamper the helping process. Students will learn techniques of interviewing for specific purposes and acquire basic abilities in working with people.

**SOC 216 Problems and Issues In the Human Services (3-0-3)**

Prerequisite: SOC 214

This course identifies the problems, issues, and concerns to which the human services are addressed. Various methodologies for developing ameliorative measures to solve human problems will be stressed. Techniques and strategies for identifying the issues and concerns that arise in the human services will be discussed.

**SOC 218 Group Dynamics (3-0-3)**

Prerequisite: SOC 102

An examination of the structure in terms of membership and leadership of various types of groups, emphasizing the group process, will comprise the main content of the course. Consideration will be given to goals and strategies associated with social change and how the human services can serve as a "change agent" when this becomes necessary and practical.

**SOC 230 Seminar and Practicum (1-6-3)**

Prerequisite: Approval of Instructor

The seminar-practicum experience involves the student in on-the-job training and field work. This experience enables the student to gain exposure to many of the functions associated with human services through "learning by doing"; the student will be able to correlate his knowledge and skills to an actual human function. This on-the-job field work will be coordinated with the needs of the human service organization to which the student is assigned.

**SOC 231 Seminar and Practicum (1-6-3)**

Prerequisite: SOC 230

The seminar-practicum experience involves the student in on-the-job training and field work. This experience enables the student to gain exposure to many of the functions associated with human services through "learning by doing"; the student will be able to correlate his knowledge and skills to an actual human function. This on-the-job field work will be coordinated with the needs of the human service organization to which the student is assigned.

**SOC 232 Seminar and Practicum****(1-6-3)**

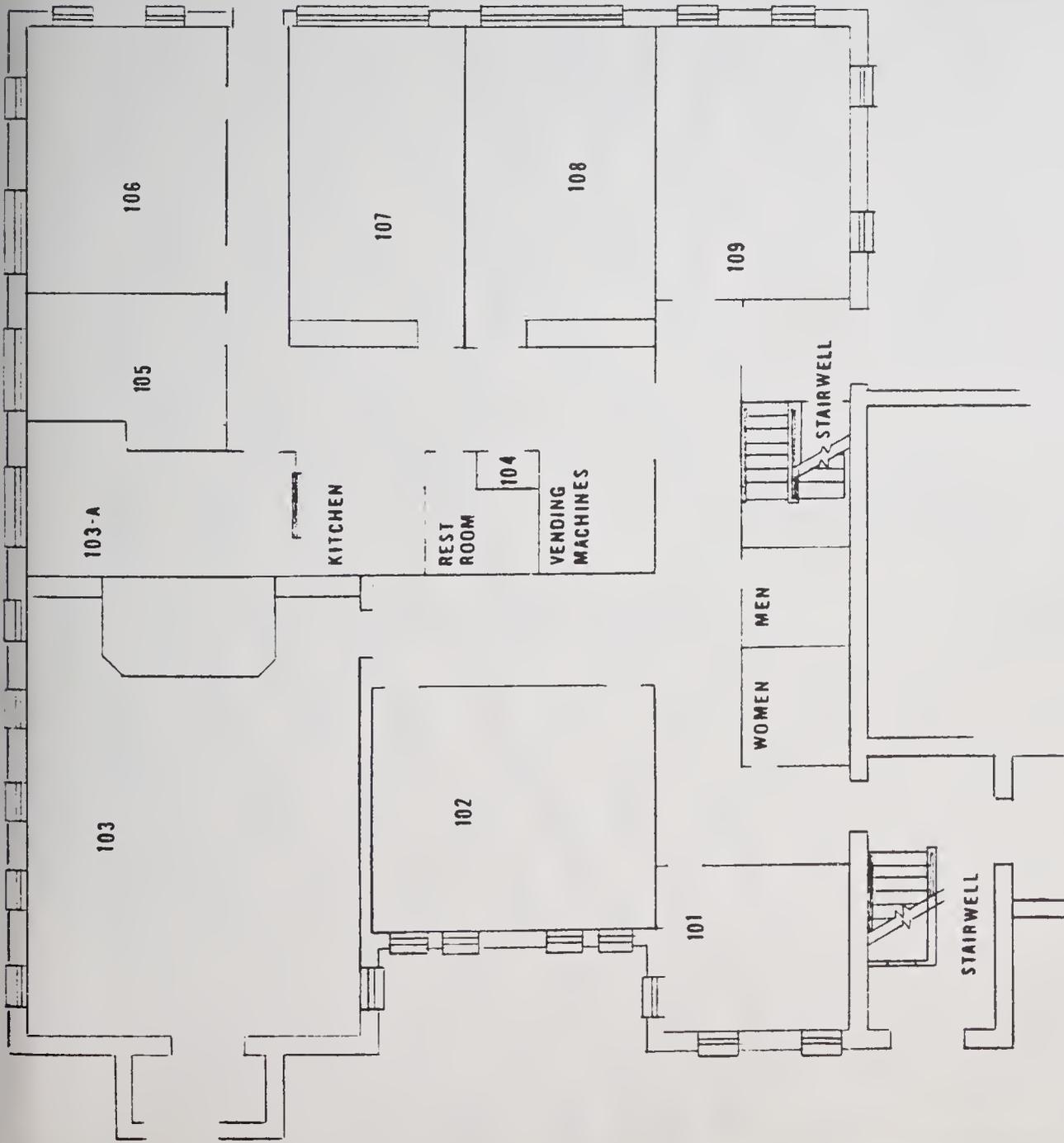
Prerequisite: SOC 231

The seminar-practicum experience involves the student in on-the-job training and field work. This experience enables the student to gain exposure to many of the functions associated with human services through 'learning by doing'; the student will be able to correlate his knowledge and skills to an actual human function. This on-the-job field work will be coordinated with the needs of the human service organization to which the student is assigned.

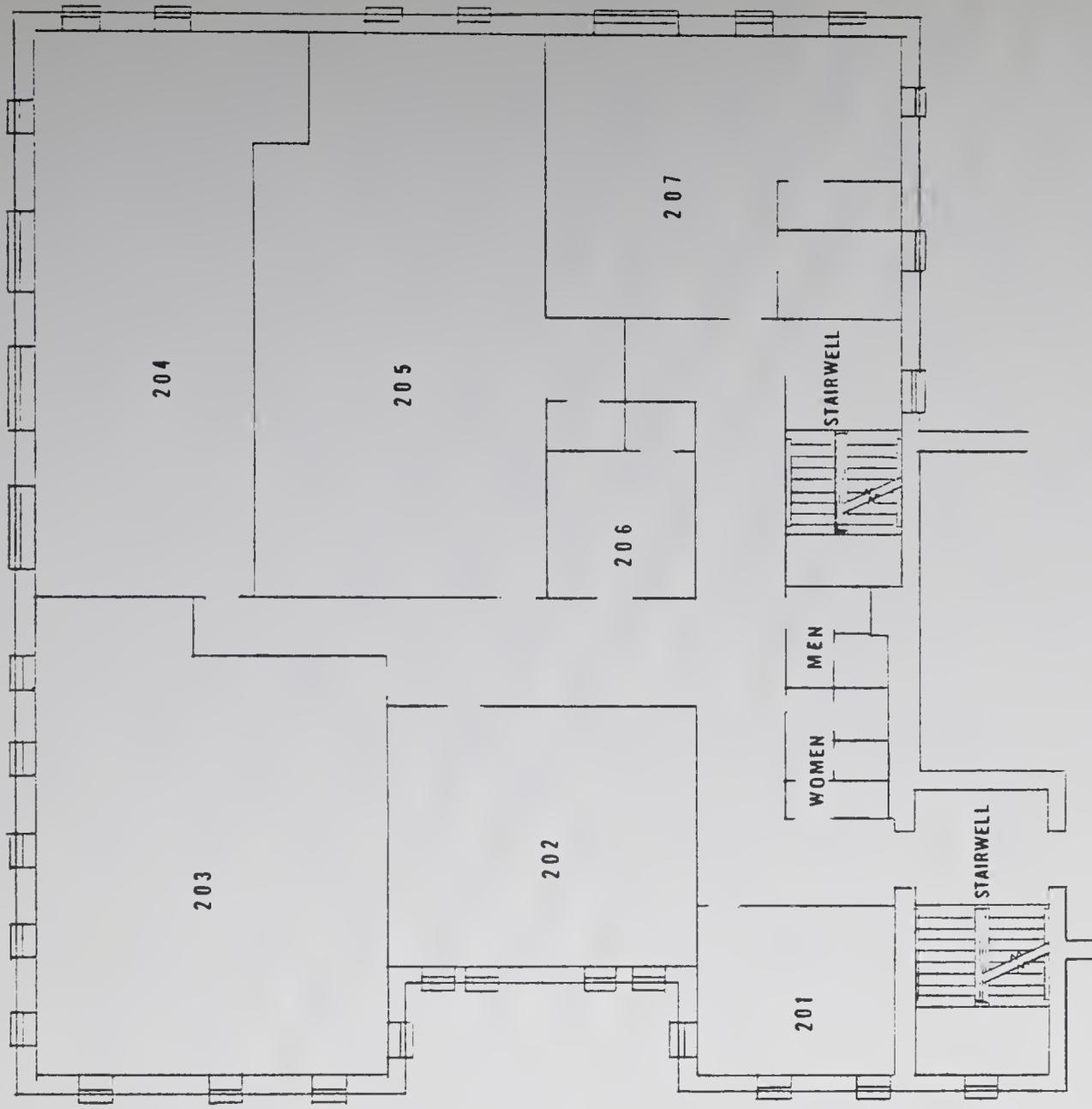
**SOC 280 Study Tour****(2-12-6)**

Prerequisite: None

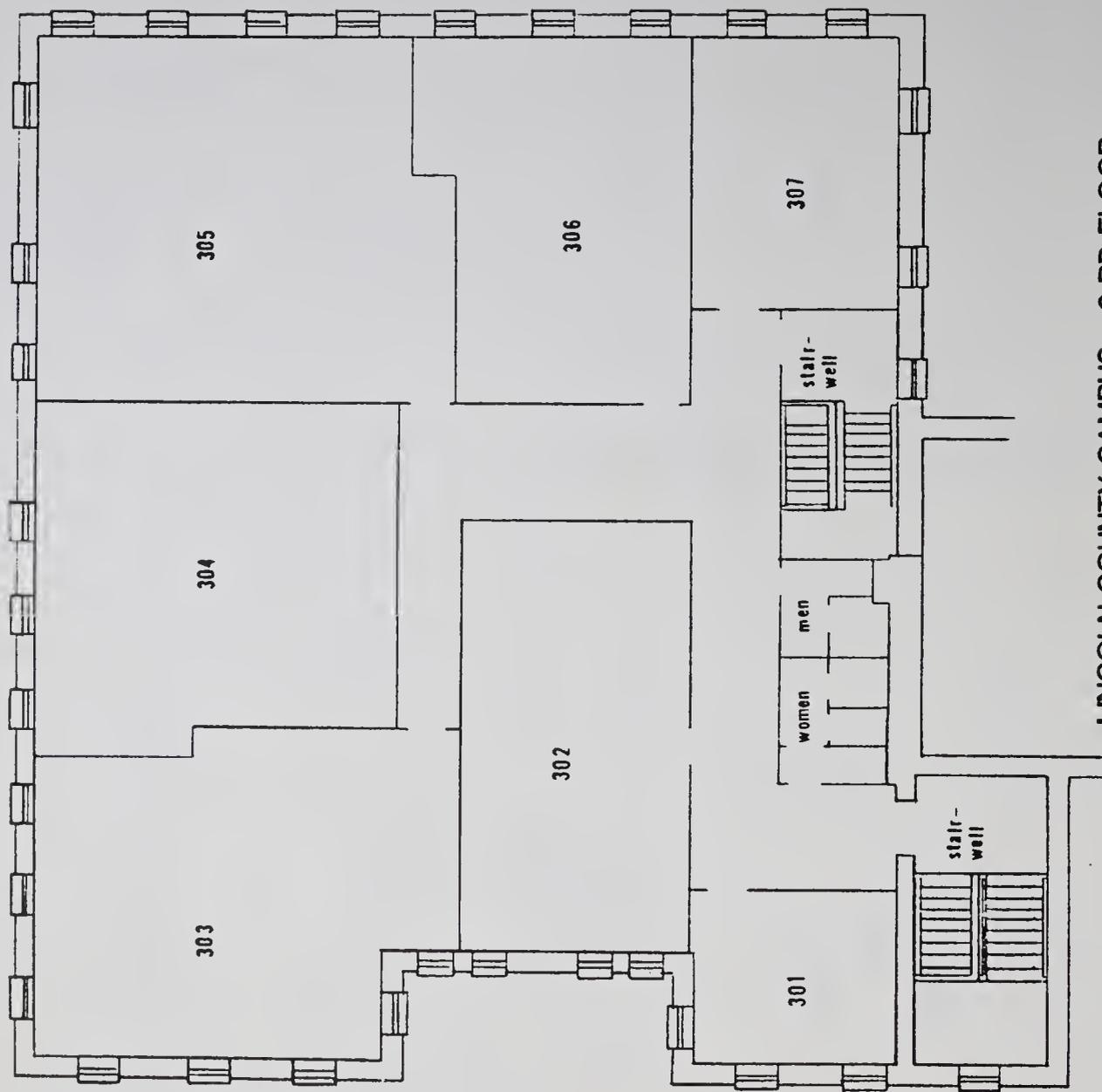
A five week, condensed course involving three weeks of intensive study on the campus of Gaston College, followed by two weeks of off-campus study and travel. This course may involve travel within the United States or abroad as an open laboratory experience for students. This course involves an interdisciplinary study including history, culture, art, architecture, music, politics, etc., with special emphasis given to one or more of these topics. Also offered as ANT 280, HIS 280, and POL 280.



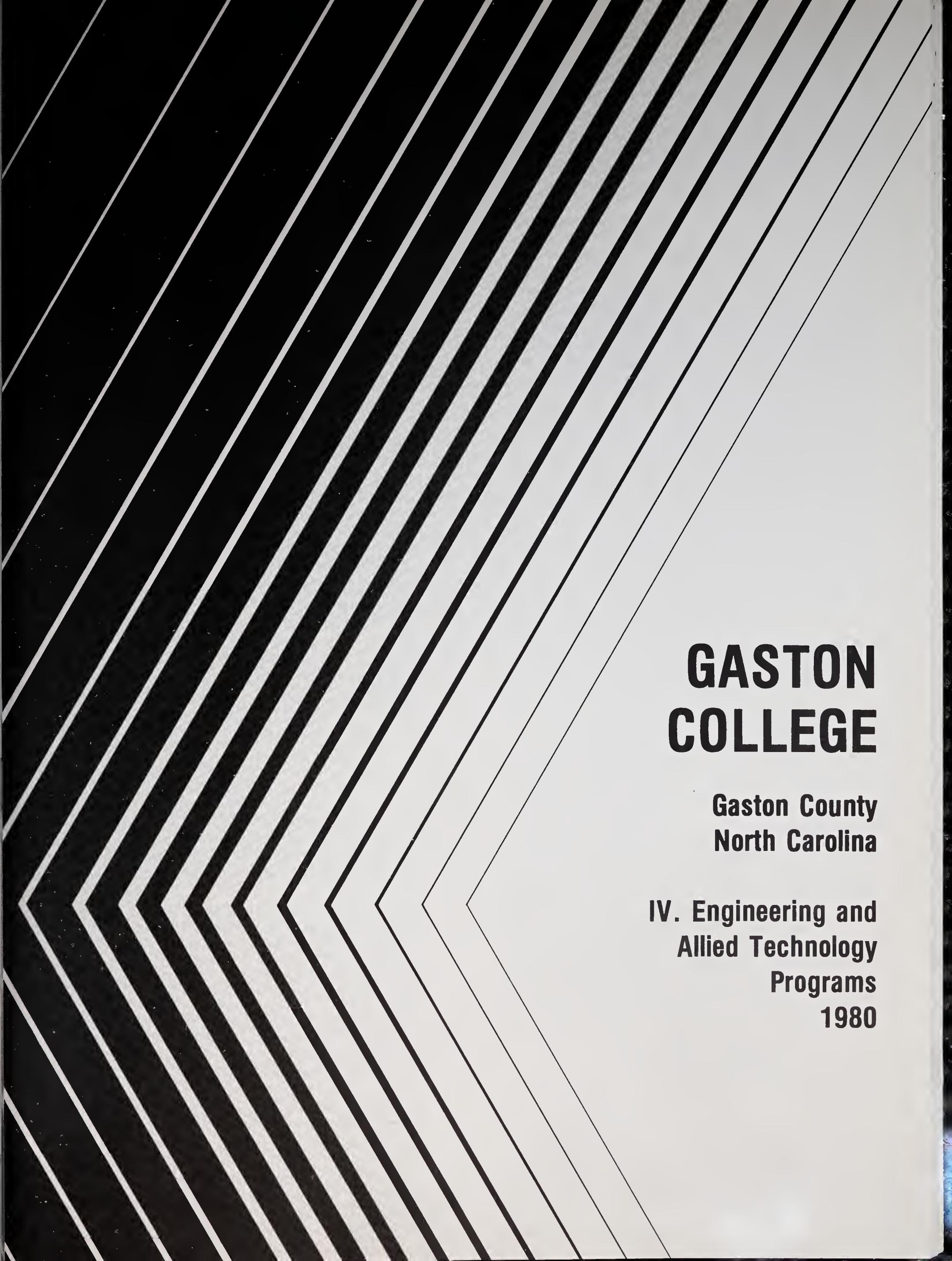
LINCOLN COUNTY CAMPUS 1ST FLOOR



LINCOLN COUNTY 2nd FLOOR



LINCOLN COUNTY CAMPUS - 3 RD FLOOR



# **GASTON COLLEGE**

**Gaston County  
North Carolina**

**IV. Engineering and  
Allied Technology  
Programs  
1980**



# ENGINEERING AND ALLIED TECHNOLOGY PROGRAMS

## THE CURRICULA

The faculty and staff seek to fulfill the College's responsibility to offer effective instruction, with concomitant occupational and professional experiences to students who wish to develop careers in Engineering Technology and Industrial Management Technology.

The degree of Associate in Applied Science is awarded in the following technologies:

- Civil Engineering Technology
- Electrical Engineering Technology
- Electronics Engineering Technology
- Industrial Engineering Technology
- Mechanical and Production Engineering Technology
- Industrial Management Technology

## ENGINEERING TECHNOLOGY

The objective of each of these engineering technology curricula is to offer a planned sequence of college-level courses, for which the graduate receives an Associate in Applied Science degree in the designated field of engineering technology. Each curriculum is designed to prepare the graduate for work in the field of engineering technology as an engineering technician or engineering associate. Graduates may seek immediate employment or may transfer to another institution with full transfer credit toward the Bachelor of Science in Technology or Bachelor of Engineering Technology degrees.

Engineering technology is that part of the technological field which requires the technical skills in support of engineering activities; it lies in the occupational spectrum between the craftsman and the engineer at the end of the spectrum closest to the engineer.

In pursuit of this objective, the college attempts to provide the facilities and campus atmosphere, the co-curricular student activities, the guidance, counseling, and placement activities, as well as the broad general curricula necessary for the fullest development of the student during these formative years.

## ACCREDITATION

Each of the following curricula is accredited by the Accreditation Board for Engineering and Technology, Inc., formerly the Engineers' Council for Professional Development, as an Engineering Technology curriculum:

- Civil Engineering Technology
- Electrical Engineering Technology
- Electronics Engineering Technology
- Industrial Engineering Technology
- Mechanical and Production Engineering Technology

The ABET is recognized by the National Commission of Accrediting as the appropriate accrediting agency for the accreditation of engineering technology curricula as well as for curricula leading to first degrees in engineering.

Accreditation by ABET is voluntary and the listing of accredited curricula denotes that the administration of the institution concerned has specifically requested ABET to evaluate these curricula in accordance with established policies and procedures for evaluating engineering technology curricula, and that each curriculum listed has been found satisfactory for the stated purpose it is designed to serve.

## THE ENGINEERING TECHNICIAN AND ENGINEERING TECHNOLOGIST

The United States is a nation of producers. The production of goods involves the conversion of raw materials into finished products, the distribution and marketing of these products, and the continuous development of new and better products.

The processes of production have been developed so rapidly and so extensively that the present state of the art requires an increasingly higher level of education, proficiency, and achievement from scientists, engineers, and supporting personnel.

The educational preparation of the engineer in recent years has been reoriented toward an emphasis on the abstract and theoretical science of engineering with a corresponding de-emphasis on the art of application of engineering science.

This reorientation of engineering education has focused new attention on the role of supporting technical personnel. The education, training, and utilization of all members of the engineering manpower team has been restudied and redirected toward a clearer delineation of functions and levels of performance.

These concepts of functions and levels of performance are made necessary by the great diversity of educational programs needed. Each level of performance requires a corresponding level of education. The various levels of the engineering manpower team are represented by the following general classifications:

- Engineer
- Engineering Technologist
- Engineering Technician
- Technical Specialist or Industrial Technician
- Skilled Craftsman
- Semi-skilled Machine Operator

These classifications indicate different categories of industrial employment and correspondingly different levels of required educational preparation. The relative amounts of manipulative skills (know-how) and mental skills (know-why) required by the different categories vary considerably from almost 100% know-how for the semi-skilled machine operator to almost 100% know-why for the engineer.

The terms engineering technician and engineering technologist refer to that category of supporting personnel which is most closely associated with and related to the profession of engineering both in employment and in education. The engineering technician, sometimes referred to as an engineering associate or engineering aide, requires a significant amount of manipulative skills (know-how) but is primarily concerned with the application of mental skills (know-why) for which the best preparation is collegiate-level instruction in mathematics, the physical sciences, communications, appropriate technical skills, and appropriate technical specialties. The term engineering technician is applied to the graduates of the associate degree program and the term engineering technologist is applied to the graduates of the baccalaureate programs.

The Technical Division of Gaston College has been in the forefront of those institutions concerned with the development of accredited engineering technology programs of study for engineering technicians at the two-year technical junior college level.

## PLACEMENT OF GRADUATES

Because of the critical shortage of qualified technically-trained personnel, the employment opportunities for the graduate engineering technician are exceptional. Many employer organizations visit Gaston College to interview prospective graduates. Each graduate may receive many employment offers—all of which provide exceptional opportunity for both professional and financial advancement on the forefront of the expanding frontier in engineering technology.

In addition to the employer visitations at the campus, a number of field trips are arranged during the year for the prospective graduates. These field trips serve, as do the general interviews on campus, the dual purpose of providing industrial orientation for the student and opportunities for placement interviews.

Placement information is also available to all former graduates in engineering technology. Brochures, pamphlets, application materials, and other data relating to the employment opportunities and policies of many companies are available. Gaston College makes referrals for positions to all recruiters and personnel directors without regard to race, color, creed, national origin, or sex.

## MANAGEMENT TECHNOLOGY

The purpose of this curriculum is to prepare students for management careers by presenting those concepts and tools that will be useful to the manager now and in the future.

Industries have adopted methods which require a more specialized knowledge of manufacturing requiring persons with the technical skills to combine technology with the art of dealing with people.

The Industrial Management Technology curriculum now only strives to prepare the graduate for immediate employment in industry, but also affords the opportunity for the student who wishes to obtain additional education.

## CIVIL ENGINEERING TECHNOLOGY

The program of study in Civil Engineering Technology is designed to prepare the student for various positions in the construction and transportation fields of engineering. The training received will enable the graduate to perform such duties as estimating, specification writing, surveying, inspection, or supervising with both public and private firms. In addition to having an excellent stock of surveying equipment, the laboratory is equipped with the essential tools to provide the student with a first-hand working knowledge of the properties and testing procedures for various engineering materials. The program also gives training in methods and equipment used in heavy construction and practical applications of construction contracts and specifications.

This two-academic-year curriculum is accredited by the Accreditation Board for Engineering and Technology, Inc., as an Engineering Technology curriculum.

A more complete description of each course required is found on the following pages.

### Suggested Curriculum Leading to The Associate in Applied Science Degree in CIVIL ENGINEERING TECHNOLOGY An ABET-Accredited Engineering Technology Curriculum Total Quarter Credit Hours Required for Graduation—110 (Curriculum Code T-038)

			FIRST YEAR		
FIRST QUARTER			Class	Lab	Credit
CIV	101	Surveying I	3	6	5
DFT	101	Engineering Drawing I	0	6	2
ENG	111	Composition I	3	0	3
MAT	111	Algebra & Trigonometry I	5	0	5
PSY	111	Industrial Psychology	3	0	3
Total			14	12	18
SECOND QUARTER					
DFT	112	Civil Drafting	0	6	2
EGR	221	Computer Programming	3	3	4
ENG	112	Composition II	3	0	3
MAT	112	Algebra & Trigonometry II	5	0	5
PHY	102	Mechanics	3	3	4
Total			14	12	18
THIRD QUARTER					
CIV	103	Surveying II	3	6	5
EGR	103	Engineering Mechanics	3	3	4
MAT	113	Analytic Geometry & Calculus I	5	0	5
ENG	213	Report Writing	3	3	4
Total			14	12	18
			SECOND YEAR		
FOURTH QUARTER					
CIV	201	Surveying III	3	6	5
CIV	211	Properties of Engineering Materials	2	3	3
CIV	231	Contracts & Specifications	3	0	3
PHY	103	Heat, Sound & Light	3	3	4
EGR	201	Strength of Materials	3	3	4
Total			14	15	19
FIFTH QUARTER					
CIV	212	Construction Methods & Equipment	3	3	4
CIV	232	Soils & Foundations	3	3	4
CIV	263	Basic Structural Design	3	3	4
ECO	211	Engineering Economics	3	0	3
PHY	201	Electricity & Magnetism	3	3	4
Total			15	12	19
SIXTH QUARTER					
CIV	223	Construction Estimates & Cost	3	3	4
CIV	233	Design of Roads and Pavements	3	3	4
CIV	253	Basic Hydrology	2	3	3
CIV	242	Properties of Concrete	3	3	4
ENG	113	Public Speaking	3	0	3
Total			14	12	18
GRAND TOTAL			85	75	110

## ELECTRICAL ENGINEERING TECHNOLOGY

The program of study in Electrical Engineering Technology prepares the engineering technician to perform such duties as estimating, specification writing, engineering sales, supervision of installations, and electrical contracting. The student receives instruction that will enable him to assist the electrical engineer in the design of power, lighting, and control systems.

This program also provides the student with a knowledge of the current electrical practice in the commercial, residential, utility, and industrial fields on as wide a basis as may be completed in a two-year course.

This two-academic-year curriculum is accredited by the Accreditation Board for Engineering and Technology, Inc., as an Engineering Technology curriculum.

A more complete description of each course required is found on the following pages.

### Suggested Curriculum Leading to The Associated in Applied Science Degree in ELECTRICAL ENGINEERING TECHNOLOGY An ABET-Accredited Engineering Technology Curriculum Total Quarter Credit Hours Required for Graduation—108 (Curriculum Code T-044)

FIRST YEAR					
FIRST QUARTER					
			Class	Lab	Credit
DFT	101	Engineering Drawing I	0	6	2
ELC	101	Electrical Fundamentals	3	3	4
ENG	111	Composition I	3	0	3
MAT	111	Algebra & Trigonometry I	5	0	5
PSY	111	Industrial Psychology	3	0	3
		Total	14	9	17
SECOND QUARTER					
DFT	122	Electrical Drawing	0	3	1
ELC	102	Direct-Current Circuits	3	3	4
ENG	112	Composition II	3	0	3
MAT	112	Algebra & Trigonometry II	5	0	5
ELC	122	Techniques of Fabrication	0	3	1
PHY	102	Mechanics	3	3	4
		Total	14	12	18
THIRD QUARTER					
ELC	103	Alternating-Current Circuits	3	3	4
ELN	103	Electronics I	2	3	3
ENG	213	Report Writing	3	3	4
MAT	113	Analytic Geometry & Calculus I	5	0	5
PHY	103	Heat, Sound, & Light	3	3	4
		Total	16	12	20
SECOND YEAR					
FOURTH QUARTER					
ELC	221	Electrical Machines	3	3	4
ELC	242	Illumination	2	3	3
ELN	201	Electrical Circuits I	3	0	3
ELN	211	Electronics II	3	3	4
PHY	221	Modern Physics	3	3	4
		Total	14	12	18
FIFTH QUARTER					
ECO	211	Engineering Economics	3	0	3
ENG	221	Computer Programming	3	3	4
ELC	222	Alternating-Current Machinery	3	3	4
ELC	253	Power Systems I	2	3	3
ELN	202	Electrical Circuits II	3	0	3
		Total	14	9	17
SIXTH QUARTER					
ELC	223	Electrical Control Systems	3	3	4
ELC	241	Codes and Specifications	2	3	3
ELC	262	Power Systems II	3	3	4
ENG	113	Public Speaking	3	0	3
MEC	233	Industrial Instrumentation	3	3	4
		Total	14	12	18
		GRAND TOTAL	86	66	108

## ELECTRONICS ENGINEERING TECHNOLOGY

The program of study in Electronics Engineering Technology is designed to provide the student with a thorough background in the basic studies and sciences and to provide him with the essential specialized courses in the electronics area. Emphasis is upon the broad area of electronics endeavor. Modern laboratory equipment provides for a comprehensive treatment of advanced electronics instrumentation. Graduates are employed in manufacturing, production, testing, inspection, promotion, and sale of electronic equipment and systems.

There is a bright future for the Electronics Engineering Technology graduate in the building, installation, and maintenance of the electric devices that are now considered essential to so many phases of our industrial society.

This two-academic-year curriculum is accredited by the Accreditation Board for Engineering and Technology, Inc., as an Engineering Technology curriculum.

A more complete description of each course required is found on the following pages.

### Suggested Curriculum Leading to The Associate In Applied Science Degree in ELECTRONICS ENGINEERING TECHNOLOGY An ABET-Accredited Engineering Technology Curriculum Total Quarter Credit Hours Required for Graduation—109 (Curriculum Code T-045)

			FIRST YEAR		
FIRST QUARTER			Class	Lab	Credit
DFT	101	Engineering Drawing I	0	6	2
ELC	101	Electrical Fundamentals	3	3	4
ENG	111	Composition I	3	0	3
MAT	111	Algebra & Trigonometry I	5	0	5
PSY	111	Industrial Psychology	3	0	3
Total			14	9	17
SECOND QUARTER					
DFT	122	Electrical Drawing	0	3	1
ELC	102	Direct-Current Circuits	3	3	4
ENG	112	Composition II	3	0	3
MAT	112	Algebra & Trigonometry II	5	0	5
ELC	122	Techniques of Fabrication	0	3	1
PHY	102	Mechanics	3	3	4
Total			14	12	18
THIRD QUARTER					
ELC	103	Alternating-Current Circuits	3	3	4
ELN	103	Electronics I	2	3	3
ENG	213	Report Writing	3	3	4
MAT	113	Analytic Geometry & Calculus I	5	0	5
PHY	103	Heat, Sound, & Light	3	3	4
Total			16	12	20
FOURTH QUARTER			SECOND YEAR		
ELC	221	Electrical Machines	3	3	4
ELN	201	Electrical Circuits I	3	0	3
ELN	211	Electronics II	3	3	4
ELN	231	Pulse Fundamentals	2	3	3
PHY	221	Modern Physics	3	3	4
Total			14	12	18
FIFTH QUARTER					
ECO	211	Engineering Economics	3	0	3
EGR	221	Computer Programming	3	3	4
ELN	202	Electrical Circuits II	3	0	3
ELN	212	Electronics III	3	3	4
ELN	232	Pulse Circuits	3	3	4
Total			15	9	18
SIXTH QUARTER					
ENG	113	Public Speaking	3	0	3
ELN	283	Integrated Circuits	3	3	4
ELN	213	Electronics IV	2	3	3
ELN	233	Digital Computer Principles	3	3	4
ELN	253	Communications Circuits	3	3	4
Total			14	12	18
GRAND TOTAL			87	66	109

## INDUSTRIAL ENGINEERING TECHNOLOGY

The program of study in Industrial Engineering Technology has as its objective the preparation of engineering technicians to assist the engineer in the performance of Industrial Engineering functions. The balanced program provides a thorough background in drawing, English, mathematics, physics, and mechanical engineering technology, with specialization in subject matter areas such as materials handling, plant layout, industrial organization and management, systems design, production planning and control, motion and time study, and quality control.

The graduate is prepared to readily assume supervisory responsibilities in these areas of activity with all types of industrial concerns, both large and small.

This two-academic-year curriculum is accredited by the Accreditation Board for Engineering and Technology, Inc., as an Engineering Technology curriculum.

A more complete description of each course required is found on the following pages.

### Suggested Curriculum Leading to The Associate In Applied Science Degree in INDUSTRIAL ENGINEERING TECHNOLOGY An ABET-Accredited Engineering Technology Curriculum Total Quarter Credit Hours Required for Graduation—108 (Curriculum Code T-047)

			FIRST YEAR		
FIRST QUARTER			Class	Lab	Credit
DFT	101	Engineering Drawing I	0	6	2
ENG	111	Composition I	3	0	3
MAT	111	Algebra & Trigonometry I	5	0	5
MEC	101	Production Technology I	3	3	4
PSY	111	Industrial Psychology	3	0	3
Total			14	9	17
SECOND QUARTER					
DFT	102	Engineering Drawing II	0	6	2
ENG	112	Composition II	3	0	3
MAT	112	Algebra & Trigonometry II	5	0	5
PHY	102	Mechanics	3	3	4
MEC	102	Production Technology II	3	3	4
Total			14	12	18
THIRD QUARTER					
ENG	213	Report Writing	3	3	4
MAT	113	Analytic Geometry & Calculus I	5	0	5
ISC	103	Plant Layout & Materials Handling	0	6	2
MEC	103	Physical Metallurgy	3	3	4
PHY	103	Heat, Sound, & Light	3	3	4
Total			14	15	19
FOURTH QUARTER			SECOND YEAR		
MEC	252	Fundamentals of Mechanical Design	3	0	3
EGR	221	Computer Programming	3	3	4
ISC	201	Production Planning	3	0	3
ISC	211	Industrial Safety	0	3	1
MEC	201	Jig & Fixture Design	2	3	3
PHY	201	Electricity & Magnetism	3	3	4
Total			14	12	18
FIFTH QUARTER					
ELC	282	Electric Circuits and Machines	3	3	4
ISC	202	Industrial Systems	3	3	4
ISC	212	Profit Improvement	3	3	4
ISC	222	Methods Analysis	2	3	3
ECO	211	Engineering Economics	3	0	3
Total			14	12	18
SIXTH QUARTER					
ENG	113	Public Speaking	3	0	3
ISC	213	Statistics & Quality Control	3	3	4
ISC	223	Work Measurement	2	6	4
ISC	233	Industrial Organization & Management	3	0	3
MEC	233	Industrial Instrumentation	3	3	4
Total			14	12	18
GRAND TOTAL			84	72	108

## MECHANICAL AND PRODUCTION ENGINEERING TECHNOLOGY

The program of study in Mechanical and Production Engineering Technology has as its objective the training of personnel to assist the manager or the small industry in the planning of production processes and equipment, tooling, supervision of personnel, production of material goods, product and tool design, sales, and drafting. A study of the second-year courses will show a wide range of endeavor to familiarize the student with every phase of these processes.

The versatility of the mechanical and production technician results in a demand for him in all types of industry.

This two-academic-year curriculum is accredited by the Accreditation Board for Engineering and Technology, Inc., as an Engineering Technology curriculum.

A more complete description of each course required is found on the following pages.

### Suggested Curriculum Leading to The Associate In Applied Science Degree in MECHANICAL AND PRODUCTION ENGINEERING TECHNOLOGY An ABET-Accredited Engineering Technology Curriculum Total Quarter Credit Hours Required for Graduation—108 (Curriculum Code T-050)

			FIRST YEAR		
FIRST QUARTER			Class	Lab	Credit
DFT	101	Engineering Drawing I	0	6	2
ENG	111	Composition I	3	0	3
MAT	111	Algebra & Trigonometry I	5	0	5
MEC	101	Production Technology I	3	3	4
PSY	111	Industrial Psychology	3	0	3
		Total	14	9	17
SECOND QUARTER					
DFT	102	Engineering Drawing II	0	6	2
ENG	112	Composition II	3	0	3
MAT	112	Algebra & Trigonometry II	5	0	5
PHY	102	Mechanics	3	3	4
MEC	102	Production Technology II	3	3	4
		Total	14	12	18
THIRD QUARTER					
ISC	103	Plant Layout & Materials Handling	0	6	2
ENG	213	Report Writing	3	3	4
MAT	113	Analytic Geometry & Calculus I	5	0	5
MEC	103	Physical Metallurgy	3	3	4
PHY	103	Heat, Sound, & Light	3	3	4
		Total	14	15	19
			SECOND YEAR		
FOURTH QUARTER					
MEC	232	Thermodynamics	3	0	3
EGR	221	Computer Programming	3	3	4
EGR	103	Engineering Mechanics	3	3	4
MEC	201	Jig & Fixture Design	2	3	3
PHY	201	Electricity & Magnetism	3	3	4
		Total	14	12	18
FIFTH QUARTER					
EGR	201	Strength of Materials	3	3	4
ELC	282	Electric Circuits & Machines	3	3	4
ISC	222	Methods Analysis	2	3	3
MEC	222	Machine Design I	3	3	4
ECO	211	Engineering Economics	3	0	3
		Total	14	12	18
SIXTH QUARTER					
ENG	113	Public Speaking	3	0	3
ISC	213	Statistics & Quality Control	3	3	4
MEC	203	Tool & Die Design	2	3	3
MEC	223	Machine Design II	3	3	4
MEC	233	Industrial Instrumentation	3	3	4
		Total	14	12	18
		GRAND TOTAL	84	72	108

## INDUSTRIAL MANAGEMENT TECHNOLOGY

Industry's needs in positions of supervision and mid-management have grown extensively with the development of new methods of manufacturing and with the increase in the national economy. This need has added emphasis to the necessity for well-trained individuals that can understand new methods and keep abreast of trends in the economy. The supervisor and persons in mid-management must be concerned daily with human behavior and the psychological factors which affect personnel working under their direction. They must also be conscious of the responsibilities of their position toward the total economic well being of the industry.

The program is prepared to develop the individuals' abilities in the art of communicating with his fellow worker by providing him with the training in business and industrial management, psychology, production methods, and the general and social education that broadens one's perspective. This training should provide one with the opportunity to enter into an industrial occupation and, with experience, assume the responsibilities that go with supervisory and mid-management positions in industry.

A more complete description of each course required is found on the following pages.

### Suggested Curriculum Leading to The Associate In Applied Science Degree in INDUSTRIAL MANAGEMENT TECHNOLOGY Total Quarter Credit Hours Required for Graduation—108 (Curriculum Code T-049)

#### FIRST YEAR

FIRST QUARTER			Class	Lab	Credit
BUS	104	Introduction to Business	5	0	5
BUS	111	Business Mathematics	5	0	5
ENG	111	Composition I	3	0	3
GEO	204	Economic Geography	3	0	3
PSY	111	Industrial Psychology	3	0	3
		Total	19	0	19

#### SECOND QUARTER

ACT	201	Principles of Accounting, Introductory	5	0	5
BUS	209	Business Law	5	0	5
ENG	112	Composition II	3	0	3
ISC	102	Principles of Industrial Management	5	0	5
		Total	18	0	18

#### THIRD QUARTER

ACT	200	Payroll Accounting	3	0	3
BUS	219	Marketing	5	0	5
ENG	213	Report Writing	3	3	4
ISC	103	Plant Layout & Materials Handling	0	6	2
ISC	113	Industrial Safety	3	0	3
		Total	14	9	17

#### SECOND YEAR

#### FOURTH QUARTER

ECO	201	Principles of Economics	5	0	5
ISC	201	Production Planning	3	0	3
PHY	101	Physics: Properties of Matter	3	3	4
ANT	204	General Cultural Anthropology	5	0	5
		Total	16	3	17

#### FIFTH QUARTER

ECO	202	Principles of Economics	5	0	5
ISC	212	Profit Improvement	3	3	4
ISC	222	Methods Analysis	2	3	3
PED	230	First Aid	2	0	2
SOC	102	Introductory Sociology	5	0	5
		Total	17	6	19

#### SIXTH QUARTER

ENG	113	Public Speaking	3	0	3
ISC	233	Industrial Organization & Management	3	0	3
ISC	203	Essentials of Work Measurement	2	3	3
ISC	243	Quality Control	3	3	4
ISC	253	Management Problems	5	0	5
		Total	16	6	18
		GRAND TOTAL	100	24	108

# Description of Courses in Engineering and Allied Technology Programs

## CIVIL ENGINEERING TECHNOLOGY

- CIV 101 Surveying I (3-6-5)**  
Corequisite: MAT 111  
Principles and practices of obtaining horizontal, vertical, and angular measurements; care and use of instruments; azimuths and bearings; introduction to construction surveys and earthwork.
- CIV 103 Surveying II (3-6-5)**  
Prerequisite: CIV 101  
Topographic surveying, division of land, celestial observations, introduction to curves, and field adjustments of transits and levels.
- CIV 201 Surveying III (3-6-5)**  
Prerequisites: CIV 103, MAT 113  
Reconnaissance, preliminary and location surveys; theory and application of simple, compound, and reverse circular curves; spirals, parabolic vertical curves; earthwork calculations.
- CIV 211 Properties of Engineering Materials (2-3-3)**  
Prerequisite: EGR 103  
Corequisite: EGR 201  
A study of the more important mechanical and physical properties, the essential information concerning the sources and manufacture of the principal construction materials.
- CIV 212 Construction Methods and Equipment (3-3-4)**  
Prerequisite: None  
Planning and management of construction projects; hauling and excavating equipment; proper selection of equipment for job conditions; belt conveyors, quarrying, tunneling, piles; other heavy construction practices; time and cost studies.
- CIV 223 Construction Estimates and Costs (3-3-4)**  
Prerequisite: CIV 212  
Methods of constructing wood, steel, and concrete buildings; analysis of plans and specifications for construction requirements; preparation of cost estimates.
- CIV 231 Contracts and Specifications (3-0-3)**  
Prerequisite: None  
Basic engineering law; owner, engineer, contractor relations and responsibilities; contract performance requirements, competitive bidding procedures; preparation and interpretation of specifications.
- CIV 232 Soils and Foundations (3-3-4)**  
Prerequisite: MAT 112  
A study of the origin, composition, and the basic engineering properties of soil, the significance of laboratory and field testing of soil materials; three soil classification systems in common use, and procedure for soil compaction and soil stabilization; basic theory of soil strength tests, plate bearing tests and earth embankment slope studies.
- CIV 233 Design of Roads and Pavements (3-3-4)**  
Prerequisite: CIV 201  
Organization and financing of highway departments; planning considerations; design considerations and standards; drainage; subgrades, flexible and rigid pavements. Lab develops field notes from CIV 201 into complete set of highway plans including earthwork calculations and mass diagram.

**CIV 242 Properties of Concrete (3-3-4)**  
Prerequisite: MAT 112  
An intensive study of the composition and properties of concrete; proportioning of concrete mixes; control and testing of varied concretes; field inspection of concrete manufacturing, placing, and curing.

**CIV 253 Basic Hydrology (2-3-3)**  
Prerequisite: CIV 201  
An introduction to the basic principles of hydrology including specific areas of hydraulics, water and waste-water treatment, hydrologic cycle climate, rainfall, rainfall runoff analysis, and statistical evaluation of pertinent data.

**CIV 263 Basic Structural Design (3-3-4)**  
Prerequisites: DFT 112, EGR 201  
A study of the basic principles of design of steel, timber, and reinforced concrete structures by application of principles of mechanics and various codes. Labs shall consist of structural design problems and basic structural drafting technique.

## DRAWING

**DFT 101 Engineering Drawing I (0-6-2)**  
Prerequisite: None  
The beginner is taught the use and care of instruments, freehand sketching, geometric construction, lettering techniques, orthographic and auxiliary projection, basic theory of dimensions and sections.

**DFT 102 Engineering Drawing II (0-6-2)**  
Prerequisite: DFT 101  
Continuation of DFT 101. Devoted to completion of sets of working drawings.

**DFT 112 Civil Drafting (0-6-2)**  
Prerequisites: CIV 101, DFT 101  
The principles of drawing applicable to Civil Engineering Technology. Topics covered include: boundary maps, roadway maps (plan, profile, cross sections, and mass haul), contour work, structural detailing, and graphing. Drawings are done in ink and pencil on paper. Clarity and reproducibility are stressed at all times.

**DFT 122 Electrical Drawing (0-3-1)**  
Prerequisite: DFT 101  
The use of standard templates and ANSI symbols, in the preparation of wiring diagrams, block diagrams, and schematics for electronic devices and electrical systems. Inking techniques and lettering templates are emphasized.

## ELECTRICAL ENGINEERING TECHNOLOGY ELECTRONICS ENGINEERING TECHNOLOGY

**ELC 101 Electrical Fundamentals (3-3-4)**  
Corequisite: MAT 111  
An introductory survey of the fundamentals basic to the study of Electrical and Electronics Engineering Technology. Principles of basic direct-current circuits are stressed. Electronic instrument circuits are included in the course.

**ELC 102 Direct-Current Circuits (3-3-4)**  
Prerequisites: ELC 101, MAT 111  
An introduction to the theory of circuit analysis. Equilibrium equations for direct-current circuits with resistance and methods for their solution. Special emphasis on inductance, capacitance, and electrical measuring instruments.

**ELC 103 Alternating-Current Circuits (3-3-4)**

Prerequisites: ELC 102, MAT 112

Elementary A-C circuits; effective and average values of current and emf, instantaneous and average power. Complex algebra, analysis of R-L, R-C, R-L-C series and parallel circuits; complex power; A-C instruments.

**ELN 103 Electronics I (2-3-3)**

Prerequisites: ELC 102, MAT 112

A brief discussion of semiconductor physics, intrinsic and extrinsic semiconductors, photocells, thermistors, junction diodes, diode applications. Introduction to transistors, characteristic curves, biasing, and the common base amplifier.

**ELC 122 Techniques of Fabrication (0-3-1)**

Prerequisite: None

A study of techniques of soldering, printed circuit layout and drawing, study of manufacturers' and suppliers' catalogs and specification sheets, project.

**ELN 201 Electrical Circuits I (3-0-3)**

Prerequisites: ELC 103, MAT 113

Introduction to circuit analysis techniques, Thevenin's and Norton theorems, loop analysis, nodal analysis, series-parallel conversion techniques, maximum power transfer, delta-wye transformations.

**ELN 202 Electrical Circuits II (3-0-3)**

Prerequisite: ELN 201

Series and parallel resonance, Q and bandwidth, mutual induction and transformers, three phase systems.

**ELN 211 Electronics II (3-3-4)**

Prerequisites: ELC 103, ELN 103

The common emitter circuit, graphical analysis, D-C and A-C load lines, stability biasing, the hybrid equivalent circuit, introduction to the FET.

**ELN 212 Electronics III (3-3-4)**

Prerequisite: ELN 211

Biasing and small signal analysis of FET's, cascade amplifiers, the decibel, frequency response considerations, large signal amplifiers.

**ELN 213 Electronics IV (2-3-3)**

Prerequisite: ELN 212

Feedback in amplifiers, positive feedback, sinusoidal oscillators, tuned circuit amplifiers, power supply regulators.

**ELC 221 Electrical Machines (3-3-4)**

Prerequisite: ELC 103

A study of the construction, principles, regulation, characteristics, efficiency and application of direct-current motors and generators, and an introduction to the transformers, alternators, and induction motors.

**ELC 222 Alternating-Current Machinery (3-3-4)**

Prerequisite: ELC 221

Construction, principles, characteristics, operation, efficiency, selection and application of transformers, single-phase and poly-phase induction motors, alternators and synchronous motors.

**ELC 223 Electrical Control Systems (3-3-4)**

Prerequisite: ELC 222

A study of types of controls, control components, pilot devices, control circuit diagrams, development and analysis of control circuits, maintaining control equipment, troubleshooting control circuits, basic concepts of static control, Boolean algebra, logic design of control circuits with static switching components, analysis of typical

control circuits used in industry, and an introduction to rotating and magnetic amplifiers in control circuits.

**ELN 231 Pulse Fundamentals (2-3-3)**

Prerequisites: ELC 103, MAT 113

A study of basic pulse definitions, compensated voltage dividers, Fourier analysis of nonsinusoidal waveforms, transient response of R-L and R-C circuits, differentiating and integrating circuits, the diode as a switching device, clipping and clamping circuits.

**ELN 232 Pulse Circuits (3-3-4)**

Prerequisite: ELN 231

A continuation of ELN 231, with special emphasis on the concept of the transistor as a switching device. Circuits for generating non-sinusoidal waveforms are studied.

**ELN 233 Digital Computer Principles (3-3-4)**

Prerequisite: ELN 232

Study of the basic flip-flops, counters, gating, circuits, and amplifiers used in the modern digital computer. The binary number system, binary arithmetic, and Boolean algebra are emphasized. Introduction to microprocessors.

**ELC 241 Codes and Specifications (2-3-3)**

Prerequisite: ELC 103

A study of the provisions established by the National Electrical Code for the safeguarding of persons, buildings and their contents, from the hazards arising from the use of electricity for light, heat, power, radio signalling, and for other purposes. A review of standard specifications for installing electrical equipment.

**ELC 242 Illumination (2-3-3)**

Prerequisite: ELC 103

A study of the eye and vision, light characteristics and measurements, light sources, illumination levels, interior and exterior lighting design including roadway lighting and flood-lighting layouts.

**ELC 253 Power Systems I (2-3-3)**

Corequisite: ELN 201

This is an introductory course in power systems involving basic concepts, series impedance of transmission lines, capacitance of transmission lines, current and voltage relations on a transmission line and the representation of power systems.

**ELN 253 Communications Circuits (3-3-4)**

Prerequisite: ELN 212

Review of resonance, coupled circuits, tuned transformer coupling, radio frequency voltage and power amplifiers, linear power amplifiers, A-M transmitters and receivers, single sideband, F-M transmitters and receivers.

**ELC 262 Power Systems II (3-3-4)**

Prerequisites: ELC 253, ELN 202, MAT 113

This is a follow-up course in power systems involving load flow, economic operation and fault, and stability studies in power systems.

**ELC 282 Electric Circuits and Machines (3-3-4)**

Prerequisite: PHY 201

This course is a survey of electrical circuits and machines for Mechanical and Production and Industrial Engineering Technology students. It is the study of direct-current circuits, magnetism, electromagnetic induction, direct-current generators, and direct-current motors.

**ELN 283 Integrated Circuits (3-3-4)**

Prerequisites: ELN 212, ELN 232

A study of the electrical aspects of digital IC's, linear IC's, differential and operational amplifiers, fabrication of monolithic IC's.

## ENGINEERING TECHNOLOGY

### **EGR 103 Engineering Mechanics (3-3-4)**

Prerequisites: MAT 111, PHY 102

Forces, resultants, and equilibrium by analytical and graphical methods; moments and couples; forces in simple structures and trusses; static and kinetic friction, kinetics; force, mass, acceleration, and momentum.

### **EGR 201 Strength of Materials (3-3-4)**

Prerequisites: EGR 103, MAT 112

Basic engineering strength of materials is studied to gain the knowledge required for the successful design of machine parts and of structural members, parts, and connections. The general presentation of the course follows this outline: stress and deformation, engineering materials and their properties, riveted and welded joints, thin-walled pressure vessels, torsion, shear and moment in beams, stresses in beams, and design of beams.

### **EGR 221 Computer Programming (3-3-4)**

Corequisite: MAT 112

An introduction to the principles of computer programming and the basic logic of computers. The course is designed to teach programming language to students not having computer experience and emphasizes engineering applications.

## ENGLISH

### **ENG 111 Composition I (3-0-3)**

Prerequisite: None

A study of the essentials of standard usage and basic principles of English grammar with emphasis on proficiency in writing clearly, effectively, and appropriately. Seven themes are written in class and students do general expository writing as outside assignments.

### **ENG 112 Composition II (3-0-3)**

Prerequisite: ENG 111

A course presenting a fuller continuation of correct English usage. Comprehensive study of major principles of effective business correspondence and communication, and the application of these principles to specific types of everyday, practical writing through term paper and letter-writing projects.

### **ENG 113 Public Speaking (3-0-3)**

Prerequisite: None

A practical course designed to train technicians in the mechanics of oral composition. Students participate in formal, extemporaneous, and impromptu speaking as well as in conversation and interviewing. Special emphasis is placed on preparation, poise, and presentation of material. Interplay between class members and role playing are also stressed.

### **ENG 213 Report Writing (3-3-4)**

Prerequisite: ENG 112

A seminar type course designed to acquaint the student with all phases of technical writing. The course offers information on types, styles, and mechanics of reports in general, and practice in preparing data for both formal and informal reporting.

## INDUSTRIAL ENGINEERING TECHNOLOGY

### **ISC 103 Plant Layout and Materials Handling (0-6-2)**

Prerequisite: DFT 101

Principles of plant layout to obtain the most effective utilization of materials and machines, as related to space and cost. Selection and use of modern equipment and methods for handling materials in industrial processes.

### **ISC 201 Production Planning (3-0-3)**

Prerequisite: None

Production planning and control of intermittent manufacturing, continuous manufacturing, sales forecasting, and basic wage incentive plans.

### **ISC 202 Industrial Systems (3-3-4)**

Prerequisite: ISC 201

An introduction to the principles, evaluation, requirements, design, analysis improvement, and installation of industrial systems.

### **ISC 211 Industrial Safety (0-3-1)**

Prerequisite: None

A comprehensive study of human factors that are the basis for safety precautions and practices, including a review of occupational health and safety laws.

### **ISC 212 Profit Improvement (3-3-4)**

Prerequisite: MAT 111

Brief introduction to the advanced tools of scientific management for controlling profit, with emphasis on their application to industry.

### **ISC 213 Statistics and Quality Control (3-3-4)**

Prerequisite: MAT 112

Statistical techniques useful to technicians; includes elementary probability, frequency distribution, estimation of means, standard deviations, sampling variations, and control charts.

### **ISC 222 Methods Analysis (2-3-3)**

Prerequisite: None

Introduction to the principles of motion economy through the various process charts. Also the techniques of micromotion study, job analysis, and job evaluation.

### **ISC 223 Work Measurement (2-6-4)**

Prerequisite: ISC 222

Basic time study concepts and familiarization with the tools of time study. The application of performance ratings and allowances to basic times so as to formulate a standard time for a given task. Also, the use of standard data and synthetic basic motions and times.

### **ISC 233 Industrial Organization and Management (3-0-3)**

Prerequisite: None

The interrelations of all systems of modern management. Organizational structure, plant location, safety, industrial and labor relations, and product and material standardization.

## INDUSTRIAL MANAGEMENT TECHNOLOGY

### **ISC 102 Principles of Industrial Management (5-0-5)**

Prerequisite: None

The basic managerial decisions; organizational structure including plant location, building requirements, and internal factory organization; problems of factory operation and control, planning, scheduling, routing factory production, stores control, lab control, purchasing, cost control.

### **ISC 113 Industrial Safety (3-0-3)**

Prerequisite: None

A comprehensive review of industrial hazards, prevention of accidents, and a study of the laws covering occupational health and safety.

### **ISC 203 Essentials of Work Measurement (2-3-3)**

Prerequisite: None

A study of the principles of job requirements, improvement of manufacturing efficiency, and the application of these principles to the current industrial economy.

**ISC 243 Quality Control (3-3-4)**

Prerequisite: BUS 111

Principles and techniques of quality control and cost saving. Functions, responsibilities, structure, costs, reports, records, personnel and vendor-customer relationships in quality control. Sampling inspections, process control, and tests for significance.

**ISC 253 Management Problems (5-0-5)**

Prerequisite: ISC 102

A study of the methods used to solve the problems that modern management faces on a day-to-day basis.

**ACT 200 Payroll Accounting (3-0-3)**

Prerequisite: ACT 201

A detailed study of federal and state regulations, computations, deductions, and accounting for payrolls.

**ACT 201 Principles of Accounting, Introductory (5-0-5)**

Prerequisite: None

An introductory course in standard accounting practice. Recognized procedures and conventions are explained and used for recording, analyzing, and interpreting the records of business.

**ANT 204 General Cultural Anthropology (5-0-5)**

Prerequisite: None

The science of man and the development of his culture; culture of ancient and contemporary preliterate societies: dynamics of cultural change and acculturation.

**BUS 104 Introduction to Business (5-0-5)**

Prerequisite: None

A general course covering modern business activities as a whole, including a study of basic industries, forms of organization, marketing, finance, credit, problems of management, business risks, and the relation of government to business.

**BUS 111 Business Mathematics (5-0-5)**

Prerequisite: None

Basic math involving arithmetic processes, fractions, and aliquot parts will be taught traditionally. Electronic calculators will then be used to solve problems involving checking accounts, payroll, percentage, interest, notes, consumer loans, analyzing accounting statements, markup and depreciation.

**BUS 209 Business Law (5-0-5)**

Prerequisite: None

A study of contracts, sales, bailments, negotiable instruments, the laws of employment, partnerships and corporations, and risk-bearing devices. Several digests and decided cases are studied with each topic to make the discussion of principles specific and meaningful.

**BUS 219 Marketing (5-0-5)**

Prerequisite: None

A general survey of the field of marketing, with a detailed study of the functions, policies, and institutions involved in the marketing process.

**ECO 201 Principles of Economics (5-0-5)**

Prerequisite: None

A study of economic principles, problems, and issues. Economic theory of capitalism; and the facts of American Capitalism are studied. Emphasis is on the price system; importance of households, businesses, and government; national income and employment; and money and monetary policy in American Capitalism.

**ECO 202 Principles of Economics (5-0-5)**

Prerequisite: ECO 201

A continuation of ECO 201. Emphasis is on the economics of the firm and resource allocation; current economic problems; and international economics.

**GEO 204 Economic Geography (3-0-3)**

Prerequisite: None

A study of the economic, social, political aspects of the distribution of natural resources and their utilization. The influence of industry, agriculture, and natural resources on the population density is developed.

**PED 230 First Aid (2-0-2)**

Prerequisite: None

This course deals with emergency treatment of various types of injuries, control of bleeding, artificial respiration, splinting and bandaging, and legal responsibilities. It includes Cardio Pulmonary Resuscitation (CPR).

**SOC 102 Introductory Sociology (5-0-5)**

Prerequisite: None

A consideration of the origins and development of culture, the nature of personality and its relation to society, forms of collective behavior, and community and social organization.

**MATHEMATICS****MAT 091 Basic Algebra (5-0-5)**

Prerequisite: None

Review of high school algebra for students having a deficiency in algebra or in need of a refresher course before entering MAT 111. Included in this course will be fundamental concepts and operations in algebra, functions and graphs, factoring and fractions, quadratic equations, exponents and radicals.

**MAT 111 Algebra and Trigonometry I (5-0-5)**

Prerequisite: None

Review of fundamental algebraic operations; analysis of linear and quadratic functions including the conic sections; basic trigonometric functions; systems of linear equations; quadratic equations; graphs of trigonometric functions; the complex number system and vector algebra. Electronic calculator instruction is integrated to coincide with the appropriate lecture materials and physical applications.

**MAT 112 Algebra and Trigonometry II (5-0-5)**

Prerequisite: MAT 111

Exponential and logarithmic functions; systems of equations; determinants and matrices; inequalities, introduction to linear programming, arithmetic and geometric progressions, inverse trigonometric function, trigonometric identities and equations. Introduction to statistics and empirical curve fitting. Application and further electronic calculator techniques.

**MAT 113 Analytic Geometry and Calculus I (5-0-5)**

Prerequisite: MAT 112

Introduction to analytic geometry, a study of the linear equation and the conic sections in rectangular and polar coordinates. Differentiation of algebraic, logarithmic and exponential functions. Applications of derivatives to physical problems such as velocity, acceleration, maxima and minima. Integration techniques and use of the table of integrals. Evaluation of the definite integral, plane areas and volumes of revolution, applications to centroids, moments of inertia, work and probability. Expansion of function in series and an introduction to differential equations.

**MAT 114 Analytic Geometry and Calculus II (5-0-5)**

Prerequisite: MAT 113

Introduction to solid analytic geometry; functions of two variables; curves and surfaces in three dimensions. Partial derivatives and double integrals; centroids and moments of inertia by double integration. Differentiation and integration in polar coordinates with applications. Empirical curve fitting for linear and non-linear data. Functions in series. Differential equations of the first and second order with applications to engineering problems. Numerical solutions to differential equations with an introduction to Laplace transform.

**MECHANICAL AND PRODUCTION ENGINEERING TECHNOLOGY****MEC 101 Production Technology I (3-3-4)**

Prerequisite: None

A survey of manufacturing processes, machine tools, and inspection devices with regard to their capabilities, capacities, tolerances, finishes, etc. Laboratory involves operation and use of machine tool and measuring devices.

**MEC 102 Production Technology II (3-3-4)**

Prerequisite: MEC 101

Process planning of operation sequence for efficient production, tool planning, estimating; laboratory operation of machine tools in production projects.

**MEC 103 Physical Metallurgy (3-3-4)**

Prerequisite: PHY 102

A study of the physical properties of metal and other materials. The laboratory includes a study of the grain structure and microconstituents of metals, phase diagrams, and heat-treating processes.

**MEC 201 Jig and Fixture Design (2-3-3)**

Prerequisites: DFT 102, MAT 112, MEC 102

A study of basic locating and clamping principles and devices. Laboratory: Design of jigs and fixtures.

**MEC 203 Tool and Die Design (2-3-3)**

Prerequisite: MEC 201

A practical course in which parts, tools, and dies are designed in actual layout on the drawing board. Emphasis is placed on the fundamental purpose of tool and die design to reduce the cost of the finished commodity, to simplify design, to save materials, and to eliminate unnecessary manufacturing steps.

**MEC 222 Machine Design I (3-3-4)**

Prerequisites: DFT 102, EGR 103, MAT 112

A study of the basic theories and techniques in the analysis of relative motion, acceleration, and velocities of machine parts such as linkages, cams, gears, and other mechanisms.

**MEC 223 Machine Design II (3-3-4)**

Prerequisite: MEC 222

A study of the design of basic machine elements such as shafts, keys, belts, gears, bearings, couplings, and clutches.

**MEC 232 Thermodynamics (3-0-3)**

Prerequisites: MAT 112, PHY 103

A study of the fundamental laws of thermodynamics and the properties of materials and systems. Principles and techniques are developed for thermodynamic processes involving work, energy, and heat.

**MEC 233 Industrial Instrumentation (3-3-4)**

Prerequisite: ELC 282

A study of basic principles and instruments for the measurement and control of industrial processes. Laboratory in use and application of

electronic, pneumatic, and hydraulic measurement devices to measure temperature, pressure, flow, humidity, etc.

**MEC 252 Fundamentals of Mechanical Design (3-0-3)**

Prerequisite: PHY 102

To acquaint the student with the principles of the applied sciences in order that proper components of mechanical design, such as power trains, gearing, bearings, shafts, etc., may be used.

**PHYSICS****PHY 101 Physics: Properties of Matter (3-3-4)**

Prerequisite: None

A fundamental course covering several basic principles of physics. The divisions included are solids and their characteristics, liquids at rest and in motion, gas laws and applications. Laboratory experiments and specialized problems dealing with heat, electricity, and magnetism, which are topics included in this course.

**PHY 102 Mechanics (3-3-4)**

Prerequisite: MAT 111

An analytical approach to the principles of mechanics. Subject matter includes measurement, vector and scalar quantities, force and motion, work and energy, statics, elasticity, and fluids. Emphasis is placed on problem solving and engineering applications. Lectures, problem drill, and laboratory work are coordinated to enable a better understanding of physical principles.

**PHY 103 Heat, Sound, and Light (3-3-4)**

Prerequisites: MAT 111, PHY 102

An introduction to the principles of heat, sound, and light. Subject matter to include thermal behavior of matter, heat transfer, wave motion, sound production, sound reception and control, illumination, refraction, dispersion, lenses, interference and diffraction. Laboratory work and problems solving to parallel work in the classroom.

**PHY 201 Electricity and Magnetism (3-3-4)**

Prerequisites: MAT 112, PHY 103

A study of electricity and magnetism. Subject matter includes electrostatics, magnetism, basic electric circuits, electromagnetism, magnetic circuits, alternating-current, and thermoelectricity. Emphasis is placed on problem solving and engineering applications. Laboratory work to parallel work in the classroom.

**PHY 221 Modern Physics (3-3-4)**

Prerequisite: PHY 103

This course deals with the atom, wave mechanics and atomic structure. Subject matter includes the theory of relativity, Lorentz transformations, the evolution of modern physics, radioactivity, particle properties of radiation, wave mechanics and atomic structure, vacuum-tube and solid-state electronics and nuclear energy. Laboratory work to parallel work in the classroom.

**SOCIAL SCIENCE****ECO 211 Engineering Economics (3-0-3)**

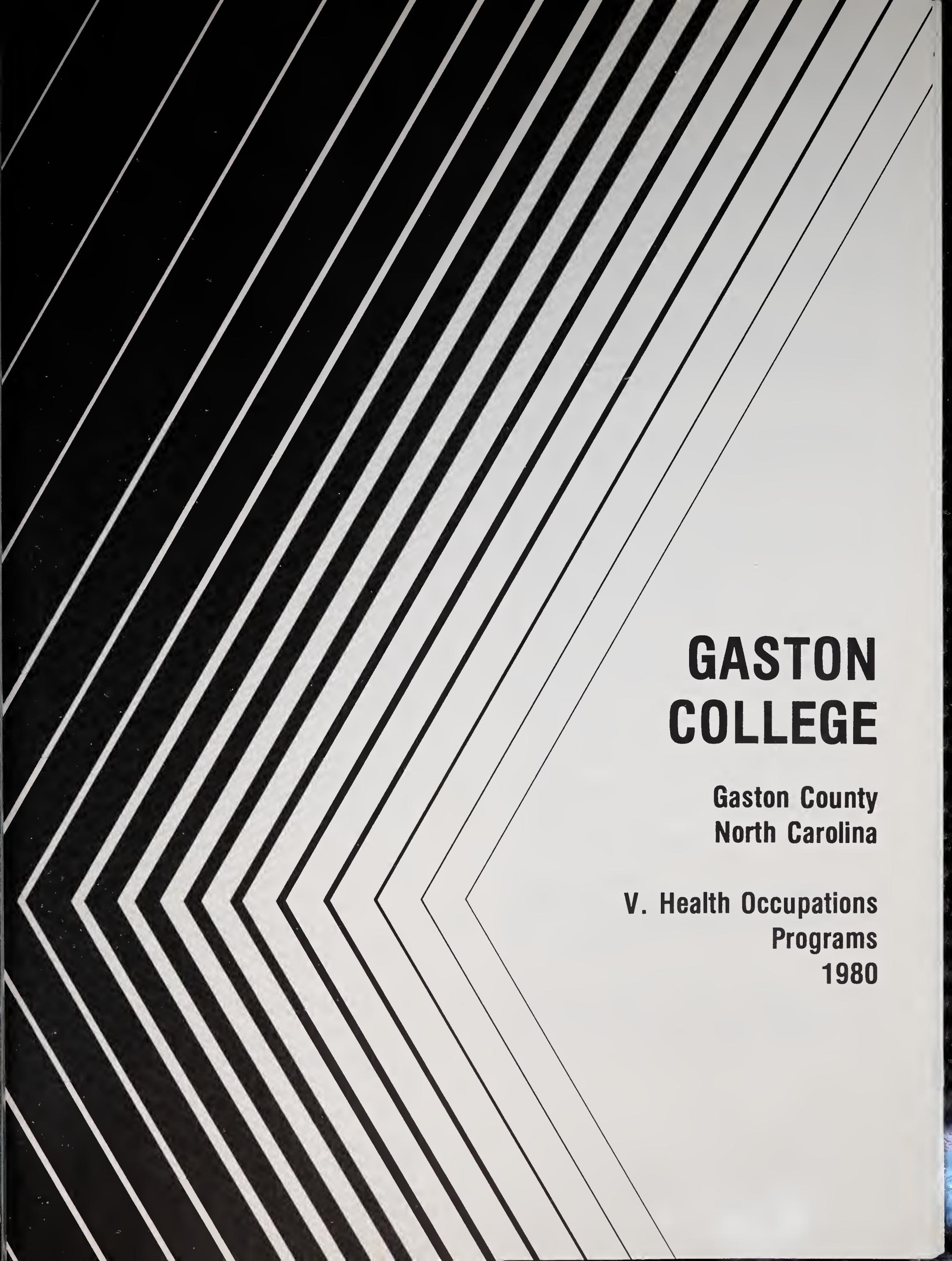
Prerequisite: MAT 112

A general survey of engineering economics, engineering economy studies, factors determining present economy, interest and annuity relationships, depreciation and valuation, financing engineering enterprises, and basic economy study patterns.

**PSY 111 Industrial Psychology (3-0-3)**

Prerequisite: None

A study of psychological terms, language and concepts with emphasis toward industrial and management applications. Psychological approaches to industrial situations are studied to determine solutions that increase the effectiveness of people.



# **GASTON COLLEGE**

**Gaston County  
North Carolina**

**V. Health Occupations  
Programs  
1980**



# HEALTH OCCUPATION PROGRAMS

Through its Health Occupations Program, Gaston College offers the Associate in Applied Science Degree Nursing and the Practical Nurse Education Diploma Program.

## ASSOCIATE IN APPLIED SCIENCE DEGREE NURSING PROGRAM

The development of nursing programs within the community college system has made a major contribution towards providing for the education of nursing practitioners within the community it serves. Many students who, for a variety of reasons, would have been unable to pursue the study of nursing now have that opportunity.

The Health Occupations Division at Gaston College has offered nursing technology since 1972. The nursing graduates have found interesting and exciting careers as Associate in Applied Science Degree Nurses.

## PURPOSE

The Associate Degree (ADN) Program leading to a degree of Associate in Applied Science is two academic years in length and incorporates courses in the humanities, behavioral sciences, biological and physical sciences, as well as, a concentration in nursing theory and practice. Upon successful completion of the program and with the recommendation of the nursing faculty, the graduate is eligible to write the licensing examination for Registered Nurse (R.N.).

The Associate in Applied Science Degree Program in Nursing prepares the graduate to:

1. Write the licensing examination to become a Registered Nurse (R.N.).
2. Practice nursing at the technical level.
3. Be employed as a member of the health team.
4. Exercise responsible citizenship through nursing.

## ACCREDITATION

Gaston College is accredited by the Southern Association of Colleges and Schools and the State Board of Education. The Associate in Applied Science Degree Nursing Curriculum is accredited by the North Carolina Board of Nursing, which is recognized as the appropriate agency for the accreditation of nursing.

## ADMISSION REQUIREMENTS

Students applying for admission to the Gaston College Associate in Applied Science Degree Nursing Program must do the following to meet the requirements for general admission to Gaston College.

1. Complete Admission Application.
2. Have ACT Test Scores on file.
3. Have interview with counselor.
4. Submit Transcript of high school grades with graduation date or G.E.D. Scores.
5. Submit College Transcript (if applicable).

Upon completion of requirements for general admission the applicant must meet the requirements for admission to the Associate Degree Nursing Program.

1. Submit Physician's Report.
2. Submit Transcript certifying completion of high school or G.E.D. Program.
3. Take the Nursing Entrance Exam (ACT).
4. Take Math 070 and successfully complete the course.
5. Take DAT Math Test.
6. Schedule personal interviews.

## CLINICAL EXPERIENCE

Students in the Associate in Applied Science Degree Nursing Program receive clinical experience in rendering patient care at local health agencies; Gaston Memorial Hospital, Charlotte Rehabilitation Hospital, Gaston County Health Center, and Catawba Memorial Hospital.

# PRACTICAL NURSE EDUCATION PROGRAM

Gaston College has offered the Practical Nurse Education (PNE) Program since 1973. The nursing graduates have found interesting and exciting careers as practical nurses.

## PURPOSE

The non-degree Practical Nurse Education Program which is one year (4 quarters) in length stresses theory and practice in nursing care. Upon successful completion of the program a diploma is granted and with the recommendation of the nursing faculty the graduate is eligible to write the licensing examination for Licensed Practical Nurse (L.P.N.).

The Diploma Program in Practical Nursing prepare the graduate to:

1. Write the licensing examination to become a Licensed Practical Nurse.
2. Practice Nursing at the Vocational level.
3. Be employed as a member of the health team, functioning under the direction of a registered nurse and/or physician.
4. Exercise responsible citizenship as well as rendering service to humanity through nursing.

## ACCREDITATION

The Practical Nurse Education Curriculum is accredited by the North Carolina Board of Nursing which is recognized as the appropriate agency for the accreditation of Nursing.

## ADMISSION REQUIREMENTS

Students applying for admission to the Gaston College Practical Nurse Education Program must do the following to meet in the requirements for general admission to Gaston College.

1. Complete Admission Application.
2. Have interview with Counselor.
3. Submit transcript of high school grades with graduation date or G.E.D. scores.
4. Submit College Transcript (if applicable).

Upon completion of requirements for general admission, the applicant must meet the requirements for admission to the Practical Nurse Education Program as follows:

1. Submit Physician's Report.
2. Submit Transcript certifying completion of not less than ninth grade, or G.E.D. Scores showing completion of G.E.D. Program.
3. Take Nursing Entrance Exam (ACT Test).
4. Take Math 070 and successfully complete the course.
5. Take DAT Math Test.
6. Schedule personal interviews.

## CLINICAL EXPERIENCE

Students in the Practical Nurse Education Program receive clinical experience in rendering patient care at local health agencies; Gaston Memorial Hospital, Charlotte Rehabilitation Hospital, and Gaston County Health Center.

## NOTE

Students in the Health Occupations Programs (ADN, PNE) must earn a minimum grade of "C" in each of their major courses (NSG prefixes) to maintain satisfactory progress in their program. Re-admission will be considered on an individual and space available basis.

**Suggested Curriculum Leading to The  
Associate in Applied Science Degree  
in  
NURSING  
Total Quarter Credit Hours Required for Graduation—108  
(Curriculum Code T-059)**

FIRST YEAR

FIRST QUARTER			Class	Lab	Credit
BIO	121	Human Biology	3	2	4
NSG	111	Human Behavior	3	0	3
NSG	101	Fundamentals of Nursing I	6	12	10
MOA	100	Medical Terminology	1	2	2
TOTAL			13	16	19

SECOND QUARTER

BIO	122	Human Biology	3	2	4
NSG	102	Fundamentals of Nursing II	4	18	10
NSG	132	Pharmacology in Nursing	3	0	3
NSG	122	Adaptive Behavior	3	0	3
TOTAL			13	20	20

THIRD QUARTER

NUT	101	Nutrition	3	0	3
BIO	123	Human Biology	3	2	4
NSG	203	Medical-Surgical Nursing	5	24	13
TOTAL			11	26	20

SECOND YEAR

FOURTH QUARTER

ENG	101	Freshman Grammar and Composition	5	0	5
NSG	201	Obstetrical Nursing	4	15	9
PSY	203	Child Psychology	5	0	5
TOTAL			14	15	19

FIFTH QUARTER

ENG	103	Public Speaking	5	0	5
NSG	202	Pediatric Nursing	4	15	9
SOC	103	Marriage and Family Relations	3	0	3
TOTAL			12	15	17

SIXTH QUARTER

NSG	103	Psychiatric Nursing	4	21	11
NSG	207	Perspectives of Nursing Practice	2	0	2
TOTAL			6	21	13
GRAND TOTAL			69	113	108

**Suggested Curriculum Leading to The  
Diploma in Vocational Education  
in  
PRACTICAL NURSING  
Total Quarter Credit Hours Required for Graduation—70  
(Curriculum Code V-038)**

			Class	Lab	Credit
<b>FIRST QUARTER</b>					
MOA	100	Medical Terminology	1	2	2
BIO	1211	Human Biology	2	4	4
NSG	1011	Fundamentals of Nursing I	6	18	12
		TOTAL	9	24	18
<b>SECOND QUARTER</b>					
ENG	090	Preparatory Grammar and Composition	5	0	5
NSG	1022	Fundamentals of Nursing II	6	24	14
NSG	132	Pharmacology in Nursing	3	0	3
		TOTAL	14	24	22
<b>THIRD QUARTER</b>					
NSG	1033	Maternal and Child Health Nursing	6	27	15
		TOTAL	6	27	15
<b>FOURTH QUARTER</b>					
NSG	1044	Medical-Surgical Nursing	6	27	15
		TOTAL	6	27	15
		GRAND TOTAL	35	102	70

# Description of Courses

## Health Occupations Programs

### BIOLOGY

**BIO 121 Human Biology (3-2-4)**

Prerequisite: Admission to Nursing program, or Permission Department of Science

An integrated study of human anatomy, physiology, microbiology, nutrition, epidemiology and related areas. A course designed for the two-year nursing program and other paramedical curricula.

**BIO 122 Human Biology (3-2-4)**

Prerequisite: BIO 121

A continuation of BIO 121.

**BIO 123 Human Biology (3-2-4)**

Prerequisite: BIO 122

A continuation of BIO 122.

**BIO 1211 Human Biology (2-4-4)**

Prerequisite: None

An integrated study of human anatomy, physiology, microbiology, nutrition, epidemiology, and related areas.

Historical and legal aspects of nursing are integrated into course content. Emphasis is given to the application of the principles of therapeutic communication.

### ENGLISH

**ENG 101 Freshman Grammar & Composition (5-0-5)**

Prerequisite: ENG 090 or Departmental Approval

English 101 includes a review of correct usage in grammar, mechanics, punctuation, and spelling, and the writing of numerous themes. Various types of themes are considered, and students write themes based upon the principles exemplified in the sample themes which are studied. Students are trained in the preparation of the library research paper.

**ENG 103 Public Speaking (5-0-5)**

Prerequisite: None

Speech preparation, composition, and delivery. Students are given frequent opportunities to prepare and deliver short speeches of various types.

### NURSING

**NSG 101 Fundamentals of Nursing I (6-12-0)**

Nursing I is an introductory study of the Nursing care which is common to all patients. Promotion of health and prevention of disease (both physical and emotional) are stressed, but major emphasis is placed on nursing ministrations, including rehabilitation measures, that contribute to the restoration of the individual patient to a maximum state of health.

Natural and behavioral scientific concepts and principles will be identified. The student will develop skill in procedures and techniques related to nursing intervention as it pertains to elements of health and disease; maintenance, support and reinforcement of natural body defences; and psychological interactions. The student will practice procedures and techniques in the College laboratory under the guidance of the Nursing Faculty. The instructor is available for student consultation at all times in the office, by appointment.

Historical and legal aspects of nursing are integrated into course content. Emphasis is given to the application of the principles of therapeutic communication.

**NSG 102 Fundamentals of Nursing II (4-18-10)**

Prerequisites: NSG 101, BIO 121

A continuation of the study of the broad concepts of patient care is common to all nursing. The student will develop skills in procedures and techniques related to nursing intervention as it pertains to pharmacological and other therapeutic agents; management of common problems of illness; operative care; emergency care; and care of the terminally ill patient. In addition the student will be assisted to attain a level of competence consistent with the beginning practice of neurological nursing.

Promotion of health and prevention of disease (emotional and physical) are stressed, but major emphasis is on nursing ministrations, including rehabilitation measures, that contribute to the restoration of the individual patient to a maximum state of health.

Opportunity is provided for using previous knowledge as well as the acquired concurrently in planning and implementing nursing care. Nutrition, pharmacology, and legal aspects of nursing are integrated in course content and clinical experience.

The student will give nursing care in community health agencies under the guidance of the nursing faculty.

Patients are selected for student clinical assignment on the basis of the student's needs and to meet the objectives of the day. Individual student's abilities are also considered in all patient assignments. The instructor is available at all times for student consultation in the clinical area.

**NSG 103 Psychiatric Nursing (4-21-11)**

This course is designed to help the student attain a level of competence consistent with the beginning practice of psychiatric-mental health nursing. Theoretical content will be aimed at enhancing understanding of the dynamics of mental health and mental illness. Laboratory experiences will focus on the development of skills in the nursing process with selected patients having emotional problems. It is expected that the student will also gain an increased appreciation of the relationship of mind and body and a greater ability to utilize concepts from psychiatric-mental health nursing in general nursing practice.

**NSG 111 Human Behavior (3-0-3)**

The course in Human Behavior utilizes a holistic approach, through a multi-disciplinary application of the appropriate theories of psychology, sociology, and anthropology in relation to understanding individual behavior. Knowledge of the total person is stressed as requisite to evaluating and identifying the meaning of individual behavior.

**NSG 122 Adaptive Behavior (3-0-3)**

Prerequisite: NSG 111

This course is a continuation of NSG 111. Emphasis is placed on anxiety, conflict, frustration, and defense mechanisms.

**NSG 132 Pharmacology in Nursing (3-0-3)**

Prerequisite: NSG 101

This course will include an indepth study of drug classifications, drug administration and calculation of drug dosages.

**NSG 201 Obstetrical Nursing (4-15-9)**

This course is designed to help the student attain a level of competence consistent with the beginning practice of obstetrical nursing, including care of the newborn and premature infants. Theoretical content will be aimed at enhancing understanding of the maternal process of reproduction and the adjustment of the neonate to extra-uterine life. Laboratory experiences will focus on development of nursing skills in the prenatal, parturition, postpartal and newborn periods. It is expected that the student will gain a better appreciation

of the interfamily dynamics occurring during the maternity process, utilizing previously learned principles and concepts for continued professional growth and development.

**NSG 202 Pediatric Nursing (4-15-9)**

This course is designed to prepare the student to perform on the beginning level in administering nursing care to children from birth through adolescence. The theoretical content will be based upon normal growth and development of children and related to more commonly seen diseases and disorders. Emphasis is placed on the concept of family centered care and health teaching. The clinical experience is planned to give the student the opportunity to adapt nursing care to the individual child based upon the effects of the illness and hospitalization. Opportunity is provided for using previous knowledge as well as that acquired concurrently in planning and implementing nursing care. Nutrition, pharmacology, history, and legal aspects of nursing are integrated in course content and clinical experiences.

**NSG 203 Medical-Surgical Nursing (5-24-13)**

The purpose of this course is to continue to prepare the technical nursing student to use cognitive, judgmental, and manipulative skills necessary to give comprehensive nursing care to adults with medical and surgical disorders. Emphasis is placed upon the concept of nursing intervention and the related procedures and skills as they pertain to specific stress conditions produced by particular medical and surgical disorders. Opportunity is provided for the application and reinforcement of previous knowledge as well as that acquired concurrently in planning and implementing nursing care. Nutrition, pharmacology, history, and legal aspects of nursing are integrated in course content and clinical experiences. Patients are selected for student clinical assignment on the basis of the student's learning needs and to meet the objectives of the day. The instructor is available at all times for student consultation in the clinical area.

**NSG 207 Perspectives of Nursing Practice (2-0-2)**

Prerequisite: NSG 202

Concurrent: NSG 203, NSG 205

The responsibilities and implications of nursing practice in relation to nursing, the health care team, and the community.

**NSG 1011 Fundamentals of Nursing I (6-18-12)**

Nursing I is an introductory study of the nursing care which is common to all patients. The student will develop skill in procedures and techniques related to nursing interventions as they pertain to 1) elements of health and disease, and 2) maintenance, support, and reinforcement of natural body defenses. The student will practice procedures and techniques in the college laboratory under the guidance of the nursing faculty. Learning experiences are provided which will give the student knowledge and skills at the beginning level to assist the patient in meeting individual needs which arise from health deviations and disabilities. Nutrition, history, introductions to medications, principles of human behavior, and the legal and ethical aspects of nursing are integrated in course content.

**NSG 1022 Fundamentals of Nursing II (6-24-14)**

Prerequisites: NSG 1011, BIO 1211

Medical-Surgical Nursing is a continuation of the study of the broad concepts of patient care. The student will develop skills in procedures and techniques related to the nursing care of patients with altered body function, long term illness and infectious diseases. Opportunity is provided for using previous knowledge as well as the acquired concurrently in planning and implementing nursing care. Nutrition, pharmacology, and legal aspects of nursing are integrated in course content and clinical experience. Nursing care will be given in Community Health Agencies under the guidance of the Nursing Faculty. Patients will be selected for student clinical assignment on the basis of student's needs, and to meet the objectives of the day.

**NSG 1033 Maternal and Child Health Nursing (6-27-15)**

Prerequisite: NSG 1022

The purpose of this course is to prepare practical nursing students to continue to utilize their cognitive, and manipulative skills. The life cycle approach to learning will be utilized in the lecture and laboratory instruction. Included will be experiences in the care of pre-natal, labor, parturition, post-partum, and pediatric (neonate through adolescence) patients. Emphasis will be placed on needs basic to life.

**NSG 1044 Medical-Surgical Nursing (6-27-15)**

Prerequisite: NSG 1033

The purpose of this course is to continue to prepare the vocational nursing student to use cognitive, judgmental and manipulative skills necessary to give comprehensive nursing care to adults with specific medical and surgical disorders. Theoretical content is presented to enhance the understanding of patients with disorders of the Central Nervous System, the Integumentary System, the Endocrine System, the Genito-Urinary System, the Eye and Ear. Opportunity is provided for the application and reinforcement of previous knowledge as well as that acquired concurrently in planning and implementing nursing care. Patients will be selected for students clinical assignment on the basis of student's needs, and to meet the objectives of the day.

**MEDICAL OFFICE ASSISTANT**

**MOA 100 Medical Terminology and Vocabulary I (1-2-2)**

Prerequisite: None

Medical Terminology and Vocabulary I is a basic course for paramedical personnel which deals with the study of the structure of Medical words and terms. Emphasis is placed on spelling and defining commonly used prefixes, suffixes, word roots, and their combining forms.

**NUTRITION**

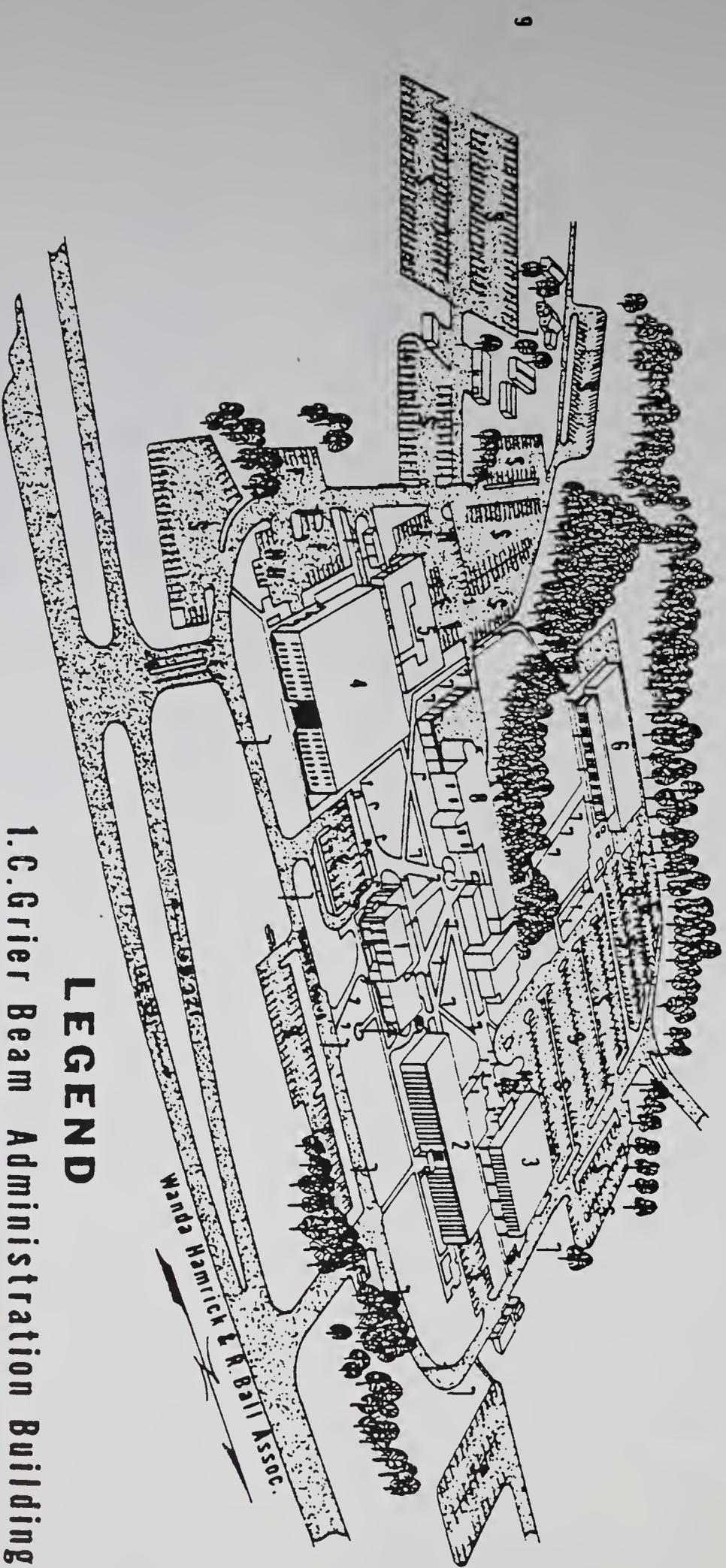
**NUT 101 Nutrition (3-0-3)**

Prerequisite: None

NUT 101 is a basic course in normal and therapeutic nutrition. It is intended to strengthen and broaden the base of knowledge, skills, and insights required for a realistic understanding of normal and therapeutic nutrition. The student will be involved in a study of the composition of the foods in the basic four food groups as related to the nutrients necessary for good health. Further, the student will be involved in a study of proper food selection and meal planning for normal and special diets.

# CAMPUS OF GASTON COLLEGE

## TRAFFIC AND PARKING REGULATIONS



### DESIGNATED PARKING

- S— Students
- F— Faculty
- V— Visitors
- H— Handicapped
- M— Motorcycles

### LEGEND

1. C. Grier Beam Administration Building
2. Classroom Building
3. Library— Science Building
4. Technical Building
5. Vocational Building
6. Industrial Building
7. Art Complex
8. Myers Center
9. Athletic Field (Tennis Courts, etc.)

## APPLICATION FOR ADMISSION

STUDENT NUMBER (1)

STUDENT NAME (2)  LAST  FIRST  M.I.

STREET ADDRESS (3)  STREET NUMBER - NAME - APARTMENT NUMBER - ROUTE OR BOX NUMBER

CITY (4)  STATE (5)  ZIP CODE (6)

BIRTH DATE (8)  MONTH  DAY  YEAR

SEX (9)  M = MALE  F = FEMALE

RACE (10)  W = WHITE  B = BLACK  I = INDIAN  H = HISPANIC  A = ASIAN

COUNTY OF RESIDENCE (11)  036 = GASTON 055 = LINCOLN 023 = CLEVELAND 060 = MECKLENBERG 018 = CATAWBA IF OTHER THAN SHOWN (12)  COUNTY NAME

SOCIAL SECURITY NUMBER (13)    TELEPHONE NUMBER (14)  AREA CODE (15)  LOCAL NUMBER

FIELD OR FOREIGN COUNTRY (16)  NAME (17)  H = HIGH SCHOOL GRAD.  G = GED (18)  NAME OF HIGH SCHOOL

MAJOR (19)  1 = ACADEMIC  2 = ENGR. TECH.  3 = VOCATIONAL  4 = NURSING - RN LPN TAKEN ACT TEST (20)  Y = YES  N = NO RECEIVE VA BENEFITS (21)  Y = YES  N = NO

PREVIOUS COLLEGE ATTENDED (22)  NAME  LOCATION

PREVIOUS COLLEGE ATTENDED (23)  NAME  LOCATION

PREVIOUS GUIDANCE CREDIT (24)  Y = YES  N = NO IF YES (25)  YEAR (26)  NAME USED DURING PREVIOUS ATTENDANCE

NAME OF AGENCY (27)  NAME (28)  ADDRESS (29)  TELEPHONE

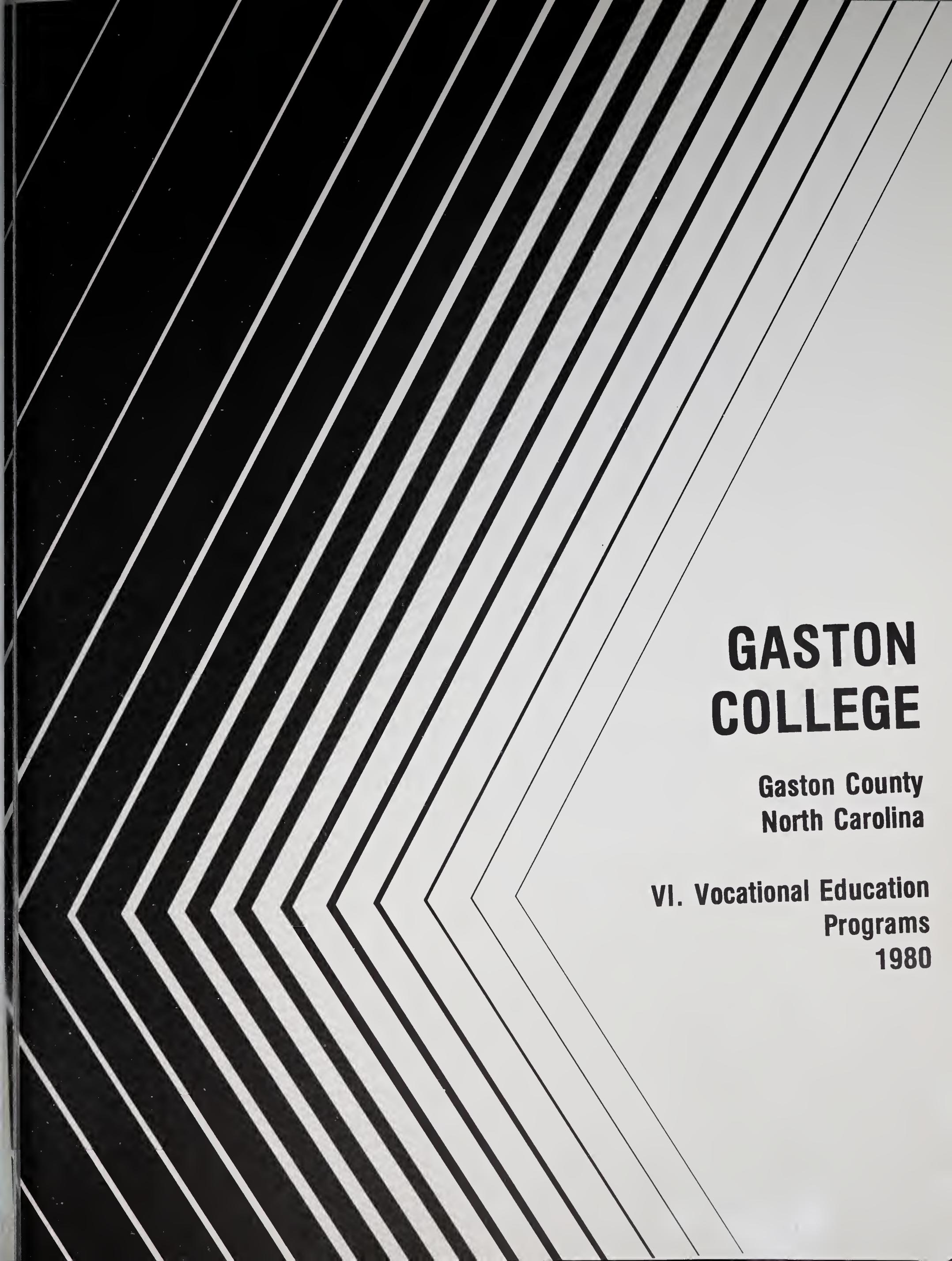
WE CERTIFY THAT ALL THE ABOVE INFORMATION IS CORRECT. (30)  SIGNATURE (31)  DATE

OFFICE USE ONLY

CURRICULUM (32)  HIGH SCHOOL CODE (33)  RESIDENCY CODE (34)  TRANSFER COLLEGE CODE (35)

GASTON COLLEGE IS COMMITTED TO FAIR AND EQUAL TREATMENT FOR ALL PERSONS WITHOUT REGARD TO RACE, COLOR, SEX, NATIONAL ORIGIN, AGE, OR HANDICAP.





# **GASTON COLLEGE**

**Gaston County  
North Carolina**

**VI. Vocational Education  
Programs  
1980**



# VOCATIONAL EDUCATION PROGRAMS

**AIR CONDITIONING, HEATING & REFRIGERATION**  
**BROADCASTING—RADIO/TV**  
**AUTOMOTIVE & DIESEL MECHANICS**  
**MECHANICAL DRAFTING AND ARCHITECTURAL DRAFTING**  
**ELECTRICAL INSTALLATION & MAINTENANCE**  
**ELECTRONICS SERVICING**  
**MACHINIST**  
**WELDING**

## OBJECTIVE AND ENTRANCE REQUIREMENTS

Vocational education programs of study are designed to prepare graduates with specific job skills which are in demand in the industrial area served by Gaston College. Vocational courses are open to any adult (18 or over) who can profit by the instruction. A high school diploma is preferred but not required. No entrance test is required but the student may be asked to take a battery of aptitude tests after enrolling at Gaston College. A student may enter the day program (full-time 30 hrs. per wk.) at the beginning of the fall quarter or evening (15 hrs. per wk.) at the beginning of any quarter.

## PLACEMENT AND SERVICES

The placement office is available to vocational students, both those currently enrolled and graduates.

Assistance is given in obtaining part-time and summer jobs while attending school as well as full-time employment after the student finishes his program of study.

Many companies in the area served by Gaston College contact the placement office for the purpose of hiring graduates from the vocational programs. A quarterly listing of up-coming graduates is mailed to these firms giving the number of graduates finishing in each of the programs in the Vocational Division. The placement office coordinates requests from industry with student interest and arranges personal interviews.

Gaston College makes referrals for positions to all recruiters and personnel directors without regard to race, color, creed, national origin, or sex.

## AIR CONDITIONING, HEATING & REFRIGERATION

### Purpose of Curriculum

In recent years the use of air-conditioning, heating and refrigeration equipment has increased tremendously. With this great up-swing in the use of such equipment, a greater demand is made on trained personnel to plan and supervise its operation and maintenance.

This curriculum is designed to meet the basic requirements of a program to provide capable service men in the industry. The principal objective has been to outline the required technical information and theoretical knowledge, while maintaining a good balance of manipulative skills. Considerable emphasis is placed on self-development in an effort to encourage the individual trained hereby to continue to study and grow as the industry advances.

### Job Description

The air-conditioning, heating and refrigeration serviceman is employable in areas of sales, maintenance, installation, and production. He is involved with equipment for changing temperature, control systems, and ducts, and piping for distribution of air, water, steam, and refrigerants.

## Suggested Curriculum Leading to The Diploma In Vocational Education in AIR CONDITIONING, HEATING AND REFRIGERATION Total Quarter Credit Hours Required for Graduation—72 (Curriculum Code V-024)

FIRST QUARTER			Class	Lab	Credit
AHR	1101	Principles of Refrigeration	3	12	7
ENG	1101	Reading Improvement	2	0	2
MAT	1101	Trade Math I	4	0	4
PHY	1112	Basic Electricity	3	3	4
WLD	1111	Gas Welding Fundamentals	0	3	1
TOTAL			12	18	18
SECOND QUARTER					
AHR	1102	Domestic & Commercial Refrigeration	3	12	7
AHR	1122	Automatic Controls I	3	3	4
DFT	1111	Blueprint Reading	0	3	1
ENG	1102	Communication Skills	2	0	2
MAT	1102	Trade Math II	4	0	4
TOTAL			12	18	18
THIRD QUARTER					
AHR	1103	Principles of Air Conditioning	3	9	6
AHR	1113	Calculation of Heat Loss & Gain	6	0	6
AHR	1133	Solid State Controls	3	3	4
AHR	1153	Transport Refrigeration	0	3	1
WLD	1112	Arc Welding Fundamentals	0	3	1
TOTAL			12	18	18
FOURTH QUARTER					
AHR	1104	All-Year Comfort Systems	3	6	5
AHR	1114	Estimating	4	3	5
AHR	1154	Reverse Refrigeration	2	6	4
AHR	1164	Automotive Air Conditioning	3	3	4
TOTAL			12	18	18

## AUTOMOTIVE & DIESEL MECHANICS

### Purpose of Curriculum

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair or adjust automotive vehicles. Manual skills are developed in practical shop work. Thorough understanding of the operating principles involved in the modern automobile comes in class assignments, discussions and shop practice.

### Job Description

Automobile mechanics maintain and repair mechanical, electrical, and body parts of passenger cars, trucks, and buses. In some communities and rural areas they also may service tractors or marine engines and other gasoline-powered equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition. They use shop manuals and other technical publications.

Automotive mechanics in smaller shops usually are (general) mechanics qualified to perform a variety of repair jobs. A large number of automobile mechanics specialize in particular types of repair work. For example, some may specialize in repairing only power steering and power brakes, or automatic transmissions. Usually such specialists have an all-round knowledge of automotive repair and may occasionally be called upon to do other types of work.

### Suggested Curriculum Leading to The Diploma In Vocational Education in AUTOMOTIVE AND DIESEL MECHANICS Total Quarter Credit Hours Required for Graduation—72 (Curriculum Code V-003)

			Class	Lab	Credit
<b>FIRST QUARTER</b>					
AUT	1101	Automotive Engines	3	12	7
ENG	1101	Reading Improvement	2	0	2
MAT	1101	Trade Math I	4	0	4
PHY	1111	Basic Mechanics	3	3	4
WLD	1111	Gas Welding Fundamentals	0	3	1
		TOTAL	12	18	18
<b>SECOND QUARTER</b>					
AUT	1102	Auto Electrical	6	9	9
AUT	1112	Auto Fuels	4	6	6
ENG	1102	Communication Skills	2	0	2
WLD	1112	Arc Welding Fundamentals	0	3	1
		TOTAL	12	18	18
<b>THIRD QUARTER</b>					
AUT	1103	Automotive Power Train Systems	3	12	7
AUT	1113	Automotive Chassis & Suspensions	3	3	4
AUT	1123	Auto Air Conditioning	3	3	4
PSY	1101	Human Relations	3	0	3
		TOTAL	12	18	18
<b>FOURTH QUARTER</b>					
AUT	1104	Automotive Servicing	6	9	9
AUT	1154	Introduction To Diesel Engines	3	6	5
AUT	1164	Braking Systems	3	3	4
		TOTAL	12	18	18

## BROADCASTING—RADIO/TV

### Purpose of Curriculum

This curriculum is designed to give students the opportunity to acquire basic skills and the related technical information necessary to gain employment and build a profitable career in the non-technical areas of professional broadcasting.

### Job Description

The program of study is designed to provide the student with knowledge and skills to perform such duties as announcing, advertising sales, copywriting, commercial and program production, news gathering, studio and control room equipment operation, traffic and log maintenance.

## Suggested Curriculum Leading to The Diploma In Vocational Education in BROADCASTING—RADIO/TV Total Quarter Credit Hours Required for Graduation—72 (Curriculum Code V-043)

			Class	Lab	Credit
<b>FIRST QUARTER</b>					
ENG	101	Grammar and Composition	5	0	5
RDG	101	Reading Improvement	5	0	5
RTV	1101	Introduction to Broadcasting	4	3	5
RTV	1111	Broadcast Speech	3	3	4
TOTAL			17	6	19
<b>SECOND QUARTER</b>					
RTV	1102	Broadcast Announcing & Performance I	4	3	5
RTV	1112	Broadcast Copywriting & Commercial Production	4	3	5
RTV	1122	Radio Programming, Formats & Systems	3	0	3
RTV	1132	Broadcast Operations Practicum	1	6	3
BUS	101	Beginning Typewriting	2	3	3
TOTAL			14	15	19
<b>THIRD QUARTER</b>					
RTV	1103	Broadcast Announcing & Performance II	4	3	5
RTV	1123	Radio News Gathering, Writing, Announcing	3	3	4
RTV	1113	Broadcast Sales & Promotion	3	3	4
RTV	1133	Broadcast Projects	3	3	4
RTV		Elective (RTV)	2	0	2
TOTAL			15	12	19
<b>FOURTH QUARTER</b>					
RTV	1114	Broadcast Administration	3	0	3
RTV	1104	Broadcast Practicum	1	18	7
PSY	103	Psychology of Human Relations	3	0	3
RTV		Elective (RTV)	2	0	2
TOTAL			9	18	15
GRAND TOTAL			55	51	72
<b>RTV ELECTIVES</b>					
RTV	1115	Broadcast Public Affairs	2	0	2
RTV	1125	FCC Rules & Regulations	2	0	2
RTV	1135	Radio Sportscasting	1	3	2
RTV	1145	Independent Study	0	3	1

## DRAFTING

### Purpose of Curriculum

This curriculum is designed to prepare students to enter the field of drafting.

Courses are arranged (in sequence) to develop drafting skills and proficiency in mathematics and science. The draftsman associates with many levels of personnel—administrative, architects, engineers, skilled workmen—and must be able to communicate effectively with them.

### Job Description

Draftsmen prepare clear, complete, and accurate working plans and detail drawings, from rough or detailed sketches or notes for engineering or manufacturing purposes, according to the specified dimensions. A draftsman makes final sketch of the proposed drawing, makes charts for representation of statistical data, makes finished designs from sketches, utilizes knowledge of various machines, engineering practices, mathematics, building materials, and other physical sciences to complete the drawings.

## Suggested Curriculum Leading to The Diploma In Vocational Education in MECHANICAL DRAFTING AND ARCHITECTURAL DRAFTING Total Quarter Credit Hours Required for Graduation—72 (Curriculum Code V-017)

(FIRST & SECOND QUARTERS SAME FOR ALL STUDENTS)

FIRST QUARTER			Class	Lab	Credit
DFT	1101	Drafting Fundamentals	3	12	7
ENG	1101	Reading Improvement	2	0	2
MAT	1101	Trade Math I	4	0	4
MEC	1111	Machine Processes I	0	3	1
PHY	1112	Basic Electricity	3	3	4
TOTAL			12	18	18

SECOND QUARTER			Class	Lab	Credit
DFT	1102	Precision Drafting	3	12	7
DFT	1122	Architectural Drafting	3	3	4
ENG	1102	Communication Skills	2	0	2
MAT	1102	Trade Math II	4	0	4
PSY	1101	Human Relations	3	0	3
TOTAL			15	15	20

(ARCHITECTURAL DRAFTING)

THIRD QUARTER			Class	Lab	Credit
DFT	1103	Specialized Drafting	3	12	7
DFT	1113	Descriptive Geometry	1	3	2
DFT	1133	Construction Estimating	4	3	5
MAT	1103	Algebra and Trigonometry	4	0	4
TOTAL			12	18	18

FOURTH QUARTER			Class	Lab	Credit
DFT	1104	Advanced Drafting	3	9	6
DFT	1124	Technical Illustration	1	3	2
DFT	1134	Building Codes and Laws	0	3	1
DFT	1144	Electronics and Drafting	2	3	3
PSY	1111	Basic Mechanics	3	3	4
TOTAL			9	21	16

(MECHANICAL DRAFTING)

THIRD QUARTER			Class	Lab	Credit
DFT	1103	Specialized Drafting	3	12	7
DFT	1113	Descriptive Geometry	1	3	2
DFT	1143	Drafting Devices & Techniques	0	3	1
MAT	1103	Algebra and Trigonometry	4	0	4
MEC	1123	Structure of Metals	4	0	4
TOTAL			12	18	18

FOURTH QUARTER			Class	Lab	Credit
DFT	1104	Advanced Drafting	3	9	6
DFT	1124	Technical Illustration	1	3	2
DFT	1144	Electronics and Drafting	2	3	3
MEC	1112	Machine Processes II	0	3	1
PHY	1111	Basic Mechanics	3	3	4
TOTAL			9	21	16

## ELECTRICAL INSTALLATION & MAINTENANCE

### Purpose of Curriculum

This curriculum will provide a training program in the basic knowledge, fundamentals, and practices involved in the electrical trades. A large portion of the program is devoted to laboratory and shop instruction which is designed to give the student practical knowledge and application experience in the fundamentals taught in class.

### Job Description

The graduate of the electrical trades program will be qualified to enter an electrical trade as an on-the-job trainee or apprentice, where he will assist in the planning, layout, installation, checkout, and maintenance of systems in residential, commercial, or industrial plants. He will have an understanding of the fundamentals of the National Electrical Code regulations as related to wiring installations, electrical circuits, and the measurements of voltage, current, power, and power factor of single and polyphase alternating circuits. He will have a basic knowledge of motor and motor control systems; industrial electronic control systems; business procedures, organization, and practices; communicative skills; and the necessary background to be able to advance through experience and additional training through up-grading courses.

### Suggested Curriculum Leading to The Diploma In Vocational Education in ELECTRICAL INSTALLATION AND MAINTENANCE Total Quarter Credit Hours Required for Graduation—72 (Curriculum Code V-018)

FIRST QUARTER			Class	Lab	Credit
ELC	1101	D. C. Circuits	7	6	9
ELC	1151	Residential Wiring Methods	3	12	7
ENG	1101	Reading Improvement	2	0	2
		TOTAL	12	18	18
SECOND QUARTER			Class	Lab	Credit
ELC	1102	A. C. Circuits	3	12	7
ENG	1102	Communications Skills	2	0	2
MAT	1102	Trade Math II	4	0	4
PHY	1111	Basic Mechanics	3	3	4
WLD	1111	Gas Welding Fundamentals	0	3	1
		TOTAL	12	18	18
THIRD QUARTER			Class	Lab	Credit
ELC	1153	AC and DC Machines	3	9	6
ELC	1163	Electrical Controls	3	3	4
ELC	1173	Electrical Codes & Estimates	3	3	4
PSY	1101	Human Relations	3	0	3
WLD	1112	Arc Welding Fundamentals	0	3	1
		TOTAL	12	18	18
FOURTH QUARTER			Class	Lab	Credit
ELC	1154	Commercial and Industrial Wiring	6	9	9
ELC	1164	Industrial Electronics	3	6	5
ELC	1174	Power Distribution	3	3	4
		TOTAL	12	18	18

## ELECTRONICS SERVICING

### Purpose of Curriculum

This curriculum provides a training program which will provide the basic knowledge and skills involved in the installation, maintenance and servicing of radio, television, and sound amplifier systems. A large portion of time is spent in the laboratory verifying electronic principals and developing servicing techniques.

### Job Description

A radio and television serviceman may be required to install, maintain, and service amplitude modulated and frequency modulated home and auto radios, transistorized radios, monochrome and color television sets, intercommunication, public address and paging systems, high fidelity and stereophonic amplifiers, record players and tape recorders.

His work will require meeting the public both in the repair shop and on service calls. A serviceman who establishes his own business will also need to know how to maintain business records and inventory.

## Suggested Curriculum Leading to The Diploma in Vocational Education in ELECTRONICS SERVICING Total Quarter Credit Hours Required for Graduation—72 (Curriculum Code V-042)

			Class	Lab	Credit
<b>FIRST QUARTER</b>					
ELN	1101	Instrument Fundamentals	3	12	7
ELN	1121	D. C. Circuits	7	6	5
ENG	1101	Reading Improvement	2	0	2
		TOTAL	12	18	18
<b>SECOND QUARTER</b>					
ELN	1102	A. C. Circuits	3	12	7
ENG	1102	Communication Skills	2	0	2
MAT	1102	Trade Math II	4	0	4
PHY	1111	Basic Mechanics	3	3	4
PSY	1101	Human Relations	3	0	3
		TOTAL	15	15	20
<b>THIRD QUARTER</b>					
ELN	1103	Electron Devices and Circuits I	3	12	7
ELN	1112	Trouble-Shooting Techniques I	0	3	1
ELN	1113	Trouble-Shooting Techniques II	2	6	4
ELN	1153	Applied Mathematics—Electronics	4	0	4
		TOTAL	9	21	16
<b>FOURTH QUARTER</b>					
ELN	1104	Electron Devices and Circuits II	3	12	7
ELN	1114	Trouble-Shooting Techniques III	2	6	4
ELN	1124	Transmission Theory & Maintenance	3	0	3
ELN	1134	FCC Rules and Regulations	4	0	4
		TOTAL	12	18	18

## MACHINIST

### Purpose of Curriculum

This curriculum is designed to give students the opportunity to acquire basic skills and the related technical information necessary to gain employment and build a profitable career in the machine shop industry in the state.

### Job Description

The machinist is a skilled metal worker who shapes metal parts by using machine tools and hand tools. His training and experience enable him to plan and carry through all the operations needed in turning out a machined product and to switch readily from one kind of product to another. He makes standard shop computations relating to dimensions of work, tooling, feeds, and speeds, of machining. He often uses precision measuring instruments such as micrometers and gauges to measure the accuracy of his work to thousandths of an inch.

The skilled worker must be able to set up and operate most types of machine tools. The machinist also must know the composition of metal. His wide knowledge enables him to turn a block of metal into an intricate, precise part.

## Suggested Curriculum Leading to The Diploma In Vocational Education in MACHINIST

### Total Quarter Credit Hours Required for Graduation—72 (Curriculum Code V-032)

			Class	Lab	Credit
<b>FIRST QUARTER</b>					
ENG	1101	Reading Improvement	2	0	2
MAT	1101	Trade Math I	4	0	4
MEC	1101	Machine Tool Fundamentals	3	12	7
MEC	1121	Machinist Drafting	4	5	6
		TOTAL	13	17	19
<b>SECOND QUARTER</b>					
ENG	1102	Communication Skills	0	2	2
MAT	1153	Machinist Mathematics	4	0	4
MEC	1102	Machine Operations and Setups	3	12	7
MEC	1114	Metals	2	4	4
WLD	1111	Gas Welding	0	3	1
		TOTAL	9	21	18
<b>THIRD QUARTER</b>					
MAT	1103	Algebra and Trigonometry	4	0	4
MEC	1103	Machine Tool Operations	3	12	7
MEC	1133	Specialized Machine Operations	3	2	4
PHY	1111	Basic Mechanics	3	3	4
		TOTAL	13	17	19
<b>FOURTH QUARTER</b>					
MEC	1104	Advanced Machine Shop	3	12	7
MEC	1152	Blueprint Reading for Machinist	0	3	1
PHY	1112	Basic Electricity	3	3	4
PSY	1101	Human Relations	3	0	3
WLD	1112	Arc Welding	0	3	1
		TOTAL	9	21	16

## WELDING

### Purpose of Curriculum

The content of this curriculum is designed to give students a sound understanding of the principles, methods, techniques and skills essential for successful employment in the welding field and metals industry.

The field of welding offers a person prestige, security, and a future of continuous employment with steady advancement. It offers employment in practically any industry: ship-building, automotive, aircraft, guided missiles, railroads, construction, pipefitting, production shop, job shop and many others.

### Job Description

The principal duty of the welder using manual techniques is to control the melting by directing the heat, from either an electric arc or gas welding torch, and to add filler metal where necessary to complete the joint. He should possess a great deal of manipulative skill with a knowledge of jigs, welding symbols, mathematics, basic metallurgy, and blueprint reading.

## Suggested Curriculum Leading to The Diploma in Vocational Education in WELDING Total Quarter Credit Hours Required for Graduation—72 (Curriculum Code V-050)

			Class	Lab	Credit
<b>FIRST QUARTER</b>					
ENG	1101	Reading Improvement	2	0	2
MAT	1101	Trade Math I	4	0	4
MEC	1111	Machine Processes I	0	3	1
PHY	1112	Basic Electricity	3	3	4
WLD	1101	Oxy-Acetylene Welding	3	12	7
		TOTAL	12	18	18
<b>SECOND QUARTER</b>					
DFT	1111	Blueprint Reading	0	3	1
ENG	1102	Communication Skills	2	0	2
MAT	1102	Trade Math II	4	0	4
PHY	1111	Basic Mechanics	3	3	4
WLD	1102	Arc Welding	3	12	7
		TOTAL	12	18	18
<b>THIRD QUARTER</b>					
MEC	1123	Structure of Metals I	4	0	4
PSY	1101	Human Relations	3	0	3
WLD	1103	Inert Gas Welding	3	9	6
WLD	1123	Blueprint Reading For Welders	0	3	1
WLD	1133	Mechanical Test & Inspection	4	0	4
WLD	1144	Estimating	4	0	4
		TOTAL	18	12	22
<b>FOURTH QUARTER</b>					
WLD	1104	Advanced Welding	3	12	7
WLD	1134	Introduction to Pipe Welding	3	12	7
		TOTAL	6	24	14

## Description of Courses In Vocational Programs

### AIR CONDITIONING, HEATING AND REFRIGERATION

#### **AHR 1101 Principles of Refrigeration (3-12-7)**

Essential terminology, laws of refrigeration, heat and the methods of heat transfer, the compression system, use and care of tools and equipment, tubing and fittings. Practice will be given in basic refrigeration jobs such as tube bending, flaring, swaging, identification of fittings, soldering and use of basic test equipment.

#### **AHR 1102 Domestic And Commercial Refrigeration (3-12-7)**

Refrigeration service practice on domestic and commercial refrigeration systems using conventional, hermetic, and absorption systems. Cabinet care, controls, system maintenance, and system replacement will be stressed. Typical service problems will be solved by each student.

#### **AHR 1103 Principles of Air Conditioning (3-9-6)**

The history, theory, and factors covering air conditioning are studied. Instruction will include air conditioning terminology, temperature measurement, air movement, humidity, psychometric properties, comfort zone, effective temperature, duct systems, air diffusion, air cleaning zone, testing instruments and heat loads.

#### **AHR 1104 All-Year Comfort Systems (3-6-5)**

Auxiliary equipment used in conjunction with refrigeration systems to provide both heating and cooling for "all-year" comfort will be studied and systems will be designed using this auxiliary equipment. Included will be oil-fired systems, gas fired systems, water-circulating systems, resistance-systems and the special controls used in the "all-year" comfort systems.

#### **AHR 1113 Calculation Of Heat Loss and Gain (6-0-6)**

Practice in computing system loads, equipment sizing and balancing, and the use of charts and tables pertaining to refrigeration and air-conditioning equipment.

#### **AHR 1114 Estimating (4-3-5)**

Practical exercises in estimating for the student to gain experience. The student will prepare estimates and submit bids on projects involving the major types of refrigeration and air-conditioning systems used in domestic and commercial building.

#### **AHR 1122 Automatic Controls I (3-3-4)**

A practical course dealing with relays, solenoids, thermostatic and pressure motor controls, defrost controls, and wiring diagrams. Emphasis will be placed on proper diagnosis of electrical troubles in sealed refrigeration systems.

#### **AHR 1133 Solid State Controls (3-3-4)**

This is a basic course in the solid state speed control devices and the temperature control devices which are used in the air-conditioning and refrigeration industry. Emphasis is placed on understanding the operations of each component in the control device.

#### **AHR 1153 Transport Refrigeration (0-3-1)**

This is a survey course in transport refrigeration. Material covered will be the types of engines used to drive units, three phase generators, variable voltage relays and solenoid valves, strip heaters, reversing systems, and unloading devices peculiar to this type mechanism.

#### **AHR 1154 Reverse Refrigeration (2-6-4)**

Complete study of heat pump installation, its controls, theory and operation. Practical work experience in trouble shooting on systems.

#### **AHR 1164 Automotive Air Conditioning (3-3-4)**

General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary in the mechanisms, the methods of operation, and control; proper handling of refrigerants in charging the system.

### AUTOMOTIVE & DIESEL MECHANICS

#### **AUT 1101 Automotive Engines (3-12-7)**

Development of a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in automotive repair work. Study of the construction and operation of components of automotive engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems; proper lubrication; and methods of testing, diagnosing and repairing.

#### **AUT 1102 Auto Electrical (6-9-9)**

A thorough study of the electrical system of the automobile including wiring, AC & DC generators, ignition systems, standard and electronic distributors, batteries, and starters. Electrical and electronic equipment will be used to diagnose problems.

#### **AUT 1103 Automotive Power Train Systems (3-12-7)**

Principles and functions of automotive power train systems; clutches, transmission gears, torque converters, drive shaft assemblies, rear axles and differentials. Identification of troubles, servicing, and repair.

#### **AUT 1104 Automotive Servicing (6-9-9)**

Emphasis is on the shop procedures necessary in determining the nature of troubles developed in the various component systems of the automobile. Trouble-shooting of automotive systems, providing a full range of testing, adjusting, repairing and replacing experiences.

#### **AUT 1112 Auto Fuels (4-6-6)**

A thorough study of the fuel system of the automobile including internal and external carburetor adjustments. Electrical and electronic equipment will be used to diagnose problems in carburetors, fuel pumps, fuel injectors, and emission control systems.

#### **AUT 1113 Automotive Chassis And Suspensions (3-3-4)**

Principles and functions of the components of the automotive chassis. Practical job instruction in adjusting and repairing of suspension, steering and braking systems. Units to be studied will be shock absorbers, springs, steering systems, steering linkage, front end types and servicing of brakes.

#### **AUT 1123 Automotive Air Conditioning (3-3-4)**

General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary in the mechanisms, the methods of operation and control; proper handling of refrigerants in charging the system.

#### **AUT 1154 Introduction To Diesel Engines (3-6-5)**

Study of the construction and operation of components to Diesel engines. Testing of engine performance. Fuel, exhaust, and cooling systems. Methods of testing and trouble shooting on Diesel engines.

#### **AUT 1164 Braking Systems (3-3-4)**

A complete study of various braking systems employed on automobiles and trucks. Emphasis is placed on how they work and proper adjusting techniques and replacement.

## BROADCASTING—RADIO/TV

### **RTV 1101 Introduction to Broadcasting (4-3-5)**

Prerequisite: None

A survey course of radio and television broadcasting including history and development; station organization and procedures; and a practical introduction to the fundamentals of announcing, copywriting, production, promotion, programming, sales, and administration.

### **RTV 1102 Broadcast Announcing and Performance I (4-3-5)**

Prerequisite: RTV 1111 or Departmental Approval

A study of the announcer's function, skills, characteristics and techniques with emphasis on the analysis, interpretation and communication of a variety of types of announcing-performance projects. The course is further designed to familiarize the student with basic radio and television studio equipment and broadcast procedures.

### **RTV 1103 Broadcast Announcing and Performance II (4-3-5)**

Prerequisites: RTV 1111, 1102 or Departmental Approval

A continuation of RTV 1102. Advanced study of the announcer's techniques with practice sight reading of all types of continuity. Designed to give the student background and experience in relating his speech, personality, character and temperament to broadcast speech communication.

### **RTV 1104 Broadcast Practicum (1-18-7)**

Prerequisite: Departmental Approval

On-the-job training at either the campus facility, a local commercial station, or both. This will enable the student to observe and take part in the actual functioning of a station. Reports of the student's progress will be made bi-monthly.

### **RTV 1111 Broadcast Speech (3-3-4)**

Prerequisite: None

A detailed study of basic broadcast speech with consideration of elementary vocal anatomy and the fundamentals of the science of sound. Emphasis will be on common problems and methods of improving voice quality, diction and delivery; vocabulary improvement and oral reading skills.

### **RTV 1112 Broadcast Copywriting and Commercial Production (4-3-5)**

Prerequisite: None

The development and practice of writing and producing the advertising message. Emphasis is on combining salesmanship and showmanship through the proper utilization of copy formulas, techniques and styles with production approaches and techniques.

### **RTV 1113 Broadcast Sales and Promotion (3-3-4)**

Prerequisite: None

An examination of sales philosophy, rate structure, rate cards and other sales tools, planning budgets and schedules, preparing and delivering sales presentations, obtaining and retaining accounts, and a look at agencies, "reps," administration and compensation. This course will also include a study of audience and sales promotion including objectives, media, and technique.

### **RTV 1114 Broadcast Administration (3-0-3)**

Prerequisite: None

A study of station organization and operations, financial considerations, departmental relationships, personnel policies and requirements, files, systems, and regulations. This will also include a discussion of the social, economic, and legal responsibilities of a broadcast operation, and provide the student with realistic opportunities to solve administrative problems.

### **RTV 1115 Broadcast Public Affairs (2-0-2)**

Prerequisite: Departmental Approval

A detailed study of the social and legal responsibilities of a broadcast station including and ascertainment and evaluation of community needs and the programming to meet these needs. Emphasis will be on practical application and will utilize the Statement of Program Service of the broadcast license renewal form and other guidelines of the Federal Communications Commission.

### **RTV 1122 Broadcast Programming, Formats and Systems (3-0-3)**

Prerequisite: None

A study of broadcast programming philosophy and station image, audience identification, determination, and measurement; sources and effects of commercial and public service programs, specialized formats and programming systems, and of NAB programming codes and FCC programming rules.

### **RTV 1123 Radio News Gathering, Writing, Announcing (3-3-4)**

Prerequisites: RTV 111, 1102 or Departmental Approval

An introduction to the field of broadcast journalism, with special emphasis placed on the gathering, writing, editing, processing and announcing of news and specialty programs, including documentaries.

### **RTV 1125 FCC Rules and Regulations (2-0-2)**

Prerequisite: Departmental Approval

A study of rules and regulations to prepare the student for the third class radio-telephone operator's license examination administered by the Federal Communications Commission.

### **RTV 1132 Broadcast Operations Practicum (1-6-3)**

Prerequisite: None

The practical application of fundamental processes and procedures utilized in broadcast control and studio areas including audio and video equipment operation, logging, announcing and formats.

### **RTV 1133 Broadcast Projects (3-3-4)**

Prerequisite: Departmental Approval

In this course, students will be assigned special projects in their particular area of interest and will be supervised by the faculty.

### **RTV 1135 Radio Sportscasting (1-3-2)**

Prerequisites: RTV 1111, 1102, or Departmental Approval

An introduction to the field of radio sportscasting including the gathering, writing, processing and announcing of sports news, and play-by-play announcing of various sports.

### **RTV 1145 Broadcast Independent Study (0-3-1)**

Prerequisite: Departmental Approval

This course provides the student with an opportunity to broaden his knowledge or skills in specific areas.

## DRAFTING

### **DFT 1101 Drafting Fundamentals (3-12-7)**

An introduction to drafting and drafting practices. Instruction is given in the selection, use and care of instruments, single stroke lettering, applied geometry, and freehand sketching of orthographic and pictorial drawings. Orthographic projection, reading and instrument drawing of principal views, sections, and auxiliary views will be emphasized. The study of fasteners will be studied. Dimensioning and notes will be used according to the American Standards Association practice. Methods of reproducing drawings will be included at the appropriate time.

**DFT 1102 Precision Drafting (3-12-7)**

Gears and cams will be studied and drawn. Precision dimensioning and fits with the use of tolerances will be studied and used extensively according to American Standards Association, Military standards, company standards, and true position dimensioning practices. Detail drawings, with sections, will be most widely used.

**DFT 1103 Specialized Drafting (3-12-7)**

The drafting curriculum will be divided into two main phases. The student will choose to study architectural or mechanical drafting. Architectural students will design and draw a complete set of working drawings for a residence. The mechanical students will concentrate on tool design, dies, jigs and fixtures.

**DFT 1104 Advanced Drafting (3-9-6)**

This study will consist of special problems in mechanical, or architectural problems according to major.

**DFT 1111 Blueprint Reading (0-3-1)**

Interpretation and reading of blueprints. Development of ability to read and interpret blueprints, charts, instruction and service manuals, wiring diagrams. Information on the basic principles of lines, views, dimensioning procedures, and notes.

**DFT 1113 Descriptive Geometry (1-3-2)**

Graphical analysis of space problems. The problems deal with practical design elements involving points, line, 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.

**DFT 1122 Architectural Drafting (3-3-4)**

A fundamental course in drawing and designing preliminary residential floor plans and elevations. Details of design will be studied.

**DFT 1124 Technical Illustration (1-3-2)**

A study of methods used in the preparation of pictorial drawings, methods of rendering, use of paste-up techniques for parts catalogs and/or technical manuals. Drawings will be inked on polyester film.

**DFT 1133 Construction Estimating (4-3-5)**

A basic course dealing with the cost of materials and labor in the construction industry. The different types of estimates and the related costs of insurance, taxes, overhead, rentals, and profit will be studied. These will be applied to actual estimating problems in a systematic procedure.

**DFT 1134 Building Codes and Laws (0-3-1)**

A study of the codes and laws dealing with the construction of residential, commercial, public and institutional buildings. Both state and local codes will be examined in reference to safety, inspection, and enforcement procedures.

**DFT 1143 Drafting Devices And Techniques (0-3-1)**

The study and use of drafting devices and techniques used in industry. Included will be the use of grids, micro-plotters and scribes, engineering manuals and standards. The engineering chain from the engineering designer to the manufacturing process will be studied.

**DFT 1144 Electronics and Drafting (2-3-3)**

A study is made of electronics as it relates to the drafting field. Electronic components, diagrams, and methods for designing and producing printed circuit boards will be included. All art work will be in ink.

**ELECTRICAL INSTALLATION & MAINTENANCE****ELC 1101 D. C. Circuits (7-6-9)**

A study of the electrical structure of matter and electron theory, the relationship between voltage, current, and resistance in parallel and series parallel circuits. An analysis of direct current circuits by Ohm's Law and Kirchhoff's Law. A study of the sources of direct current voltage potentials.

**ELC 1102 A. C. Circuits (3-12-7)**

A study of the fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Analysis of alternating current circuits.

**ELC 1151 Residential Wiring Methods (3-12-7)**

A complete study of residential wiring systems and components with particular emphasis on the National Electrical Code, State and Local Codes.

**ELC 1153 AC & DC Machines (3-9-6)**

Provides fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motor. Instruction in the use of the electrical test instruments in circuit analysis. The basic concepts of AC and DC machines and simple system controls. An introduction to the type control used in small appliances, such as: thermostats, timers, or sequencing switches.

**ELC 1154 Commercial And Industrial Wiring (6-9-9)**

Layout, planning and installation of wiring systems in commercial and industrial complexes, with emphasis upon blueprint reading and symbols, the related National Codes, and the application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems.

**ELC 1163 Electrical Controls (3-3-4)**

Basic Industrial electronic systems, such as: motor controls, alarm systems, heating systems and controls, magnetic amplifier controls, welding control systems using thyatron tubes, and other basic types.

**ELC 1164 Industrial Electronics (3-6-5)**

A survey course in electronic devices and circuits that are fundamental to the electrical trade.

**ELC 1173 Electrical Codes and Estimates (3-3-4)**

Specifications for industrial, commercial, and residential wiring installations including a consideration of the applicable code regulations and licenses, analysis of plans and specifications for the preparation of electrical estimates covering industrial, commercial, and residential wiring installations.

**ELC 1174 Power Distribution (3-3-4)**

A study of electrical distribution systems for power, light and heat, including switchboards, panels, switchgear, and wiring for standard utilization and distribution voltages up to 15 Kilowatts.

**ELECTRONICS SERVICING****ELN 1101 Instrument Fundamentals (3-12-7)**

VOM measurements, VTVM characteristics and measurements, capacitance and resistance measurement, measurement of inductance and Q.

**ELN 1102 A. C. Circuits (3-12-7)**

A study of the fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Analysis of alternating current circuits.

**ELN 1103 Electronic Devices And Circuits I (3-12-7)**

An introduction to vacuum tubes and their development; the theory, characteristics and operation of vacuum diodes, semi-conductor diodes, rectifier circuits, filter circuits, triodes and simple voltage amplifier circuits.

**ELN 1104 Electron Devices & Circuits II (3-12-7)**

A continuing study of tubes and circuits; the theory, characteristics and operation of the triode and pentode tubes, voltage and power amplifiers, tunable RF amplifiers, oscillators and demodulator circuits.

**ELN 1112 Trouble-Shooting Techniques I (0-3-1)**

Principles of radio reception and practices of servicing; included are block diagrams of radio receivers, servicing techniques of AM and FM receivers by resistance measurements, signal injection, voltage analysis, oscilloscope methods of locating faulty stages and components and the alignment of AM and FM receivers.

**ELN 1113 Trouble-Shooting Techniques II (2-6-4)**

A study of principles of television receivers, alignment of radio and intermediate frequency amplifiers, adjustment of horizontal and vertical sweep circuits will be taught. Techniques of trouble shooting and repair of TV receivers with the proper use of associated test equipment will be stressed.

**ELN 1114 Trouble-Shooting Techniques III (2-6-4)**

Continuation of the development of techniques of diagnosing problems and repair of more sophisticated electronic gear.

**ELN 1121 D. C. Circuits (7-6-9)**

A study of the electrical structure of matter and electron theory, the relationship between voltage, current, and resistance in parallel and series parallel circuits. An analysis of direct current circuits by OHM's Law and Kirchoff's Law. A study of the sources of direct current voltage potentials.

**ELN 1124 Transmission Theory And Maintenance (3-0-3)**

An introduction into electronic communications equipment. Includes a study of transmitters, transmission lines, and antennas.

**ELN 1134 FCC Rules and Regulations (4-0-4)**

A study of rules and regulations applicable to wireless communications in the United States.

**ELN 1153 Applied Math-Electronics (4-0-4)**

Mathematical methods used in analyzing electronic circuits will be developed. Elementary A-C Circuits, complex Algebra, Rms current and average power. Analysis of simple circuits by substitution and graphical means.

**ENGLISH AND SOCIAL STUDIES****ENG 1101 Reading Improvement (2-0-2)**

A concentrated effort to improve the student's ability to comprehend what he reads by training him to read more rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognition, and to train for comprehension in larger units. Reading faults of the individual are analyzed for improvement, and principles of vocabulary building are stressed.

**ENG 1102 Communication Skills (2-0-2)**

Development of ability to communicate effectively through the medium of good language usage in speaking and writing. Organizing thoughts, and presenting thoughts effectively in connection with problems.

**MATH****MAT 1101 Trade Math I (4-0-4)**

Practical number theory. Analysis of basic operations: Addition, subtraction, multiplication, and division. Fractions, decimals, powers and roots, percentages, ratio and percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and columns. Introduction to algebra used in trades. Practice in depth.

**MAT 1102 Trade Math II (4-0-4)**

Fundamental properties and definitions; plane and solid geometric figures, selected general theorems, geometric construction of lines, angles and plane figures. Areas of plane figures, volume of solids. Geometric principles are applied to shop operations.

**MAT 1103 Algebra And Trigonometry (4-0-4)**

Basic concepts and operations of algebra: historical background of our base-10 number system; algebraic operations: addition, subtraction, multiplication and division; fractions, letter representation, grouping, factoring, ratio and proportions, variation; graphical and algebraic solution of first degree equations; solution of simultaneous equations by: addition and subtraction, substitution, graphing, exponents, logarithms, tables and interpolation.

Trigonometric ratios; solving problems with right triangles; using tables, and interpolating; solutions of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions, trigonometric equations. All topics are applied to practical problems.

**MAT 1153 Machinist Mathematics (4-0-4)**

Introduces gear ratio, lead screw and indexing problems with emphasis on application to the machine shop. Practical applications and problems furnish the trainee with experience in geometric propositions and trigonometric relations to shop problems; concludes with an introduction to compound angle problems.

**MACHINIST****MEC 1101 Machine Tool Fundamentals (3-12-7)**

An introduction to the machinist trade and the potential it holds for the craftsman. Deals primarily with the identification, care and use of basic hand tools and precision measuring tools. Elementary layout procedure and processes of the power cut-off saw, band saw, drill press, milling machine, lathe, and off hand grinding will be introduced both in theory and practice.

**MEC 1102 Machine Operations And Setups (3-12-7)**

Advanced operations in layout tools and procedures, surface grinding, milling machine, lathe, and planer. The students will be introduced to operations involved in cylindrical, cutter and internal cylindrical grinding. Projects will be selected encompassing proper setups and machine operations.

**MEC 1103 Machine Tool Operations (3-12-7)**

Advanced work on the engine lathe, turning, boring and threading machines, grinders, milling machine and shaper. Introduction to basic indexing and terminology with additional processes on calculating, cutting and measuring of spur, helical, and worm gears and wheels. The trainee will use precision tools and measuring instruments such as vernier height gages, protractors, comparators, etc. Basic exercises will be given on the turret lathe and on the tool and cutter grinder.

**MEC 1104 Advanced Machine Shop (3-12-7)**

Development of class projects using previously learned procedures in planning blueprint reading, machine operations, final assembly and inspection. Additional processes on the turret lathe, tool and cutter grinder, cylinder and surface grinder, advanced milling machine

operations, etc. Special procedures and operations, processes and equipment, observing safety procedures faithfully and establishing of good work habits and attitudes acceptable to the industry.

**MEC 1111 Machine Processes I (0-3-1)**

An introductory course designed to acquaint the student with basic hand tools, safety procedures and machine processes of our modern industry. It will include a study of measuring instruments, characteristics of metals and cutting tools. The student will become familiar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming.

**MEC 1112 Machine Processes II (0-3-1)**

Advanced operations in layout tools and procedures, operational capabilities of all basic machines, finishes and finish symbols. Included will be a study of castings and casting specifications.

**MEC 1114 Metals (2-4-4)**

Elementary and practical approach to metals, their structure, markings, classifications and uses will be studied. Interpretation of properties and specification of steels by use of manuals, catalogs, charts, etc. Heat treating and color coding will be discussed. The effect on hardening, tempering, and annealing upon the structure and physical properties of metal.

**MEC 1121 Machinist Drafting (4-5-6)**

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.

**MEC 1123 Structure Of Metals (4-0-4)**

Elementary and practical approach to metals, their structure, markings, classifications and uses. Interpretation of properties and specification of steels by use of manuals, catalogs, charts, etc.

**MEC 1133 Specialized Machine Operations (3-2-4)**

Specialized work on the engine lathe, turret lathe, grinders, milling machines, and shapers. Additional use of the index head, rotary table, holding fixtures, boring heads, facing heads, tracers, etc.

**MEC 1152 Blueprint Reading For Machinist (0-3-1)**

Advanced blueprint reading as related to actual complete detail drawings found in Machine Shop.

## PHYSICS

**PHY 1111 Basic Mechanics (3-3-4)**

Physical principles of force, energy, work, and power; equilibrium and the laws of motion; principles of machines, mechanical advantage, and transmission of power. Basic principles of heat, light and sound applications to the future craftsman.

**PHY 1112 Basic Electricity (3-3-4)**

Basic principles of electricity, types of electricity, and its production, transmission, and transformation. Such factors as the electron theory, electrical measurement, magnetism, electromagnetism, and magnetic effects of electricity constitute major areas of study.

## PSYCHOLOGY

**PSY 1101 Human Relations (3-0-3)**

Development of understanding of relationships to other persons through some of the basic principles of human psychology. The

problems of the individual and his work situation are studied in relation to the established organization of modern business and industry and in relation to government practices and labor organization, with special emphasis on the operating responsibilities of good management.

## WELDING

**WLD 1101 Oxy-Acetylene Welding (3-12-7)**

Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, assembly of units. Welding procedures such as practice of puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead position, brazing, hard and soft soldering. Safety procedures are stressed throughout the program of instruction.

**WLD 1102 Arc Welding (3-12-7)**

The operation of A.C. Transformers and D.C. motor generator arc welding sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect his weaknesses in welding. Safety procedures are emphasized throughout the course.

**WLD 1103 Inert Gas Welding (3-9-6)**

Introduction and practical operations in the use of inert-gas-shield arc welding. A study will be made of the equipment, operation, safety and practice in the various positions. A thorough study of such topics as: principles of operation, shielding gases, filler rods, process variations and applications, manual and automatic welding.

**WLD 1104 Advanced Welding (3-12-7)**

Student is given an opportunity to specialize and review gas, arc and/or inert welding.

**WLD 1111 Gas Welding Fundamentals (0-3-1)**

Gas welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice will be given for surface welding, bronze welding, and flame-cutting methods applicable to mechanical repair work.

**WLD 1121 Arc Welding Fundamentals (0-3-1)**

Arc welding demonstrations by the instructor and practice by the students. The operation of AC & DC arc welding machines. Studies are made of welding heats, polarities and electrodes. Practice will be given for making groove and fillet type welds.

**WLD 1123 Blueprint Reading For Welders (0-3-1)**

Advanced blueprint reading as related to actual complete detail drawings found in welding shops.

**WLD 1133 Mechanical Testing And Inspection (2-3-3)**

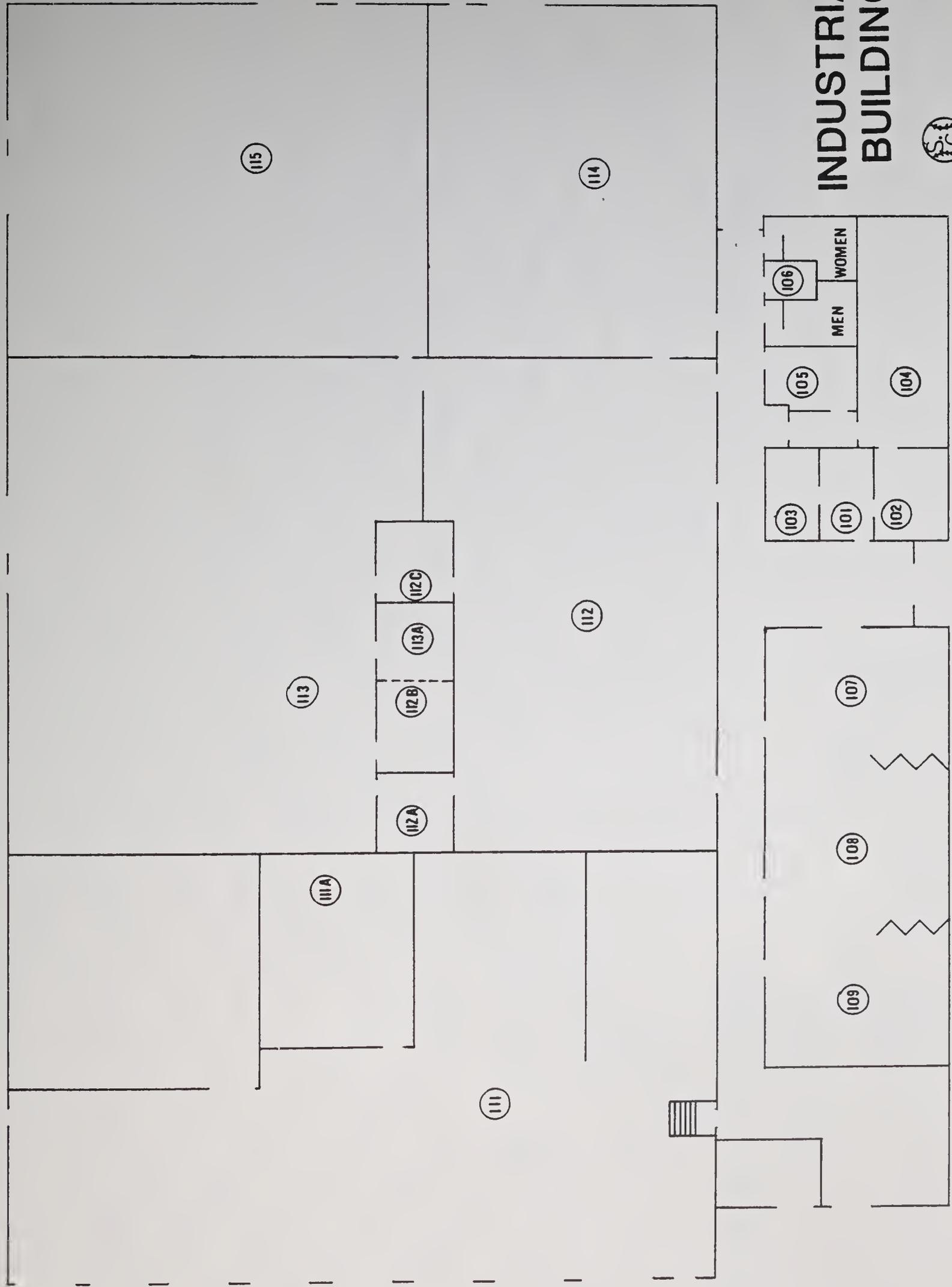
The standard methods for mechanical testing of welds. The student is introduced to the various types of tests and testing procedures and performs the details of the test which will give adequate information as to the quality of the weld. Types of tests to be covered are: bend, destructive, free-bend, guided-bend, nick-tear, notched-bend, non-destructive, B-notch, Charpy impact, etc.

**WLD 1134 Introduction To Pipe Welding (3-12-7)**

Designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position shielded metal arc welding processes according to Section IX of the ASME code.

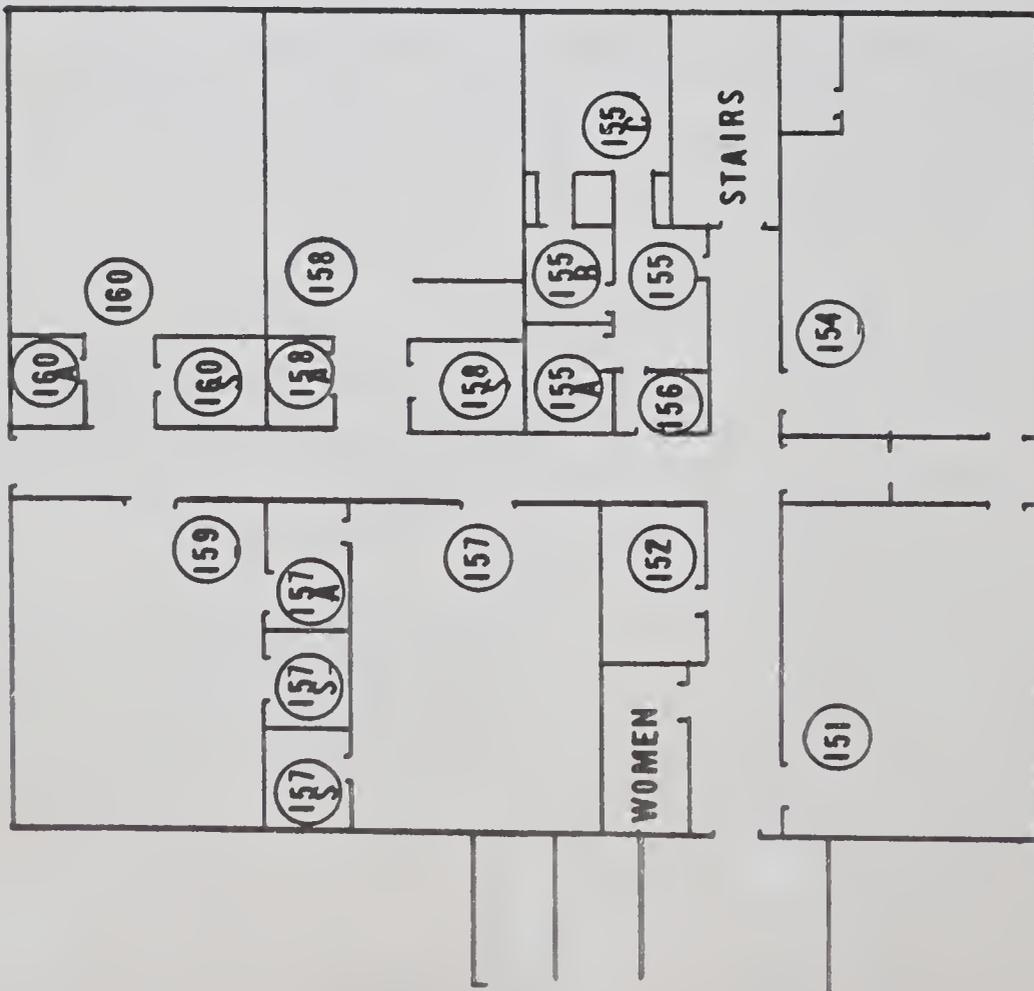
**WLD 1144 Estimating (4-0-4)**

Cost estimates are prepared working from actual shop prints.

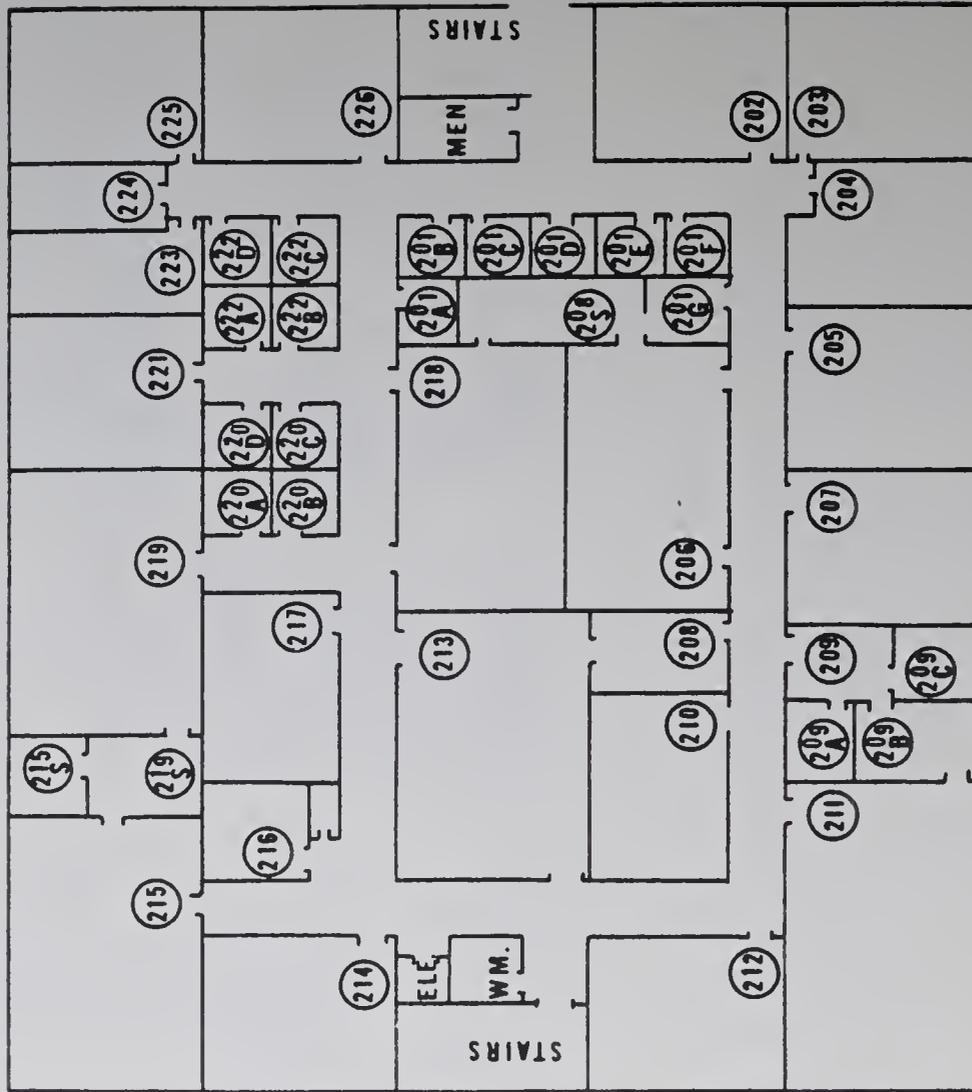


# INDUSTRIAL BUILDING



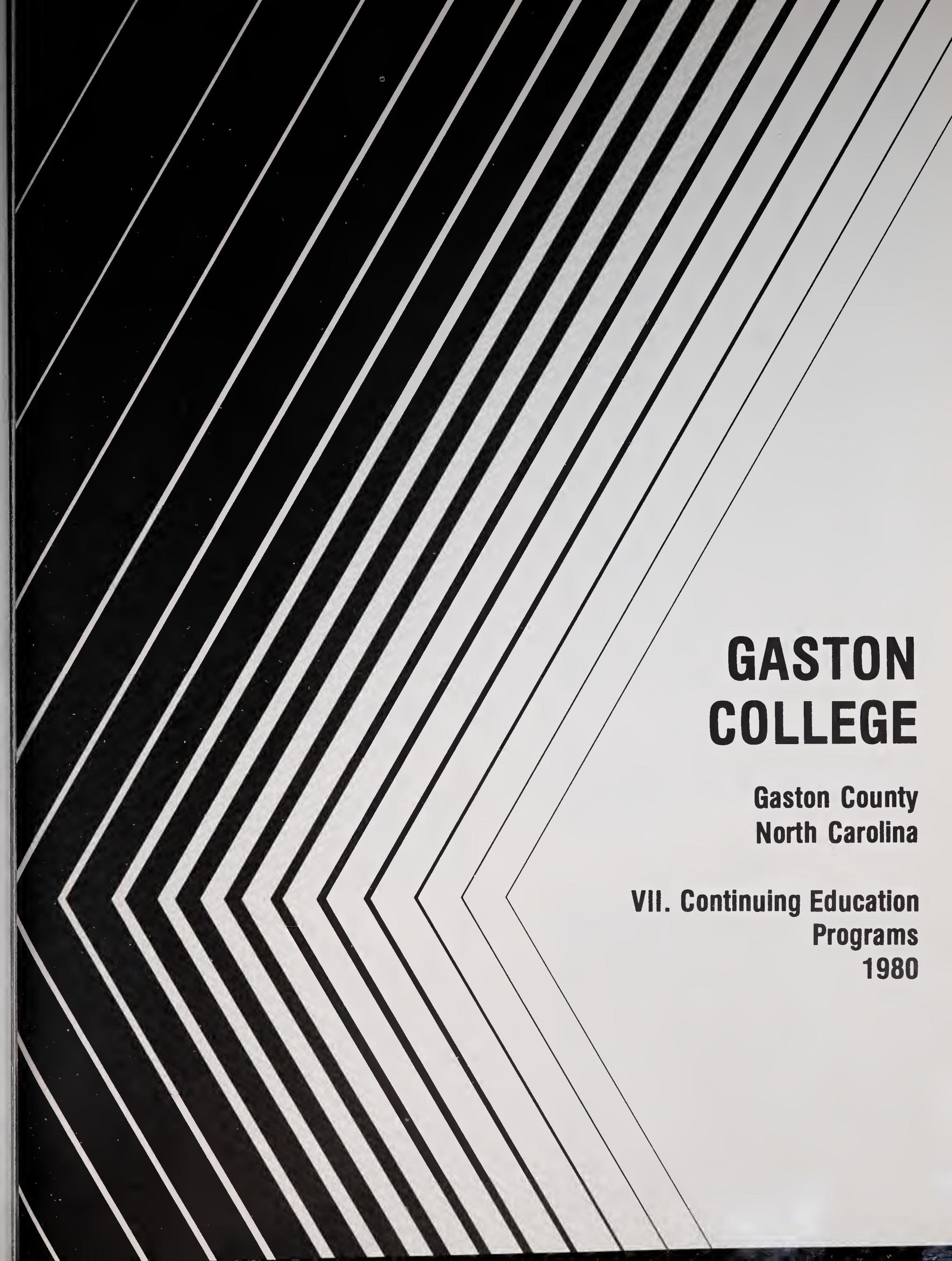


# 1ST FL. VOCATIONAL



# TECHNICAL BLDG. 2ND FL.





# **GASTON COLLEGE**

**Gaston County  
North Carolina**

**VII. Continuing Education  
Programs  
1980**



## ACADEMIC EXTENSION PROGRAMS

### GENERAL EDUCATIONAL DEVELOPMENT TESTING

### INDUSTRIAL EXTENSION PROGRAMS

### OCCUPATIONAL EXTENSION PROGRAMS

### PUBLIC SAFETY EXTENSION PROGRAMS

### HUMAN RESOURCES DEVELOPMENT EXTENSION PROGRAMS

### FAMILY LIFE CENTER PROGRAMS

### VISITING ARTIST PROGRAM

## OFFICIAL STATEMENT OF PURPOSES OF GASTON COLLEGE

Gaston College is a comprehensive community college which seeks to be of optimum educational service to the people within its geographic area. Gaston College, concerned equally with the needs of individuals and the needs of the community, commits its resources to fulfill the following purposes:

To provide for the college oriented student the first two years of academic college courses.

To meet for industry, business, government, and service occupations the pre-service and in-service manpower training needs that require up to and including the Associate in Arts degree.

To provide educational opportunity for the population of this area, including the numerous individuals who are experiencing social and economic difficulty that is due to handicapping attitudes and work habits or who have inadequate basic general education or who lack salable skills.

To raise the level of personal fulfillment, of responsible citizenship and the standards of living of the people of the area through advanced general and continuing education opportunities.

The Division of Continuing Education has been given the responsibility to implement certain elements of the above purpose. In assuming this responsibility, the Division commits its resources to serving the adults of Gaston and Lincoln Counties having educational needs which cannot be met by the other divisions of the college by offering non-credit educational and training courses and programs.

## ADMISSION

Generally, admission to continuing education courses is open to any person 18 years of age and not currently enrolled in the public school system.

Upon meeting certain specific admission requirements, 16 and 17 year old persons who have withdrawn from the public school system may be admitted to enroll in several selected programs. Also, 16 through 18 year old students currently enrolled in the public school system may, upon meeting certain specific admission requirements, enroll in certain courses.

Admission to courses offered through the Criminal Justice Academy is restricted to officers and employees of public police forces or chartered private security companies. In certain instances where courses are offered at government or industrial sites, admission may be restricted to employees.

## FEES

A non-refundable registration fee of \$5 is charged for all continuing education courses except adult basic education and learning laboratory. Public police officers, firemen, and lifesaving personnel may enroll in selected courses without payment of the registration fee. A non-refundable General Educational Development Testing fee of \$5 is charged when students begin the G.E.D. examination. This fee covers any testing undertaken in a five year period.

Students attending classes on the campus in Dallas and who operate a motor vehicle on campus are required to register the vehicle(s). Vehicles may be registered at any time during the year. The vehicle registration and parking permit decal fee is \$2. Traffic regulations and parking maps are issued to students when vehicles are registered. Adult basic education students must register vehicles, but are not required to pay the fee.

## REGISTRATION

Registration for continuing education courses is held each quarter on the Dallas campus, the Lincoln County Campus of Gaston College, and at other locations where classes are being held. Registration times and locations are published in the schedule printed each quarter and in the local newspapers. Special arrangements are made to register students for courses not listed in the quarterly schedules or for courses offered to employees at work sites.

Adults may register for adult basic education or high school completion courses at any time during the year.

Adults wishing to register for continuing education courses need not make formal application for admission. Generally, continuing education does not utilize a pre-registration process; however, in some instances a pre-registration period is offered and publicized. Students not able to register on the scheduled "registration day" may be able to register during the late registration periods. Late registration does increase the risk of not being able to register due to courses being filled or being cancelled. Late registration dates and times are listed in the quarterly schedules.

## CLASS CANCELLATIONS

The responsibility to maintain sound fiscal management of public funds, may at times, require that classes lacking specific enrollments be cancelled. In the event that a course is cancelled, registration fees are returned.

## FACILITIES

Continuing education courses are offered each quarter at the following locations: Gaston College—The main campus of Gaston College is located in Dallas, N.C. on Highway 321, about two miles north of I-85; Garrison Center—The Garrison Center of Gaston College is located on South York Street in Gastonia, N.C.; The Lincoln County Campus of Gaston College—The Lincoln County Campus is located at 309 East Main Street in Lincolnton, N.C.; Pharr-Stowe Learning Center—The Pharr-Stowe Learning Center is located on the second floor of the fire department building in McAdenville, N.C.

In addition to these sites, Gaston College normally offers courses through the Community School's programs at various sites throughout Gaston and Lincoln Counties during the fall and spring quarters. The college also offers courses in community centers, churches, industrial, commercial, and institutional sites throughout the two counties.

## **CONTINUING EDUCATION UNIT (CEU)**

The Division of Continuing Education at Gaston College has the responsibility of awarding the continuing education unit (CEU) to adults who successfully complete certain continuing education activities administered by the Division. The CEU is a unit of measure similar in nature to college credits, but not applicable towards earning a degree.

A large number of governmental agencies, professional occupational associations, licensing boards and commissions, and private employers utilize the CEU to recognize non-credit educational experiences. In many instances, CEUs are used to fulfill minimum license or certification requirements. Often CEUs are used as measures of personal initiative and skill upgrading and play a significant role in determining promotions and salary increases. The following information defines the CEU, outlines program criteria, suggests how the CEU may be used, and states certain limitations to the use of CEUs.

### **Definitions—**

1. One continuing education unit (CEU) is equal to ten (10) contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction, and qualified instruction.
2. "Participation in" is defined as attendance at, and active involvement in, a continuing education learning activity.
3. "Organized continuing education experience" means a learning activity wherein participant needs have been determined, goals and objectives are clearly specified, appropriate instruction is offered, and pertinent evaluation is conducted.
4. "Responsible sponsorship" refers to learning activities which are administered and controlled by Gaston College.
5. "Capable direction" is defined to mean active direction by an experienced and professional staff member in the employ of the Division of Continuing Education at Gaston College.
6. "Qualified instruction" means that the activity will be taught by faculty members of Gaston College and/or adjunct faculty members whose professional experience and instructional ability qualifies them as experts on a particular subject.

### **Program Criteria—**

1. The program must be planned in response to clearly identified continuing education needs of a clientele group or target population.
2. Learning objectives must be specified for each program prior to its initiation.
3. Qualified instructional personnel must be directly involved in conducting the program.
4. Specific performance requirements for the award of CEU must be established prior to offering the program.
5. Student registration procedures must provide sufficient detail to provide necessary information for a permanent record of individual participation.
6. Evaluation procedures identified during the planning process are to be used to determine the effectiveness of the program.
7. A permanent CEU record and retrieval system will be maintained.

### **Suggested CEU Applications—**

The following suggestions for the possible applications of the CEU are offered as illustrations of the kinds of continuing learning experience for which CEU would be offered.

1. Programs to be used in fulfillment or partial fulfillment of certificate or licensing requirements.
2. Intensive training and education in technical and professional areas (i.e., for engineers, lawyers, doctors, teachers, managers, etc.)
3. In-service training programs relative to new techniques, concepts, or developments.
4. Programs sponsored by technical, professional, or special interest groups designed to upgrade the performance of members in specified areas.

### **Limitations—**

The following types of learning activities ordinarily will not be awarded the continuing education unit:

1. Programs which have less than 5 contact hours.
2. Any program carrying academic credit, either secondary or collegiate.
3. Programs leading to high school equivalency certificates.
4. Organizational orientation training programs.
5. Short duration programs only casually related to any specific upgrading purpose or goal.

## ACADEMIC EXTENSION PROGRAM

The various components of the Academic Extension Program offer an opportunity to adults to acquire fundamental through post-high school level academic skills that may be necessary to meet minimum employment standards, for employment upgrading, or for personal satisfaction.

**Adult Basic Education (ABE):** The Adult Basic Education program offers adults the opportunity to acquire academic skills in reading, English, and mathematics from the most basic level through levels normally taught in junior high school. The ABE program is a joint federal-state activity and is offered free to the public.

Upon enrollment, students operating at the most basic levels receive tutorial and small group instruction. Initial emphasis is placed on development of reading skills, with English and mathematics introduced when appropriate. As the students progress, they will begin to utilize self-instruction or programmed instruction materials. Although no formal grades or credits are used, thorough academic counseling will keep students aware of their progress. Various local and nationally standardized examinations are used to determine skill development.

Students may enroll at any time during the year. In recognition of adult life styles and multiple commitments of time, students exercise the right to design their daily and weekly schedules. Morning through late evening classes are held at the Dallas campus, at the Lincolnton campus, at the Garrison Center, and at the Pharr-Stowe Center. Individual morning, afternoon, or evening classes are held at various church, industrial, community, and educational locations throughout the two counties.

Upon completion of the Adult Basic Education program, students will be encouraged to continue their progress by enrolling in the high school (GED) program.

**General Education Development (GED) Study:** The General Educational Development Study Program offers adults who were unable to complete their high school in the traditional manner an additional opportunity to do so. This program utilizes a variety of individualized and programmed instruction methods to acquire predetermined academic skills. The goal of the GED Study Program is preparation for successful completion of the General Educational Development Test. Broad areas studied in this program are reading, general mathematics and English. Specific attention will be directed to increasing speed and comprehension of reading matter ranging from newspapers and literature through technical or scientific articles. In the area of mathematics, students will be directed to perfecting skills in handling numerical and word problems in fractions, decimals, percentages, and formula applications. Depending upon each individual student's post high school goals, algebra and upper level mathematics will be introduced. Although no formal grades or credits are used, thorough academic and vocational counseling will keep students aware of their progress. Various local and nationally standardized examinations are used to determine skill development.

Students may enroll at any time during the year. In recognition of adult life styles and multiple commitments of time, students exercise the right to design their daily and weekly schedules. Morning through late evening classes are held at the Dallas campus, at the Lincolnton campus, at the Garrison Center, and at the Pharr-Stowe Center. Individual morning, afternoon, or evening classes are held at various church, industrial, community, and educational locations throughout the two counties.

When a student has acquired the skills that indicate successful completion of the General Educational Development Test, the student will be encouraged to make application and commence testing.

**General Educational Development Test:** Gaston College in Dallas, and the Lincoln County branch of Gaston College are official General Educational Development (GED) testing centers. The GED test is a nationally standardized examination based upon academic skills possessed by students earning traditional high school diplomas. There are five separate examinations to the GED, covering the areas of general reading, reading in the natural sciences, reading in the social sciences, English grammar, and general mathematics. Although there is no requirement that students be enrolled in a study program prior to GED testing, applicants not currently enrolled will be encouraged to complete a series of pre-tests to determine if their skills are adequate.

The completion of a formal testing application and payment of a fee are required prior to testing. There are morning, afternoon, and evening examination periods scheduled at the Dallas campus and at the Lincolnton campus.

Upon successful completion of the five examinations, the student will receive a High School Equivalency Diploma from the North Carolina State Board of Education. The Equivalency Diploma is fully recognized by industry, the military, the government, and colleges and universities for the purpose of employment, enlistment, or enrollment. Students not successful in their first attempt may re-schedule any or all five of the tests; however, the college may require evidence of additional preparation prior to retesting.

**English as a Second Language (E.S.L.):** Due to the immigration into Gaston and Lincoln Counties of a large number of non-English speaking adults and their families, classes specifically designed to teach spoken and written English are offered. These classes are free of charge, may be organized at any time, and instruction scheduled at any time of day or evening.

**Learning Laboratories:** Learning laboratories are multi-purpose, individualized instruction facilities located at the Dallas campus and at the Lincolnton campus. Students may utilize the learning labs for study of fundamental, high school, or post-high school level activities. A large variety of study materials are located in the learning labs, and through its cooperation with the College Learning Resource Center, additional materials may be obtained. The most unique function of the learning labs are their services to the currently enrolled curriculum students having academic difficulty and needing tutorial assistance.

## OCCUPATIONAL AND INDUSTRIAL EXTENSION PROGRAMS

The primary purpose of the Occupational and Industrial Extension Programs is the offering of short-term, non-credit courses to the general, industrial, and governmental publics. These courses may provide opportunities to acquire entering employment skills, employment upgrading skills, or for the personal satisfaction of learning a new skill.

Occupational and Industrial Extension courses may be designed and structured either to be singular independent activities or as a unit or component of a series of courses. Courses may be offered having as few as five contact/class hours, or with as many as 440 contact/class hours. They may be offered at any of the college, facilities, at industrial sites, or at any other location satisfactory to all parties involved. Although most courses offered to the general public are scheduled in the evenings, courses may be scheduled at almost any time of any day. Students who complete all course and attendance requirements, may, upon notifying the Division of Continuing Education, receive a Certificate of Educational Achievement.

The major difference between the Occupational and Industrial Extension Programs and the other programs of the Continuing Education Division and other divisions of the college is the ability to design and organize courses of study to satisfy the particular needs of its students rather than being restricted to traditional degree seeking course requirements. While this flexibility may be desired by adults taking general courses of interest, it is most often of benefit to employers who have specific educational or training needs.

**Occupational Extension Program:** The primary mission of the Occupational Extension Program is to search and solicit from the general public educational and training needs not leading to employment entry, licensing, or certification that may best be met through organized courses. The content of these courses is usually less structured, less technical, and without attendance requirements. In many instances, however, occupational extension courses may be designed to meet the established criteria for awarding continuing education units (CEUs), and may be highly structured and include evaluations.

The following courses have been offered in the past or will likely be offered in the future. This list is not intended to be exclusive.

Anthropology  
Archaeology  
Ethics  
Civilization  
Comparative Religion  
Cultural Artifacts  
Logic

Ceramics  
Choral Direction  
Commercial Art  
Drawing  
Instrumental Music  
Interior Design  
Painting  
Photography  
Sculpture  
Tole Painting  
Watercolor

Consumer Education  
Income Tax  
Securities and Investments  
Stocks and Bonds

Environmental Sciences  
Population  
United States Geography  
World Geography

Local History  
North Carolina History  
United States History  
World History

Household Computers  
Owner Auto Tune-up

Communications  
English  
French  
German  
Journalism  
Sign Language  
Spanish  
Writing

Algebra  
Metrics

Current Events  
Great Decisions  
Local Government  
North Carolina Government  
United States Government  
World Affairs

Alcoholism  
Human Relations  
Principles of Psychology  
Social Change

Crocheting  
Home Sewing  
Knitting  
Quilting

Cake Decorating  
Catering  
Gourmet Cooking

Floral Design  
Landscaping for the Homeowner  
Household Repairs  
Solar Energy

**Industrial Extension Programs:** The primary mission of the Industrial Extension Program is to search and solicit from the governmental boards and commissions, from professional associations, and from employers the educational and training needs that may best be met through organized courses. In many instances, these courses may be designed for a specific company or organization. In many other instances, these courses are standardized in an effort to prepare the students for competitive licensing or certification examinations. Normally, these courses are highly technical in content, their objectives are specific, and a final evaluation is required.

The following courses have been offered in the past or will likely be offered in the future. This list is not intended to be exclusive.

Accounting  
Bookkeeping  
Business Machines  
Key punch  
Secretarial Review  
Shorthand  
Speedwriting  
Typing

Alcoholism in Business and  
Industry  
Art of Motivating People  
Business Law  
Conference Leadership Training  
Communications for Managers  
Effective Speaking  
Effective Writing  
Employee Evaluation and  
Interviewing  
Human Relations  
Industrial Noise Abatement  
Industrial Safety and  
Accident Prevention  
Job Analysis Training  
Job Methods  
Labor Law  
Management by Objectives  
Office Practices  
Principles of Business and  
Industrial Management  
Principles of Supervision

Commercial Horticulture  
Floral Design  
Landscaping  
Taxidermy

Automotive Repair  
Lawnmower Repair  
Automotive Air Conditioning  
Repair

Surveying  
Wastewater Resources  
Water Plant Operation

Clothing Construction  
Drapery Making

Air Conditioning and Heating  
License Preparation  
Bricklaying  
Electrical Codes  
Plumbing Codes  
Small Electrical Appliance  
Repair  
Stone Masonry

Cardiopulmonary Resuscitation  
Techniques (CPR)

Public Relations  
Work Measurement

Principles of Bank Operations  
Banking and Marketing  
Customer Service  
Life Underwriters Training

Merchants Loss Prevention  
Real Estate Appraisal  
Real Estate Sales License  
Preparation  
Real Estate Brokers License  
Preparation  
Retail Sales

Occupational Safety and Health  
Act  
Multimedia First Aid  
Advanced First Aid for  
School Personnel

Gunsmithing  
Sheetmetal Blueprint Reading  
Welding, Electric  
Welding, Gas

Counseling Techniques for  
Nurses  
Introduction to Diseases  
Hospital Unit Clerk Training  
Hospital Nurses Aide Training  
Nursing and Rest Home Aide  
Training  
Pharmacology

**Human Resources Development Program (HRD):** The primary purpose of the Human Resources Development Program is the offering to the public a comprehensive educational activity designed to increase the employability of the underemployed or unemployed. The Human Resources Development Program course is normally between 200 and 250 contact/class hours in length, and usually operates during the day. In an effort to assist those adults currently employed but nearing termination, or those experiencing employment difficulty, the Human Resources Development section offers evening sections of a shorter duration.

The HRD Program is divided into two components. One series of activities is devoted to upgrading academic skills and, if possible, culminating in the attainment of a high school equivalency diploma. The other activities are directed at recognition of student assets and limitations, student goal setting, effects of personal and interpersonal behavior, employment interviewing skills, exploration of employment opportunities, diagnostic interest, vocational skill testing, and assistance in job placement. The Human Resource Development Programs are located at the Garrison Center in Gastonia, N.C., and at the Lincoln County Campus of Gaston College in Lincolnton, N.C.

**Comprehensive Employment and Training Act Programs:** Along with the other divisions of the College, the Division of Continuing Education cooperates with the Gaston County Office of Employment and Training to implement education and training programs for clients of the Office of Employment and Training. The range, variety, and scope of these cooperative efforts depends mainly upon guidelines from the U.S. Department of Labor. The intent of the Comprehensive Employment and Training Act is to assist the unemployed and untrained to acquire salable skills, become employed on a full time basis, and thereby become less dependent on government for continued financial assistance. Eligibility to participate in C.E.T.A. programs is determined by the Office of Employment and Training for those adults in Gaston County, and the Department of Community Employment, Raleigh, N.C., for those adults in Lincoln County.

**Public Safety Extension Programs:** The primary purpose of the Public Safety Extension Program is to organize, and offer to the various governmental bodies of Gaston and Lincoln Counties, educational and training courses for those protective, service, or lifesaving agencies. The Public Safety Extension Program is divided into three areas.

The Criminal Justice Academy is designed to serve the law enforcement agencies of the two counties. The Academy is approved to offer the basic law enforcement school required of all police officers. Two basic law enforcement schools of different length and content are offered. The 240 contact/class hour course is a tightly structured, evening and week-end school offered to those departments needing this type of scheduling. The 416 contact/class hour course is designed to, not only meet established minimum standards of training, but expands the minimum and offers other training activities that are desired by some local law enforcement departments.

In addition to the basic schooling, the Academy also offers short term training courses in such areas as speed detection, alcohol testing operators, identification techniques for witnesses, physical fitness, criminal law and court decision updating, criminal investigation, and communications.

Fire Services Programs are another activity of Public Safety Extension. Although primarily devoted to assisting the volunteer fire departments, assistance in firefighting and fire prevention training is offered to all local departments.

Gaston College benefits also by having the resources of a regional fire services training coordinator. This coordinator not only assists in assessing needs for training, but is in a position to make the College and the fire departments aware of new and more sophisticated firefighting techniques.

The third area of activity of the Public Safety Extension Program is offering of Emergency Medical Technician Basic and License Renewal Courses. Operating jointly with the Office of Emergency Medical Services of the North Carolina Department of Human Resources, the College serves both Gaston and Lincoln Counties in providing the training programs for ambulance and rescue vehicle operators. Due to the content of the EMT courses, and the frequency of exposure to emergency situations, the EMT courses are frequently attended by police officers, firemen, licensed and practical nurses, school teachers, and coaches.

There are two distinctly different methods available in attaining the basic emergency medical technician training. Students have the option of attending a traditional classroom-teacher directed course of study, or attending a multi-media laboratory to receive a programmed course of study. The standard course of study is for 105 contact/class hours including fifteen hours in the Gaston Memorial Hospital Emergency Room. The programmed course does not have a contact/class hour measure, but students devote as much time as necessary to master the various training modules.

The license renewal course is designed to train EMTs in new techniques, and to assist them in maintaining necessary lifesaving techniques.

**Family Life Center Programs:** The Family Life Center, located at the Garrison Center in Gastonia, N.C., is designed to offer to the public activities and programs devoted to developing and maintaining the integrity and status of the family unit. The Family Life Center is composed of three distinct units, each serving a specific area of concern.

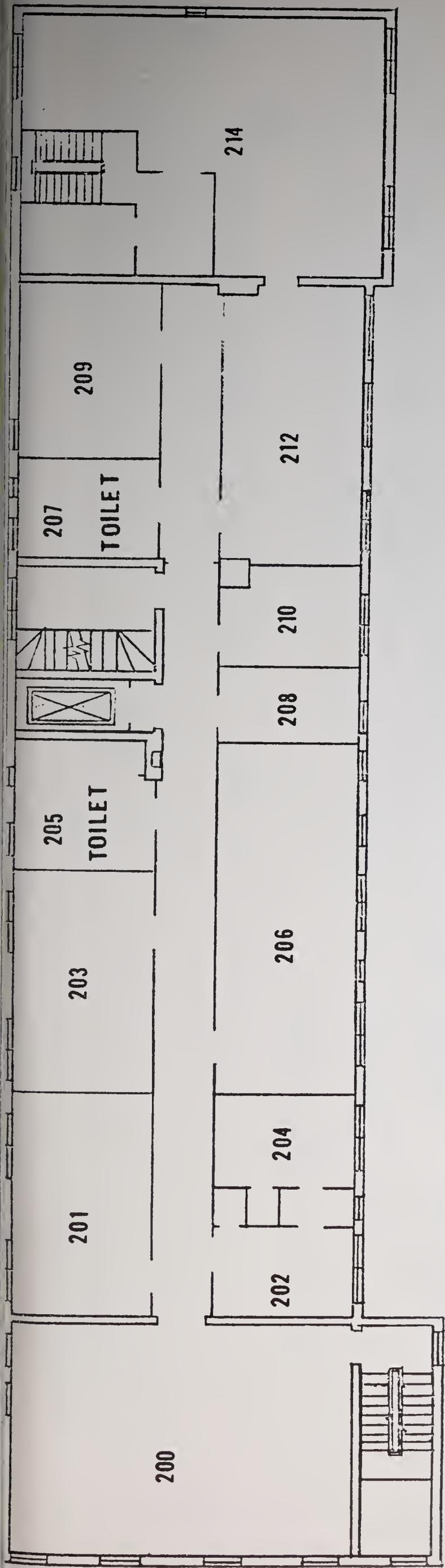
The Career Center is designed to assist family members in choosing career opportunities. Interest and vocational skill diagnostic testing is utilized. Attention is focused on career decision making, resume writing, interview skills, and other job seeking techniques.

The Retirement Center is designed to assist family units effected by occupational retirement. Courses and activities are organized and offered to the retired, or soon to be retired member as well as other family members in an effort to maximize the benefits or opportunities retirement offers. Health, insurance, pension management, social security management, estate planning, leisure time planning, part-time employment opportunities, income tax assistance, and special benefits exclusively available to the retired are a few of the areas explored either by distinct courses or by group counseling.

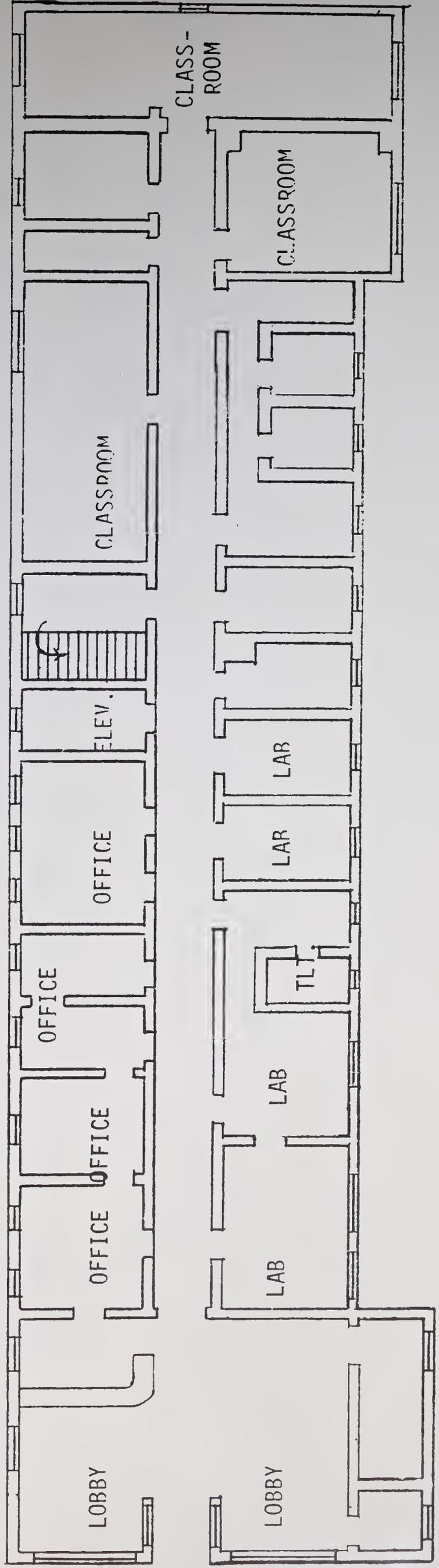
The Displaced Homemaker Center is designed to assist the male or female heads of household that has been out of the labor force for several years, to reestablish themselves in a viable skill area, to assist them in job placement, and to provide supportive services such as counseling, interest and vocational diagnostic testing, and job placement follow-up.

#### **VISITING ARTIST PROGRAM**

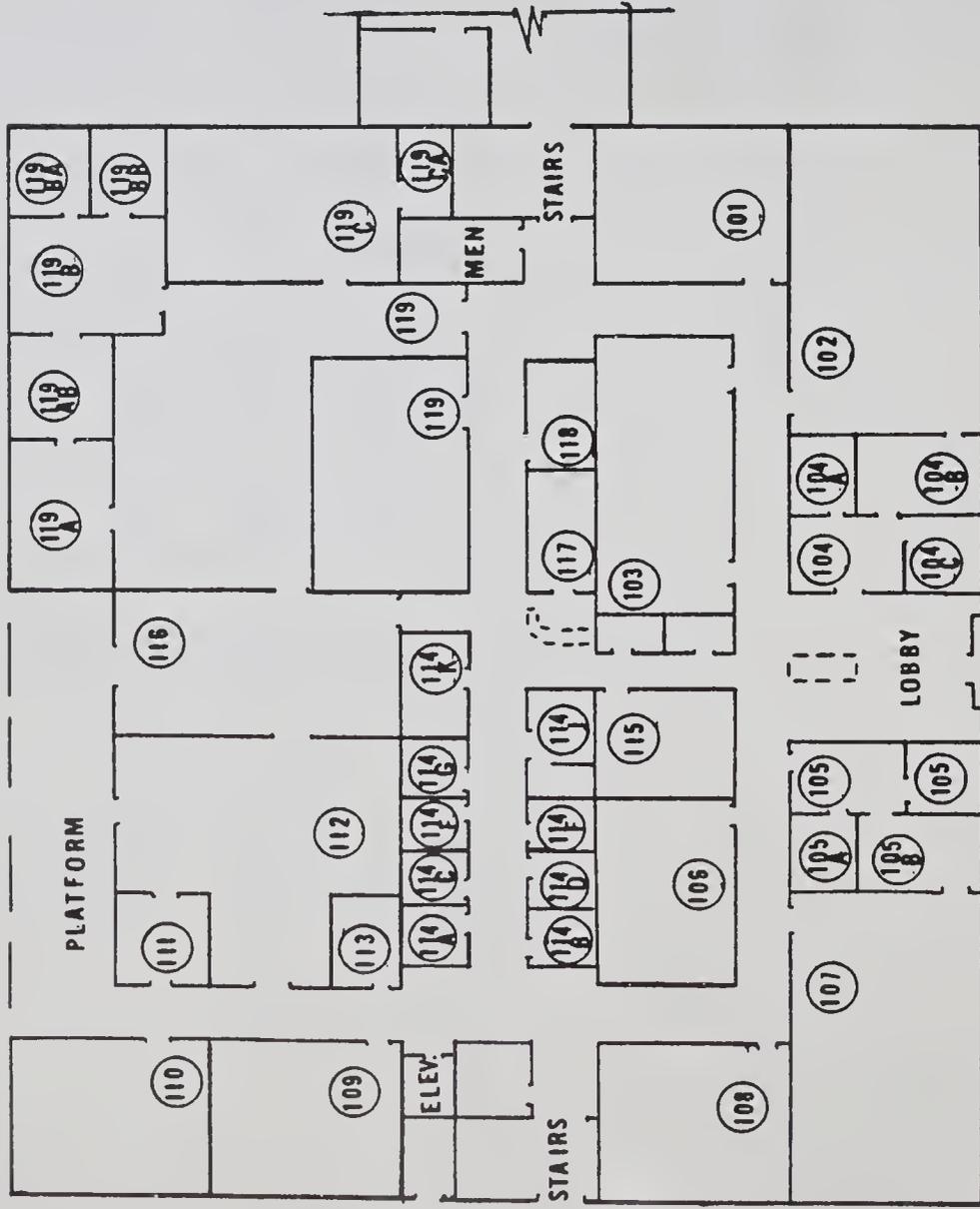
The primary purpose of the Visiting Artist Program is to provide to the citizens of Gaston and Lincoln Counties an opportunity to attend performances or exhibits of highly skilled artists. The task of the visiting artist is to increase awareness of and interest in his particular art form. Performances by the visiting artist to the general public are offered free of charge. The public and private school systems, civic clubs and organizations, music and art clubs and councils are encouraged to solicit the services of the visiting artist.



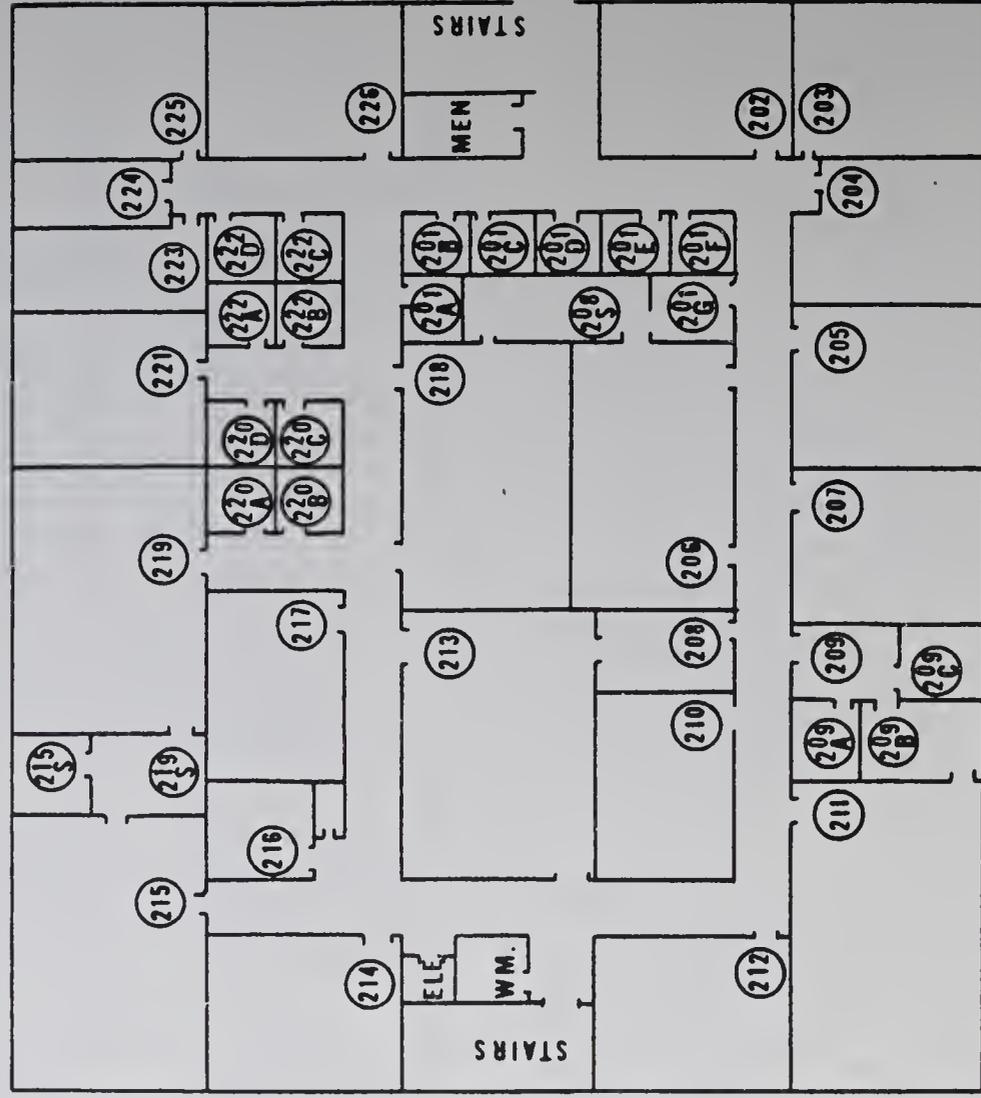
GARRISON CENTER 3RD FLOOR



GARRISON CENTER - STREET FLOOR



1ST FL. TECHNICAL



TECHNICAL BLDG. 2ND FL.





- I. **General Information and Regulations**
- II. **College Parallel Programs**
- III. **Occupational Technology Programs**
- IV. **Engineering and Allied Technology Programs**
- V. **Health Occupations Programs**
- VI. **Vocational Education Programs**
- VII. **Continuing Education Programs**

Additional copies of the above booklets may be obtained from:

**Director of Admissions  
GASTON COLLEGE  
Dallas, N. C. 28034**

“An Affirmative Action Equal Opportunity Institution”

Gaston College reserves the right to make changes in philosophy, objectives, policies, regulations, fees, and offerings as circumstances may require.