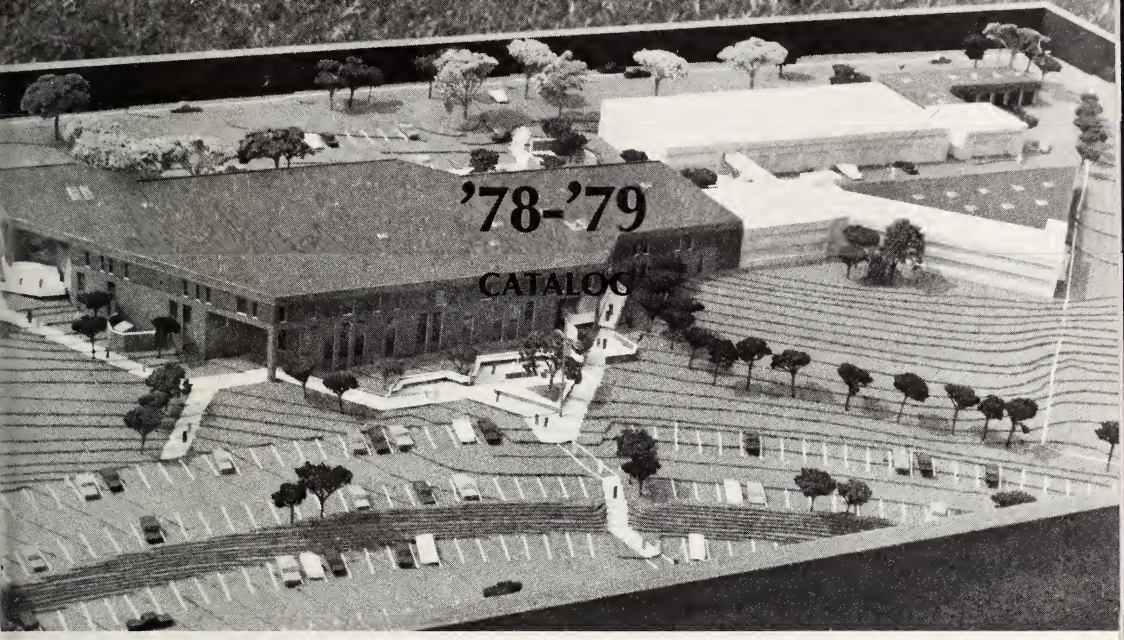
CLEVELAND COUNTY TECHNICAL INSTITUTE

Academic Bulletin

1979-80



Vol. 8, No. 1 **December 1978**

DIRECTORY OF CORRESPONDENCE

Inquiries will receive prompt attention if addressed to the Administrative Offices below at Cleveland County Technical Institute, 137 South Post Road, Shelby, North Carolina 28150:

Academic Affairs	Vice-President, Instruction
Administrative Affairs	The President
Admission	Director of Admissions
Adult Basic Education	Director-Adult Basic Education
Entrance Procedures	Director of Admissions
Evaluation of Credits	Director of Admissions
Financial and Business Affairs	Vice-President-Business Affairs
Gifts and Bequests	The President
High School Program	Dean of Continuing Education
Job Placement Service	Director of Student Placement
Non-Credit Courses	Dean of Continuing Education
Registration	Registrar
Student Financial Aid	Director of Financial Aid
Student Affairs	Vice-President-Student Services
Transcripts	Registrar
Veteran's Affairs	Director of Veterans Affairs

CLEVELAND COUNTY TECHNICAL INSTITUTE

"An Equal Opportunity Educational Institution"

TABLE OF CONTENTS

CALENDAR OF EVENTS
1978-79

FALL QUARTER

September 26-27	Tuesday, Wednesday. Orientation and Registration
September 28	Thursday ..... First Day of Classes
October 5	Thursday ..... *Late Registration Ends
November 22	Wednesday ..... Last Day to Drop Courses
November 23-24	Thursday, Friday ..... Thanksgiving Holidays
December 14	Thursday ..... Graduation Exercises
December 15	Friday ..... Fall Quarter Ends

WINTER QUARTER

January 2-3	Tuesday, Wednesday. Orientation and Registration
January 4	Thursday ..... First Day of Classes
January 11	Thursday ..... *Late Registration Ends
February 28	Wednesday ..... Last Day to Drop Courses
March 21	Wednesday ..... Winter Quarter Ends

SPRING QUARTER

March 21-22	Wednesday, Thursday ..... Orientation and Registration
April 2	Monday ..... First Day of Classes
April 6	Friday ..... *Late Registration Ends
April 16	Monday ..... Easter Holiday
May 28, 29, 30	Monday-Wednesday ..... Student Holidays (C.C. Conference)
May 31	Thursday ..... Last Day to Drop Courses
June 21	Thursday ..... Spring Quarter Ends
June 21	Thursday ..... Graduation Exercises

SUMMER QUARTER

June 20-21	Wednesday, Thursday ..... Orientation and Registration
July 9	Monday ..... First Day of Classes
July 13	Friday ..... *Late Registration Ends
August 31	Friday ..... Last Day to Drop Courses
September 3	Monday ..... Labor Day Holiday
September 24	Monday ..... Summer Quarter Ends

*Late registration is permitted for new students only.

CALENDAR OF EVENTS
1979-80

FALL QUARTER

September 25-26	Tuesday, Wednesday ..... Orientation and Registration
September 27	Thursday ..... First Day of Classes
October 4	Thursday ..... *Late Registration Ends
November 21	Wednesday ..... Last Day to Drop Courses
November 22-23	Thursday, Friday ..... Thanksgiving Holidays
December 14	Friday ..... Fall Quarter Ends
December 14	Friday ..... Graduation Exercises

WINTER QUARTER

January 2-3	Wednesday, Thursday ..... Orientation and Registration
January 7	Monday ..... First Day of Classes
January 11	Friday ..... *Late Registration Ends
February 29	Friday ..... Last Day to Drop Courses
March 21	Friday ..... Winter Quarter Ends

SPRING QUARTER

March 19-20	Wednesday, Thursday ..... Orientation and Registration
March 26	Wednesday ..... First Day of Classes
April 2	Wednesday ..... *Late Registration Ends
April 7	Monday ..... Easter Holiday
May 27	Tuesday ..... Last Day to Drop Courses
May 28, 29, 30	Wednesday-Friday ..... Student Holidays (C.C. Conference)
June 13	Friday ..... Graduation Exercises
June 17	Tuesday ..... Spring Quarter Ends

SUMMER QUARTER

June 16-17	Monday, Tuesday ..... Orientation and Registration
June 30	Monday ..... First Day of Classes
July 7	Monday ..... *Late Registration Ends
August 27	Wednesday ..... Last Day to Drop Courses
September 1	Monday ..... Labor Day Holiday
September 17	Wednesday ..... Summer Quarter Ends

*Late registration is permitted for new students only.

GENERAL INFORMATION

HISTORY

The 1963 North Carolina General Assembly authorized a system of comprehensive community colleges, technical institutes, industrial education centers, and extension units to be established, and placed under the jurisdiction of the State Board of Education.

The Cleveland Unit of Gaston College was established on July 1, 1965, as a result of the vision and effort of many individuals over several years. The Shelby Chamber of Commerce and the County Commissioners worked with the State Board of Education and Gaston College in establishing a unit of the college. Two buildings were rented by the County Commissioners at 118 North Morgan Street to start the school.

On July 11, 1965, James B. Petty was elected director of the Unit.

The first classes began in September 1965, in the old Porter Brothers and McBrayer buildings. The number of classes and students has grown rapidly since that date.

On October 2, 1967, a local Board of Trustees was officially appointed and the Extension Unit became Cleveland County Technical Institute, a unit of the Department of Community Colleges of North Carolina.

In July 1969, the institute leased the County Home property at 137 South Post Road for a campus and moved to the new location.

Having secured a grant of $500,000 from the Cleveland County Board of Commissioners and matched by a like amount from the State of North Carolina, architects were commissioned in 1972 to plan a long range building program on the present campus and the first two buildings for the new campus layout. The first two new buildings were completed and placed in use for the Fall Quarter 1974.

In June 1977 the voters of Cleveland County approved a $5,000,000 bond referendum to construct the next two phases of the long-range development plan for the campus.

Architects have prepared working drawings for the new construction. Bids are expected to be received and construction started by early 1979. By mid-1981 an almost-new campus will be ready to receive students.

PURPOSE

Cleveland County Technical Institute is a learning institution where persons of all educational levels, abilities, and interests have an opportunity to further their education. The Institute will offer low cost educational programs which will provide opportunities for growth in knowledge and development of skills to enable individuals to become gainfully employed, enhance their personal

growth and exercise the privileges and responsibilities of citizenship. The ultimate goal is to assist persons to experience the fullest possible meaning in human life in a changing world of challenge and responsibility.

To fulfill this purpose the Institute will provide:

1. Educational programs at the general education, technical and vocational trade levels for initial employment qualifications, for upgrading and improving their skills in their present employment through curriculum credit courses and continuing education non-credit courses, and for improving the general education level of persons served by the Institute.
2. Numerous programs and courses providing adults opportunities to continue their education through adult basic and adult high school levels as well as courses for avocational interest and personal growth.
3. Counseling and other guidance services to enable persons to identify programs suited to their abilities, interest, experience and goals and to perform effectively in the areas selected.

ACCREDITATION

Cleveland County Technical Institute is a member institution of the Department of Community Colleges of North Carolina and is accredited by the North Carolina State Board of Education and the Southern Association of Colleges and Schools and has provisional accreditation from the American Medical Association for Radiology Technology. All curriculum programs of the Institute have been approved for veteran benefits under the "G.I. Bill", or under legislation covering war orphans. The Institute is approved for the training and education of personnel who qualify under the provisions of the North Carolina Division of Vocational Rehabilitation, Department of Human Resources.

STUDENT CONDUCT

Self-discipline is an essential element of individual growth and development. Accordingly, students are expected to display the qualities of courtesy and integrity that characterize the behavior of mature ladies and gentlemen.

It is expected that students will be governed by such rules and regulations as may be established by the Institute.

The Institute does not permit the use of or possession of alcoholic beverages or narcotics in any form on the campus or at Institute sponsored functions. Violations of rules and regulations may subject the student to disciplinary measures or dismissal. (See Due Process Procedures in Student Services section of this catalog.)

VISITORS

Visitors need to receive permission from the main office prior to visiting classrooms, shops, or labs.

NIGHT OFFERINGS

The Institute offers an extensive night program which includes most of the credit courses given in the daytime, as well as non-credit courses primarily for adult general interest or occupational upgrading or retraining.

The availability of credit courses at night allows the student who must work while attending school the opportunity to coordinate his school activities with employment. A student may enroll for both day and night classes.

It is possible to complete all work toward a degree or diploma by attending at night. The rate of progress through a program will depend upon the number of courses taken each quarter. A reduced load will require a longer period to complete program requirements.

The Institute reserves the right to cancel any class, day or night, for which there is insufficient enrollment.

NOTICE OF INSTITUTE REGULATIONS

The Institute has a genuine interest and concern for the integrity of all students; therefore all regulations found in this catalog, the student handbook, or announcements posted on bulletin boards will be followed by all students. Each student is responsible for becoming familiar with these publications and reading official announcements to be informed of current policies.

NON-DISCRIMINATION POLICY

Cleveland County Technical Institute's Board of Trustees and Staff recognize the importance of equal opportunity in all phases of the Institute's operations and adheres to a policy of non-discrimination on the basis of race, color, sex, age, religion, national origin, physical or mental disability, or other non-relevant factors. This policy applies to both students and employees at all levels of the school's operations. Anyone who believes this policy has been violated may seek satisfaction through the Due Process procedures outlined in this catalog.

BOARD OF TRUSTEES

APPOINTED BY THE CLEVELAND COUNTY COMMISSIONERS:

David S. Banks 1981
837 North Morgan Street, Shelby, North Carolina
Mrs. Grace R. Hamrick 1985
909 Elizabeth Road, Shelby, North Carolina
Grady K. Howard 1979
406 Edgemont Drive, Kings Mountain, North Carolina
John F. Schenck, III, Chairman 1983
440 Country Club Acres, Shelby, North Carolina

APPOINTED BY THE SCHOOL BOARDS OF CLEVELAND COUNTY:

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Route 3, Lawndale, North Carolina
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605 Buffalo Street, Shelby, North Carolina
Dr. Robert B. Litton 1981
1220 Timberland Drive, Shelby, North Carolina
Donald L. Parker 1983
800 Henry Street, Kings Mountain, North Carolina

APPOINTED BY THE GOVERNOR OF NORTH CAROLINA:

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Route 1, York Road, Kings Mountain, North Carolina
Ralph W. Dixon 1985
P.O. Box 115, Fallston, North Carolina
Richard G. Kelly, Vice Chairman 1981
1223 Timberland Drive, Shelby, North Carolina
Mrs. Betty M. Roberts 1983
25 Fanning Drive, Shelby, North Carolina

Current President, Student Government Association, Cleveland County Technical Institute (Ex-Officio Member)

PERSONNEL OF THE INSTITUTE (FULL-TIME)

ADMINISTRATION

President ..... James B. Petty
B.S., Vocational Education, Clemson University
M.A., Administration, Appalachian State University
Ed.D., Nova University

DEPARTMENT OF INSTRUCTION

Vice-President ..... Alvin M. Sherlin
B.S., Western Carolina University
M.A., Appalachian State University
Ed.D., Nova University

Associate Dean of Instruction ..... C. Edwin White
A.A., Gardner-Webb College
B.S., North Carolina State University
M.A., Appalachian State University

Associate Dean of Instruction ..... Sandra W. Hardin
B.B.A., University of Houston
M.A.Ed., Western Carolina University

Dean of Continuing Education ..... Dan T. Camp
A.A., Gardner-Webb College
B.S., Appalachian State University
M.Ed., University of North Carolina
Advanced study, Appalachian State University

Director—Continuing Education ..... David M (Pete) Stamey
B.S., North Carolina State University
M.A.Ed., Western Carolina University

Director—Continuing Education ..... John Kilby
B.S., M.A., Appalachian State University
Advanced study, North Carolina State University
Ed.S., Western Carolina University

Director—Adult Basic Education and Disadvantaged and Handicapped ..... Louise H. Martin
B.A. Meredith College
M.A.Ed., Western Carolina University

Director of Public Relations ..... Thomas C. Poston
B.A., Limestone College
M.A., Appalachian State University
Ed.S., Western Carolina University

Director—Human Resource Development ..... Jimmy Wilson
B.S., Clemson University
Advanced study, Western Carolina University

Administrative Assistant ..... June D. Peacock
B.S., East Carolina University

DEPARTMENT OF STUDENT SERVICES

Vice-President for Student Services;
Admissions Director ..... Noel R. Lykins
B.A., University of Louisville
B.D., Th.M., Southeastern Baptist Theological Seminary
Ed.D., North Carolina State University

Counselor; Recruitment ..... Anne Smevog
B.A., Lenoir Rhyne College
M.A.Ed., Western Carolina University

Counselor; Director of Veterans Affairs;
Student Activities ..... Joe Hamrick
B.S., North Carolina State University
M.A., Appalachian State University
Ed.D., Candidate, North Carolina State University

Counselor; Registrar ..... Bobby L. Poston
A.a., Gardner-Webb College
B.A., University of North Carolina
M.A., Appalachian State University
Advanced study, Appalachian State University

Counselor; Financial Aid ..... Franklin J. Pullen
B.S., North Carolina A & T University
M.S., University of Rhode Island
Advanced study, Rhode Island College, Appalachian State University

Counselor; Job Placement and Career Information ..... Adrian Wyrick
B.A., M.A., North Carolina Central University

BUSINESS OFFICE

Vice-President for Business Affairs ..... James E. Greene
A.A., Gardner-Webb College
B.S., Limestone College
M.A., Appalachian State University

Bookkeeper ..... Mrs. Jane B. Webb
Southern Business College
Cleveland County Technical Institute

Assistant Bookkeeper ..... Mrs. Jane B. Webb
A.A.S., Cleveland County Technical Institute

Secretary-Purchasing Clerk ..... Mrs. Carolyn Queen
Gardner-Webb College

Bookstore Manager ..... Miss Louise Hamrick
A.A., Gardner-Webb College

Equipment Coordinator ..... Woodrow Glenn
B.S., Gardner-Webb College

Food Service Supervisor ..... J. L. Surratt
Howard's Business College

LEARNING RESOURCES CENTER

Dean of Learning Resources, Librarian ..... Haley C. Dedmond
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B.A., Limestone College
M.A.L.S., Appalachian State University
Advanced study, University of North Carolina at Chapel Hill
Head-Coordinator (Self-Instructional Services);
Cheif GED Examiner ..... Rebecca K. Cooke;
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B.A., Appalachian State University
M.Ed., University of North Carolina at Charlotte
M.Ed., University of North Carolina at Charlotte
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M.A.Ed., Western Carolina University
Head-Coordinator (Audiovisual Services) ..... Dorothy Roark
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Ed.S, Appalachian State University
CAGS, Ed.D., Candidate, Virginia Polytechnic Institute and State University
Head-Coordinator (Library Services) ..... Rebecca Howard
Head-Coordinator (Library Services) ..... Rebecca Howard
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A.A.S., Cleveland County Technical Institute
Advanced study in General Education, Cleveland County Technical Institute
Learning Resources Technician ..... Theresa Jones
A.S., Kings College

SECRETARIAL STAFF

Secretary—Continuing Education ..... Miss Carolyn M. Smith
A.A.S., Cleveland County Technical Institute
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Carolina Commercial College
Secretary—Instruction ..... Mrs. Lou Ann Bridges
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Secretary—Learning Resources Center ..... Mrs. Pamela Vess
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Secretary—President's Office ..... Mrs. Frances Morgan
A.A.S., Cleveland County Technical Institute
Secretary—Receptionist ..... Miss Billie Jenks
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A.A.S., Cleveland County Technical Institute
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Secretary—Public Relations ..... Miss Kathi Haywood
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Secretary—HRD ..... Mrs. Glennis Jackson
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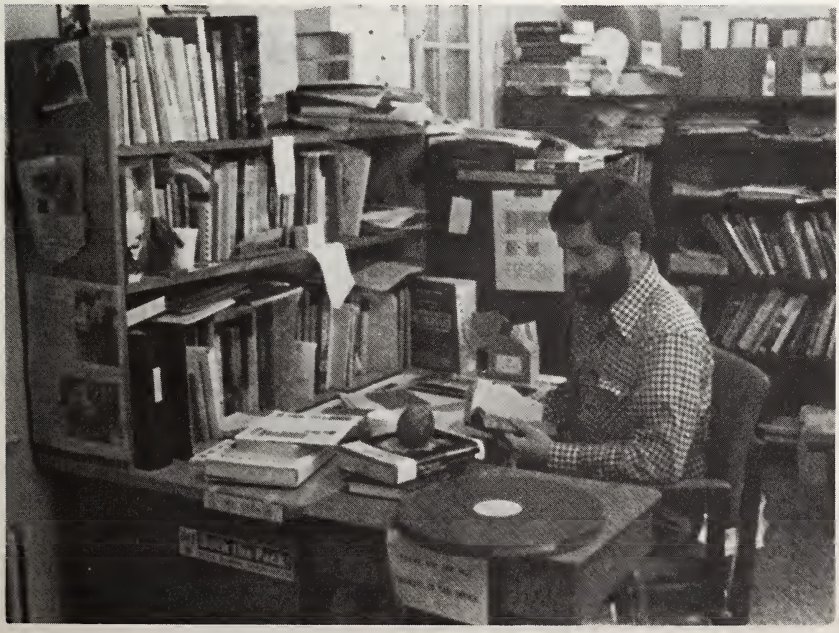
Advanced study, Limestone College

MAINTENANCE STAFF

Maintenance-Supervisor ..... Aaron A. Edwards
Maintenance ..... Marvin R. Philbeck
Custodian ..... Jesse J. Lott
Custodian ..... Forrest Littlejohn
Housekeeping-Supervisor ..... Columbus Church
Housekeeper ..... Ethel Shell
Housekeeper ..... Patricia Johnson
Housekeeper ..... Dorothy Thompson
Housekeeper ..... Dorothy Linda Black



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Troyanne Ross Institute of Modeling

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R.T., Catawba Memorial Hospital
A.A.S., Cleveland County Technical Institute

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U.S. Army Mechanics School
Several Company sponsored schools
35 years experience in Auto Mechanics

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B.S., M.A., Winthrop College

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R.N., Shelby School of Nursing

Elwin Stilwell ..... Media Technician—Teachers Aide
Brevard College

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M.A., Appalachian State University

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M.A., Appalachian State University
Ed.S., Appalachian State University

Lawrence Kenneth Vassey ..... Instructor—Allied Services
Diploma—RCA Institute
Cleveland County Technical Institute

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B.S., Central Wesleyan College

Anita Wilkie ..... Instructor—General Education
Brevard Junior College
Gardner-Webb College
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Katherine Williams ..... Instructor—Allied Health
A.A., Gardner-Webb College
R.N., Rex Hospital School of Nursing

Rosalyn D. Wilson ..... Instructor—General Education
B.S., Fayetteville State University
Advanced study, Western Carolina University

Madge Wray ..... Department Head—Secretarial and Fashion Sciences
B.S., North Carolina A & T University
M.A., Winthrop College

Ronald Wright ..... Instructor—General Education
A.A., B.A., Gardner-Webb College
M.A., Western Carolina University
Ed.S., Appalachian State University
Advanced study, University of South Carolina

CURRICULUM PROGRAMS OF STUDY

***ASSOCIATE IN GENERAL EDUCATION DEGREE**

ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS:

*ACCOUNTING
AGRICULTURAL SCIENCE
(NIGHT SCHEDULE ONLY)
*BUSINESS ADMINISTRATION
*ENVIRONMENTAL SCIENCE
*EXECUTIVE SECRETARIAL SCIENCE
*FASHION MERCHANDISING AND MARKETING TECHNOLOGY
*GENERAL OFFICE TECHNOLOGY
*INDUSTRIAL MANAGEMENT TECHNOLOGY
*INDUSTRIAL SAFETY & HEALTH TECHNOLOGY
*MEDICAL SECRETARIAL SCIENCE
*POLICE SCIENCE TECHNOLOGY
*POSTAL SERVICE TECHNOLOGY (NIGHT SCHEDULE ONLY)
RADIOLOGIC TECHNOLOGY (DAY SCHEDULE ONLY)

DIPLOMA PROGRAMS

*AIR CONDITIONING AND REFRIGERATION
*AUTO BODY REPAIR
*AUTO MECHANICS
*ELECTRICAL INSTALLATION AND MAINTENANCE
*ELECTRONICS SERVICING
PRACTICAL NURSING (DAY SCHEDULE ONLY)
*WELDING TRADE

*CURRICULUMS OFFERED IN BOTH DAY AND NIGHT SCHEDULES.
(The Institute reserves the right to cancel any class or curriculum, day or night, for which there is insufficient enrollment.)

ADMISSIONS

ADMISSIONS INFORMATION

POLICY AND PROCEDURE

The Cleveland County Technical Institute operates under an "open door" admissions policy to offer occupational and adult education to all persons who are able to profit from instruction. Placement of students in the various programs of instruction is selective with special emphasis on career guidance and individual admissions counseling. The objective is to assist the student in establishing realistic goals and to assure reasonable success in the particular program of instruction the student desires to pursue.

As a part of the admissions process for curriculum students, placement tests may be given for guidance purposes, transcripts of previous education are required, and a personal interview is held with each student prior to his placement in a program of instruction.

Application for admission forms and detailed information on programs of instruction offered may be secured by writing to: Student Services Office, Cleveland County Technical Institute, 137 South Post Road, Shelby, North Carolina 28150.

GENERAL REQUIREMENTS

Admission is available to persons who are eighteen years of age or older. In case a person is less than eighteen and a high school graduate, he is considered to have met the minimum age requirement.

High School graduation or its equivalent is ordinarily required for admission to curriculum programs. However, exceptions may be made in certain circumstances. Adult education and Learning Laboratory courses are offered for students who need to strengthen their general education or eliminate deficiences.

A person is expected to be in an acceptable condition of physical and mental health to be admitted. A general medical examination may be required for some programs.

The Institute reserves the right to refuse admission to a student if it appears that such action is in the best interest of the Institute and-or the student. Any student so refused admission may appeal this action through due process.

Specific procedures for admission to continuing educational programs will be found under that section of this catalog.

ADMISSION REQUIREMENTS FOR ALL CURRICULUM PROGRAMS

1. Be at least eighteen years of age, or the applicant's high school class must have graduated.
2. Take local placement test if requested by admissions office. These tests are used to assist the applicant in the selection of a program of study suited to both his interest and general capabilities and in registering for the appropriate sections in English and Mathematics.
3. Be in acceptable condition of physical and mental health.*
4. Have a personal interview with the Director of Admissions and the Department head for applicants to allied health programs.
5. High School graduation or its equivalent is ordinarily required for curriculum programs. However, exceptions may be made in certain circumstances where other evidence is available to indicate the applicant can profit from the program for which the person has applied. (Equivalency certificates from states other than North Carolina held by applicants must meet North Carolina requirements: minimum of 225 points).

*A complete physical and dental examination is required for Practical Nurse applicants; a complete physical examination is required for Radiologic Technology applicants.

ADMISSION PROCEDURE FOR ALL CURRICULUM PROGRAMS

1. Submit completed application form.
2. Have transcripts of all previous education mailed to the Institute.
3. Have counseling interview (after taking the test battery if this has been requested by the admissions office).
4. Receive a letter of acceptance from the Director of Admissions.

PROVISIONAL ACCEPTANCE

An applicant for admission who has not met the requirements listed above of submission of transcripts of previous education, evidence of high school graduation or equivalency, and/or testing before the beginning of the quarter for which entry is desired, may be granted provisional acceptance for one academic quarter. All admission requirements must be met within that quarter to be eligible to register for the following quarter.

SPECIAL STUDENT CLASSIFICATION

Special students are those who are enrolled for course credit but not in a curriculum leading to the diploma or the associate degree. Students enrolled in this status will normally be required to meet the prerequisites for the course or to demonstrate a necessary level of competence although they do not have to meet the admission requirements for curriculum programs. They will be limited to a maximum of ten credit hours in one quarter and a cumulative total of fifteen credit hours before declaring a particular curriculum and meeting normal admission requirements for that curriculum. Students enrolled on this basis must do so through arrangement with the Student Services Office.

COUNSELING AND ADVISING

Each student is assigned a counselor who is a member of the Student Services staff and an academic advisor who is generally a faculty member from the curriculum in which the student is enrolled. The academic advisor helps the student plan an academic program and class schedules. The counselor is available to help with personal, educational and vocational problems.

Your counselor and your advisor will assist you in finding available answers to your needs while enrolled at the Institute but the student must begin the process by seeking out the counselor or advisor.

TESTING

Counseling and testing services are available for students to aid them in determining special interests or abilities. Interest tests can be given at the request of the individual student who may be uncertain of the appropriateness of his program or who wishes to utilize this service during pre-registration to aid him in determining his initial choice of programs. The testing services will also be used to insure the homogeneity of classes.

THE OFFICIAL ACADEMIC RECORD (TRANSCRIPT)

A report of grades earned in each course is produced at the end of each term. A student may be placed on probation or suspended from his program of studies if his work is unsatisfactory.

An official record of all the student's courses, credits, and grades earned (transcript) is kept in the Registrar's office. The student should maintain a record of his courses, credits, and grades each term and check from time to time to see that his record agrees with that of the Registrar. The record may also help him determine his eligibility for any activity that requires him to meet specific scholastic standards. Copies of the official record are available to the student upon request.

RELEASE OF INFORMATION FROM STUDENT OFFICIAL ACADEMIC RECORDS

The Institute recognizes the responsibility for maintaining records for each student to preserve authentic evidence of the events and actions that are important and can contribute to the efforts to educate the student and to facilitate the achievement of the educational goals of the Institute. The following general principles and procedures govern the release of information from student official records:

1. Written consent of the student concerned is required before a transcript or information from his or her official record may be released. Exceptions to the above statement are outlined below:
   a. The Registrar may release transcripts or information from official records including reports of academic standing to academic and administrative members of the Institute staff whose responsibilities require this information and to other educational institutions for transfer purposes.
   b. The Registrar may honor appropriate requests for public or directory information from student records which includes the following: student's name, address, telephone number, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of enrollment, degrees and awards received, and the most recent previous educational agency or institution attended by the student.
   c. The Registrar may release information pertaining to honor achievements for publication.
2. A student's identification photograph is available to Institute personnel only.
3. A hold may be applied to the release of a transcript, or other information requested from an official record, for a student who has an overdue indebtedness to the college. Such a student continues to have the right to see his official record upon request.
4. The use and release of information from student official records will be determined as outlined above and in compliance with state and federal legislation relating to such records. Action in situations that may not have been anticipated and/or defined above will at all times be based upon the best knowledge available to the professional staff of the Institute.

FINANCIAL AID INFORMATION

Apply for the Basic Educational Opportunity Grant immediately. It is the basic financial aid to be applied for before additional aid is awarded.

Financial aid at Cleveland County Technical Institute may consist of a scholarship, loan, grant, work study, or any combination of these as determined by the financial aid office. If additional aid is needed after an application for the Basic Grant has been completed a PCS (Parents Confidential Statement) and/or FAF (Financial Aid Form) must be completed. If a student wishes to apply for college basic financial aid programs the PCS (Parents Confidential Statement) and FAF (Financial Aid Form) can be submitted to the school for hand computation, however, if a student desires participation in non-college basic programs, a completed copy of the PCS or FAF must be completed by the student and mailed to the Berkley address with the fee as stated on the form. If assistance is needed in completing these forms, please contact the financial aid office. The CCTI financial aid application and its required documents will enable an applicant to be considered for any or all types of financial aid at CCTI. CCTI will attempt to meet as much of the financial aid of a student as needed on its limited resources. This application is without regard to race, color, or sex and is on the basis of demonstrated need for financial assistance. A student must be in good standing with CCTI to receive any type of financial assistance.

APPLICATION FOR FINANCIAL AID

An application for financial aid for a student who is entering the institution for the first time should be submitted no later than 30 days prior to their enrollment at CCTI. Although no payment can be made until after the applicant has submitted an application at the time of or soon after application for admission; they should not wait until admission has been confirmed. A new student enrolling in the Fall or any other subsequent quarter who submits the CCTI financial aid application and whose admission is definite, can usually expect notification of his award one month after his application has been processed. The financial aid application coverage is for a 9 month period. An application of a student enrolling for the Fall will cover Fall, Winter, and Spring quarters. Their next application period will cover Summer, Fall, Winter, and Spring quarters. Returning students should indicate their intentions to apply for aid during the Spring quarter. Their applications should be submitted by May 10th, and no later than 30 days prior to enrollment. All students are responsible for reporting any additional benefits or funds they may be receiving, no matter what the sources, including wages from other jobs, grants, vocational rehabilitation, social security, VA benefits, and so forth. All students should sign their release of information statement to facilitate their receiving financial aid.

FINANCIAL AID—REVOLVING LOAN FUNDS

Civitan Revolving Loan Fund—The Civitan Club of Shelby donates funds each year to loan students so they can meet their tuition and book fees at Cleveland Tech.

General Revolving Loan Fund—Private individuals, civic clubs, and industries contribute to this fund to help students meet their school expenses.

FINANCIAL AID—WORK-STUDY PROGRAMS

College Work-Study—Students from low-income families who need a part-time job to help pay their college expenses are eligible for employment at the technical institute under the federal work-study program. A student must be at least a half-time student to participate in this program.

Vocational Work-Study—Students who need help in meeting school expenses may participate in the State's vocational work-study program. The student must be at least eighteen years of age and less than twenty-one years of age at the date employment commences. (These programs are limited by funds and jobs available at a given time.)

FINANCIAL AID—SPECIAL FINANCIAL AID PROGRAMS

Basic Educational Opportunity Grant Program—The BEOG is a Federal Aid program designed to provide financial assistance to those who need it to attend post high school educational institutions. The amount of your Basic Grant is determined on the basis of your own and your family's financial resources. The Basic Education Opportunity Grant Award is a grant and, unlike a loan, does not have to be repaid. An application can be obtained from the Student Services Offices, your high school counselor, or any Federal agency.

G. I. Bill—Veterans who were discharged from military service under conditions other than dishonorable and who were on active duty for a continuous period of 181 days or more after January 31, 1955 are eligible for educational benefits. Information about eligibility may be obtained from the Veteran's Representative in the Student Services Office at Cleveland County Technical Institute.

Survivor's Benefits—Applicants who are children of deceased or disabled veterans may be eligible for financial aid. Information about eligibility may be obtained from the Veteran's Representative in the Student Services Office at Cleveland Tech.

Vocational Rehabilitation—The state of North Carolina provides financial assistance for residents who have permanent handicaps. Information about eligibility may be obtained from the Vocational Rehabilitation Counselor, 821 West Warren Street, Shelby, North Carolina 28150.

Comprehensive Employment Training Act—under the Comprehensive Employment Training Act, Cleveland Tech works with the Employment Security Office to train people not able to obtain training through their own means. Cleveland Tech works with individual referral students who enter the school's regular curriculum.

Nurses'auxiliary Scholarships—The Cleveland Memorial Hospital Auxiliary provides several scholarships each year to students in need of financial assistance who are entering the medical field. Information may be obtained in the Student Services office.

JOB PLACEMENT

Cleveland County Technical Institute maintains a placement service to help interested students and alumni find employment. The job placement office tries to help students find part-time employment while in school and full-time employment after graduation.

STUDENT HOUSING

The Institute does not have dormitory accommodations available. Any student who needs to locate housing in Shelby should contact the local Chamber of Commerce or local Realtors.

STUDENT HEALTH

The Institute does not provide medical, hospital, or surgical services nor does the Institute assume responsibility for injuries incurred by students when taking part in intramural sports, class or student activities. Medical services are available at the emergency room of Cleveland Memorial Hospital. A doctor is on duty 24 hours a day in the emergency room.

ORIENTATION

To promote rapid and sound adjustment to the educational philosophy, program, and standards of the Institute new students are expected to participate in an orientation program. The objectives of the orientation program are:

1. To acquaint the new student with the Institute, its facilities, resources, services, activities, policies, and organizations.
2. To assist him in taking full advantage of the opportunities offered by the Institute.
3. To help him in developing effective approaches to the problems frequently encountered by beginning students.

EXTRACURRICULAR ACTIVITIES

The Student Government Association and a variety of clubs, organizations, and intramural sports are supervised by the Director of Student Activities. Student clubs may be organized with the approval of the SGA and the President of the Institute. These clubs may be related to the vocational goals of the students, or may serve as civic service organizations or special interest areas of the students.

DUE PROCESS PROCEDURES ON GRIEVANCES

1. A student wishing to appeal any decision affecting his status at the Institute should first appeal the decision to the instructor or administrator making the decision.
2. If not satisfied, an appeal may be made in writing to the Due Process Committee which will recommend action to the President. The Vice-President of the Institute serves as Chairman of the Due Process Committee.
3. Further appeal may be made directly to the President in writing.
4. Final appeal would be made directly to the Board of Trustees in writing. The Board will make a decision based on the written appeal and the forwarded recommendations of the President and Due Process Committee.

FINANCIAL INFORMATION

Cleveland County Technical Institute operates on the quarter system. Each quarter is eleven weeks in length. Students pursuing a program of study are required to register and pay all fees at the beginning of each quarter. *A student is not registered until tuition and fees are paid in the Business Office.* Every effort is made to keep the student's expenses at minimum. Tuition cost is set by the State Board of Education and is subject to change.

TUITION

Current rates for all general education, technical or vocational curriculum students:*

North Carolina Students:	
Full-time (12 or more credit hours)	$ 39.00 per quarter
Part-time (less than 12 credit hours)	$ 3.25 per quarter hour credit
Out-Of-State Students:	
Full-time (12 or more credit hours)	$198.00 per quarter
Part-time (less than 12 credit hours)	$ 16.50 per quarter hour credit

*Tuition and fees are waived by the State for persons 65 years of age or older. If accident insurance were desired these persons would need to purchase this at the current rate.

FINANCIAL RESPONSIBILITY

Students are not permitted to default in the payment of fees, fines, loans, or other financial obligations due the school. All tuition, fees, and any other expenses must be paid prior to entering class. Any deviation from this policy must be approved by the president of the Institute.

RESIDENCE STATUS FOR TUITION PAYMENT

1. General Statute 116-143.1 (b) passed by the 1973 General Assembly of North Carolina reads:
   "To qualify for in-state tuition a legal resident must have maintained his domicile in North Carolina for at least the 12 months immediately prior to his classification as a resident for tuition purposes. In order to be eligible for such classification, the individual must establish that his or her presence in the State during such twelve-month period was for purposes of maintaining a bona fide domicile rather than for purposes of mere temporary residence incident to enrollment in an institution of higher education; further, (1) if the parents (or court-appointed legal guardian) of the individual seeking resident classification are (is) bona

fide domiciliaries of this State, this fact shall be prima facie evidence of domiciliary status of the individual applicant and (2) if such parents or guardian are not bona fide domiciliaries of this State, this fact shall be prima facie evidence of non-domiciliary status of the individual."

2. Regulations concerning the classification of students by residence for purposes of applicable tuition differentials, are set forth in detail in *A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes.* Each enrolled student is responsible for knowing the contents of that *Manual,* which is the controlling administrative statement of policy on this subject. Copies of the *Manual* are available on request at Student Services.

BOOKS, SUPPLIES, AND BOOKSTORE

A student is required to buy the necessary textbooks and supplies prescribed in the curriculum he is pursuing. An average cost of books will vary from $30 to $75 per quarter, depending on the curriculum and number of courses taken. Books and supplies are sold during regular bookstore hours.

STUDENT INSURANCE

Certain risks are inherent in any work involving regular contact with mechanical and electrical equipment. While stringent precautions will be taken to insure safety, it is felt to be in the interest of all students to provide some measure of insurance protection.

A group policy, providing the desired insurance protection, is available through the Business Office. The cost of the insurance is approximately $4.50 per year. If you are not already covered by accident insurance we strongly recommend this policy to you.

Any accident, regardless of how minor it may be, must be reported to the instructor in the area. The policy is limited in coverage, both in the time period covered and the amounts provided for each accident. Information concerning the policy and coverage is distributed during each registration period and is also available in Student Services. Claims for accidents should be turned in at Student Services.

Personal liability insurance is required of all Practical Nursing and Radiologic Technology students. The cost of the coverage is $10.50 per year.

STUDENT ACTIVITY FEE

All students enrolled for seven or more credit hours are required to pay a student activity fee of $7.00 each quarter. Students enrolled for less than seven credit hours will pay a student activity fee of $2.00 each quarter. The Student Government Association budgets this money yearly with the approval of the Administration. Included in the budgeting are the following items: *The Tiger Paw, The Bridge,* men's and women's athletics, intramurals, fall, spring, and summer festivals, SGA dues and conventions, ID cards, parking stickers, and other student related activities.

CHARGE FOR RETURNED BANK CHECKS

There will be a charge of $5.00 assessed any student who gives the Institute a bank check which is returned from the bank because of insufficient funds.

REFUND POLICY

Tuition refunds may be authorized only in the event that the student must withdraw for unavoidable reasons. In such cases, two-thirds of the tuition paid may be refunded if the student withdraws within ten days after the first day of classes as published in the Calendar of Events. Tuition refunds will not be considered after that time.

Tuition refunds will not be made for tuition of $5.00 or less. Refunds will not be made to students enrolled in short term, non-credit classes, activity fees, or for accident insurance fees. Full refund will be made should the Institute cancel a class or program.

GRADUATION FEE

All students eligible to graduate from a curriculum program will be required to pay a graduation fee (approximately $15.00) one month prior to the time they are to complete their programs. The fee covers the cost of graduation (cap and gown, diploma or degree with case).

PARKING (MOTOR VEHICLE AND TRAFFIC REGULATIONS FOR CLEVELAND COUNTY TECHNICAL INSTITUTE)

I. General Information

The control and enforcement of motor vehicle conduct is necessary both for the safety of the individual and the efficient operation of Cleveland County Technical Institute.

A. In the following information the term campus shall refer to that property operated by Cleveland County Technical Institute and those other properties when used by CCTI for educational purposes.

B. The term motor vehicle shall include all vehicles which are covered by the motor vehicle laws of North Carolina.

C. No student may receive end-of-quarter grades until he has clearance from Campus Security Committee and paid all fines.

II. Registration of Vehicles

A. All faculty, staff, and students, part-time and full-time, shall be required to have their vehicle or vehicles registered by the business office and to affix an appropriate decal on the left rear bumper. There shall be no charge to register vehicles.

B. Campus visitors, law enforcement vehicles, and service vehicles are specifically exempted from registering their vehicles. However, they are expected to obey all other regulations.

III. Regulations

A. It shall be the responsibility of the Campus Security Committee to recommend traffic regulations to the President of the Institute for presentation to the Board of Trustees for approval.

B. Enforcement of regulations shall be administered by the Campus Security Committee.

C. Those students assessed fines shall pay those to the Campus Business Office (For redress, see part IV.)

D. The following shall be considered violations of campus motor vehicle regulations and the corresponding fine:

1. Vehicle showing no registration	$5.00
2. Parking in improper area	3.00
3. Parking by backing vehicle into area	1.00
4. Double parking or blocking a legally parked vehicle	3.00
5. Speeding in excess of 10 mph	3.00
6. Failure to yield right-of-way to pedestrian	3.00
7. Reckless driving	5.00

E. This Institute reserves the right to remove any illegally parked vehicle by an Institute vehicle, privately owned wrecker, or other means. The violator shall be responsible for any tow charge in addition to the violation fee.

F. The registered operator is responsible for the use of his vehicle.

IV. Redress

A. A committee shall be made to exist which will be known as the Campus Safety and Traffic Committee.

B. It shall be the responsibility of this committee to determine final disposition of fines for which anyone may feel that he was unnecessarily charged.

C. This committee shall be composed of the following:

1. One member of the Campus Security Committee, not the chairman.
2. One member of the Campus Safety Committee, not the chairman.
3. One member of the Student Advisory Committee, not the president.

V. The Campus Security Committee shall have power to recommend changes in the above regulations provided the change is properly communicated to the administration, faculty, staff, and students of Cleveland County Technical Institute.

ACADEMIC REGULATIONS

ACADEMIC REGULATIONS

DROP-ADD PERIOD

At the beginning of every quarter there is a period for students to change schedules and to drop and add courses. The time limit for such changes is one week from the first day of classes. No student is to make a schedule change without first being cleared through his Academic Advisor and the Registrar. After this change period courses may be dropped but courses may not be added. Courses dropped (within the last three weeks of a quarter) will result in a grade of no credit (NC) being entered on the student's transcript.

GRADING SYSTEM

Students will be evaluated on the achievement of technical skills, ability to work under supervision, interest in work, initiative, and ability to apply related information.

At the end of each quarter students will be evaluated in each course as follows:

Letter Grade	Numerical Grade	Explanation	Quality Points
A	93-100	Excellent	4 Quality points per qtr./hr.
B	85-92	Good	3 Quality points per qtr./hr.
C	77-84	Average	2 Quality points per qtr./hr.
D	70-76	Below average	1 Quality point per qtr./hr.
NC	Below 70	(No Credit) Non-Completion of course requirements	0 Quality point per qtr./hr.
I	Work not completed	Requirements may be completed in next qtr.	0 Quality point per qtr./hr.
W		Official Withdrawal	0 Quality point per qtr./hr. (No credit hours earned)
CE		Credit by Examination	0 Quality point per qtr./hr.
Y		Audit	0 Quality point per qtr./hr.

Any student who receives an I may request to negotiate a written contract with the instructor involved. Contracts negotiated between the student and the instructor will specify a definite completion date for the requirements in addition to the types of activities set forth by the instructor to help the student achieve the minimum objectives of the course. If the student does not complete the minimum objectives in the time negotiated in the contract, the student will be dropped from the course and a no credit (NC) will be entered on the record. Upon completion of the contract in the specified time the instructor will notify the registrar to change the I to a letter grade. The contract completion date must be within the quarter following receipt of the I.

QUALITY POINT AVERAGE

The QPA is the most important example of a student's academic progress. The computation of a QPA is shown below as an example to simplify the average. It is determined by dividing the total number of quality points earned by the total number of quarter hours attempted, excluding I, W, CE, and Y grades. The cumulative QPA is based on all grades while a student is enrolled in a curriculum. The current QPA is an indication of one quarter of work in a curriculum.

Example of Computing the QPA

Course	Grade	Hours Attempted	QP per Credit Hour		Grade Points Earned
ENG 101	A	4	x 4	=	16
SOC 101	B	4	x 3	=	12
MAT 110	B	4	x 3	=	12
BIO	C	4	x 2	=	8
		16			48

$$\frac{\text{Quality Points Earned}}{\text{Hours Attempted}} = \text{QPA} \qquad 16 \overline{)\,48.00} \;(3.00) \qquad = 3.00$$

QUARTERLY HONORS LIST

Students who receive a 3.5 QPA at the end of a quarter will be on the Honors List for that quarter. To be eligible for the Honors List a student must be enrolled for at least 7 quarter hours credit and receive no grade lower than C on any course.

CLASS ATTENDANCE POLICY

Absences are a serious deterrent to good scholarship; it is impossible to receive instruction, obtain knowledge or gain skill when absent. Although there are numerous reasons for absences such as personal illness, death in the family, work conflicts, or unexpected emergencies, all absences will be counted in the 20% maximum.

A student, who during a quarter, incures in any course an absence in excess of twenty per cent (20%) of the class hours for that course may be dropped from the course (without credit).

Absences may be considered legitimate and eligible for make-up at the discretion of the instructor. The student is responsible for seeing the instructor, giving the reason for the absences, and requesting make-up assignments. This is to include students on rotating shift work schedules.

An instructor may refuse admission to class to any student who arrives more than ten minutes late to a class. One-half day's absence will be counted if a student leaves thirty minutes or more early.

The student may appeal any decision under these policies to the Due Process Committee.

ACADEMIC PROGRESS

The following cumulative grade point averages are the minimums which must be attained in order for a student to make reasonable progress toward graduation. A 2.00 grade point average is required for graduation.

ASSOCIATE DEGREE PROGRAMS

Cumulative Quarter Hours	Minimum Grade Point Average
0-24	1.20
25-48	1.40
49-72	1.60
73-96	1.80
	(2.00 for Gen. Edu. Degree)
97 or more	2.00

VOCATIONAL DIPLOMA PROGRAMS

0-18	1.25
19-36	1.50
37-54	1.75
55 or more	2.00

Any student who falls below the specified minimum at the end of any quarter will be placed on academic probation for the following quarter.* If he attains the minimum for his credit hour total by the end of his probation quarter he will be taken off probation—if he does not reach that minimum in his probation quarter he will be suspended from his program for at least one school quarter.

Re-entry in cases of suspended students is handled on an individual basis, but will often result in an extended delay due to the course sequence of his curriculum. Re-entry is affected by applying under the same procedures as an original application.

The privilege of appeal is provided the suspended student. The student is required to write a letter to the Due Process Committee explaining his appeal and must appear before this Committee in person should the Committee so desire. The appeal may be carried to the Board of Trustees at the student's request.

*In certain specialty programs (i.e., Practical Nursing and Radiologic Technology) every major specialty course must be passed each quarter before enrolling for the following quarter.

AUDIT STUDENTS

A student may elect to audit a course or courses. Those auditing receive no credit and do not have to take any examinations; otherwise, participation in class is on the same basis as a credit student. The fee for auditing is the same as the fee for credit.

COURSE REPEAT REGULATIONS

A student who does not complete a required course in his major curriculum must repeat the course until he does complete it to be eligible to graduate with the Associate Degree or the diploma.

When a course is repeated, the first attempt will be omitted from computation of minimum graduation requirements and only the second grade will count.

CREDIT HOURS, CONTACT HOURS, AND COURSE LOAD

Each course listed is followed by a notation on the number of quarter hours credit it carries. Normally, the number of quarter hours earned is based on the number of class, laboratory, or shop hours spent under supervision of the course instructor per week for the quarter.

Usually one (1) quarter hour credit is given for each hour of class per week, for each two hours of laboratory work per week, or for each three hours of manipulative laboratory or shop per week.

Contact hours are the number of actual clock hours a student is in attendance during one week.

Students enrolled for 12 or more credit hours are classified as full-time students. Students enrolled in less than 12 credit hours are classified as part-time.

Course load for veterans benefits is as follows: (1) for diploma vocational programs: full-time attendance equals 22 or more contact hours per week; 3/4 time attendance equals 16-21 contact hours per week; 1/2 time attendance equals 11-15 contact hours per week; (2) for degree programs: full-time attendance equals 12 or more credit hours per quarter; 3/4 time attendance equals 9-11 credit hours per quarter; 1/2 time attendance equals 6-8 credit hours per quarter. (For less than 1/2 time attendance in any program the VA does not pay a monthly allowance but will only pay the actual cost of tuition.)

WITHDRAWAL

Students desiring withdrawal from the Institute should contact the Office of Student Services to obtain the necessary forms and procedures for official withdrawal. A student who fails to withdraw officially will receive a grade of "NC" for each course in which he is enrolled. Withdrawal with a grade of W will be allowed except during the final three weeks of a quarter. After that point a grade of NC will be assigned.

REQUIREMENTS FOR GRADUATION

The following are established as minimum requirements for graduation from curriculum programs:

1. Complete course requirements outlined by the curriculum pursued, and earn at least a 2.0 QPA in courses presented for graduation.
2. Complete not less than 96 credit hours for the Associate in General Education degree, 108 credit hours for the Associate in Applied Science degree, or 60 credit hours for a vocational diploma.
3. Meet with assigned faculty advisor no later than the third (3rd) week of the quarter in which graduation requirements are expected to be completed and complete a graduation check list which is to be submitted to the Registrar. The Registrar will make a complete check of the student's record and either notify the Vice-President for Student Services that everything is in order or notify the student through the advisor that it is not.
4. It is the student's responsibility to check with the Registrar at least 3 weeks in advance of graduation to see that a diploma has been ordered.
5. A graduation fee of $15.00 is required at the time of submission of the graduation check list.
6. Fulfill all financial obligations to the Institute and secure clearance from the Library.
7. Be present for graduation exercises which are held at the end of the spring and fall quarters each year. Exceptions to this requirement, in case of unavoidable absence, may only be granted by the Vice-President for Student Services.
8. All prospective graduates must complete one full quarter of work (at least 12 credit hours) at the Institute before graduation.

GRADUATION HONORS

To graduate with High Honors a student must earn a QPA of 3.5-4.0 in courses presented for graduation. To graduate with Honors a student must earn a QPA of 3.0-3.49 in all courses presented for graduation. To qualify for either honor, a student must not have received any grade lower than a C in the program being completed.

OUTSTANDING STUDENT AWARDS

These awards are made to students who have distinguished themselves by being most outstanding in terms of scholastic achievement, performance and maturity of purpose during their program of instruction at the Institute. One student may be recognized for each one-year vocational program and each two-year degree program.

CREDIT BY PROFICIENCY EXAMINATION

A student may be allowed credit toward graduation for past schooling or work experience through proficiency examinations. The student should confer with his Faculty Advisor to see if he qualifies for these provisions and to be informed of the procedure to follow.

A grade symbol of CE (credit by examination) will be awarded for courses for which credit is given on the basis of proficiency examination. The course hours for such courses posted as CE will be computed toward graduation requirements but not for the computation of Honors, nor for computation of overall QPA.

READMISSION

Any student who officially withdraws from the Institute and later wishes readmission must contact the Student Services Office. Readmission conditions will depend upon the individual circumstances, but generally a student is eligible to return at such time as he can work out an appropriate course schedule.

A former student will not be readmitted until he has met all former and current expenses obligations to any program or activity under the administrative jurisdiction of the Institute.

Any student who is financially indebted to the Institute by failure to completely meet any outstanding debt such as the following: bad check, tuition, bookstore, library, activity, graduation, parking fines, promissory note, equipment or supplies debt, or any required payment to the Institute will not be eligible for readmission nor acquire any transcript until such indebtedness is completely cleared.

SCHEDULE OF CURRICULUM CLASSES

Shortly before registration each quarter, the Institute will announce a master schedule of courses to be offered. This will generally include those courses required for a student to complete the work as outlined in the catalog for his curriculum. In some instances, however, it will be necessary for the Institute to rearrange the sequence of course offerings. Every effort will be made to enable a student to complete his program in the minimum possible time. Whenever practical, make-up classes and special courses will be offered to those needing them. Using this master schedule of courses, each student should consult with his advisor prior to registration to arrange a class schedule to meet his own particular requirements.

TRANSFER CREDIT

Cleveland County Technical Institute permits admission with transfer credit for students from member institutions of the North Carolina Department of Community Colleges and other reputable institutions.* Content of such courses must closely parallel those for which credit is sought at the Institute. Each application for transfer of credit will be evaluated according to the individual situation. Transfer courses will transfer at the grade level received in the other institution. Quality points earned at the other institution do not transfer. Credits older than ten years will not be accepted in transfer.

*Provided the transfer student is eligible to return to the last institution he attended.

TRANSFER OF CREDIT WITHIN CLEVELAND COUNTY TECHNICAL INSTITUTE

Credit earned in any institutional degree program may be credited toward a degree of diploma program upon evaluation by the Director of Admissions. Credits earned in a diploma program are not usually acceptable to an associate degree program but may be credited toward a second diploma major. If graduation requirements change during the time a student is enrolled, the student may elect to satisfy the requirements in effect at the time of his original enrollment or the new requirements.

Any student who is currently enrolled or who has graduated from a curriculum program of the Institute and wishes to transfer to another curriculum program must follow these procedures:

1. Submit an application stating the desired curriculum and quarter of entrance.
2. Meet the admission requirements for the desired program as stated in the school catalog.

Applicants will receive notification of admission by letter from the Director of Admissions along with an "Evaluation of Transfer Credit" from denoting hours for which credit will be given.

TRANSFER CREDIT TO OTHER SCHOOLS OR COLLEGES

There are an increasing number of schools and colleges who are accepting course work completed in a technical program or in the general education program at CCTI for credit toward the Bachelor's Degree. Most of these colleges consider each applicant and his record individually and the courses for which credit is sought must be similar to the course(s) offered by that institution. Some colleges give credit on the basis of examinations. Many colleges give full credit for the Associate in Applied Science Degree or Associate in

General Education Degree toward a Bachelor of Arts, Bachelor of Science or Bachelor of Technology.

For those students who do desire to continue their education after graduation from CCTI there are expanding opportunities to do so.

TRANSFER RESPONSIBILITY

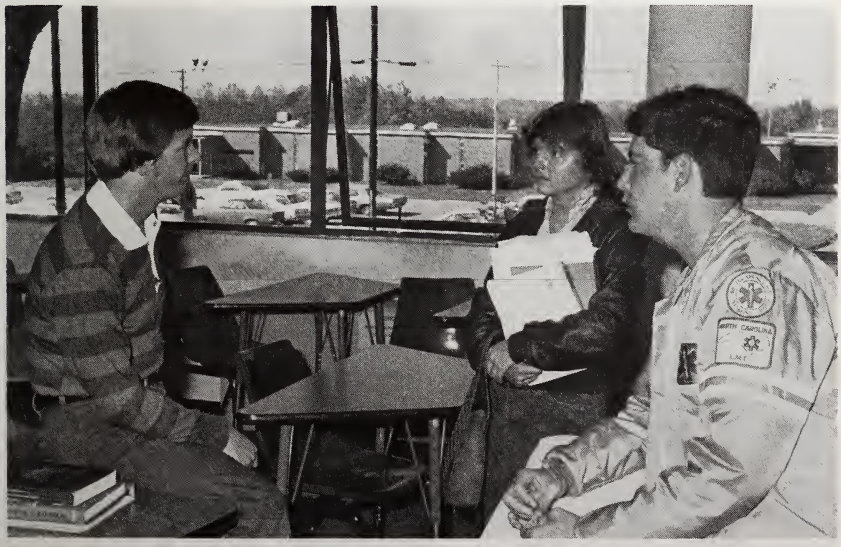
The Institute staff will cooperate with each student in planning a transfer program. However, it is the responsibility of the student to determine that courses and credit will transfer to the receiving institution.

The acceptance of courses taken at Cleveland County Technical Institute is determined solely by the institution to which the student transfers.

The student planning to transfer will have less difficulty in completing his transfer satisfactorily if he follows these steps:

1. Decide early which senior college to attend. Contact the college for recommendations concerning appropriate courses.
2. Obtain a current copy of the catalog of that college and study its entrance requirements.
3. Confer with his faculty advisor at CCTI about his transfer plans.
4. Check carefully at least a quarter or two before transfer to be sure that all necessary requirements are being met and all necessary steps are taken.

Changes in the student's major field of study or in his choice of a senior institution may result in transfer problems. Such changes should be made only after careful study and consultation with his advisor.



ASSOCIATE DEGREE PROGRAMS

ASSOCIATE IN GENERAL EDUCATION DEGREE CURRICULUM

PURPOSE OF CURRICULUM

The General Education Curriculum has two main purposes. One is to provide the student with two years of general education and interest type course work culminating in an Associate Degree in General Education. The second purpose is to provide the student with freshman and sophomore level course work that will be transferable to many colleges and universities. The Institute will have on file agreements with some institutions concerning transferability. If the student is interested in transferring to a different institution than one of these the student should contact the admissions office of the college in question to determine possible transfer status. Transfer credit is always the prerogative of the receiving institution. If transfer of credit is the student's purpose, the student and his advisor should outline a program of study to correspond to the requirements of the college of interest.

Courses included in the General Education curriculum are those which are usually the entire requirements of the freshman and sophomore program in four-year colleges of arts and sciences (exclusive of foreign languages required by some colleges).

ADMISSION REQUIREMENTS

The minimum admission requirement is high school graduation (diploma or state high school equivalency certificate). Students who do not meet all academic requirements may be granted provision admission for one quarter, after which they must either have met entrance requirements or be classified as non-degree students. The Institute offers an Adult High School Diploma Program and administers the High School Equivalency Examination (GED).

THE CURRICULUM

The Specified courses in the curriculum are selected to provide the basic general education requirements of liberal arts programs and to meet basic needs for successful progress toward program objectives. Electives should be chosen in accordance with student interests and ultimate objectives. A student may wish to place heavy emphasis on courses in business, technical, or social science areas, depending on his educational or occupational plan.

The general education program is designed for the student who is basically interested in two years of education beyond the high school. This program provides a basic core of course work in the following areas:

English and Literature ..... 12 Quarter Hours
Fine Arts ..... 8 Quarter Hours
Social Science and History ..... 24 Quarter Hours
Science and Mathematics ..... 20 Quarter Hours

This introduction into the broad fields of knowledge permits the student to find himself and clarify his life goals. With his background he is able to intelligently choose additional course work in terms of his own interests and social needs.

When the student has completed basic general education requirements and accumulated electives to a total of 96 quarter hours, he will be granted an Associate in General Education Degree.

REQUIRED COURSES FOR GRADUATION

		Course Title	Hours Per Week Class	Lab	Credit Hours
ART	101	Art Appreciation*	4	0	4
BIO	101	General Biology I	3	2	4
BIO	102	General Biology II	3	2	4
BIO	103	General Biology III	3	2	4
ENG	101	English Grammar and Composition I	4	0	4
ENG	102	English Grammar and Composition II	4	0	4
ENG	105	Masterpieces of World Literature	4	0	4
ENG	107	Introduction to Theatre*	4	0	4
HIS	101	World Civilization I	4	0	4
HIS	102	World Civilization II	4	0	4
HIS	103	World Civilization III	4	0	4
MAT	101C	Principles of Mathematics	4	0	4
MAT	102C	Introduction to Algebra	4	0	4
MUS	101	Music Appreciation*	4	0	4
PSY	101	Introduction to Psychology	4	0	4
SOC	101	Introduction to Sociology	4	0	4
SSC	201	Social Science Survey	4	0	4

*Choose two of these three courses.

Total Credit Hours Required Courses 64
Elective Hours 32
Total Credit Hours Required to Graduate 96

ELECTIVES (RECOMMENDED FOR TRANSFERABILITY):

ART	102	Introduction to Drawing	4	0	4
ART	103	American Art History	4	0	4
BIO	201	Zoology	3	2	4
BIO	202	Botany	3	2	4
DRA	105	Theatrical Performances	4	0	4
DRA	106	Dramatic Productions	4	0	4
ECO	102	Economics I	4	0	4
ECO	104	Economics II	4	0	4
ECO	108	Consumer Economics	4	0	4
ENG	100	Reading Dynamics	4	0	4
ENG	116	Journalism I	4	0	4
ENG	117	Journalism II	4	0	4
ENG	118	Publications Design and Production I	3	2	4
ENG	119	Publications Design and Production II	3	2	4
ENG	120	Publications Design and Production III	3	2	4
ENG	133	Composition and Documentation	4	0	4
ENG	203	Creative Writing	4	0	4
ENG	204	Fundamentals of Speech	4	0	4
ENG	205	Major American Writers	4	0	4
ENG	207	Southern American Authors	4	0	4
MAT	104C	Introduction to Metrics	4	0	4
MAT	105C	Statistics	4	0	4
MAT	110C	Intermediate Algebra	4	0	4
MAT	111C	Trigonometry	4	0	4
MAT	120C	Calculus with Analytical Geometry	4	0	4
NSC	102	Environmental Studies	4	0	4
PHI	202	Introduction to Philosophy	4	0	4
POL	102	Government—National	4	0	4
POL	103	Government—State and Local	4	0	4
POL	204	Great Decisions—Foreign Policy	4	0	4
PSC	103	The Art of Self Defense	4	0	4
PSY	103	Adolescent Psychology	4	0	4
PSY	201	Abnormal Psychology	4	0	4
PSY	202	Group Processes	4	0	4
SOC	202	Marriage and the Family	4	0	4
SOC	203	Contemporary Issues	4	0	4
SOC	208	Black Studies	4	0	4
SSC	205	American Institutions	4	0	4

OTHER ELECTIVES (WHICH MIGHT OR MIGHT NOT TRANSFER):

Any course from the associate in applied science degree curriculums with approval of department head.

ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS

ACCOUNTING

Accounting is often called "the language of business." It is the language employed to communicate financial information. The accounting profession is important to the complete spectrum of business fields, ranging from governmental to small private businesses. Accountants are found in such forms of business operation as the sole proprietorship, partnership and corporation. Positions are available to accountants in general accounting, auditing, payroll accounting, credit and other specialized fields.

The Accounting curriculum is designed to provide sound academic training in the accumulation and maintenance of accounting. The student learns to perform such duties as: maintaining journals and ledgers, preparing financial statements, making special reports and analyses, preparing cost data and summarizing tax information. The degree Associate in Applied Science in Accounting will be awarded upon successful completion of this curriculum.

ACCOUNTING

REQUIRED COURSES FOR GRADUATION

		Course Title	Hours Per Week Class	Lab	Credit Hours
BUS	101	Introduction to Business	4	0	4
BUS	109	Business Mathematics	4	0	4
BUS	110	Office Machines I	2	2	3
BUS	115	Business Law I	4	0	4
BUS	116	Business Law II	4	0	4
BUS	120	Accounting I	4	4	6
BUS	121	Accounting II	4	4	6
BUS	123	Business Finance I	4	0	4
BUS	124	Business Finance II	4	0	4
BUS	204	Business Communications	4	0	4
BUS	219	Credit Procedures and Problems	4	0	4
BUS	222	Accounting III	4	4	6
BUS	223	Intermediate Accounting	4	4	6
BUS	225	Cost Accounting	2	2	3
BUS	229	Taxes	4	0	4
BUS	233	Personnel Management	4	0	4
BUS	235	Business Management	4	0	4
BUS	269	Auditing	2	2	3
ECO	102	Economics I	4	0	4
ECO	104	Economics II	4	0	4
ENG	100	Reading Dynamics (may be credited by exam)	4	0	4
ENG	101	Grammar and Composition I	4	0	4
ENG	102	Grammar and Composition II	4	0	4
		Total Credit Hours Required Courses			97
		Elective Hours			11
		Total Credit Hours Required to Graduate			108

ELECTIVE COURSES (SELECT 11 CREDIT HOURS)

BUS	102	Typewriting I	2	2	3
BUS	117	Personal Law	4	0	4
BUS	232	Sales Development	4	0	4
BUS	271	Office Management	4	0	4
BUS	272	Principles of Supervision	4	0	4
ENG	105	Masterpieces of World Literature	4	0	4
ENG	204	Fundamentals of Speech	4	0	4
POL	102	Government—National	4	0	4
PSY	101	Introduction to Psychology	4	0	4
SSC	201	Social Science Survey	4	0	4

Courses from other associate degree programs would be considered with consent of the Business Department head.

AGRICULTURAL SCIENCE

This curriculum is designed to develop the basic skills needed to successfully operate and manage an agricultural program involving commercial crops, poultry and livestock. Emphasis is placed upon mechanization as well as managerial skills. Technical specialty courses are offered throughout the curriculum to enable students to develop the specific skills related to an actual farming situation.

There is increasingly a need for trained personnel in all areas of Agricultural Science. Sophisticated farming methods and increased capital requirements have elevated farming to big business status, thus increasing the need for greater efficiency in farm management and production. Graduates of this program should be able to function effectively in farm operation and management.

AGRICULTURAL SCIENCE

REQUIRED COURSES FOR GRADUATION

		Course Title	Hours Per Week Class	Lab	Credit Hours
ASM	101	Farm Machinery and Maintenance	3	4	5
ASM	102	Farm Records and Taxes	4	0	4
ASM	103	Techniques of Welding	3	2	4
asm	104	Soil Science and Fertilization	4	0	4
ASM	107	Farm Electrification	3	2	4
ASM	109	Agricultural Mechanics and Repairs	3	4	5
ASM	112	Agricultural Law	4	0	4
ASM	113C	Weed and Insect Control	4	0	4
ASM	114C	Conservation and Forest Management	4	0	4
ASM	208	Pastures and Forage Crops	3	4	5
ASM	212C	Livestock Housing and Construction	3	4	5
ASM	216C	Farm Business Management	4	0	4
ASM	220C	Agricultural Agencies	4	0	4
ASM	221C	Farm Diversification and Marketing	4	0	4
ASM	223C	Agricultural Economics and Finance	4	0	4
ENG	101	English Grammar and Composition I	4	0	4
MAT	101C	Principles of Mathematics (Prereq. MAT 100C)	4	0	4
PSY	202	Group Processes	4	0	4
SOC	101	Introduction to Sociology	4	0	4
		Total Credit Hours Required Courses			80
		Elective Hours			28
		Total Credit Hours Required to Graduate			108

ELECTIVE COURSES (Select at Least 28 Hours)

ASM	111	Swine Production	3	4	5
ASM	203	Fruit and Vegetable Production	3	4	5
ASM	204	Beef and Dairy Production	3	4	5
ASM	206	Livestock Diseases and Parasites	4	0	4
ASM	207	Poultry Enterprises	4	0	4
ASM	217C	Greenhouse Construction and Maintenance	3	2	4
ASM	218C	Greenhouse Horticulture	3	2	4
ASM	219C	Basic Horticulture	4	0	4
ASM	222C	Plant Diseases and Control	4	0	4
ECO	201	Labor Economics	4	0	4
ENV	100	Environmental Orientation	4	0	4
ENV	101	Resource Conservation	4	0	4
ISC	101	Introduction to Occupational Health	4	0	4
ISC	120	Principles of Industrial Management I	4	0	4
ISC	121	Principles of Industrial Management II (Prereq. ISC 120)	4	0	4
PSY	101	Introduction to Psychology	4	0	4

Other courses may be substituted upon approval of Industrial Department Head.

BUSINESS ADMINISTRATION

In North Carolina the opportunities in business are increasing. With the increasing population and industrial development in the state, business has become more competitive and automated. Better opportunities in business will be filled by students with specialized education beyond the high school level. The Business Administration Curriculum is designed to prepare the student for employment in one of many occupations common to business. Training is aimed at preparing the student in many phases of administrative work that might be encountered in the average business.

The specific objectives of the Business Administration Curriculum are to develop: (1) Understanding of the principles of organization and management in business operations; (2) Understanding our economy through study and analysis of the role of production and marketing; (3) Knowledge in specific elements of accounting, finance and business law; (4) Understanding and skill in effective communication for business; (5) Knowledge of human relations as they apply to successful business operations in a rapidly expanding economy.

The graduate of the Business Administration Curriculum may enter a variety of career opportunities from beginning sales person or office clerk to manager trainee. The duties and responsibilities of this graduate vary in different firms. These duties might include: making up and filing reports, tabulating and posting data in various books, sending out bills, checking calculations, adjusting complaints, operating various office machines, and assisting managers in supervising. Positions are available in businesses such as advertising; banking; credit, finance, retailing; wholesaling; hotel, tourist and travel industry; insurance; transportation; manufacturing and communications.

BUSINESS ADMINISTRATION

REQUIRED COURSES FOR GRADUATION

		Course Title	Hours Per Week Class	Lab	Credit Hours
BUS	101	Introduction to Business	4	0	4
BUS	109	Business Mathematics	4	0	4
BUS	110	Office Machines I	2	2	3
BUS	115	Business Law I	4	0	4
BUS	116	Business Law II	4	0	4
BUS	120	Accounting I	4	4	6
BUS	121	Accounting II	4	4	6
BUS	123	Business Finance I	4	0	4
BUS	124	Business Finance II	4	0	4
BUS	204	Business Communications	4	0	4
BUS	222	Accounting III	4	4	6
BUS	229	Taxes	4	0	4
BUS	233	Personnel Management	4	0	4
BUS	235	Business Management	4	0	4
BUS	239	Marketing	4	0	4
ECO	102	Economics I	4	0	4
ECO	104	Economics II	4	0	4
ENG	100	Reading Dynamics (may be credited by exam)	4	0	4
ENG	101	Grammar and Composition I	4	0	4
ENG	102	Grammar and Composition II	4	0	4
		Total credit hours required courses			85
		Elective hours			23
		Total credit hours required to graduate			108

ELECTIVE COURSES (SELECT AT LEAST 23 HOURS)

BUS	102	Typewriting I	2	2	3
BUS	117	Personal Law	4	0	4
BUS	219	Credit Procedures and Problems	4	0	4
BUS	223	Intermediate Accounting	4	4	6
BUS	232	Sales Development	4	0	4
BUS	243	Advertising	4	0	4
BUS	245	Retailing	4	0	4
BUS	247	Business Insurance	4	0	4
BUS	267	Money and Banking	4	0	4
BUS	285	Real Estate	4	0	4
EDP	104	Introduction to Data Processing	4	0	4
ENG	105	Masterpieces of World Literature	4	0	4
ENG	204	Fundamentals of Speech	4	0	4
POL	102	Government—National	4	0	4
PSY	101	Introduction to Psychology	4	0	4
SSC	201	Social Science Survey	4	0	4

Courses from other associate degree programs would be considered with consent of the Business Department head.

EXECUTIVE SECRETARIAL SCIENCE

Almost 11 million people were employed in clerical or some other closely related type of work in 1965. More than 2 million of these were employed in occupations requiring stenographic skills. In fact, more individuals are employed in the clerical fields than in any other category.

The Executive Secretary graduate may be employed as a stenographer or a secretary as well as in a variety of other clerical occupations. Stenographers are primarily responsible for taking dictation and transcribing letters, memoranda, or reports. The secretary, in addition to taking dictation and transcribing, is given more responsibility in connection with meeting office callers, screening telephone calls, handling numerous routine duties, private and confidential records, and a variety of business details on her own initiative.

GENERAL OFFICE TECHNOLOGY
(RECEPTIONIST OR CLERK-TYPIST)

More and more people are now employed in clerical occupations than in any other single job category. Automation and increased production will mean that these people will need more technical skills and a greater adaptability for diversified types of jobs.

The General Office Technology curriculum is designed to develop the necessary variety of skills for employment in the business world. Specialized training in skill areas is supplemented by related courses in mathematics, accounting, business law and applied psychology.

The graduate of the General Office Technology curriculum may be employed as an administrative assistant, accounting clerk, assistant office manager, bookkeeper, receptionist, file clerk, machine transcriptionist, or a variety of other clerical-related jobs.

MEDICAL SECRETARIAL SCIENCE

The demand for better qualified medical secretaries in our ever-expanding medical profession is becoming more acute. The purpose of this curriculum is to outline a training program that will provide specialized training in the accepted procedures required by the medical profession, and to enable persons to become proficient soon after accepting employment in the medical and health occupations.

The Medical Secretary Curriculum is designed to offer the student the necessary secretarial skills in typing, dictation, transcription and terminology for employment in the medical profession. The special training in secretarial subjects is supplemented by related courses in mathematics, accounting, business law and personality development.

The graduate of the Medical Secretary Curriculum should have a knowledge of medical terminology, skill in dictation and accurate transcriptions of medical records, reports and letters.

EXECUTIVE SECRETARIAL SCIENCE

REQUIRED COURSES FOR GRADUATION

		Course Title	Hours Per Week Class	Lab	Credit Hours
BUS	101	Introduction to Business	4	0	4
BUS	102	Typewriting I (may be credited by exam)	2	2	3
BUS	103	Typewriting II (may be credited by exam)	2	2	3
BUS	104	Typewriting III	2	2	3
BUS	106	Shorthand I (may be credited by exam)	2	2	3
BUS	107	Shorthand II	2	2	3
BUS	108	Shorthand III	2	2	3
BUS	109	Business Mathematics	4	0	4
BUS	110	Office Machines I	2	2	3
BUS	112	Filing	2	2	3
BUS	120	Accounting I	4	4	6
BUS	121	Accounting II	4	4	6
BUS	122	Payroll Accounting	2	2	3
BUS	204	Business Communications	4	0	4
BUS	205	Advanced Typewriting	2	2	3
BUS	206	Dictation and Transcription I	2	2	3
BUS	207	Dictation and Transcription II	2	2	3
BUS	208	Dictation and Transcription III	2	2	3
BUS	211	Office Machines II- Duplicating Processes	0	2	1
BUS	214	Secretarial Procedures	2	2	3
BUS	271	Office Management	4	0	4
ENG	100	Reading Dynamics (may be credited by exam)	4	0	4
ENG	101	Grammar and Composition I	4	0	4
ENG	102	Grammar and Composition II	4	0	4
		Total credit hours required courses			83
		Elective Hours			25
					108

Elective Courses (select 25 credit hours) (see list after Medical Secretarial)

GENERAL OFFICE TECHNOLOGY

(RECEPTIONIST OR CLERK-TYPIST)
REQUIRED COURSES FOR GRADUATION

		Course Title	Hours Per Week Class	Lab	Credit Hours
BUS	101	Introduction to Business	4	0	4
BUS	102	Typewriting I (may be credited by exam)	2	2	3
BUS	103	Typewriting II (may be credited by exam)	2	2	3
BUS	104	Typewriting III (may be credited by exam)	2	2	3
BUS	109	Business Mathematics	4	0	4
BUS	110	Office Machines I	2	2	3
BUS	112	Filing	2	2	3
BUS	115	Business Law I	4	0	4
BUS	120	Accounting I	4	4	6
BUS	121	Accounting II	4	4	6
BUS	122	Payroll Accounting	2	2	3
BUS	201	Machine Dictation and Transcription	2	2	3
BUS	204	Business Communications	4	0	4
BUS	205	Advanced Typewriting	2	2	3
BUS	210	Typing Office Practice	2	2	3
BUS	211	Office Machines II Duplicating Procedures	0	2	1
BUS	214	Secretarial Procedures	2	2	3
BUS	271	Office Management	4	0	4
ENG	100	Reading Dynamics (may be credited by exam)	4	0	4
ENG	101	Grammar and Composition I	4	0	4
ENG	102	Grammar and Composition II	4	0	4
		Total credit hours required courses			75
		Elective hours			33
		Total credit hours required to graduate			108

Elective Courses (select 33 credit hours) (see list after Medical Secretarial)

MEDICAL SECRETARIAL SCIENCE

REQUIRED COURSES FOR GRADUATION

		Course Title	Hours Per Week Class	Lab	Credit Hours
BIO	125	Anatomy and Psysiology	4	0	4
BUS	101	Introduction to Business	4	0	4
BUS	102	Typewriting I (may be credited by exam)	2	2	3
BUS	103	Typewriting II (may be credited by exam)	2	2	3
BUS	104	Typewriting III	2	2	3
BUS	106	Shorthand I (may be credited by exam)	2	2	3
BUS	107	Shorthand II	2	2	3
BUS	108	Shorthand III	2	2	3
BUS	109	Business Math	4	0	4
BUS	110	Office Machines I	2	2	3
BUS	112	Filing	2	2	3
BUS	120	Accounting I	4	4	6
BUS	121	Accounting II	4	4	6
BUS	122	Payroll Accounting	2	2	3
BUS	183	Medical Terminology & Vocabulary I	4	0	4
BUS	202	Medical Dictation & Transcription I	2	2	3
BUS	203	Medical Dictation & Transcription II	2	2	3
BUS	204	Business Communication	4	0	4
BUS	205	Advanced Typewriting	2	2	3
BUS	206	Dictation & Transcription I	2	2	3
BUS	211	Office Machines II- Duplicating Processes	0	2	1
BUS	216	Medical Secretarial Procedures	2	2	3
BUS	229	Taxes	4	0	4
BUS	284	Medical Terminology & Vocabulary II	4	0	4
ENG	100	Reading Dynamics (may be credited by exam)	4	0	4
ENG	101	Grammar and Composition I	4	0	4
ENG	102	Grammar and Composition II	4	0	4
		Total credit hours required courses			91
		Elective hours			17
		Total credit hours required to graduate			108

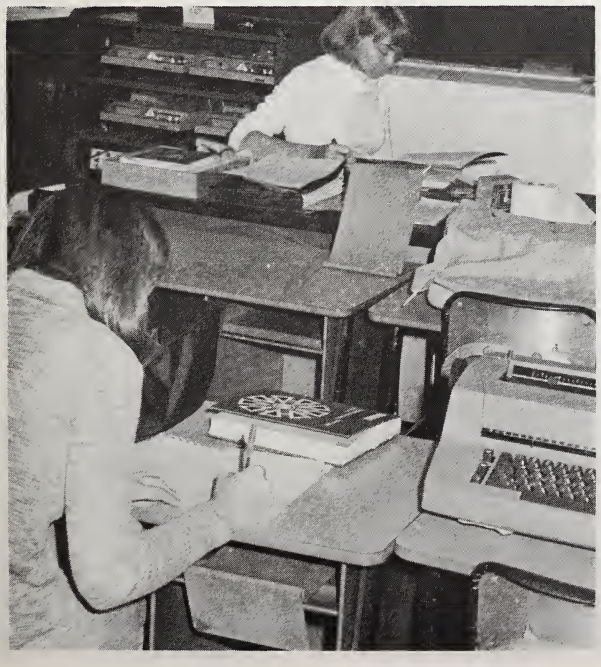
Elective Courses (select 17 credit hours)

ELECTIVE COURSES FOR

Executive Secretarial, General Office Technology, or Medical Secretarial

		Course Title	Hours Per Week Class	Lab	Credit Hours
ART	101	Art Appreciation	4	0	4
ART	102	Introduction to Drawing	3	2	4
BUS	113	Charm and Personal Development	0	2	1
BUS	117	Personal Law	4	0	4
BUS	229	Taxes	4	0	4
BUS	232	Sales Development	4	0	4
BUS	233	Personnel Management	4	0	4
BUS	235	Business Management	4	0	4
BUS	239	Marketing	4	0	4
BUS	243	Advertising	4	0	4
BUS	245	Retailing	4	0	4
BUS	247	Business Insurance	4	0	4
BUS	267	Money and Banking	4	0	4
EDP	104	Introduction to Data Processing	4	0	4
ENG	105	Masterpieces of World Literature	4	0	4
ENG	204	Fundamentals of Speech	4	0	4
MUS	101	Music Appreciation	4	0	4
PSC	103	The Art of Self Defense	4	0	4
PSY	101	Introduction to Psychology	4	0	4
PSY	202	Group Processes	4	0	4
PSY	206	Applied Psychology	4	0	4

Courses from other associate degree programs would be considered with consent of Secretarial Department Head.



FASHION MERCHANDISING AND MARKETING TECHNOLOGY

This curriculum is designed to prepare the individual to be a productive employee in an entry-level job and to provide the knowledge and skills necessary for career advancement in mid-management positions in various fashion merchandising and marketing business and industries.

Through study and application in areas such as: fabric science, fundamentals of art and design, elements of fashion, salesmanship, fashion buying and merchandising, display design, merchandise planning and control, apparel fitting, credit procedures and problems, the individual will be able to enter jobs such as: merchandise clerk, assistant to fashion coordinator, executive trainee, advertising assistant, display assistant, merchandise distributor in retail stores, wholesale firms, manufacturing firms, central buying offices, retail distribution centers and advertising agencies.

REQUIRED COURSES FOR GRADUATION

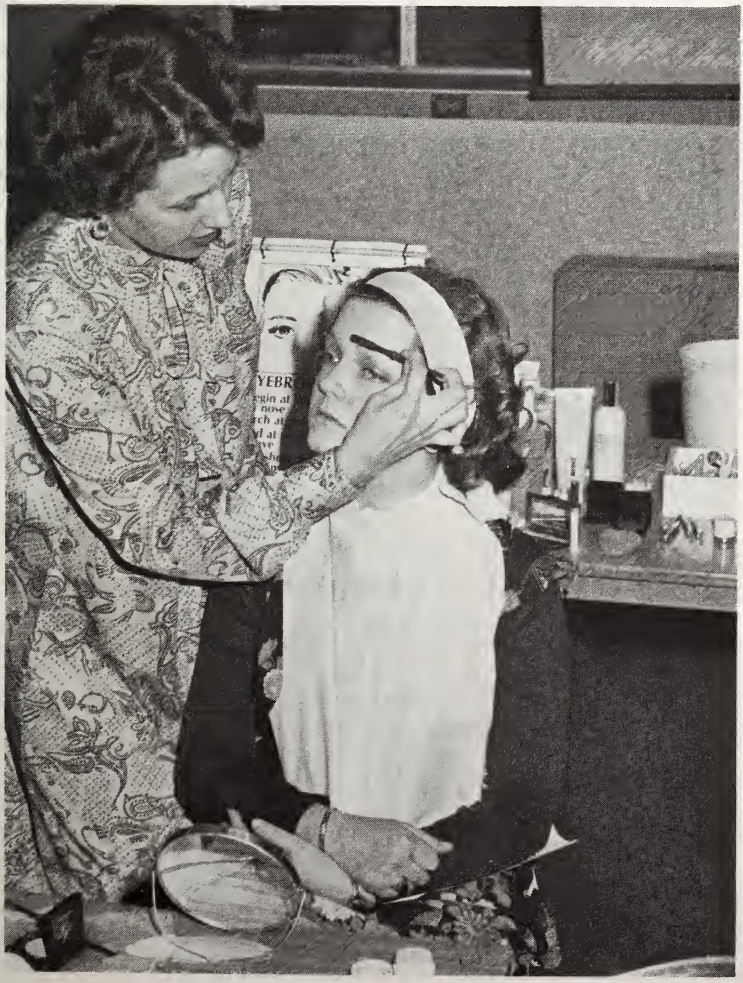
		Course Title	Hours Per Week Class	Lab	Credit Hours
ART	125	Fundamentals of Art & Design	2	2	3
BUS	101	Introduction to Business	4	0	4
BUS	109	Business Mathematics	4	0	4
BUS	204	Business Communications	4	0	4
DMK	240	Merchandise Planning & Control	4	0	4
DMK	249	Fashion Buying and Merchandising	4	0	4
DMK	260	Commercial Display Design	2	4	4
ENG	101	English Grammar and Composition I	4	0	4
ENG	102	English Grammar and Composition II	4	0	4
ENG	204	Fundamentals of Speech	4	0	4
FAS	101	Introduction to Fashion Marketing	4	0	4
FAS	102	Elements and Coordination of Fashion	4	0	4
FAS	103	Fashion Accessories	4	0	4
FAS	104	Fashion Sketching	2	2	3
FAS	108	Fashion Salesmanship	4	0	4
FAS	209	Fashion Writing	4	0	4
FAS	210	Fashion Show Production	3	2	4
FAS	211	Fashion Sales Promotion	4	0	4
HUM	110	History of Costume	4	0	4
TEX	100	Fabric Science I	4	0	4
TEX	101	Fabric Science II	4	0	4

Total Credit Hours Required Courses 82
Elective Hours 26
Total Credit Hours Required to Graduate 108

ELECTIVE COURSES (SELECT AT LEAST 26 HOURS)

ART	101	Art Appreciation	4	0	4
BUS	102	Typewriting I	2	2	3
BUS	110	Office Machines	2	2	3
BUS	219	Credit Procedures and Problems	4	0	4
BUS	229	Taxes	4	0	4
BUS	247	Business Insurance	4	0	4
CAT	116	Photography I (recommended)	2	4	4
ENG	116	Journalism I	4	0	4
ENG	203	Creative Writing	4	0	4
FAS	109	Psychology of Dress	4	0	4
FAS	202	Modeling	1	2	2
FAS	215	New York Field Studies Seminar	1	6	3
SOC	101	Introduction to Sociology	4	0	4

Courses from other associate degree programs would be considered with consent of Secretarial and Fashion Sciences Department Head.



ENVIRONMENTAL SCIENCE

The recent widespread interest in preserving and/or improving our environmental and natural resources, by the various governmental and public interest groups, has led to a need for environmental technicians. This program is designed to prepare a student for a career in the environmental field. The curriculum provides the necessary background in environmental science oriented courses with a generous supplement of basic Math, English, Government and Science to help the student become a well-rounded employee. The emphasis is on environmental problems, the overall effect of these problems, and the proposed solutions. The broad program of study better qualifies the student to grasp and solve environmental problems.

This program will also give a good base for anyone who may wish to pursue a higher degree in this or a related field.

The technician's training will qualify him for a wide range of duties such as inspections, surveys, investigations, and evaluations. Specific tasks would include water and air sampling and analysis, assisting professionals in performing environmental research, and collecting and evaluating environmental impact data. Employment opportunities exist with industry and many branches of our local, state, and federal government.

ENVIRONMENTAL SCIENCE

REQUIRED COURSES FOR GRADUATION

		Course Title	Hours Per Week Class	Lab	Credit Hours
BIO	101	Biology I	3	2	4
BIO	205	Microbiology	3	2	4
CHM	101	Chemistry I	3	2	4
CHM	102	Chemistry II (Prerequisite—CHM 101)	3	2	4
CHM	103	Chemistry III (Prerequisite—CHM 102)	3	2	4
ENG	101	Grammar and Composition I	4	0	4
ENG	103	Report Writing	4	0	4
ENV	100	Environmental Orientation	4	0	4
ENV	105	Hydraulics (Prerequisite—PHY 101)	4	0	4
ENV	202	Solid Waste Collection & Disposal	3	2	4
*ENV	203	Water Sampling and Analysis (Prerequisite—CHM 103)	3	2	4
ENV	204	Air Sampling Analysis & Control (Prerequisite—CHM 101)	3	2	4
ENV	205	Chemical Pollution & Control (Prerequisite—CHM 103)	3	2	4
ENV	206	Environmental Quality—Law & Enforcement	4	0	4
ENV	213	Environmental Health	4	0	4
*ENV	214C	Waste Water (Prerequisite—CHM 103)	3	2	4
ENV	216C	Energy	4	0	4
ISC	122C	Industrial Drawing	3	2	4
MAT	101C	Principles of Math (Prerequisite—MAT 100C)	4	0	4
MAT	102C	Introduction to Algebra (Prerequisite—MAT 101C)	4	0	4
MAT	105C	Statistics (Prerequisite—MAT 102C)	4	0	4
PHY	101	Physics I	3	2	4

*Student must choose one course, either ENV 203 or ENV 214.

Total Credit Hours Required Courses 84
Elective Courses 24

Total Credit Hours Required to Graduate 108

ELECTIVE COURSES (SELECT AT LEAST 24 HOURS)

BIO	102	Biology II (Prerequisite—BIO 101)	3	2	4
BIO	103	Biology III (Prerequisite—BIO 102)	3	2	4
ENG	100	Reading Dynamics	4	0	4
ENG	204	Fundamentals of Speech	4	0	4
ENV	103	Land Resources Management	4	0	4
ENV	104	Ecology	4	0	4
ENV	106	Solar Energy	3	2	4
ENV	208	Meteorology	4	0	4
ENV	210	Instrument Maintenance	3	2	4
ENV	215	Environmental Geology	3	2	4
MAT	100C	Basic Arithmetic Skills	4	0	4
MAT	110C	Intermediate Algebra	4	0	4
PHY	204	Thermodynamics	3	2	4

Other courses may be substituted upon approval of Industrial Department Head.

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 who 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.

These requirements have set forth the objectives in developing this program to prepare people for supervisory and mid-management responsibilities in industry.

The program is prepared to develop the individual's abilities in the art of communicating with his fellow worker by providing him with 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 mid-management positions in industry.

JOB DESCRIPTION:

The supervisor or foreman in industry coordinates the activities of workers. His duties may include interpretation of company policies to employees, planning production schedules, estimating man-hour requirements for job completion, establishing or adjusting work procedures, analyzing and resolving work problems and motivating workers.

INDUSTRIAL MANAGEMENT TECHNOLOGY

REQUIRED COURSES FOR GRADUATION

		Course Title	Hours Per Week Class	Lab	Credit Hours
DFT	118C	Graphics	4	0	4
EDP	104	Introduction to Data Processing	4	0	4
ENG	100	Reading Dynamics	4	0	4
ENG	101	Grammar and Composition I	4	0	4
ENG	103	Report Writing	4	0	4
ENG	204	Fundamentals of Speech	4	0	4
ISC	101	Introduction to Occupational Safety and Health	4	0	4
ISC	120	Principles of Industrial Management I	4	0	4
ISC	121	Principles of Industrial Management II	4	0	4
ISC	202	Quality Control (Prerequisite—MAT 102C)	4	0	4
ISC	209	Plant Layout	4	0	4
ISC	210	Job Analysis	4	0	4
ISC	211	Work Measurement I	4	0	4
ISC	213C	Production Planning	4	0	4
ISC	218	Plant Security	4	0	4
ISC	220	Management Problems	4	0	4
MAT	101C	Principles of Math (Prerequisite—MAT 100C)	4	0	4
MAT	102C	Introduction to Algebra (Prerequisite—MAT 101C)	4	0	4
MAT	105C	Statistics (Prerequisite—MAT 102C)	4	0	4
PHY	101	Physics I	3	2	4
PSY	101	Introduction to Psychology	4	0	4
PSY	202	Group Processes	4	0	4
		Total Credit Hours Required Courses			88
		Elective Courses			20
		Total Credit Hours Required to Graduate			108

ELECTIVE COURSES (SELECT AT LEAST 20 HOURS)

BUS	115	Business Law I	4	0	4
BUS	116	Business Law II	4	0	4
BUS	117C	Personal Law	4	0	4
BUS	123	Business Finance I	4	0	4
BUS	124	Business Finance II	4	0	4
BUS	233	Personnel Management	4	0	4
BUS	255	Interpreting Accounting Records	4	0	4
ECO	201	Labor Economics	4	0	4
ISC	107	Osha	4	0	4
ISC	204	Value Analysis	4	0	4
ISC	212	Work Measurement II	4	0	4
MAT	100C	Basic Arithmetic Skills	4	0	4
NSC	102	Environmental Studies	4	0	4
POL	102	Government—National	4	0	4
POL	103	Government—State and Local	4	0	4
PSY	206	Applied Psychology	4	0	4

Other courses in Associate Degree Programs may be substituted upon approval of Industrial Departmental Head.

INDUSTRIAL SAFETY AND HEALTH TECHNOLOGY

Advancements made over the past few years in our industrial world have forced our attentions to the field of accident prevention.

In addition to the major efforts in the field of accident prevention today, the industrial world is still faced with the awful fact that over two million accidents occur each year in occupational activities with a cost to the nation of over four-and-one-half billion dollars.

Serious consideration must be given to the needs for getting results in accident prevention through the power of well-marshalled facts, persuasion, teaching and advising through the work of a specialist trained in all phases of accident prevention.

The Williams-Steiger Act, better known as the Occupational Safety and Health Act of 1970, is the most far-reaching legislated safety proposal that business and industry has been confronted with. The total inner working regulations of the federal occupational safety and health act demand even further the need for trained technicians in the field of accident prevention. The safety engineer technician is responsible for a sound management-oriented knowledge on the development of safe working conditions, human factors in machine and equipment safety, and reduction of noise, drugs and such problems, safety apparel and evaluation of safety performance in business and industry.

This curriculum provides a basic background in the areas of accident prevention, investigation analysis, insurance programs and their direct relation to profit and many other phases of industry. Students are trained to recognize hazards, analyze problems and recommend solutions to accident producing situations.

Opportunities in the field of safety and health technology are broad in scope. Employment will be found with business, industrial firms, governmental agencies, insurance companies, machinery manufacturers, research foundations, municipal and state departments. The industrial safety and health technician curriculum is planned to fill the needs of the individual for employment in these types of organizations.

INDUSTRIAL SAFETY AND HEALTH TECHNOLOGY

REQUIRED COURSES FOR GRADUATION

		Course Title	Hours Per Week Class	Lab	Credit Hours
CHM	101	Chemistry I	3	2	4
CHM	102	Chemistry II (Prereq. CHM 101)	3	2	4
ENG	100	Reading Dynamics	4	0	4
ENG	101	Grammar & Composition I	4	0	4
ENG	103	Report Writing	4	0	4
ENG	204	Fundamentals of Speech	4	0	4
FIP	205	Industrial Hazards & Fire Prevention	3	2	4
FIP	235	Inspection Principles & Practices	2	4	4
ISC	101	Introduction of Occupational Safety and Health	4	0	4
ISC	107	Occupational Safety & Health Act	4	0	4
ISC	120	Principles of Industrial Management I	4	0	4
ISC	121	Principles of Industrial Management II (Prereq. ISC 120)	4	0	4
ISC	205	Personal Protective Safety Equipment	4	0	4
ISC	224	Elements of Industrial Hygiene	3	2	4
ISC	226	Hearing Conservation & Noise Control	4	0	4
MAT	101C	Principles of Mathematics (Prereq. MAT 100C)	4	0	4
MAT	102C	Introduction to Algebra (Prereq. MAT 101C)	4	0	4
MAT	105C	Statistics (Prereq. MAT 102C)	4	0	4
PHY	101	Physics I	3	2	4
PHY	102	Physics II (Prereq. PHY 101)	3	2	4
PSY	101	Introduction to Psychology	4	0	4
PSY	202	Group Processes	4	0	4
		Total Credit Hours Required Courses			88
		Elective Hours			20
		Total Credit Hours Required to Graduate			108

ELECTIVE COURSES (SELECT AT LEAST 20 HOURS)

BUS	117C	Personal Law	4	0	4
CHM	103	Chemistry III (Prereq. CHM 102)	3	2	4
DFT	118C	Graphics	4	0	4
ECO	201	Labor Economics	4	0	4
ENG	102	Grammar & Composition II (Prereq. ENG 101)	4	0	4
FIP	216	Chemical & Radiation Hazards	3	2	4
ISC	125	Traffic & Fleet Safety	4	0	4
ISC	202	Quality Control	4	0	4
ISC	209	Plant Layout	4	0	4
ISC	210	Job Analysis	4	0	4
ISC	211	Work Measurement I	4	0	4
ISC	213C	Production Planning	4	0	4
ISC	218	Plant Security	4	0	4
ISC	220	Management Problems	4	0	4
MAT	100C	Basic Arithmetic Skills	4	0	4
PHY	103	Physics III (Prereq. PHY 102)	3	2	4

Other courses may be substituted upon approval of Industrial Department Head.

POLICE SCIENCE TECHNOLOGY

Law enforcement techniques have evolved from rather simple jobs, requiring simple qualifications, to more complex activities requiring a large capacity for highly specialized knowledge.

Today, educational institutions are becoming the training centers for tomorrow's policemen. The Police Science Training program is dedicated to the purpose of developing proficiency and leadership in these people.

The program is designed to provide occupational training for persons who have definite interest and adaptability to a law enforcement career. It offers practical, technical, and general instruction to meet the requirements of various law enforcement agencies and provides the students with the skills, knowledge, and attitudes necessary for employment at the operational level and for development toward management roles.

There is an increasing demand for properly trained law enforcement officers in industry, municipal, county, state, and federal agencies; and there is every reason to believe that the highly trained law enforcement officer will find challenging opportunities with public and private law enforcement services.

Law enforcement is that important division of government which is assigned with the power and responsibility to maintain order and enforce law. Its basic functions may be classified as prevention of crime, suppression of criminal activity, apprehension of offenders, preservation of the peace, regulation of non-criminal conduct, and the protection of life and property.

To the original and primary police functions of preserving the peace and maintaining law and order, the ever-widening scope of government activity has added a host of other duties to the various law enforcement agencies. They range from the regulation of traffic and the suppression of vice to the enforcement of minor laws and ordinances that regulate the minutiae of business and private life in a modern society.

POLICE SCIENCE TECHNOLOGY

REQUIRED COURSES FOR GRADUATION

		Course Title	Hours Per Week Class	Lab	Credit Hours
ENG	101	Grammar and Composition I	4	0	4
ENG	102	Grammar and Composition II	4	0	4
ENG	204	Fundamentals of Speech	4	0	4
POL	102	Government—National	4	0	4
PSC	101	Introduction to Law Enforcement	4	0	4
PSC	110	Juvenile Delinquency	4	0	4
PSC	115	Criminal Law	4	0	4
PSC	116	Laws of Arrest, Search, and Seizure	4	0	4
PSC	118	Police Information Service	4	0	4
PSC	201	Traffic Planning and Management	4	2	5
PSC	205	Criminal Evidence	4	0	4
PSC	208	Patrol Procedures	4	0	4
PSC	209	Criminal Investigation I	4	0	4
PSC	210	Criminal Investigation II	4	0	4
PSC	211	Introduction to Criminalistics	4	2	5
PSC	220	Police Organization and Administration	4	0	4
PSC	225	Criminal Procedures	4	0	4
PSC	249	Seminar in Criminal Justice	4	0	4
PSY	101	Introduction to Psychology	4	0	4
PSY	201	Abnormal Psychology	4	0	4
SOC	101	Introduction to Sociology	4	0	4
		Total Credit Hours Required Courses			86
		Elective Hours			22
		Total Credit Hours Required to Graduate			108

ELECTIVE COURSES (SELECT AT LEAST 22 HOURS)

BIO	101	Biology	3	2	4
BUS	233	Personnel Management	4	0	4
ENG	100	Reading Dynamics	4	0	4
MAT	101C	Principles of Mathematics	4	0	4
POL	103	Government—State and Local	4	0	4
PSC	102	Introduction to Criminology	4	0	4
PSC	202	Community Relations	2	0	2
PSC	207	Police Photography	4	0	4
PSC	240	Defensive Tactics and Firearms	2	2	3
PSY	103	Adolescent Psychology	4	0	4
PSY	102	Social Psychology	4	0	4
SOC	202	Marriage and the Family	4	0	4
SOC	203	Contemporary Issues	4	0	4

Courses from other associate degree programs would be considered with consent of Public Service Department Head.

POSTAL SERVICE TECHNOLOGY

In 1970 the United States Postal Service was created to accomplish the following goals in 1985: to provide better service to those who receive the mail; to become a more efficient business operation; to bring cost and revenue into balance (self-sufficient); to provide employees with a better future.

The Associate Degree Program in Postal Service Technology is designed to help meet these goals and turn out a new breed of trained manpower better prepared to take advantage of the management position vacancies existing in the new Postal Service.

Completion of the Associate Degree program will give the student information and knowledge of subject matter in the middle management range. No other source presently offers this level of postal training to employees below supervisory levels, and previously after achieving supervisory level, some years would pass before this level of training would be reached.

POSTAL SERVICE TECHNOLOGY

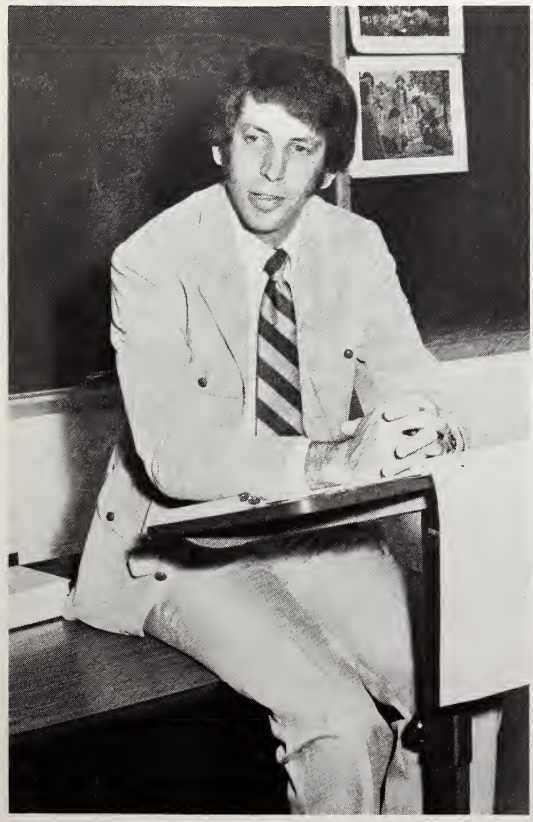
REQUIRED COURSES FOR GRADUATION

		Course Title	Hours Per Week Class	Lab	Credit Hours
BUS	109	Business Mathematics	4	0	4
BUS	110	Office Machines	2	2	3
BUS	120	Accounting I	4	4	6
BUS	121	Accounting II	4	4	6
BUS	233	Personnel Management	4	0	4
ECO	201	Labor Economics	4	0	4
ENG	100	Reading Dynamics	4	0	4
ENG	101	Grammar and Composition I	4	0	4
ENG	204	Fundamentals of Speech	4	0	4
ISC	107	Occupational Safety & Health Act	4	0	4
ISC	224	Elements of Industrial Hygiene	4	2	5
POS	101	Postal Service History & Organization	4	0	4
POS	103	Post Service Mail Processing I	4	0	4
POS	105	Post Service Mail Processing II	4	0	4
POS	201	Postal Service Labor Management	4	0	4
POS	202	Post Service (Support)	4	0	4
POS	203	Postal Customer Service	4	0	4
POS	205	Postal Service Delivery & Collection	4	0	4
POS	208	Postal Service Analysis	4	0	4
		Total Credit Hours Required Courses			76
		Elective Hours			32
		Total Credit Hours Required to Graduate			108

ELECTIVE COURSES (SELECT AT LEAST 32 HOURS)

BUS	102	Typewriting I	2	2	3
BUS	115	Business Law I	4	0	4
BUS	117C	Personal Law	4	0	4
BUS	123	Business Finance I	4	0	4
BUS	219	Credit Procedures and Problems	4	0	4
BUS	222	Accounting III	4	4	6
BUS	229	Taxes	4	0	4
ECO	102	Economics I	4	0	4
ECO	104	Economics II	4	0	4
EDP	104	Introduction to Data Processing	4	0	4
ENG	102	Grammar and Composition II	4	0	4
ENG	103	Report Writing	4	0	4
ISC	125	Traffic & Fleet Safety	4	0	4
POL	102	Government—National	4	0	4
POL	103	Government—State and Local	4	0	4
PSY	202	Group Processes	4	0	4
PSY	206	Applied Psychology	4	0	4
SOC	101	Introduction to Sociology	4	0	4
SSC	201	Social Science Survey	4	0	4
SSC	205	American Institutions	4	0	4

Courses from other associate degree programs would be considered with consent of the Public Service Department Head.



RADIOLOGIC (X-RAY) TECHNOLOGY

In recent years the demand for increased knowledge on the part of the X-Ray Technologist has been brought about by new techniques. Technology students must become familiar with other sources of radiation as well as mastering the X-Ray technique. With this knowledge they can properly assist the physician. The program at CCTI provides opportunity for training in this science.

The technologist may assist in examining for broken bones, tumors or other malfunctioning organs. Other tasks may include maintaining equipment, ordering supplies, keeping records and mixing solutions. During the two year training the student will be expected to take night call and work periodically over the weekends.

After successful completion of two years of study the student is eligible to take the American Registry Examination which is recognized by the American Medical Association. Passing this examination qualifies the student to use the abbreviation, R.T., Registered Technologist.

RADIOLOGIC (X-RAY) TECHNOLOGY

		Course Title	Hours Per Week Class	Lab	Clinical	Credit Hours
First Quarter						
RAD	110	Introduction to Radiologic Technology	1	0	0	1
RAD	102	Principles of Radiographic Technique I	3	2	0	4
RAD	101	Positioning I	3	2	0	4
BIO	107	Anatomy and Physiology I	4	4	0	6
RAD	106	Clinical I	0	0	18	6
			11	8	18	21
Second Quarter						
BIO	108	Anatomy and Physiology II	4	4	0	6
RAD	111	Positioning II	3	2	0	4
RAD	105	Critique I	1	0	0	1
MAT	110C	Intermediate Algebra	4	0	0	4
RAD	114	Clinical II	0	0	18	6
PSY	101	Introduction to Psychology	4	0	0	4
			16	6	18	25
Third Quarter						
PHY	107	General Physics	3	2	0	4
RAD	113	Critique II	1	0	0	1
RAD	124	Clinical III	0	0	24	8
RAD	121	Positioning III	3	2	0	4
RAD	103	Processing Technique	2	2	0	3
			9	6	24	20
Fourth Quarter						
RAD	141	Special Procedures I	2	0	0	2
PHY	108	Radiation Physics	3	2	0	4
RAD	123	Critique III	1	0	0	1
RAD	134	Clinical IV	0	0	27	9
MAT	111C	Tirgonometry	4	0	0	4
			10	2	27	20

Fifth Quarter						
ENG	101	Grammar and Composition I	4	0	0	4
RAD	241	Special Procedures II	2	0	0	2
RAD	201	Radiologic Protection	1	0	0	1
RAD	203	Clinical V	0	0	27	9
		Elective (Abnormal Psychology, Report Writing, Fundamentals of Speech)	4	0	0	4
			11	0	27	20
Sixth Quarter						
RAD	131	Positioning IV	3	2	0	4
ENG	102	Grammar and Composition II	4	0	0	4
RAD	212	Clinical VI	0	0	27	9
SOC	101	Sociology	4	0	0	4
			11	2	27	21
Seventh Quarter						
RAD	112	Principles of Radiologic Technique II	2	2	0	3
RAD	225	Radiotherapy	1	0	0	1
RAD	245	Seminar I	1	0	0	1
RAD	223	Clinical VII	0	0	33	11
			4	2	33	16
Eighth Quarter						
RAD	233	Clinical VIII	0	0	39	13
RAD	246	Seminar II	1	0	0	1
			1	0	39	14

Total Credit Hours Required For Graduation 157

COURSE DESCRIPTIONS

GENERAL EDUCATION AND TECHNICAL

ART 101—ART Appreciation 4 0 4
An introduction to fundamental elements and principles of creative art expression emphasizing composition, design, shape, value styles, and movement.

ART 102—Introduction to Drawing 3 2 4
A general introduction for the beginning art student who wishes to develop an ability to create two-dimensional representational images in traditional drawing media.

ART 103—American Art History 4 0 4
A study of the principle painters, sculptors, architects and craftsmen in America from the pre-Columbian time up to the present, and the work they produced which has greatly enhanced our cultural heritage.

ART 125—Fundamentals of Art and Design 2 2 3
Includes fashion drawing, the study of color, line, design and motifs to develop ability to recognize style detail and trends.

ASM 101—Farm Machinery and Maintenance 3 4 5
Care, repair, and selection of the large units of farm equipment; operating principles of self-propelled and tractor-drawn equipment will be studied in the classroom and the field. Such equipment as balers, combines, corn pickers, cotton pickers and peanut harvesters will be included.

ASM 102—Farm Records and Taxes 3 0 3
An introductory course to accounting methods related to the farm business which acquaints the student with terminology, basic principles and techniques used in recording transactions. Practical application of the principles learned are made by working with actual farm situations. A study of taxes as related to farm income, forms, deductions, depreciation, and tex schedules applicable to farms.

ASM 103—Techniques of Welding 2 2 3
Principles of oxyacetylene and electrical welding, cutting and brazing. Principles, procedures, safety precautions and experience in using oxyacetylene and arc equipment. Projects are assigned to develop skill in the use of equipment. Includes the study of metals, rods, gases, and special electric welding machinery.

ASM 104—Soil Science and Fertilization 4 2 5
A course dealing with basic principles of efficient classification, evaluation and management of soils; care, cultivation and fertilization of the soil and conservation of soil fertility.

ASM 107—Farm Electrification 4 2 5
A study of the basic principles and systems and their application of agricultural production with emphasis upon equipment for controlling the utilization of electricity.

ASM 109—Agricultural Mechanics and Repairs 3 2 4
The student receives current trends in agricultural mechanization in addition to practical shop application. The principles and fundamentals of tractor operation, agricultural chemicals application equipent, and the repair, modification, and maintenance of these items is covered.

ASM 111—Swine Production 3 2 4
Development of the swine producing and marketing industries; principles and practices of selection, breeding, feeding, housing, marketing, and management of swine.

ASM 112—Agricultural Law 4 0 4
A general course to acquaint the student with certain fundamentals of personal and business law, including contracts and negotiable instruments. Additional emphasis on law pertaining to partnerships, corporation, sales, suretyship and real property.

ASM 113C—Weed and Insect Control 4 2 5
A study of farm chemical pesticides, their ingredients, formulation, and farm application, with emphasis on the effective and safet use of chemicals in agricultural pest control.

ASM 114C—Conservation and Forest Management 3 2 4
An introduction to soil conservation, covering what is included in soil and water conservation, the public interest in soil and water conservation, who is involved in soil and water conservation, the available resources to carry out soil and water conservation measures, and the relationship of specialized knowledge in agronomy, biology, economics, engineering, soils, forestry and recreation.

ASM 203—Fruit and Vegetable Production 3 0 3
A course dealing with fruit and vegetable production. A study of the importance and principles of production and marketing of the major vegetable crops. Identification and methods of production and marketing of the principal tree and small fruits.

ASM 204—Beef and Dairy Production 3 4 5
A study of beef and dairy production. This includes their selection, breeding, feeding, care and management.

ASM 206—Livestock Diseases and Parasites 3 0 3
A course dealing with the common diseases and parasites of livestock; sanitation practices and procedures with emphasis on the cause, damage, symptoms, prevention and treatment of parasites and diseases, and management factors relating to disease and parasite prevention and control. Prerequisite: PR BIO 125.

ASM 207—Poultry Enterprise 3 2 4
A review of the growth of the various poultry enterprises-including market eggs, hatching eggs, and broiler production; marketing procedures; determining and controlling costs and production; choosing breeds and determining flock size, feeding systems, conversion ratios, labor efficiency, and other management factors.

ASM 208—Pastures and Forage Crops 3 2 4
A study of the major grasses and legumes of economic importance in North Carolina. Attention will be given to management, soil types, fertilization, harvesting and nutrient value.

ASM 212C—Livestock Housing and Construction 3 4 5
Primarily a carpentry course in planning and constructing animal and equipment structure on student farms. Cost estimating and alternate building materials will be studied.

ASM 216C—Farm Business Management 4 0 4
A review of the problems and opportunities of the small and large-scale farm manager. The process of up-to-date decision making, planning, staffing, controlling, supervising, communicating, and setting objectives. Prerequisite: ASM 102 Farm Records or ASM 223C Agricultural Economics.

ASM 217C—Greenhouse Construction and Maintenance 3 2 4
A study in the principles of design, construction, maintenance, and environmental conditions of greenhouses. The course will emphasize the construction and day-to-day operation of polyethelene-type houses. Related materials to include an overview of the floraculture and indoor-tomato industry.

ASM 218C—Greenhouse Horticulture 3 2 4
A course designed to introduce students to the production of bedding and foliage plants for the discriminating consumer. Also indoor growing experiments indicating effects of light, fertilizer, water, temperature will be assigned.

ASM 219C—Basic Horticulture 4 0 4
Cultivation and care of fruits, flowers, vegetables, and ornamental plants adaptable to this area. Individual outdoor projects approved by instructor.

ASM 220C—Agricultural Agencies 4 0 4
An introduction to the various public agencies and their programs that assist producers of farm commodities. A review of recent laws and agencies effecting the protection and planning of our environment.

ASM 221C—Farm Diversification and Marketing 4 0 4
A study of new and innovative sources of farm income as applied to small farms. Methods of direct and indirect marketing to consumers will be emphasized through research and field trips.

ASM 222C—Plant Diseases and Control 4 0 4
Diseases of forest, forage, grain and horticulture plants common to western North Carolina and the proper use of pesticides and biological controls will be emphasized.

ASM 223C—Agricultural Economics and Finance 4 0 4
An introduction to economic principles with emphasis on the free market structure as it relates to agricultural production. A review of the modern role of government in the national and international markets. Sources of long-term financing and its effect on farm profits.

BIO 101—General Biology I 3 2 4
An introduction to basic biological principles, including elementary chemistry, cell structure and function, genetics, molecular biology, ecology and evolution.

BIO 102—General Biology II 3 2 4
A survey of the animal kingdom including study of selected animals from each of the major groups. Emphasis is placed on the vertebrates.

BIO 103—General Biology III 3 2 4
A survey of the plant kingdom including study of selected plants from each of the major groups, with emphasis on the seed plants.

BIO 107—Anatomy & Physiology I 4 0 2 5
A study of the structure and normal function of the human body with man identified as a living organism composed of living cells, tissues, organs, and systems. Included are the basic physiologic aspects of skin; the skeletal, articular muscular, and nervous system; and the special senses. A laboratory portion should include relevant experiments to augment the student's learning of body structure and functions.

BIO 108—Anatomy & Physiology II 4 0 2 5
A continuation of the study of the structure and normal function of man as a living organism. Special emphasis is on the circulatory, lymphatic, respiratory, digestive, urinary, endocrine, and reproductive systems and fluid and electrolyte balance. Laboratory experiences include study of models and small animal dissection for insight into comparative structure and function of man.

BIO 125—Anatomy and Physiology 4 0 4
A study of the normal structures, functions and organ systems of the human body as an integrated unit. Suggested prerequisite: BUS 183

BIO 201—Zoology 3 2 4
A comprehensive study of the animal kingdom including anatomy, physiology, taxonomy, and ecology. Special emphasis will be placed on the invertebrates, and local animals. Prerequisite: BIO 101, 102, 103, or permission of instructor.

BIO 202—Botany 3 2 4
A comprehensive study of the plant kingdom including anatomy, physiology, taxonomy, and ecology. Special emphasis will be placed on the higher plants. Prerequisites: BIO 101, 102, 103, or permission of instructor.

BIO 205—Microbiology 3 2 4
A study of general microbiology with emphasis on micro-organisms associated with pollutants such as industrial waste and sewage. Lab will include methods of isolating, culturing, and staining selected micro-organisms. Prerequisites: BIO 101, CHM 101.

BUS 101—Introduction to Business 4 0 4
A survey of the business world with particular attention devoted to the structure of the various types of business organizations, methods of financing, internal organizations and management. Student learns the basic fundamentals of the free enterprise system.

BUS 102—Typewriting I 2 2 3
Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence and tabulation.

BUS 103—Typewriting II 2 2 3
Instruction emphasizes the development of speed and accuracy with further mastery of correct typewriting techniques. These skills and techniques are applied in tabulation, manuscript, correspondence and business forms. Prerequisite: BUS 102 or equivalent.

BUS 104—Typewriting III 2 2 3
Emphasis on production typing problems and speed building. Attention to the development of the student's ability to function as an expert typist, producing mailable copies. The production units are tabulation, manuscript, correspondence, and business forms. Prerequisite: BUS 102 or equivalent.

BUS 106—Shorthand I 2 2 3
A beginning course in the theory and practice of reading and writing shorthand. Emphasis on phonetics, penmanship, word families, brief forms and phrases.

BUS 107—Shorthand II 2 2 3
Continued study of theory with greater emphasis on dictation and elementary transcription. Prerequisite: BUS 106 or equivalent.

BUS 108—Shorthand III 2 2 3
Theory and speed building. Introduction to office style dictation. Emphasis on development of speed in dictation and accuracy in transcription. Prerequisite: BUS 107.

BUS 109—Business Mathematics 4 0 4
This course stresses the fundamental operations and their application to business problems. Topics covered include: payrolls, price marking, interest and discount, commission taxes, and pertinent uses of mathematics in the field of business.

BUS 110—Office Machines I 2 2 3
A general survey of the business and office machines. Students will receive training in techniques, processes, operation and application of the ten-key adding machines, full keyboard adding machines and calculators.

BUS 112—Filing 2 2 3
Fundamentals of indexing and filing, combining theory and practice by the use of miniature letters, filing boxes and guides. Methods covered are Alphabetic, Numeric, Geographic, Subject, Soundex and Chronological filing.

BUS 113—Charm and Personal Development 0 2 1
This course is designed to acquaint the secretarial student with various aspects of personal development that will enhance her femininity both on and away from the job.

BUS 115—Business Law 4 0 4
A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instruments and agencies.

BUS 116—Business Law II 4 0 4
Includes the study of laws pertaining to bailments, sales risk-bearing, partnership-corporation, mortgages and property rights. Prerequisite: BUS 115.

BUS 117C—Personal Law 4 0 4
A general survey of law as it effects the individual citizen including the court system and protection of the individual's rights. Emphasis is placed on the Bill of Rights to the U.S. Constitution. Laws governing vehicle operation, domestic relations and consumer protection will also be covered.

BUS 120—Accounting I 4 4 6
Principles, techniques and tools of accounting, summarizing, analyzing and reporting information about service and mercantile enterprises, to include practical application of the principles learned. Prerequisite: BUS 109.

BUS 121—Accounting II 4 4 6
Partnership and corporation accounting including a study of payrolls, federal and state taxes. Emphasis is placed on the recording, summarizing and interpreting data for management control rather than on bookkeeping skills. Accounting services are shown as they contribute to the recognition and solution to management problems. Prerequisite: BUS 120.

BUS 122C—Payroll Accounting 2 2 3
A detailed study of federal and state regulations, computations, deductions and general accounting for payrolls. Prerequisite: BUS 120.

BUS 123—Business Finance I 4 0 4
Financing of business units, as individuals, partnerships, corporations and trusts. A detailed study is made of short-term, long-term and consumer financing.

BUS 124—Business Finance II 4 0 4
Financing federal, state and local government and the ensuing effects upon the economy. Factors affecting supply of funds, monetary and credit policies. Prerequisite: BUS 123.

BUS 183M—Medical Terminology and Vocabulary I 4 0 4
This course teaches the student the mechanics of understanding medical words—their roots, prefixes and suffixes. Student learns to spell, pronounce and define medical terms that she may encounter as a medical secretary.

BUS 201—Machine Dictation and Transcription 2 2 3
Objective of this course is to develop skill in using various transcription machines and to transcribe correctly at the typewriter. The student will thereby, gain a knowledge of many kinds of business correspondence, increase her business vocabulary and development an understanding of secretarial procedures.

BUS 202—Medical Dictation and Transcription I 2 2 3
This course prepares the student to become a skilled medical transcriptionist using a typewriter, transcribing unit and pre-recorded cassettes and belts. Material covered includes case studies, physical examinations, operation records, medical correspondence, and x-ray or pathological reports, etc. Prerequisites: BUS 183M, BUS 205.

BUS 203—Medical Dictation and Transcription II 2 2 3
This course is a continuation of BUS 202. The student continues to build skill and speed in transcribing various medical records at the typewriter. Upon successful completion of course requirements the student will receive the AMRA certificate. Prerequisite: BUS 202.

BUS 204C—Business Communications 4 0 4
Develops skills in techniques in writing business communications. Emphasis is placed on writing action-getting sales letters and prospectuses. Business reports, summaries of business conferences, letters involving credit, collections, adjustments, complaints, orders, acknowledgements, remittances and inquiry.

BUS 205—Advanced Typewriting 2 2 3
Emphasis is placed on the development of individual production rates. The student learns the techniques needed in planning and in typing projects that closely approximate the work appropriate to the field of study. These projects include review of letters forms, statistical tabulation, and the typing of reports, manuscripts and legal documents. Prerequisite: BUS 104.

BUS 206E—Dictation and Transcription I 2 2 3
Develops the skill of taking dictation and of transcription at the typewriter materials appropriate to the course of study, which includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. Prerequisite: BUS 108.

BUS 207E—Dictation and Transcription II 2 2 3
Covering materials appropriate to the course of study, the student develops the accuracy, speed and vocabulary that will enable her to meet the stenographic requirements of business and professional offices. Prerequisite: BUS 206.

BUS 208E—Dictation and Transcription III 2 2 3
Principally a speed building course covering materials appropriate to the course of study, with emphasis on building transcription speed and the producing of mailable copies. Prerequisite: BUS 207.

BUS 210—Typing Office Practice 2 2 3
A course designed to familiarize the student with the correct typing of business correspondence. Emphasis is placed upon correct procedures and adaptability of varying office methods. Prerequisite: BUS 205.

BUS 211—Office Machines II—Duplicating Processes 0 2 1
This course is designed to teach the student the correct procedures to follow in preparing copying and duplicating masters. In addition, the student learns to operate various types of copying and duplicating equipment. Prerequisite: BUS 104.

BUS 214—Secretarial Procedures 2 2 3
Designed to acquaint the student with the responsibilities encountered by a secretary during a work day. Among these are the following: receptionist duties, handling the mail, telephone techniques, telegrams, office records, travel information, purchasing of supplies, office organization and insurance claims. Prerequisite: BUS 104.

BUS 216—Medical Secretarial Procedures 2 2 3
This course introduces the medical secretary to the activities, responsibilities, skills and work habits that she will encounter in the professional office. Some of these are meeting and handling patients, processing medical records and forms, managing the office and assisting the doctor. Suggested Prerequisite: BUS 104.

BUS 219—Credit Procedures and Problems 4 0 4
Principles and practices in the extension of credit; collection procedures; laws pertaining to credit extension and collection are included. Prerequisite: BUS 120.

BUS 222—Accounting III 4 4 6
Thorough treatment of the field of general accounting, providing the necessary foundation for specialized studies that follow. The course includes among other aspects, the balance sheet, income and surplus statements, fundamental processes of recording, cash and temporary investments, and analysis of working capital. Prerequisite: BUS 121.

BUS 223—Intermediate Accounting 4 4 6
This course presents concepts adhered to in modern accounting; which includes the principles, procedures, and methods that are applied in the preparation of financial statements. Changes in the form and content of the basic financial statements receive special emphasis. Prerequisite: BUS 222.

BUS 225—Cost Accounting 2 2 3
Nature and purposes of cost accounting; accounting for direct labor, materials and factory burden; job cost and standard cost principles and procedures; selling and distribution cost; budgets and executive use of cost figures. Prerequisite: BUS 222.

BUS 229—Taxes 4 0 4
Application of federal and state taxes to various business conditions. A study of the following taxes; income, payroll, intangible, capital gain, sales and use, excise and inheritance.

BUS 232—Sales Development 4 0 4
A study of retail, wholesale and specialty selling. Emphasis is placed upon mastering and applying the fundamentals of selling. Preparation for and execution of sales demonstration required.

BUS 233—Personnel Management 4 0 4
Principles of organization and management of personnel, procurement, placement, training, performance checking, supervision, remuneration, labor relations, fringe benefits and security.

BUS 235—Business Management 4 0 4
Principles of business management including overview of major functions of management, such as planning, staffing, controlling, directing and financing. Clarification of the decision-making function versus the operating function. Role of management in business qualifications and requirements.

BUS 239—Marketing 4 0 4
An overall survey of the field of marketing; with detailed emphasis being placed on marketing policies, functions and institutions involved in the marketing process.

BUS 243—Advertising 4 0 4
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 for various media.

BUS 245—Retailing 4 0 4
A study of the role in retailing in the economy including development of present retail structure, functions performed, principles governing effective operation and managerial problems resulting from current economic and social trends.

BUS 247—Business Insurance 4 0 4
An introduction to indusrance, what it is, what it does, and how it can best serve the individual and the business. Included are a brief history of insurance, theories of risk and discussion of all types of modern-day insurance.

BUS 255—Interpreting Accounting Records 4 0 4
Designed to aid the student in developing a "use understanding" of accounting records, reports, and financial statements. Interpretation, analysis and utilization of accounting statements.

BUS 267—Money and Banking 4 0 4
A course designed to stimulate interest in the commercial banking process used today along with the Federal Reserve System, business cycles and monetary policies, financial institutions and commercial banks. The types of money in use and early theories of the value of money are discussed thoroughly in this study.

BUS 269—Auditing 2 2 3
Principles of conducting audits and investigations; setting up accounts based upon audits; collecting data on working papers; arranging and systemizing the audit, and writing the audit report. Emphasis placed on detailed audits, internal auditing and internal control. Prerequisite: BUS 223.

BUS 271—Office Management 4 0 4
Presents the fundamental principles of office management. Emphasis is on the role of office management including its functions, office automation, planning, controlling, organizing, and actuating office problems.

BUS 272—Principles of Supervision 4 0 4
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 284M—Medical Terminology and Vocabulary II 4 0 4
This course emphasizes a more detailed and comprehensive study of medical terms. The student's ability to spell, define and pronounce medical words is enhanced as she studies basic anatomical terminology. Suggested prerequisite: BUS 183.

BUS 285—Real Estate 4 0 4
The course treats the "why" and "how" of real estate as it affects individuals and business firms. It presents the legal framework, the economic significance and the social implications and practices that make up today's real estate market.

CAT 116—Photography I 2 4 4
An introduction to the field of photography, photographic equipment and materials. A study of the fundamental techniques of the camera and its expressive possibilities in relation to the field of design and visual communications. Assigned camera projects, darkroom procedures and equipment.

CHM 101—Chemistry I 3 2 4
Fundamental principles and laws underlying chemical action with special emphasis on the non-metals, their compounds, theories and problems. Laboratory deals with the non-metallic elements and their compounds, and the theories of qualitative and quantitative analysis. A working knowledge of algebra is highly recommended before entry into these courses which must be completed in sequence.

CHM 102—Chemistry II 3 2 4
A continuation of CHM 101. Prerequisite: CHM 101.

CHM 103—Chemistry III 3 2 4
A continuation of CHM 101 and CHM 102. Prerequisite: CHM 102.

DFT 118C—Graphics 4 0 4
Basic drafting fundamentals and blueprint reading are covered from a management point of view. The student will learn to use, read, and understand basic drafting techniques, blueprints, and scale drawing.

DMK 240—Merchandise Planning and Control 2 4 4
Concerns itself with the scientific use of numbers in merchandising, and the figures and mathematical techniques that are employed to translate fashion into the profit-making activities of planning, pricing, and controlling quantities. Prerequisite: BUS 109.

DMK 249—Fashion Buying and Merchandising 4 0 4
Analyzes the buying function and the career opportunities in different types of fashion retailing enterprises, and studies the merchandising techniques that are used to forecast fashions, plan assortments, determine sources of supply, select merchandise, negotiate buying arrangements, and follow through on the sale of merchandise.

DMK 260—Commercial Display Design 2 4 4
Examines display as a visual merchandising medium, and covers the principles of display design and their applications to fashion merchandising environs.

DRA 105—Theatrical Performances 4 0 4
Drama 105 is designed to give the student experience in an appreciation of a variety of behind the scene and on-stage procedures that are requisite to a theatrical production.

DRA 106—Dramatic Productions 4 0 4
Designed to give the student further experience in theatrical productions with emphasis placed on technical theatre.

ECO 102—Economics I 4 0 4
The fundamental principles of economics including the institutions and practices by which people gain a livelihood. Included in a study of the laws of supply and demand and the principles bearing upon production, exchange, distribution and consumption both in relation to the individual enterprise and to society at large.

ECO 104—Economics II 4 0 4
Greater depth in principles of economics, including a penetration into the composition and pricing of national output, distribution of income, international trade and finance and economic problems.

ECO 108—Consumer Economics 4 0 4
Designed to help the student use his resources of time, energy and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing his finances, increasing his resources and to understand better the economy in which he lives.

ECO 201—Labor Economics 4 0 4
Emphasis is placed on the history of the labor movement in the United States, the development of methods and strategies by labor organizations and by management, the shift in the means of public control; and the factors on income and economic security.

EDP 104—Introduction to Data Processing Systems 4 0 4
Fundamental concepts and operational principles of data processing systems, as an aid in developing a basic knowledge of computers, prerequisite to the detailed study of particular computer problems.

ENG 100—Reading Dynamics 4 0 4
Designed to improve the student's ability to read rapidly and accurately with special emphasis on comprehension, vocabulary, critical and analytical reading skills, and the study of reading materials related to the student's curriculum.

ENG 101—Grammar and Composition I 4 0 4
Offers an historical survey of the English language, a review of English grammar, and an opportunity to improve written self-expression through expository essays and both primary and secondary research.

ENG 102—Grammar and Composition II 4 0 4
A continuation of ENG 101 with special emphasis on reading, expository writing and speaking in order to develop and enhance skills in basic rhetoric, simplified grammar, expanded vocabulary, and accurate spelling. Composition is designed to help the student write more easily by giving specific instruction regarding sentence structure, topic sentences, and paragraph development.

ENG 103—Report Writing 4 0 4
The fundamentals of standard English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports using writing techniques and graphic devices are completed by the students. The emphasis is on practical application of occupational writing demands.

ENG 105—Masterpieces of World Literature 4 0 4
A study of novels, short stories, poetry, plays, and non-fiction representative of both classic and contemporary world literature.

ENG 107—Introduction to the Theatre 4 0 4
A general survey of theatre history including an investigation of the origins of tragedy and comedy, Medieval church drama, Shakespeare, the Renaissance and Romantic traditions, Ibsen and realism, Theatre of the Absurd and some of its more recent descendants. Appropriate selections from the literature of some of the above-mentioned periods will be included.

ENG 116—Journalism I 4 0 4
Emphasis will be placed on journalistic techniques and problems, developing an awareness of news, and questions of press freedom and responsibility. Practical experience will be gained through the production of the newspaper.

ENG 117—Journalism II 4 0 4
Continuation of ENG 116.

ENG 118—Publications Design and Production I 3 2 4
Emphasis will be placed on techniques and problems in design, production of publications, including: pamphlets, brochures, catalog, and yearbook.

ENG 119—Publications Design and Production II 3 2 4
Continuation of ENG 118.

ENG 120—Publications Design and Production III 3 2 4
Continuation of ENG 119.

ENG 133—Composition and Documentation 4 0 4
Offers a study of research materials (card catalog, *Readers' Guide to Periodical Literature,* dictionary, thesaurus, atlas, almanac, newspaper, encyclopedia) available in the Learning Resources Center and instructions in the use of these materials. The student will write extended compositions, summaries, and a library paper to convey his understanding of research methods.

ENG 203—Creative Writing 4 0 4
Creative writing laboratory. Emphasis on imaginative writing with special emphasis on essays, short stories and poetry. Prerequisite: ENG 101.

ENG 204—Fundamentals of Speech 4 0 4
A study of basic concepts and principles of oral communications to enable the student to communicate with others. Emphasis is placed on the speaker's attitude, improving diction, voice and the application of particular techniques of theory to correct speaking habits and to produce effective oral presentation. Particular attention given to conducting meetings, conferences and interviews.

ENG 205—Major American Writers 4 0 4
An anthology of major American authors representative of literary movements from Romanticism to the present.

ENG 207—Southern American Authors 4 0 4
A study of principal authors, from colonial times to the present, who have made a contribution to a better understanding of the people and institutions of the South.

ENV 100—Environmental Orientation 4 0 4
An introduction to environmental education, fields of environmental employment, and duties performed. Guest lecturers in environmentally related fields.

ENV 101—Resource Conservation 3 2 4
A practical look at means that can be used to conserve and preserve our natural resources.

ENV 103—Land Resource Management 4 0 4
An integrated course covering aspects of geology, soil and water conservation, and the relationship of these factors to the biological community. Methods of land management will be discussed allowing controlled growth without environmental degradation.

ENV 104—Ecology 4 0 4
A basic course designed to acquaint the student with the relationships between organisms and their environment, and of interactions among organisms. Lectures and field trips present a balanced perspective in environmental biology.

ENV 105—Hydraulics 4 0 4
An introduction to basic hydraulic principles including Pascal's Principle of static fluids, Bernoulli's theorems of fluids in motion, viscosity, laminar and turbulent flow, Reynold's number, dynamic similitude, velocity gradient, etc.

ENV 106—Solar Energy 3 2 4
This course is a study of the practical application of solar energy. It includes the study of active and passive solar applications, heat storage, heat loss calculations, hot water heating, and space heating using water or hot air. Flat plate concentrating collectors and the generation of electricity using solar cells are also studied.

ENV 202—Solid Waste, Recovery and Disposal 3 2 4
A study of the techniques used in the recovery, recycling and disposal of solid waste.

ENV 203—Water Sampling, Analysis, Control 3 2 4
A basic study of water quality standards, water monitoring equipment, water monitoring techniques, and analysis of results.

ENV 204—Air Sampling, Analysis, and Control 3 2 4
A study of air quality standards, air monitoring equipment, and techniques for sampling air. Lab will include sampling and analysis of ambient air.

ENV 205—Chemical Pollution and Control 3 2 4
A study of chemical pollutants. Labs will consist of methods of monitoring and controls. Special emphasis will be placed on agricultural and industrial chemical pollution. Prerequisite: CHM 102.

ENV 206—Environmental Quality Laws and Enforcement 4 0 4
A study of local, state, and federal laws and acts concerning environmental quality standards and the use of resources, legal procedure for enforcing laws, and problems concerning enforcement. Included will be environmental standards dealing with polluting sources such as industry, agriculture, municipalities, and individuals.

ENV 208—Meteorology 4 0 4
Physical aspects of weather and climate, with labs to accompany lectures.

ENV 210—Instrument Maintenance 3 2 4
Basic types of instruments and their design principles covers simple mechanical and electronic faults that can be repaired by a technician in a laboratory. Instrument calibrations and standardization will be discussed.

ENV 213—Environmental Health 3 2 4
The influence of environmental conditions on human health. Special emphasis given to medical laboratory procedures including bacteriology, hematology, clinical chemistry, and urinalysis, used in assessing health.

ENV 214—Waste Water 3 2 4
The course is a basic study of wastewater and sewage treatment. Labs will consist of chemical, physical, and microbiological methods used in wastewater and sewage treatment.

ENV 215—Environmental Geology 3 2 4
A study of the relationship between man and his geologic environment. Traditional subjects such as geologic hazards are introduced and discussed by inter-weaving geologic and human aspects of flooding, landslides, subsidence, earthquakes, volcanoes and coastal erosion. It also includes hydrology and human use, waste disposal, resources and energy, land-use planning, site selection, environmental impact and environmental law.

ENV 216C—Energy 4 0 4
A study of the various sources of energy available and the feasibility of the use of each. The study includes fossil fuels, solar energy, nuclear energy, wind power, hydroelectric power, tidal power, and geothermal energy.

FAS 101—Introduction to Fashion Marketing 4 0 4
Covers the nature of the business enterprises, and the industrial practices involved in the design, production, retailing and consumption of fashion products, with major emphasis on marketing activities and interrelationships.

FAS 102—Elements and Coordination of Fashion 4 0 4
Examines the dynamics, language and coordination of fashion and analyzes the basic styles, sizes, construction, and workmanship of apparel products.

FAS 103—Fashion Accessories 4 0 4
Concerns itself with the properties, characteristics, and construction of leather, fur, hosiery, intimate apparel, belts, umbrellas, millinery, wigs, jewelry, and cosmetics as they affect the knowledgeable buying and selling of these products.

FAS 104—Fashion Sketching 2 2 3
To help students develop fashion sketching techniques for promoting designs which are already complete, for illustrations in magazines, newspapers, poster design, display, etc. Enables student to acquire knowledge of figure proportions.

FAS 108—Fashion Salesmanship 4 0 4
Covers the principles of salesmanship and their application to creative and effective techniques for selling fashion products, by means of role-playing selling situations.

FAS 109—Psychology of Dress 4 0 4
Examines the interrelationship between clothing and its cultural, social, psychological, physical, economic, and aesthetic implications.

FAS 202—Modeling 1 2 2
A course in figure control, stance, carriage, and posture.

FAS 209—Fashion Writing 4 0 4
Examines specific areas of fashion writing, such as: Fashion reports, press release, fashion news stories, fashion and trade magazine articles, and fashion show commentary.

FAS 210—Fashion Show Production 4 0 4
Covers the types and objectives of the different sales promotion activities that are used to sell fashion products, and the specialized techniques and procedures that are employed to implement fashion shows, special events and publicity, culminating with the presentation of a fashion show.

FAS 211—Fashion Sales Promotion 3 2 4
Covers the types and objectives of activities for all marketing levels with concentration on the specialized techniques and procedures employed to implement activities of advertising and copywriting.

FAS 215—New York Field Studies Seminar 1 6 3
Seven days and six nights to New York with daily seminars by leading fashion professionals. Offered upon sufficient enrollment demand once each two years.

FIP 205—Industrial Hazards and Fire Prevention 2 2 3
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 216—Chemical and Radiation Hazards 2 2 3
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 use of radioactive materials, transportation, and storage. Application of special inspection procedures.

FIP 235—Inspection Principles and Practices 4 4 6
A study of the fundamentals of fire inspections including standards, techniques of evaluation of hazards as to the 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.

HIS 101—World Civilization I 4 0 4
A survey of the cultural beginning of Eastern and Western civilizations, dealing with migrations, cultural diffusion, and the development of governmental and ethical structures through the fall of the Roman Empire.

HIS 102—World Civilization II 4 0 4
A continuation of HIS 101 from the Middle Ages, through the Renaissance, the Voyages of Discovery, Colonization, the Reformation and the Ages of Enlightenment.

HIS 103—World Civilization III 4 0 4
A continuation beginning with the Industrial Revolution, the impact of industrial imperialism, the American and French Revolutions, the rise of political democracy and modern nationalism to the present.

HUM 110—History of Costume 4 0 4
A study of the costumes of the ancient world, Europe and America and the effects of the social environment upon appearance and the evolution of garments with special emphasis on the influence of history on modern concepts of dress.

ISC 101—Introduction to Occupational Safety and Health 4 0 4
An introduction to the principles of occupational safety and health and the hazards faced by persons employed in industrial plants. A survey course covering record-keeping requirements, first aid, and the key man development preparing potential management and supervisory personnel for certificates in these areas.

ISC 107—Occupational Safety and Health Act 4 0 4
A survey of the Williams-Steiger Occupational Safety and Health Act of 1970. Application of the Federal Standards in various industries.

ISC 120—Principles of Industrial Management I 4 0 4
The basic managerial decisions; organizational structure including plant location, building requirements, and internal factory organization; problems of factory organization and control, planning, scheduling, routing factory production, and labor control.

ISC 121—Principles of Industrial Management II 4 0 4
Continuation of Principles of Industrial Management I.

ISC 122—Industrial Drawing 4 0 4
Drafting fundamentals and blueprints interpreting techniques common to commercial buildings covered from a safety technicians point of view. Schematics and diagrams to include electrical, plumbing, and heating installations using appropriate symbols and notes.

ISC 125—Traffic and Fleet Safety 4 0 4
A general study of certain problems connected with Motor Fleet Safety. Who governs motor fleet safety? What basic procedures safety engineers must know in dealing with motor fleet safety.

ISC 202—Quality Control 4 0 4
Principles and techniques of quality control, organization, procedures, sampling inspections, quality control and tests for significance stressed. Prerequisite: MAT 102C.

ISC 204—Value Analysis 4 0 4
The modern concept in the manufacturing production. This course will provide the student an opportunity to study a production system with the specific purpose of identifying unnecessary cost by the use of sound decisions through a common sense approach.

ISC 205—Personal Protective Safety Equipment 4 0 4
A study of the situation where personal protective equipment is available, how to select the proper equipment, and how it is used. Included also is a study of the standards and specifications of various pieces of equipment and the interpretations utilized by the North Carolina Department of Labor OSHA Division's Safety Officers when conducting OSHA Inspections.

ISC 209—Plant Layout 4 0 4
A practical study of factory planning with emphasis on the most efficient arrangements of work areas to achieve lower manufacturing costs. Layouts for small and medium-sized plant, layout fundamentals, selection of production equipment and materials handling equipment. Effective management of men, money, and materials in a manufacturing operation.

ISC 210—Job Analysis 4 0 4
This study is based on product studies as well as personnel and usage programs. The course utilizes the study of product designs, value analysis, materials and process as an intricate part of productive procedures.

ISC 211—Work Measurement I 4 0 4
Principles of work simplification including administration of job methods improvement, motion study fundamentals and time study techniques, use of flow and process charts; multiple activity charts, operations charts, flow diagrams and methods of evaluation are studied.

ISC 212—Work Measurement II 4 0 4
Continuation of ISC 211. Prerequisite: ISC 211.

ISC 213C—Production Planning 4 0 4
Day to day plant direction; forecasting, product planning and control, scheduling, dispatching, work loading. Routing and inventory control are studied.

ISC 218—Plant Security 4 0 4
Survey of the organization and function of the plant security force. Items stressed include: entrance procedures, petty thievery of company owned materials, parking lot security, use of fire arms in an emergency situation, disaster preparedness, and handling of bomb scares.

ISC 220—Management Problems 4 0 4
A study of personnel and production problems from the standpoint of middle management. Includes selection and development of products, control problems and techniques, development of standards, employer-employee relations. Case studies are extensively utilized.

ISC 224—Elements of Industrial Hygiene 4 2 5
Course designed to develop understanding of broad concepts of Industrial Hygiene and to develop ability to recognize potentially hazardous environmental conditions. A survey of the effects of toxic agents on the body and general methods of control will be included.

ISC 226—Hearing Conservation and Noise Control 4 0 4
Study of the physics of vibration and sound. Physiological and psychological response to noise. Use of sound monitoring and hearing testing equipment. Engineering control and personal protection from vibration and noise. Prerequisite: ISC 224.

MAT 100C—Basic Arithmetic Skills 4 0 4
A review course in the principles and manipulations of arithmetic operations. Topics of study include: whole numbers, fractions, decimals, factoring, simple equations, ratio and proportion and percents.

MAT 101C—Principles of Mathematics 4 0 4
A course emphasizing applications of fundamental operations of mathematics and geometry. Topics of study include: Applications of arithmetic, geometry of plane figures, the metric system of measurement. Prerequisite: MAT 100C or equivalent.

MAT 102C—Introduction to Algebra 4 0 4
An introductory course acquainting students with the basic principles of the study and application of algebra. Topics of study include: The equation, signed numbers, monomials, polynomials, graphing and set theory. Prerequisite: MAT 101C or equivalent.

MAT 104C—Introduction to Metrics 4 0 4
A practical course involving the mathematical and algebraic solutions of problems encountered when using the metric system of measurements. Prerequisite: MAT 102C or equivalent.

MAT 105C—Statistics 4 0 4
An elementary course concerning the basic concepts of probability theory and the methods of statistical inference. Topics of study include: Sets and functions, probability, sampling, parameters and normal probability distribution. Prerequisite: MAT 102C or equivalent.

MAT 110C—Intermediate Algebra 4 0 4
A study of the solution of equations and systems of equations through advanced algebraic techniques. Outline of study includes: functions, graphing, operations with polynomials, solution of quadratics, linear equations, inequalities, matrices, determinants and exponential functions. Prerequisite: MAT 102C or equivalent.

MAT 111C—Trigonometry 4 0 4
An intermediate course in the principles and applications of trigonometric functions and algebraic manipulations of trigonometric functions. Outline of study includes: trigonometric functions, solution of triangles, radian measure, trigonometric identities and inverse trigonometric functions. Prerequisite: MAT 110C or equivalent.

MAT 120C—Calculus with Analytical Geometry 5 0 5
An introductory course in the principles, concepts and applications of calculus. Outline of study includes: limits, continuity, the derivative, application of derivative, the integral and integration by parts. Prerequisite: MAT 111C or equivalent.

MUS 101—Music Appreciation 4 0 4
Designed to give a basic orientation to music with emphasis on simple form and analysis, instrumentation aesthetics, masterpieces and other significant works.

NSC 102—Environmental Studies 4 0 4
A study of man's interaction with his physical environment, human problems arising from misuse of natural resources, and planning for and control of man's use of his environment with consideration for the future.

PHI 202—Introduction to Philosophy 4 0 4
An introduction to philosophic world frames emphasizing cosmology, ontology, epistemology and axiology.

PHY 101—Physics I 3 2 4
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 and specialized problems dealing with these topics are part of this course.

PHY 102—Physics II 3 2 4
Continuation of PHY 101. Prerequisite: PHY 101.

PHY 103—Physics III 3 2 4
Continuation of PHY 102. Prerequisite: PHY 102.

PHY 107—General Physics 3 2 0 4
This course is designed to take the student from basic fundamentals through advanced physics covering such areas as: Structure of matter; electric current; electrostatics, units of measurement; electrodynamics; magnetism and electromagnetism, electric generators and motors.

PHY 108—Radiation Physics 3 2 0 4
The production and control of high voltage and rectification; x-ray tubes and rectifiers and an introduction to therapy and nuclear medicine. Prerequisite: PHY 107.

PHY 204—Thermodynamics 3 2 4
Basic principles and concepts. Emphasis on first and second laws, their implications and applications. Properties of actual and real gases. Also inter-relationships between the properties as given by the general equations of thermodynamics. Prerequisite: PHY 101.

POL 102—Government—National 4 0 4
English and Colonial background, the articles of confederation and the framing of the Federal constitution will be discussed. The nature of the Federal Union, Federal powers, political parties will be studied, as will the general organization and functions of the national government.

POL 103—Government—State and Local 4 0 4
A study of state government, state-federal inter-relationships, the functions and prerogatives of the branches will be made. Problems of administration, legal procedures, law enforcement, police power, revenues and appropriations, with special attention to North Carolina will be discussed.

POL 204—Great Decisions—Foreign Policy 4 0 4
A discussion study of key foreign policy issues faced by the United States and its citizens in the current year.

POS 101—Postal Service History and Organization 4 0 4
This course is designed to trace the delivery of written communication and merchandise through to present day modes. In so doing, the course will depict, and compare the private, corporate, and governmental agencies which have been and are responsible for mail service throughout the world, as well as the United States. The current postal organization will be studied to present its structure and functional relationships between divisions and other federal agencies. Policies and procedures, rules and regulations, will also be traced to and studied under the current organization. The history of and operations of the Postal Inspection Service will be presented as an integral but separate function to the above.

POS 103—Postal Service Mail Processing I 4 0 4
This course is designed to provide the participant with an awareness of the interrelated factors necessary to achieve rapid separation of large amounts of mail within specified time and error parameters and on a cost effective basis.

POS 105—Postal Service Mail Processing II 4 0 4
This course is designed to provide the student with an in-depth view of revenue determination procedures and flow characteristics involved in receipt, processing and dispatch of second, third, and fourth class mail.

POS 201—Postal Service Labor Management 4 0 4
Overview of laws and practices as related to Labor-Management in the Postal Service. Current status and current problems and/or issues. The National and Local Agreements; the various bargaining units and associations in the USPS: the grievance policy and procedure, the disciplinary action policy and procedure, and the National Labor Relations Board.

POS 202—Postal Service Support 4 0 4
This course covers the ancillary functions of the Support area such as office services, administrative services and bulk accountability paper, accounting storage and distribution.

POS 203—Postal Customer Service 4 0 4
This course is designed to provide the student with an in-depth knowledge of all services provided to postal customers. Includes customer relations, retailing postal services and non-postal services.

POS 205—Postal Service Delivery & Collections 4 0 4
The purpose of this course is to introduce the student to the problems, and solutions to the problems, encountered in collecting mail from multiple, diverse points and transporting it in a time and cost effective manner to collection centers for processing and conversely in distribution mail from one or more processing points to multiple, diverse recipients.

POS 208—Postal Problems Analysis 4 0 4
Presents postal problems for which the student must use system analysis, problem-solving grids, and decisions by objectives to analyze and specify the dimensions of the problems; identify and test possible causes; assess adverse consequences of possible causes, objectives, and solutions; and analyze and test alternatives decided upon as possible objective solutions.

PSC 101—Introduction to Law Enforcement 4 0 4
A general course to familiarize the student with a philosophy and history of law enforcement, including its legal limitations in a democratic republic, a survey of the primary duties and responsibilities of the various law enforcement agencies, a delineation of the basic processes of justice, an evaluation of law enforcement's current position, and an orientation relative to law enforcement as a vocation.

PSC 102—Introduction to Criminology 4 0 4
Designed to give the student an overview of all law enforcement operations and divisions; such as, Patrol Division, Detective Division Traffic and Records Division. Court Procedures, Laws of Arrest, Juvenile Delinquency and Laboratory Criminal Investigation techniques will also be discussed. (4-0) 4

PSC 103—The Art of Self Defense 4 0 4
It is becoming increasingly important in our society for men and women to learn how to recognize and react to potentially violent situations. This course is designed to instill the basic skills required for one to react in a positive and confident manner when such confrontations cannot be avoided.,

PSC 110—Juvenile Delinquency 4 0 4
A study of the nature and extent of juvenile delinquency; methods of research; delinquency and the law; delinquency causation and principles of delinquency control. Emphasis is on North Carolina Juvenile Delinquency procedures and practices.

PSC 115—Criminal Law 4 0 4
Designed to present a basic concept of the various major criminal laws; such as, homicide, robbery, burglary, assault, etc. Historical development of each from such sources as English Common Law will be discussed.

PSC 116—Laws of Arrest, Search and Seizure 4 0 4
The constitutional requirements and limitations for a lawful arrest and legal search and seizure. Federal and State judicial decisions concerning these requirements will be studied.

PSC 118—Police Information Services 4 0 4
Analysis of those methods of communication within the police area. These shall include basic incident reporting, verbal communication, records administration, and basic research design. The overall importance of each of these areas as they directly relate both to the information flow and the resulting impact of that flow on the Criminal Justice System will be studied.

PSC 201—Traffic Planning and Management 4 2 5
A study which covers the history of the traffic enforcement problem and gives an overview of the problem as it exists today. Attention will be given to the three "E's" and the organization of the traffic unit. The responsibilities to the traffic function of the various units within the law enforcement agency, enforcement tactics, evaluation of the traffic program effectiveness, and the allocation of man and materials.

PSC 202—Community Relations 2 0 2
Various aspects of Police-Community relations are studied, such as "The Rumor Clinic" and "Officer Friendly." Other phases of community life in which the officer might help improve the image of Law Enforcement are discussed. Race Relations is one of the main topics of this course. Ways in which the officer might change and improve his image among the different races is studied and practical exercises are planned.

PSC 205—Criminal Evidence 4 0 4
Instruction covers the kinds and degrees of evidence and the rules governing the admissibility of evidence in court.

PSC 207—Police Photography 4 0 4
Instruction covers the processing and printing of film; what pictures to take of a crime scene; legal aspects of crime photography; preparation of courtroom photo evidence; lighting at a crime scene; care of photographic equipment.

PSC 208—Patrol Procedures 4 0 4
Various functions of the Patrol Division, the basic divisions of the police force will be discussed. This course utilizes a "field problem" approach to learning by providing various alternatives of action on the part of the student.

PSC 209—Criminal Investigation I 4 0 4
This course introduces the student to fundamentals of investigation, crime scene search, recording, collection and preservation of evidence. Sources of information, interview and interrogation, case preparation, and court presentation will be discussed.

PSC 210—Criminal Investigation II 4 0 4
This is a continuation of Criminal Investigation I with emphasis on specific offenses such as homicide, burglary, robbery, larceny, narcotics, arson, and sex. Prerequisite: PSC 209.

PSC 211—Introduction to Criminalistics 4 2 5
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 modern methods by the student. Laboratory techniques will be demonstrated and the student will participate in the actual use of the scientific laboratory and its equipment.

PSC 220—Police Organization and Administration 4 0 4
Introduction to principles of organization and administration, personnel management, training, communication, records, property maintenance, and miscellaneous services will be discussed.

PSC 225—Criminal Procedure 4 0 4
This course is designed to provide the student with a review of court systems procedures from incident to final disposition, principles of constitutional, federal, state and local as well as civil laws as they apply to and affect law enforcement.

PSC 240—Defensive Tactices and Firearms 2 2 3
Actual firearms training including on the firing range practices, proper use and care of weapons will be demonstrated, with student participation.

PSC 249—Seminar in Criminal Justice 4 0 4
An overview of the criminal justice system emphasizing the current trends evolving within the discipline. Discussion of career opportunities along with professionals in the field appearing for presentations will be included. This course will also serve as a review of acquired knowledge from remainder of curriculum.

PSY 101—Introduction to Psychology 4 0 4
A survey of the various fields of psychology, including the developmental process, motivation, emotion, frustration and adjustment, attention and perception, and problems of group living. Attention is given to application of these topics, to problems of study, self-understanding, and adjustment to demands of society.

PSY 102—Social Psychology 4 0 4
Designed to help the student understand man as a social animal and the effects of the group upon the individual, and vice versa.

PSY 103—Adolescent Psychology 4 0 4
A study of the nature and source of the problems of adolescents in western culture; physical, emotional, social intellectual, and personality development of adolescents.

PSY 201—Abnormal Psychology 4 0 4
Abnormal behavior studied in the context of modern life: Case studies, differential diagnoses, psychological dynamics of abnormal behavior, including theoretical, clinical and experimental contributions in the field.

PSY 202—Group Processes 4 0 4
A study of group dynamics and leadership roles utilizing group experimentations. Applicability to other settings is also explored.

PSY 206—Applied Psychology 4 0 4
A study of the principles of psychology that will be of assistance in the understanding of interpersonal relations of the job. Motivation, feelings, and emotions are considered with particular reference to on-the-job problems.

RAD 101—Positioning I 3 2 0 4
This course will cover basic radiographic positions for the upper and lower extremities. Basic radiographic terminology will be taught.

RAD 102—Principles of Radiologic Technique I 3 2 0 4
The student will be taught the fundamental principles of Radiographic exposure. This course will include all technical information for proper contrast and technical selections needed for Radiography conversion of techniques, evaluation of technical quality, and technical changes necessary to improve quality.

RAD 103—Processing Technique 2 2 0 3
This course will deal with manual and automatic processing with film critique for darkroom application. All studies of chemistry and all stages of processing will be taught.

RAD 105—Critique I 1 0 0 1
Evaluation of repeated radiographs and high quality radiographs to instruct students in prevention of technical and positioning errors and how to attain top quality in Radiography. Special emphasis will be placed on position taught in Positioning I.

RAD 106—Clinical I 0 0 18 6
Practical experience in a clinical setting. This experience will include practice in ethical and attitudinal situations during patient contact, patient care and basic positioning for radiologic studies of the chest, upper and lower limbs, and the abdomen. The student will process radiographs and apply basic principles in radiographic exposure. Departmental and professional procedures will be initiated into the student's clinical routine.

RAD 110—Introduction to Radiologic Technology 1 0 0 1
An introduction to the field of Radiology with an overall view of Radiologic Technology and the part Radiology plays in medicine. The student will become completely with the ethics and basic radiation protection and will be acquainted with the administrative structure of the hospital and departmental functions.

RAD 111—Positioning II 3 2 0 4
This course will cover basic radiographic positions of the spine and skull. Prerequisite: RAD 101.

RAD 112—Principles of Radiographic Technique II 2 2 0 3
Advanced formulation of techniques for all phases of radiography. Experimentation on various technical procedures with written reports to coordinate results of experiments. Prerequisite: RAD 102.

RAD 113—Critique II 1 0 0 1
A continuation of Critique I with special emphasis on positions taught in Positioning II.

RAD 114—Clinical II 0 0 18 6
The student will apply, in the hospital, what has been learned in class. All students will be under the supervision of an instructor or a registered technologist.

RAD 121—Positioning III 3 2 0 4
This course will cover basic radiographic positions of examinations using contrast media and advance skull positioning. Prerequisite: RAD 111.

RAD 123—Critique III 1 0 0 1
A continuation of Critique II with special emphasis on positions taught in Positioning III.

RAD 124—Clinical III 0 0 24 8
Continuation of supervised and more critical evaluation of the students practicum within the position.

RAD 131—Positioning IV 3 2 0 4
The final study of radiographic positioning other than the routine positions and pediatric radiography. Prerequisite: RAD 121.

RAD 134—Clinical IV 0 0 27 9
Intensified practicum in the hospital to apply all the didactical knowledge the student has acquired in the past year.

RAD 141—Special Procedure I 2 0 0 2
Detailed studies of special procedures, the related contrast media used, pathology demonstrated and anatomy demonstrated.

RAD 201—Radiologic Protection 1 0 0 1
This course will deal with the effects of radiation on the body, ways of patient and personal protection and governmental regulations.

RAD 203—Clinical V 0 0 27 9
Continuation of practicum with emphasis on finer details of improvement to attain a high quality in practicum.

RAD 212—Clinical VI 0 0 27 9
Practicum with emphasis on special procedures and examinations not commonly performed on a routine bases.

RAD 223—Clinical VII 0 0 33 11
Detailed practicum as a prerequisite for final evaluation.

RAD 225—Radiotherapy 1 0 0 1
A brief introduction to radiotherapy so the student will be aware of the overall duties and responsibilities of the therapy technologist.

RAD 233—Clinical VIII 0 0 39 13
Practicum within the hospital with oral and practical examination. General evaluation of the students practicum capabilities will be summarized.

RAD 241—Special Procedures II 2 0 0 2
A continuation of Special Procedures I.

RAD 245—Seminar I 1 0 0 1
A general course that will prepare the student for national certification.

RAD 246—Seminar II 1 0 0 1
A continuation of RAD 245.

SOC 101—Introduction to Sociology 4 0 4
An introductory course in the principles of sociology, culture, personality development, social class, and social control: Presents the scientific study of man's behavior in relation to other men, the general laws affecting the organization of such relationships, and the effects of social life on human personality and behavior.

SOC 202—Marriage and the Family 4 0 4
A course designed to provide understanding of family relationships; a functional approach to the interpersonal relationships of courtship, marriage, and family life.

SOC 203—Contemporary Issues 4 0 4
A culminating interdisciplinary course dealing with the basic economic, social, scientific and moral issues confronting human society.

SOC 208—Black Studies 4 0 4
This course is designed to provide opportunities for students to review, discuss and evaluate the experience of Black America through the use of films, filmstrips, records, and tapes as well as selected readings, from autobiographies and biographies of distinguished Black Americans, historical records and documents and outstanding works of literature and art. Resource people in the community are used whenever possible.

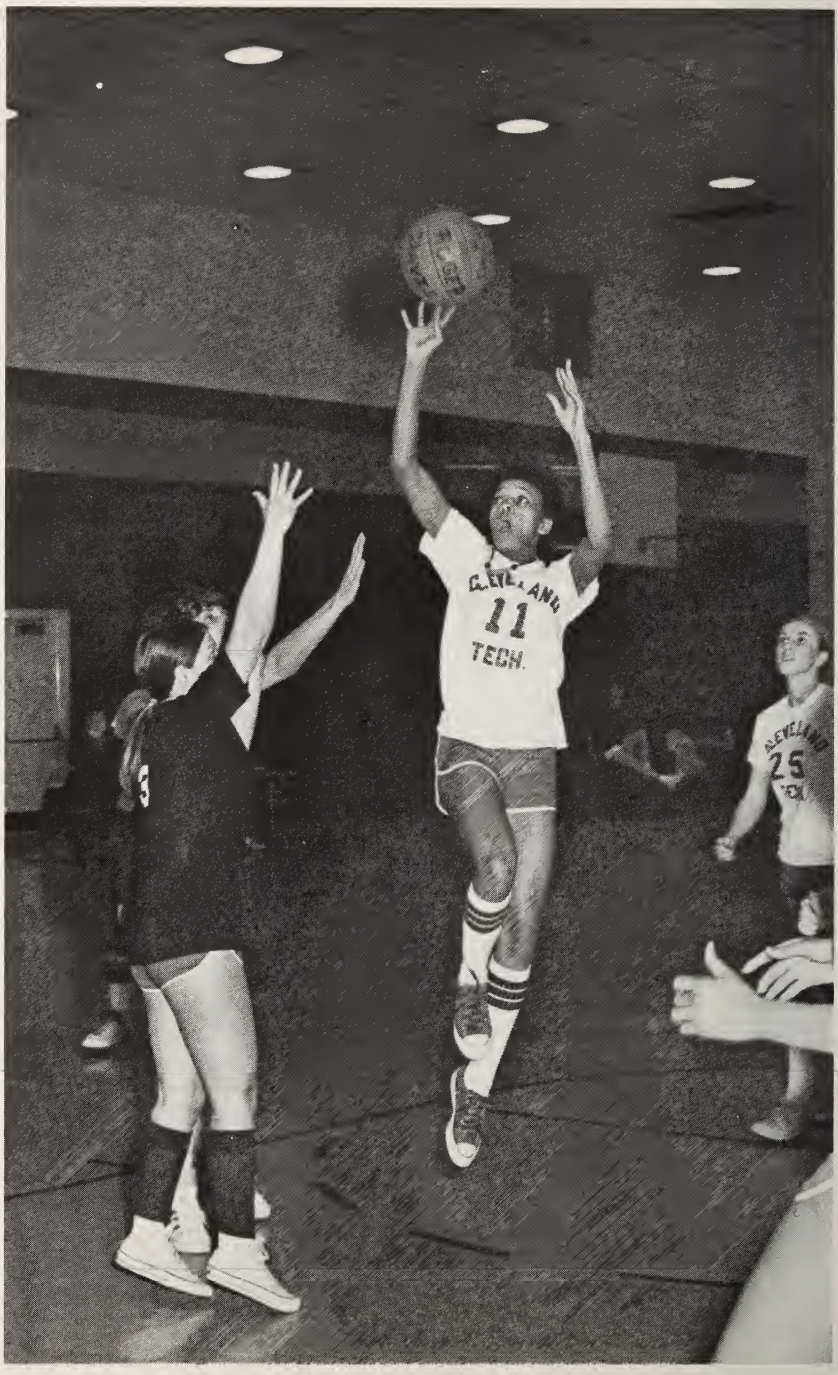
SSC 201—Social Science Survey 4 0 4
An integrated course in the social science, drawing from the fields of anthropology, psychology, history and sociology.

SSC 205—American Institutions 4 0 4
A study of the effect of American social economic and political institutions upon the individual as a citizen and as a worker. The course dwells upon current local, national and global problems viewed in the light of our political and economic heritage.

TEX 100—Fabric Science I 4 0 4
Analyzes textile fibers and the construction of fabrics, with emphasis on the properties that affect their hand, appearance, performance and end use.

TEX 101—Fabric Science II 4 0 4

Emphasizes the importance of the selection of appropriate fabrics for specific uses in apparel and home furnishings and discusses factors to be considered in examining the construction of garments or household textiles.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25

VOCATIONAL PROGRAMS

AIR CONDITIONING AND REFRIGERATION

PURPOSE OF CURRICULUM

In recent years the use of air conditioning and refrigeration equipment has increased tremendously. Practically all new building construction for business and commercial use have "all year" comfort systems. Many homes now have air conditioning and trend is toward greater use of refrigeration or cooling and heating. The food industry has required greater use of refrigeration systems in freezing, storage and display of products. With this great upswing in the use of air conditioning and refrigeration equipment, a greater demand is made on trained personnel to install, operate, maintain and service this equipment.

This curriculum is designed to give the students practical knowledge that will enable them to become capable service men in the industry. The principal objective has been to outline the required technical and related instruction to enable them to understand the basic principles involved in the construction, operation and maintenance of equipment. Job opportunities exist with companies that specialize in air conditioning, automatic heating, sheet metal and commercial refrigeration installation and service. The serviceman is employable in areas of sales, maintenance, installation and in the growing fields of truck and trailer refrigeration.

AIR CONDITIONING-REFRIGERATION

DAY

		Course Title	Hours Per Week Class	Shop	Credit Hours
First Quarter					
AHR	1121	Principles of Refrigeration	5	6	7
ELC	1102	Applied Electricity	1	3	2
MAT	1101	Vocational Basic Arithmetic Skills	4	0	4
WLD	1101	Basic Gas Welding	1	3	2
			11	12	15
Second Quarter					
AHR	1128	Automatic Controls	2	6	4
AHR	1311	Domestic & Commercial Heating Systems	3	9	6
ENG	1102	Communication Skills	3	0	3
			8	15	13
Third Quarter					
AHR	1123	Principles of Air conditioning I	2	6	4
AHR	1323C	Principles of Air Conditioning II	2	6	4
DFT	1104	Blueprint Reading: Mechanical	1	3	2
*ENG	1101	Reading Improvement	3	0	3
PHY	1101	Applied Physics I	4	0	4
			12	15	17
Fourth Quarter					
AHR	1122	Domestic and Commercial Refrigeration	3	9	6
AHR	1124	Air Conditioning & Refrigeration Service	2	9	5
*PSY	1101	Human Relations	4	0	4
			9	18	15

NIGHT

		Course Title	Hours Per Week Class	Shop	Credit Hours
First Quarter					
AHR	1121	Principles of Refrigeration	5	6	7
Second Quarter					
ELC	1102	Applied Electricity	1	3	2
MAT	1101	Vocational Basic Arithmetic Skills	4	0	4
WLD	1101	Basic Gas Welding	1	3	2
			6	6	8
Third Quarter					
AHR	1311	Domestic & Commercial Heating Systems	3	9	6
Fourth Quarter					
AHR	1128	Automatic Controls	2	6	4
ENG	1102	Communication Skills	3	0	3
			5	6	7

Fifth Quarter					
AHR	1123	Principles of Air Conditioning I	2	6	4
*ENG	1101	Reading Improvement	3	0	3
			5	6	7
Sixth Quarter					
AHR	1323C	Principles of Air Conditioning II	2	6	4
DFT	1104	Blueprint Reading: Mechanical	1	3	2
			3	9	6
Seventh Quarter					
AHR	1124	Air Conditioning & Refrigeration Service	2	9	5
*PSY	1101	Human Relations	4	0	4
			6	9	9
Eighth Quarter					
AHR	1122	Domestic and Commercial Refrigeration	3	9	6
PHY	1101	Applied Physics I	4	0	4
			7	9	10
*Approved Electives					
BUS	1103	Small Business Operations	3	0	3
DFT	1116	Blueprint Reading: Air Conditioning	0	3	1
ENG	1101	Reading Improvement	3	0	3
MEC	1120	Duct Construction and Maintenance	2	6	4
PHY	1102	Applied Physics II	4	0	4
PSY	1101	Human Relations	4	0	4

Total Credit Hours Required for Graduation

Required Courses 53
Elective Courses 7
Total 60

AUTO BODY REPAIR

The field of automotive body repair and painting requires a large number of well-trained people to meet the growing demand for the many skills needed in this area of employment. People with a background of knowledge and skill in this field have excellent opportunities for jobs with good salaries. Many of these craftsmen, after gaining additional experience, go on to open their own businesses or become body shop foremen, supervisors or managers.

The curriculum devotes much of the student's time in the shop to the learning of the necessary skills and practicing of these skills on cars bodies and components. Every attempt is made to make these practical experiences as similar to the actual on-the-job work as possible. The shop and equipment are well-suited to prepare one for entry into an occupation offering many job opportunities. A graduate from this curriculum will receive a diploma from the institute.

DAY

		Course Title	Hours Per Week Class	Shop	Credit Hours
First Quarter					
AUT	1111	Auto Body Repair I	2	6	4
AUT	1311C	Auto Body Repair II	1	6	3
MAT	1101C	Vocational Basic Arithmetic Skills	4	0	4
PHY	1101	Applied Physics I	4	0	4
WLD	1101	Basic Gas Welding	1	3	2
			12	15	17
Second Quarter					
AUT	1112	Auto Body Repair III	2	6	4
AUT	1312C	Auto Body Repair IV	2	9	5
*ENG	1101	Reading Improvement	3	0	3
WLD	1105	Auto Body Welding	0	3	1
			7	18	13
Third Quarter					
AUT	1113	Metal Finishing and Painting I	2	9	5
AUT	1313C	Metal Finishing and Painting II	1	3	2
AUT	1115	Trim, Glass and Radiator Repair I	2	6	4
AUT	1315C	Trim, Glass and Radiator Repair II	1	3	2
ENG	1102	Communication Skills	3	0	3
			9	21	16
Fourth Quarter					
AUT	1114	Body Shop Applications I	3	9	6
AUT	1314C	Body Shop Applications II	0	12	4
*PSY	1101	Human Relations	4	0	4
			7	21	14

NIGHT

		Course Title	Hours Per Week Class	Shop	Credit Hours
First Quarter					
AUT	1111	Auto Body Repair I	2	6	4
WLD	1101	Basic Gas Welding	1	3	2
			3	9	6
Second Quarter					
AUT	1311C	Auto Body Repair II	1	6	3
MAT	1101C	Vocational Basic Arithmetic Skills	4	0	4
			5	6	7
Third Quarter					
AUT	1112	Auto Body Repair III	2	6	4
*ENG	1101	Reading Improvement	3	0	3
WLD	1105	Auto Body Welding	0	3	1
			5	9	8
Fourth Quarter					
AUT	1312C	Auto Body Repair IV	2	9	5
ENG	1102	Communication Skills	3	0	3
			5	9	8
Fifth Quarter					
AUT	1113	Metal Finishing and Painting I	2	9	5
PHY	1101	Applied Physics I	4	0	4
			6	9	9
Sixth Quarter					
AUT	1115	Trim, Glass and Radiator Repair I	2	6	4
AUT	1313C	Metal Finishing and Painting II	1	3	2
			3	9	6
Seventh Quarter					
AUT	1114	Body Shop Applications I	3	9	6
AUT	1315C	Trim, Glass and Radiator Repair II	1	3	2
			4	12	8
Eighth Quarter					
AUT	1314C	Body Shop Applications II	0	12	4
*PSY	1101	Human Relations	4	0	4
			4	12	8
*Approved Electives					
AUT	1116C	Specialty Paints	1	3	2
AUT	1117C	Frame Straightening	1	3	2
BUS	1103	Small Business Operations	3	0	3
ENG	1101	Reading Improvement	3	0	3
PHY	1102	Applied Physics II	4	0	4
PME	1227	Power Accessories	1	3	2
PSY	1101	Human Relations	4	0	4

Total Credit Hours Required for Graduation

Required Courses	53
Elective Courses (At Least)	7
Total	60

AUTOMOTIVE MECHANICS

This is a one-year program providing a thorough training in the theoretical as well as manual skills in servicing, testing and diagnosing. All phases of the electrical system, the power plant, the power train, and the hydraulic braking system will be studied.

The courses are arranged in a sequence that gives the student the required technological and special courses as they are needed to coordinate his laboratory experiences.

Emphasis is placed on the mechanical parts and operation of the various automobile units. Troubleshooting and servicing of the live project are also stressed.

Auto Mechanic, Truck and Bus Mechanic, Shop Foreman, Maintenance Supervisor, Dealer Service Manager, Sales Technician, Factory Representative and Experimental Lab Work are among those occupational opportunities awaiting graduates of the Automotive Mechanics Curriculum.

DAY

		Course Title	Hours Per Week Class	Shop	Credit Hours
First Quarter					
*ENG	1101	Reading Improvement	3	0	3
MAT	1101C	Vocational Basic Arithmetic Skills	4	0	4
PME	1101	Internal Combustion Engines I	2	6	4
PME	1301C	Internal Combustion Engines II	1	3	2
PME	1221	Front Suspension, Alignment, & Power Steering I	1	3	2
PME	1321C	Front Suspension, Alignment, & Power Steering II	1	3	2
			12	15	17
Second Quarter					
AUT	1123	Brakes, Chassis & Suspension I	1	3	2
AUT	1323C	Brakes, Chassis & Suspension II	1	3	2
ENG	1102	Communication Skills	3	0	3
PME	1102	Engine Electrical and Fuel Systems I	1	3	2
PME	1302C	Engine Electrical and Fuel Systems II	2	6	4
*PSY	1101	Human Relations	4	0	4
			12	15	17
Third Quarter					
AHR	1101	Auto Air Conditioning I	1	3	2
AHR	1301C	Auto Air Conditioning II	1	3	2
AUT	1124	Auto Power Train Systems I	2	6	4
AUT	1324C	Auto Power Train System II	1	3	2
PHY	1101	Applied Physics I	4	0	4
			9	15	14
Fourth Quarter					
MEC	1199C	Automotive Machine Shop I	1	3	2
MEC	1399C	Automotive Machine Shop II	1	3	2
PME	1104	Carburation I	1	3	2
PME	1304C	Carburation II	1	3	2
PME	1224	Automatic Transmissions I	1	3	2
PME	1324C	Automatic Transmissions II	1	3	2
			6	18	12

NIGHT

		Course Title	Hours Per Week Class	Shop	Credit Hours
First Quarter					
MAT	1101C	Vocational Basic Arithmetic Skills	4	0	4
PME	1101	Internal Combustion Engines I	2	6	4
PME	1221	Front Suspension, Alignment & Power Steering I	1	3	2
			7	9	10
Second Quarter					
ENG	1102	Communication Skills	3	0	3
PME	1301C	Internal Combustion Engines II	1	3	2
PME	1321C	Front Suspension, Alignment & Power Steering II	1	3	2
			5	6	7
Third Quarter					
AUT	1123	Brakes, Chassis, & Suspension I	1	3	2
*ENG	1101	Reading Improvement	3	0	3
PHY	1101	Applied Physics I	4	0	4
PME	1102	Engine Electrical and Fuel Systems I	1	3	2
			9	6	11
Fourth Quarter					
AUT	1323C	Brakes, Chassis & Suspension II	1	3	2
PME	1302C	Engine Electrical and Fuel Systems II	2	6	4
			3	9	6
Fifth Quarter					
AHR	1101	Auto Air Conditioning I	1	3	2
AUT	1124	Auto Power Train Systems I	2	6	4
			3	9	6
Sixth Quarter					
AHR	1301C	Auto Air Conditioning II	1	3	2
AUT	1324C	Auto Power Train Systems II	1	3	2
*PSY	1101	Human Relations	4	0	4
			6	6	8
Seventh Quarter					
MEC	1199C	Automotive Machine Shop I	1	3	2
PME	1104	Carburation I	1	3	2
PME	1224	Automatic Transmissions I	1	3	2
			3	9	6
Eighth Quarter					
MEC	1399C	Automotive Machine Shop II	1	3	2
PME	1304C	Carburation II	1	3	2
PME	1324C	Automatic Transmissions II	1	3	2
			3	9	6
*Approved Electives					
BUS	1103	Small Business Operation	3	0	3
ENG	1101	Reading Improvement	3	0	3
PHY	1102	Applied Physics II	4	0	4
PSY	1101	Human Relations	4	0	4
WLD	1101	Basic Gas Welding	1	3	2

Total Credit Hours Required for Graduation

Required Courses	53
Elective Courses (At Least)	7
Total	60

ELECTRICAL INSTALLATION AND MAINTENANCE

The rapid expansion of the national economy and the increasing development of new electrical products is providing a growing need for qualified people to install and maintain electrical equipment. By mid-1960 more than 350,000 were employed as either construction electricians or maintenance electricians. Between 5,000 and 10,000 additional tradesmen are required each year to replace those leaving the industry.

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.

The graduate of the electrical trade program will be qualified to enter an electrical trade in an entry level position, where he will assist in the planning, layout, installation, check out and maintenance 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 offered in the center.

DAY

		Course Title	Hours Per Week Class	Shop	Credit Hours
First Quarter					
*DFT	1110	Blueprint Reading: Building Trades	0	3	1
ELC	1111C	Basic Electrical Circuits, Machines, Transformers I	2	6	4
ELC	1311C	Basic Electrical Circuits, Machines, Transformers II	2	6	4
MAT	1101C	Vocational Basic Arithmetic Skills	4	0	4
			8	15	13
Second Quarter					
ELC	1113	AC/DC Machines and Controls I	2	9	5
ELC	1313C	AC/DC Machines and Controls II	2	6	4
MAT	1110C	Electrical Mathematics	4	0	4
*PSY	1101	Human Relations	4	0	4
			12	15	17
Third Quarter					
DFT	1113	Blueprint Reading: Electrical	1	3	2
ELC	1114	National Electrical Code	2	6	4
ELC	1124	Residential Wiring I	2	6	4
ELC	1324C	Residential Wiring II	3	3	4
ENG	1102	Communication Skills	3	0	3
			11	18	17
Fourth Quarter					
ELC	1125	Commercial and Industrial Wiring I	2	9	5
ELC	1325C	Commercial and Industrial Wiring II	2	6	4
PHY	1101	Applied Physics I	4	0	4
			8	15	13

NIGHT

		Course Title	Hours Per Week Class	Lab	Credit Hours
First Quarter					
ELC	1111C	Basic Electrical Circuits, Machines, Transformers I	2	6	4
MAT	1101	Vocational Basic Arithmetic Skills	4	0	4
			6	6	8
Second Quarter					
ELC	1311C	Basic Electrical Circuits, Machines, Transformers II	2	6	4
MAT	1110C	Electrical Mathematics	4	0	4
			6	6	8
Third Quarter					
*DFT	1110	Blueprint Reading: Building Trades	0	3	1
ELC	1113	AC/DC Machines and Controls I	2	9	5
			2	12	6
Fourth Quarter					
ELC	1313C	AC/DC Machines and Controls II	2	6	4
ENG	1102	Communication Skills	3	0	3
			5	6	7
Fifth Quarter					
DFT	1113	Blueprint Reading: Electrical	1	3	2
ELC	1124	Residential Wiring I	2	6	4
			3	9	6
Sixth Quarter					
ELC	1114	National Electrical Code	2	6	4
ELC	1324C	Residential Wiring II	3	3	4
			5	9	8
Seventh Quarter					
ELC	1125	Commercial and Industrial Wiring I	2	9	5
PHY	1101	Applied Physics	4	0	4
			6	9	9
Eighth Quarter					
ELC	1325C	Commercial and Industrial Wiring II	2	6	4
*PSY	1101	Human Relations	4	0	4
			6	6	8
*Approved Electives					
BUS	1103	Small Business Operations	3	0	3
DFT	1110	Blueprint Reading: Building Trades	0	3	1
ELC	1118	Industrial Electronics I	2	6	4
ELC	1119	Industrial Electronics II	2	6	4
ENG	1101	Reading Improvement	3	0	3
PHY	1102	Applied Physics II	4	0	4
PSY	1101	Human Relations	4	0	4

Total Credit Hours Required for Graduation

Required Courses	55
Elective Courses (At Least)	5
Total	60

ELECTRONIC SERVICING

Within years improved electronic techniques have provided expanded entertainment and educational facilities in the form of monochrome and color television, frequency modulated radio, high fidelity amplifiers and stereophonic sound equipment. These developments require expanded knowledge and skill of the individual who would qualify as competent and up-to-date serviceman.

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 principles and developing servicing techniques.

An electronics 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, inter-communication, public address and paging systems, high fidelity and stereophonic amplifiers, record players and tape players.

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.

DAY

		Course Title	Hours Per Week Class	Shop	Credit Hours
First Quarter					
ELN	1101C	Troubleshooting Concepts	4	0	4
ELC	1112	Direct and Alternating Current I	2	6	4
ELC	1312C	Direct and Alternating Current II	2	6	4
MAT	1101	Vocational Basic Arithmetic Skills	4	0	4
			12	12	16
Second Quarter					
ELN	1123C	Amplifier Systems	2	6	4
*ELN	1146C	FCC Rules and Regulations	3	0	3
ENG	1102	Communication Skills	3	0	3
MAT	1110C	Electrical Mathematics	4	0	4
PHY	1101	Applied Physics I	4	0	4
			16	6	18
Third Quarter					
ELN	1125	Radio Receiver Servicing	1	3	2
ELN	1126C	Transistor Theory and Circuits I	3	3	4
ELN	1326C	Transistor Theory and Circuits II	0	3	1
ELN	1127C	TV Receiver Circuits & Servicing I	2	3	3
ELN	1327C	TV Receiver Circuits & Servicing II	1	3	2
			7	15	12
Fourth Quarter					
ELN	1128C	Television Receiver Servicing—Color I	1	3	2
ELN	1328C	Television Receiver Servicing—Color II	5	6	7
*ELN	1130C	Two-Way Mobile Maintenance I	2	3	3
*ELN	1330C	Two-Way Mobile Maintenance II	1	3	2
			9	15	14

NIGHT

		Course Title	Hours Per Week Class	Shop	Credit Hours
First Quarter					
ELC	1112	Direct and Alternating Current I	2	6	4
MAT	1101	Vocational Basic Arithmetic Skills	4		4
			6	6	8
Second Quarter					
ELC	1312C	Direct and Alternating Current II	2	6	4
MAT	1110C	Electrical Mathematics	4	0	4
			6	6	8
Third Quarter					
ELN	1101C	Trouble Shooting Concepts	4	0	4
ELN	1125	Radio Receiver Servicing	1	3	2
PHY	1101	Applied Physics I	4	0	4
			9	3	10
Fourth Quarter					
ELN	1123C	Amplifier Systems	2	6	4
ENG	1102	Communication Skills	3	0	3
			5	5	7
Fifth Quarter					
ELN	1126C	Transistor Theory & Circuits I	3	3	4
ELN	1127C	TV Receiver Circuits & Servicing I	2	3	3
			5	5	7
Sixth Quarter					
ELN	1326C	Transistor Theory & Circuits II	0	3	1
ELN	1327C	TV Receiver Circuits & Servicing II	1	3	2
*ELN	1130C	Two-Way Mobile Maintenance I	2	3	3
			3	9	6
Seventh Quarter					
ELN	1128C	TV Receiver Servicing—Color I	1	3	2
*ELN	1330C	Two-Way Mobile Maintenance II	1	3	2
*ELN	1146C	FCC Rules and Regulations	3	0	3
			5	6	7
Eighth Quarter					
ELN	1328C	TV Receiver Servicing—Color II	5	6	7
*Approved Electives					
BUS	1103	Small Business Operations	3	0	3
ELN	1121	Vacuum Tubes and Circuits	3	12	7
ELN	1146C	FCC Rules and Regulations	3	0	3
ELN	1130C	Two-Way Mobile Maintenance I	2	3	3
ELN	1330C	Two-Way Mobile Maintenance II	1	3	2
ENG	1101	Reading Improvement	3	0	3
PHY	1102	Applied Physics II	4	0	4
PSY	1101	Human Relations	4	0	4

Total Credit Hours Required for Graduation

Required Courses	52
Elective Courses (At Least)	8
Total	60

PRACTICAL NURSING EDUCATION

(DAY SCHEDULE ONLY)

The accelerated growth of population in North Carolina and rapid advancement in medical technology demand a tremendously increased number of well-trained, capable personnel for health service positions. The Cleveland County Technical Institute is affiliated with Cleveland Memorial Hospital to provide clinical resources for the practical nursing program.

Classes will be held at the Institute while actual experience will be obtained at the hospital. The graduate is eligible to take and must pass the Licensure Examination for Practical Nurses administered by the North Carolina State Board of Nursing to become a licensed Practical Nurse.

The LPN is qualified and prepared to function in a variety of situations: hospitals of all types, nursing homes, clinics, doctors' and dentists' offices and, in some localities, public health facilities. In all situations, the LPN functions under the supervision of a registered nurse and/or licensed physicians.

Job requirements for the Licensed Practical Nurse include suitable personal characteristics, ability to adapt knowledge and understanding of nursing principles to a variety of situations, technical skills for performance of bedside nursing, appreciation for differences of people and for the worth of every individual, a desire to serve and help others and readiness to conform to the requirements of nursing ethics and hospital policies.

Admission procedures for this program in addition to those listed in general admissions section:

(1) Have complete medical and dental examination.

(2) Submit five personal references.

(3) Take the Placement Test Battery at the Admissions Office of the Institute.

		Course Title	Hours Per Week Class	Lab	Clinic	Credit Hours
First Quarter						
NUR	1101	Fundamentals of Nursing	6	4	0	8
NUR	1102	Vocational Adjustments I	2	0	0	2
SCI	1101	Body Structure and Function	3	2	0	4
SCI	1103	Nutrition and Diet Therapy	3	0	0	3
SCI	1102	Microbiology	1	0	0	1
SCI	1104	Health	1	0	0	1
PSY	206	Applied Psychology	4	0	0	4
ENG	101	Grammar and Composition I	4	0	0	4
			24	6	0	27
Second Quarter						
NUR	1105	Medical-Surgical Nursing I	2	0	0	2
NUR	1103	Nursing Principles	3	2	0	4
NUR	1108	Obstetrical Nursing	4	0	0	4
NUR	1104	Basic Pharmacology	2	2	0	3
NUR	1112	Clinical I	0	0	18	6
			11	4	18	19
Third Quarter						
NUR	1109	Pediatric Nursing	6	0	0	6
NUR	1106	Medical-Surgical Nursing II	6	0	0	6
NUR	1113	Clinical II	0	0	21	7
			12	0	21	19
Fourth Quarter						
NUR	1107	Medical-Surgical Nursing III	9	0	0	9
NUR	1110	Vocational Adjustments II	1	0	0	1
NUR	1111	Pharmacology II	2	0	0	2
NUR	1114	Clinical III	0	0	21	7
			12	0	21	19

WELDING

PURPOSE OF CURRICULUM

The content of this curriculum is designed to give students 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: shipbuilding, automotive, aircraft, guided missiles, railroads, construction, pipefitting, production shop, job shop and many others.

JOB DESCRIPTION

Welders join metals by applying intense heat, and sometimes pressure, to melt the edges to form a permanent bond. Closely related to welding is "oxygen cutting." Of the more than 35 different ways of welding metals, arc, gas and resistance welding are the three most important.

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 knowledge of jigs, welding symbols, mathematics, basic metallurgy and blueprint reading.

DAY

		Course Title	Hours Per Week Class	Shop	Credit Hours
First Quarter					
*ENG	1101	Reading Improvement	3	0	3
MAT	1101C	Vocational Basic Arithmetic Skills	4	0	4
WLD	1120	Oxyacetylene Welding I	2	6	4
WLD	1320C	Oxyacetylene Welding II	2	9	5
			11	15	16
Second Quarter					
ENG	1102	Communication Skills	3	0	3
WLD	1121	Arc Welding I	3	9	6
WLD	1321C	Arc Welding II	3	9	6
			9	18	15
Third Quarter					
PHY	1101	Applied Physics	4	0	4
WLD	1124	Pipewelding I	3	9	6
WLD	1324C	Pipewelding II	2	9	5
			9	18	15
Fourth Quarter					
*BUS	1103	Small Business Operations	3	0	3
WLD	1122	Commercial and Industrial Practices I	3	9	6
WLD	1322C	Commercial and Industrial Practices II	2	9	5
			8	18	14

NIGHT

		Course Title	Hours Per Week Class	Shop	Credit Hours
First Quarter					
MAT	1101C	Vocational Basic Arithmetic Skills	4	0	4
WLD	1120	Oxyacetylene Welding I	2	6	4
			8	6	8
Second Quarter					
ENG	1102	Communications Skills	3	0	3
WLD	1320C	Oxyacetylene Welding II	2	9	5
			5	9	8
Third Quarter					
PHY	1101	Applied Physics I	4	0	4
WLD	1121	Arc Welding I	3	9	6
			7	9	10
Fourth Quarter					
*ENG	1101	Reading Improvement	3	0	3
WLD	1321C	Arc Welding II	3	9	6
			6	9	9
Fifth Quarter					
*BUS	1103	Small Business Operations	3	0	3
WLD	1124	Pipewelding I	3	9	6
			6	9	9
Sixth Quarter					
WLD	1324C	Pipewelding II	2	9	5
Seventh Quarter					
WLD	1122	Commercial and Industrial Practices I	3	9	6
Eighth Quarter					
WLD	1322C	Commercial and Industrial Practices II	2	9	5
*Approved Electives					
BUS	1103	Small Business Operations	3	0	3
ENG	1101	Reading Improvement	3	0	3
DFT	1117	Blueprint Reading: Welding	1	3	2
PHY	1102	Applied Physics II	4	0	4
PSY	1101	Human Relations	4	0	4

Total Credit Hours Required for Graduation

Required Courses	54
Elective Courses (At Least)	6
Total	60

AHR 1101—Auto Air Conditioning I 1 2 2
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.

AHR 1121—Principles of Refrigeration 5 6 7
An introduction to the principles of refrigeration, terminology, the use and care of tools and equipment and the identification and function of the component parts of a system. Other topics to be included will be the basic laws of refrigeration; characteristics and comparison of the various refrigerants; the use and construction of valves, fittings and basic controls. Practical work includes tube bending, flaring and soldering. Standard procedures and safety measures are stressed in the use of special refrigeration service equipment and the handling of refrigerants.

AHR 1122—Domestic and Commercial Refrigeration 3 9 6
Domestic refrigeration servicing of conventional, hermetic and absorption systems. Cabinet care, controls and system maintenance in domestic refrigerators, freezers and window air conditioning units is stressed. Commercial refrigeration servicing of display cabinets, walk-in cooler and freezer units and mobile refrigeration systems is studied. The use of manufacturer's catalogs in sizing and matching system components and a study of controls, refrigerants, servicing methods is made. The American Standard Safety Code for Refrigeration is studied and its principles practiced. Prerequisite: AHR 1121.

AHR 1123—Principles of Air Conditioning I 2 6 4
Work includes the selection of various heating, cooling and ventilating systems, investigation and control of factors affecting air cleaning, movement, temperature and humidity. Use is made of psychrometric charts in determining needs to produce optimum temperature and humidity control. Commercial air conditioning equipment is assembled and tested. Practical sizing and balancing of ductwork is performed as needed. Prerequisite:

AHR 1124—Air Conditioning and Refrigeration Servicing 2 9 5
Emphasis is placed on the installation, maintenance and servicing of equipment used in the cleaning, changing, humidification and temperature control of air in an air conditioned space. Installation of various ducts and lines needed to connect various components is made. Shop work involves burner operation, controls, testing and adjusting of air conditioning and refrigeration equipment failure. Prerequisite: AHR 1323C.

AHR 1128—Automatic Controls 2 6 4
Types of automatic controls and their function in air conditioning systems. Included in the course will be electric and pneumatic controls for domestic and commercial cooling and heating; zone controls, unit heater and ventilator controls, commercial fan systems controls, commercial refrigeration controls and radiant panel controls. Prerequisite: AHR 1122.

AHR 1301C—Auto Air Conditioning II 1 3 2
A continuation of AHR 1101.

AHR 1311—Domestic and Commercial Heating System 3 9 6
A study of heating theory, definitions, heat transfer. A study of burner fundamentals, high-pressure gun type burners, thermostats, pressure burner controls, vaporizing burner controls, wiring diagrams, low voltage and line voltage. Gas heating devices, valves, transformers and air adjustments. Service and maintenance.

AHR 1323C—Principles of Air Conditioning II 2 6 4
A continuation of AHR 1123.

AUT 1111—Auto Body Repair I 2 6 4
Basic principles of automobile construction, design and manufacturing. A thorough study of angles, crown and forming of steel into the complex contour of the present day vehicles. The student applies the basic principles of straightening, aligning and painting of damaged areas. (2-6) 4

AUT 1112—Auto Body Repair III 2 6 4
A thorough study of the requirements for a metal worker, including the use of essential tools, forming fender flanges and beads, and straightening typical auto body damage. The student begins acquiring skills such as shaping angles, crowns and contours of the metal of the body and fenders. Metal working and painting.

AUT 1113—Metal Finishing and Painting I 2 9 5
Development of the skill to shrink stretched metal, soldering and leading and preparation of the metal for painting. Straightening of doors, hoods and deck lids; fitting and aligning. Painting fenders and panels, spot repairs and complete vehicle painting; the use and application of power tools.

AUT 1114—Body Shop Applications I 3 9 6
General introduction and instruction in the automotive frame and front end suspension systems, the methods of operation and control and the safety of the vehicle. Unit job application covers straightening of frames and front wheel alignment. The student applies all phases of training. Repair order writing, parts purchasing, estimates of damage and developing the final settlement with the adjustor.

AUT 1115—Trim, Glass and Radiator Repair I 2 6 4
Methods of removing and installing interior trim; door trim panels; painting of trim parts and accessories. Glass removal, cutting and installation. The student gains a thorough knowledge of the engine cooling system and repairs and replaces damaged cooling system components. Tests are made to insure normal engine cooling operation.

AUT 1116C—Specialty Paints 1 3 2
A study of the use and applications of various special paints and finishes such as special effects colors and finishes, sprayed vinyl coatings and luggage compartment coatings.

AUT 1117C—Frame Straightening 1 3 2
An advanced study of the various automobile frame structures and the various types of instruments and equipment used in the correction of damaged frames.

AUT 1123—Brakes, Chassis, and Suspension I 1 3 2
A complete study of various braking systems employed on automobiles and light trucks. Principles and functions of the components of automotive chassis. Practical job instruction in adjusting and repairing of suspension.

AUT 1124—Auto Power Train System I 2 6 4
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 1311C—Auto Body Repair II 1 6 3
A continuation of AUT 1111.

AUT 1312C—Auto Body Repair IV 2 9 5
A continuation of AUT 1112.

AUT 1313C—Metal, Finishing and Painting II 1 3 2
A continuation of AUT 1113.

AUT 1314C—Body Shop Applications II 0 12 4
A continuation of AUT 1114.

AUT 1315C—Trim, Glass and Radiator Repair II 1 3 2
A continuation of AUT 1115.

AUT 1323C—Brakes, Chassis and Suspension II 1 3 2
A continuation of AUT 1123.

AUT 1324C—Auto Power Train II 1 3 2
A continuation of AUT 1124.

BUS 1103—Small Business Operations 3 0 3
An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business and employer-employee relations.

DFT 1104—Blueprint Reading: Mechanical 1 3 2
Mechanical-Interpretation and reading of blueprints. Information on the bacic principles of the blueprint; lines, views, dimensioning procedures and notes.

DFT 1110—Blueprint Reading 0 3 1
Building Trades-Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three view and pictorial sketches.

DFT 1113—Blueprint Reading 1 3 2
Electrical-Interpretation of schematics, diagrams and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial buildings. Sketching schematics, diagrams and electrical plans for electrical installations using appropriate symbols and notes according to the applicable codes will be a part of this course.

DFT 1116—Blueprint Reading. Air Conditioning 0 3 1
A specialized course in drafting for the heating, air conditioning and refrigeration student. Emphasis will be placed on reading of blueprints that are common to the trade; blueprints of mechanical components, assembly drawings, wiring diagrams and schematics, floor plans, heating system plans including duct and equipment layout plans, and shop, sketches. The student will make tracings of floor plans and layout air conditioning systems.

DFT 1117—Blueprint Reading: Welding 1 3 2
A thorough study of trade drawings in which welding procedures are indicated. Interpretation, use and application of welding symbols, abbreviations and specifications.

ELC 1102—Applied Electricity 1 3 2
The use and care of test instruments and equipment used in servicing electrical apparatus for air conditioning and refrigeration installations. Electrical principles and procedures for trouble-shooting of the various electrical devices used in air conditioning, heating and refrigeration equipment. Included will be transformers, various types of motors and starting devices, switches, electrical heating devices and wiring.

ELC 1111C—Basic Electrical Circuits, Machines, and Transformers I 2 6 4
A student will gain competency in constructing and using series and parallel circuits. Single and polyphase rotating machinery. Transformers and transformer connections will also be studied. A large portion of lab time will be used to build competency in understanding and practical application of these circuits and machines.

ELC 1112—Direct and Alternating Current I 2 6 4
A study of the structure of matter and the electron theory, the relationship between voltage, current and resistance in series, parallel and series-parallel circuits. Analysis of direct current potentials. Fundamental concepts of alternating current flow; a study of reactance, impedence, phase angle, power and resonance and alternating circuit analysis.

ELC 1113—Alternating Current and Direct Current Machines and Control I 2 9 5
This course is designed to build competency in the area of magnetic motor controls. Basic start-stop-jog circuits and their many variations as well as limiting devices in these circuits will be studied in detail. Large portions of lab time will be spent in developing competency in the use of the circuits as they apply to industry.

ELC 1114—National Electrical Code 2 6 4
A study of the National Electrical Code in preparation for the licensing examination. Instruction will include the latest code revisions, safety measures and standard practices in the wiring of single and multifamily dwellings, commercial establishments and industrial locations.

ELC 1118—Industrial Electronics I 2 6 4
Basic theory, operating characteristics and application of vacuum tubes such as: diodes, triodes, tetrodes, pentodes and gasious control tubes. An introduction to amplifiers using triodes, power supplies using diodes and other basic application. Prerequisite: ELC 1113.

ELC 1119—Industrial Electronics II 2 6 4
Basic industrial electronics systems, such as: motor controls, alarm systems, heating systems and controls, magnetic amplifier controls, welding control systems using thyratron tubes, and other basic types of systems commonly found in most industries. Prerequisite: ELC 1118.

ELC 1124—Residential Wiring I 2 6 4
Provides instruction and application in the fundamentals of blueprint reading, planning, layout and installation of wiring in residential applications such as: services, switchboards, lighting, fusing, wire sizes, branch circuits, conduits, National Electrical Code regulators in actual building mock-ups.

ELC 1125—Commercial and Industrial Wiring I 2 9 5
Layout, planning and installation of wiring systems in commercial and industrial complexes, with emphasis upon blueprint reading and symbols, the related National Electrical Codes, and the application of the fundamentals to practical experience in wiring conduit preparation and installation of simple systems.

ELC 1311C—Basic Electrical Circuits, Machines and Transformers II 2 6 4
A continuation of ELC 1111C.

ELC 1312C—Direct and Alternating Current II 2 6 4
A continuation of ELC 1112.

ELC 1313C—AC/DC Machines and Controls II 2 6 4
A continuation of ELC 1113.

ELC 1324C—Residential Wiring II 3 3 4
A continuation of ELC 1124.

ELC 1325C—Commercial and Industrial Wiring II 2 6 4
A continuation of ELC 1125.

ELN 1101C—Troubleshooting Concepts 4 0 4
A study of the techniques used in analysis of defective systems by block diagram. Introduction to test equipment used in troubleshooting.

ELN 1121—Vacuum Tubes and Circuits 3 12 7
An introduction to vacuum tubes and their development; the theory, characteristics and operation of vacuum diodes, semi-conductor diodes, rectifier circuits, triodes and simple voltage amplifier circuits. Prerequisites: ELC 1312C, MAT 1110C.

ELN 1123C—Amplifier Systems 2 6 4
An introduction of commonly used servicing techniques as applied to monophonic and stereophonic high fidelity amplifier systems and auxiliary equipment. The operation and servicing of inter-communication amplifiers and switching circuits will also be taught. Prerequisites: MAT 1110C, ELC 1312C.

ELN 1125—Radio Receiver Servicing 1 3 2
Principles of radio reception and practice 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. Prerequisite: ELN 1123C.

ELN 1126C—Transistor Theory and Circuits I 3 3 4
Transistor theory, operation, characteristics and their application to audio and radio frequency amplifier and oscillator circuits. Prerequisite: ELN 1123C.

ELN 1127C—TV Receiver Circuits and Servicing I 2 3 3
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 troubleshooting and repair of TV receivers with the proper use of associated test equipment will be stressed. Additional study of more specialized servicing techniques and oscilloscope waveform analysis will be used in adjustment, troubleshooting and repair of the color television circuits. Prerequisites: ELN 1326C, ELN 1125.

ELN 1128C—Color TV Receiver Servicing I 1 3 2
A continuation of ELN 1327C with additional study of more specialized servicing techniques and oscilloscope waveform analysis in the adjustment, troubleshooting, and repair of the color television circuits. Prerequisite: ELN 1327C.

ELN 1130C—Two-Way Mobile Maintenance I 2 3 3
A course to acquaint the student with the theory and maintenance of fixed station and mobile station transmitters and receivers.

ELN 1146C—FCC Rules and Regulations 3 0 3
A course designed to enable the student to obtain a Third Class Radio-Telephone Operator's license with broadcast endorsement. Covers subject matter in Part 13 of FCC Rules and Regulations, primary and basic radio-telephone procedures in general.

ELN 1326C—Transistor Theory and Circuits II 0 3 1
A continuation of ELN 1126C.

ELN 1327C—Television Receiver Servicing II 1 3 2
A continuation of ELN 1127C.

ELN 1328C—Television Receiver Servicing—Colors II 5 6 7
A continuation of ELN 1128C.

ELN 1330C—Two-Way Mobile Maintenance II 1 3 2
A continuation of ELN 1130C.

ENG 101—Grammar and Composition I 4 0 4
Offers an historical survey of the English language, a review of English grammar, and an opportunity to improve written self-expression through expository essays and both primary and secondary research.

ENG 1101—Reading Improvement 3 0 3
Designed to improve overall reading efficiency with special emphasis on purpose, comprehension, word recognition skills, and the study of reading materials related to the student's curriculum.

ENG 1102—Communication Skills 3 0 3
Designed to develop an appreciation of both the business and social values of standard grammar. The skills needed for efficient communication in both writing and speaking are practiced in short essays, and oral presentation.

MAT 1101—Vocational Basic Arithmetic 4 0 4
A self-paced study of arithmetic skills which may be applied in the vocational areas of study. Topics of study include: whole numbers, decimals, fractions, ratios, proportions, percent and measurement.

MAT 1110C—Electrical Mathematics 4 0 4
A course in algebraic and trigonometric processes involved in theoretical and applied electronics. Topics of study include: factoring roots, use of calculator, electrical equations, electrical units, fractional equations, polynomials simultaneous equations of two unknowns and trigonometric functions. Prerequisite: MAT 1101 or equivalent.

MEC 1120—Duct Construction and Maintenance 2 6 4
Study of various duct materials including sheet steel, aluminum, and fiber glass. Safety, sheet metal hand tools, cutting and shaping machines, fasteners and fabrication practices, layout methods, and development of duct systems.

MEC 1199C—Automotive Machine Shop I 1 3 2
This course is designed for the student to gain competency in machine shop processes related to the Automotive Industry. Such processes include use of the brake drum lathe, valve grinding equipment, precision measure and use of the boring bar.

MEC 1399C—Automotive Machine Shop II 1 3 2
A Continuation of MEC 1199C.

NUR 1101—Fundamentals of Nursing 6 4 0 8
A study of principles which are basic to safe effective nursing care with laboratory practice in basic nursing skills. Introduces student to nursing care planning, care of the patient's environment, care of a dependent patient, observing a patient's condition and reporting pertinent information.

NUR 1102—Vocational Adjustments I 2 0 0 2
A course designed to help the student become acquainted with the role of the practical nurse. A study of a brief history, legal aspects and ethics, as related to nursing.

NUR 1103—Nursing Principles 3 2 0 4
Study in effects of altered body function, nursing principles and responsibilities in care of the patient with altered function, and performance of therapeutic measures that are normally the responsibility of the practical nurse. Includes laboratory practice to further develop skills needed to give safe and effective nursing care. Prerequisite: NUR 1101.

NUR 1104—Basic Pharmacology 2 2 0 3
An introduction to drug therapy. A foundation of general knowledge in sources of drugs, legal control of drugs, computing dosage, classification and action of common drugs, and safety factors the nurse must use in administering drugs.

NUR 1105—Medical-Surgical Nursing I 2 0 0 2
An introduction to medical-surgical nursing. Study of classification, symptoms, diagnosis, treatment, and nursing care of illnesses. Emphasis is on needs of patient having surgery, long-term illnesses, cancer, and allergies. Prerequisite: Completed first quarter.

NUR 1106—Medical-Surgical Nursing II 6 0 0 6
A continuation of Medical-Surgical Nursing I. A study in the needs of patients with conditions related to various body systems—intequmentary, respiratory, cardiovascular, gastrointestional, and urinary. Prerequisite: NUR 1105.

NUR 1107—Medical-Surgical Nursing III 9 0 0 9
A continuation of Medical-Surgical II. A study of the need of a patient with illnesses related to musculoskeletal, neruoses, reproductive, and endocrine systems. Also includes study of the needs of the psychiatric patient, emergency nursing care, and care of the seriously ill and dying patient. Prerequisite: NUR 1106.

NUR 1108—Obstetrical Nursing 4 0 0 4
An introduction to the needs of the mother during normal pregnancy, labor, delivery, and post partum stages. Study of the needs and care of the new born. Introduction to common complications of obstetrical patients. This background knowledge is essential for planned clinical practice in care of the mother and newborn. Prerequisite: NUR 1101; Corequisite: NUR 1103.

NUR 1109—Pediatric Nursing 6 0 0 6
Provides an opportunity for the practical nurse student to study the well child, nursing principles and skills that are common in the care of sick children and adapting these to the level of the child. Includes study of common illnesses of children—symptoms, diagnostic procedures, treatment, and nursing care. This background study is essential to planned clinical practice in nursing care of children. Prerequisite: NUR 1103.

NUR 1110—Vocational Adjustments II 1 0 0 1
This course is designed to help the student make the adjustment from the role of a student to that of a graduate practical nurse. Includes a review of legal aspects, job opportunities, organizations, and continuing education as it relates to the graduate practical nurse.

NUR 1111—Pharmacology 2 0 0 2
A continuation of basic pharmacology with emphasis on the nurses responsibility in preparing, and giving interdermal, subcutaneous and intramuscular injection. Prerequisite: NUR 1104.

NUR 1112—Clinical I 0 0 18 6
Beginning experiences in a general hospital under supervision of an instructor, practicing skills learned in laboratory practice. The student should be able to do basic care of the adult patient before being assigned to special service areas in the clinical area. Prerequisite: NUR 1101; Corequisite: 1107.

NUR 1113—Clinical II 0 0 21 7
Continuation of Clinical I with student assignments in specialized areas—obstetrics and pediatrical—in more complex nursing situations. Prerequisites: NUR 1112, NUR 1104.

NUR 1114—Clinical III 0 0 21 7
Continuation of Clinical II with an increase in complexity of nursing care assignments. Prerequisite: NUR 1113.

PHY 1101—Applied Physics I 4 0 4
An introduction to physical principles and their application in industry. Topics in this course include measurements, properties of solids, liquids, gases and basic electrical principles.

PHY 1102—Applied Physics II 4 0 4
The second in a series of two courses of applied physical principles. Topics introduced in this course are heat and thermometry and principles of force, motion, work, energy and power.

PME 1101—Internal Combustion Engines I 2 6 4
Development of a thorough knowledge and ability in using, maintaining and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operating of components of internal combustion engines. Testing of engine performance, servicing and maintaining of pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems, proper lubrication and methods of testing, diagnosing, and repairing.

PME 1102—Engine Electrical and Fuel Systems I 1 3 2
A thorough study of the electrical and fuel systems in the automobile. Battery cranking mechanism, generator, ignition, accessories and wiring; fuel pumps, carburetors and fuel injectors. Characteristics of fuels, types of fuel systems, special tools and testing equipment for the fuel and electrical system.

PME 1104—Carburation I 1 3 2
Students will learn the parts of one, two and four barrel carburators. The student will be able to disassemble and re-assemble a carburator and identify each part, its use, and function. Large portions of time will be spent actually assembling, disassembling and trouble shooting carburators in order to gain competency in application of the skills learned.

PME 1221—Front Suspension, Alignment and Power Steering I 1 3 2
Theory of operation, correct disassembly and mounting of all front suspension parts on various types of frames (car and light truck). A thorough understanding of the function and repair of steering gears (power and standard), shock absorbers, springs, wheels and tires, pumps, rams, and other steering parts and accessories is gained. Theory and application of steering geometry, correct diagnosis of problems and use of the alignment and balancing machines; analysis and correction of tire wearing problems, vibrations, hard steering, pulling and other problems that are experienced.

PME 1224—Automatic Transmissions I 1 3 2
The student will learn nomenclature, working fundamentals, minor repairs and adjustments for automatic transmissions. The student will spend large portions of lab time in actual disassembly and repair of the transmission in order to gain competency for practical application of the skill he will learn.

PME 1227—Power Accessories 1 3 2
This course will teach the student the principles and operations of the power accessories of the modern automobile. The student will study and repair the power accessory units such as power steering, power windows, power seats, power antennas, power headlights, power tailgates, windshield wipers, and windshield washers.

PME 1301C—Internal Combustion Engines II 1 3 2
A continuation of PME 1101.

PME 1302C—Engine Electrical and Fuel Systems II 2 6 4
A continuation of PME 1102.

PME 1304C—Carburetors II 1 3 2
A continuation of PME 1104.

PME 1321C—Front Suspension, Alignment and Power Steering II 1 3 2
A continuation of PME 1221.

PME 1324C—Automatic Transmissions II 1 3 2
A continuation of PME 1224.

PSY 206—Applied Psychology 4 0 4
A study of the principles of psychology that will be of assistance in the understanding of interpersonal relations on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems.

PSY 1101—Human Relations 4 0 4
A study of basic principles of human behavior. The problems of the individual are studied in relation to society, group membership, and relationship within the work situation.

SCL 1101—Body Structure & Function 3 2 4
General knowledge about the normal structure and function of the human body. Study of each of the body systems and how they relate to locomotion, giving shape, holding body erect, metabolism, distribution of nutrients, body secretions and elimination of waste products.

SCI 1102—Microbiology 1 0 0 1
A study of microorganisms and their relationship to health.

SCI 1103—Nutrient and Diet Therapy 3 0 0 3
A review of food requirements necessary to maintain health and the harmful effects of inadequate diet. Knowledge of basic nutrition will be used to introduce the student to diet adjustments often necessary during illness.

SCI 1104—Health 1 0 0 1
This course is designed to give the student an understanding of the various aspects of health, the influences on health, and means available to protect health.

WLD 1101—Basic Gas Welding 1 3 2
Welding demonstrations by the instructor and practice by the students in the welding shop. Safe and correct methods of assembly and operating the welding equipment. Practice will be given for surface welding; bronze welding, silver soldering, and flame cutting methods applicable to mechanical repair work.

WLD 1105—Auto Body Welding 1 3 2
Welding practices on material applicable to the installation of body panels and repairs to doors, fenders, hoods and deck lids. Student runs beads, does butt and fillet welding. Performs tests to detect strength and weaknesses of welded joints. Safety procedures are emphasized throughout the course.

WLD 1120—Oxyacetylene Welding I 2 6 4
This course is designed to acquaint the student with the safety rules of welding, identification, set-up and operation of oxyacetylene welding equipment. The student will be able to carry a puddle without filler rods, weld in the vertical, horizontal and overhead positions, weld heavy steel plates, identify, weld and braze cast iron, and operate a cutting torch efficiently. The student will be introduced to welding symbols and metallurgy as it relates to oxyacetylene welding.

WLD 1121—Arc Welding I 3 9 6
The student will learn the safety rules of welding, understand the operation and use of the arc welding machine, identify and know the importance of personal protective equipment, identify welding tools and types of electrodes, strike an arc and run a bead, and bond two pieces of metal together. The student will be introduced to welding symbols and metallurgy as it applies to arc welding. The student will also become acquainted with blueprints and how they relate to arc welding.

WLD 1122—Commercial and Industrial Practices I 3 9 6
This course is designed to instruct the student in the proper procedure for repairing broken equipment, to fabricate and build parts from new stock of steel. The student will learn the inert gas welding process, practice and become proficient in flat-plate welding and also become familiar with the welding codes, specifications, and certification of the American Welding Society.

WLD 1124—Pipe Welding I 3 9 6
This course is designed to give the student knowledge in the operation of pipe welding equipment and accessories, specific welding operations, preparing a welding joint, welding in specified positions, obtaining knowledge of designing and fabrication of pipe and duct ways. The student will be introduced to welding symbols and metallurgy as it applies to pipe welding.

WLD 1320C—Oxyacetylene Welding II 2 9 5
A continuation of WLD 1120.

WLD 1321C—Arc Welding II 3 9 6
A continuation of WLD 1121.

WLD 1322C—Commercial and Industrial Practices II 2 9 5
A continuation of WLD 1122.

WLD 1324C—Pipe Welding II 2 9 5
A continuation of WLD 1124.

CONTINUING EDUCATION

CONTINUING EDUCATION PROGRAMS

Adult or Continuing Education as defined in this catalog includes activities designed to meet the needs of people beyond compulsory school age whose major occupation is not that of a full time student. It is the purpose of Cleveland County Technical Institute to afford this opportunity to each individual to develop to his fullest potential in whatever vocational, intellectual or cultural areas he desires. It is also the aim of the Institute to be of service to area industries, businesses and public agencies by providing training and upgrading for employees. In order to meet these aims the Extension and Adult Education Division of the Institute will help make continuing education available by offering a variety of courses and programs.

The extent of different programs and courses is based upon the interest shown by the community, availability of component instructors and the limitations of available equipment, space and funds. Whenever possible, courses are scheduled as community needs or interests are indicated. Some classes, constantly in demand, are offered on a continuing basis. Others are started at the requests of individuals or organizations. The Institute welcomes such requests and suggestions for additional courses.

Continuing education classes conducted by Cleveland County Technical Institute are both vocational and academic in nature. The classes are non-curriculum, vary in length, conducted both day and evening, and are taught by qualified instructors selected by the Institute. A schedule of some classes being offered is announced by the Institute prior to each quarter and other classes are announced during the quarter, as they are arranged.

ADMISSION

Any adult 18 years of age or older, who is not enrolled in public school is eligible to enroll.

REGISTRATION

Registration will be held at the first meeting unless specified otherwise. In some instances when enrollment is limited, adults should notify the Institute by phone, letter, or personal visit to place their names on the pre-registration list for classes.

EXPENSES

In most continuing education classes the only cost is for books or other materials, plus a tuition charge of $5.00. The only exception to the tuition charge is in Fire Service and Law Enforcement Training programs including Civil Preparedness courses and programs for Rescue Squad personnel. Also, tuition fees are waived for persons 65 years of age or older in all courses. A charge may be necessary in some courses for class supplies. Books and supplies are available through the Institute Bookstore for both campus and off-campus classes.

CLASS LOCATIONS

Many of the continuing education classes are held on the campus at Cleveland County Technical Institute. Others are conducted throughout Cleveland County in local public schools, community centers, churches, industries, businesses or wherever a suitable meeting place can be arranged. Classes are organized in any community whenever a sufficient number of prospective class members indicate an interest.

ATTENDANCE

A minimum enrollment of 15 persons is needed to conduct a class. Adults are expected to attend class regularly. Attendance records are maintained by the instructors. Insufficient enrollment or attendance may result in cancellation of the class.

CERTIFICATES

Certificates are awarded in certain classes to students successfully completing course requirements. Also, a certificate of High School Equivalency (GED) is awarded to adults who successfully complete the high school equivalency tests.

INSTRUCTORS

Qualified instructors, as determined by the Extension and Adult Education Divisions, will be employed for continuing education classes. Leaders from the community in civic, cultural, educational, industrial and business fields as well as persons skilled or knowledgeable in particular areas of interest are available as instructors.

OCCUPATIONAL EXTENSION EDUCATION PROGRAMS

Extension classes are designed to meet the needs of industry, business and other areas of occupational endeavor. Specifically, classes may be organized when there is a need for:

1. Upgrading for those within a specific occupation.
2. Retraining classes for those wishing to change their vocation.
3. Preparation of individuals for initial employment.

All classes are organized where a demand for certain skills are required, based upon the needs of the firm or group as represented. The classes may be arranged on a short or long-range schedule as needed. Flexibility is the key asset in the Occupational Extension Program.

The following is a partial list of the many broad areas of instruction in which training is available:

Fire Service Training

Hospitality Education

Law Enforcement Training

Industrial Training

Woodworking Occupations

Building Trades

Agricultural Business and Production

Equipment Maintenance and Repair

MANAGEMENT DEVELOPMENT PROGRAMS

Supervision and management in modern business is an art. Because of this, one of the most important programs in the extension division is that of Management training. The current MDP training consists of twenty-six well prepared courses having the following purposes:

1. To broaden the educational background of supervisors.
2. To develop the leadership abilities of supervisors.
3. To provide preparatory training.
4. To help make supervisors more proficient in their present jobs.
5. To provide life-long learning opportunities.

A supervisor may pursue as many of the courses as he desires and thereby afford himself an opportunity for extensive training. Emphasis has been placed on group dynamics and creative problem-solving techniques. Classes are scheduled to meet the needs of local business and industry, and qualified instructors are provided. Please contact the Director of Adult Education for information concerning specific courses or a booklet outlining the complete Management Development Program.

NEW INDUSTRY TRAINING

One of the primary functions of Cleveland County Technical Institute is to stimulate the creation of more challenging and rewarding jobs for the people of our area by providing a type of training geared to the needs of new and/or expanding industries. With some limitations, this institution, in cooperation with the Industrial Services Division of the State Department of Community Colleges, will design and administer special programs for training the production manpower required by any new or expanding industry which results in creating new job opportunities for North Carolina.

In addition to helping any new or expanding industry meet its immediate manpower needs, the program seeks to encourage each industry to develop a long-range training program of its own to satisfy its continuing replacement and retraining needs.

For further information on the New or Expanding Industry program, please contact the Department of Continuing Education, Cleveland County Technical Institute, or the Director, Industrial Services Division, North Carolina Department of Community Colleges, Raleigh, North Carolina.

ADULT BASIC EDUCATION

Adult Basic Education is designed for those adults who have less than a high school education and includes instruction in reading, writing, mathematics, social studies, science and health education. In all these areas instruction is related as closely as possible to helping students meet their adult responsibilities by improving their fundamental skills.

Classes are organized into two groups. The first group is for those who are unable to study individually because of inability to read and write. Persons in this group usually function at grade levels 0-4. In group two, a high level of ability is achieved and basic sciences and social studies are expanded. The work difficulty is at grade level 5-8.

With completion of group two, the student should be ready to advance into the high school program.

Students may enter ABE classes at any time. However, it is recommended that individuals enroll during the registration period at the beginning of each quarter. In order to take advantage of the complete program being offered the Institute encourages students to maintain attendance in these classes over a period of several school quarters. There is no registration fee charges for ABE classes.

ADULT HIGH SCHOOL

This program is designed for those adults eighteen years of age or older who would like to complete their high school education. Classes in English, mathematics, science and social studies are available in either individual classes or self-study units from the Learning Resource Center.

In order to enroll in the Adult High School Diploma Program, it is necessary to have completed and passed the eighth grade or to have successfully passed the eight grade equivalency test. A single $5.00 registration fee is payable at the time of registration each quarter regardless of the number of subjects taken during a quarter.

A total of sixteen units will be required for graduation from this program and include the following:

English	4 units
Social Studies	2 units
Mathematics	2 units
Science	2 units
Electives	6 units

For additional information on the ABE or Adult High School programs, please contact the Department of Continuing Education, Cleveland County Technical Institute.

GENERAL ADULT EDUCATION

General Adult and Community Service classes and programs are offered through the Extension Division of Cleveland County Technical Institute to enable individuals to gain personal satisfaction and knowledge through self-advancement. These programs include opportunities for intellectual growth, the development of creative skills or talents, the learning of hobby or leisure time activities, and the opportunity of gaining civic and cultural awareness.

A class can be organized when fifteen interested persons are available and because of the organizational flexibility of these programs a wide variety of classes, lectures, seminars and workshops are conducted both on campus and in other locations within the service areas of the Institute.

TEACHERS' CERTIFICATE RENEWAL

Teachers' certificate renewal courses and workshops are provided by Cleveland County Technical Institute in cooperation with the local public school systems within the county.

The courses and workshops are initiated by the Institute or the public school systems based on interests and needs expressed by school teachers and officials. In the past, these have included such courses as Great Decisions, Psychology, Guitar, Drawing & Sketching, Anthropology, and media workshops.

When a need for a particular course has been determined, Cleveland Tech, working cooperatively with the public schools in-service directors, plans and organizes the class, scheduling it for a time convenient to the participants.

Teachers receive one (1) C.E.U. toward certificate renewal for each 10 hours of successfully completed work.

ACADEMIC COURSE DESCRIPTIONS

Algebra: A course designed to teach the basic fundamental concepts and operations of algebraic computations including grouping, factoring, ratio and proportion, and quadratic equations. Application to practical problems will be stressed. 33 hours.

Anthropology: The Ascent of Man, a series of 13 outstanding films that dramatically portray the interrelationship of science and the humanities throughout history is used as a basis for this course. The main interest is on the cultural evolution of man from pre-historic times up to our present time. 20 hours.

Business Mathematics: A study of mathematical solutions to business problems including graphical representation of business data and the concept of various functions as tools for analyzing pertinent business data. 24 hours.

Ceramics: A popular class where students learn of the formation, finishing and firing of creative pottery. Finishing processes will include pouring, cleaning the greenware, decorating, glazing and firing for the finished product. 33 hours.

China Painting: A course in which various types of designs and flowers are applied to Chinaware and tiles. Practice in painting and firing is included in the course. 30 hours.

Community Chorus: A mixed voice musical organization open to all adult members of the community service area without audition. Two or three major concerts featuring a variety of music are given by the participants each year. Each rehearsal contains vocal techniques and instructions in music reading. 32 hours.

Copper Tooling: A fascinating craft class where students make beautiful and useful objects for the home. Simple tools are used to form various patterns on copper and brass which are then used to make pictures, plaques, waste baskets, flower urns, etc. 30 hours.

Decoupage and Repousse: An interesting and inexpensive leisure time activity involving painting, sanding and finishing items such as table tops, ash trays, picture frames and other similar items which can be used for decorative purposes in the home. 24 hours.

Drawing: The course includes one-minute gesture drawings, contour drawings, modelled drawings and quick form studies. Media used are pencil, pen and ink, ink wash, crayon and water colors. Perspective and drapery studies are included. 33 hours.

Great Decisions: A yearly study and discussion of the eight most important issues facing our nation at the current time. 16 hours.

Guitar: The course will consist of a new audiovisual method designed by guitarist Chet Atkins. Students will have especially designed guitars and a set of headphones. While a visual presentation is made on screen the student will hear only the instructor and his own guitar. Students completing the course should have speed and accuracy for chords in six keys and be able to play melody or lead guitar on six strings. 22 hours.

Holiday Decorations: (Arts and Crafts). An exciting class with emphasis on handicrafts and hobbies for home decoration and other occasions. Students will learn to make useful items from such things as bottles, boxes, cards and numerous other scrap materials. 24 hours.

Income Tax Preparation: Instructions are offered in basic fundamentals of individual income tax preparation. Topics considered are gross income, deductions and exemptions, joint and separate returns, tax computations, and methods of reporting income. Both state and federal forms are covered in this class. 20 hours.

Macrame: A popular and fascinating craft class using various knot-tying materials to make hanging basket holders and other useful objects and designs for the home. 33 hours.

Metric System: A basic course in the use of the Metric System. Conversion tables are used in the class in order that students may become familiar with metrical computations as compared to conventional methods. 24 hours.

Music Theory: The course is designed for pianists, organists and other musicians with no formal training in music theory. Course includes major and minor scales; major, minor and dominant seventh chords; elementary harmony; simple modulation; transposition of simple pieces; sight singing; and an investigation of rhythm are included. 20 hours.

Painting with Acrylics: Same as for oils with more emphasis on modern techniques in the use of the versatile material which is easy to handle, fast drying, water proof, and easy to mix for different colors. Instructions will involve use with mixed media and use with various painting medicine. 30 hours.

Painting with Oils: Classes are organized for both beginners and the more advanced students. Techniques used include brush and palette knife painting, color mixing, composition and design, canvas stretching. Types of painting include academic impressionistic, expressionistic, abstract and modern. 30 hours.

Photography: Introduces the student to fundamental factors influencing the quality of the image captured in the photograph. Students may study lighting, the primary subject, the field of view, color and camera techniques in this class. 33 hours.

Piano I: Designed for adults with no experience in piano playing. Course covers the preparatory level of piano playing which includes learning the keyboard, learning to read the musical staff, learning note values and simple piano pieces. 32 hours.

Piano II: The course is a continuation of Piano I with emphasis on playing hands together. 32 hours.

Psychology: The basic principles of psychology are explored and how they may be applied to the practical problems of every day life. The aim of the course is to help people get along better in school, jobs and human relations. 33 hours.

Sign Language: Instruction is designed for the parents of deaf children and those who come in contact with deaf people. Classes begin with finger spelling and continue through the more difficult signs. 18 hours.

Sketching: An interesting and basic class for the art student who wishes to learn more about drawing simple shapes, one and two-point perspective drawing, and shadowing. Practice exercises with various drawing materials will be used. 30 hours.

Sociology: A course designed to create a knowledge and awareness of the problems in society today and to fit the students for involvement in those problems that effect their personal lives. Information from other fields in the social science having a bearing on major social problems will be incorporated in the course. 33 hours.

Tole Painting: An interesting technique rather than talent where patterns of decorative design are painted on tin, wood, glass and metal. Designs are stenciled on material and painted in acrylics or oils. The art of Tole Painting is the way the brush is held and the turning to make details. 24 hours.

Water Colors: In this class art students will work with various materials and equipment, color mixing, using wet and dry paper, composition and design. Other techniques will include watercolor tricks, inks and calligraphy. 30 hours.

VOCATIONAL COURSE DESCRIPTIONS

Amateur Radio Operations: A course which deals with basic electronics and a working knowledge of Morse Code. Successful completion of the course prepares students for taking the FCC Amateur Radio licensing examination. 45 hours.

Auto Tune-Up: General trouble shooting of the automobile engine electrical system and fuel system including replacement of spark plugs, ignition points, condenser, rotor, distributor cap, coil, ignition cables and wires. Setting up of engine with instruments such as a dwell meter, timing light, volt and amp meter, vacuum gauge and general carburetor repair such as fuel filter replacement and adjustment of automatic choke is also included. 33 contact hours.

Bargello: This type embroidery, Florentine canvas embroidery, dates back to the 13th century and is found in many museums. It is excellent in making pillows, cushions, all types of upholstery, plus eyeglass cases, nests, belts, jewelry cases and many other articles. 20 contact hours.

Basic Horticulture: A course designed to familiarize participants with the fundamentals of soil fertility, the principles of attractive home landscaping, the characteristics of various ornamental plans suitable for home landscaping, vegetable gardening, plant maintenance, and small greenhouse structures. 20 hours.

Bookkeeping: A course dealing with methods of recording and reporting business records. Practical work is done involving business and individual and family bookkeeping. 30 hours.

Bricklaying: Instruction will be geared to practical work in how to mix and spread mortar, lay bricks, and proper use of the masonry rule. Simple construction projects will constitute a large part of the course. 88 hours.

Cake Decorating I: An ideal course for the homemaker who would like to learn the art and technique of decorating cakes for all occasions. Instructions will include preparation and application of various icings, borders, writing, drawing and making flowers for cakes. 24 contact hours.

Cake Decorating II: Instructions will center around the more difficult forms of cake decorating, including cakes for birthdays, anniversaries, weddings, and special occastions. Students should have completed the basic cake decorating course or have the equivalent skill before entering this course. 24 contact hours.

Cardio-Pulmonary Resuscitation: A special class dealing with the various techniques of cardio-pulmonary resuscitation and the role of the nurse in this situation. 10 contact hours.

Clothing Construction I: Designed for the new sewer or anyone who wishes to brush up on basic sewing techniques. Time will be devoted to learning the necessary equipment for successful sewing, proper selection and fitting of pattern and materials; step by step construction of one or more garments; lectures, demonstrations, practical applications of sewing procedures; individual instruction in use of machines during class time. 33 contact hours.

Clothing Construction II: More detailed in instructions for more complicated assembling of garments such as underlining, different sleeves, collars, pockets, trims, buttonholes, and other items. Fashion and styling will also receive attention in this class. 33 contact hours.

Crewel Embroidery: The class will learn a variety of stitches with different types of threads; needlepoint and cross stitching. Students are encouraged to create their own designs. 20 contact hours.

Crochet: A course in the basic principles and art of crocheting, including the actual construction of articles and designs from simple to complex. Students furnish their own materials. 20 hours.

Custom Sewing: An advanced course for those students who wish to progress beyond dressmaking. Students will make suits, coats, men's and ladies' sport wear and other projects as desired by individual members of the class. 60 contact hours.

Driver Education: (48 hours, $19.00) This class is designed for those students 18 years of age or over who wish to prepare for the State License Examination. The instructions lay the foundation for proper use of motor vehicles by developing mature driving attitudes, knowledge, skills and habits which are so important in today's complex traffic. The course consists of 30 hours of classroom instructions, 12 hours in the car as an observer, and 6 hours of actual driving practice. 48 contact hours.

Effective Speaking: Theory and practice in the art of effective speaking. Instruction will center around methods of planning and presenting the talk. Class reactions will be used as a method of evaluation and emphasis placed on the dynamics of public speaking. Self-confidence, poise, creative thinking, personality development, and effective communication with others will be stressed. 20 hours.

Emergency Medical Technician (EMT): A more detailed course with emphasis on the development of skill in recognition of symptoms of illness and injuries and proper procedures of emergency care. Much stress will be given to demonstration and practice as a teaching method. Ten hours of in-hospital observation is included. 81 contact hours.

Emergency Medical Technician (EMT) Refresher: A course in skills training and retraining for Emergency Medical Technicians required once every two years. A minimum of 24 hours.

First Aid: This course is taught by an approved American Red Cross instructor and is open to anyone interested in learning how to care for the victims of an accident or illness. Topics covered include bandage application, use of tourniquets and temporary splints, care of eye and burn injuries, artificial respiration and safe use and storage of medicines. Students completing the course are certified by the American Red Cross. 15 contact hours.

Floral Design: A practical course related to actual arrangements of live and artificial flowers. Students learn uses of flowers, containers and accessories, design principles, color and texture, and arrangements for special occasions. 30 hours.

Food Buying: Instruction in the efficient use of the food dollar for best nutritions. Menu planning, grocery shopping, selection of specific foods, use of leftovers, convenient foods, and non-grocery items are included. 24 contact hours.

Ground School Training: Designed for those students who wish to become a private pilot. Instructions include the theory of flight and airplane performance, traffic rules and general operation, flight planning, interpretation of weather and radio communication procedures. The purpose of this class is to prepare students to take the FAA examination. 40 contact hours.

Home Gardening: A practical course in the planting and raising of vegetables for home use. Plots are given each participant to plant as they choose. Instructions and assistance are rendered by the school's agronomist. Spring.

Home-Sitter Nursing: Instructions in the basic nursing skills that would aid students in caring for children, older people, and even themselves. Nursing skills such as bedmaking, baths, back-rubs, positioning, diet therapy, basic first aid, and a limited amount of basic psychology needed to relate productively with those who are sick are taught in this course. 50 contact hours.

Intensive Coronary Care: The role of the nurse in caring for the acutely ill cardiac patient is taught in this class. New techniques in diagnosis and treatment are used, including monitoring, resuscitation and other special procedures. Various audio-visual media and special professional personnel are utilized in the class. 30-120 contact hours.

Interior Decorating: Primary attention will be given to art and practice of decorating. Emphasis will be given to the choice and arrangement of furniture; color and how to use it; flooring surfaces and floor covering; window treatment with draperies and curtains. 33 contact hours.

Jewelry Making: Instruction will be given in the basics of good design and creativity in various types of jewelry making. The use of jewelry tools in sawing, filing, soldering, setting, etc., will be stressed. Students will be responsible for their own supplies and materials. 33 hours.

Knitting: Instructions will be given in the basic stitches; knitting language —it's terms, definitions, symbols and abbreviations; pattern reading; knit tips. Each student is asked to complete a small project during the course. 20 contact hours.

Medical Terminology: A course designed to build a workable medical vocabulary for office and hospital clerical personnel. Terminology commonly used in the medical setting will be presented. Hours of course flexible to needs.

Motorcycle Mechanics: This course is especially designed for those people interested in servicing their own motorcycle and other small engines. Students who complete this course will be able to service and repair their own motorcycle. 36 contact hours.

Multimedia First Aid: A course covering the same topics but using American Red Cross films for demonstration followed by actual practice of the techniques by the students. 8 contact hours.

National Electrical Code: This course is provided for those who wish to study the National Electrical Code in preparation for the licensing examination. Instruction will include the latest code revisions, safety measures and standard practices in the wiring of single and multi-family dwellings, commercial establishments and industrial locations. 80 contact hours.

Natural Childbirth: This class prepares the prospective mother emotionally intellectually, psychologically, and physically for childbirth. Together, both prospective parents are actively involved in the birth of their child. Instruction includes techniques of body building exercises, stretching and breathing exercises, and neuro-muscular control (relaxation). 21 hours.

Needlepoint: The student learns to do background stitches; a variety of novelty stitches; transfer of graphs and charts to blank needlepoint canvas, and from that step to transfer on mesh canvas. Finally the student has learned to create a design to be worked in needlepoint for whatever purpose the student intends—upholstery material, draperies, framing, wall hanging, etc. 24 contact hours.

Nurse's Aide: A program designed to give instruction and practice in basic bedside care of the sick, especially the hospitalized patient. Basic procedures such as bathing, bedmaking, taking vital signs, collecting specimens, feeding the patient, moving, lifting and positioning the patient are included. The class consists of lectures and laboratory work in addition to some clinical practice in a local hospital. 100 contact hours.

Nutrition and Weight Control: Training in selection of proper diet for best health, avoiding obesity and related disease, determining one's proper weight, how to achieve it and maintain it. 18 contact hours.

Office Practice: A course for all clerical personnel stressing techniques of letter writing, correct spelling, communication skills both oral and written, and proper telephone usage. Hours adjusted to needs of students.

Outboard Motor Repair: A practical course in the theory and fundamentals of outboard engines. Actual practice in servicing and repairing engines and motors will enable the student to correct existing problems and minimize expenses on repairs. 30 hours.

Pharmacology: A course designed to assist students in acquiring understanding and skills basic to safe and intelligent administration of drugs. Emphasizes the need of the nurse to prepare and administer drugs safely, to observe intelligently, and to report and record accurately, a review of specific drugs. Hours are flexible according to needs.

Pottery Making: A class similar to ceramics but using clay instead of slip. Students are encouraged to use their imagination and self-expression in the formation of various objects of creation. Instructions will also include use of the potter's wheel as well as other techniques used in pottery making. 33 contact hours.

Practical Welding: Students will be given basic practice in all types of welding procedures and flame-cutting methods which are associated with mechanical and farm repair work. Safety procedures are stressed throughout the course in the use of tools and equipment. 33 contact hours.

Real Estate: This class is designed for prospective salesmen and others who desire to know the fundamental aspects of real estate. The course includes instruction in real property laws, appraising, brokerage, finance and the mechanics of closing. 33 contact hours.

Real Estate Appraisal: A course designed to follow or run concurrently with Real Estate Sales dealing more specifically with the appraisal of property. Practical experience will be given in appraising various types of property. 33 hours.

Recreational Therapy: A course using modifications and adaptations in recreation and physical education activities for nursing home and handicapped persons. A combination of physical activities and arts and crafts is used in order to bring about a well-rounded adjustment. Class hours flexible according to need.

Securities and Investments: Stocks, bonds and mutual funds will be the central area of focus in this course. Discussions will include the operation of the stock exchanges, buying and selling procedures, analysis of stocks and bonds for investment purposes, and when to buy and sell. 12 contact hours.

Short Story Writing: This course will provide the beginning writer with an understanding of the basic concepts of the elements and structure of the short story. Content will include characterization, mood, perspective, plot and use of symbolism. 24 hours.

Small Engine Repair: Instruction in the techniques of two and four cycle engine repair including reconditioning, tune-ups, replacement of parts and detection of engine trouble. 33 contact hours.

Speed Reading: A program designed for the average adult reader who needs to improve overall reading efficiency including speed, comprehension and flexibility. This course welcomes the supervisors and others in management positions who have much paper work and whose jobs require much reading. 24 contact hours.

Taxidermy: A basic course in the fundamental principles of taxidermy. Step-by-step methods are used beginning with birds and fish. Advanced classes progress to larger and more complexed animals. A practical course. 33 hours.

Textile Quality Control: Emphasis will be placed on principles and techniques of quality control and cost saving in textile manufacturing functions, responsibilities, structure, costs, reports, records, personnel, and customer relations will be stressed. 27 contact hours.

Transportation and Traffic Management: Participants are acquainted with the important phases of Transportation and Traffic Management including classification of freight, principles of freight rates and tariffs, shipping documents and their application, special freight services, freight claims, construction and filing of tariffs, switching, routing, warehousing and distribution, materials handling, technical tariff interpretations, import and export traffic, construction and application of the Interstate Commerce Act and practice and procedure before the Interstate Commerce Commission. 48 contact hours.

Upholstery: Instruction includes the techniques of general furniture upholstery including webbing, springing, stuffing, trimming, sewing, restoring, repairing, mounting and tieing springs. Equipment is furnished but students supply their own materials and may work on their own furniture with direction and assistance from the instructor. 60 hours.

Waiter-Waitress Training: A new class designed for those persons interested in this expanding occupation. The class offers excellent opportunities to learn restaurant operation and management while serving the public in a courteous and efficient manner. The class includes on-the-job training. 38 hours.

Woodworking: This course is designed to help the woodworking enthusiast in the use, care and safe practice of basic hand and power tools. Considerable time will be spent in the shop in practical use of skills learned. Woodworking projects completed by the student may be retained for personal use. 45 contact hours.

SCHOOL FOOD SERVICE:

These courses are developed by and offered in cooperation with the School Food Service Division of the North Carolina State Department of Public Instruction.

Overview of School Food Service: A basic orientation course presenting the history of school feeding, characteristics of a good program, personnel and human relations, nutrition and menu planning, organization and management, purchasing, storing, preparation and serving of food, sanitation and safety. 45 contact hours.

Procurement: A new School Food Service course designed to give school food service personnel instructions and helpful suggestions in the procurement of foods. 30 contact hours.

Nutrition and Menu Planning: This course offers in depth the role in nutrition of protein, fats, carbohydrates, minerals and vitamins; factors in developing good food habits; dietary needs of children and youth; advanced work in planning and evaluating menus. 45 contact hours.

Care and Use of Equipment: This course stresses the general care and safety in the use of equipment, specific use and care of large and small pieces of food service equipment, and inventory and maintenance records. 45 contact hours.

Quantity Food Production Management: Designed for food service personnel with experience in methods of quantity food preparation which retain nutritive values; use of standardized recipes; use of weights and measures; use and care of equipment; timing, selection, preparation and service of foods for the school lunch. 45 contact hours.

HOTEL-MOTEL MANAGEMENT

These courses are offered in cooperation with the Educational Institute of the American Hotel-Motel Association.

Front Office Procedure: This is a basic course pointing up the need for close relationship between front office and management. It emphasizes the crucial human and public relations responsibilities of the front office staff. 24 contact hours.

Hotel-Motel Accounting: This course is designed to review the basic arithmetic skills needed and to develop an ease in their use; explain the accounting terminology and practices commonly used; provide practice in preparing a complete set of accounts and a simplified balance sheet and profit and loss statement. 24 contact hours.

Hotel-Motel Law: To illustrate the consequences of lack of foresight in the innkeeper's managerial functions and to create an awareness of the many responsibilities which the law imposes upon the innkeeper. 24 contact hours.

Introduction to Hotel-Motel Management: Traces of growth and development of the lodging industry from early inns to modern skyscraper hotels and highway motels. Also stressed are the importance of the "hospitality attitude" and the role of the hotel-motel as a competitive business in the free enterprise system. 24 contact hours.

Maintenance and Engineering: This course examines the organization of the engineering department and provides the technical information needed to establish effective preventive maintenance procedures. 24 contact hours.

Communications: This course has been designed as an overview of the uses and techniques of communication with particular reference to the innkeeping industry. It can be beneficial to employees at any level of the organization, but should be especially helpful to those having managerial responsibility. 20 contact hours.

HOSPITAL TRAINING

Hospital Human Relations: Designed to acquaint hospital personnel with the importance of good human relations. Case studies illustrate many ways in which employees and patients react to each other. Much stress is placed on the importance of developing proper attitudes toward the patient and toward fellow employees. 20 contact hours.

Hospital Housekeeping: The basic problems of hospital housekeeping are covered with a good breakdown of what should be done daily and what can be done only periodically. There is much information on techniques for doing the job more effectively and with maximum efficiency. 40 contact hours.

Food Service Supervision for Hospital Personnel: This course consists of classroom instructions and supervised experience in a hospital kitchen. It provides a standardized program for food service supervisors which will qualify them to assume the responsibilities delegated to them by the dietitian and prepare them to meet the performance level of the current concept of supervisory leadership in their respective areas. 40 contact hours.

Custodial Training: This course attempts to teach basic procedures in cleaning different types of surfaces, health and sanitation procedures, how to get along with patients, and how to fit in with the full hospital program. 40 contact hours.

Modified Diets: This course deals with the many types of diets, the food intake, and the caloric count. It also goes into the various diseases that are associated with the human body and what role the actual diet contributes to the recovery of the patient. 20 contact hours.

Additional courses listed under the headings indicated, may be available.

FIRE SERVICE TRAINING

Arson Detection
Civil Disorder
Firefighting Procedures
Hose and Ladder Practices
Forcible Entry
Fire Brigade Training
Rescue Practices
Salvage and Overhaul Practices
Ventilation
Hospital Fire Safety
Fire Apparatus Practices
Protection Breathing Equipment

LAW ENFORCEMENT TRAINING

Accident Investigation
Civil Law Procedure
Criminal Investigation
Crowd and Riot Control
Defensive Tactics
Introduction to Police Science
Jail and Detention Service Training
Narcotics Investigation
Supervision for Law Enforcement
Police Firearms Training

For further information on these courses or any other courses, please contact the Department of Continuing Education, Cleveland County Technical Institute.

LEARNING RESOURCES CENTER

THE LEARNING RESOURCES CENTER

HOURS: 8:00 a.m.-10:00 p.m. Monday-Thursday
8:00 a.m.- 4:00 p.m. Friday

INTRODUCTION

The Learning Resources Center (LRC) is a multimedia facility designed to support the total educational program of Cleveland County Technical Institute. The LRC includes: Library Services, Audiovisual Services, and Self-Instructional Services. The merger of these components provides a broad range of services to meet the instructional and individual needs of students, staff, and community members. The LRC staff offers both professional and technical assistance to meet the total institutional and community needs.

LIBRARY SERVICES

The Library has a continuously growing collection of approximately 20,000 volumes, most of which are related to the Degree and Diploma programs. The selection of materials, both book and non-book, is done in consultation with faculty, students and administration. The Library has a collection of local history materials that is used in conjunction with Continuing Education Courses on local history and for anyone who wishes to research local history and genealogy. The open shelf concept is used to encourage browsing and study in a quiet area. The library subscribes to 210 periodicals. The audiovisual collection is intershelved with the books for better accessibility.

SELF-INSTRUCTIONAL SERVICES

The Self-Study Center is designed to provide study opportunities in practically any field that might be of interest.

The Center is essentially an individual study situation in which a person eighteen years of age or older may undertake most any level of available subjects. All the materials used are programmed. Programmed material allows the student to work at his own speed while he teaches himself. Media-Coordinators are on duty at all times to offer instruction and to guide the student through his program.

Because there are no classes in the Self-Study Center, most students may enroll at any time, usually the student sets his own work sessions and attends the center as many days and hours as he thinks he can attend. There is no cost, and any adult can take as many courses as he needs.

SERVICES AVAILABLE

Eighth Grade Preparatory and Test
Adult High School Diploma Program
GED Preparatory Program
Pre-Curriculum Programs
General Interest Programs
Remedial Programs
GED Examination
Open Lab: Curriculum

GENERAL EDUCATION DEVELOPMENT (GED) TEST

The General Educational Development test is designed to appraise the educational development of adults who have not completed their formal high school education. Upon satisfactory completion of the tests, adults may earn a high school equivalency certificate, and in turn, qualify for admission to college or, in general, for admission to more advanced educational opportunities.

GED tests, a battery of five comprehensive exams in the areas of English composition, social studies, natural sciences, literature and mathematics will be given on a Friday afternoon and Saturday morning once each month at the Cleveland County Technical Institute. Both sessions are required.

Applications for taking this exam may be secured from the superintendents of the three school systems in the county or from the Chief GED Examiner at Cleveland County Technical Institute.

Applicants for the test may wish to enroll in the Self-Study Center for a period of time prior to the testing date. The Self-Study Coordinator will enroll the applicant and suggest subject area materials. Applications must be on file at Cleveland Tech one week prior to the testing date. Late applicants will be scheduled for tests the following months.

For additional information, contact the Chief GED Examiner, Cleveland County Technical Institute, 137 South Post Road, Shelby, North Carolina 28150.

VETERANS

The Veterans Administration has approved the GED Preparatory, Adult High School Diploma, and Pre-Curriculum programs for veterans. You may enroll as a full-time student (18 hours per week), three-quarter time student (13-17 hours per week), or half-time student (9-12 hours per week). You may schedule these hours anytime between the hours of 8:00 a.m. to 10:00 p.m. Monday through Thursday and 8:00 a.m. to 4:00 p.m. on Friday. Once a schedule is established, each veteran must comply with the exact hours of attendance. You receive the same allowance as in any other educational program but the time does not count against your months of eligibility for post-high school education.

Veterans may be enrolled in the following programs listed below:

GED Preparatory Program—maximum of 900 hours.

Adult High School Diploma Program—maximum of 1,056 hours.

Remedial Programs—maximum number of hours based on individual requirements determined by the Veterans Administration.

REMEDIAL PROGRAM

The Remedial Program is designed for self-improvement in the areas of Reading, English, and Math. Upon enrollment, each student will be administered placement tests to determine the assignment of materials and courses which will best suit individual needs. Credit toward a curriculum program can not be earned through the Remedial Program.

Veterans who desire to enter the Remedial Program and receive VA benefits for attendance, must first have been recommended for the program by the Veterans' Administration. Enrollment will be measured on the clock hour basis. Full time enrollment for veterans is 18 hours per week.

The Remedial Program is also available to any other person who desires improvement in the three areas of concentration.

COURSE DESCRIPTIONS—REMEDIAL PROGRAM

READING

Reading: SRA-3A (*200* hours maximum): The multilevel individualized reading program offers selections from a variety of books and periodicals with exercises to develop comprehension, vocabulary and word attack skills. Testing determines placement levels.

Reading: (SRA-4A (*200* hours maximum): Skill building materials for individualized reading instruction help students develop and build comprehension and retension, word attack skills, vocabulary, speed and concentration. Testing determines placement levels.

College Reading Program: (*200* hours maximum): Individualized instruction at different difficulty levels help students improve their reading skills, learn to recognize unfamiliar words and build comprehension through high-interest materials on subjects that are concrete and applicable. Testing determines placement levels.

Vocabulary Development (*100* hours maximum): Designed to develop a wide variety of vocabulary skills. Each audiotutorial module allows the student to work on the skills they need the most, such as, use of the dictionary; prefixes, roots, suffixes, context clues; look-alike words; sound-alike words, misunderstood words and sophisticated words. Testing determines placement levels.

Speed Reading (*30* hours maximum): Utilizing various reading techniques, the audio-tutorial program allows the student to chart his own increased reading speed. Non-fiction readings reflect denotative, expository prose which simulate or parallel instructional material that the student will encounter in most educational programs. Testing determines placement levels.

ENGLISH

English 2200 (*100* hours maximum): Laying the foundation of the elements of language, this individualized course covers grammar, sentence building, usage, and punctuation. Testing determines placement levels.

English 2600 (*100* hours maximum): Fundamentals of English Grammar and usage are covered in this programmed course. Testing determines placement levels.

English 3200 (*100* hours maximum): An advanced, programmed course designed to provide a quick recapitulation of the elements of language, covering grammar, sentence-building, usage, and punctuation. Testing determines placement levels.

English Modular Mini-Course (*200* hours maximum): This audio-tutorial program consists of nineteen modules, covering the basic mechanics of English Grammar and punctuation through paragraph development and the term paper. Testing determines placement levels.

MATHEMATICS

Basic Mathematics (*200* hours maximum): A series of 12 self-instructional books covering numbers and numerals; addition, subtraction, multiplication and division of whole numbers; addition, subtraction, multiplication and division of fractional numbers; addition, subtraction, multiplication and division of decimals; percents and applications; formulas and applications; measurements and applications; measurements in geometry; and units of measure and the metric system. Testing determines placement levels.

Skill Drill Math (*200* hours maximum): A series of self-instructional cassette tapes and worksheets ranging from addition of whole numbers through decimals and fractions. Testing determines placement levels.

AUDIOVISUAL SERVICES

The functions of the audiovisual services section of the Learning Resources Center include the coordination of AV instructional materials and equipment and media production.

There are over 4,000 AV acquisitions in the collection including films, cassette tapes, slides, records, filmstrips, film loops, transparencies, video tapes, etc.

Most of the AV materials may be checked out by students for self-study in the Learning Resources Center, in the classroom, or if necessary, for home use.

Cleveland County Technical Institute
137 South Post Road
Shelby, North Carolina, 28150