

Durham Technical Institute





Digitized by the Internet Archive
in 2013

<http://archive.org/details/durhamtechnicali19851986>



Durham Technical Institute 1985-86 Catalog

Education That Works

Publication Date: July 1985

1637 Lawson Street
Durham, North Carolina 27703
(919) 598-9222

Durham Technical Institute is an Affirmative Action, Equal Opportunity, Section 504 Institution and does not discriminate on the basis of race, sex, color, age, religion, national origin, or handicap.

This catalog supplants all previous catalogs. Information about programs, fees, and regulations contained in earlier issues is now out-of-date. The provisions of this publication are not to be regarded as an irrevocable contract between the student and Durham Technical Institute. The Institute reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedure as and when deemed necessary. Every effort will be made to minimize the inconvenience such changes might create for students.

Message From The President



An open door symbolizes the philosophy of Durham Technical Institute and the North Carolina Community College System. Advocating access to further education for all people, Durham Tech provides day, evening, and weekend courses on campus and at various locations throughout Durham and Orange counties. We welcome anyone who can benefit from our many courses and varied services.

Durham Technical Institute is a comprehensive educational institution. We take pride in offering two-year technical career programs, vocational career programs of one year or less, and extension programs in general education. A variety of short-term workshops and courses are also available for occupational training, cultural enrichment, and personal development.

Durham Technical Institute is a leader in providing training and instruction in such high-technology areas as microelectronics and semiconductor technology, robotics, computer-aided drafting, computer graphics, and computer numerical control machine tool technology. We also offer customized training for business and industry.

The faculty, staff, and administration at Durham Tech constantly strive to broaden, improve, and update our educational offerings. Two new programs are evidence of our progress. The Associate Degree Nursing and the Microcomputer Applications programs have recently been added to our existing 26 curriculum programs.

Durham Tech's open door can lead you to exciting career opportunities. I invite you to explore these opportunities with us. We pledge our full cooperation and support in helping you achieve your educational goals. At Durham Tech "education that works" can also work for you.

A handwritten signature in cursive script, reading "Phail Wynn, Jr.".

Phail Wynn, Jr., Ed.D.
President, Durham Technical Institute

Contents

Academic Calendar, 4	Industrial Electricity/Motors and Controls, 60
General Information, 8	Industrial Management Technology, 62
Admissions, Fees, Financial Aid, 10	Machinist, 64
Academic Information, 20	Microcomputer Applications Technology, 66
Services and Special Programs, 27	Microelectronics Technology, 68
Adult and Continuing Education, 31	Optical Laboratory Mechanics, 70
Programs of Study	Opticianry, 72
Accounting, 34	Paralegal Technology, 74
Architectural Drafting, 36	Pharmacy Technology, 76
Automotive Mechanics, 38	Practical Nursing, 78
Business Administration, 40	Residential Carpentry and Preservation, 80
Business Computer Programming, 42	Respiratory Therapy, 82
Criminal Justice, 44	Respiratory Therapy Technician, 84
Dental Laboratory Technology, 46	Secretarial-Executive, 86
Digital Electronic Repair, 48	Course Descriptions, 88
Early Childhood Associate, 50	Trustees and Institute Personnel, 137
Electronics Engineering Technology, 52	Advisory Committee Membership, 144
Fire Protection Technology, 54	Map, 151
General Education, 56	Index, 152
General Office Technology, 58	

Academic Calendar

Fall Quarter 1985

September 26-27	General Registration
September 27-28	Weekend College Registration Weekend College Classes Begin
September 30	Fall Quarter Classes Begin Late Registration—Drop/Add Begins
October 7	Late Registration—Drop/Add Ends
Nov. 28-Dec. 1	Thanksgiving Holidays
December 14	Weekend College Classes End
December 16	Rescheduled Day for Thursday Classes
December 17	Fall Quarter Classes End Rescheduled Day for Friday Classes
December 18	Designated Makeup Day for Cancelled Classes
Dec. 23-Jan. 1	Christmas Holidays — Faculty and Staff

Winter Quarter 1986

January 3	General Registration
January 6	Winter Quarter Classes Begin Late Registration—Drop/Add Begins
January 10-11	Weekend College Registration Weekend College Classes Begin
January 14	Late Registration—Drop/Add Ends
March 21	Winter Quarter Classes End
March 22	Weekend College Classes End
March 24-26	Designated Makeup Days for Cancelled Classes

Spring Quarter 1986

March 27	General Registration
March 28-31	Easter Holidays
April 1	Spring Quarter Classes Begin Late Registration—Drop/Add Begins
April 4-5	Weekend College Registration Weekend College Classes Begin
April 8	Late Registration—Drop/Add Ends
May 26	Memorial Day Holiday
June 14	Weekend College Classes End
June 17	Spring Quarter Classes End Rescheduled Day for Monday Classes
June 18	1985-86 Annual Commencement Exercises
July 4	Independence Day Holiday

Summer Quarter 1986

July 7	General Registration
July 8	Summer Quarter Classes Begin Late Registration—Drop/Add Begins
July 15	Late Registration—Drop/Add Ends
September 1	Labor Day Holiday
September 23	Summer Quarter Classes End Rescheduled Day for Monday Classes

Fall Quarter 1986

September 25-26	General Registration
September 26-27	Weekend College Registration Weekend College Classes Begin
September 29	Fall Quarter Classes Begin Late Registration—Drop/Add Begins
October 6	Late Registration—Drop/Add Ends
November 27-30	Thanksgiving Holidays
December 13	Weekend College Classes End
December 15	Rescheduled Day for Thursday Classes
December 16	Fall Quarter Classes End Rescheduled Day for Friday Classes
December 17	Designated Makeup Day for Cancelled Classes
Dec. 23-Jan. 1	Christmas Holidays—Faculty and Staff

Winter Quarter 1987

January 5	General Registration
January 6	Winter Quarter Classes Begin Late Registration—Drop/Add Begins
January 9-10	Weekend College Registration Weekend College Classes Begin
January 13	Late Registration—Drop/Add Ends
March 21	Weekend College Classes End
March 23	Winter Quarter Classes End
March 24-26	Designated Makeup Days for Cancelled Classes

Spring Quarter 1987

March 27	General Registration
March 27-28	Weekend College Registration Weekend College Classes Begin
March 30	Spring Quarter Classes Begin Late Registration—Drop/Add Begins
April 6	Late Registration—Drop/Add Ends
April 17-20	Easter Holidays
May 25	Memorial Day Holiday
June 13	Weekend College Classes End
June 16	Rescheduled Day for Monday Classes
June 17	Spring Quarter Classes End Rescheduled Day for Friday Classes
June 18	1986-87 Annual Commencement Exercises
July 3	Independence Day Holiday

Summer Quarter 1987

July 6	General Registration
July 7	Summer Quarter Classes Begin Late Registration—Drop/Add Begins
July 14	Late Registration—Drop/Add Ends
September 7	Labor Day Holiday
September 22	Summer Quarter Classes End Rescheduled Day for Monday Classes

General Information

North Carolina Community College System

The community college system was created by legislation passed by the 1963 General Assembly of North Carolina. The legislation provided that the system of community colleges and technical institutes would be administered by a Department of Community Colleges under the State Board of Education. In January 1981, the supervision of the community college system became the responsibility of the State Board of Community Colleges.

The community college system in North Carolina provides educational experiences for those beyond normal high school age, eighteen years old or older, whether they are high school graduates or not. The educational opportunities range from the first-grade level through the second year of college, including vocational, technical, and general adult education, and are available to all of suitable age who wish to learn and who can profit from the instruction provided.

In 1964, Dr. Dallas Herring, former chairman of the State Board of Education, developed a statement of philosophy for North Carolina community colleges; and it is published in the Department of Community Colleges' Policy Manual. Dr. Herring stated:

The only valid philosophy for North Carolina is the philosophy for total education: a belief in the incomparable worth of all human beings, whose claims upon the state are equal before the law and equal before the bar of public opinion, whose talents (however great or however limited or however different from the traditional) the state needs and must develop to the fullest possible degree. That is why the doors to the institutions in North Carolina's system of community colleges must never be closed to anyone of suitable age who can learn what they teach. We must take the people where they are and carry them as far as they can go within the assigned function of the system. If they cannot read, then we will simply teach them to read and make them proud of their achievement. If they did not finish high school, but have a mind to do it, then we will offer them a high school education at a time and in a place convenient to them and at a price within their reach. If their talent is technical or vocational, then we will simply offer them instruc-

tion, whatever the field, however complex or however simple, that will provide them with the knowledge and the skill they can sell in the marketplace of our state, and thereby contribute to its scientific and industrial growth. If their needs are in the great tradition of liberal education, then we will simply provide them the instruction extending through two years of standard college work which will enable them to go on to the university or to senior college, and on into life in numbers unheard of in North Carolina. If their needs are for cultural advancement, intellectual growth or civic understanding, then we will simply make available to them the wisdom of the ages and the enlightenment of our times and help them on to maturity.

Durham Technical Institute

Durham Technical Institute's origin is interesting and involved. When the North Carolina General Assembly authorized a small appropriation to establish a limited number of area schools to be known as industrial education centers in 1957, Durham already had a vigorous program in adult education underway through the Vocational and Adult Education Department of the Durham City Schools. A Practical Nursing program had been established in 1948; and other programs included training in mechanical drafting, architectural drafting, and electronics technology. In addition, many courses were offered in elementary education for adults. Courses to upgrade the skills of workers were also offered in a variety of trades.

As a result of the General Assembly's appropriation, a challenge went out from the State Board of Education to the various school administrative units in North Carolina to establish separate educational facilities which would provide for the educational needs of a given area's population. A comprehensive curriculum was devised for citizens needing educational and technical skills required to advance satisfactorily in their careers.

Through action by the Durham City Board of Education, Durham was among the first of six counties in North Carolina to meet the State Board of Education's challenge. In a successful referendum in June 1958, Durham County residents made \$500,000 available to purchase a site and erect the

Institute's first building. The Durham Industrial Education Center officially opened its doors on September 5, 1961. The institution continued to operate as an Industrial Education Center until February 4, 1965, when the State Board of Education officially designated that henceforth it be properly identified as a technical institute. On March 30, 1965, the Board of Trustees authorized the name of the institution be changed to Durham Technical Institute. The Institute is a charter member of the North Carolina Department of Community Colleges.

Philosophy

American democracy's future depends on an educated and responsible citizenry. Realizing this, Durham Technical Institute conceives its purpose to be the development of an individual's maximum potential. Established to provide educational opportunities distinct from those offered through traditional academic education, Durham Technical Institute also seeks to inspire an active desire for continuing personal development. Financially and geographically, Durham Tech provides an educational opportunity not otherwise available to area adults.

As a community-based institution, Durham Technical Institute provides educational opportunities for area citizens and uses local resources for students' learning activities. Community service is a continuing focus for programs and activities.

Striving for maximum flexibility in course offerings, Durham Technical Institute employs an "open door with guided placement policy" to provide as many educational opportunities as possible for specialized training. Specifically, Durham Tech attempts to accept individuals where they are educationally and strives to provide them with opportunities to pursue educational programs leading to their career goals.

Purpose

Within the scope and meaning of the North Carolina General Statute 115D, which creates and supports the Institute and the guidelines established by the North Carolina State Board of Community Colleges, this institution's purpose is to offer educational

opportunities which meet an individual's personal or professional needs. The Institute, being comprehensive in its purpose, endeavors to meet the following four objectives: to offer postsecondary occupational education which develops the skills and knowledge required for students' employment as qualified technicians and skilled craftpersons; to offer technical and vocational programs designed to improve and upgrade workers' skills for use in their present jobs; to offer adults in our community numerous programs and courses which provide educational opportunities for basic skills improvement, high school completion, vocational advancement, and personal growth; and to offer training to serve the needs of new, expanding, and existing industry.

Accreditation

Durham Technical Institute is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools and by the North Carolina State Board of Community Colleges. The school is a member of the American Association of Community and Junior Colleges, and the following programs are accredited by national associations: the Dental Laboratory Technology program is accredited by the Commission on Dental Accreditation of the American Dental Association, the Opticianry program is accredited by the National Academy of Opticianry, and the Respiratory Therapy program is accredited by the Joint Review Committee for Respiratory Therapy Education and the American Medical Association.

Approbation

Durham Technical Institute is approved by and is a member of the North Carolina Department of Community Colleges. The following programs are approved by state agencies: the Opticianry program is approved by the North Carolina State Board of Opticians, the Practical Nursing program is approved by the North Carolina State Board of Nursing, real estate courses are approved by the North Carolina Real Estate Licensing Board, and insurance pre-licensing courses are approved by the North Carolina Department of Insurance.

Admission, Fees, Financial Aid

General Information

Durham Technical Institute operates under the "open door with guided placement" policy. Admission to the Institute is open to virtually all persons with a high school diploma or its equivalent.

Programs of study leading to degrees, diplomas, or certificates are offered in the areas of health, business, public service, general education, and industrial and engineering technologies. High school graduation or high school equivalency is required for all programs.

The admissions process includes the initial application, transcripts of secondary and post-secondary work, placement tests, and an optional counseling conference. Health examinations and reference forms are also required for some programs.

Placement in certain programs of instruction is selective and particular emphasis is on vocational guidance. Through counseling conferences held prior to admission, applicants obtain assistance in establishing realistic goals. Educational achievements and placement test results are used in determining an individual's potential for success in a given instructional program.

The Institute reserves the right to refuse admission to an applicant if it appears such action is in the best interest of the Institute and/or the applicant.

Although persons may apply at any time, applicants are encouraged to complete the admissions process as soon as possible. High school students should apply early during their senior year. All applications should be on file at least 10 calendar days prior to the beginning of the quarter in which they plan to enroll. A student may not be admitted and/or enrolled in more than one degree, diploma, or certificate program at a time.

Application forms and detailed information about instructional programs may be obtained by writing the admissions office. The admissions office is open Monday through Thursday from 8:00 a.m. to 8:00 p.m. and Friday from 8:00 a.m. to 5:00 p.m. Appointments may be made by calling (919) 598-9224 or writing: Admissions Office, Durham Technical Institute, P.O. Box 11307, Durham, North Carolina 27703.

Admission Procedure

Application

Applicants should submit completed applications to the admissions office for the quarter in which they desire to enroll. All admission requirements should be completed no later than 10 calendar days prior to the registration date. Early application is recommended to allow adequate time for processing and to increase the opportunity for entry into programs with limited enrollment.

Transcripts

An official transcript is required from either a high school, an adult high school diploma program, or a general education equivalency diploma program. If applicable, postsecondary educational transcripts are required from all students applying for veterans educational benefits and from all students desiring transfer credit. All transcripts become the property of Durham Technical Institute and will not be released to students. Applicants who have earned the high school equivalency diploma should write: *State GED Administrator, Department of Community Colleges, Raleigh, North Carolina 27611* and request that a transcript certifying high school equivalency be forwarded to the admissions office.

Placement Testing

Applicants may be required to take a series of placement examinations. Test results are used in helping prospective students assess their aptitudes and achievements in relation to their interests and desires. This information provides an educational basis for placing individuals in appropriate programs. Minimum scores are required for acceptance into certain programs of study. If an applicant cannot come to Durham for testing, it is possible to have tests mailed. To do so, the applicant must have a high school or college counselor write to the admissions office. The letter must be on official letterhead and must state that the counselor will administer the tests and return all testing materials. Applicants unable to keep an appointment for testing should notify the admissions office immediately to arrange another appointment.

Counseling Conference

After initial admission requirements and placement tests are completed, a counseling conference is available upon request. The conference may involve discussing and analyzing the applicant's proposed curriculum choice in relation to educational preparation, test scores, health factors, work experience, interests, motivation, and career objectives. Applicants unable to keep a conference appointment should notify the admissions office immediately to arrange another appointment.

Acceptance

Each applicant is notified in writing of acceptance into a program of study.

Admission and Registration Requirements

Basic Admission Requirements

The basic admission requirement for any curriculum program is a high school diploma or equivalency education. Admission to certain curriculum programs with limited capacity is selective, and early application is required to be considered for admission. Due to the specialized nature of certain technical programs, additional requirements are necessary as follows:

Dental Laboratory Technology

Dental Laboratory Technology requires eye-hand coordination and manual dexterity. All applicants are given a wax carving test.

Practical Nursing

Practical Nursing applicants are required to have complete physical examinations. Applicants must also submit proof of dental examinations, schedules of disease immunizations, and physicians' statements verifying that the applicants do not have any physical or mental diseases which could impair their ability to perform duties in health-related fields.

Practical Nursing applicants must demonstrate academic readiness by meeting minimum established criteria on reading and math placement tests.

Respiratory Therapy

Respiratory Therapy and Respiratory Therapy Technician applicants are required to have complete physical examinations.

Pharmacy Technology

Pharmacy Technology applicants are required to have complete physical examinations. Written releases for reference evaluations are also required for admission.

Early Childhood Education

Early Childhood Education applicants are required to have complete physical examinations. Written releases for reference evaluations are also required for admission.

Mathematic Skills

All students entering associate degree or diploma programs at Durham Technical Institute need general mathematics skills which include arithmetic operations with integers, fractions (including mixed numbers and decimal numbers), percent and percentage problems, and signed numbers.

It is essential that *Electronics Engineering Technology* and *Microelectronics Technology* students have mathematics skills sufficient to cope with engineering technology courses. Students entering these programs are expected to have completed Algebra I or an equivalent course in high school. Applicants for these programs are tested prior to entering their first math course to determine proficiencies in basic algebra.

Students entering the *Opticianry*, *Respiratory Therapy*, and *Dental Laboratory Technology* programs are expected to be proficient in general mathematics and will also find skills in basic algebra very helpful.

Necessary mathematics skills may be acquired at Durham Technical Institute by enrolling in a preparatory mathematics course or by enrolling in the Curriculum/Telecourse Center.

Special Students

Students interested in taking only a limited number of courses do not need to apply for admission. Special student advisers are available to assist students in completing their paperwork for registration. Special students are not eligible to be considered for course substitution, credit by examination, financial aid, or veterans benefits; and they do not qualify for academic recognition by being named on the president's or dean's list. Special students intending to complete programs of study at Durham Tech should apply for admission as early as possible to avoid losing any credits for classes taken. Also, when special students apply for admission, they must meet all admission requirements in effect at the time of application.

Late Applicants

Students applying too late to secure all supporting documents required for admission may take courses in Early Childhood, Criminal Justice, Fire Protection Technology, and the business programs as special students; however, courses in other programs are generally available to special students only on a very limited basis.

Students applying too late for admission for the desired quarter should complete another application requesting admission for a subsequent quarter.

International Students

According to P. L. 87-195, *This school is authorized under Federal law to enroll nonimmigrant alien students.* Students enrolling under this classification are treated as nonresidents with respect to tuition and fees and cannot be classified as residents.

Immigrant aliens are subject to the same considerations as citizens and may establish North Carolina residence in the same manner as other nonresidents.

All international student applicants must come to the campus for personal interviews and placement testing before they can be accepted and before the international student adviser can issue the Certificate of Eligibility (I-20). Tests cannot be mailed outside the United States to prospective international students.

All international applicants must also submit evidence of adequate financial resources to support themselves throughout their educational programs. Durham Technical Institute cannot provide financial aid to international students.

Readmission

Any student who withdraws from the Institute for as long as two quarters or any student who changes curriculums at any time, must apply to the admissions office for readmission. Readmission conditions depend on individual circumstances, but generally a student is eligible to return when an appropriate course schedule can be arranged. Readmitted students must complete the requirements for graduation under the plan of study in effect at the time of readmission.

Students wishing to change curriculum programs must apply for their new program by the eighth week of the quarter before the change is to be effective. Students who are readmitted or who change programs register during the general registration period.

Any student financially indebted to the Institute by failure to meet any outstanding debt such as tuition, bookstore, library, activity, uniform, graduation, promissory note, equipment or supplies debt, or by failure to make any required payment to the Institute will not receive a transcript until such indebtedness is cleared.

Advisement and Registration

Advisement and registration dates for each quarter are published in the school calendar. Specific schedules are issued by the Department of Admissions and Registration. Prior to registering, all students are required to go through a prescribed advising process to ensure all course requirements are met prior to graduation. Returning students may register early each quarter. To register for courses, all students must receive approval of the academic adviser, receive approval of the registration office, and pay tuition and fees to the business office. Students receiving veterans educational benefits also must receive approval of the veterans affairs office before paying at the business office.

Transfer Credit

Durham Technical Institute accepts transfer credit for equivalent courses with the grade C or better from member institutions of the North Carolina community college system and other postsecondary institutions accredited by agencies affiliated with the Council on Postsecondary Accreditation. Also, transfer credit may be granted for certain general education courses not offered by Durham Technical Institute. Persons who have been enrolled in any postsecondary institution, including Durham Technical Institute, are required to submit transcripts of all previous academic work to Durham Technical Institute when applying to programs of study if an evaluation of transfer credit is desired. When a course is in question, the department dean is consulted before transfer credit is officially awarded.

A student transferring from another institution must complete at least one-fourth of the total credit hours required in residence at Durham Technical Institute to be eligible for graduation. Credit transferred from another institution is not used in calculating the student's grade point average for academic progress and graduation.

When a student transfers from one curriculum to another within Durham Technical Institute, all academic requirements including grading policies of the new curriculum must be met for graduation. Upon transfer to the new curriculum, all courses commonly required by more than one program are transferable with the prior achieved grade. The decision to transfer or repeat these courses should be made upon admission to the new curriculum.

After a student has been admitted to a program of study, approved courses may be taken at another accredited institution for transfer to Durham Technical Institute with prior permission from the department dean. Courses transferred would be accepted as satisfying the appropriate comparable course requirements in the student's curriculum.

Changes of Schedule

Students must obtain drop/add forms from the registration office. Registration change dates are set for specific times by the Department of Admissions and Registration. Class additions are not permitted after the designated change date.

Grade Reports

Grade reports for each quarter are mailed at the conclusion of the quarter. Quarter-hour credits earned are reported and the grade point average is included along with any appropriate academic recognition for the dean's list or president's list.

Requirements for Graduation

To be eligible for graduation, students must complete all the courses required by the plan of study under which they were admitted with a minimum grade point average of 2.0 (C). All outstanding obligations to the business office and the library must also be cleared to be eligible for graduation.

While registering or through the student records office, students should apply for their degree, diploma, or certificate two quarters prior to their anticipated graduation. For example, students planning to graduate at the end of the spring quarter should apply for graduation when they register for the winter quarter.

When applying for graduation, candidates pay a \$7.50 graduation fee to cover the cost of the diploma and cover. No refunds are possible after the diplomas have been ordered. Students must apply for graduation to have completion information recorded on their transcript.

A student transferring from another institution must complete at least one-fourth of the total credit hours required while enrolled at Durham Technical Institute in order to be eligible for graduation.

Transcripts

Official transcripts of scholastic records showing attendance at Durham Technical Institute are issued upon a student's request. Students must provide identification and pay a charge of \$1.00 for each transcript. Students may come in person or write a letter in which they include their signature and social security number. Payment is to be made with the request, and the request is to be directed to the student records office.

Unofficial student copies of Durham Tech transcripts are provided upon request at no charge to appropriately identified students. Durham Tech transcripts are released by the institution; however, transcripts which Durham Tech has on file from other schools are not released.

Name, Address, or Social Security Change

The Department of Admissions and Registration should be notified immediately of any name, address, or social security change.

Withdrawal Regulations

Students withdrawing from the Institute must officially withdraw through the Department of Admissions and Registration.

Students planning to withdraw should first discuss their plans with their faculty advisers and counselors and then contact the registration office where an official withdrawal form can be obtained. The form must be signed by the instructor and then returned to the registration office.

Students may officially withdraw from one or all courses during the first 10 calendar days of each quarter without the enrollment being reflected on the transcript. Students may withdraw voluntarily or be dropped by instructors for lack of attendance with a grade of *W* until the last two weeks of the quarter. Students attending class after that date will receive a grade other than *W*. No quality points are earned for the grade *W*.

Family Educational Rights and Privacy Act

In compliance with the Family Educational Rights and Privacy Act of 1974, Durham Technical Institute releases no personal identification information about students without the student's expressed written consent. Exceptions to this practice are those types of information defined by law as "directory information." At Durham Technical Institute this includes the student's name; program of study; dates of enrollment; degrees, diplomas, or certificates awarded; previous educational institutions attended; release of academic recognition to newspapers; and participation in officially recognized activities including sports information. Student addresses, phone numbers, and class schedules generally are not released.

Directory information may be published or made available without the student's consent; however, any student preferring that such information not be released may request this in writing to the director of Admissions and Registration. This written request must be made during the first two weeks of the student's initial enrollment.

Students may have access to their educational records upon request to the student records office. Requests for hearings concerning amendments to the records must be made in writing to the director of Admissions and Registration.

Tuition and Fees

Tuition and Fees for Curriculum Students

All tuition and fees are due and payable at the business office on the official days of registration. Partial payments or credits are not accepted.

No payment or tuition deposit is necessary prior to the official days of registration.

No part of a check made payable to the Institute will be given to a student except at the written request of the person making the remittance, and the written request must be mailed directly to the business manager.

Tuition Fee Basis

General Statute 115D establishes the community college system's tuition and fees. Tuition charges are for credit hours enrolled. Credit hours are comprised as follows: one class hour equals one credit hour; two laboratory hours equal one credit hour; three shop hours equal one credit hour. The \$4.25/\$21.25 per credit hour tuition rate applies to all regularly enrolled students. Tuition is subject to change by the North Carolina Legislature.

Tuition for Legal Residents of North Carolina

Legal residents of North Carolina enrolled for 12 or more credit hours are charged a maximum tuition fee of \$51.00 per quarter. Resident students enrolled for 11 or less credit hours per quarter are charged a part-time student rate of \$4.25 per credit hour enrolled per quarter.

Tuition for Out-of-State Students

Any student whose legal residence is outside North Carolina pays nonresident tuition. Full-time nonresident students enrolled for 12 or more credit hours will be charged a maximum of \$255.00 per quarter. Tuition for nonresident students enrolled for 11 or less credit hours is \$21.25 per credit hour enrolled per quarter. Nonresident audit and special students are charged at the same rate as nonresident curriculum students.

North Carolina Residency Status

North Carolina Law, General Statute 116-143.1, requires that to *qualify for in-state tuition, a legal resident must have maintained his domicile in North Carolina for at least the twelve months immediately prior to this classification as a resident for tuition purposes.* The following definition shall be controlled with the interpretation and application of General Statute 116-143.1 as it pertains to the term *domicile.* *Domicile* is one's permanent dwelling place of indefinite duration, as distinguished from a temporary place of abode; and it is synonymous with *legal residence.*

- Domicile may be established:
 - By birth until there is a legally effective change in that domicile;
 - By operation of law, as in the case of a minor whose domicile, in most cases, is presumed conclusively to be that of his or her parents; or
 - By choice (after legal age is attained); a person may establish his or her domicile in a jurisdiction of his or her choice.
- One always has a domicile.
- One retains a given domicile until it is abandoned and another is established.
- One never has more than one domicile at a given time.
- Establishing a domicile by choice requires the overt act of establishing physical residential presence in North Carolina while concurrently maintaining the intent to make one's permanent home of indefinite duration.
- A foreign student who has either a F-1 or J-2 visa *cannot* be classified as a resident for tuition purposes.
- The requisite domiciliary intent is tested by evaluating relevant, objectively verifiable conduct which is held to constitute a manifestation of the state of mind of the actor.
- Any question concerning North Carolina residency should be directed to the admissions office.

Tuition Exemption for Senior Citizens

North Carolina residents 65 years of age and older are exempt from paying curriculum tuition and extension registration fees in accordance with Chapter 981 of the 1977 Session Laws.

Activity Fee

General Statute 115D provides that a fee of up to \$28.00 per academic year per student (\$7.00 per four quarters or \$9.00 per three quarters) may be established as a local student activity fee. The Student Advisory Council of Durham Technical Institute has approved a \$3.00 activity fee per quarter for curriculum students. The activity fee is required of all on-campus curriculum students enrolled for nine or more credit hours. This fee is used for cookouts, socials, clubs, Senior College Days, Job Fairs, supplies, publications, and other activities the Student Advisory Council so determines. The activity fee amount is subject to change and could vary from quarter to quarter.

Graduation Fee

The current graduation fee of \$7.50, which is subject to change, is payable at the time students apply for graduation and includes the cost of the degree, diploma, or certificate; the document cover; and any necessary postage. Students should pay the fee during registration two quarters prior to the anticipated completion date. Students must apply for graduation in order to have completion information recorded on their transcript.

Refund Policy

A tuition refund for a student shall not be made unless the student is, in the judgement of the Institute, compelled to withdraw from all classes for unavoidable reasons. In such a case, two-thirds of the student's tuition may be refunded if the student withdraws within the first 10 calendar days. Tuition refunds are not considered after this time. Tuition refunds are also not considered for tuitions of \$5.00 or less unless a course or curriculum is cancelled or dropped due to no fault of the student.

There is no refund for the activity fee, insurance premium fee, or graduation fee.

For a refund, students must initiate their withdrawal through the Department of Admissions and Registration. Students requesting a refund must take their registration receipt and their drop/add form to an admissions counselor to request a written refund authorization. If the student plans to attend a subsequent quarter within the same academic year, the student may present a written request to the business office to defer tuition instead of requesting a refund.

Books and Supplies

Most of the student's necessary textbooks, supplies, instruments, and materials may be purchased from the Institute's student supply store. The student supply store is operated on a cash basis, and no refunds on books and supplies are given. The total cost for books and supplies varies with each program; however, most students should anticipate spending approximately \$70.00 per quarter for necessary texts and materials. Students should attend each class at least once before attempting to purchase texts and materials. Programs in health technologies, nursing, drafting, and automotive mechanics require special items and/or instructional kits which may vary from quarter to quarter.

Accident Insurance

Students may purchase insurance coverage for expenses incurred as a result of accidents which occur while participating in school activities. This is for group coverage beginning in October and ending in September of each year. The insurance charge is optional and is available during registration of any quarter. Regardless of when purchased, the coverage period ends in September of each year. The insurance charge is not refundable.

Students, especially those in Automotive Mechanics, Dental, Electronics, Industrial Electricity/Motors and Controls, Residential Carpentry and Preservation, and Respiratory Therapy, are encouraged to take advantage of this coverage. Those students taking laboratory classes in chemistry, physics, and machine shop and those engaged in intramural sports activities and work study programs are also encouraged to take advantage of this insurance coverage.

Neither the Institute nor the state of North Carolina carries insurance coverage for students' accidents and other needs.

Malpractice Insurance

Students enrolling in Practical Nursing and health programs which require clinical or patient care instruction must purchase malpractice insurance. Coverage on a group plan is available at an annual rate of \$13.25. This rate may vary from year to year.

Additional Expenses

Students in certain programs have additional expenses such as instructional kits and gold for Dental Laboratory Technology, drafting kits for Architectural Drafting, instructional kits for Opticianry, tools for Automotive Mechanics and Industrial Electricity/Motors and Controls, and uniforms and stethoscope for Respiratory Therapy. Lab coats and other miscellaneous supplies may also be required in some programs. Certain health programs require professional liability insurance. Students enrolled in word processing and selected data processing courses pay an additional fee of \$7.00 each quarter.

Parking Fee

Students are required to display parking decals on vehicles parked on the Institute campus. The decal costs \$2.00 and must be purchased each quarter. The parking fee should be paid along with tuition and other fees at specified registration periods. However, the parking decal may also be purchased in the business office during regular operation hours. No refunds are given for parking decals, and they are not transferable from one vehicle to another. Vehicles on campus without up-to-date parking decals are subject to parking violation fines and may be towed from the campus.

Transcript Fee

A \$1.00 fee is charged for all official transcript copies.

Continuing Education Registration Fee

The registration fee for continuing education courses varies according to the type of courses offered. Occupational and academic courses are \$10.00 per course, practical skills courses are \$15.00 per course, and avocational courses are \$19.00 per course.

Financial Aid

Financial aid awarded by Durham Technical Institute is based on student need. All students receiving financial aid must maintain satisfactory progress in their course of study. The financial aid office is located in the Admissions and Registration Department.

Grants

Pell Grant — (Formerly BEOG or Basic Grant)

A student may be eligible for this federal grant if he or she:

1. is enrolled at least ½ time,
2. is in an eligible curriculum program,
3. is a U.S. citizen or eligible noncitizen,
4. shows financial need according to the Pell Grant formula, and
5. does not have a bachelor's degree.

Before receiving any Pell Grant funds, all students must give the financial aid office acceptable verification of all taxable and non-taxable income.

N.C. Student Incentive Grant

This grant is funded through both federal and state allocations. It is limited to full-time students demonstrating substantial financial needs and is not available for the summer quarter.

College Work Study

A limited number of eligible students showing financial needs, as determined by the ACT needs analysis system, may be employed on campus an average of 15 hours per week at the minimum wage salary.

Scholarships

The following listing reflects some of the current scholarships available to students enrolled at Durham Technical Institute. More complete information about scholarships and application procedures is available from the financial aid office.

The American Fund for Dental Health offers scholarships for Dental Laboratory Technology students. Annual awards range from \$500.00 to \$650.00.

Best Products Company, Inc. provides scholarships to students in either vocational or technical programs of study. The awards range from \$300.00 to \$1,000.00 and are based on financial needs and prior academic achievements.

The Central Carolina Bank Scholarships are awarded to second-year degree students and are based upon financial needs and academic performances. The scholarships are valued at \$500.00.

The H. K. Collins Scholarship was established in honor of H. K. Collins, first president of Durham Technical Institute. The scholarships are awarded to second-year technical students and are determined by financial need and academic performance.

The North Carolina Department of Veterans Affairs sponsors scholarships for children of certain disabled or deceased veterans. Awards are based on high school scholastic performance and financial need.

The Wachovia Technical Scholarships were established in 1981 by the Wachovia Bank and Trust Company. These scholarships are given to second-year technical students who have been selected on the bases of need, scholastic promise, and prior academic performance. The scholarships are valued at \$500.00.

The Durham Technical Institute Student Development Grants have been established to provide financial assistance to Durham Tech students. Scholarships are awarded quarterly, and the number of awards varies from quarter to quarter.

North Carolina College Scholarships were established in 1984 by the State Board of Community Colleges. These scholarships are given to full-time or half-time needy students. Scholarships are valued at \$400 per year. This equates to \$100 per quarter for each recipient.

The Beverly Corporation Scholarship Fund for Nursing students was established in May 1984. Fourth quarter full-time Nursing students are eligible for the \$200 scholarship.

The North Carolina Sheriff Association Scholarship was established by the N.C. Sheriff's Association for Criminal Justice, Juvenile Justice, Correction Science, or Police Science. The scholarship is valued at \$220 each academic year. First priority is given to the son or daughter of any deceased law enforcement officer.

Additional scholarships may be available at various times. Contact the financial aid office for assistance.

Loans

No loans are currently available through Durham Technical Institute. The Institute is not authorized to participate in any of the federal loan programs. However, the Student Advisory Council occasionally provides short-term, interest-free loans for tuition fees, books, and supplies.

Other Sources of Aid

Questions concerning the following aid programs should be directed to the appropriate agencies:

1. The N.C. National Guard pays tuition only for their active members.
2. Vocational Rehabilitation assistance is available through the local Division of Vocational Rehabilitation for certain handicapped students.
3. Job Training Partnership Act (JTPA) funds are provided for qualifying unemployed, underemployed, or disadvantaged students in selected occupational programs.
4. The Work Incentive Program (WIN) is sponsored by the local Employment Security Commission and Department of Social Services. This program provides financial assistance to severely disadvantaged students while they receive training at Durham Tech.
5. Veterans benefits may be available to certain veterans. A veterans affairs office is located in the Admissions and Registration Department.

Satisfactory Progress for Financial Aid

Students receiving financial aid must maintain satisfactory academic progress by completing a minimum of six credit hours per quarter or 50 percent of the credit hours carried (whichever is less) with a grade of C or better.

Students falling below these stated acceptable criteria may continue to be enrolled in school but will not be eligible to receive financial aid until they have achieved and maintained satisfactory progress for one quarter.

Veterans Information

Veterans Educational Benefits

The veterans affairs office assists students who are eligible for VA educational benefits and certifies their enrollment. Students may be certified in the Adult High School Diploma or High School Equivalency (GED) programs or in curriculums which lead to a degree, diploma, or certificate.

VA students must have their schedules approved by their academic adviser and then the VA office before paying tuition and fees. Two copies of the registration receipt should be requested from the business office and the pink copy should be taken to the VA office for certification purposes.

A Veterans Handbook is available for each student in the veterans affairs office. Detailed information is included concerning school procedures and educational benefits.

Standards of Progress, Attendance, and Conduct for Veterans

Public Law 95-508 requires that each educational institution approved for veterans to receive educational benefits (G. I. Bill) must establish written policies which clearly state what is expected of a veteran in the areas of academic progress, class attendance, and conduct.

Standards of Academic Progress for Students Receiving Veterans Educational Benefits

The following standards of academic progress are effective for all students receiving veterans educational benefits and are reviewed quarterly:

1. Warning/Unsatisfactory Progress—received cumulative total of two IRs and/or below a grade point average of 2.0 (C) for one quarter. Students are referred to Counseling Services for academic counseling.
2. Probation/Unsatisfactory Progress—received cumulative total of four IRs and/or below a grade point average of 2.0 (C) for two quarters. Students may continue in their curriculum with benefits only if they follow the recommendations of Counseling Services. After two consecutive quarters on probation during which no additional IRs are received, students will no longer be on probation and counseling will not be mandatory; however, students will remain at the step two level. (Veterans Administration requirements do not allow benefits for more than two quarters on probation.)

3. Suspension/Unsatisfactory Progress—received cumulative total of six IRs and/or below a grade point average of 2.0 (C) for four quarters. Students are not eligible for benefits for one quarter but may continue in school at their own expense. Students may change their curriculum if the Veterans Administration accepts the change as suitable to their abilities. However, IRs received in courses which would have been transferable into the new curriculum will be counted in the re-evaluation of the student's standards of academic progress.
4. Reinstatement—after absence of one quarter. Students reenter on step two. Students who continue in school without veterans' benefits are ordinarily not candidates for reinstatement if IR grades are received. A second reinstatement may be considered for certification only after the student has received counseling from the Veterans Administration in Winston-Salem.

Clarification of Conversion of Standards of Progress for Veteran Students Enrolled Prior to July 1, 1981

1. Students who began their enrollment prior to July 1, 1981, will continue to have grades of D, which were earned during their prior enrollment, shown on their transcripts; and the award of one grade point per credit hour will be averaged into their cumulative grade point average. All grade points earned after July 1, 1981, will be on the basis of the grading system adopted on that date and currently in use.
2. For students returning after July 1, 1981, whose previous enrollment has been interrupted for a significant period of time, the veterans affairs coordinator and/or designee will determine which step, if any, on the standards of progress is applicable upon reentry.

Attendance Requirements for Veterans

All students are expected to pursue good faith attendance which limits absences to 15 percent or less of the total contact hours for the class for the quarter. When a student receiving veterans educational benefits must drop a class, the student is to notify the veterans affairs office immediately. Faculty members are to report the student's last day of attendance and this information is forwarded to the regional Veterans Administration office. Certification will cease being effective as of the first day of the quarter.

Students in certificate and diploma programs are required to turn in attendance reports on the last day of each month. The Veterans Administration will terminate benefits if attendance is not reported. Falsification of attendance reports may result in the termination of benefits and/or dismissal from school.

Procedure for Determining Conduct for Veterans

Conduct requirements are the same for veteran and non-veteran students. Veterans whose benefits are terminated for either unsatisfactory progress, lack of attendance, or misconduct must have counseling before they can be recertified for educational benefits. The required counseling sessions may delay the reinstatement of benefits from two to four months.

Academic Information

This section covers Durham Technical Institute's basic academic policies effective at the time of this catalog's publication. These policies apply to all students enrolled for credit instruction, excluding persons registered for continuing education classes, and supercede all previously published academic documents issued by the Institute.

Under special conditions, these policies may be waived or modified according to procedures approved by the chief academic officer.

These policies do not attempt to cover standards or requirements prescribed by the Veterans Administration or other institutions, groups, or agencies providing financial aid to Durham Technical Institute students.

Practical Nursing students have a special academic policy designed to meet standards and requirements defined by the State Board of Nursing. Nursing students should refer to the Practical Nursing Handbook for specific policies affecting their enrollment at Durham Tech.

Classification of Programs of Study

Durham Technical Institute is authorized by the North Carolina State Board of Community Colleges to award the Associate in Applied Science degree and the Associate in General Education degree as well as diplomas and certificates. Requirements for each of these awards follow:

Associate in Applied Science (A.A.S.) — Completion of all required courses as listed on the specific program plan of study totaling no fewer than 96 quarter hour credits.

Associate in General Education — Completion of all required courses listed on the General Education plan of study totaling 96 quarter hour credits.

Diploma — Completion of all required courses identified on the program plan of study totaling no fewer than 64 quarter hour credits.

Certificate — Completion of all required courses identified on the program plan of study totaling no fewer than 16 quarter hour credits.

Most programs of study require total credit hours in excess of the minimum credit hour requirements indicated here.

Classification of Students

Persons attending Durham Technical Institute are classified as either curriculum or special students and as full-time or part-time students according to the following definitions:

Curriculum Students — Persons who have been admitted to a program of study leading to an associate degree, diploma, or certificate. Curriculum students are given priority in registering for courses prescribed by their plan of study and are eligible to benefit from all academic options offered by the Institute unless restricted from doing so by the program in which they are enrolled.

Special Students — Persons who have not been admitted to a program of study offered by the Institute and, therefore, are not officially pursuing a degree, diploma, or certificate. Special students are not eligible to be considered for course substitutions, do not receive credit for examinations, and do not qualify for academic recognition.

It is strongly recommended that special students intending to complete a program of study at Durham Tech not proceed beyond one quarter of full-time study or 12 credits as part-time students before applying for admission in order to avoid the possibility of losing credits and being subject to other penalties or disadvantages which may occur in the interim.

Whenever special students apply for admission, they must meet all admission requirements in effect at that time.

Full-Time Students — Persons who have registered for a minimum of 12 credit hours for the quarter.

Part-Time Students — Persons who have registered for less than 12 credit hours for the quarter.

Plan of Study

A student admitted to a degree, diploma, or certificate program must meet the requirements listed on the curriculum's plan of study for the academic year during which the student was accepted.

The student should follow the sequence of courses listed on the plan of study in order to meet all course prerequisites and to complete the program in the allotted time frame. Otherwise, it may be necessary for the student to extend the period of enrollment to satisfy all requirements for graduation. Any deviation from the prescribed curriculum must have advance approval.

Only courses listed on the student's plan of study and officially approved substitute courses shall count toward graduation.

If a course required by the student's plan of study is not passed, the course must be made up or repeated as required and a passing grade must be earned for the student to be eligible for graduation.

A final grade point average of 2.00, or a C, is required for graduation from all programs of study.

A student may not be admitted and/or enrolled in more than one degree, diploma, or certificate program at one time.

When desiring to change from one curriculum to another, a student must apply for admission to the new program through the admissions office.

Course Designations — Prefixes and Numbers

All curriculum courses are designated by a three-letter prefix denoting the subject area of the course content. All technical courses are preceded by a three-number prefix ranging from 100-299. For example, DFT 103 is the designation for "Technical Drawing." These courses are designed to fulfill the requirements for the Associate in Applied Science degree, Associate in General Education degree, and/or a technical specialty diploma and certificate. All vocational courses are preceded by a four-number prefix and are designed to fulfill the requirements for a vocational diploma or certificate. For example, DFT 1103 is the designation for "Architectural Drafting III."

Course Prerequisites

Students are to comply with the regulation that courses may not be taken until all prerequisites have been met.

Instructors of courses with prerequisites will determine at the start of the course whether all students have completed the course prerequisites. Students who have not met the required prerequisites will be referred to the program director or the department dean for approval to continue in the course.

Credit Hour Calculation

Durham Technical Institute operates on a four-quarter academic calendar. Each quarter is 11 weeks in length.

A credit hour at Durham Tech, as required by the North Carolina Administrative Code, is calculated according to the following formula for classroom, laboratory, shop or clinical training, or work experience instruction over the standard 11-week quarter: one hour of classroom instruction per week equals one credit hour; two hours of supervised laboratory instruction per week equal one credit hour; three hours of supervised manipulative laboratory shop or clinical practice per week equal one credit hour; and 10 hours of work experience, practicum, or internship per week equal one credit hour.

Student Course Load

Quarterly course loads for full-time students are established by the list of courses on the students' plans of study.

A student receiving an IR grade or experiencing academic difficulty should not register for more than 12 credit hours for the following quarter and should contact the counseling services staff for special academic assistance.

Course Substitutions

In special circumstances when it is clearly impractical or not feasible for a curriculum student to take a course listed on a plan of study, an appropriate course may be considered for substitution. However, the substituted course must academically enhance the program objectives; and the total credit hours in each category on the plan of study must be satisfied. The substitution will be made on an individual basis and will not apply to all students in a given program. Course substitutions will be made only for courses offered by Durham Technical Institute. Approval for course substitutions must be received prior to registration.

Grading System

The Institute employs a letter grading system to evaluate the student's performance in meeting the stated objectives of the classroom, laboratory, shop, clinical setting, or work experience.

The following letter grades, numerical equivalents, and grade points are effective as of the 1985 fall quarter.

Grade	Numerical Equivalency	Significance	Grade Points Per Quarter Hour
A	93—100	Superior Work	4
B	85—92	Very Good Work	3
C	77—84	Average Work	2
D	70—76	Below Average Work	1
IM		Incomplete—Makeup Work Required	0
IR		Incomplete—Must Repeat Course	0
W		Withdrawal or Dropped by Instructor	0
AU		Audit	0
CE		Credit by Examination	0

Explanation of Special Grades

The following special grades are assigned at Durham Tech when a passing grade of A, B, C, or D is not achieved:

IM: Incomplete — Makeup Work Required

The special grade of IM is assigned when the student has performed at a satisfactory level and has made significant progress toward the completion of course objectives but is unable to complete all prescribed work by the end of the quarter due to extenuating circumstances, such as accident, illness, or comparable unavoidable developments. Under normal circumstances, the grade of IM will not be assigned to a student failing to appear for the final examination.

To receive the grade of IM, the student must confer with the instructor and request the IM grade on or before the last class day of the quarter. The student must also provide the instructor with documentation of the particular circumstances necessitating the IM grade. If such circumstances are considered legitimate, the instructor will provide the student with written instructions specifying the work to be completed and the completion deadline.

If the student completes the work according to the instructor's requirements, a grade for that work will be assigned and computed in the final course grade. If the course work is not completed during the subsequent quarter, the IM grade will be changed to an IR grade and the student must repeat the course.

In no case may the work be completed later than the conclusion of the following quarter. If the uncompleted course is an essential prerequisite for a subsequent course, the student may be required to remove the IM grade within a significantly shorter period of time. Otherwise, the subsequent course must be dropped.

An IM grade received during the quarter prior to the quarter of graduation must be removed by the midterm of the quarter in which the student intends to graduate.

IR: Incomplete — Must Repeat Course

The special grade of IR is assigned when the student has not performed at a satisfactory level and/or has not achieved adequate progress toward completing minimum course objectives. Consequently, the course must be repeated in its entirety for the student to receive course credit.

W: Withdrawal from Course

The special grade of W is assigned when a student officially withdraws or is dropped from a course by the instructor during the first nine weeks of the quarter. After the ninth week, a letter grade will be assigned indicating the student's academic average for the course.

A student may withdraw from a course within the first 10 calendar days of the quarter with no record of the withdrawal shown on the transcript.

To initiate a withdrawal, a student must submit to the admissions office an official drop form which has been signed by the instructor.

A student who has withdrawn or is dropped may request reinstatement subject to the approval of and conditions set by the instructor. To be reinstated, the student must be in good academic standing and must provide the instructor with evidence of the extenuating circumstances which necessitated the withdrawal or drop.

AU: Course Audit

The special grade of AU is assigned when a student enrolls in and regularly attends a course on a non-credit basis. Enrollment is subject to space availability and the program director's prior approval. The audit student, like the credit student, is subject to the Durham Technical Institute attendance policy. The student may not change from credit-to-audit or audit-to-credit status after the first 10 calendar days of the quarter.

CE: Credit by Examination

The special grade of CE is awarded when a student has successfully completed the requirements for credit by examination. Qualified curriculum students with relevant prior training or experience may earn academic credit for certain courses by examination. A student interested in receiving such credit should contact the appropriate program director for information on the procedures for application. To receive credit by examination, the student must be enrolled in a curriculum and be registered for the course for which application is made. The application must be approved within the first seven calendar days, and the examination must be completed within the first 14 calendar days of the quarter.

In order to receive credit by examination, the student must score at least 85 percent on the examination. The examination may be taken only once, and a student failing the examination must complete the course for credit. No more than 10 percent of the total credit hours required by the student's plan of study may be earned by examination unless the chief academic officer gives special approval to exceed this limit.

Change of Grade

All change of grade requests are to be submitted on change of grade forms for approval by the chief academic officer. All change of grade requests other than those converting an IM grade to a letter grade require written explanations of the reasons for the changes and must be requested within one calendar year after the original grade was assigned.

Grade Point Average

Academic progress at Durham Technical Institute is based on a 4.0, or letter grade A, cumulative grade point average system. The student accumulates grade points based on grades earned per quarter. Only those courses taken in residence and prescribed by the student's plan of study or officially approved substitute courses are included in calculating the cumulative grade point average required for graduation. The grade point average is determined by dividing grade points earned in courses by the number of quarter credit hours attempted as shown in the following example:

Course	Grade	Credit Hours		Grade Points	Totals
ECO 102	C	3	×	2	= 6
MAT 110	B	5	×	3	= 15
BUS 101	A	5	×	4	= 20
		13			41

$$41 \div 13 = 3.15 \text{ (Grade Point Average)}$$

When a course is repeated, both the higher course grade and the credit hours for that course as well as the grade and credit hours for the prior course or courses will be counted in the computation of the cumulative grade point average.

No grade points will be earned when the special grade IR, W, AU, or CE is received or when credits are transferred to the Institute.

All grades remain on the student's transcript.

Academic Recognition

Full-time curriculum students who earn grade point averages between 3.25 and 3.74 are named to the Dean's List for that quarter.

Full-time curriculum students with averages of 3.75 or above for the quarter are named to the President's List for the quarter.

Full- or part-time students completing their plan of study with a grade point average between 3.25 and 3.74 are graduated with honors while students maintaining a grade point average of 3.75 or above throughout their studies are graduated with high honors.

Instructor-Student Responsibilities

At Durham Technical Institute the instructor and the student are obliged to meet a number of reciprocal responsibilities to each other within their teacher-learner relationship.

The instructor is responsible for being prepared for each class, starting the class on time, and providing a full period of effective instruction throughout the quarter; for providing students with complete information on the objectives and requirements of the courses, including resources available to students outside the classroom or laboratory, for maintaining an accurate record of attendance on all students and consulting promptly with students on any attendance problems; and for being available to students outside of class in the event additional help is needed in meeting course requirements.

The student is responsible for attending all classes on time and being fully prepared to participate in the day's assigned work or activities; for obtaining assignments from the instructor prior to being absent, whenever possible, so that work may be submitted upon returning; for requesting to make up assignments missed due to legitimate absences, according to the procedure stipulated by the instructor at the outset of the course; and for seeking the assistance of the instructor when clarification or additional help is needed to complete an assignment.

Attendance

Regular attendance is required for the student to complete all course requirements and to receive the optimum benefit of instruction. In the event of absence, it is the student's responsibility to make up all missed work in the most timely manner possible. Failure to make up missed work will adversely affect the student's course grade.

There are no excused absences. Regardless of the reasons, when the student accumulates absences totaling 15 percent of the instructional hours of the course, the instructor is authorized to drop the student through the ninth week of the course. If the student exceeds the 15 percent limit after the ninth week, the instructor is authorized to impose penalty points which will not reduce the student's grade more than one grade level. Additional penalty points may be imposed if student attendance is required to fulfill licensure certification.

Absences will be calculated from the first class meeting, not from the student's first attendance date. Hence, students registering late may have already accumulated a portion of the absence limit which varies according to the contact hours of class as shown below:

Class Contact Hours	Absence Limit
33 contact hours	5 hours
44 contact hours	7 hours
55 contact hours	8 hours
66 contact hours	10 hours

Tardiness and Early Leaving

The student should be on time for each class session and should be prepared to remain for the full duration of the class. Tardiness or early leaving of at least 15 minutes will be considered an absence. Chronic tardiness and/or early leaving will adversely affect the student's course grade.

Student Conduct

All Durham Technical Institute students are expected to conduct themselves as responsible adults. Participation in any activity which, in the opinion of the administration, disrupts the educational process or functioning of the Institute may result in disciplinary action. Specific violations of the student code of conduct include the following:

1. Cheating and/or plagiarizing;
2. Damaging or destroying institutional or private property;
3. Possessing or using alcoholic beverages, weapons, or illegal drugs;
4. Assaulting or physically abusing an institutional employee or student;
5. Breaching any federal, state, or local law.

Violations may result in recommendations for suspension, probation, or expulsion from the Institute by the President.

Transfer to Senior Colleges and Universities

The following information concerning transfer credit to senior institutions is subject to change without notice. Transferring students should contact the admissions offices at the senior institutions concerning admissions requirements and transfer credits for specific programs of study.

Counseling Services staff members assist students concerning transfers to other educational institutions. A file of college catalogs and other information is maintained in the counseling office. The colleges and universities listed below offer transfer credit for courses completed at Durham Technical Institute.

Appalachian State University

Business and Engineering Technology graduates may transfer to the Bachelor of Technology degree program at Appalachian State University. This program primarily trains vocational and technical instructors for technical institutes or community colleges and gives technicians a broad educational background for industry and business. Graduates seeking admission to this program must have either a minimum grade point average of 2.5 in their Associate in Applied Science work and a recommendation from Durham Technical Institute or a minimum of 2.2 with an outstanding recommendation and an interview with Appalachian State University's Bachelor of Technology staff.

Atlantic Christian College

Graduates with an Associate in General Education degree may transfer course credits to Atlantic Christian College to complete a baccalaureate degree in a major field of study by fulfilling the additional requirements.

Campbell University

Graduates of Business Administration, Criminal Justice, and Health Technologies are eligible to transfer to Campbell University. Business Administration graduates may pursue a Bachelor of Business Administration degree. Criminal Justice graduates may earn a Bachelor of Applied Science degree in Human Services and Science Technology with 96 quarter hours or 64 semester hours transferable and with entry at the junior level. Graduates of Opticianry, Respiratory Therapy, and Dental Laboratory Technology may earn a Bachelor of Health Science degree. Graduates with an

Associate in General Education degree may transfer course credits to complete a baccalaureate degree in a major field of study by fulfilling the additional requirements.

East Carolina University

Criminal Justice graduates may transfer to the School of Allied Health and Social Professions at East Carolina University and pursue a Bachelor of Science degree in Correctional Services. Graduates in Business and in Electronic Engineering Technology may transfer to the School of Technology to earn a Bachelor of Science degree in Technical Teacher Education or a Bachelor of Science degree in Business Education. Admission by transfer to East Carolina University is granted on an individual basis, and the courses completed at Durham Technical Institute are evaluated on an individual course-by-course basis pursuant to the degree program selected.

Elon College

Graduates with an associate degree may transfer to the Bachelor of Applied Science degree program at Elon College. Transfer students must complete the general education and elective requirements to fulfill the total hours required for graduation.

Programs of study will be tailored for graduation and geared to a student's major at Durham Technical Institute.

Fayetteville State University

Graduates with an Associate in Applied Science degree may transfer 60 credits to Fayetteville State University and earn a bachelor's degree in several programs of study.

Mars Hill College

Graduates of Dental Laboratory Technology, Respiratory Therapy, and Opticianry may enter the Bachelor of Science program in Allied Health at Mars Hill College.

Graduates of business or computer programs may transfer to the Bachelor of Science degree programs in business administration or in computer information science.

Graduates of the Criminal Justice program may transfer to a bachelor's degree program with an additional concentration in business, political science, psychology, or sociology.

Graduates with an Associate in General Education may transfer course credits to complete a baccalaureate degree in a major field of study by fulfilling the additional requirements.

North Carolina A & T State University

Graduates with an associate degree in Engineering Technology may transfer to North Carolina A & T State University to earn a Bachelor of Science degree in Industrial Technology. Specific course requirements for these students will have to be made on an individual basis after their previously earned credits have been assessed. In effect, such students will be engaged in a two-plus-two-year program receiving 62 semester hours of credit.

Students earning an associate degree in Early Childhood may transfer into the Child Development major and receive approximately 60 semester hours of credit.

Students in other associate degree programs are urged to make an appointment with the admissions counselors at North Carolina A & T State University.

North Carolina Central University

Durham Technical Institute has a formal transfer of credit agreement with North Carolina Central University for graduates of the General Education and the Electronics Engineering Technology programs.

North Carolina Central University will accept graduates with an Associate in General Education degree, and they may transfer the equivalent of 60 semester hours of credit to complete a baccalaureate degree in a major field of study by fulfilling the additional requirements.

Graduates of Electronics Engineering Technology may transfer to the Bachelor of Science degree program in physics.

Graduates of other programs of study should contact North Carolina Central University's admissions office regarding transfer credits.

North Carolina Wesleyan College

Criminal Justice graduates may transfer to the Bachelor of Science in Criminal Justice program.

Graduates with an Associate in General Education degree may transfer course credits to complete a baccalaureate degree in a major field of study by fulfilling the additional requirements.

Graduates with an Associate in applied Science degree may transfer a maximum of 64 semester or 96 quarter hours of credit.

St. Augustine's College

Graduates with an associate degree may enter St. Augustine's College to earn a bachelor's degree in a variety of curriculum programs.

Shaw University

Shaw University admits students who have attended or graduated from accredited two-year colleges or technical institutes. Such students may receive up to the equivalent of 70 semester hours of transfer credits. Those holding associate degrees may transfer courses which satisfy the "core" requirements of the University provided a grade of C or better was obtained in the courses equivalent to those required by the University. The "core" requirements are generally confined to the areas of English, humanities, mathematics, and natural and social sciences. Regardless of the number of hours transferred, students must satisfy requirements in specific areas in which they elect to major.

UNC — Charlotte

Graduates of the Electronics Engineering Technology program who meet the other admission requirements may enter the University of North Carolina at Charlotte as a junior in Computer-Electronics Technology or Mechanical Technology. Upon completing the prescribed two-year curriculum, the students receive a Bachelor of Engineering Technology degree.

Graduates of the Criminal Justice program are eligible to enter the Bachelor of Science degree program in Criminal Justice at the University of North Carolina at Charlotte.

Winston-Salem State University

Graduates with an Associate in General Education degree may transfer course credits to Winston-Salem University to complete a baccalaureate degree in a major field of study by fulfilling the additional requirements.

Services and Special Programs

Career Planning and Placement Center

The Career Planning and Placement Center is available for prospective and currently enrolled Durham Tech students and alumni. Through resource materials, interest inventories, workshops, and individual counseling, students are assisted in developing and clarifying career goals. The Placement Center serves as an intermediary between students and prospective employers. In addition, the Center provides information on job openings and opportunities; maintains placement files for use by employers; assists students with resume writing, interviewing techniques, and job-seeking skills; and coordinates placement interviews.

Counseling Services

The goal of Counseling Services at Durham Technical Institute is to promote student growth, development, and academic success. Services are available to all students and prospective students without charge. Counseling Services assists students with program and course selection; interpersonal relationships with friends, instructors, or family; test-taking anxiety; academic difficulties; study skills; and time management.

Students are encouraged to consult with counselors anytime they have problems which may affect their educational progress. All discussions are confidential.

The counseling office, located in the Main Building, room 23, is open from 8:00 a.m. to 8:00 p.m. on Monday through Thursday and 8:00 a.m. to 5:00 p.m. on Friday. There is also a counseling office in room 423 of the Industrial and Engineering Technologies Building. Hours for this office are posted.

Curriculum/Telecourse Center

The Curriculum/Telecourse Center provides an educational alternative to classroom instruction. Telecourses, individualized instruction courses, and computer-assisted instruction are offered in the center which is located in the Main Building, room 21.

Telecourses are curriculum credit courses which are broadcast by the UNC Center for Public Television's Channel 4 and on local cable. Students register for telecourses as they do for credit courses, and tuition is charged. Students may view the televised lessons in their homes but must come to the campus for orientation sessions, workshops, and evaluations.

Individualized instruction through self-instructed, self-paced materials is offered in many academic areas including mathematics, foreign languages, reading improvement, basic sciences, and English grammar. Courses offered for academic credit are listed in the quarterly schedule, and students register as they do for credit courses. Tuition is charged.

In addition to credit courses, other courses offered for no credit and no cost are available to anyone eighteen years of age or older and are tailored to help the student achieve various personal objectives. Some high school graduates want a general academic review before continuing their educations. Other students need particular courses to remove high school deficiencies before entering colleges. Many students simply enjoy studying general interest subjects in a flexible setting.

The Center also houses a microcomputer laboratory which allows students in general education courses to supplement classroom instruction with computer-based materials.

DAISY

DAISY (Dial Access Instructional SYstem) is a telephone-tape service which provides free information to Durham area residents. More than 500 taped programs are available.

DAISY prides itself on having "something for everyone." DAISY offers a wide range of informational tapes. The tape categories follow:

- Durham Tech Information,
- Educational Skills,
- Health Information,
- Public/Consumer Information,
- General Listening,
- Children's Stories.

DAISY operates seven days a week, 24 hours a day. During the hours 3:00 p.m. to 8:00 p.m. on Monday through Thursday, any tape in the DAISY program is available by calling the DAISY operator at 596-0611. When the DAISY operator is not on duty, ten tapes are available. A weekly listing of the ten tapes can be found in local newspapers. Dial the phone number listed and the tape will play automatically.

To receive a copy of the DAISY brochure, send a stamped, self-addressed, regular business envelope to: *DAISY, Durham Technical Institute, 1637 Lawson Street, Durham, North Carolina 27703.*

Educational Resources

Durham Tech's Educational Resources Department includes the library, the Curriculum/Telecourse Center, and Media Services.

The library is located in the Main Building and houses more than 22,000 books, films, tapes, magazines, newspapers, and other audiovisual materials. Additional books and films are obtained for library users through an interlibrary loan network. Individual and group study areas are also available in the library for the convenience of students who would like to study on campus.

To borrow materials from the library, a user must present a valid identification card and obtain a library card at the main desk in the library. A permanent card marked with an expiration date is given to the user who is responsible for the replacement cost of lost cards.

The library is open from 8:00 a.m. to 10:00 p.m. on Mondays through Thursdays, 8:00 a.m. to 9:00 p.m. on Fridays, and 9:00 a.m. to 1:00 p.m. on Saturdays.

International Student Advisement

An adviser to international students is located in Counseling Services. This adviser issues Form I-20, the Certificate of Eligibility (for nonimmigrant F-1 student status), as well as other forms required by the immigration office to internationals who have met all admissions criteria. The international student must be on campus for placement testing, must make satisfactory scores on these tests, and must have an interview with the international student adviser; and in some cases an interview will be arranged with the department dean or program director of the student's program of study. The international student must also present a notarized document indicating adequate financial support. After the student is accepted into a program, the international student adviser or a counselor may assist the international student with registration, monitor the student's academic progress, and offer academic and personal counseling and guidance.

The international student adviser is responsible for issuing all immigration forms and is in contact with the district deputy director of the Immigration and Naturalization Service. Any international student who has a question should contact Counseling Services.

Retired Senior Volunteer Program

The Retired Senior Volunteer Program (RSVP) is sponsored by Durham Technical Institute and *ACTION*, a federal agency. RSVP's main objective is to provide a variety of opportunities for persons 60 years and older so they may continue to make valuable contributions to their communities through volunteer service.

RSVP provides volunteers with free liability, accident, and automobile insurance for volunteer assignments and functions. Reimbursement for travel and meals is available on a limited basis.

In 1984, Durham Technical Institute had a tremendous impact on the quality of life in the Durham community by making a considerable contribution to the RSVP budget. During the year, 325 retired senior volunteers found satisfying ways of contributing more than 40,000 hours of service through 50 non-profit and public agencies. The hours contributed enabled the community to enjoy comforts and extend services which otherwise would not have been available.

Services to the Handicapped

Durham Technical Institute provides special services and accommodations for handicapped students. Counseling Services coordinates all services for the handicapped. Counselors assist students in the admission process and in registration as needed, make referrals to and work closely with agencies which serve the handicapped, arrange for special equipment when needed, and listen and give guidance and support to these students.

Special Services Project

The Special Services Project is a comprehensive academic support service which assists students in entering, continuing, or resuming academic programs at Durham Technical Institute. The federally funded project provides services to a target population of 250 students. The project's aim is to help each student gain the academic strength to complete a program of study at Durham Technical Institute successfully. The overall goal of the project is to increase the retention and graduation rate of project participants.

To participate in Special Services, a student must be enrolled or accepted for enrollment in a curriculum program and meet the U.S. Department of Education's eligibility requirements.

The project is divided into three components: academic skills, counseling, and academic intervention.

The academic skills component includes in-house diagnostic tests in math, English, and reading; individual prescriptive plans designed to remediate identified weaknesses; regularly scheduled lab times to work on identified weaknesses; study skills improvement sessions; and test-taking sessions.

The counseling component is designed to enhance each program participant's self-concept. Counseling activities include scheduled group sessions, financial aid advising, job skills development, personal inventory, and referral services to community resource agencies.

The academic intervention component includes academic advisement for new and continuing students, academic monitoring to observe students' progress, and faculty conferences.

Cultural enrichment experiences are also scheduled for program participants.

For more information, contact the Special Services office in the brown modular unit at the east end of the Collins Building.

Student Advisory Council

The Student Advisory Council plans and implements student activities and approves and provides support for student clubs. Through sponsoring a wide variety of activities such as Job Fairs, Senior College Days, socials, dances, films, cookouts, and luncheons, the Student Advisory Council strives to provide a vital part of the student's educational experience.

Student initiative, interest, and leadership are necessary for the Student Advisory Council to function effectively; and students are encouraged to become actively involved. Additional information about the Student Advisory Council is available through Counseling Services.

Tutorial Services

Tutoring is a free service provided for all students enrolled in credit courses. Any student experiencing difficulty with a course should visit Counseling Services and request assistance.

Tutors are currently enrolled students who have been recommended by instructors and trained by the tutorial staff. Because tutors are students, they can relate to the problems often confronted when completing a program of study. Counseling Services, which offers tutorial assistance, is located in the Main Building, room 23, and in the Industrial Building, room 423.

Visiting Artist Program

The Visiting Artist Program was begun in 1971 as a cooperative effort between the North Carolina Arts Council and the Department of Community Colleges. Artists are invited by the Institute to work in the community for a one- or two-year period.

The most important function of a visiting artist is to supplement, enhance, and promote arts resources in the community. In this capacity, the visiting artist gives lecture-demonstrations, concerts, exhibits, and special programs for public schools, civic clubs, arts councils, and other community organizations.

The artist may also organize and participate in exchange programs with artists from other institutions around the state in order to bring varied artistic talent to a community.

Arrangements for a program may be made in advance by contacting the visiting artist at Durham Technical Institute.

Weekend College

Durham Tech's Weekend College program provides educational opportunities on Friday evenings and Saturdays for persons unable to attend classes during the week. Both curriculum and continuing education classes are offered to the Weekend College student.

Curriculum courses are offered in accounting, business administration, business computer programming, industrial management, insurance licensure, real estate, general education, secretarial-executive, and a variety of special interest courses.

Curriculum courses taken during Weekend College may apply to degree, diploma, or certificate programs offered by the Institute. Students successfully completing certain specified sequences of skills-related curriculum courses may also be awarded certificates of completion.

Weekend College students needing instructional assistance or seeking information on curriculum programs should contact the office for Weekend College in the Main Building, room 23, on Friday evening between 5:30 and 9:00 p.m. or on Saturday between 8:00 a.m. and 1:00 p.m.

The library and Curriculum/Telecourse Center are also open on Saturday for the Weekend College student's convenience.

Adult and Continuing Education

Durham Technical Institute provides educational opportunities for life-long learning to adults in the community. Designing courses to meet the needs and interests of adults is the goal of the Adult and Continuing Education Department.

Continuing Education

Short courses, classes, workshops, and seminars are designed to teach occupational training, provide cultural enrichment, and promote personal improvement. Students who successfully complete continuing education courses are awarded either certificates or continuing education units.

Courses are offered both on a continuing basis and on a requested basis when sufficient interest is determined.

Anyone 18 years of age or older may enroll in continuing education classes. Students between the ages of 16 and 18 may enroll provided they are also enrolled as full-time students in a secondary school.

Classes are held on the Durham Tech campus and at community centers, recreation sites, public school buildings, churches, senior centers, public housing sites, and local businesses throughout Durham and Orange counties.

Registration

Students may register for continuing education courses either through the mail, at the first class meeting, or in the continuing education office on the Durham Tech campus. A student may request a mail-in registration form by calling 598-9250.

Fees

Registration fees for continuing education courses range from \$10.00 up. The continuing education office should be contacted for the exact cost of each course offered. North Carolina residents 65 years of age or older and prison inmates are exempt from paying registration fees. Firemen, policemen, and rescue and lifesaving personnel enrolled in duty-related courses are also exempt from paying.

General Interest

Career Planning/Resume Writing
Estate Settlement
Contact Training
Typing
Automotive Mechanics
Woodworking
Income Tax Preparation
Spanish
Watercolor
Quilting
Human Relations
Communication Skills
Bookkeeping
Upholstery
Small Engine Repair
Sewing
Electronics
Gourmet Cooking

Special Courses for Older Adults

Financial Planning
Home Health Aids
Pre-retirement Planning
Nutrition Education
Science
Quilting
Acrylics
Creative Writing
Horticulture
Creative Arts and Crafts

Health Care Education

Allied Health Continuing Education
Emergency Medical Technician
First Aid and Cardiopulmonary Resuscitation (CPR)
Nursing Assistant
Nurses Continuing Education
Support Courses for Hospital and Nursing Home Employees

Police and Fire Science Courses

Basic Law Enforcement
Basic Fire Science
Customized Classes for City and Volunteer Firefighters
Fire Brigade for Business and Industry

Business and Industry Training

Supervisor Training

Time/Stress Management

Work Simplification

Secretarial Skills

Human Relations

Customized Computer Workshops

Air Conditioning Mechanics

*Customized Training for Maintenance, Technical,
and Support Personnel*

Basic Math

Basic Electronics

Adult Education

Durham Technical Institute offers five programs to adults who wish to begin, continue, or expand their educational background. Classes are offered at Durham Technical Institute or at conveniently located sites throughout Durham and Orange counties. There are no registration fees for the adult education classes.

Students may register at the first, second, or third sessions of an individual class or at any time at the Durham Tech Adult Education Center. Instructors will advise and counsel new students at the first class session attended. Additional information can be obtained by calling the Adult Education Office at 598-9226.

English as a Second Language

English as a Second Language is offered to persons 16 years or older whose native language is not English. Ranging from beginning to advanced levels of instruction, the program is designed to accommodate students with varied language proficiencies. Students may take a supplementary program, an intensive language program, or combine English as a Second Language classes concurrently with curriculum courses at the Institute.

Adult Basic Education

Adult Basic Education provides basic instruction in reading, writing, arithmetic, science, social studies, and consumer education to students who are 16 years old or older. Students using a variety of learning materials are encouraged to progress at their own pace. Upon obtaining an eighth grade competency in reading and math, students are encouraged to enter a high school program.

Adult High School Diploma

The Adult High School Diploma program is offered through a cooperative agreement between Durham Technical Institute and local school systems. The program allows students to complete a high school diploma based on 11 required academic units (4 English, 3 science, 2 history, and 2 math) and successful completion of the North Carolina Competency Test. Students who live in Durham city or county school districts must be 21 years old to enroll and students who live in Orange county must be 18 years old to enroll in this program. A copy of the student's transcript through the last date of public school attendance is required.

Eligible veterans may be certified by the veterans affairs office for 725 hours of laboratory study in preparation for the Adult High School Diploma.

High School Equivalency (GED)

The High School Equivalency program allows students to complete high school by successfully completing the General Education Development (GED) Exam. Students prepare for testing in English, social studies, science, reading, and mathematics. Those who pass the test are awarded the High School Diploma Equivalency. Appointments to take the test can be made by contacting the GED Testing Center. A fee of \$5.00 is charged. Students may take the test at Durham Technical Institute or at any of the testing sites throughout the state.

Eligible veterans may be certified by the veterans affairs office for 725 hours of laboratory study in preparation for the High School Diploma Equivalency.

Compensatory Education

Compensatory education courses are offered to mentally retarded adults in the areas of language, math, social science, health, consumer education, vocational education, and community living. These courses provide opportunities which enable the retarded adult to become more independent and self-directing; to benefit from occupational training; and to acquire skills to meet and manage work, community, social, and personal adult responsibilities. Most classes are offered through sheltered workshops or other facilities serving this special population. No registration fee is charged.

Programs of Study

Accounting
Architectural Drafting
Automotive Mechanics
Business Administration
Business Computer Programming
Criminal Justice
Dental Laboratory Technology
Digital Electronic Repair
Early Childhood Associate
Electronics Engineering Technology
Fire Protection Technology
General Education
General Office Technology
Industrial Electricity/Motors and Controls
Industrial Management Technology
Machinist
Microcomputer Applications Technology
Microelectronics Technology
Optical Laboratory Mechanics
Opticianry
Paralegal Technology
Pharmacy Technology
Practical Nursing
Residential Carpentry and Preservation
Respiratory Therapy
Respiratory Therapy Technician
Secretarial-Executive

Programs of study are subject to revision. Students should check with their advisers or program directors for up-to-date program requirements.

Accounting



Accounting is often considered "the language of business" because business events and transactions are recorded, classified, summarized, and interpreted in terms of money and in accordance with accounting principles and procedures. There are three major accounting fields: governmental accounting, private or industrial accounting, and public accounting.

Accounting is not routine clerical work, for the accountant must meet and talk with important executives. In addition to communicating clearly and effectively, the accountant must also be able to bring difficult problems to a satisfactory conclusion.

The Accounting program is designed to build a solid foundation through three courses in basic accounting principles and two courses in intermediate accounting. Beyond this foundation, advanced courses such as cost accounting, managerial accounting, auditing, theory, taxes, and statistics are required. Related courses in

English, business, and the social sciences are included to augment the accounting skills.

Accounting classes are offered during the day and evening. Selected courses are also offered on weekends. The day program can be completed in six quarters, while the evening program is nine quarters in duration. The associate degree is awarded upon successful completion of the program. Students may enroll any quarter.

Day Program 6 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	ACC 120	Accounting I	5	2	6
	EDP 103	Introduction to Microcomputers	3	2	4
	MAT 125	Math of Finance	5	0	5
	ENG 101	Communication Skills	3	0	3
2	ACC 121	Accounting II	5	2	6
	ACC 229	Taxes I	3	2	4
	BUS 101	Introduction to Business	5	0	5
	ENG 102	Communication Skills	3	0	3
		General Education Elective			
3	ACC 122	Accounting III	5	2	6
	ACC 230	Taxes II	3	2	4
	BUS 115	Business Law I	3	0	3
	ECO 102	Microeconomics	3	0	3
	ENG 103	Communication Skills	3	0	3
	General Education Elective				
4	ACC 225	Cost Accounting	3	2	4
	BUS 116	Business Law II	3	0	3
	MAT 221	Statistics	5	0	5
	ENG 203	Interpersonal Communications I	3	0	3
5	ACC 222	Intermediate Accounting I	5	2	6
	ACC 226	Managerial Accounting	5	2	6
	ACC 270	Accounting Seminar	1	0	1
	SEC 270	Business Communication	3	0	3
6	ACC 223	Intermediate Accounting II	5	2	6
	ACC 227	Accounting Theory	3	2	4
	ACC 233	Practical Applications in Accounting	1	4	3
	ACC 269	Auditing	3	2	4
	Technical Elective				
	Required Courses Credit Hours			103	
	General Education Electives Credit Hours			6	
	Technical Electives Credit Hours			3	
	Total Credit Hours Required for Graduation			112	

Evening Program 9 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	BUS 101	Introduction to Business	5	0	5
	MAT 125	Math of Finance	5	0	5
	ENG 101	Communication Skills	3	0	3
2	ACC 120	Accounting I	5	2	6
	EDP 103	Introduction to Microcomputers	3	2	4
	ENG 102	Communication Skills	3	0	3
3	ACC 121	Accounting II	5	2	6
	BUS 115	Business Law I	3	0	3
	ECO 102	Microeconomics	3	0	3
4	ACC 122	Accounting III	5	2	6
	ENG 103	Communication Skills	3	0	3
	Technical Elective				
5	ACC 225	Cost Accounting	3	2	4
	BUS 116	Business Law II	3	0	3
	MAT 221	Statistics	5	0	5
6	ACC 222	Intermediate Accounting I	5	2	6
	ACC 229	Taxes I	3	2	4
	ENG 203	Interpersonal Communications I	3	0	3
7	ACC 223	Intermediate Accounting II	5	2	6
	SEC 270	Business Communication	3	0	3
	General Education Elective				
8	ACC 226	Managerial Accounting	5	2	6
	ACC 230	Taxes II	3	2	4
	ACC 270	Accounting Seminar	1	0	1
		General Education Elective			
9	ACC 227	Accounting Theory	3	2	4
	ACC 233	Practical Applications in Accounting	1	4	3
	ACC 269	Auditing	3	2	4
	Required Courses Credit Hours			103	
	General Education Electives Credit Hours			6	
	Technical Electives Credit Hours			3	
	Total Credit Hours Required for Graduation			112	

Required Courses Credit Hours 103
 General Education Electives Credit Hours 6
 Technical Electives Credit Hours 3
 Total Credit Hours Required for Graduation 112

Architectural Drafting



A drafter is a highly skilled person able to take rough sketches or written information and use standard graphic practices to develop working drawings. Drafters work with architects, designers, engineers, planners, inventors, and other professionals who need their services.

An architectural drafter is a specialist who works with architects and transforms the architect's ideas and sketches into working drawings using traditional mediums and the computer. To do this, the architectural drafter studies the fundamentals of engineering, mechanics, materials, structures, survey-

ing, estimating, blueprint interpretation, and microcomputer operations and concentrates on their applications to architecture. Thus, the architectural drafter acquires a variety of skills ranging from developing site plans to developing a working knowledge of the local building codes.

The one-year Architectural Drafting program offers a broad range of courses in an intensive and demanding program of study. Emphasis is on the application of drawing skills, mechanical drafting skills, and computer graphics. Related courses in communication skills, mathematics, and physics are included in this study.

Job opportunities for architectural drafters in the Research Triangle area are excellent, and they are not limited to the architectural field. Many architectural drafters find challenging careers in contracting, estimating, building, inspection, interior design, surveying, technical illustrations, millwork, engineering, and related fields.

Architectural Drafting is a day program which is four quarters or one year in length. New students enroll in the fall quarter. A diploma in Architectural Drafting is awarded to students successfully completing the program.

Day Program 4 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	DFT 1101	Architectural Drafting I	3	12	7
	DFT 1112	Architectural Materials	3	0	3
	MAT 1101	Applied Mathematics	5	0	5
	ENG 1101	Communication Skills I	3	0	3
2	DFT 1102	Architectural Drafting II	3	12	7
	DFT 1111	Technical Drafting	3	3	4
	MAT 1103	Applied Mathematics	5	0	5
	ENG 1102	Communication Skills II	3	0	3
3	DFT 1103	Architectural Drafting III	3	12	7
	DFT 1113	Structural Drafting	3	3	4
	DFT 1117	Architectural Estimating	3	0	3
	EDP 103	Introduction to Microcomputers	3	2	4
	PHY 1111	Applied Science	3	2	4
4	DFT 205	Computer Graphics	2	3	3
	DFT 1104	Architectural Drafting IV	3	12	7
	DFT 1114	Technical Illustration	1	6	3
	DFT 1115	Surveying for Architectural Drafters	2	3	3

Required Courses Credit Hours 75

Automotive Mechanics



One out of every seven persons employed in the United States works in some type of automotive business; and automotive mechanics is the largest of the "repair" occupations. To understand the importance of the automotive mechanic, consider that there are more than one hundred fifty million cars, trucks, and buses operating in this country. These vehicles require maintenance, inspection, and repair.

Work as an auto mechanic varies in different shops. Some small shops provide a variety of services on all types of vehicles, while other small shops specialize in one or two areas of service. Larger garages often have several departments, and the mechanics within each department specialize. Some areas of specialization include repairing engines, electrical systems, transmissions, steering mechanisms, brakes, carburetors, and radiators.

The Automotive Mechanics program teaches students the skills needed to inspect, test, diagnose,

repair, and service automotive vehicles. Through class assignments, discussions, and practical lab experiences, the student gains an understanding of the operating principles involved in modern automobiles. The program also provides a basis for the student to compare and adapt new techniques in servicing and repairing vehicles as the techniques change year by year.

Day students enroll fall and spring quarters, and their program of study is four quarters. Evening students may elect to enroll in one or more of the available evening course options in Automotive Mechanics. Students successfully completing an Automotive Mechanics option (16 credit hours) are awarded a certificate of completion. Students successfully completing all requirements for the Automotive Mechanics day program are awarded a diploma.



Day Program 4 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	AUT 1101	Engine Theory and Minor Servicing	3	9	6
	AUT 1102	Electrical Systems	2	6	4
	DFT 103	Technical Drawing	2	3	3
	MAT 1101	Applied Mathematics	5	0	5
	ENG 1101	Communication Skills I	3	0	3
	2	AUT 1103	Fuel Injection Systems	2	6
AUT 1104		Tune-up and Ignition Diagnosis	2	3	3
AUT 1105		Emission Controls	2	3	3
AUT 1106		Engine Service and Repair	3	9	6
ENG 1102		Communication Skills II	3	0	3
3		AUT 1107	Brakes	2	6
	AUT 1108	Manual Transmissions and Power Trans	2	6	4
	AUT 1109	Steering and Suspension Systems	2	6	4
	PHY 1111	Applied Science	3	2	4
4	AUT 1110	Air Conditioning	2	3	3
	AUT 1111	Automatic Transmissions	2	6	4
	AUT 1112	Automotive Diagnosis and Servicing	2	6	4
	EDP 103	Introduction to Microcomputers	3	2	4

Required Courses Credit Hours 71

Evening Options

Engine Servicing 2 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	AUT 1101	Engine Theory and Minor Servicing	3	9	6
	AUT 1104	Tune-up and Ignition Diagnosis	2	3	3
2	AUT 1103	Fuel Injection Systems	2	6	4
	AUT 1105	Emission Controls	2	3	3

Required Courses Credit Hours 16

Chassis/Power Train Servicing 2 Quarters

1	AUT 1107	Brakes	2	6	4
	AUT 1108	Manual Transmissions and Power Trans	2	6	4
2	AUT 1109	Steering and Suspension Systems	2	6	4
	AUT 1111	Automatic Transmissions	2	6	4

Required Courses Credit Hours 16

Other course options may be offered according to student demand and available resources.

Business Administration



The Business Administration program is a two-year course of study leading to an Associate in Applied Science degree in Business Administration. To meet students' diverse needs, the full program is offered both day and evening. Selected courses are also offered on weekends. Class content is standardized to allow students maximum flexibility in scheduling. Students may attend day, evening, weekend, or a combination of classes. Selected classes from the Business Administra-

tion program are also offered at Northern High School in the fall, winter, and spring quarters.

Business Administration courses concentrate on the major functional areas in the business world; and the curriculum provides training in management, marketing, accounting, finance, and human resource management.

A student in Durham Technical Institute's Business Administration program receives comprehensive training in how to administer and manage. The basic principles of administration are applicable to almost any profession. Consequently, the Business Administration graduate would have the management skills necessary to function effectively in many different industries. A sampling of the graduates' positions shows they receive employment in the areas of banking and finance, insurance, retailing, real estate, sales, manufacturing, and many other fields. Graduates' employment histories confirm that graduates have the tools necessary for success in first-line administration and management.

The Business Administration program is six quarters in length for day students or nine quarters in length for evening students. New students may enroll any quarter.

Day Program 6 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	BUS 101	Introduction to Business	5	0	5
	ECO 102	Microeconomics	3	0	3
	SEC 101	Typewriting I	3	2	4
	MAT 110	Business Mathematics	5	0	5
	ENG 101	Communication Skills	3	0	3
2	BUS 239	Marketing	5	0	5
	ACC 120	Accounting I	5	2	6
	ECO 104	Macroeconomics	3	0	3
	ENG 102	Communication Skills	3	0	3
3	BUS 115	Business Law I	3	0	3
	BUS 232	Salesmanship	3	0	3
	ACC 121	Accounting II	5	2	6
	ENG 103	Communication Skills	3	0	3
		Technical Elective			
4	BUS 116	Business Law II	3	0	3
	BUS 123	Business Finance	3	0	3
	EDP 104	Introduction to Data Processing	5	0	5
	ENG 203	Interpersonal Communications I	3	0	3
		Technical Elective			
5	BUS 124	Personal Finance	3	0	3
	BUS 235	Small Business Management	3	0	3
	BUS 247	Business Insurance	3	0	3
	SEC 270	Business Communication	3	0	3
		Technical Elective			
		General Education Elective			
6	BUS 271	Office Management	3	0	3
	BUS 272	Principles of Supervision	3	0	3
	BUS 274	Labor Relations	3	0	3
	ACC 229	Taxes I	3	2	4
		Technical Elective			
	General Education Elective				
	Required Courses Credit Hours			91	
	General Education Electives Credit Hours			6	
	Technical Electives Credit Hours			15	
	Total Credit Hours Required for Graduation			112	

Evening Program 9 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	BUS 101	Introduction to Business	5	0	5
	MAT 110	Business Mathematics	5	0	5
	ENG 101	Communication Skills	3	0	3
2	BUS 239	Marketing	5	0	5
	SEC 101	Typewriting I	3	2	4
	ENG 102	Communication Skills	3	0	3
3	BUS 115	Business Law I	3	0	3
	ACC 120	Accounting I	5	2	6
	ECO 102	Microeconomics	3	0	3
4	ACC 121	Accounting II	5	2	6
	ECO 104	Macroeconomics	3	0	3
	ENG 103	Communication Skills	3	0	3
5	BUS 123	Business Finance	3	0	3
	ENG 203	Interpersonal Communications I	3	0	3
		Technical Elective General Education Elective			
6	BUS 116	Business Law II	3	0	3
	BUS 124	Personal Finance	3	0	3
	BUS 272	Principles of Supervision	3	0	3
	Technical Elective				
7	BUS 235	Small Business Management	3	0	3
	BUS 247	Business Insurance	3	0	3
	SEC 270	Business Communication	3	0	3
	Technical Elective				
8	BUS 232	Salesmanship	3	0	3
	ACC 229	Taxes I	3	2	4
	EDP 104	Introduction to Data Processing	5	0	5
9	BUS 271	Office Management	3	0	3
	BUS 274	Labor Relations	3	0	3
		General Education Elective			
	Required Courses Credit Hours			91	
	General Education Electives Credit Hours			6	
	Technical Electives Credit Hours			15	
	Total Credit Hours Required for Graduation			112	

Business Computer Programming



Computers have become important in contemporary life. We all have contact with computers through paychecks, bills, income tax forms, school registration forms, and grocery store check-out counters. Many business operations depend on computers. However, computers cannot do everything by themselves. They need people.

The primary objective of Business Computer Programming is to prepare individuals for employment as computer programmers. Programmers

write programs which are step-by-step instructions for a computer to follow in solving problems or in processing information.

Programmers must think logically and should enjoy solving problems. Accuracy and attention to detail are important in the computer programmer's work.

Business Computer Programming develops the student's understanding and skills in computer and systems theories, data processing techniques, logic, pseudocode, programming procedures, and computer languages. Students also have the opportunity to gain experience in writing computer programs with business applications such as billing, payroll, and inventory. Using computers to solve business problems is emphasized.

Knowledge of business operations is acquired through studying accounting, business statistics, and business electives.

Because communication is important in data processing, communication skills courses are included in the curriculum to increase the graduate's ability to convey ideas in both verbal and written forms.

Business Computer Programming is seven quarters in length for day students or eight quarters in length for evening students. New students may enroll any quarter. Graduates receive an Associate in Applied Science degree.

Day Program 7 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	EDP 104	Introduction to Data Processing	5	0	5
	EDP 106	Computer Programming Logic	2	2	3
	MAT 121	Algebra II	5	0	5
	ENG 101	Communication Skills	3	0	3
		General Education Elective			
2	EDP 109	BASIC Language I	3	2	4
	EDP 111	COBOL I	3	2	4
	MAT 137	Data Processing Mathematics	5	0	5
	ENG 102	Communication Skills	3	0	3
		Technical Elective			
3	EDP 112	COBOL II	3	2	4
	EDP 212	Assembler Language I	3	2	4
	ACC 120	Accounting I	5	2	6
	ENG 103	Communication Skills	3	0	3
4	EDP 210	PL/1 Programming	3	2	4
	EDP 214	COBOL Systems I	3	2	4
	ACC 121	Accounting II	5	2	6
	BUS 101	Introduction to Business	5	0	5
5	EDP 115	Pascal I	3	2	4
	EDP 201	Operating Systems and JCL	3	2	4
	ENG 207	Technical Communications	3	0	3
	Data Processing Elective				
6	EDP 215	COBOL Systems II	3	2	4
		Data Processing Elective			
		General Education Elective			
		Technical Elective			
7	EDP 216	Data Processing Project	1	10	2
		Data Processing Elective			
		Data Processing Elective			
		Technical Elective			

Required Courses Credit Hours	85
General Education Electives Credit Hours	6
Technical Electives Credit Hours	7
Data Processing Electives Credit Hours	16
Total Credit Hours Required for Graduation	114

Evening Program 8 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	EDP 104	Introduction to Data Processing	5	0	5
	EDP 106	Computer Programming Logic	2	2	3
	MAT 121	Algebra II	5	0	5
	ENG 101	Communication Skills	3	0	3
		General Education Elective			
2	EDP 109	BASIC Language I	3	2	4
	EDP 111	COBOL I	3	2	4
	MAT 137	Data Processing Mathematics	5	0	5
	General Education Elective				
3	EDP 112	COBOL II	3	2	4
	EDP 212	Assembler Language I	3	2	4
	ACC 120	Accounting I	5	2	6
4	EDP 210	PL/1 Programming	3	2	4
	ACC 121	Accounting II	5	2	6
	ENG 102	Communication Skills	3	0	3
5	EDP 214	COBOL Systems I	3	2	4
	BUS 101	Introduction to Business	5	0	5
	ENG 103	Communication Skills	3	0	3
		Technical Elective			
6	EDP 115	Pascal I	3	2	4
	EDP 201	Operating Systems and JCL	3	2	4
	ENG 207	Technical Communications	3	0	3
	Technical Elective				
7	EDP 215	COBOL Systems II	3	2	4
		Data Processing Elective			
		General Education Elective			
		Data Processing Elective			
8	EDP 216	Data Processing Project	1	10	2
		Data Processing Elective			
		Data Processing Elective			
		Technical Elective			

Required Courses Credit Hours	85
General Education Electives Credit Hours	6
Technical Electives Credit Hours	7
Data Processing Electives Credit Hours	16
Total Credit Hours Required for Graduation	114

Criminal Justice



The Criminal Justice program prepares the student for a career in law enforcement and investigation. The curriculum covers criminal procedure and focuses on developing skills in the application of legal elements, investigation techniques, interviewing and interrogation, report writing, courtroom evidence presentations, evidence collection, fingerprint classification and identification, rape crisis techniques, traffic accident investigation, crisis management, the application of civil law procedures, patrol operations, supervision, and management.

In addition to these skills, the program also emphasizes practical skills dealing with the complex social, psychological, political, and organizational factors which affect the discretionary decisions law enforcement personnel make. This blend of specific skills and informed perspectives prepares the graduate to make the difficult decisions often required when enforcing the law and serving the broader needs of the community.

The curriculum operates days and evenings and is seven quarters long. An Associate in Applied Science degree is awarded in Criminal Justice. New students may enroll any quarter.

Day and Evening Program 7 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	CJC 101	Introduction to Criminal Justice	5	0	5
	CJC 115	Criminal Procedure	5	0	5
	PSY 100	Introduction to General Psychology	3	0	3
	ENG 101	Communication Skills	3	0	3
2	CJC 102	Criminology	5	0	5
	CJC 110	Juvenile Delinquency	5	0	5
	MAT 123	College Mathematics	5	0	5
	ENG 102	Communication Skills	3	0	3
3	CJC 201	Motor Vehicle Law	5	0	5
	CJC 217	Patrol Procedures	5	0	5
	EDP 103	Introduction to Microcomputers	3	2	4
	ENG 103	Communication Skills	3	0	3
4	CJC 216	Criminal Law	5	0	5
	CJC 125	Judicial Systems	5	0	5
	CJC 210	Criminal Investigation	5	0	5
	CJC 220	Police Administration	5	0	5
5	CJC 202	Accident Investigation	3	2	4
	CJC 212	Drugs	5	0	5
	ENG 203	Interpersonal Communications I	3	0	3
6	CJC 151	Psychology of Stress	5	0	5
	CJC 205	Evidence	5	0	5
	ENG 220	Critical Thinking and Writing	3	0	3
7	CJC 211	Criminalistics	5	0	5
	CJC 230	Supervision	5	0	5
	CJC 270	Constitutional Law	5	0	5

Required Courses Credit Hours 111

Electives Credit Hours 6

Total Credit Hours Required for Graduation 117

Dental Laboratory Technology



The Dental Laboratory Technology program teaches the techniques and skills for fabricating artificial dental restorations as prescribed by a licensed practicing dentist and enables the graduate to function effectively in the dental laboratory.

Using specialized hand instruments and equipment and materials such as gypsum, waxes, acrylics, ceramics, and precious and non-precious metals, the dental laboratory technician fabricates complete and partial dentures, crowns, bridges, and orthodontic appliances.

Dental laboratory technicians perform a variety of laboratory procedures. Many are specialists in crowns and bridges, dentures, and dental ceramics. The dental technician may be employed by dentists, commercial dental laboratories, schools of dentistry, or Veterans Administration hospitals. Companies manufacturing dental materials and equipment also employ technicians as sales representatives.

This curriculum includes courses in complete and partial denture techniques, crown and bridge techniques, ceramics, orthodontics, and maxillofacial techniques. Students gain practical experience during their sixth and seventh quarters of study when they are introduced to actual laboratory work by using prescriptions from various legal sources.

Durham Technical Institute's associate degree program is seven quarters in length. The program is accredited by the American Dental Association. A new class begins in the fall quarter.

Day Program 7 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	DEN 101	Dental Anatomy	2	9	5
	DEN 104	Dental Materials	2	6	4
	DEN 106	Complete Denture Techniques	1	6	3
	SCI 150	Physical Science for Dental Technicians	5	2	6
2	DEN 102	Oral Anatomy and Physiology	2	0	2
	DEN 107	Complete Denture Techniques	1	9	4
	DEN 111	Dental Metallurgy	2	0	2
	DEN 113	Cast Inlay and Crown Techniques	2	9	5
	ENG 101	Communication Skills	3	0	3
3	DEN 108	Partial Denture Techniques	2	9	5
	DEN 115	Crown and Bridge Techniques	1	9	4
	MAT 110	Business Mathematics	5	0	5
	ENG 102	Communication Skills	3	0	3
4	DEN 109	Partial Denture Techniques	1	12	5
	DEN 116	Crown and Bridge Techniques	1	12	5
	ENG 103	Communication Skills	3	0	3
5	DEN 201	Advanced Complete Denture Techniques	2	12	6
	DEN 204	Partial Denture Techniques	2	6	4
	DEN 207	Ceramic Techniques	2	9	5
		General Education Elective			
6	DEN 205	Advanced Partial Denture Techniques	1	9	4
	DEN 211	Ceramic Techniques	2	6	4
	DEN 213	Dental Laboratory Practice	1	6	3
		General Education Elective			
7	DEN 209	Jurisprudence and Ethics Seminar	3	0	3
	DEN 212	Advanced Ceramic Techniques	2	12	6
	DEN 214	Advanced Dental Laboratory Practice	1	6	3
	ENG 203	Interpersonal Communications I	3	0	3

Required Courses Credit Hours 105
 General Education Electives Credit Hours 6

Total Credit Hours Required for Graduation 111

Digital Electronic Repair



Computers and digital devices touch our lives almost constantly in today's high technology environment. The cash register at the supermarket, the traffic light on the street, and the computer which calculates our paychecks are only a few of the digital devices and systems surrounding us.

The Digital Electronic Repair curriculum provides training in basic electricity and electronics, digital electronics, and troubleshooting techniques. This program teaches the technical knowledge and mechanical skills necessary to locate a defective circuit board in a computer and to replace defective components on the circuit board.

Courses introducing business communication skills and general psychology round out the Digital Electronic Repair curriculum. Such courses complement the technical knowledge and mechanical skills necessary for the student desiring a career in the computer industry as a troubleshooter or maintenance person.

New students enroll in the fall quarter. Graduates of this four-quarter program receive a diploma.

Day Program 4 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	ELC 1101	Introduction to Electricity	4	6	6
	EDP 103	Introduction to Microcomputers	3	2	4
	MAT 1101	Applied Mathematics	5	0	5
	ENG 1101	Communication Skills I	3	0	3
2	ELN 1010	Solid State Circuits/Applications	4	6	6
	BUS 101	Introduction to Business	5	0	5
	MAT 1103	Applied Mathematics	5	0	5
	ENG 1102	Communication Skills II	3	0	3
3	ELN 1020	Digital Electronics	4	6	6
	ELN 1030	Microprocessor Fundamentals	4	6	6
	PHY 1111	Applied Science	3	2	4
4	ELN 1040	Electronic Systems Troubleshooting and Repair	4	6	6
	ELN 1050	Computer Systems Troubleshooting	4	6	6
	PSY 100	Introduction to General Psychology	3	0	3

Required Courses Credit Hours 68

Early Childhood Associate



The Early Childhood Associate program is designed for individuals interested in working with infants and young children. With the increasing number of preschool children requiring day care and with the increasing awareness of the role early experiences play in shaping a child's future behavior, attitudes, and abilities, the need for trained child-care specialists has risen dramatically. The specialist's role is to meet the developmental needs of the individual child. A source of warmth and security to the child, the specialist is an organizer of the environment and a facilitator of learning. In this pro-

gram, classroom learning and fieldwork experiences are integrated to provide the student with the training needed to function effectively as a child-care specialist.

The Early Childhood Associate program provides training for persons who are beginning careers in day care or who are working with young children and would like to increase their professional skills or who would like to start their own day-care centers or homes. Teachers' aides, parents, and students planning to transfer to senior institutions also benefit from the curriculum. Classes are taught during the afternoon and evening to accommodate employees of schools and day-care centers. Persons may enroll as full-time or part-time students any quarter.

Graduates of the six-quarter program receive an Associate in Applied Science degree in Child Development.



Afternoon and Evening Program 6 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	EDU 115	Introduction to Child Care	4	0	4
	EDU 118	Family Involvement	1	0	1
	EDU 125	Physical Development I	3	0	3
	EDP 103	Introduction to Microcomputers	3	2	4
	ENG 101	Communication Skills	3	0	3
	ENG 203	Interpersonal Communications I	3	0	3
	2	EDU 111	Emotional Development I	3	0
EDU 121		Social Development I	3	0	3
EDU 126		Physical Development II	4	0	4
MAT 123		College Mathematics	5	0	5
ENG 102		Communication Skills	3	0	3
3		EDU 112	Emotional Development II	4	0
	EDU 122	Social Development II	4	0	4
	EDU 130	Cognitive Development I	5	0	5
	PSY 100	Introduction to Psychology	3	0	3
	ENG 103	Communication Skills	3	0	3
	4	EDU 131	Cognitive Development II	5	0
EDU 201		Language Development I	5	0	5
HEA 101		Child Care Safety	3	0	3
HEA 102		Child Care Health	3	0	3
ENG 215		Voice and Diction	3	0	3
5		EDU 202	Language Development II	5	0
	EDU 206	Adjustment Problems	3	0	3
	EDU 215	Child Care Applications I	5	10	6
	SOC 100	Introduction to Sociology	3	0	3
		Elective			
6	EDU 216	Child Care Applications II	5	20	7
	SOC 290	Marriage and Family	3	0	3
		Elective			

Required Courses Credit Hours	101
Electives Credit Hours	6
Total Credit Hours Required for Graduation	107

Electronics Engineering Technology



We live in a world of electronics. From electronic garage door openers and videotape recorders in the home to space satellites relaying radio and television programs from continent to continent, the field of electronics has a profound influence on the way we live and work. The electronic computer is affecting the world of business and industry.

Medical electronics is a new frontier with a growing number of devices used for diagnostic purposes. The space program depends on electronics. Electronics is a diverse and challenging field which continues to grow. Because of rapid expansion

and growth, opportunities for careers in the electronics field are excellent.

The Electronics Engineering Technology program provides a theoretical and practical base for electronics technicians who may work as assistants to engineers or as liaisons between engineers and skilled craftspersons. Electronics technicians apply their technological skills to problems related to the design, development, installation, operation, maintenance, and repair of electronic equipment and systems.

Unique features of this program include additional course offerings in digital and linear integrated circuits, microelectronics, microprocessor technology and applications, and computer BASIC programming. Curriculum courses are offered in the day and evening.

New students enroll for the fall quarter. Graduates of the two-year program receive an associate degree. While graduates are prepared for employment in the electronics field, those who desire additional education may transfer their Durham Tech credits to a number of universities to be applied toward Bachelor of Technology degrees.

Pre-Electronics Engineering Technology 2 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	MAT 120	Algebra I	5	0	5
2	ELC 100	Basic Electricity	5	2	6
	MAT 121	Algebra II	5	0	5

Day Program 8 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	ELN 101	DC Circuit Analysis	4	6	7
	MAT 160	Linear Algebra	5	0	5
	ENG 101	Communication Skills	3	0	3
2	ELN 102	AC Circuit Analysis	4	6	7
	MAT 161	Trigonometry	5	0	5
	ENG 102	Communication Skills	3	0	3
3	ELN 103	Mechanical Processes for Electronics	1	3	2
	ELN 105	Introduction to Active Devices	4	4	6
	MAT 162	Nonlinear Algebra and Logic	5	0	5
4	ELN 205	Application of Active Devices I	4	4	6
	EDP 109	BASIC Language I	3	2	4
	ENG 203	Interpersonal Communications I General Education Elective	3	0	3
5	ELN 216	Pulse and Waveshaping Circuits	4	4	6
	ELN 218	Application of Active Devices II	4	4	6
	ENG 207	Technical Communications	3	0	3
6	ELN 219	Linear Integrated Circuits	4	4	6
	ELN 240	Digital Electronics	4	6	7
	DFT 103	Technical Drawing General Education Elective	2	3	3
7	ELN 270	Microprocessor Fundamentals	4	6	7
	DFT 201	Electronic Drafting	1	3	2
	PHY 260	Physics	4	2	5
8	ELN 201	Construction of Electronic Devices	1	6	3
	ELN 280	Microprocessor Applications	3	6	6
	PHY 261	Physics	4	2	5
Required Courses Credit Hours			115		
General Education Electives Credit Hours			6		
Total Credit Hours Required for Graduation			121		

Evening Program 9 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	ELN 101	DC Circuit Analysis	4	6	7
	MAT 160	Linear Algebra	5	0	5
	ENG 101	Communication Skills	3	0	3
2	ELN 102	AC Circuit Analysis	4	6	7
	MAT 161	Trigonometry	5	0	5
	ENG 102	Communication Skills	3	0	3
3	ELN 105	Introduction to Active Devices	4	4	6
	MAT 162	Nonlinear Algebra and Logic	5	0	5
	ENG 203	Interpersonal Communications I	3	0	3
4	ELN 103	Mechanical Processes for Electronics	1	3	2
	ELN 205	Application of Active Devices I	4	4	6
	EDP 109	BASIC Language I	3	2	4
5	ELN 216	Pulse and Waveshaping Circuits	4	4	6
	ELN 218	Application of Active Devices II	4	4	6
6	ELN 219	Linear Integrated Circuits	4	4	6
	ELN 240	Digital Electronics	4	6	7
7	ELN 270	Microprocessor Fundamentals	4	6	7
	DFT 103	Technical Drawing	2	3	3
	ENG 207	Technical Communications	3	0	3
8	ELN 280	Microprocessor Applications	3	6	6
	DFT 201	Electronic Drafting	1	3	2
	PHY 260	Physics	4	2	5
9	ELN 201	Construction of Electronic Devices	1	6	3
	PHY 261	Physics	4	2	5
	General Education Elective General Education Elective				
Required Courses Credit Hours			115		
General Education Electives Credit Hours			6		
Total Credit Hours Required for Graduation			121		

Required Courses Credit Hours 115
 General Education Electives Credit Hours 6
 Total Credit Hours Required for Graduation 121

Fire Protection Technology



The Fire Protection Technology program provides learning experiences which enable the student to understand municipal fire protection problems and to apply this knowledge in an effective and economical way. The program also enables the Fire Protection Technology graduate to make proper decisions while on and off the emergency fire scene. Work in fire protection requires intelligent, courageous, dedicated individuals willing to keep pace with rapid technical change.

Through classroom and laboratory exercises, the student is introduced to various fire service hazards, fire prevention problems, and fire service administrative problems. The student is taught numerous skills which may include figuring pump hydraulics, investigating arson scenes, fire-fighting strategies, grading fire defenses, and municipal fire administration.

Emphasis is also on utilizing funds, equipment, and manpower needed to provide efficient and economical fire protection. Specific competencies for performing fire service administrative and supervisory duties are included in the curriculum.

Fire Protection Technology classes are taught in the evenings at the Durham Public Safety Academy. Students may enroll any quarter. Graduates of the seven-quarter program receive an associate degree.

Evening Program 7 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	FIP 101	Introduction to Fire Protection	3	0	3
	FIP 201	Arson Investigation	5	0	5
	PSY 100	Introduction to General Psychology	3	0	3
	ENG 101	Communication Skills	3	0	3
2	FIP 104	Building Construction for the Fire Service	3	0	3
	FIP 211	Grading Fire Defenses	3	0	3
	FIP 225	Fire Law	5	0	5
	MAT 123	College Mathematics	5	0	5
	ENG 102	Communication Skills	3	0	3
3	FIP 230	Hydraulics	5	0	5
	FIP 231	Sprinkler and Standpipe Systems	3	0	3
	EDP 103	Introduction to Microcomputers	3	2	4
	ENG 103	Communication Skills	3	0	3
		Elective			
4	FIP 115	Fire Prevention	3	0	3
	FIP 235	Fire Inspection	3	0	3
	CHM 150	Chemistry for Fire Science	3	2	4
	EDU 135	Methods of Instruction	3	2	4
5	FIP 218	Hazardous Materials	3	2	4
	FIP 250	Municipal Fire Administration I	5	0	5
	FIP 290	Master Planning	5	0	5
	ENG 203	Interpersonal Communications I	3	0	3
6	FIP 220	Fire Strategy	3	2	4
	FIP 251	Municipal Fire Administration II	5	0	5
	FIP 260	Decision Analysis	5	0	5
	ENG 220	Critical Thinking and Writing	3	0	3
7	FIP 221	Advanced Fire Strategy	3	2	4
	FIP 252	Municipal Fire Administration III	5	0	5
	CJC 230	Supervision	5	0	5
	POL 171	State and Local Government	3	0	3
		Elective			

Required Courses Credit Hours 113

Electives Credit Hours 6

Total Credit Hours Required for Graduation 119

General Education



The General Education program provides personal enrichment and intellectual growth as well as an opportunity to transfer credits to colleges and universities affiliated with Durham Technical Institute. The two-year program of study includes English and literature, fine arts, social sciences, mathematics, and physical sciences. Exposure to the liberal arts provides a common core of experience for all General Education students.

General Education curriculum graduates may transfer to designated senior colleges and universities. Durham Technical Institute has transfer agreements with the following senior institutions: Atlantic Christian College, Campbell University, East Carolina University,

North Carolina Central University, North Carolina Wesleyan College, and Winston-Salem State University. Credits earned at Durham Technical Institute may transfer to other colleges and universities; however, the student should be advised by the senior institution concerning the transferability of courses.

Durham Technical Institute's counseling staff members assist students with information about senior institutions and admission procedures. Identifying educational goals and selecting courses to fulfill those goals can be an important part of a student's program.

New students may enroll any quarter. The program is available during the day and is six quarters in length. Successful completion of this program leads to an Associate in General Education degree.



Day Program 6 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	ART 101	Art Appreciation	3	0	3
	HIS 101	Western Civilization I	3	0	3
	PHI 101	Introduction to Philosophy	3	0	3
	MAT 120	Algebra I	5	0	5
	ENG 106	Composition I	3	0	3
2	BIO 101	General Biology I	3	2	4
	HIS 102	Western Civilization II	3	0	3
	MUS 101	Music Appreciation	3	0	3
	MAT 121	Algebra II	5	0	5
	ENG 107	Composition II	3	0	3
3	BIO 102	General Biology II	3	2	4
	HIS 103	Western Civilization III	3	0	3
	ENG 108	Composition III	3	0	3
	ENG 203	Interpersonal Communications I Elective	3	0	3
4	ECO 102	Microeconomics	3	0	3
	PSY 100	Introduction to General Psychology	3	0	3
	ENG 211	World Literature I Elective	3	0	3
5	ECO 104	Macroeconomics	3	0	3
	SOC 100	Principles of Sociology	3	0	3
	ENG 212	World Literature II Elective	3	0	3
6	POL 190	United States Government	3	0	3
	ENG 204	Introduction to Public Speaking	3	0	3
	ENG 213	World Literature III Elective	3	0	3

Required Courses	Credit Hours	75
Electives	Credit Hours	21

Total Credit Hours Required for Graduation 96

General Office Technology



The General Office Technology program is designed to present options for the office employee. Employment skills are developed for positions such as word processor, clerk-typist, machine dictation transcriber, and records clerk.

The student learns the accepted office procedures required by business, industrial, medical, and professional areas. This special training is supplemented by related courses in English, mathematics, personal devel-

opment, accounting, business administration, and data processing.

The associate degree earned after gaining proficiency in the above mentioned skills enhances employment placement opportunities. Also, it adds a measure of prestige unavailable to the office worker in similar office occupational programs.

New students may enroll any quarter. The day program is six quarters in length, and the evening program is nine quarters in length.

Day Program 6 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	SEC 101	Typewriting I	3	2	4
	SEC 109	Personal Development	3	0	3
	BUS 101	Introduction to Business	5	0	5
	MAT 110	Business Mathematics	5	0	5
	ENG 101	Communication Skills	3	0	3
2	SEC 102	Typewriting II	2	3	3
	ACC 120	Accounting I	5	2	6
	ENG 102	Communication Skills	3	0	3
		Technical Elective			
		General Education Elective			
3	SEC 103	Typewriting III	2	3	3
	SEC 115	Records Management	3	2	4
	ENG 103	Communication Skills	3	0	3
		Technical Elective			
		General Education Elective			
4	SEC 201	Typewriting IV	2	3	3
	SEC 230	Machine Dictation and Transcription	3	2	4
	BUS 271	Office Management	3	0	3
	EDP 104	Introduction to Data Processing	5	0	5
	ENG 215	Voice and Diction	3	0	3
5	SEC 204	Simulated Office Application	2	3	3
	SEC 231	ABC Shorthand	3	2	4
	SEC 260	Word Processing I	3	2	4
	SEC 280	Office Procedures	3	2	4
		Technical Elective			
6	SEC 232	ABC Shorthand Dictation and Transcription	3	2	4
	SEC 261	Word Processing II	3	2	4
	SEC 270	Business Communication	3	0	3
	SEC 290	Work Experience	1	20	3
		Technical Elective			
	Required Courses Credit Hours			89	
	General Education Electives Credit Hours			6	
	Technical Electives Credit Hours			10	
	Total Credit Hours Required for Graduation			105	

Evening Program 9 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	SEC 101	Typewriting I	3	2	4
	SEC 109	Personal Development	3	0	3
	ENG 101	Communication Skills	3	0	3
2	SEC 102	Typewriting II	2	3	3
	BUS 101	Introduction to Business	5	0	5
	MAT 110	Business Mathematics	5	0	5
3	ACC 120	Accounting I	5	2	6
	ENG 102	Communication Skills	3	0	3
		Technical Elective			
4	SEC 103	Typewriting III	2	3	3
	SEC 115	Records Management	3	2	4
	ENG 103	Communication Skills	3	0	3
		General Education Elective			
5	SEC 201	Typewriting IV	2	3	3
	ENG 215	Voice and Diction	3	0	3
		Technical Elective			
		General Education Elective			
6	SEC 230	Machine Dictation and Transcription	3	2	4
	BUS 271	Office Management	3	0	3
	EDP 104	Introduction to Data Processing	5	0	5
7	SEC 204	Simulated Office Application	2	3	3
	SEC 231	ABC Shorthand	3	2	4
	SEC 260	Word Processing I	3	2	4
	SEC 280	Office Procedures	3	2	4
		Technical Elective			
8	SEC 232	ABC Shorthand Dictation and Transcription	3	2	4
	SEC 261	Word Processing II	3	2	4
	SEC 270	Business Communication	3	0	3
		Technical Elective			
9	SEC 290	Work Experience	1	20	3
	Required Courses Credit Hours			89	
	General Education Electives Credit Hours			6	
	Technical Electives Credit Hours			10	
	Total Credit Hours Required for Graduation			105	

Industrial Electricity/Motors and Controls



The Industrial Electricity/Motors and Controls program provides training in the fundamentals and practices of electrical trades. Classroom and laboratory experiences enable the student to become proficient in installing and maintaining electrical wiring and electrical devices such as motors, lighting fixtures, and switching and control equipment in residential, commercial, industrial, and other institutional settings.

Classroom instruction includes the National Electrical Code regulations, calculations related to wiring installations, electrical circuits, measurement voltage, current, power, and power factor of single polyphase alternating circuits. The graduate gains a basic knowledge of motors, control systems, industrial electronic control systems, and programmable control systems.

To provide maximum flexibility in the Industrial Electricity/Motors and Controls program, evening courses are offered in options. A student wishing to receive a diploma in Industrial Electricity/Motors and Controls must complete all three options and DFT 103, PHY 1111, MAT 1101, MAT 1103, ENG 1101, and ENG 1102.

The program is four quarters in length for day students. New students enroll in the fall quarter. Graduates receive a diploma.

Day Program 4 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	ELC 1101	Introduction to Electricity	4	6	6
	DFT 103	Technical Drawing	2	3	3
	MAT 1101	Applied Mathematics	5	0	5
	ENG 1101	Communication Skills I	3	0	3
2	ELC 1102	Electrical Wiring I	4	6	6
	ELC 1103	AC, Motor, and Transformer Theory	4	6	6
	MAT 1103	Applied Mathematics	5	0	5
	ENG 1102	Communication Skills II	3	0	3
3	ELC 1104	Electrical Wiring II	4	6	6
	ELC 1105	Electrical Control Systems	4	6	6
	ELC 1106	Blueprint Reading and NEC Calculations	5	0	5
	PHY 1111	Applied Science	3	2	4
4	ELC 1109	Maintenance and Troubleshooting	3	3	4
	ELC 1110	Electronic Control Systems	4	6	6
	ELN 1101	Industrial Electronic Systems	3	6	5
Required Courses Credit Hours			73		

Evening Options

Construction Electrician 2 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	ELC 1101	Introduction to Electricity	4	6	6
	ELC 1102	Electrical Wiring I	4	6	6
2	ELC 1104	Electrical Wiring II	4	6	6
	ELC 1106	Blueprint Reading and NEC Calculations	5	0	5
Required Courses Credit Hours					23

Maintenance Electrician 2 Quarters

1	ELC 1101	Introduction to Electricity	4	6	6
	ELC 1105	Electrical Control Systems	4	6	6
2	ELC 1103	AC, Motor, and Transformer Theory	4	6	6
	ELC 1109	Maintenance and Troubleshooting	3	3	4
Required Courses Credit Hours					22

Motor Control Electrician 1 Quarter

1	ELC 1110	Electronic Control Systems	4	6	6
	ELN 1101	Industrial Electronic Systems	3	6	5
Required Courses Credit Hours					11

Industrial Management Technology



The Industrial Management Technology program provides individuals with the competencies needed to function effectively in supervisory and middle-management positions in today's computer-oriented work centers. Training is provided in three primary areas of management responsibility: personal management, personnel management, and resource management. Using case problems and on-site projects at local industries and businesses, the Industrial Management Technology program gives the student practical, hands-on experiences to complement classroom instruction.

In addition to preparing the individual to enter supervisory or middle-management positions, this curriculum provides an educational program for upgrading or retraining and provides an opportunity for the individual seeking to fulfill professional

or general interest needs. The program combines business and industrial management courses with related courses in communications, finance, mathematics, drafting, and microcomputer applications.

The Industrial Management Technology program is offered during the evening and is nine quarters long. Students may enroll any quarter. Graduates receive an Associate in Applied Science degree.



Evening Program 9 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	ISC 120	Principles of Industrial Management	5	0	5
	MAT 120	Algebra I	5	0	5
	ENG 101	Communication Skills	3	0	3
<hr/>					
2	ISC 132	Job Analysis and Evaluation	3	2	4
	MAT 121	Algebra II	5	0	5
	ENG 102	Communication Skills	3	0	3
<hr/>					
3	ISC 130	Industrial Safety	3	0	3
	MAT 221	Statistics	5	0	5
	ENG 207	Technical Communications	3	0	3
		General Education Elective			
<hr/>					
4	ISC 134	Manufacturing Materials	3	0	3
	ISC 226	Production Planning and Control	3	2	4
	ISC 232	Quality Control	3	2	4
<hr/>					
5	ISC 231	Manufacturing Processes	5	0	5
	EDP 103	Introduction to Microcomputers	3	2	4
	ENG 203	Interpersonal Communications I	3	0	3
<hr/>					
6	ISC 214	Work Measurement	5	2	6
	BUS 272	Principles of Supervision	3	0	3
	PSY 100	Introduction to General Psychology	3	0	3
<hr/>					
7	ISC 234	Industrial Automation and Robotics	3	0	3
	ISC 236	Plant Layout	3	2	4
	DFT 103	Technical Drawing	2	3	3
		Technical Elective			
<hr/>					
8	ISC 203	Methods Time Measurement (MTM)	5	2	6
	ACC 240	Budget Management	5	2	6
<hr/>					
9	BUS 233	Personnel Management	3	0	3
	BUS 274	Labor Relations	3	0	3
	DFT 205	Computer Graphics	2	3	3
		Technical Elective			

Required Courses Credit Hours	102
General Education Electives Credit Hours	3
Technical Electives Credit Hours	6

Total Credit Hours Required for Graduation 111

Machinist



A machinist is a skilled crafts-person who shapes metal by using machine tools and hand tools. To make precision parts from metal, a machinist selects the proper tools and materials to cut and shape metal to meet size specifications as found on a blueprint or in written specifications.

Durham Technical Institute's Machinist program enables an individual to acquire the basic skills necessary to become a machinist. The student learns to set up and operate the various machine tools found in a

modern shop, to read blueprints, and to make calculations required to produce precision parts. In addition to using machine tools, the machinist must be able to use instruments to measure the accuracy of work and must also know the characteristics of various metals.

By developing machinist skills, an individual can open the door to a career with job security and good earning potential. Currently, the demand for machinists is high. New and expanding industries in the Triangle area need skilled machinists, and the demand for machinists is expected to continue to grow. Precision is the key to the work of a machinist. The challenge of creating precision metal parts can provide a rewarding career.

New students may enroll any quarter. The day program is four quarters in length and the evening program is eight quarters in length. Graduates receive a diploma.



Day Program 4 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	MEC 1101	Machine Shop Theory and Practice	2	6	4
	MEC 1102	Machine Shop Theory and Practice	2	6	4
	DFT 103	Technical Drawing	2	3	3
	MAT 1101	Applied Mathematics	5	0	5
	ENG 1101	Communication Skills I	3	0	3
	2	MEC 1103	Machine Shop Theory and Practice	2	6
MEC 1104		Machine Shop Theory and Practice	2	6	4
DFT 1106		Blueprint Reading I: Mechanical	3	0	3
MAT 1103		Applied Mathematics	5	0	5
ENG 1102		Communication Skills II	3	0	3
3		MEC 1105	Machine Shop Theory and Practice	2	6
	MEC 1106	Machine Shop Theory and Practice	2	6	4
	DFT 1107	Blueprint Reading II: Mechanical	3	0	3
	PHY 1111	Applied Science	3	2	4
	MAT 1123	Machinist Mathematics	5	0	5
	4	MEC 1107	Machine Shop Theory and Practice	2	6
MEC 1108		Machine Shop Theory and Practice	2	6	4
MEC 1109		Fundamentals of Computer Numerical Control	1	3	2
MEC 1119		Applied Metallurgy	2	3	3

Required Courses Credit Hours 71

Evening Program 8 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	MEC 1101	Machine Shop Theory and Practice	2	6	4
	MAT 1101	Applied Mathematics	5	0	5
	ENG 1101	Communication Skills I	3	0	3
2	MEC 1102	Machine Shop Theory and Practice	2	6	4
	DFT 103	Technical Drawing	2	3	3
3	MEC 1103	Machine Shop Theory and Practice	2	6	4
	DFT 1106	Blueprint Reading I: Mechanical	3	0	3
	ENG 1102	Communication Skills II	3	0	3
4	MEC 1104	Machine Shop Theory and Practice	2	6	4
	MAT 1103	Applied Mathematics	5	0	5
5	MEC 1105	Machine Shop Theory and Practice	2	6	4
	DFT 1107	Blueprint Reading II: Mechanical	3	0	3
	PHY 1111	Applied Science	3	2	4
6	MEC 1106	Machine Shop Theory and Practice	2	6	4
	MAT 1123	Machinist Mathematics	5	0	5
7	MEC 1107	Machine Shop Theory and Practice	2	6	4
	MEC 1119	Applied Metallurgy	2	3	3
8	MEC 1108	Machine Shop Theory and Practice	2	6	4
	MEC 1109	Fundamentals of Computer Numerical Control	1	3	2

Required Courses Credit Hours 71

Microcomputer Applications Technology



The advent of low-cost, powerful microcomputers has brought hundreds of small companies in our geographic area into the computer age. Many of these companies seek qualified microcomputer specialists to help select hardware and software, train personnel, and convert manual systems to computer applications. In addition, large companies are placing microcomputers on the desks of professional and administrative staff members. Users need training

to interface these systems with mainframes. The Microcomputer Applications Technology program trains students in the skills needed to fill these key positions.

Course work focuses on several microcomputer programming languages, a current data base management system for microcomputers, and the industry standard in spreadsheet. The emerging techniques for networking microcomputers, interfacing with mainframes, and the capabilities of various operating systems are taught along with the skills to manage a microcomputer system.

Recognizing the dynamic nature of the field, the Microcomputer Applications Technology program offers courses which are continually updated to reflect current market usage so as to ensure state-of-the-art competencies.

New students may enroll any quarter upon satisfactory completion of an entrance test. The program of study is five quarters in length. Day and evening classes are available. Graduates receive a diploma.

Day and Evening Program 5 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	EDP 103	Introduction to Microcomputers	3	2	4
	SEC 260	Word Processing I	3	2	4
	MAT 137	Data Processing Mathematics	5	0	5
	ENG 101	Communication Skills	3	0	3
2	EDP 109	BASIC Language I	3	2	4
	ACC 120	Accounting I	5	2	6
	EDP 205	Integrated Software Packages	3	2	4
	ENG 207	Technical Communications	3	0	3
3	EDP 110	BASIC Language II	3	2	4
	EDP 115	Pascal I	3	2	4
	EDP 140	Microcomputer Operating Systems	3	2	4
	BUS 115	Business Law	3	0	3
4	EDP 116	Pascal II	3	2	4
	EDP 180	Microcomputer Data Base Management	3	2	4
	EDP 218	Microcomputer Hardware and Networking	2	3	3
		General Education Elective			
5	EDP 182	C Programming Language	3	2	4
	EDP 225	Developing Microcomputer Applications	1	4	3
	EDP 228	Managing Microcomputer Systems	2	3	3
	Required Courses	Credit Hours	69		
	General Education Elective	Credit Hours	3		
	Total Credit Hours Required for Graduation				72

Microelectronics Technology



Microelectronics focuses on smaller and smaller electronic components performing increasingly complex electronic functions at constantly increasing speeds and decreasing costs. In fact, most technological advances during the past decade have depended largely on microelectronic applications. Small, reliable microelectronic sensing and control devices are essential elements in products ranging from communications satellites and point-of-sale terminals in supermarkets to video games and digital watches. A microprocessor ("computer on a chip"), for example, can provide a machine with basic decision-making ability, memory for instructions, and self-adjusting controls. The microelectronics revolution has had a major impact on every segment of our economy.

The Microelectronics Technology program provides the student with a comprehensive working knowledge of semiconductor manufacturing processes, electronic theory and practical applications, and scientific laboratory skills. Classroom instruction includes courses in digital electronics, semiconductor physics, semiconductor device analysis and layout, microprocessor fundamentals, and computer graphics.

In the semiconductor lab, students are introduced to the practice of basic scientific laboratory skills, experimental procedures, semiconductor lab measurements, data analysis, quality control, and detailed record-keeping. The semiconductor lab is equipped with the state-of-the-art equipment used in measuring, testing, and inspecting microelectronic circuits.

The Microelectronics Technology program trains technicians who assist engineers in the areas of process and design technology, materials analysis, quality control, and manufacturing.

New students enroll in the winter quarter. Graduates of the two-year program receive an Associate in Applied Science degree.

Day Program 6 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	CHM 167	Chemical and Physical Properties	4	2	5
	ELC 100	Basic Electricity	5	2	6
	MAT 105	Algebra and Trigonometry	6	0	6
	ENG 101	Communication Skills	3	0	3
2	ELN 100	Introduction to Electronics	5	2	6
	SCT 101	Introduction to Semiconductor and Microelectronics Technology	3	0	3
	MAT 106	Number Systems and Boolean Algebra	4	0	4
	ENG 102	Communication Skills	3	0	3
		General Education Elective			
3	DFT 103	Technical Drawing	2	3	3
	ELN 110	Introduction to Digital Electronics	4	2	5
	EDP 109	BASIC Language I	3	2	4
		Technical Elective			
4	EDP 115	Pascal I	3	2	4
	ELN 270	Microprocessor Fundamentals	4	6	7
	PHY 262	Semiconductor Physics	5	0	5
5	DFT 205	Computer Graphics	2	3	3
	ISC 130	Industrial Safety	3	0	3
	SCT 200	Microelectronics Processing and Device Design	4	2	5
	ENG 103	Communication Skills	3	0	3
		General Education Elective			
6	ISC 232	Quality Control	3	2	4
	SCT 210	Semiconductor Device Analysis and Physical Layout	3	4	5
	ENG 207	Technical Communications	3	0	3
		Technical Elective			
7		(7TH QUARTER IS OPTIONAL)			
	SCT 220	Work Experience	1	40	5

Required Courses Credit Hours	90
General Education Electives Credit Hours	6
Technical Electives Credit Hours	8
Work Experience Credit Hours	5
Total Credit Hours Required for Graduation (Without Work Experience)	104
Total Credit Hours Required for Graduation (With Work Experience)	109

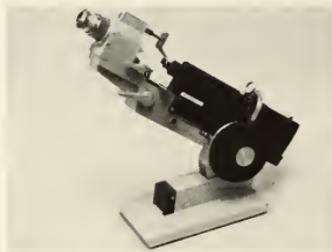
Optical Laboratory Mechanics



The Optical Laboratory Mechanics program is a one-year vocational program which trains the student to fabricate eyewear from a prescription, edge and bevel lenses, assemble lenses and frames, and place the eyewear in standard alignment ready for delivery to the consumer.

The program includes theoretical and practical courses covering a variety of technical skills such as beveling, edging, blocking, mounting, and framing lenses.

Retail dispensing stores, wholesale laboratories, hospital eye clinics, and eye doctors desiring to do their own dispensing employ optical lab mechanics.



The program is conducted at the Federal Correctional Institute in Butner, North Carolina; and a fully-equipped laboratory is available. Graduates of the four-quarter day program receive certificates. New students may enroll any quarter.

Day Program 4 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	OLM 1101	Introduction to Optics	3	0	3
	OLM 1102	Spectacle Fabrication	1	2	1
	OLM 1142	Structure and Function of the Eye	3	0	3
	MAT 1040	Technical Mathematics	5	0	5
2	OLM 1103	Basic Lens Designs	3	0	3
	OLM 1111	Basic Frame and Lens Mechanics	0	6	2
	OLM 1131	Optical Dispensing	3	0	3
	OLM 1140	Properties of Light	3	0	3
3	OLM 1104	Advanced Lens Designs	3	0	3
	OLM 1112	Multifocal Lens Mechanics	0	6	2
	OLM 1120	Basic Surfacing	2	4	3
4	OLM 1113	Special Lens Mechanics	0	6	2
	OLM 1114	Production Laboratory	0	6	2
	OLM 1133	Optical Laboratory Management	3	0	3

Total Credit Hours Required for Graduation 38

Opticianry



The Opticianry program is a two-year program of study which teaches students to become opticians. Opticians receive lens prescriptions from eye doctors, determine the size and style of eyeglasses desired by the customer, grind lenses and shape them to fit into an eyeglass frame, and adjust finished glasses to fit the customer. The graduate acquires competencies in all phases of opticianry including surfacing which consists of blocking, fining, polishing, and inspecting both plastic and glass single-vision/multi-focal lenses; benchwork which includes hand beveling, safety beveling, heat treating, chemical tempering, tinting, mounting, and framing lenses; dispensing which includes measuring, adapting, and fitting both eyeglasses and contact lenses to the patient.

The curriculum also includes courses in communication skills, social sciences, and business which augment the student's technical instruction and provide a well-rounded educational background.

An important facet of the Opticianry curriculum is the student practicum which allows the individual student to practice competencies and skills learned in the classroom. Practicum activities include affiliation with medical centers, senior citizen centers, and convalescent centers in the greater Durham area.

The Opticianry program is offered during the day and is seven quarters in length. New students enroll in the fall quarter. Upon completion of the program, the Associate in Applied Science degree in Opticianry is conferred and satisfies the formal educational requirements necessary to qualify for the licensing examination given by the North Carolina State Board of Opticians.

The Opticianry program is accredited by the National Academy of Opticianry and approved by the North Carolina State Board of Opticians.

Day Program 7 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	OPT 101	Introduction to Opticianry	4	0	4
	OPT 111	Spherical Surfacing	0	6	2
	OPT 121	Anatomy of the Eye	2	0	2
	EDP 103	Introduction to Microcomputers	3	2	4
	MAT 140	Algebra	5	0	5
	ENG 203	Interpersonal Communications I	3	0	3
		Technical Elective			
2	OPT 102	Single-Vision Lens Designs	4	0	4
	OPT 112	Sphero-Cylindrical Lens Surfacing	0	6	2
	OPT 122	Physiology of the Eye	2	0	2
	PHY 140	Physics	3	2	4
	MAT 141	Geometry and Trigonometry	5	0	5
3	CHM 140	Chemistry	4	2	5
	OPT 103	Multifocal Lens Designs	4	0	4
	OPT 113	Multifocal Lens Surfacing	0	6	2
	OPT 141	Physical Optics	3	2	4
	ENG 101	Communication Skills	3	0	3
4	OPT 104	Advanced Theoretical Optics	2	0	2
	OPT 114	Basic Spectacle Finishing	0	6	2
	OPT 142	Geometrical Optics	3	2	4
	BUS 235	Small Business Management	3	0	3
	ENG 102	Communication Skills	3	0	3
5	OPT 214	Multifocal Finishing	0	6	2
	OPT 231	Frame and Lens Dispensing	5	3	6
	OPT 261	Rigid Contact Lenses	2	3	3
	ENG 103	Communication Skills	3	0	3
6	OPT 206	Special Lens Designs	4	0	4
	OPT 215	Special Lens Finishing	0	6	2
	OPT 232	Dispensing Multifocal Lenses	4	4	5
	OPT 262	Flexible Contact Lenses	2	3	3
		General Education Elective			
7	OPT 216	Lens Finishing Proficiency	0	6	2
	OPT 233	Special Dispensing	4	4	5
	OPT 263	Special Contact Lenses	3	0	3
	OPT 273	Opticianry Seminar	1	0	1
		General Education Elective			

Required Courses Credit Hours	108
General Education Electives Credit Hours	6
Technical Electives Credit Hours	3
Total Credit Hours Required for Graduation	117

Paralegal Technology



The Paralegal Technology program prepares the student to work under the general direction of lawyers, to relieve lawyers of routine matters, and to assist them in conducting more complicated and difficult tasks. Paralegals, also called legal technicians, are trained to do independent legal work under the supervision of a lawyer, to supervise secretaries in their work for the lawyer, and to search out information and court facts for the lawyer. The program includes general subjects such as English, accounting, and psychology as well as specialized legal courses such as court systems, real property, and commercial law.

Paralegal Technology program graduates are able to assist a lawyer or group of lawyers directly in most facets of law, but they must always work under a lawyer's supervision. The legal technician is not qualified to give legal advice, enter into courtroom procedure, or be involved in litigation except as an assistant to a lawyer.

Paralegal graduates may assist in working on probate matters, conducting investigations, searching public records, preparing tax forms, serving and filing legal documents, bookkeeping, researching in law libraries, and providing office management. Employment opportunities are available in law firms, government agencies, and corporations.

The program is offered in the evening and requires eight quarters for completion. Persons may enroll any quarter. Graduates receive an Associate in Applied Science degree.



Evening Program 8 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	LEX 101	Real Property	5	0	5
	LEX 105	Litigation I	5	0	5
	ENG 101	Communication Skills	3	0	3
2	LEX 110	Litigation II	5	0	5
	LEX 112	Title Abstracting	3	2	4
	ENG 102	Communication Skills	3	0	3
3	LEX 120	Litigation III	5	0	5
	LEX 122	Real Estate Transactions	5	0	5
	ENG 103	Communication Skills	3	0	3
4	LEX 130	Litigation IV	5	0	5
	CJC 270	Constitutional Law	5	0	5
	ENG 203	Interpersonal Communications I	3	0	3
5	LEX 201	Legal Research	3	2	4
	LEX 205	Estate Administration	5	0	5
	MAT 110	Business Mathematics	5	0	5
6	LEX 210	Commercial Law I	5	0	5
	LEX 212	Legal Writing	5	0	5
	CJC 210	Criminal Investigation	5	0	5
		Technical Elective			
7	LEX 220	Commercial Law II	5	0	5
	LEX 225	Law Office Management	5	0	5
	EDP 103	Introduction to Microcomputers	3	2	4
		Technical Elective General Education Elective			
8	LEX 230	Family Law	5	0	5
	ACC 220	Accounting for Paralegals	4	2	5
		Technical Elective General Education Elective			

Required Courses Credit Hours	104
General Education Electives Credit Hours	6
Technical Electives Credit Hours	3
Total Credit Hours Required for Graduation	113

Pharmacy Technology



The Pharmacy Technology program trains students to become pharmacy technicians. These allied health specialists are employed in a pharmacy and perform a variety of technical duties related to preparing and dispensing drugs in accordance with standard procedures and laws while under the supervision of a registered pharmacist. Pharmacy technicians are trained to transcribe physicians' medication orders, to fill orders to be checked by pharmacists, and to deliver them. They prepare admixtures of intravenous solutions, replenish drugs, maintain patient profile records, and prepare bulk formulations. Pharmacy technicians are vital assets to hospital and community pharmacists because their training allows them to perform technical pharmaceutical procedures enabling pharmacists to direct their attentions to professional tasks.

At Durham Technical Institute, the student receives training in pharmacology and hospital pharmacy procedures. Additional training includes community pharmacy, pharmaceutical math, microcomputers, anatomy-physiology, pathology, and typing. The student practices procedural skills in the simulated pharmacy technician laboratory at Durham Technical Institute. Clinical practice in hospital pharmacy is received through the combined efforts of Duke University Medical Center, Durham County General Hospital, Veterans Administration Medical Center, and Lincoln Community Health Center.

Many area hospitals are currently facing rapidly expanding pharmacy services to meet the increasing need for higher quality patient care and to conform to governmental regulations. Such expansion has created a greater need for technical, supportive personnel in carrying out the routine functions in dispensing drugs to hospital inpatients and ambulatory patients. Formally trained graduates in Pharmacy Technology are prepared to meet this need, and job opportunities for these graduates remain excellent.

New students may enroll either in the fall or spring quarter. This day program is three quarters in length, and graduates receive a certificate.



Day Program
3 Quarters

CLASS HOURS
 LAB/CLINICAL HRS
 CREDIT HOURS

1	PHM 101	Introduction to Pharmacy	3	0	3
	PHM 105	Hospital Pharmacy I	3	2	4
	BIO 110	Pathophysiology	4	2	5
	MAT 150	Pharmaceutical Mathematics	5	0	5

2	PHM 115	Pharmacology I	3	0	3
	PHM 110	Hospital Pharmacy II	3	2	4
	PHM 120	Community Pharmacy	2	2	3
	SEC 111	Pharmacy Typewriting	3	2	4

3	PHM 125	Pharmacology II	3	0	3
	PHM 130	Pharmacy Clinical	0	24	8
	EDP 103	Introduction to Microcomputers	3	2	4

Required Courses Credit Hours 46

Practical Nursing



The Practical Nursing program prepares students to care for patients with a variety of common medical-surgical problems in various stages of illness. The licensed practical nurse is dedicated to preventing illness, caring for the sick, and rehabilitating the patient.

Approved by the North Carolina State Board of Nursing, this one-year program involves both classroom and clinical activities. The program focuses on theory and practice in a broad range of nursing activities. These activities encompass direct patient care in relatively stable nursing situations. In addition to instruction in nursing care, students complete related general education courses. They are also introduced to microcomputers. Formal classroom study takes place at Durham Technical Institute. Practical experience is gained through clinical courses planned to follow theory and conducted under the instructor's supervision. Clinical experiences take place at Duke Medical

Center, Durham County General Hospital, and Durham Care Center.

Program graduates are awarded diplomas in Practical Nursing and are eligible to take the practical nurse licensing examination given by the North Carolina Board of Nursing. Licensed practical nurses are employed in hospitals, nursing homes, extended-care units, clinics, doctors' and dentists' offices, and other health-care agencies.

Classes are offered during the day. The program can be completed in four quarters. New students may enroll every quarter.

**Day Program
4 Quarters**

			CLASS HOURS	LAB/CLINICAL HRS	CREDIT HOURS
1	NUR 1101	Fundamentals of Nursing	6	6	8
	BIO 120	Anatomy and Physiology	4	2	5
	EDP 103	Introduction to Microcomputers	3	2	4
	NUT 101	Nutrition and Diet Therapy	3	0	3
	PHM 1101	Pharmacology I	3	1	3
2	NUR 1104	Medical and Surgical Nursing I	4	3	5
	NUR 1107	Maternal and Child Health I	5	0	5
	NUR 1109	Clinical Experience	0	12	4
	PHM 1102	Pharmacology II	4	0	4
3	NUR 1105	Medical and Surgical Nursing II	7	0	7
	NUR 1108	Maternal and Child Health II	6	0	6
	NUR 1114	Clinical Experience	0	15	5
	PSY 100	Introduction to General Psychology	3	0	3
4	NUR 1106	Medical and Surgical Nursing III	6	0	6
	NUR 1112	Nursing Seminar	4	0	4
	NUR 1115	Clinical Experience	0	15	5
	ENG 1101	Communication Skills I	3	0	3

Required Courses Credit Hours 80

Residential Carpentry and Preservation



The carpenter is a highly skilled worker who translates building plans into usable space. New construction is always in demand, and rising costs create a demand for workers who understand the preservation and renewal of existing buildings and who are skilled in these areas.

Carpenters need a wide range of skills to take a project from layout to finish. Supervisors, project foremen, and builders often start their careers as carpenters. To advance, the carpenter must have a command of building fundamentals such as math, blue-

print reading, tools, foundations, framing, exterior finish, interior finish, and the ability to apply logic to the construction process.

The restoration and preservation of existing buildings is a growing field, and carpentry skills are basic to restoration. In addition to carpentry skills, a restoration carpenter understands the goals of preservation and the skills of conservation. Conservation skills are concentrated on identifying what is worth saving and on applying both traditional and modern methods of preserving buildings and materials. This skilled technician bridges the gap between old and new technology and building methods. In Durham Technical Institute's Residential Carpentry and Preservation curriculum, traditional skills and new skills are blended to develop a well-rounded craftsman.

Students completing the entire program of study receive a certificate in Residential Carpentry and Preservation. Two options are available to students who do not complete the entire program: (A) a certificate of completion of 34 credit hours in residential carpentry, or (B) a certificate of completion of 34 credit hours in historic preservation. Residential Carpentry and Preservation curriculum classes are scheduled during the afternoon and evening. The program is four quarters in length and the sequence of courses begins in the winter quarter. Students who meet the course prerequisites may enroll any quarter.



Day and Evening Program

4 Quarters

CLASS HOURS
LAB HOURS
CREDIT HOURS

1	HPT 1101	Introduction to Preservation	5	0	5
	CAR 1101	Wood and Woodworking Tools	3	9	6
	CAR 1110	Construction Materials	3	0	3
	DFT 1118	Architectural Blueprint Reading	3	0	3
2	HPT 1103	History of Building Technology	3	0	3
	HPT 1106	Traditional Carpentry and Restoration	1	6	3
	CAR 1102	Foundations and Floor Framing	3	9	6
3	HPT 1105	Masonry and Plaster	1	6	3
	CAR 1103	Wall and Roof Framing	2	12	6
	CAR 1111	Renovation Operations	4	0	4
4	HPT 1109	Finishes and Protective Coatings	2	3	3
	HPT 1110	Restoration Workshop	1	9	4
	CAR 1104	Exterior and Interior Finish	2	12	6

Required Courses Credit Hours 55

To provide maximum flexibility, the following program options are available:

- Option 1. Certificate in Residential Carpentry and Preservation.
Required Courses: All courses listed above.
- Option 2. Certificate in Residential Carpentry (34 Credit Hours).
Required Courses: CAR 1101, CAR 1102, CAR 1103, CAR 1104, CAR 1110, CAR 1111, DFT 1118.
- Option 3. Certificate in Historic Preservation Technology (34 Credit Hours). Required Courses: CAR 1101, CAR 1111, DFT 1118, HPT 1101, HPT 1103, HPT 1105, HPT 1106, HPT 1109, HPT 1110.

Respiratory Therapy



The respiratory therapist is an allied health specialist who treats, manages, controls, and cares for patients with deficiencies and abnormalities related to breathing and associated organs. In addition to managing patients, the respiratory therapist supervises technicians and junior therapists. Because their training enables them to perform specific testing techniques used in monitoring, evaluating, and treating their patients, respiratory therapists are vital resources to physicians.

The Respiratory Therapist program includes classroom instruction, clinical laboratory, and in-hospital clinical practice. The clinical laboratory provides training and evaluation for skills learned and demonstrated during lecture sessions. The program's clinical phase is conducted at local area hospitals and is administered on a competency-based educational approach to allow mastery of each skill.

The seven-quarter program has academic classes conducted during the day and clinical rotations scheduled during the day and evening. Upon completion of the therapist program, the graduate is awarded an Associate in Applied Science degree which satisfies the educational requirements of the National Board for Respiratory Care and allows the graduate therapist to sit for the National Registry Examination leading to the national credential of Registered Respiratory Therapist. New students enroll in the fall of each year.

The Respiratory Therapy program is accredited by the American Medical Association in collaboration with the Joint Review Committee for Respiratory Therapy Education.

Pre-Respiratory Therapy I Quarter

			CLASS HOURS	LAB HOURS	CREDIT HOURS
I	MAT 130	Introduction to Health Mathematics	5	0	5
	SCI 130	Introduction to Applied Science	4	2	5

Day Program 7 Quarters

			CLASS HOURS	LAB/CLINICAL HRS.	CREDIT HOURS
1	RTH 101	Basic Therapy	3	4	5
	BIO 130	General Biology	3	2	4
	MAT 131	Integrated College Mathematics	5	0	5
	PHY 130	Physics	5	2	6
2	RTH 102	Therapy II	5	4	7
	BIO 131	Anatomy and Physiology	4	2	5
	CHM 130	Chemistry	5	2	6
	ENG 101	Communication Skills	3	0	3
3	RTH 103	Therapy III	4	4	6
	BIO 132	Microbiology	4	2	5
	MED 130	Pharmacology I	2	0	2
	ENG 102	Communication Skills	3	0	3
4	RTH 104	Therapy IV	4	4	6
	RTH 105	Clinical Practice I	0	8.5	3
	BIO 133	Pathophysiology I	3	0	3
	ENG 103	Communication Skills General Education Elective	3	0	3
5	RTH 201	Therapy V	4	4	6
	RTH 202	Clinical Practice II	0	25.5	8
	BIO 134	Pathophysiology II	3	0	3
	MED 131	Pharmacology II	2	0	2
6	RTH 203	Therapy VI	5	4	7
	RTH 204	Clinical Practice III	0	25.5	8
	ENG 203	Interpersonal Communications I General Education Elective	3	0	3
7	RTH 205	Therapy VII	3	4	5
	RTH 206	Clinical Practice IV	0	25.5	8

Required Courses Credit Hours	122
General Education Electives Credit Hours	6
Total Credit Hours Required for Graduation	128

Respiratory Therapy Technician



The respiratory therapy technician is an allied health professional who works in conjunction with respiratory therapists and/or physicians in treating, managing, controlling, and caring for patients with deficiencies and abnormalities related to breathing and to associated organ systems.

The Respiratory Therapy Technician program includes classroom instruction, clinical laboratory, and in-hospital clinical practice. The clinical laboratory provides training and evaluation for skills learned and demonstrated during lecture sessions. The clinical practice phase of the program is conducted at local area hospitals and is administered on a competency-based educational approach to allow mastery of each skill area.

The Respiratory Therapy Technician program is a four-quarter program with academic classes conducted during the evening hours and clinical rotations conducted during the day and evening. The program is designed to interest those indi-

viduals currently working in the respiratory care field as trainees or assistants. Upon completing the technician program, the student is awarded a diploma which satisfies the educational requirements of the National Board for Respiratory Care and allows the graduate technician to sit for the National Certification Examination leading to the national credential of Certified Respiratory Therapy Technician. New students enroll in the winter quarter.

The Respiratory Therapy Technician program is a candidate for accreditation by the American Medical Association in collaboration with the Joint Review Committee for Respiratory Therapy Education.

Evening Program 4 Quarters

						CLASS HOURS LAB/CLINICAL HRS.	CREDIT HOURS
<hr/>							
1	RTH 101	Basic Therapy	3	4	5		
	RTH 111	Technical Clinical I	0	17	5		
	SCI 130	Introduction to Applied Science	4	2	5		
	MAT 130	Introduction to Health Mathematics	5	0	5		
<hr/>							
2	RTH 102	Therapy II	5	4	7		
	RTH 112	Technical Clinical II	0	17	5		
	BIO 131	Anatomy and Physiology	4	2	5		
	ENG 101	Communication Skills	3	0	3		
<hr/>							
3	RTH 103	Therapy III	4	4	6		
	RTH 113	Technical Clinical III	0	17	5		
	BIO 132	Microbiology	4	2	5		
	MED 130	Pharmacology I	2	0	2		
<hr/>							
4	RTH 104	Therapy IV	4	4	6		
	RTH 114	Technical Clinical IV	0	17	5		
	BIO 133	Pathophysiology I	3	0	3		
	ENG 207	Technical Communications	3	0	3		
<hr/>							

Total Credit Hours Required for Graduation 75

Secretarial-Executive



The demand for better qualified secretaries in the ever expanding business, industrial, governmental, and professional markets is becoming more acute. This curriculum offers a program which teaches the accepted procedures required in business, industrial, legal, and professional offices and enables students to become proficient in their particular field.

The curriculum offers courses in typing, shorthand, word processing, dictation, transcription, and office procedures. Special studies of secretarial subjects are supplemented by related courses in English, mathematics, accounting, business law, and personal development.

A graduate of this program has the knowledge and skills to be a secretary and has developed the skills necessary for taking dictation and transcribing all correspondence, memoranda, and reports.

Employment opportunities for graduates of this program exist in a variety of secretarial positions in businesses and in legal, medical, engineering, governmental, and many other technical areas.

An associate degree is awarded to graduates of this six-quarter program. Day and evening classes are available. New students may enroll any quarter.



Day and Evening Program

6 Quarters

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	SEC 101	Typewriting I	3	2	4
	SEC 109	Personal Development	3	0	3
	BUS 101	Introduction to Business	5	0	5
	MAT 110	Business Mathematics	5	0	5
	ENG 101	Communication Skills	3	0	3
	2	SEC 102	Typewriting II	2	3
SEC 112		Shorthand I	3	2	4
ACC 120		Accounting I	5	2	6
ENG 102		Communication Skills	3	0	3
		Technical Elective			
3	SEC 103	Typewriting III	2	3	3
	SEC 113	Shorthand II	3	2	4
	SEC 115	Records Management	3	2	4
	ENG 103	Communication Skills	3	0	3
		General Education Elective			
4	SEC 114	Shorthand III	3	2	4
	SEC 201	Typewriting IV	2	3	3
	BUS 271	Office Management	3	0	3
	EDP 104	Introduction to Data Processing	5	0	5
	ENG 215	Voice and Diction	3	0	3
	5	SEC 204	Simulated Office Applications	2	3
SEC 215		Dictation and Transcription I	3	2	4
SEC 260		Word Processing I	3	2	4
SEC 280		Office Procedures	3	2	4
		Technical Elective General Education Elective			
6	SEC 261	Word Processing II	3	2	4
	SEC 270	Business Communication	3	0	3
	SEC 290	Work Experience	1	20	3
		Technical Elective Technical Elective			

Required Courses Credit Hours	93
General Education Electives Credit Hours	6
Technical Electives Credit Hours	12
Total Credit Hours Required for Graduation	111

Course Descriptions

Accounting

ACC 120 Accounting I

This course introduces the principles, tools, and techniques of accounting. Emphasis is on collecting, analyzing, summarizing, and reporting information about service and mercantile enterprises, bank reconciliation, and payroll accounting. Practical applications of basic accounting principles are also included. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: None.

ACC 121 Accounting II

This course introduces partnership and corporation accounting. Emphasis is on depreciation methods, inventory valuation, accounting for receivables, and the issuance of stocks and bonds. Accounting services are shown as they contribute to the recognition and solution of management problems. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: ACC 120.

ACC 122 Accounting III

This course focuses on temporary and long-term investments in stocks and bonds, branch accounting, and consolidated statements. Cost accounting is introduced. Emphasis is on recording, summarizing, and interpreting data for management control rather than on bookkeeping skills. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: ACC 121.

ACC 220 Accounting for Paralegals

This specialized accounting course covers the skills the paralegal student needs to assist an attorney. Content emphasis is on general accounting principles, budget preparation, expenditure reports, petty cash disbursements, expense accounts, client billing, financial planning, and real estate closing statement preparation. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

ACC 222 Intermediate Accounting I

Intermediate Accounting I is a detailed treatment of the field of general accounting. The course includes such topics as the development of accounting standards, the balance sheet, income and retained earnings statements, fundamental processes of recording, cash and temporary investments, and inventory valuation methods. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: ACC 122.

ACC 223 Intermediate Accounting II

This course is a continuation of Intermediate Accounting I with emphasis on short-term and long-term liabilities, plant assets, intangible assets, paid-in capital, retained earnings, and investments. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: ACC 122.

ACC 225 Cost Accounting

This course focuses on the processing and evaluation of operating cost data to provide information for external reporting, internal planning and control of ongoing operations, and special decisions. Topics include job order cost, process cost, standard cost, budgets, and executive use of cost figures. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: ACC 122.

ACC 226 Managerial Accounting

Managerial Accounting is a study of financial statements, the interpretation of financial data, and an explanation of how accounting data are used in planning and controlling business activities. Emphasis is on the cooperative relationship between the manager and the accountant to achieve effectiveness. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: ACC 122.

ACC 227 Accounting Theory

This course provides a theoretical frame of reference for the history of accounting thought, income, and asset evaluation. The course also assists the student, through the processes of inductive and deductive reasoning, to obtain a better understanding of the many controversial topics in the area of accounting theory. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: ACC 122.

ACC 228 Accounting for Nonprofit Organizations

This course focuses on the special needs and practices associated with funds and nonprofit organizations, including schools, hospitals, welfare organizations, and churches. The analysis of financial statements and the evaluation of nonprofit accounting methods are also covered. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ACC 122.

ACC 229 Taxes I

This course covers how to apply individual federal income tax laws. Emphasis is on preparing the U. S. Individual Form 1040 and its subsidiary schedules. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

ACC 230 Taxes II

This course examines the application of federal income tax laws to business and business conditions. Included is a study of the corporate and partnership tax procedure. To complete this study, many tax planning ideas are reviewed and forms prepared for both the individual and business tax return. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: ACC 229.

ACC 233 Practical Applications in Accounting

This course provides hands-on experience in the application of accounting principles and theory. Realistic examples of accounting jobs are presented. The student prepares a sample joint income tax return for a married couple, establishes and uses an accounting system, prepares payroll records and tax forms, and uses a microcomputer to record accounting data and to work with financial information in the form of computer output. Course Hours Per Week: Class, 1. Lab, 4. Quarter Hours Credit, 3. Prerequisite: ACC 222, ACC 229, and EDP 103.

ACC 240 Budget Management

This course for non-accounting majors focuses on practical accounting skills for managers. Additional topics include financial performance measures and investment decisionmaking. The roles of financial support personnel and the coordination of the financial functions in an organization are also discussed. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: None.

ACC 269 Auditing

This course covers how account balances are derived and the types of transactions or entries which may alter the proper statement of various account balances. Standard procedures are applied to account balances to confirm their accuracy. Emphasis is on the responsibilities of the auditor to his client, to interested third parties, to the general public, and to standards for professional conduct. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: ACC 122.

ACC 270 Accounting Seminar

This course focuses on the opportunities for employment in the accounting field and emphasizes career planning, job-seeking skills, and the professional traits required in the accounting profession. Course Hours Per Week: Class, 1. Quarter Hours Credit, 1. Prerequisite: None.

Art

ART 101 Art Appreciation

This introductory course in art enables the student to understand what constitutes a work of art; to analyze the roles of subject, meaning, content, style, medium, and technique in art; and to establish intellectual relationships between art and man in a given cultural environment. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Automotive

AUT 1101 Engine Theory and Minor Servicing

This course is a study of the theory and principles of the four-stroke cycle engine operation. Emphasizing service on various engine systems and components, this course also focuses on minor servicing of shocks, exhaust systems, and tire and wheel assemblies. Course Hours Per Week: Class, 3. Lab, 9. Quarter Hours Credit, 6. Prerequisite: None.

AUT 1102 Electrical Systems

This course introduces and explains how automotive electrical systems function. Using test equipment, the student diagnoses and repairs problems in components such as starters, batteries, wiring, alternators, and various electrical circuits and accessories. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1103 Fuel Injection Systems

This course examines the theory behind gasoline and diesel fuel injection systems and how the systems are actually used. Instruction focuses on the operation, testing, and servicing of various types of fuel injection systems used in passenger cars and light trucks. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: AUT 1101 and/or AUT 1102 or approval of program director.

AUT 1104 Tune-up and Ignition Diagnosis

This course examines conventional and electronically-controlled automotive ignition systems. Instruction focuses on the operation, testing, and servicing of various types of ignition systems. Computerized diagnostic equipment use is included. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisites: AUT 1101, AUT 1102 or approval of program director.

AUT 1105 Emission Controls

This course examines emission control systems and procedures used to diagnose problems in systems requiring service. Infrared exhaust analyzers and other test equipment are studied and utilized. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: AUT 1101.

AUT 1106 Engine Service and Repair

This course enables the student to examine all aspects of the internal combustion engine and focuses on engine operation, testing, measuring, troubleshooting, disassembly, and assembly procedures. Major emphasis is on totally rebuilding gasoline and diesel engines. Course Hours Per Week: Class, 3. Lab, 9. Quarter Hours Credit, 6. Prerequisites: AUT 1101, AUT 1102.

AUT 1107 Brakes

This course focuses on automotive braking systems employed on both automobiles and light trucks. Emphasis is on brake operation. Servicing and repairing drum and disc brakes are also covered. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1108 Manual Transmissions and Power Trains

This course is a study of manual and/or standard transmissions, transaxles, clutch systems, drive lines, and differentials. The student focuses on diagnosing problems and overhauling all types of manual transmissions, differentials, and transaxles. The student also services clutch systems and drive shafts/lines. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1109 Steering and Suspension Systems

This course presents the principles and functions of the components in an automotive chassis. Practical job instruction in adjusting and repairing suspension and steering systems is included. Units studied include shock absorbers, suspension systems, steering systems, steering linkage, and front end alignment. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1110 Air Conditioning

This course provides a general introduction to the principles of refrigeration. Emphasis is on assembly components and connections as applied to automobiles and light trucks. Operation methods, control, handling refrigerants, and safety precautions are studied. Laboratory activities include installing components and servicing air conditioning systems. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: None.

AUT 1111 Automatic Transmissions

This course is a study of the operation, service, and repair of automatic transmission systems and emphasizes the theory behind the operation of automatic transmissions. Practical shop applications include torque converters, hydraulic control systems, and complex planetary gearing. Popular makes of transmissions are also studied. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: AUT 1108.

AUT 1112 Automotive Diagnosis and Servicing

This course permits the student to select areas of study in order to become more proficient in specialized phases of automotive repairs. Approved areas include brakes, fuel systems, electrical testing and repairs, front wheel alignments, tune-ups, emission controls, and others by prior arrangement. Gas and acetylene welding are also covered as they relate to automotive repair. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisites: AUT 1107, AUT 1108, AUT 1109.

Biology

BIO 101 General Biology I

This course is a comprehensive study of cellular biology with specific emphasis on cell theory, cellular structure and function, membrane transport systems, bioenergetics and respiratory cycles, genetics, cellular and organism reproduction, and the biological interactions among living organisms. Laboratory exercises deal with basic biological principles, scientific experimentation and reasoning, and a comparative study of cellular structures and functions. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

BIO 102 General Biology II

A continuation of BIO 101, this course is a comprehensive study of the plant and animal kingdoms with emphasis on organism classifications, anatomical diversities, evolutionary patterns, population genetics, biospheres, ecosystems, and environmental studies. Laboratory and field exercises accompany lecture topics to reinforce basic principles in zoology, botany, and ecology. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: BIO 101.

BIO 110 Pathophysiology

This course provides a general study of human anatomy and physiology and related disease states. Emphasis is on the nine organ systems and their general functions. An overview of the basic diseases and abnormalities associated with each system is also presented. The course provides background and support for later studies in pharmacology and hospital pharmacy. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

BIO 120 Anatomy and Physiology

This course provides the student with a comprehensive study of human anatomy and physiology to supplement studies in pharmacology and pathology. Each organ system is covered. The neural and chemical control mechanisms in each system and the functional interrelationships among systems are emphasized. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

BIO 130 General Biology

This course introduces cellular biology and emphasizes the ultrastructure of cell anatomy, the molecular aspects of cell physiology, cellular reproduction and genetics, and introductory vertebrate dissection. Laboratory exercises focus on basic biological principles, microscope techniques, dissection techniques, and utilizing deductive and inductive reasoning in experimentation. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

BIO 131 Anatomy and Physiology

This course provides the Respiratory Therapy student with a comprehensive study of the human organ systems. Emphasis is on the physiology of the nervous, cardiovascular, pulmonary, and excretory systems and their interrelation in the maintenance of homeostasis. Studies of fluid-electrolyte balance and acid-base regulation are also included. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

BIO 132 Microbiology

This course introduces clinical microbiology and emphasizes the bacterial, viral, and fungal agents of respiratory disease. A general study of bacteriology, immunology disease transmission, infection processes, nosocomial infection, and microbial control is included. Laboratory exercises provide experience in aseptic technique, sterilization, microbial control, specimen collecting, and basic serological procedures. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

BIO 133 Pathophysiology I

This course provides a comprehensive study of the etiology and pathogenesis of respiratory and cardiovascular diseases. Additional emphasis is on the clinical manifestations, symptoms, complications, prognoses, and diagnoses of these specific diseases. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisites: BIO 131, BIO 132.

BIO 134 Pathophysiology II

This course provides a continued study of the etiology and pathogenesis of the common respiratory and cardiovascular diseases. Specific emphasis is on cardiac disorders, their interrelationships with pulmonary complications, and their specific diagnostic procedures. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: BIO 133.

BIO 240 Microbiology

This course introduces microbiology and emphasizes its application to the hospital and clinical settings. A general study of bacteriology, immunology, disease transmission, infection processes, nosocomial infection control, aseptic techniques, and disinfection and sterilization procedures is included. Lab exercises provide experience in aseptic technique, antibiotic sensitivity, specimen collecting, basic serological procedures, clinical isolation, and identification of pathogens. Course

Hours Per Week: Class, 4. Lab, 3. Quarter Hours Credit, 6.

Prerequisite: BIO 120 or BIO 131.

Business

BUS 101 Introduction to Business

This course surveys the business world. Emphasis is on the business environment, organization and management of the enterprise, management of human resources, marketing management, financing, and the quantitative tools of management.

Course Hours Per Week: Class, 5. Quarter Hours Credit, 5.

Prerequisite: None.

BUS 115 Business Law I

This course introduces the business law field and briefly covers the history of law in general and the court system. Emphasis is on contract law. Course

Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite:

None.

BUS 116 Business Law II

This course is a continued study of business law covering warranties, consumer protection, security devices, wills, and property law. Emphasis is on commercial paper. Course Hours Per Week: Class, 3. Quarter

Hours Credit, 3. Prerequisite: BUS 115.

BUS 123 Business Finance

This course examines the financing of business units by individuals, partnerships, corporations, and trusts. A detailed study is made of short- and long-term business financing. Course Hours Per Week:

Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 124 Personal Finance

This course presents an in-depth study of personal financial decisions the average person can expect to confront including the basics of budgeting; the intricacies of home ownership, income tax, and investment; and the wise use of insurance, wills, and trusts. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 162 Fundamentals of Real Estate: Salesman

This course covers the fundamental real estate principles and practices including real estate law, financing, brokerage, closing, valuation, management, and taxation. Also included is instruction on residential building construction, land use, the real estate market, the North Carolina Real Estate License Law, and Rules/Regulations of the North Carolina Real Estate Licensing Board. Course Hours Per Week: Class, 6. Quarter Hours Credit, 6. Prerequisite: None.

BUS 163 Real Estate Brokerage Operations

This course covers the fundamentals of real estate brokerage. The function of the broker and the relationship of real estate to other professions are explored. Detailed coverage of agreements of sale and real estate closings is included. Additionally, the student learns about valuation, construction, property management, land use controls, appraisals, and the tax implications of real estate transactions. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: BUS 162.

BUS 164 Real Estate Law

This course covers advanced-level instruction of real property ownership and interests, transfer of title to real property, land use controls, real estate brokerage and the law of agency, real estate contracts, landlord and tenant law, mortgages/deeds of trust, property insurance, federal income taxation of real estate, the North Carolina Real Estate License Law, Rules/Regulations of the North Carolina Real Estate Licensing Board, and the Licensing Board's "Trust Account Guidelines."

Course Hours Per Week: Class, 3. Quarter Hours Credit, 3.

Prerequisite: BUS 162 or valid salesman's license.

BUS 165 Real Estate Finance

This course covers advanced-level instruction on the major aspects of financing real estate transactions including sources of mortgage funds, the secondary mortgage market, financing instruments, types of mortgage loans, underwriting mortgage loans, consumer legislation affecting real estate financing, real property valuation, closing real estate sales transactions, and finance mathematics. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: BUS 162 or valid salesman's license.

BUS 191 Keyboarding

This course provides intensive training in the basic skills necessary to input data using an alphanumeric keyboard. Electronic typewriters, microcomputers, and word processors are introduced. Emphasis is on accurately indexing and retrieving data via the keyboard. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 210 Investment Analysis

This course introduces the securities market and emphasizes stocks, bonds, mutual funds, and investment management. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 232 Salesmanship

This course examines the fundamentals of selling. Prospecting, planning the sales presentation, planning the approach (securing an appointment and initial contact), delivering the sales presentation, demonstrating the product, answering objections, and closing the sale are areas included in this study. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 233 Personnel Management

This course is a study of human resources management and covers the history of personnel theory and practice. The course also examines the activities involved in the procurement, development, motivation, and maintenance of human resources. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 235 Small Business Management

This course covers the principles of small business management including planning, staffing, directing, controlling, and organizing. Particular attention is given to beginning and operating a small business. Other areas covered are financing, selling, purchasing, and laying out and designing a business. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 236 Principles of Management

This course provides information about the major functions of management and the skills which lead to managerial success in business and industry through the study of planning, organizing, directing, and controlling activities in an organization. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 239 Marketing

This course examines marketing fundamentals and emphasizes the marketing concept, products, organization, distribution channels, and advertising. The roles of the producer, wholesaler, and retailer are also explored. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

BUS 243 Advertising

This course examines the role advertising plays in a free economy. A study of advertising appeals and an exploration of the issues involved in selecting advertising media are also included. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

BUS 245 Retailing

This course examines retailing methods which include franchising, store location and lay out, store organization, buying, selling, merchandise handling, and display. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 247 Business Insurance

This course, designed for insurance consumers, deals with the basic principles and application of risk insurance. A survey of the various types of insurance is included. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 271 Office Management

This course covers the fundamental principles of office management. The office manager's role, office functions, office automation, planning, controlling, organizing, and human relations are emphasized. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 272 Principles of Supervision

This course, oriented to the first-line supervisor, examines various job factors and covers some of the fundamentals and special techniques of supervising employees. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 273 Fundamentals of Real Estate for Brokers

This course covers the fundamentals of real estate. Topics include brokerage, agreements of sale, deeds, financing, mortgages, judgments, valuation and appraisal, and lease laws. Upon satisfactory completion of this course, the student is eligible to take the Real Estate Broker's Examination. Course Hours Per Week: Class, 9. Quarter Hours Credit, 9. Prerequisite: None.

BUS 274 Labor Relations

This course introduces the history of the labor movement in the United States. The collective bargaining process and major legislation affecting workers are areas examined. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Carpentry

CAR 1101 Wood and Woodworking Tools

This course introduces the carpentry trade, its tools, and different types of wood. The student develops skills and craftsmanship in working with wood and in safely operating hand and power woodworking tools. Course Hours Per Week: Class, 3. Lab, 9. Quarter Hours Credit, 6. Prerequisite: None.

CAR 1102 Foundations and Floor Framing

This course introduces planning, constructing, and repairing foundations and floor frames. Major topics covered include materials and methods of construction, building layout, preparation of the site, footings and foundation wall construction, form construction and erection, and repairs to foundations and floor frames. Course Hours Per Week: Class, 3. Lab, 9. Quarter Hours Credit, 6. Prerequisite: CAR 1101.

CAR 1103 Wall and Roof Framing

This course introduces frame construction and framing repair. Starting with the floor frame, the course covers wall studs, ceiling joists, rafters, bracing, roof sheathing, interior wall partitions, and insulation. Roof construction includes rafter, truss, and post and beam construction methods. New construction and repair is coordinated with the other building trades involved in a project. Course Hours Per Week: Class, 2. Lab, 12. Quarter Hours Credit, 6. Prerequisite: CAR 1101.

CAR 1104 Exterior and Interior Finish

This course introduces exterior and interior trim, finish, and repair carpentry. The materials and methods used in finish carpentry including roofing, siding, doors and windows, interior flooring, moldings, stairs, cornice construction, installing hardware, installing pre-built cabinets, and repairing common exterior and interior finish problems are covered. Course Hours Per Week: Class, 2. Lab, 12. Quarter Hours Credit, 6. Prerequisite: CAR 1101.

CAR 1110 Construction Materials

This course covers the fundamental aspects of important construction materials and their uses. Emphasis is on concrete, masonry, metals, woods, plastics, glass, insulation materials, finishes, and mechanical and electrical systems. Newly developed materials and new uses for old materials are also covered. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

CAR 1111 Renovation Operations

This course presents an overview of evaluating, organizing, estimating, and managing a renovation or a new construction. Major study topics include inspection fundamentals, building construction, contracts, project management and scheduling, estimating, and financial control. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

Chemistry

CHM 130 Chemistry

This course provides the Respiratory Therapy student with a study of the chemical changes, physical and chemical properties of substances, elements, compounds, gases, chemical combinations, weights and measurements, theory of metals, acids, bases, salts, solvents, solutions, and emulsions. An introduction to organic chemistry, acid-base balance, buffer systems, and carbohydrates and electrolytes as they apply to vertebrate physiology are other areas included in this study. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: None.

CHM 140 Chemistry

This course covers the elements, physical and chemical properties, changes of substances, compounds, structure of matter, chemical combinations, metals, acids, bases, salts, solutions, and emulsions. Providing an introduction to organic chemistry, this course also emphasizes polymerization and plastics. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

CHM 150 Chemistry for Fire Science

This course presents fundamental chemistry principles as they relate to applied fire science. Particular attention is given to the laws of matter and energy, the physical properties and behaviors of substances, and the combustion process. The laws of heat generation and transfer and the chemistry of extinguishing agents and processes are studied extensively. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

CHM 167 Chemical and Physical Properties

This course introduces inorganic and organic chemistry and includes a general study of chemical measurement techniques, fundamental chemical concepts, structure and classification of the elements, chemical and formula compounds, chemical bonding, chemical reactions and equations, molecular and equivalent weights, solutions and concentration theory, and ionization and acid-base chemistry. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

Criminal Justice

CJC 100 Basic Law Enforcement Training (BLET)

This course contains all of the required studies for certification as a law enforcement officer as prescribed in the State of North Carolina basic training certification standards. An overall view of the criminal justice system, criminal law, motor vehicle law, and patrol procedures are covered. All credits are earned through successful completion of the basic law enforcement training school. Course Hours Per Week: Class, 14. Lab, 9. Quarter Hours Credit, 23. Prerequisite: Employment in or sponsorship by a law enforcement agency.

CJC 101 Introduction to Criminal Justice

This general course familiarizes the student with a philosophy and history of criminal justice including its legal limitations in a democratic republic. The course includes a survey of the primary duties and responsibilities of the various criminal justice agencies, delineation of the basic processes of justice, evaluation of criminal justice's current position, and an orientation relative to criminal justice as a vocation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 102 Criminology

This course focuses on studying crime as a social phenomenon and examines the variables affecting crime, the development of crime, and patterns and trends in criminal activity. Emphasis is on generalizations which can be drawn from statistical evidence. Individual case studies which clarify the major theories of criminology are also examined.

Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 110 Juvenile Delinquency

This course examines the causes, nature, and impact of juvenile delinquency as well as the juvenile justice system which has developed as a means of dealing with delinquency. Emphasis is on the origins of delinquency, the treatment programs, and the legal rights and procedures which have developed in the juvenile system. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 115 Criminal Procedure

This course introduces the student to the fundamental concepts of criminal procedure. Emphasizing procedures which affect law enforcement and administration, this course also covers the laws of arrest, search and seizure, and the basic tenants of constitutional rights as they affect criminal procedure. Special attention is given to Chapter 15A, the North Carolina Criminal Procedure Act, and the court decisions shaping the application of procedural law. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 125 Judicial Systems

This course reviews the federal and state of North Carolina court systems. Providing detailed analyses of court procedures from the initial arraignment through the appeals process, the course also emphasizes applications of federal and state constitutional principles to the judicial process. The organizational and procedural processes of North Carolina courts are covered. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 151 Psychology of Stress

This course deals with practical applications of the principles of psychology to problems existing in the work environment. Stress awareness, diagnosis, and treatment are emphasized. Alcohol and drug abuse are treated as stress-related diseases. The psychology of motivation and creative problem solving are also discussed in their application to public sector employment. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 201 Motor Vehicle Law

This course presents thorough analyses of major North Carolina motor vehicle laws and their applications. Focusing on understanding the elements of each offense and recognizing the existence of those elements in enforcement, the course also presents general methods of traffic accident investigation, accident investigation documentation, and preparation for court. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 202 Accident Investigation

This course presents the method for investigating traffic accidents to determine accident cause, rate of speed, sequence of events, and other pertinent factors in assessing criminal liability. Emphasis is on developing a legally defensible scientific methodology for establishing motor vehicle law violations. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

CJC 205 Evidence

This course closely analyzes the basic law of evidence and the application of legal constructs to the investigative and evidence collection processes. Focusing on standards which must follow guidelines set by current Supreme Court decisions and the federal and state evidence rules, the course covers the interrogation process, search and seizure, interviewing, collecting physical evidence, and trial presentation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 208 Fingerprints

This course is a specialized study of fingerprints as a means of positive identification in law enforcement work. The course involves the history of fingerprinting, basic fingerprint patterns, and the Henry system for classification. Emphasis is on training in classification and filing through practical problems, the taking of fingerprints, and handling simple latent fingerprint patterns. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

CJC 210 Criminal Investigation

This course introduces the student to investigation fundamentals, crime scene search, recording, collecting and preserving evidence, information sources, interview, and interrogation. The course also deals with case preparation; court presentation; and the investigation of specific offenses such as arson, narcotics, sex, larceny, burglary, robbery, and homicide. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 211 Criminalistics

This course surveys the methods and techniques for recognizing, collecting, and preserving physical evidence found at a crime scene. The course explores laboratory analysis, classification, and identification. Methods of chemical, optical, and physical analysis and comparison are included. The documentation process for use in court is also discussed. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 212 Drugs

This course explores the nature of drug addiction, the impact of addiction on the criminal justice system, and the effect of addiction on society as a whole. The study focuses on each category of abused drugs and examines the specific generic examples of the drug category. The psychological and physical effects of the drug as well as dependency, adverse reaction, and toxicity of the drug are studied. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 216 Criminal Law

The major focus of this course is on identifying the elements of statutory and common law crimes. The course involves analyzing statutory elements as well as judicial interpretation and defining common law and case law for non-statutorily defined offenses and elements. Emphasis is on applying general principles of criminal law to actual problems and situations found in the field. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 217 Patrol Procedures

This course presents the skills, tactics, techniques, and procedures necessary for carrying out effective police patrols. Focusing on developing a central body of practical skills including communicating, observing, reporting, and interviewing, this course also emphasizes tactics for handling a broad range of problems from domestic disagreements to felonies in progress. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 220 Police Administration

This course examines police administration functions and focuses on organizational dynamics. Topics include policy and procedure development, personnel practices, productivity evaluation, and financial planning. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 230 Supervision

This course deals with basic supervision principles including planning, directing, and controlling group activities. Emphasizing organizational structure, motivation, performance evaluation, counseling, personnel law, training methods, and group dynamics, this course also gives special attention to supervisory responsibilities under current interpretations of governmental regulations and laws governing personnel actions as well as legal liability. Supervisory skills are developed by applying general principles to specific case studies. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 240 Private Security and Law

This course provides the student with an overview of the private security field. Emphasis is on specific prevention and apprehension methods for commercial, retail, and industrial protection including protection from unlawful intrusion, retail theft, and employee theft. The legal aspects of private security are also discussed. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 270 Constitutional Law

This course focuses on the impact of the United States Constitution and Supreme Court decisions based on interpretation of constitutional issues on law enforcement. Emphasis is on critical issues of rights to due process, rights to counsel, protection against unreasonable searches and seizures, and freedom of speech. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 280 Civil Law and Procedure

This course presents the basic principles of civil law, defines the differences between civil and criminal law in substance and procedure, and examines the application of civil law in areas relevant to police work. Special emphasis is on landlord-tenant rights disputes, marital settlement disputes, civil process service, officer liability for excessive use of force, and false arrest torts. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 295 Basic Law Enforcement

This course contains all of the college-level academic studies required for certification as a law enforcement officer as prescribed in the state of North Carolina Basic Law Enforcement Training certification curriculum standards. All course credits are earned through completing a basic school specifically contracted through Durham Technical Institute. Course Hours Per Week: Class, 28. Lab, 2. Quarter Hours Credit, 29. Prerequisite: Employment by the city of Durham Public Safety Department.

Dental

DEN 101 Dental Anatomy

This course introduces the anatomy of an individual tooth. Laboratory activities include scale drawings of each tooth from central incisors through the second molar on one side of the upper and lower arches. Each tooth is carved in wax with special emphasis on reproducing natural tooth anatomy. Course Hours Per Week: Class, 2. Lab, 9. Quarter Hours Credit, 5. Prerequisite: None.

DEN 102 Oral Anatomy and Physiology

This course covers the anatomy and physiology of the head, oral cavity, dentition and supporting structures, the temporomandibular joint, occlusion, and malocclusion. The course introduces the student to the morphological, functional, and esthetic relationships between teeth and supporting structures. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: None.

DEN 104 Dental Materials

This course provides a study of the composition, properties, and uses of non-metallic dental materials such as gypsum products, impression materials, waxes, acrylic resins, and duplicating materials. Laboratory exercises illustrate the properties and uses of the materials studied and the results of proper and improper manipulation of the materials. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

DEN 106 Complete Denture Techniques

This course introduces the basic techniques for complete denture construction. Laboratory activities include constructing baseplates and occlusion rims from various materials, mounting complete denture casts on an adjustable articulator, completing a maxillary trial wax-up on a denture base, and pouring alginate impressions. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisite: None.

DEN 107 Complete Denture Techniques

This course is a continuing study of complete denture fabrication. Laboratory activities include constructing complete maxillary and mandibular dentures using various posterior tooth forms on an adjustable articulator. Procedures for relining and rebasing complete dentures are included. Course Hours Per Week: Class, 1. Lab, 9. Quarter Hours Credit, 4. Prerequisites: DEN 101, DEN 104, DEN 106, SCI 150.

DEN 108 Partial Denture Techniques

This course presents the basic techniques used in fabricating cast removable partial denture frameworks utilizing a chrome-nickel alloy. Laboratory activities include practical exercises in the fundamentals for surveying the master model and designing partial denture frameworks. Further exercises include block-out procedures, pouring refractory casts, and forming the wax pattern. Patterns are then invested followed by the burn-out of the molds. The frameworks are cast, finished, polished, and seated on the master model. All metal frameworks are evaluated for accuracy and appearance. Course Hours Per Week: Class, 2. Lab, 9. Quarter Hours Credit, 5. Prerequisites: DEN 101, DEN 102, DEN 111.

DEN 109 Partial Denture Techniques

This course examines such removable appliances as wrought clasps, combination cast and wrought metal frameworks, orthodontic/pedodontic appliances, and maxillofacial prosthesis. Laboratory activities include fabricating each of the above restorations. Course Hours Per Week: Class, 1. Lab, 12. Quarter Hours Credit, 5. Prerequisite: DEN 108.

DEN 111 Dental Metallurgy

This course covers the physical and mechanical properties of both precious and non-precious metal alloys including cast and wrought structures and the use of various casting and soldering investments. Troubleshooting possible causes for defective castings is also included. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisites: DEN 104, SCI 150.

DEN 113 Cast Inlay and Crown Techniques

This course presents techniques for fabricating cast gold restorations and introduces terminology and techniques specific to inlays and crowns. During laboratory activities, a student prepares casts and dies from impressions and gains experience in waxing, carving, investing, casting, and polishing simple and complex inlays, full crowns, and three-quarter crowns. Course Hours Per Week: Class, 2. Lab, 9. Quarter Hours Credit, 5. Prerequisites: DEN 101, DEN 104, SCI 150.

DEN 115 Crown and Bridge Techniques

This course examines techniques for fabricating cast gold fixed bridges utilizing various abutment and pontic forms. Investing and casting procedures are also covered. Course Hours Per Week: Class, 1. Lab, 9. Quarter Hours Credit, 4. Prerequisites: DEN 111, DEN 113.

DEN 116 Crown and Bridge Techniques

This course examines various techniques for fabricating gold crowns and bridges. During laboratory activities, the student uses the various acrylic veneering materials, temporary restorations, telescoping crowns, transfer copings, and parallel copings to provide abutments for receiving an overdenture. Course Hours Per Week: Class, 1. Lab, 12. Quarter Hours Credit, 5. Prerequisite: DEN 115.

DEN 201 Advanced Complete Denture Techniques

This course continues to examine complete denture techniques which include immediate dentures, overdentures, denture rebasing and relining, the face bow transfer, and central bearing devices. Course Hours Per Week: Class, 2. Lab, 12. Quarter Hours Credit, 6. Prerequisite: DEN 107.

DEN 204 Partial Denture Techniques

This course continues to examine removable partial denture techniques which include articulating casts by using various jaw relationship records, selecting teeth, setting-up teeth, and forming the wax denture base. Further exercises include flasking the wax denture base, processing, and finishing and polishing removable partial dentures. All completed partial dentures are evaluated for accuracy and appearance. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: DEN 109.

DEN 205 Advanced Partial Denture Techniques

This course continues to examine various removable partial denture concepts. Precision stress-breaking devices, unique clasping techniques, and an in-depth study of design variations are included. Course Hours Per Week: Class, 1. Lab, 9. Quarter Hours Credit, 4. Prerequisite: DEN 204.

DEN 207 Ceramic Techniques

This course examines the physical properties and manipulation of ceramic materials for fabricating porcelain jacket crowns. Laboratory activities include preparing dies, adapting platinum matrices, forming, firing, glazing, and personalization. Course Hours Per Week: Class, 2. Lab, 9. Quarter Hours Credit, 5. Prerequisite: DEN 116.

DEN 209 Jurisprudence and Ethics Seminar

This course presents the history of the dental profession and the dental laboratory industry, the legal and ethical aspects of the industry, and the dentist-laboratory relationships. An in-depth study of certification and licensure issues is also included. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: DEN 201 or DEN 205 or DEN 211.

DEN 211 Ceramic Techniques

This course presents techniques for fabricating porcelain fired to precious ceramic metal crowns. The course is structured to include model and die work, casting and finishing the metal crowns, and applying and firing the porcelain to a single unit metal substructure. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: DEN 207.

DEN 212 Advanced Ceramic Techniques

This course continues the study of techniques for bonding dental porcelain to a non-precious dental alloy. Laboratory activities include crown and pontic substructure designs for porcelain fused to metal fixed bridges and techniques for personalizing the porcelain veneer. Course Hours Per Week: Class, 2. Lab, 12. Quarter Hours Credit, 6. Prerequisite: DEN 211.

DEN 213 Dental Laboratory Practice

This course provides the student with practical experience in interpreting the written work authorization as well as in fabricating prosthetic appliances. Instructors provide advisement and supervision. Class structure resembles a commercial dental laboratory as nearly as possible and emphasizes dentist-laboratory techniques and relationships. Students are required to put into actual practice the various techniques and procedures for fabricating removable and fixed dental appliances using impressions and prescriptions supplied by various legal sources. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisites: DEN 201, DEN 204, DEN 207.

DEN 214 Advanced Dental Laboratory Practice

This course provides continued practice in fabricating appliances from casts and prescriptions supplied by various legal sources. Ethical dentist-laboratory relationships continue to be emphasized. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisite: DEN 213.

Drafting

DFT 103 Technical Drawing

This course introduces basic drafting fundamentals. Drafting equipment use, lettering, geometric construction, sketching, size and shape descriptions, orthographic projection, dimension, and sections are included. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: None.

DFT 201 Electronic Drafting

This course introduces the principles and practical applications of drafting as they relate to the electronic field. The course reviews DFT 103 as well as covers basic drawing interpretation, datum dimensioning, schematic symbols, block diagrams, and printed circuit board layout. The student sees applications of electrical drafting in industrial settings. Course Hours Per Week: Class, 1. Lab, 3. Quarter Hours Credit, 2. Prerequisite: DFT 103.

DFT 205 Computer Graphics

This course introduces modern computer graphics technology. Major topics include computer systems configurations, input/output devices, principles of graphics programming, low- versus high-resolution, color coding, three-dimensional computer graphics, projection techniques, and image transformations. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisites: EDP 103 or EDP 109 and DFT 103 or DFT 1101.

DFT 210 Advanced Computer Graphics

Building upon the operating skills acquired in DFT 205, this course provides information for designing and creating symbols as well as working drawings utilizing the IBM Fastdraft graphics system. Laboratory sessions provide opportunities for the student to create and edit various assigned drafting problems utilizing the light-pen input technique. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: DFT 205 or equivalent.

DFT 1101 Architectural Drafting I

This course introduces drafting and examines drafting practices. Selection, use and care of drawing instruments, single-stroke lettering, and freehand sketching consisting of orthographic and sectional drawings are covered. In addition, instrument drawings stressing the application of dimensioning, sectioning, multiview, axonometric, and oblique projections are taught. Drawing reproduction is also discussed. Course Hours Per Week: Class, 3. Lab, 12. Quarter Hours Credit, 7. Prerequisite: None.

DFT 1102 Architectural Drafting II

This course is the study of building materials, architectural lettering, design, and house construction. Drawing principles and practices are applied in a set of house plans designed by the student. Ramification of architectural drawings and designs relating to residential construction, preliminary considerations, exterior designs, wall sections, elevations, wiring, plumbing, mechanical layouts, and rendering are included. Course Hours Per Week: Class, 3. Lab, 12. Quarter Hours Credit, 7. Prerequisite: DFT 1101.

DFT 1103 Architectural Drafting III

This course introduces the light commercial construction design of a small two-story apartment complex or other multi-family two-story dwelling. Particular attention is paid to construction techniques and energy efficient design. Construction drawings include a floor plan, typical end wall section, transverse section, isometric plumbing plan, as well as door and wall details and various legends. Using technical pens for inking on drafting film constitutes the major portion of the course.

Course Hours Per Week: Class, 3. Lab, 12. Quarter Hours Credit, 7. Prerequisite: DFT 1102.

DFT 1104 Architectural Drafting IV

This course introduces commercial architecture and emphasizes construction details and structural members. Commercial applications of building materials and their uses in small buildings are also stressed. A study of space and functional operations enables the student to understand various design considerations. Course Hours Per Week: Class, 3. Lab, 12. Quarter Hours Credit, 7. Prerequisite: DFT 1103.

DFT 1106 Blueprint Reading I: Mechanical

This course introduces the student to blueprint interpretation and reading. The course also covers information on the basic principles of the blueprint which include lines, views and dimensioning, and procedures and notes. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: DFT 103.

DFT 1107 Blueprint Reading II: Mechanical

This course provides further practice in interpreting blueprints using prints supplied by industry. Emphasis is on interpretation and application as it relates to the machine shop. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: DFT 1106.

DFT 1111 Technical Drafting

This course introduces the graphic solutions to problems. Basic descriptive geometry, auxiliary views, oblique views, curved lines, and revolutions are covered. The course also deals with parallel and radical line development. Course Hours Per Week: Class, 3. Lab, 3. Quarter Hours Credit, 4. Prerequisite: DFT 1101.

DFT 1112 Architectural Materials

This course examines basic construction materials as used in architectural structures. The economic values, limitations, budgets, standards of materials, and building code requirements are included. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

DFT 1113 Structural Drafting

This course emphasizes developing working drawings for such structural building parts as threads and fasteners, welding symbols, and trusses. A complete working drawing is developed, and standard structural members are discussed. Course Hours Per Week: Class, 3. Lab, 3. Quarter Hours Credit, 4. Prerequisite: DFT 1111.

DFT 1114 Technical Illustration

This course develops a student's competence in the field of architectural and technical illustration. The course covers pictorial illustration techniques including sketching, isometrics, inking and shading, air brush applications, finished illustrations, and pictorial drawings. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisite: DFT 1101.

DFT 1115 Surveying for Architectural Drafters

This course introduces basic surveying, instrumentation principles, and plot applications. Basic trigonometric principles, ratio solving problems, and site planning principles are employed. Orientation, drainage, zoning, and ecological factors which relate to building plots are also included. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: DFT 103 or DFT 1101.

DFT 1117 Architectural Estimating

This course provides the student with techniques for estimating the building cost of a residence. Foundations, framing, plumbing, electricity, and finishing are included in the course. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: DFT 1112.

DFT 1118 Architectural Blueprint Reading

This course introduces the student to interpreting architectural blueprints. The basic principles of the blueprint which include lines, symbols, views, dimensioning, and procedures and notes are covered. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Economics

ECO 102 Microeconomics

This course covers introductory and microeconomic concepts. The first part of the course emphasizes how individuals, businesses, and societies make choices in managing scarce resources. The second part of the course deals with microeconomic concepts and problems such as the market, supply and demand, and pricing. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ECO 104 Macroeconomics

This course deals with currency, spending, inflation, unemployment, fiscal and monetary policy, and economic stabilization. The underlying causes of inflation, recession, and unemployment are covered in depth. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Electronic Data Processing

EDP 103 Introduction to Microcomputers

This course introduces the nonprogrammer to the field of microcomputers. The student becomes familiar with the capabilities of a microcomputer, the features of an operating system, and the use of software packages. Laboratory exercises provide hands-on experience in using hardware and software. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

EDP 104 Introduction to Data Processing

This introductory course gives the student an understanding of the fundamental concepts of data processing. Topics include data processing terminology, historical development of computer hardware, business applications for computers, components of a computer system, the program development cycle, input/output devices and media, the role of data processing professionals, binary and hexadecimal number systems, and an introduction to computer programming. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

EDP 106 Computer Programming Logic

This course provides the tools and techniques needed to design structured programming logic. The student learns to organize thoughts and develop structured logic to solve simple business problems. Emphasis is on analysis of program specifications, structured design techniques, development of pseudocode, and walkthrough of logic. Course Hours Per Week: Class, 2. Lab, 2. Quarter Hours Credit, 3. Prerequisite: None.

EDP 109 BASIC Language I

This is an introductory course in the fundamentals of computer programming using the BASIC language on microcomputers. The student learns the BASIC language commands and uses them in problem solving and program development. Concepts of microcomputer hardware and computer applications are introduced. Laboratory exercises correlate closely with lecture topics to provide opportunities for solving practical problems in several areas of application. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 103 or EDP 106 or ELN 101 or MAT 105 or equivalent.

EDP 110 BASIC Language II

As a continuation of BASIC Language I, this course examines the use of advanced programming techniques and develops the skills required in handling data on multiple input/output devices. The student designs, codes, documents, and operates programs utilizing techniques associated with data input/output, validation, arrays, sorting, string manipulation, and file handling. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 109 or equivalent.

EDP 111 COBOL I

This course introduces the basics of the COBOL language and teaches the student to develop simple report programs using structured programming techniques. Emphasis is on the program development cycle, COBOL language requirements, program structure, arithmetic operations, output editing, and COBOL diagnostics. Laboratory work includes exercises in developing program logic and writing structured COBOL programs for business applications. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 106 or equivalent.

EDP 112 COBOL II

This course, a continuation of COBOL I, improves the student's analytical and programming techniques. It utilizes more advanced concepts of the COBOL language including conditional statements, input editing, multiple-level control breaks, and one-level table processing. Laboratory assignments require the student to develop programs utilizing these new concepts to solve business problems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 106 or equivalent.

EDP 115 Pascal I

This course introduces the Pascal programming language and emphasizes problem solving, structured programming techniques, and the development of application programs involving the use of calculations, iteration, arrays, and subprograms. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 109 or EDP 112 or equivalent.

EDP 116 Pascal II

This course, a continuation of Pascal I, explores advanced programming techniques. The topics covered include sequential and linked list file processing, recursion, units and libraries, pointers, input editing, and graphics. Emphasis is on developing user-friendly programs and system design. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 115 or equivalent.

EDP 140 Microcomputer Operating Systems

This course presents a comparison of DOS, CP/M, UNIX, and ZENIX operating systems and focuses on the primary features of each. Topics covered include utilities, directories, file handling capabilities, editors, and the interaction between the operating system and high level programming languages. UNIX and ZENIX systems are emphasized. The student needs to have prior experience in a DOS environment. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 109 or equivalent.

EDP 145 Microcomputer Assembler

This introductory course in assembler language for the IBM PC begins by familiarizing the student with the 8088 microprocessor and its requirements for storing and processing data. Topics covered include binary and hexadecimal number systems, ASCII code, machine addressing, data formats, constants, pseudo operations, input and output instructions, loop control, screen processing, string manipulation, calculations, disk processing, and debugging techniques. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 109 or equivalent.

EDP 180 Microcomputer Data Base Management

This course presents the basic concepts for using a microcomputer data base management system. Major topics include file structure, file creation, file manipulation, and output device control. The student develops and tests programs for data base applications. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 110 or EDP 116 or equivalent.

EDP 182 C Programming Language

This introductory course in the C programming language presents an overview of the language and its interface with the operating system. Major topics include data types, operators, expressions, storage classes, control flow, functions, pointers, arrays, and input/output facilities. The student designs, codes, tests, and debugs programs which utilize the major features of the C language. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 110 or EDP 116 or equivalent.

EDP 201 Operating Systems and JCL

This course introduces the student to operating systems and System 370 Job Control Language (JCL). The concepts and facilities of the operating system are introduced from the application programmer's point of view. The major parameters of the Job Control Language are presented, and the student prepares control cards for multiple types of job streams. Several non-JCL operating system facilities, such as the linkage editor, utility programs, and Virtual Sequential Access Method (VSAM), are discussed. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 112 or equivalent.

EDP 203 Advanced Topics in Data Processing

This course is a study of the basic rules and requirements of a selected computer language including a discussion of good general programming techniques used in any language. The language studied is selected by the department and will be announced in advance. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 201 or equivalent.

EDP 205 Integrated Software Packages

This course concentrates on the use of pre-written software packages with an emphasis on spread sheets. A currently popular software package is presented in detail. The student learns to enter the necessary information to use the programming package, develops spread sheets, builds files or data bases, writes macro procedures, and produces appropriate business reports. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 103 or equivalent.

EDP 206 SAS Programming Language

This course in the fundamentals of SAS programming is designed for the student with a background in computer programming. The student learns basic SAS commands and statements and uses them to develop complete job streams for solving a variety of data processing application problems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 201 or equivalent.

EDP 207 RPG II

This course introduces the fundamentals of the RPG II language for developing programs. The student writes a series of entries on predefined specification forms which define the input, processing, and output. The student also writes several business application programs which emphasize the RPG fixed logic input/output processing, arithmetic operations, edit codes, comparing control breaks, fetch overflow, tables, exception output, sequential file processing, and READ-DEMAND files. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 201 or equivalent.

EDP 210 PL/1 Programming

This course provides the student with an understanding of the fundamentals of Programming Language/One (PL/1). It is assumed that the student has some basic knowledge of the principles by which a computer works and how these principles affect programming techniques. Subject material includes character strings, edited input/output, internal procedures, augments, parameters, manipulation of arrays, and loop control. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 112 or equivalent.

EDP 211 FORTRAN Programming

This introductory course provides the student with the necessary information required to solve business-oriented problems using the FORTRAN computer language. Emphasis is on basic control structure, the use and manipulation of data types, arrays and subscripts, advanced control structures, subprograms, formatted input and output, logical and character string data, and multidimensional arrays. The student designs, codes, tests, and debugs several FORTRAN programs using the WATFIV compiler. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 112 or equivalent.

EDP 212 Assembler Language I

This is an introductory course in assembler language programming for IBM mainframes. While providing an understanding of the fundamental differences between compiler and assembler programming languages, the course stresses how the computer actually operates on data. The topics covered include hardware concepts, number systems, instructional formats, data transfer, and sequence control. Laboratory assignments require the student to develop, code, and test assembler programs to solve business problems using the ASSIST compiler. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: EDP 104, EDP 106 or equivalents.

EDP 213 Assembler Language II

As a continuation of Assembler Language I, this course provides a thorough study of the binary instruction set as well as additional work with decimal instructions. Topics covered include OS macros, loop control, indexing, internal sub-routines, address modification, use of registers, table processing, and debugging techniques. Emphasis is on applying these techniques in solving business problems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 212 or equivalent.

EDP 214 COBOL Systems I

This course, a continuation of COBOL II, presents more advanced programming techniques using the COBOL language. The focus is on disk file concepts, sequential file processing, input editing, COBOL SORT, two-level tables, COBOL dumps, and hierarchy charts. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: EDP 112, EDP 212 or equivalents.

EDP 215 COBOL Systems II

This course presents realistic problems which simulate a typical business application programming environment. Major topics include programming team concepts, direct access file processing, program maintenance, system documentation, job streams, subprogramming, and three-dimensional tables. Course Hours Per Week: Class, 3. Lab, 1. Quarter Hours Credit, 4. Prerequisites: EDP 201, EDP 214 or equivalents.

EDP 216 Data Processing Project

This course presents an opportunity for the student to acquire on-the-job experience in a local business, industry, governmental agency, or educational environment. Learning objectives are identified at the beginning of the quarter. Major topics include increasing competencies in programming, oral and written presentations, developing good work habits, personal and professional development, and finding a job. Course Hours Per Week: Class, 1. Lab, 10. Quarter Hours Credit, 2. Prerequisite: Last quarter standing or approval of program director.

EDP 218 Microcomputer Hardware and Networking

This course familiarizes the student with the physical components of a microcomputer and with the process of networking microcomputers. The topics covered include identifying internal hardware components; the use of printers, ports, and other add-on features; set up, installation, and troubleshooting of the hardware; principles of telecommunications and interfacing microcomputers with mainframes; and establishing and using a microcomputer network. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: EDP 140 or equivalent.

EDP 219 Systems and Procedures

This introductory course in systems analysis provides an understanding of the various tools employed by the analyst in creating better systems. Subject areas include systems investigation, detailed systems design, systems development, and presentation techniques. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: EDP 214 or equivalent.

EDP 220 Data Base Management

This introductory course in data base management in business provides the student with an understanding of the terminology, concepts, and techniques used in data base management systems. Subject areas include conceptual data base structures, the CODASYL approach to data base management, relational data bases, and hierarchically structured data bases. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 214 or equivalent.

EDP 225 Developing Microcomputer Applications

This course requires the student to develop a complete business system for a microcomputer. During consultation with the instructor, the student selects the programming language to be used and the application to be developed. The student then designs, codes, and tests the complete system and makes a formal presentation of this system to the class. Emphasis is on good design techniques and usability of the completed system. The course requires a high degree of independent work. Course Hours Per Week: Class, 1. Lab, 4. Quarter Hours Credit, 3. Prerequisite: EDP 218 or permission of program director.

EDP 228 Managing Microcomputer Systems

This course presents the information necessary to set up and manage a microcomputer installation. Topics covered include selecting hardware and software, legal requirements pertaining to software usage, training users, system security, system disaster and recovery, current developments in the microcomputer field, and discussion of microcomputer environments. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: EDP 140 or equivalent.

Education

EDU 111 Emotional Development I

This course is a study of the emotional development of infants, toddlers, and preschoolers with emphasis on self-concept development and the recognition, acceptance, and expression of feelings. The role of the caregiver in providing an appropriate role model, interpreting theory, assessing children, developing goals and objectives for children, and developing lesson plans are explored. In addition, the course focuses on recognizing emotional development problems and identifying alternative strategies for intervention. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 112 Emotional Development II

This course, a continuation of Emotional Development I, focuses on the role of the caregiver in fostering emotional development. Emphasis is on interactional techniques between caregiver and children and on planning and implementing developmentally appropriate activities, space, equipment, and materials for the optimal emotional development of infants, toddlers, and preschoolers. In addition, the student learns techniques for adapting the environment for children with special needs and for assisting parents in recognizing and dealing with children's emotional development. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: EDU 111.

EDU 115 Introduction to Child Care

This course introduces the field of child care. The history and philosophy of child care are covered as a basis for understanding current programs and practices. The role of the caregiver in implementing a program is studied with emphasis on integrating values, developing professional behavior, planning for individual and group needs, and implementing the components of the environment and curriculum. In addition, the student examines issues relevant to the future of the child care profession. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

EDU 118 Family Involvement

This course examines the relationship between the family and the child care program. The student studies the family's influence on the child, the interaction between the parents and the caregiver, and the role of the caregiver in assisting the parents with child guidance. Course Hours Per Week: Class, 1. Quarter Hours Credit, 1. Prerequisite: None.

EDU 121 Social Development I

This course provides a study of the social development of infants, toddlers, and preschoolers. The role of the caregiver is emphasized in providing an appropriate role model, interpreting theory, assessing children, developing goals and objectives for children, and utilizing positive guidance and discipline techniques. In addition, the course focuses on recognizing social development problems and identifying alternative strategies for intervention. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 122 Social Development II

This course, a continuation of Social Development I, focuses on the role of the caregiver in promoting positive social development. Emphasis is on developing lesson plans and planning and implementing developmentally appropriate space, equipment, materials, and activities for the optimal social development of infants, toddlers, and preschoolers. The student learns techniques for supervising and participating in social development activities and for adapting the environment for children with special needs. In addition, the student learns techniques for assisting parents in recognizing and dealing with children's social development. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: EDU 121.

EDU 125 Physical Development I

This course is a study of the physical development of infants, toddlers, and preschoolers with emphasis on body growth, motor development, and perceptual development. The role of the caregiver in providing an appropriate role model, interpreting physical development theory, assessing children's physical development, and developing goals and objectives for children's physical development is explored. In addition, the course focuses on recognizing physical development problems and identifying alternative strategies for intervention. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 126 Physical Development II

This course, a continuation of Physical Development I, focuses on the role of the caregiver in planning and implementing developmentally appropriate activities, space, equipment, and materials for the optimal physical development of infants, toddlers, and preschoolers. The student learns techniques for supervising and participating in physical development activities and for adapting the environment for children with special needs. In addition, the student learns techniques for educating parents regarding the importance of physical development. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: EDU 125.

EDU 130 Cognitive Development I

This course is a study of the cognitive development of infants, toddlers, and preschoolers with emphasis on recognizing and understanding the sequential stages of development. The role of the caregiver in providing an appropriate role model; interpreting developmental theory; assessing cognitive development; and developing goals, objectives, and lesson plans is studied. In addition, the course focuses on recognizing cognitive development problems and identifying alternative strategies for intervention. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

EDU 131 Cognitive Development II

This course, a continuation of Cognitive Development I, focuses on the role of the caregiver in planning and implementing developmentally appropriate space, equipment, materials, and activities for the optimal cognitive development of children from birth to age six. The student learns techniques for supervising and participating in cognitive development activities and for adapting the cognitive environment for children with special needs. In addition, the student learns techniques for educating parents regarding the importance of children's cognitive development. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: EDU 130.

EDU 135 Methods of Instruction

This course develops specific skills in the art of teaching and special attention is given to writing performance objectives and lesson plans. Additional topics include using training aids, developing effective speaking techniques, constructing valid test items, evaluating performance achievements, and counseling students for academic improvement. The development of practical skills in the classroom is also emphasized. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

EDU 201 Language Development I

This course is a study of the language/communication development of infants, toddlers, and preschoolers. The role of the caregiver in providing an appropriate model; interpreting theory; assessing children; and developing goals, objectives, and lesson plans is emphasized. In addition, the student learns to recognize language/communication development problems and alternative strategies for intervention. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

EDU 202 Language Development II

This course, a continuation of Language Development I, focuses on the caregiver's role in promoting language/communication development. Emphasis is on planning and implementing developmentally appropriate space, equipment, materials, and activities. The student learns interactional techniques which support and stimulate the development of language/communication skills. In addition, the student learns methods for adapting the environment for children with special needs and for educating parents regarding the importance of language/communication development. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: EDU 201.

EDU 206 Adjustment Problems

This course is a survey of the typical adjustment problems children experience during their preschool years. Attention is given to defining the range of normal behavior, knowing when and how to refer to an outside resource, and handling specific problems. Techniques for promoting desirable behaviors and for coping with undesirable behaviors are explored. In addition, the student learns techniques for assisting parents in recognizing and coping with adjustment problems. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisites: EDU 112, EDU 115, EDU 118, EDU 122.

EDU 215 Child Care Applications I

This seminar-practicum course is an advanced study of child care principles with emphasis on applying those skills necessary in providing a quality program environment for young children. The student is placed in a child care program to gain on-the-job experience in working with children and adults. Attention is given to developing the student's professional behavior and interpersonal communication skills. In addition, the student identifies goals, objectives, and strategies for improving child care competencies. Course Hours Per Week: Class, 5. Lab, 10. Quarter Hours Credit, 6. Prerequisites: HEA 101, HEA 102, EDU 112, EDU 115, EDU 118, EDU 122, EDU 126, EDU 131. Corequisites: EDU 202, EDU 206.

EDU 216 Child Care Applications II

This course is a continuation of Child Care Applications I. The student continues placement in a child care program to develop on-the-job experience in mastering the skills necessary for working with children and adults. Emphasis is on developing, implementing, and evaluating curriculum plans; preparing for child care employment; analyzing professional issues; and implementing, evaluating, and revising competency goals and objectives. Course Hours Per Week: Class, 5. Lab, 20. Quarter Hours Credit, 7. Prerequisite: EDU 215.

Electricity

ELC 100 Basic Electricity

This course is a study of basic principles, concepts, and theories of DC/AC electricity. Emphasis is on relationships between resistance, current, voltage, capacitance, inductance, time constants, capacitive reactance, and inductive reactance in the context of simple series, parallel, and series-parallel circuits. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: MAT 120 or satisfactory score on placement test.

ELC 1101 Introduction to Electricity

This course examines the basic principles, concepts, and theories of DC/AC electricity. Emphasis is on relationships between resistance, current, voltage, capacitance, inductance, time constants, capacitive reactance, and inductive reactance in the context of simple series, parallel, and series-parallel circuits. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: None. Corequisite: MAT 105 or MAT 1101 or approval of program director.

ELC 1102 Electrical Wiring I

This course acquaints the student with the elementary principles of residential wiring. The course includes an introduction to electrical symbols, circuits, conductors, controlled switches, convenience receptacles, heating units, water pumps, water heaters, dryers, ranges, and air conditioners. Also included are service entrances and equipment and related calculations as applied to the latest edition of the National Electrical Code. Course Hours Per Week: Class, 4, Lab, 6. Quarter Hours Credit, 6. Prerequisite: None.

ELC 1103 AC, Motor, and Transformer Theory

This course introduces the student to the principles and characteristics of direct and alternating current machines. Emphasis is on operational characteristics of transformers and motors, various types of single-phase and three-phase motors, direct current machines, motor starting, and speed control. Additional units include transformer losses, taps, delta connections, wye connections, and transformer banks. Course Hours Per Week: Class, 4, Lab, 6. Quarter Hours Credit, 6. Prerequisite: ELC 1101 or equivalent.

ELC 1104 Electrical Wiring II

This course acquaints the student with the elementary principles of commercial and industrial wiring. The course includes an introduction to conduit systems, bus ducts, and substation type service and allows continued study of the National Electrical Code. Emphasis is on emergency power systems, overcurrent protection, short-circuit calculations, feeder calculations, and coordination of overcurrent protection. Course Hours Per Week: Class, 4, Lab, 6. Quarter Hours Credit, 6. Prerequisite: ELC 1102 or equivalent.

ELC 1105 Electrical Control Systems

This course includes principles and characteristics of direct and alternating current machines and methods of controlling them. Topics include industrial electrical symbols, ladder diagrams, logic functions, manual and magnetic starters, magnetic solenoids, and relays. Course Hours Per Week: Class, 4, Lab, 6. Quarter Hours Credit, 6. Prerequisite: ELC 1101 or equivalent.

ELC 1106 Blueprint Readings and NEC Calculations

This course provides the Industrial Electricity/Motors and Controls student with an in-depth study in designing and calculating. Emphasis is on the application of designs and calculations to residential, commercial, and industrial wiring installations. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ELC 1102 or equivalent.

ELC 1109 Maintenance and Troubleshooting

This course acquaints the student with maintenance management techniques and systems. Emphasis is on periodic planned maintenance including checking brushes; cleaning relays, switches, motors, and control cabinets; using solvents and lubricants; safety precautions; and motor care in a hostile environment. The course also covers troubleshooting logic, fault isolation, testing, system analysis, high voltage distribution, and safety precautions. Course Hours Per Week: Class, 3, Lab, 3. Quarter Hours Credit, 4. Prerequisite: None.

ELC 1110 Electronic Control Systems

This course examines the principles and applications of solid state control systems and industrial programmable control systems. Topics include SCR's, solid state timers, solid state relays, and solid state sensors. Special emphasis is on programmable controllers. Course Hours Per Week: Class, 4, Lab, 6. Quarter Hours Credit, 6. Prerequisite: ELC 1105 or equivalent.

Electronics

ELN 100 Introduction to Electronics

This course is a study of the fundamental principles, concepts, and theories of electronics. Emphasis is on solid state devices and their applications and includes diodes, bipolar transistors, field-effect transistors, photo-devices, special-purpose devices, and IC circuit packages. Course Hours Per Week: Class, 5, Lab, 2. Quarter Hours Credit, 6. Prerequisite: ELC 100.

ELN 101 DC Circuit Analysis

This course is a study of the principles, concepts, and theories of DC electricity. Emphasis is on relationships of and between resistance; current; voltage; capacitance; inductance; time constants; magnetics; and electrostatics in the context of series, parallel, and series-parallel circuits. Course Hours Per Week: Class, 4, Lab, 6. Quarter Hours Credit, 7. Prerequisite: None. Corequisite: MAT 160.

ELN 102 AC Circuit Analysis

This course, a continuation of ELN 101, is a study of the AC fundamentals, principles, concepts, theories, and laws and relationships of and between impedance, current, voltage, capacitive reactance, and inductive reactance in the context of series, parallel, and series-parallel circuits. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 7. Prerequisite: ELN 101 or equivalent. Corequisite: MAT 161.

ELN 103 Mechanical Processes for Electronics

This course introduces the student to shop safety procedures; hand tools; soldering and desoldering techniques; processes for electronic fabrication and construction; and material processes which include cutting, drilling, and filing. Course Hours Per Week: Class, 1. Lab, 3. Quarter Hours Credit, 2. Prerequisite: None.

ELN 105 Introduction to Active Devices

This course is a study of active circuit devices through the techniques of graphical and numerical analysis. Topics include an introduction to semiconductor diodes, transistors, basic amplifier configurations, and device parameters. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: ELN 102 or equivalent.

ELN 110 Introduction to Digital Electronics

This course examines combinational and sequential logic circuits using discrete and integrated circuit components. Topics include binary arithmetic, numbering systems, Boolean algebra, storage, timing, gating, and counting. Typical applications in industry are discussed. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: MAT 106 or approval of program director.

ELN 201 Construction of Electronic Devices

This course is a study in the manipulative skills and techniques required to design, construct, and fabricate electronic equipment. Techniques of chassis construction and printed circuit fabrication are also included. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisites: ELN 103, ELN 219, DFT 201, or equivalents.

ELN 205 Application of Active Devices I

This course focuses on circuit applications of active devices through the techniques of graphical and numerical circuit analysis. Topics include the bipolar transistor and field-effect transistor as active circuit elements in audio- and radio-frequency amplifiers and amplifier circuits. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: ELN 105 or equivalent.

ELN 216 Pulse and Waveshaping Circuits

This course is a study of pulse circuits and waveshaping fundamentals. Topics include diode and transistor switching action, differentiating and integration circuits, multivibrator circuits, triggering techniques, electronic logic, and logic circuits. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisites: ELN 105, MAT 162, or equivalent.

ELN 218 Application of Active Devices II

This course focuses on applications of active devices through the techniques of graphical and numerical circuit analysis. Topics include feedback in amplifier circuits; sinusoidal oscillators; power amplifiers; power supplies; and thyristor devices to include the UJT, DIAC, SCR, TRIAC, and transducer. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: ELN 205 or equivalent.

ELN 219 Linear Integrated Circuits

This course is a study of the analysis and design of circuits which use linear integrated circuit chips. Topics include op-amps, active filters, timer circuits, comparator, summing amps, PLL circuits, and optoelectronic devices. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: ELN 218 or equivalent.

ELN 240 Digital Electronics

This course is a study of combinational and sequential logic circuits using discrete and integrated components. Topics include binary arithmetic, numbering systems, Boolean algebra, storage, timing, gating, and counting. Typical applications in industry are presented. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 7. Prerequisite: ELN 216 or equivalent.

ELN 270 Microprocessor Fundamentals

This is an introductory course in microprocessor fundamentals. Topics are presented using a middle ground approach between hardware and software and the universal concepts which apply to all models of microprocessors. A linear progression from fundamental principles to complete systems, covering both the Motorola MC 6800 family and Intel 8080 family of microprocessors, is included. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 7. Prerequisites: ELN 240 and MAT 162 or ELN 110 and MAT 106 or equivalents.

ELN 280 Microprocessor Applications

This advanced course in microcomputer systems covers microcomputer software development and hardware interfacing techniques using currently available microprocessor chips and system support chips. The use of special analytical equipment is included. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 6. Prerequisites: ELN 219, ELN 240, ELN 270, or equivalents.

ELN 290 Robotics I

This course introduces the field of robotics. Specific topics focus on the fundamentals of robotic operation which include AC and fluidic power, DC power and positioning, and basic microprocessor software and hardware. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: ELN 270 or equivalent.

ELN 291 Robotics II

This course covers associated robotic applications. Emphasis is on using the microprocessor controller, data acquisition, data handling and conversion, voice synthesis, and robotic interfacing. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: ELN 290 or equivalent.

ELN 1010 Solid State Circuits/Applications

This course examines the fundamental principles of electronic active devices. Topics include an introduction to semiconductor diodes, transistors, field-effect transistors, DIAC's, and TRIAC's. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: ELC 1101.

ELN 1020 Digital Electronics

This course examines combinational and sequential logic circuits using discrete and integrated components. Topics include a review of numbering systems, logic gates, evaluation of logic expressions, logic families, arithmetic logic units, flip flops, and memories. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: MAT 106 or approval of program director.

ELN 1030 Microprocessor Fundamentals

This is an introductory course in microprocessor fundamentals. Topics are presented using a middle-ground approach between hardware and software and the universal concepts which apply to all models of microprocessors. A linear progression from fundamental principles to complete systems, covering both the Motorola MC 6800 family and Intel 8080 family of microprocessors, is discussed. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: None.

ELN 1040 Electronic Systems Troubleshooting and Repair

This course examines the fundamental principles and techniques of electronic systems troubleshooting and repair. Topics include logical analysis, signal tracing procedures, test equipment, the safe operation of tools needed to troubleshoot and repair electronic systems, and soldering and desoldering techniques. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: ELN 1020.

ELN 1050 Computer Systems Troubleshooting

This course examines digital troubleshooting which includes tools, microprocessor troubleshooting theory, and the fault-finding process. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: ELN 1030.

ELN 1101 Industrial Electronic Systems

This course includes an overview of diodes, power supplies, filters, transistors, thyristors, and gates. The principles of positive and negative feedback, amplifier classes, cascading, DIAC's, and TRIAC's are also discussed. Emphasis is on the application of these devices and techniques to industrial electronic systems and programmable controllers. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5. Prerequisite: ELC 1101 or equivalent.

English

ENG 100 Fundamentals of English

This course introduces the basics of English usage and provides the student with the fundamentals of standard grammar, sentence structure, paragraph development, spelling, vocabulary building, and the following of instructions. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: RED 100 may be required based on placement test results.

ENG 101 Communication Skills

This fundamental course in written communication is designed to enable the student to demonstrate proficiency in English grammar, sentence construction, mechanics and punctuation, and dictionary usage. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 100 and/or RED 100 may be required based on placement test results.

ENG 102 Communication Skills

This course assists the student in applying the principles of English grammar, sentence structure, mechanics, usage, coherence, and unity in writing well-developed paragraphs and, ultimately, in writing an essay. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 101.

ENG 103 Communication Skills

This course expands the skills of essay writing and enables the student to master selected processes in composition and to prepare a documented research paper. Upon completion of this course, the student is able to utilize writing skills for specific needs. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 102.

ENG 106 Composition I

This course enables the student to master sentence structure, usage, mechanics, paragraphing, and the most common forms of rhetoric. Regular theme writing covering several forms of composition is a central focus of the course. The student is also taught to analyze a work of literature. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 100 and/or RED 100 may be required based on placement test results.

ENG 107 Composition II

This course, a continuation of ENG 106, enables the student to apply the fundamentals of literary analysis in theme writing and to prepare a documented research paper on a selected literary topic. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 106.

ENG 108 Composition III

This course introduces the critical study of poetry and drama and enables the student to write a well-developed essay based on selected works from these two literary genres. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 107.

ENG 203 Interpersonal Communications I

This course is primarily a study of transactional analysis used as a basis for improved understanding of oneself and of others as a step toward more effective interpersonal relations. The student also participates in group interaction and public speaking exercises to build confidence in communicating with others. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ENG 204 Introduction to Public Speaking

This course assists the student in developing confidence and poise in various speaking situations through an awareness of the process involved in public speaking and interpersonal communication. The student participates in formal speeches, group discussions, and conversations and by evaluating the oral presentations of others. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ENG 205 American Literature I

This course is a critical survey of selected masterpieces in American literature from its colonial beginnings to the Civil War. It offers the student a critical study of selected readings of colonial writers; American Romanticism, symbolism, and transcendentalism; and literary criticism. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 108.

ENG 206 American Literature II

This course is a survey of selected masterpieces in American literature from the Civil War to the present. It offers the student a critical study of selected works of American poetry, drama, and fiction. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 205.

ENG 207 Technical Communications

This course in the principles of effective technical communications enables the student to prepare an informal written report and a formal written report, to prepare and present an oral technical report, and to write coherent and effective business letters. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ENG 210 Interpersonal Communications II

This course focuses on skills which promote continued self-communication and more realistic, positive communication with others. Practical applications and exercises are used to develop or enhance skills in self-disclosure, assertiveness, perception, verbal and nonverbal communication, listening and feedback, constructive resolution of conflict, and group problem solving. Successful completion of Interpersonal Communications I or knowledge of transactional analysis is desirable as a background for this course. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ENG 211 World Literature I

This course is a critical survey of selected masterpieces in western literature from the ancient world through the Middle Ages. It enables the student to analyze and critique representative works and to demonstrate an understanding of the growth of western literature as an art form. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 108 or approval of program director.

ENG 212 World Literature II

This course is a critical survey of selected masterpieces in western literature from the Renaissance through Neoclassicism and into the beginnings of Romanticism. It enables the student to analyze and critique representative works and to demonstrate an understanding of the growth of western literature as an art form. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 211 or approval of program director.

ENG 213 World Literature III

This course is a critical survey of selected masterpieces in western literature from the Romantic period through Nineteenth Century Realism and Naturalism and into the Modern period. It enables the student to analyze and critique representative works and to demonstrate an understanding of the growth of western literature as an art form. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 212 or approval of program director.

ENG 215 Voice and Diction

This course in speech pronunciation and voice quality helps the student develop effective voice and speech. The course combines extensive practical exercises and a study of how the voice is made and how it functions. This combination allows the student to reach maximum efficiency in developing a voice which is understandable, audible, pleasant sounding, animated, and interesting. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ENG 220 Critical Thinking and Writing

This course deals with the role of logic in writing to influence beliefs and presents the rudiments of logic necessary for well-organized and clearly written materials. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 103 or approval of program director.

ENG 290 Reading Advancement

This course enables the student to improve reading comprehension, speed, and perception; to become aware of the interrelationships of reading, writing, speaking, and listening; and to apply these skills. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ENG 1101 Communication Skills

This fundamental course in grammar and writing enables the student to demonstrate proficiency in English grammar, sentence construction, mechanics and punctuation, dictionary usage, and Spelling. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 100 and/or RED 100 may be required based on placement test results.

ENG 1102 Communication Skills II

This second-level course in written and oral language skills enables the student to use technical and general vocabulary terms correctly, to recognize and use inductive and deductive reasoning procedures, to prepare a job application package, and to apply the principles of interpersonal communications. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 1101.

Fire Protection

FIP 101 Introduction to Fire Protection

This course covers the history and development of fire service. It includes an overview of the various problems encountered by fire service, provides possible solutions to these problems, and considers related agencies that may assist with these problems. General fire hazards and their causes are identified, and applications of sound fire protection principles are discussed. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 104 Building Construction for Fire Service

This course examines the principles of building construction as they relate to fire operations. Special attention is paid to structural factors affecting building collapse and fire spread. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 115 Fire Prevention

This course covers the principles and application of fire prevention in the community setting. Emphasis is on special problems and specific programs which affect fire prevention functions. Related agencies that can assist in fire prevention are examined. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 201 Arson Investigation

This course focuses on determining the causes of accidental and incendiary fires, fire loss, and points of origin. The student acquires skills in recognizing arson and preserving the fire scene. Motives and methods for fire setting are covered in addition to investigative techniques. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 211 Grading Fire Defenses

This course focuses on the skills necessary to compute the ISO rating for a municipal fire protection system. Course study includes calculation of the required fire flows, equipment requirements, manpower levels, training standards, and response requirements. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 218 Hazardous Materials

This course focuses on handling hazardous materials. The student considers chemical behaviors and reactions, practical tactics, and comprehensive strategies for handling incidents ranging from small leaks to catastrophic explosions. Major topics include the chemistry of hazardous materials, preplanning for incidents, the systems analysis approach to incident management, and methods of handling incidents. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

FIP 220 Fire Strategy

This course presents a systematic method of organizing data, resources, and decision-making skills into effective management of a fire situation. The course focuses on problem assessment techniques, decision models, and strategic applications at the fire scene. Emphasis is on developing the ability to manage a fire situation through preplanning, organizing, prioritizing, and formulating strategies. Extensive case studies and simulations provide the student with opportunities for skills development. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: FIP 101.

FIP 221 Advanced Fire Strategy

This course focuses on multi-company operations at significant fire, hazardous material, and natural disaster incidents. Principles of organization, operational requirements, and strategies and tactics of multi-company operations are also emphasized. Case histories of major incidents and intensive experience on the fire simulator are provided. The course is based on materials from the National Fire Academy. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: FIP 220.

FIP 225 Fire Law

This course addresses the broad range of legal principles associated with the application of statutory, constitutional, and case law to the fire service. Emphasis is on the employment law in the areas of employee selection, promotion, and discipline. Other topics include civil liability for actions taken in the line of duty and principles of inspection enforcement and code compliance. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 230 Hydraulics

This course examines the effect of pressure on water in fire pumping applications and develops the mathematical skills to compute the flow, friction loss, and pressure requirements for fire operations. Special attention is given to developing an understanding of the pressure-flow relationships and their applications to a wide range of hydraulics problems. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 231 Sprinkler and Standpipe Systems

This course deals primarily with the physical layout of sprinkler systems, the variety of systems on the commercial market, and the water supply for sprinkler systems. It also covers the principles of inspections, surveys of sprinkler systems, and fire-ground support operations of those systems. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 235 Fire Inspection

This course covers the fundamentals of fire inspection, emphasizes the standards and techniques for evaluating the degree of hazards, and gives consideration to practical recommendations. Reporting practices are also covered. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 250 Municipal Fire Administration I

This course presents an overview of past and present organizational structure within the fire services. Emphasis is on the diverse nature of modern fire service with its specialized functions of fire control, prevention, inspection, emergency medical services, and fire investigation. The course is one of a three-part series constituting the Municipal Fire Administration unit. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 251 Municipal Fire Administration II

This course focuses on the specific management approaches most useful in dealing with each of the major functional units of the fire service. These approaches include fire prevention, inspection services, fire suppression, medical and rescue services, fire and arson investigation, communications, and data processing and analysis. The course gives special attention to applying innovative management tools and modern technology to the unique needs in each of these special function areas. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 252 Municipal Fire Administration III

This course examines the traditional functions of budget development, training, and personnel administration and the less traditional areas of labor relations and productivity measurement and improvement. The course treats each of these subjects in depth and focuses on modern trends and innovative practices in these rapidly changing areas. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 260 Decision Analysis

This course presents a systematic study of the decision-making process and tools and techniques for achieving the most effective results. A number of organizational, structural, and statistical methods for making and evaluating decisions are examined. The development of creative problem-solving skills and elementary statistical analyses are emphasized. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 290 Master Planning

This course presents a process for developing a master plan for a municipal or county fire district. A comprehensive overview is provided of the procedures, methods, and information collection which must be followed to construct a viable plan. The course includes step-by-step instructions on how to construct a plan from the preliminary study phase through final implementation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 295 Basic Fire Protection

This course contains all of the college level academic studies required for certification of a Durham Public Safety Officer as a fire fighter. All credits are earned through completing a basic school specifically contracted through Durham Technical Institute. Course Hours Per Week: Class, 11. Quarter Hours Credit, 11. Prerequisite: Employment by the city of Durham Public Safety Department.

French

FRE 101 Beginning French

This course in basic French is designed to enable the student to discriminate between and pronounce French vowels and consonants, form simple words and sentences, acquire basic rules of grammar, and use common idioms. Equal emphasis is on comprehension, pronunciation, reading, and writing in French. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FRE 102 Intermediate French I

This intermediate course in basic French builds upon skills gained in FRE 101 and enables the student to use irregular verbs, pronouns, second and third conjugations of verbs, direct and indirect objects, conjugations, and modifiers. New structures are learned by writing sentences from dictation, by using these structures in question-and-answer situations, and by forming new sentences based on familiar structures. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: FRE 101 or equivalent.

FRE 103 Intermediate French II

This intermediate course in basic French builds upon the skills acquired in FRE 101 and FRE 102 and focuses on more advanced rules of grammar and using syntax correctly. New structures are learned by writing sentences from dictation, by using these structures in question-and-answer situations, and by forming new sentences based on familiar structures. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: FRE 102 or equivalent.

Geography

GEO 110 Physical Geography

This course is a study of the physical environments of some of the major geographical regions of the world. The course is designed to enable the student to understand climate, weather, natural resources, and other physical features of the environment; to interpret maps accurately through the use of map scales; and to demonstrate a satisfactory understanding of the physical environment. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

German

GER 101 Beginning German

This course in basic German is designed to enable the beginning student to discriminate between German and English pronunciation of vowels and consonants; use noun, pronoun, and adjective cases and endings; use conjugational endings of verbs; and form simple sentences with proper word order. Comprehension, speaking, reading, and writing are stressed. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

GER 102 Intermediate German I

This intermediate course in basic German builds upon skills gained in GER 101 and enables the student to use the rules of more advanced German grammar correctly. Conjugational endings of common regular and irregular verbs, nouns, pronouns, and adjective endings are also covered. Proper syntax in sentences is emphasized. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: GER 101 or equivalent.

GER 103 Intermediate German II

This intermediate course in German builds on skills gained in GER 101 and GER 102 and enables the intermediate-level student to use the rules of more advanced grammar, morphology, and syntax correctly. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: GER 102 or equivalent.

Health

HEA 101 Child Care Safety

This course introduces the student to the methods and procedures for safely operating a child care program. Particular emphasis is on the role and accountability of the caregiver in providing a safe environment. Techniques for teaching children safety rules are stressed. In addition, the student learns techniques for educating parents about safety. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

HEA 102 Child Care Health

This course focuses on promoting and maintaining the health of children in the child care program. Attention is given to the caregiver's role in providing a healthy environment, in educating children regarding health, in meeting children's health and nutritional needs, and in encouraging healthy practices in the home. The student also learns techniques for recognizing and helping the abused and/or neglected child. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

History

HIS 101 Western Civilization I

This course is a survey of western civilization from its pre-Greek origins to 1483. The course enables the student to understand man's evolutionary development; to understand what ancient civilizations have contributed to the world; to know how militarism and imperialism have affected the international relations of the ancient nations; and to understand the social, economic, political, religious, and cultural influences from pre-Greek origins until 1483. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

HIS 102 Western Civilization II

This course is a continuation of western civilization from 1483 to 1780 and is designed to enable the student to understand the transition from ancient to modern world nations and to Western thought; to understand major philosophical views; and to understand the political, cultural, social, and economic influences on Western society. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

HIS 103 Western Civilization III

This course is a continuation of western civilization from 1776 to the present and is designed to enable the student to understand the rise of the Western European nations; to understand the impact of the French Revolution on independence-seeking nations; to understand the process of German unification and the rise and fall of the German Empire; and to understand European political, economic, and intellectual history. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Historic Preservation

HPT 1101 Introduction to Preservation

Historic preservation is a diverse field combining many different disciplines. This course explores the meaning and methods of preserving America's cultural heritage. Topics include American architectural styles, architectural terms, the history of the preservation movement, preservation legislation, and methods of preservation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

HPT 1103 History of Building Technology

The technology of building has evolved throughout our American experience. These changes are important to American culture and are documented by existing older buildings. In this course the student develops an understanding of historic building technology and learns to identify historic techniques in masonry, building frames, mechanical systems, and interior and exterior finish. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

HPT 1105 Masonry and Plaster

This course is an introduction to the conservation and repair of masonry and plaster and involves the safe operation and care of masonry and plaster tools. Major topics of study include masonry and plaster materials, methods of mortar analysis, bricklaying, masonry cleaning, masonry repair, and plaster repair. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisite: None.

HPT 1106 Traditional Carpentry and Restoration

This course introduces the traditional tools and construction techniques necessary for restoring log and timber frame buildings. The student develops skills and craftsmanship in using traditional and modern tools by working on historic buildings. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisite: None.

HPT 1109 Finishes and Protective Coatings

This course covers the fundamentals of paints, painting, stains, and decorative finishes. Experience in applying the various materials and specialty finishes is acquired through on-site and shop practice. Major topics of study include materials, tools, surface preparation, application, paint failures and remedies, color mixing and matching, wood graining, and other specialty finishes. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: None.

HPT 1110 Restoration Workshop

This course is a workshop in renovating and restoring buildings. Through hands-on work experience at historic sites, the student develops skills in building repair which include masonry and carpentry. Course Hours Per Week: Class, 1. Lab, 9. Quarter Hours Credit, 4. Prerequisite: HPT 1105.

Humanities

HUM 101 Humanities Through the Arts

This course surveys film, drama, music, literature, painting, sculpture, and architecture. Each art form is examined from four perspectives: historical context, elements of the art, form/meaning, and criticism/evaluation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Industrial Science

ISC 120 Principles of Industrial Management

This course is an introductory survey of the principles and practices of industrial management. Topics include work measurement, project planning techniques, plant layout, and scheduling concepts. A special project is required. Course Hours Per Week:

Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

ISC 130 Industrial Safety

This course focuses on the concepts and principles of modern industrial safety and accident prevention. Case problems and class exercises illustrate and demonstrate accident investigation techniques, cost analysis, and OSHA regulations. Course Hours Per Week:

Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ISC 132 Job Analysis and Evaluation

This course is a survey of the field of wage and salary administration. Topics include job analysis, wage surveys, and salary plans. The point method of job analysis is emphasized through case problems and classroom exercises. Course Hours Per Week:

Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

ISC 134 Manufacturing Materials

This introductory course surveys the physical and chemical characteristics of primary manufacturing materials. Topics include industrial testing methods, metallurgy of ferrous and nonferrous metals, effects of fatigue and corrosion on metals, and characteristics of nonmetallic materials. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ISC 203 Methods Time Measurement (MTM)

This course is a study of the basic motions Reach, Move, Grasp, Turn, Position, Apply Pressure, and Disengage. Laboratory exercises demonstrate actual motion patterns and provide the student with practice in developing labor standards using MTM principles. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: None.

ISC 214 Work Measurement

This course focuses on the techniques used to develop labor standards. Laboratory exercises include stopwatch time study and performance rating. Exercises also provide experience with industrial timing devices. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: None.

ISC 226 Production Planning and Control

This course covers the fundamentals of production planning, forecasting techniques, inventory control, and scheduling techniques. Material Requirements Planning (MRP) and Master Scheduling are demonstrated through laboratory exercises and case studies. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

ISC 231 Manufacturing Processes

This course is a study of industrial machinery, measuring devices, characteristics of materials, process control devices, manufacturing techniques, and production concepts. Classroom exercises demonstrate the principles and practices of modern manufacturing. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: ISC 134.

ISC 232 Quality Control

This course provides the student with information and training in the techniques and utilization of modern statistical quality control. Case studies and course projects deal with sampling, reliability, testing methods, and control charting. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: MAT 105 or MAT 221.

ISC 234 Industrial Automation and Robotics

This course examines the basic concepts of automation and robotics, considers current applications in the industrial setting, and explores the economic and social effects of this technology in the workplace. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ISC 236 Plant Layout

This course is a practical study of facility planning with emphasis on a structured approach to solving layout problems. The student is introduced to process charting, P-Q analysis, and operation charting as analytical techniques for investigating and solving layout problems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

Insurance

INS 214 General Insurance—Part I— Introduction

This course examines the concept and nature of risk and insurance management. The student is introduced to the insurance device and exposed to an overview of the industry and its mode of operation. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: None.

INS 215 General Insurance—Part II— Life, Accident, and Health

This course deals with the traditional field of life and health insurance. The course focuses on solutions to risks associated with the loss of income and examines social security, workers' compensation, and other social insurance coverages. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: INS 214.

INS 216 General Insurance—Part III— Fire and Casualty

This course identifies and describes the risks and legal liability associated with the ownership of property. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: INS 214.

Paralegal

LEX 101 Real Property

This course provides the student with the basic information, concepts, and terminology necessary to perform in any phase of a real estate transaction. The purpose of the course is to prepare the student for the courses in title abstracting and real estate transactions. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

LEX 105 Litigation I

This course introduces the student to the paralegal profession. Terminology, court structure, comparisons of civil and criminal law, and law of evidence are presented. This course prepares the student for the future study of litigation. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

LEX 110 Litigation II

As a continuation of Litigation I, this course introduces the student to sources of the law, remedies under the law, client contracts, interviewing, investigation, and evaluation of claims. Civil and criminal law are further compared. The course also prepares the student for working with the client.

Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: LEX 105.

LEX 112 Title Abstracting

This course examines the common types of real estate transactions and conveyances as well as the steps necessary to abstract a title. The course is taught in the Durham County Deed Vault where the student is trained in the necessary procedures for searching titles. The student prepares title abstracts, deeds, and other real estate instruments.

Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: LEX 101.

LEX 120 Litigation III

This course explains the procedures to follow when bringing a case into court. The student develops skills in drafting complaints, answers, motions, and judgments. Procedures for getting service upon parties to a suit are also covered as well as discovery techniques and their uses. Continued comparisons are made of criminal and civil law. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: LEX 110.

LEX 122 Real Estate Transactions

In this course the student prepares sample real estate packages including those from VA, FHA, and conventional loans. The course continues the study begun in Title Abstracting but is a more thorough study which enables the paralegal to prepare real estate packages for closing. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: LEX 112.

LEX 130 Litigation IV

This final course in litigation traces the case from the preparation of the case law notebook and trial notebook through the trial, judgment, execution, and closing of the case file. The student develops skills in case law and trial notebook preparation, witness preparation, and execution of judgment.

Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: LEX 120.

LEX 201 Legal Research

This course trains the student in the methods of legal research; proper citation of authority; and the proper use of legal treatises, reporters, and Shepard's citators. The course further covers the analysis of decisions and proper legal writing form and technique. Course Hours Per Week: Class, 3, Lab, 2.

Quarter Hours Credit, 4. Prerequisite: None.

LEX 205 Estate Administration

This course covers interviewing techniques and data gathering for preparing wills and estate plans. Basic estate and trust principles are introduced.

The study includes preparing inventories, accounts, tax returns, and other documents for the administration of estates. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

LEX 210 Commercial Law I

This course introduces the basic principles of the Uniform Commercial Code including contracts, negotiable instruments, bailments, and secured transactions. The course prepares the student for assisting attorneys with cases involving the Uniform Commercial Code. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

LEX 212 Legal Writing

This course introduces the student to the various purposes, forms, and proper format of legal writing. Planning and organizing content as well as the style of presentation are topics stressed. The most common forms of legal writing are studied in depth. A final project consisting of preparing a formal brief is required. Course Hours Per Week: Class, 5.

Quarter Hours Credit, 5. Prerequisite: LEX 201.

LEX 220 Commercial Law II

This course examines the various forms of business organization and prepares the student to select the best form of business structure for a client's consideration. The use of the proper forms for establishing the chosen type of business structure is also covered. Course Hours Per Week: Class, 5.

Quarter Hours Credit, 5. Prerequisite: LEX 210.

LEX 225 Law Office Management

This course covers the organization and management of law offices and emphasizes the administrative systems and procedures of efficient law office operation. Topics include furnishings and layout; filing systems and systems for keeping track of deadlines; and accounting, billing, and time keeping systems. Course Hours Per Week: Class, 5.

Quarter Hours Credit, 5. Prerequisite: None.

LEX 230 Family Law

This course covers the legal obligations of the marriage contract, rights and privileges of the parties, the statutory grounds for divorce, defenses to divorce actions, and elements of a legal separation by court order or by mutual consent. Also covered are the drafting of pleadings and contractual agreements, study of family problems, juvenile courts, and legal proceedings in adoption and custody

CASES. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Mathematics

MAT 100 Basic Mathematics

This course, designed for the student needing review or remediation in basic mathematics, includes an extensive coverage of arithmetic. Operations with whole numbers, fractions, and decimals are emphasized. Special attention is given to computing with percents. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

MAT 105 Algebra and Trigonometry

This course prepares the student to use mathematics in scientific applications. Topics include scientific notation, measurement systems, basic algebraic operations, evaluation and rearrangement of formulas, ratios and proportions, factorization of algebraic expressions, algebraic fractions, fractional exponents and radicals, linear equations, linear systems, quadratic equations, basic trigonometry, graphs of linear equations and trigonometric functions, and vector algebra. Course Hours Per Week: Class, 6. Quarter Hours Credit, 6. Prerequisite: MAT 120 or satisfactory score on placement test.

MAT 106 Number Systems and Boolean Algebra

As a continuation of MAT 105, this course covers advanced algebraic topics. Emphasis is on exponential and logarithmic functions and their graphs, common and natural logarithms, number bases, and Boolean algebra. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: MAT 105.

MAT 110 Business Mathematics

This course develops proficiency in mathematical computation in the areas of merchandising, finance, and accounting procedures. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 100 or satisfactory score on placement test.

MAT 120 Algebra I

This course focuses on the fundamentals of algebra. Emphasis is on basic definitions and axioms, operations with signed numbers, factoring, solutions of linear and quadratic equations, inequalities, and operations with polynomials. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 100 or satisfactory score on placement test.

MAT 121 Algebra II

This course expands the student's knowledge of the basics of algebra and includes polynomials, rational expressions, linear equations, radical expressions, and quadratic equations. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 120 or satisfactory score on placement test.

MAT 122 Algebra III

As a continuation of Algebra II, this course covers relations and functions, first degree equations, exponential functions, logarithms, arithmetic progressions, and geometric progressions. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: MAT 121.

MAT 123 College Mathematics

This introductory course gives the student a feel for contemporary mathematics and an appreciation for the uses of mathematics. Areas of study include number systems, calculating devices, consumer mathematics, number sequences, geometry of shapes and of measurement, probability, and statistics. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 100 or satisfactory score on placement test.

MAT 125 Math of Finance

This course, designed for accounting majors, covers the basics of algebra and statistics and the computation of interest, discounts, depreciation, and depletion. Emphasis is on logical thinking and practical applications. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 100 and/or MAT 120 may be required based on placement test results.

MAT 130 Introduction to Health Mathematics

This course is designed to provide the student with the mathematical proficiency needed for the allied health curriculums. Topics covered include fundamental algebra, basic geometry, and trigonometry essential in solving problems which will be encountered in the health sciences. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 100 or satisfactory score on placement test.

MAT 131 Integrated College Mathematics

This course is designed to enable the student to apply mathematics in science and respiratory therapy. Topics include basic trigonometry, ratio, proportion and variation problems, evaluation and rearrangement of formulas, exponents and logarithms, linear equations, and the rectangular coordinate system with linear and nonlinear graphs. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 100 and/or MAT 130 or MAT 120 or satisfactory score on placement test.

MAT 137 Data Processing Mathematics

This course presents the mathematics needed in programming from the programmer's viewpoint. Emphasis is on interpreting problems and developing the solution algorithms necessary for programming. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 121 or satisfactory score on placement test.

MAT 140 Algebra

This course is a review of fractions and basic algebraic concepts. It continues with arithmetic operations, algebraic expressions, solutions of linear equations, quadratic equations, and evaluations of formulas. Emphasis is on solving application problems and on the algebraic manipulation of formulas. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 100 and/or MAT 120 or satisfactory score on placement test.

MAT 141 Geometry and Trigonometry

This course is designed as a continuation of MAT 140 and focuses on the basics of geometry. Topics include angles, measurement of angles, circles, triangles, the Pythagorean theorem and similar triangles, the sphere and cone, definitions of the trigonometric ratios, solutions of right triangles, the general angle, oblique triangle, and the graph of the sine function. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 140.

MAT 150 Pharmaceutical Mathematics

This course introduces the student to the metric, apothecary, and avoirdupois systems of weight and volume and their application to solving pharmaceutical and dosage problems. Other topics include measured quantities, accuracy and deviation calculations, pharmaceutical abbreviations, and prescription and formulation format. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 100 or satisfactory score on placement test.

MAT 160 Linear Algebra

This course provides the student with a review of basic algebraic operations including signed numbers, laws of exponents, linear equations and linear systems, rectangular coordinate systems, factorization of binomials and trinomials, scientific notation, evaluation of formulas, and ratio and proportion. Basic statistical concepts and the use of electronic calculators are also covered. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 121 or satisfactory score on placement test.

MAT 161 Trigonometry

This course covers advanced algebraic and trigonometric topics which include quadratic equations, fractional exponents and radicals, rational and irrational numbers, complex numbers and their application to electrical circuits, trigonometric functions for angles over 90 degrees, interpolation of tables, and laws of sines and cosines. Emphasis is on the graphs of trigonometric functions, especially the sine and cosine functions. Vector algebra is covered extensively including graphic representation of j -operators in both exponential and polar forms. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 160 or equivalent.

MAT 162 Nonlinear Algebra and Logic

This course provides the student with an in-depth study of exponential and logarithmic equations and their respective graphs, antilogarithms, natural logarithms, and number bases. Other topics include introductions to Boolean algebra and analytic geometry (rectangular and polar coordinate system) and a study of function properties, limits, and the basic concepts of calculus. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 161 or equivalent.

MAT 221 Statistics

This course is designed to provide a working knowledge of statistics as they are used in business activities. Emphasis is on comprehending statistics found in business reports and on using statistics to make business predictions and estimates. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 125.

MAT 1040 Technical Mathematics

This course is designed to provide the student with the mathematical proficiency needed for optical applications. Topics covered include the fundamental algebra, basic geometry, and trigonometry essential in solving problems and providing concepts in ophthalmic optics. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

MAT 1101 Applied Mathematics

This course provides a review of fractional and decimal operations. The course also includes percent problems, measurement numbers, the metric system, exponents and roots, and basic algebra. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 100 or satisfactory score on placement test.

MAT 1103 Applied Mathematics

This course covers ratio and proportion, practical geometry of plane and solid figures, graphs, and right triangle trigonometry. The student solves problems with practical applications to vocational areas. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 1101 or equivalent.

MAT 1123 Machinist Mathematics

This course covers mathematical applications in the machine trade. Topics covered include principles of trigonometry, use of trigonometric tables, calculation of angles, pitch, threads, gears, cutting speeds and feeds, and use of shop mathematical tables. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 1103 or equivalent.

Mechanical

MEC 1101 Machine Shop Theory and Practice

This course introduces the metalworking trade as it relates to machining operations. Topics include orientation to the machine shop, safety procedures, basic hand tools, and shop measuring instruments. Course work is presented through competency-based modules. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

MEC 1102-

MEC 1108 Machine Shop Theory and Practice
Through this series of seven courses, the student learns new competencies by completing required learning modules. Assignments include instruction in layout, measurement, inspection, and set up and operation of one or more of the following machine tools: metal cutting saws, drill presses, milling machines, lathes, and grinders.

MEC 1102 Machine Shop Theory and Practice

Course Hours Per Week: Class, 2, Lab, 6, Quarter Hours Credit, 4.
Prerequisite or corequisite: MEC 1101.

MEC 1103 Machine Shop Theory and Practice

Course Hours Per Week: Class, 2, Lab, 6, Quarter Hours Credit, 4.
Prerequisite: MEC 1102 or equivalent.

MEC 1104 Machine Shop Theory and Practice

Course Hours Per Week: Class, 2, Lab, 6, Quarter Hours Credit, 4.
Prerequisite: MEC 1102 or equivalent.

MEC 1105 Machine Shop Theory and Practice

Course Hours Per Week: Class, 2, Lab, 6, Quarter Hours Credit, 4.
Prerequisite: MEC 1102 or equivalent.

MEC 1106 Machine Shop Theory and Practice

Course Hours Per Week: Class, 2, Lab, 6, Quarter Hours Credit, 4.
Prerequisite: MEC 1102 or equivalent.

MEC 1107 Machine Shop Theory and Practice

Course Hours Per Week: Class, 2, Lab, 6, Quarter Hours Credit, 4.
Prerequisite: MEC 1102 or equivalent.

MEC 1108 Machine Shop Theory and Practice

Course Hours Per Week: Class, 2, Lab, 6, Quarter Hours Credit, 4.
Prerequisite: MEC 1102 or equivalent.

MEC 1109 Fundamentals of Computer Numerical Control

This course introduces the fundamental concepts and skills necessary to program and operate computer numerical control (CNC) machines. Topics include the history, types, descriptions, capabilities, and applications of computer numerical control tools used in machining operations. Course Hours Per Week: Class, 1, Lab, 3, Quarter Hours Credit, 2. Prerequisite: MEC 1104 or equivalent.

MEC 1119 Applied Metallurgy

This course provides the student with practical theory and practice in the treatment of ferrous and non-ferrous metals. Actual practice in heat treatment is performed on sample materials, and low- and high-carbon steels are emphasized. Testing equipment is used for verification of correct treatment. Course Hours Per Week: Class, 2, Lab, 3, Quarter Hours Credit, 3. Prerequisite: MEC 1105 or equivalent.

Medical

MED 130 Pharmacology I

This course is an introductory study of those drugs and medications commonly used in respiratory therapy or in cardiopulmonary medicine. Emphasis is on those drugs affecting the cardiovascular and respiratory systems as well as on the pharmacodynamics of drug action, correct drug usage, and administration. Course Hours Per Week: Class, 2, Quarter Hours Credit, 2. Prerequisite: None.

MED 131 Pharmacology II

This course, a continued study to meet the specialized needs of respiratory therapy students, provides advanced training in nervous system drugs, steroids, and antimicrobial agents. Emphasis is on correct usage, administration, side effects, and actions of the drugs in these pharmacologic groups. Course Hours Per Week: Class, 2, Quarter Hours Credit, 2. Prerequisite: MED 130.

Music

MUS 101 Music Appreciation

This introductory course in music is designed to enable the student to trace the historical development and pertinent criticism of music since 1600, to analyze different musical forms, and to establish intellectual relationships between music and general culture developments. Course Hours Per Week: Class, 3, Quarter Hours Credit, 3. Prerequisite: None.

Nursing

NUR 1101 Fundamentals of Nursing

This course introduces the profession of nursing and orients the student to the role of the practical nurse. Topics include modern health concepts, gerontology, the responsibilities of the nurse, interpersonal relationships, basic nursing procedures, and scientific problem solving techniques. Course

Hours Per Week: Class, 6. Lab, 6. Quarter Hours Credit, 8.

Prerequisite: None.

NUR 1104 Medical and Surgical Nursing I

This course covers the basic principles and practices of medical and surgical nursing. The student is introduced to deviations and/or altered functions of the body systems and to methods of diagnosis and treatment. Course Hours Per Week: Class, 4. Lab, 3.

Quarter Hours Credit, 5. Prerequisites: NUR 1101, BIO 120, NUT 101,

PHM 1101, EDP 103.

NUR 1105 Medical and Surgical Nursing II

A continuation of Medical and Surgical Nursing I, this course focuses on the care of the adult patient. Emphasis is on the care of patients with problems associated with body disturbances interfering with normal nutrition, elimination, and fluid and electrolyte balance. Course Hours Per Week: Class, 7.

Quarter Hours Credit, 7. Prerequisites: NUR 1104, NUR 1109,

PHM 1102.

NUR 1106 Medical and Surgical Nursing III

This course introduces the student to the care of patients with complex nursing needs. Emphasis is on the role of the practical nurse in situations requiring judgement based on previous experience and depth of knowledge. Anatomy, physiology, diet therapy, pharmacology, and the psycho-social aspects of caring for patients are other topics integrated throughout the course. Course Hours Per Week:

Class, 6. Quarter Hours Credit, 6. Prerequisites: NUR 1105, NUR 1114,

PSY 100.

NUR 1107 Maternal And Child Health I

This course acquaints the student with the fundamentals of maternity and pediatric nursing. Emphasis is on the scope and the aim of modern obstetrics; the responsibilities of the nurse in promoting prenatal care; the support nurses provide during pregnancy, labor, and delivery; and the care given to the normal newborn. In addition, the basic principles related to the care of sick children are covered. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisites: NUR 1101, BIO 120, NUT 101, PHM 1101, EDP 103.

NUR 1108 Maternal And Child Health II

This course is a continuation of NUR 1107 and emphasizes health teaching, evaluation, and comprehensive nursing care. The complications and pathological conditions related to maternity, infancy, childhood, and adolescence are also covered. Course Hours Per Week: Class, 6. Quarter Hours Credit, 6. Prerequisites: NUR 1104, NUR 1107, NUR 1109, PHM 1102.

NUR 1109 Clinical Experience

Clinical activities are planned to assist the student in developing skills in medical and surgical basic nursing care and procedures in surgical nursing. Through working with individual patients in the medical and surgical hospital clinics, the student is encouraged to develop basic skills in analyzing patient needs and making nursing decisions. Course Hours Per Week: Class, 0. Clinical, 12. Quarter Hours Credit, 4. Prerequisites: NUR 1101, BIO 120, NUT 101, PHM 1101, EDP 103.

NUR 1112 Nursing Seminar

This course includes the current trends in nursing and the legal and ethical responsibilities of the practical nurse. The course is based on knowledge accrued from previous nursing courses and aides the student by providing a review of nursing principles and practices. Psychiatric nursing and disaster nursing are also included. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisites: NUR 1105, NUR 1108, NUR 1114, PSY 100.

NUR 1114 Clinical Experience

This course provides the student with clinical activities for developing skills in two of the following areas: medical, surgical, obstetrical, or pediatric nursing care. The student participates in planned experiences within the medical units of the hospital and also participates in independent study, problem solving sessions, student presentations, and selected patient care assignments. Course Hours Per Week: Class, 0. Clinical, 15. Quarter Hours Credit, 5. Prerequisites: NUR 1104, NUR 1107, NUR 1109, PHM 1102.

NUR 1115 Clinical Experience

This course is a continuation of NUR 1114 with supervised study for developing skills in two of the following areas: medical, surgical, obstetrical, or pediatric nursing care. The student rotates through the basic clinical units of the hospital and participates in independent study, problem solving sessions, student presentations, and selected patient care assignments. Course Hours Per Week: Class, 0. Clinical, 15. Quarter Hours Credit, 5. Prerequisites: NUR 1114, PSY 100.

Nutrition

NUT 101 Nutrition and Diet Therapy

This course focuses on basic facts about nutrition, food elements, and therapeutic diets. Emphasis is on nutrition and the effects of illness on the nutritional needs of the patient. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Optical Laboratory Mechanics

OLM 1101 Introduction to Optics

This course introduces the student to the training, skills, and certification of eyecare professionals. The student learns about the functions of ophthalmologists, optometrists, opticians, and optical laboratory mechanics and the environments in which they work. The student also learns about the operations of optical dispensaries, wholesale laboratories, and lens and equipment manufacturers. Other topics include the history of optics and eyewear, the professional characteristics of optical laboratory mechanics, and career information on employment as an optical laboratory mechanic. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OLM 1102 Spectacle Fabrication

This course introduces the fabrication of spectacles, lenses, and frames. Decentration, layout, cutting, and edging of lenses are introduced. Also included are lab safety, government standards, and the maintenance and repair of standard optical finishing laboratory equipment. Course Hours Per Week: Class, 1. Lab, 2. Quarter Hours Credit, 1. Prerequisite: None.

OLM 1103 Basic Lens Designs

This course is a study of single-vision lens designs of spherical, cylindrical, and prismatic power. The student learns to interpret ophthalmic prescriptions and select lenses to correct refractive errors. Other topics include refraction; lens optics; the characteristics of plus, minus, cylindrical, and prismatic lenses; lens aberrations; and corrected-curve lens designs. Students perform optical computations using basic lens formulas. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OLM 1104 Advanced Lens Designs

This course is a study of the types, sizes, and purposes of multifocal lenses and the relationship between the accommodative mechanism and multifocal optics. The student learns about the materials and manufacturing of multifocal lenses. Also included is the history of multifocal lenses from Benjamin Franklin's invention of bifocals to modern ophthalmic reading segments and trifocals for the presbyopic patient. Other topics include the historical development of hard resin lenses, the advantages and disadvantages of hard resin lenses, and the patient's selection of these lenses. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OLM 1111 Basic Frame and Lens Mechanics

This course provides a practical application of spectacle fabrication. Layout work, locating major reference points, and the cutting and edging of lenses are accomplished. Pattern making and marking are introduced. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: None.

OLM 1112 Multifocal Lens Mechanics

This course extends basic lens mechanics to include multifocal lenses and spectacles. In addition to the fabrication and proper layout work associated with multifocal lenses, shop flow procedures, and time allocation to the tasks are covered. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: None.

OLM 1113 Special Lens Mechanics

This course provides continued practical application of spectacle fabrication. The uses of special lenses, prisms, and low vision aids are covered in addition to the practical preparation of eyewear. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: OLM 1112.

OLM 1114 Production Laboratory

This course gives the student an opportunity to build their skills in spectacle fabrication according to production laboratory procedures. The student prepares lenses and frames for finishing and safety-treatment, aligns, and inspects completed pairs of eyeglasses. Special frame and lens modification techniques are also introduced. Other topics include the operation of optical laboratory instruments, the calculation of optical laboratory formulas, and cost analyses for an optical production laboratory. Course Hours Per Week: Class, 0, Lab, 6. Quarter Hours Credit, 2. Prerequisite: None.

OLM 1120 Basic Surfacing

This course provides the student with the skills necessary to surface lenses and perform the operations required in a lens surfacing laboratory. Laboratory safety, terminology, and lens designs and materials are covered. The student also performs optical laboratory calculations and computes job tickets. Emphasis is on lens layout and markup, lens generation, lens polishing and fining, and final lens inspection. Preventive maintenance and minor equipment repairs are also covered. Course Hours Per Week: Class, 2, Lab, 4. Quarter Hours Credit, 3. Prerequisite: None.

OLM 1131 Frame and Lens Types

This course is a study of the types of frame styles available and the functions of modern lens types. The student learns techniques for measuring frames and lenses according to the boxing system of measurement. The student also acquires skills in using alignment tools to prepare frames for standard alignment. Other topics include special frame modifications, absorptive lenses, and ANSI standards. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OLM 1133 Optical Laboratory Management

This course covers the basic business management skills needed for employment in a finishing laboratory. Emphasis is on purchasing, pricing, inventory control, and office management. Also included is an in-depth study of certification and licensure requirements. Information pertinent to obtaining employment under current governmental regulations is also covered. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OLM 1140 Properties of Light

This course introduces the nature and behavior of light. Theories of light, electromagnetic spectrum, illumination and reflection, and refraction are studied. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OLM 1142 Structures and Functions of the Eye

This course provides an overview of the human eye, its role in vision, and its correction by ophthalmic devices. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Opticianry

OPT 101 Introduction to Opticianry

This course is an introduction to the role of the optician in the optical industry. It provides an overview of the history and development of opticianry and ophthalmic eyewear. The metric system, physics of light, and optical terms are introduced. The student uses formulas necessary for work in the laboratory. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

OPT 102 Single-Vision Lens Designs

This course is a study of spherical and cylindrical lens optics, astigmatism, lens aberrations, and corrected curve lenses. Computations involving spherical and cylindrical lens optics are stressed. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: OPT 101.

OPT 103 Multifocal Lens Designs

This course covers the history of multifocals from Ben Franklin to modern ophthalmic addition segments, trifocals, and progressive lenses. Also included is a study of the different types, sizes, and settings of multifocal lenses; and candidates who qualify for multifocal lenses are identified. The use of CR-39 as a lens material is also studied. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: OPT 102.

OPT 104 Advanced Theoretical Optics

In this course the student performs advanced optical computations including lens tilt calculations, toric transposition, and vertical imbalance. The student learns to analyze prescriptions according to the classifications of anisometropia, to correct vertical imbalance, to select segments for minimizing displacement, and to identify ophthalmic lenses.

Course Hours Per Week: Class, 2. Quarter Hours Credit, 2.

Prerequisite: OPT 103.

OPT 111 Spherical Lens Surfacing

This course introduces the beginning Opticianry student to the specific machinery and materials used in the surfacing of spherical lenses in an optical laboratory. The student learns to operate the focimeter in order to read plus and minus spherical lenses. The student also studies abrasives, calipers, and lens clocks. Material inspections, flowcharts, machinery maintenance and repair, and safety procedures are also covered. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: None.

OPT 112 Sphero-Cylindrical Lens Surfacing

In this course the student applies optical laboratory procedures to the surfacing of lenses. The student continues to develop proficiency in using optical lab equipment. Trueing techniques and template applications are emphasized. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2.

Prerequisite: OPT 111.

OPT 113 Multifocal Lens Surfacing

In this course the student learns surfacing procedures and calculations for all types of bifocals, trifocals, and invisible bifocals including the incorporation of prisms and cylinders in multifocal lenses. The student also learns special procedures for processing plastic lenses. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: OPT 112.

OPT 114 Basic Spectacle Finishing

In this course the student uses automatic and hand edging equipment to produce finished single-vision eyewear. Interpretation of ophthalmic prescriptions; patterning; and edging, mounting, aligning, and hardening lenses are covered. Benchmark procedures are also studied. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: OPT 113.

OPT 121 Anatomy of the Eye

This course is a study of the anatomical composition of the eye and its associated structures. Emphasis is on the orbit, eyelids, lacrima, and muscles. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: None.

OPT 122 Physiology of the Eye

This course is a study of the function of the eye in the visual process. Emphasis is on the refractive media, the accommodative mechanism, muscle functions, and vision errors. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: OPT 121.

OPT 141 Physical Optics

This course is a study of the basic theories and properties of light including rectilinear propagation and reflection at plane and spherical surfaces. Refraction and critical angles are also studied. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: MAT 141, PHY 140.

OPT 142 Geometrical Optics

This course covers the refraction and behavior of light as it passes across spherical surfaces and through thin lenses, thick lenses, and prisms. The principles of selected optical instruments are also studied. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: OPT 141.

OPT 206 Special Lens Designs

In this course the student studies the effects of magnification and prism in spectacles. The student learns to assemble Fresnel lenses and prisms and to perform measurements for aspheric lens spectacles. The student also learns to identify two lens systems and achromatic lenses. The course covers the identification and assembling of low-vision aids and unusual optical items. The student determines base curves and operates optical instruments for special lens designs. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: OPT 104.

OPT 214 Multifocal Finishing

This course, a continuation of basic finishing operations, emphasizes building speed and accuracy on the focimeter and in marking, edging, and inserting multifocal lenses into assorted frames. Plastic lens finishing and tinting are covered. The student also learns soldering techniques for metal frame repair. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: OPT 114.

OPT 215 Special Lens Finishing

This course covers all stages in the special finishing of eyewear with an emphasis on accuracy. The student also learns to identify the special types of ophthalmic lenses. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: OPT 214.

OPT 216 Lens Finishing Proficiency

This course is a continued study of all stages of eyewear finishing with an emphasis on speed and accuracy. Attention is given to the craftsmanship of finishing operations. Continued work involving rimless and semi-rimless eyewear, faceting, and grooving is included. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: OPT 215.

OPT 231 Frame and Lens Dispensing

This course covers the historical development of opticianry, the history of spectacles, and the terminology used to describe eyewear. The student performs frame and facial measurements and measures interpupillary distances. Frame selection, standard alignment of frames, and frame adjusting are covered. The student learns techniques for dispensing eyewear to the consumer and evaluating consumer success. All paperwork procedures such as completing job tickets and maintaining records are also covered in this course. Course Hours Per Week: Class, 5. Lab, 3. Quarter Hours Credit, 6. Prerequisite: None.

OPT 232 Multifocal Lens Dispensing

In this course the student learns techniques for performing multifocal measurements and for selecting lenses and frames to meet the consumer's visual requirements and occupational needs. The student also learns techniques for fitting conventional and invisible multifocal eyewear and other presbyopic spectacles such as reading glasses and half-eyes. Evaluation of the consumer's success is also covered. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 5. Prerequisite: OPT 231.

OPT 233 Special Dispensing

This course covers radiation and the use of absorptive lenses to prevent its harmful effects. The student learns techniques for fitting cataract spectacles, for selecting low-vision aids for the consumer, and for addressing the visual problems of consumers with high myopic and prismatic prescriptions. The student also learns techniques for fitting corrective eyewear for children. ANSI standards and the fitting of safety eyewear are also covered. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 5. Prerequisite: OPT 232.

OPT 261 Rigid Contact Lenses

This course introduces the student to contact lenses beginning with the historical development of contact lenses and proceeding through modern materials and manufacturing techniques for rigid contact lenses. Clinical applications, including patient selection and rigid contact lens fitting techniques, are stressed. Uses of contact lens-related instruments, including the keratometer, radiuscope, diameter gauge, and thickness gauge, are covered in the laboratory. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: OPT 122.

OPT 262 Flexible Contact Lenses

This course introduces the student to flexible contact lenses. The physiology of the cornea as it is related to gas permeability of lens material is discussed. Fitting techniques for flexible contact lenses are stressed; and lens verification methods, including the use of the radiuscope, are covered in the laboratory. Brands of both rigid and flexible contact lenses and their associated lens care products are discussed. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: OPT 261.

OPT 263 Special Contact Lenses

This course continues the study of contact lenses to include the newest types of lenses, lens materials, and fitting techniques. Keratotomy and implications for subsequent contact lens therapy are discussed. Advanced fitting techniques for multifocal and aphakic lenses are included. Gas permeable lenses and extended-wear lenses are examined, and Food and Drug Administration requirements are discussed. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: OPT 262.

OPT 273 Opticianry Seminar

In this course the student learns about current eyecare practice through guest speakers, field trips, and classroom discussions. Topics include professional ethics, job opportunities, licensure, and the latest developments and trends in the optical industry. Course Hours Per Week: Class, 1. Quarter Hours Credit, 1. Prerequisite: None.

Philosophy

PHI 101 Introduction to Philosophy

This introductory course in philosophy is designed to enable the student to use the historical approach in understanding philosophy; to analyze the basic concepts, themes, theories, and arguments of ancient, modern, and contemporary philosophers as well as the different philosophical problems which arise in the ever-changing yet constant areas of life; and to develop a capacity for philosophical thinking. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PHI 102 Ethics

This course is an introductory study of ethical problems which have their origin in the thinking of ancient, modern, and contemporary moral philosophers. The student is taught to apply philosophical analysis to the historical development of ethics. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Pharmacy

PHM 101 Introduction to Pharmacy

This course introduces pharmacy practice and the technician's role in hospital and community pharmacies. Topics include the pharmacy environment, pharmacy organization and management, pharmacy law and regulations, professionalism, work ethics, and pricing and payment strategies. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None. Corequisite: PHM 105.

PHM 105 Hospital Pharmacy I

This course focuses on the technical procedures for safely and accurately preparing and dispensing drugs in the hospital setting under the supervision of a registered pharmacist. The course includes a review of the hospital pharmacy environment, drug compounding, packaging and labeling, the theory and practice of outpatient unit dose, and controlled drug dispensing systems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None. Corequisite: PHM 101.

PHM 110 Hospital Pharmacy II

This course completes the study of the technical procedures associated with preparing and dispensing drugs under the supervision of a registered pharmacist. Topics include aseptic techniques, sterile compounding, intravenous admixture systems, computerized dispensing, and purchase and inventory control. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: PHM 101, PHM 105.

PHM 115 Pharmacology I

An introduction to drug products, this course includes the most commonly encountered drugs in each therapeutic category. The course acquaints the student with the generic and trade names of commonly used drugs, with their actions and general uses, and with important contraindications in the treatment of disease states. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None. Corequisite: BIO 110 or equivalent.

PHM 120 Community Pharmacy

This course provides the student with a working knowledge of the procedures, operations, and theories relating to a community and retail pharmacy. Emphasis is on a general knowledge of "over-the-counter" products, prescription processing and pricing, business-inventory management, patient services, and special health aids. Course Hours Per Week: Class, 2. Lab, 2. Quarter Hours Credit, 3. Prerequisites: PHM 101, PHM 105.

PHM 125 Pharmacology II

This course completes the introductory study of the most commonly encountered drugs following the sequence of study in the major drug groups. Topics include the generic and trade names, drug action and uses, and important contraindications. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: BIO 110.

PHM 130 Pharmacy Clinical

This course provides the student with "on-the-job" training and experience in a variety of hospital and community pharmacy settings. The course emphasizes practical experience in outpatient dispensing, inpatient dispensing, unit dose systems, IV admixture systems, bulk and sterile compounding, and purchasing and inventory control. Course Hours Per Week: Class, 0. Clinical, 24. Quarter Hours Credit, 8. Prerequisites: MAT 150, PHM 110, PHM 115, PHM 120, SEC 111. Corequisites: PHM 125, EDP 103.

PHM 1101 Pharmacology I

This course assists the student in acquiring an understanding of drugs. It reviews mathematical principles related to drug therapy, introduces calculation of fractional dosage, and stresses principles of safe preparation and administration of drugs. Drug standards and legal implications are correlated to the role of the practical nurse. Course Hours Per Week: Class, 3. Lab, 1. Quarter Hours Credit, 3. Prerequisite: MAT 100 or satisfactory score on placement test.

PHM 1102 Pharmacology II

This course provides a further study of drugs used in the diagnosis, cure, or prevention of diseases. The course enables the student to become aware of the therapeutic uses, actions, and contraindications of drugs needed for safe nursing care. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisites: NUR 1101, BIO 120, NUT 101, PHM 1101, EDP 103.

Physics

PHY 130 Physics

This course covers the principles of physics applicable to the health sciences, especially respiratory therapy. Topics include a study of the physical properties of liquids and gases, the circulatory system, medical applications of pressure and fluid flow, molecular phenomena, temperature, and effects of heat, electricity, bioelectricity, and clinical applications. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: None.

PHY 140 Physics

This course introduces the basic principles of physics and emphasizes the physical properties of optical materials. The student is introduced to the fundamentals of mechanics, heat, wave motion, electricity, electromagnetic waves, and light as a basis for geometric optics. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

PHY 190 Descriptive Astronomy

This course in elementary descriptive astronomy includes a study of the solar system, stars, galaxies, and the universe as a whole on a non-mathematical basis. A study of the instruments and techniques of astronomers is provided. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PHY 260 Physics

This course introduces physical principles and their application in industry. Topics include measurements, properties of matter, vectors, motion, force, work, energy, power, simple machines, and fluids. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

PHY 261 Physics

This second course in the application of physics in industry includes principles of heat, wave motion, sound and acoustics, light, and atomic and solid state physics. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: PHY 260.

PHY 262 Semiconductor Physics

This course introduces solid state physics and emphasizes semiconductors. Topics include quantum physics, the atom, solid state devices, and semiconductor and integrated circuit fabrication techniques. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: SCT 101.

PHY 1111 Applied Science

This course introduces physical principles and their application in industry. Topics include measurements, properties of matter, basic electrical principles, and heat. Principles of force, friction, work, energy, power and torque, electrical motors, and power transfer are also studied. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

Political Science

POL 171 State and Local Government

This course is a study of relationships between state and local governments. Emphasis is on problems of administration, revenues, appropriations, and the historical development of government in North Carolina. The course is designed to enable the student to understand basic concepts of government, the powers and functions of the two levels of government, and the social elements of state politics. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

POL 190 United States Government

This introductory study of the basic principles of American government is designed to enable the student to understand the political functions of the three branches of government and to analyze current political issues. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Psychology

PSY 100 Introduction to General Psychology

This introductory study of psychology is designed to enable students to understand themselves in relationship to their environment and to understand the basic principles of human behavior. The course is recommended as a foundation course for students who plan further study in psychology.

Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PSY 101 Psychology of Human Behavior

This introductory course in psychology provides an understanding of and appreciation for the scientific approach to the study of human behavior. The course integrates the physiological, intrapsychic, and social/behavioral perspectives on human behavior and human thought. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

PSY 111 Creative Problem Solving

This course is a practical and academic approach to the use of imagination and creativity. Accenting the visual aspects of problem solving, this course enables the student to understand the aspects of imagination and creativity; to recognize and use procedures of solution; to know and use methods of generating ideas; and to know the fundamentals of group process. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PSY 170 Adolescent Psychology

This study of theory and research on adolescent development is designed to enable the student to understand theories of adolescence and issues relating to adolescent development; to analyze the physical, emotional, social, and intellectual approaches to adolescent development; and to understand how theories of adolescent behavior may be applied to real-life situations. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PSY 171 Abnormal Psychology

This survey of behavioral disorders is designed to enable the student to understand the psychological origins of various mental and emotional problems, to understand their relationship to current concepts of normal personality, and to understand the types of treatments available for dealing with these disorders. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PSY 290 Applied Psychology

This course is a study of those principles of psychology which assist the student in dealing with interpersonal relationships in a job-related situation. The course is designed to enable the student to understand motivation, feelings, and emotions in problem situations; to understand interpersonal and group dynamics; and to apply the principles of mental health to adjustment problems as both a worker and as a member of the community. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Reading

RED 100 Reading Improvement

This course is designed to enable the student to apply effective study skill techniques, to correct reading deficiencies, to build vocabulary skills, to improve spelling through the use of four basic spelling rules and other techniques, and to use the library effectively. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

Respiratory Therapy

RTH 101 Basic Therapy

This course covers ethics, professionalism, professional organizations, and the history of respiratory therapy. The role of the respiratory therapist in interacting with the patient and other health care members is also covered. Emphasis is on medical terminology, basic nursing care techniques, basic antiseptic techniques, and the foundations of respiratory system anatomy and physiology. Course Hours Per Week: Class, 3. Lab, 4. Quarter Hours Credit, 5. Prerequisite: None.

RTH 102 Therapy II

This course covers the clinical use of the stethoscope, interpretation of arterial blood gases, and the use of the patient chart. The storage, piping, and administration of therapeutic oxygen in the hospital and home setting are covered in detail. The physiology underlying the control, exchange, and transport of respiratory gases is discussed.

Course Hours Per Week: Class, 5. Lab, 4. Quarter Hours Credit, 7.
Prerequisite: RTH 101.

RTH 103 Therapy III

This course provides an in-depth study of the techniques and rationale of bronchopulmonary hygiene. Laboratory sessions concentrate on administering intermittent therapy to patients. Pediatric oxygen administration, infection control, and sputum induction are covered. The use of patient progress notes as a source of information is emphasized.

Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6.
Prerequisite: RTH 102.

RTH 104 Therapy IV

This course is an introduction to ventilators, artificial airways, and procedures of arterial blood sampling and processing. Topics include techniques of patient assessment involving chest radiography, bedside pulmonary function, and physical assessment. Pediatric assessment, the birth process, and thermal management of neonates are also covered.

Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: RTH 103.

RTH 105 Clinical Practice I

Clinical Practice I is designed for fourth-quarter students as a specific introduction to Durham County General Hospital and North Carolina Memorial Hospital. Students are oriented to the physical facilities of both clinical affiliates and to the basic organization and record-keeping procedures of each respiratory therapy department. The course also serves as a general introduction to the practical aspects of patient care in the hospital setting by providing the student with opportunities to observe patient care and to practice selected pre-patient contact skills at each of the affiliates.

Course Hours Per Week: Class, 0. Clinical, 8.5. Quarter Hours Credit, 3. Prerequisite: RTH 103.

RTH 111 Technical Clinical I

Technical Clinical I is a general introduction to the Respiratory Therapy Technician program. The student becomes familiar with the physical facilities of the clinical affiliates and with the basic organization and record-keeping procedures of a respiratory therapy department. The course also introduces the practical aspects of patient care and the respiratory therapy equipment.

Course Hours Per Week: Class, 0. Clinical, 17. Quarter Hours Credit, 5. Prerequisite: Enrollment in the Respiratory Therapy Technician program. Corequisite: RTH 101.

RTH 112 Technical Clinical II

Technical Clinical II provides a rotation in which the student takes responsibility for patient care. The student is evaluated for competence in delivering the basic modalities of therapy. Emphasis is on the development of a student's clinical judgment by stressing application of classroom material to patient contact experiences.

Course Hours Per Week: Class, 0. Clinical, 17. Quarter Hours Credit, 5.
Prerequisites: RTH 101, RTH 111. Corequisite: RTH 102.

RTH 113 Technical Clinical III

This course introduces the Respiratory Therapy Technician student to the care of patients requiring intensive respiratory treatment and continuous mechanical ventilation. All aspects of ventilator commitment, ventilator monitoring, weaning, arterial blood gas analysis, and nasotracheal suction are practiced and evaluated in the Durham Tech laboratory and in the intensive care units of the clinical affiliates.

Course Hours Per Week: Class, 0. Clinical, 17. Quarter Hours Credit, 5. Prerequisites: RTH 102, RTH 112. Corequisite: RTH 103.

RTH 114 Technical Clinical IV

This course is intended to facilitate the transition from the role of the student to the role of the practicing respiratory therapy technician. The student is encouraged and expected to work independently while under the supervision of a clinical instructor. Special rotations are offered as feasible in the areas of physical therapy, pathology, out-patient clinics, and pediatrics.

Course Hours Per Week: Class, 0. Clinical, 17. Quarter Hours Credit, 5. Prerequisites: RTH 103, RTH 113. Corequisite: RTH 104.

RTH 201 Therapy V

This course is a continuation of the theory and procedures related to mechanical ventilation. Emphasis is on interpretation and application of blood gas values, physiological monitoring, and weaning procedures and techniques. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisites: BIO 133, RTH 104.

RTH 202 Clinical Practice II

Clinical Practice II provides the first rotations in which the student takes responsibility for patient care. The student is evaluated for competence in delivering the basic modalities of therapy. In addition, ancillary tasks such as EKG, equipment decontamination, and patient reporting are covered. Emphasis is on developing the student's clinical judgment by stressing application of classroom material to patient contact experiences. Course Hours Per Week: Class, 0. Clinical, 25.5. Quarter Hours Credit, 8. Prerequisites: RTH 104, RTH 105.

RTH 203 Therapy VI

This course provides the student with the knowledge and skills necessary to perform pulmonary function testing and bedside pulmonary physiologic calculations. Respiratory care of the patient with an artificial airway is emphasized. Common pediatric diseases are also covered. Course Hours Per Week: Class, 5. Lab, 4. Quarter Hours Credit, 7. Prerequisite: RTH 201.

RTH 204 Clinical Practice III

This course introduces the care of patients requiring intensive respiratory treatment and continuous mechanical ventilation. All aspects of ventilator commitment, ventilator monitoring, weaning, arterial blood gas puncture, and nasotracheal suction are practiced and evaluated in the intensive care units of the clinical affiliates. Course Hours Per Week: Class, 0. Clinical, 25.5. Quarter Hours Credit, 8. Prerequisites: BIO 134, RTH 201, RTH 202.

RTH 205 Therapy VII

This course covers the clinical management of cardiopulmonary arrest and the management of patients by hemodynamic parameters' manipulation. Emphasis is on the management of the critically ill patient in the intensive care unit. The techniques and procedures of intrahospital patient transport are covered. Transporting infant patients is given special emphasis. Current respiratory therapy literature is reviewed. Course Hours Per Week: Class, 3. Lab, 4. Quarter Hours Credit, 5. Prerequisites: RTH 203, RTH 204.

RTH 206 Clinical Practice IV

This course provides the student with the opportunity to master the critical patient care skills and techniques introduced during Clinical Practice III. The student becomes fully involved with pediatric and neonatal therapy by rotating through general pediatric, pediatric intensive care, and premature intensive care units. Clinical experience with cardiopulmonary diagnostics, specifically pulmonary function testing and interpretation, is also scheduled. Course Hours Per Week: Class, 0. Clinical, 25.5. Quarter Hours Credit, 8. Prerequisites: RTH 203, RTH 204.

Science

SCI 101 Study of the Universe (COSMOS)

This interdisciplinary course traces the scientific evolution of the universe as well as man's theories about it. The course introduces such topics as galactic evolution, whale communication, Greek mythology, 17th century Dutch exploration, life on other planets, and the relationship between Earth and its inhabitants. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

SCI 130 Introduction to Applied Science

This course for the beginning applied science or allied health student is an introductory or refresher course in the basic sciences. Through lectures, demonstrations, and laboratories, the student is introduced to the beginning essential elements of biology, chemistry, and physics. The purpose of this offering is to act as a preparatory course for curriculum courses in the biological sciences, chemistry, and applied physics. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

SCI 150 Physical Science for Dental Technicians

This course provides the Dental Laboratory Technology student a study of the basic physical and chemical principles encountered in working with dental materials. Topics include introductory inorganic and organic chemistry. The metallic elements and those compounds with physical properties advantageous to dental work are emphasized. Physical principles include those which cause stress, strain, distortion, and potential stability or instability in dental materials. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: None.

Secretarial

SEC 101 Typewriting I

This course introduces the touch typing system and emphasizes mastery of the keyboard, simple business correspondence, and tabulation. A minimum speed of 30 words per minute is required.

Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

SEC 102 Typewriting II

This course, a continuation of SEC 101, emphasizes developing speed and accuracy as applicable in tabulation, manuscript, correspondence, and business forms. A minimum speed of 40 words per minute is required. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: SEC 101.

SEC 103 Typewriting III

This course deals with production typing problems and speed building with emphasis on developing the student's expertise in producing mailable copies. The production units are tabulation, manuscripts, correspondence, and business forms. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: SEC 102.

SEC 109 Personal Development

This course develops the student's self understanding in relation to the business environment. Emphasis is on the physical, intellectual, social, and emotional aspects of personality development. The student is taught to plan a program for self improvement. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SEC 110 Business Machines

This course is a general survey of machines used in business and industry. Learning techniques; processes; and the operation of such machines as calculators, reprographic machines, dictation-transcription machines, and the keypunch machine are covered. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SEC 111 Pharmacy Typewriting

This course introduces the touch typing system. Emphasis is on mastery of the keyboard, simple business correspondence, tabulation, and pharmacy forms and labels. A minimum speed of 30 words per minute is required. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

SEC 112 Shorthand I

This course prepares the student in the theory and practice of reading and writing shorthand and emphasizes penmanship, phonetics, word families, brief forms, and phrases. Shorthand theory is stressed. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite or Corequisite: SEC 101.

SEC 113 Shorthand II

This course further develops the student's mastery of shorthand through concentrated practice in reading and writing shorthand. The course also covers shorthand outlines and two-letter post office abbreviations for the 50 states. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: SEC 112.

SEC 114 Shorthand III

This course further emphasizes theory, speed building, and accuracy. Office-style dictation and transcription are introduced. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: SEC 113.

SEC 115 Records Management

This course covers the fundamentals of indexing and filing by using miniature letters, filing boxes, and guides. Alphabetical, geographical, chronological, subject, and numerical filing systems are also covered. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

SEC 201 Typewriting IV

This course, through typing straight copy, develops the student's production speed, stroke control, and accuracy. Emphasis is on maintaining typing speed; on applying typing skills in situations requiring decision making or time limitations; and on producing neat, attractive, and mailable copy. All production work is timed. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: SEC 103.

SEC 204 Simulated Office Application

This course provides the typist a transition from the classroom to the office. Emphasis is on speed building on straight copy and increased skill in production utilizing material closely related to the actual office situation. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: SEC 201.

SEC 215 Dictation and Transcription I

This course is designed to develop the student's skill in taking dictation and transcribing at the typewriter. The course reviews taking dictation of familiar and unfamiliar material at varying speeds. A minimum dictation rate of 100 words per minute for five minutes on new material is required. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: SEC 114.

SEC 216 Dictation and Transcription II

This course is designed to develop the student's accuracy, speed, and technical vocabulary needed to satisfy the stenographic requirements for an executive secretary. A minimum dictation rate of 110 words per minute for five minutes on new material is required. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: SEC 215.

SEC 230 Machine Dictation and Transcription

This course introduces the elements of the machine transcription process and provides study and practice in using transcribing equipment. Introductory word processing concepts on the micro-computer are combined with transcription. The course also provides hands-on experience with job simulations performed in the word processing laboratory. Proficiency in punctuation, grammar, spelling, word usage, and letter style is emphasized. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: SEC 102, ENG 102.

SEC 231 ABC Shorthand

This course is designed to enable the student to develop ABC Shorthand principles. The student gains proficiency in recognizing sounds and recording them in shorthand. Transcription at the typewriter is also introduced. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

SEC 232 ABC Shorthand Dictation and Transcription

This course is designed to develop the student's shorthand speed with unfamiliar dictation to a minimum of 60 words per minute for three minutes. The student is required to produce mailable transcripts of this dictation with at least 95 percent accuracy. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: SEC 231.

SEC 250 Medical Terminology

This course introduces medical terminology used in studying human anatomical systems. Emphasis is on using, spelling, translating to English, and pronouncing these terms. Through this study, students become familiar with the structure of each anatomical system and with some of the more common diseases. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SEC 251 Medical Transcription

This course provides practical application of medical terms and procedures. A basic vocabulary for a case history is introduced, discussed, and used as the student transcribes the relevant patient work-ups. Thus, the student becomes proficient with basic medical prefixes, suffixes, and roots and acquires a basic knowledge of elementary anatomy and physiology. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: SEC 103 or SEC 250 or equivalent.

SEC 260 Word Processing I

This course provides an in-depth introduction to word processing as a total communications system for both administrative and correspondence positions. Emphasis is on vocabulary, applications, and operations of various components in word processing systems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: SEC 103 or equivalent.

SEC 261 Word Processing II

This course provides production-level skill development in word processing. Emphasis is on accuracy in production as well as skills in editing and determining format of technical, medical, accounting, and executive documents. Advanced applications of word processing are also explored. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: SEC 260.

SEC 262 Word Processing III

This course focuses on advanced skills in office word processing technology using the microcomputer. Language arts skills and production typewriting skills are emphasized. Documents such as business letters, tables, and manuscripts of medical, legal, and technical data are produced. A typewriting speed of 55 words per minute and a thorough knowledge of typewriting techniques are required. Course Hours Per Week: Class, 1. Lab, 4. Quarter Hours Credit, 3. Prerequisites: SEC 201, SEC 261 or equivalents.

SEC 270 Business Communication

This course focuses on the writing skills and techniques needed for effective business communication. Emphasis is on the business letter's construction, format, and content. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 103.

SEC 280 Office Procedures

This course acquaints the student with the responsibilities encountered by a general office worker during the work day. The following areas are included: receptionist's duties, mail handling, telephone techniques, travel information, telegrams, office records, purchasing supplies, office organization, and insurance claims. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: ENG 103, SEC 103, and SEC 114 or SEC 231.

SEC 290 Work Experience

In this course the student is assigned to work in a business, technical, or professional office in order to acquire actual work experience. Opportunity is provided for the practical application of skills and theory studied in the classroom. Course Hours Per Week: Class, 1. Lab, 20. Quarter Hours Credit, 3. Prerequisite or Corequisite: SEC 280.

Semiconductor Technology

SCCT 101 Introduction to Semiconductor and Microelectronics Technology

This course introduces the student to the field of microelectronics and semiconductor processing. The course provides an overview of the history of the industry, job requirements and opportunities, vocabulary, and types of microelectronic devices manufactured. The basics of semiconductor materials, properties, and fabrication procedures are included. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisites: CHM 167, MAT 105 or equivalents.

SCCT 200 Microelectronics Processing and Device Design

This course provides an in-depth study of the field of microelectronics and micro-chip processing technology. Emphasis is on oxidation, diffusion, photolithography, and metallization. Basic bipolar and unipolar IC layouts are developed by a study of design rules and other layout parameters/constraints. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisites: PHY 262, SCT 101 or equivalents.

SCT 205 Mechanics of High Technology

This course introduces the student to the major principles and concepts of mechanical processes common to various high-technology industries. Major topics include gas and liquid flow measurement and control, environmental habitat regulation, basic vacuum systems, process heating, filtration and purification techniques for liquids and gases, and measurement instrumentation. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: SCT 200.

SCT 210 Semiconductor Device Analysis and Physical Layout

This course is designed to enhance the student's knowledge in the field of microelectronics and semiconductor processing. Lab work involves the type of measuring, testing, and inspection equipment used for microelectronic circuits. Classroom lectures familiarize the student with the process of wafer fabrication to include circuit layout, mask making, photolithography, diffusion, and thin-film processes. Lectures also cover the characterization of the process control devices, logical to physical relationship of microelectronic circuits, reliability, and failure analysis. Course Hours Per Week: Class, 3. Lab, 4. Quarter Hours Credit, 5. Prerequisite: SCT 200 or equivalent.

SCT 220 Work Experience

In this course the student works in a microelectronics-related area in order to acquire actual on-the-job experience. This provides an opportunity for the skills and theory received in the classroom to be applied to the job. Learning objectives are identified at the beginning of the quarter by the student, the instructor, and the job supervisor. Course Hours Per Week: Class, 1. Lab, 40. Quarter Hours Credit, 5. Prerequisite: SCT 210.

Sociology

SOC 100 Principles of Sociology

This introductory study of culture, social institutions, socialization, collective behavior, deviance, population, urbanization, and social change is designed to provide the student with the ability to understand the concepts and issues involved in the study of human society; to find adequate explanations for social problems in our society; and to reach an understanding of how society works.

Course Hours Per Week: Class, 3. Quarter Hours Credit, 3.

Prerequisite: None.

SOC 101 Technology and Change

This course traces the evolution of the following eight major modern inventions: the atom bomb, telecommunications, the computer, the production line, the jet aircraft, plastics, rocketry, and television. The course also demonstrates how these technological innovations have caused change their own fields and in totally unrelated fields.

Course Hours Per Week: Class, 3. Quarter Hours Credit, 3.

Prerequisite: None.

SOC 102 Introduction to Sociology

This introductory study of culture, socialization, collective behavior, deviance, social problems, population, intergroup relations, social change, and social institutions helps the student analyze social problems in modern society and find ways for adapting to social change. Course Hours Per Week:

Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

SOC 105 Career Preparatory Training for Former Homemakers

This course is designed to prepare women formerly outside the job market or those employed only on a part-time basis for competing for full-time jobs and/or for jobs which in the past have been traditionally considered for males only. Emphasis is on counseling, interpersonal relations, and communications. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SOC 290 Marriage and Family

This course is a study of the origin and development of the family as a social and economic institution. The course focuses on the concepts of courtship, marriage, and parenthood and the problems facing the contemporary American family. The student also prepares a report on a topic involving marriage and family relationships. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

Trustees and Institute Personnel

Board of Trustees

Mr. George W. Newton	Chairman
Mr. James I. Bolden	Vice-Chairman

Appointed By The Governor *Term Expires June 30*

Mr. Jesse Anglin	1991
Dr. W. Kimball Griffin	1989
Mr. Byron K. Hawkins	1985
Mr. Sherrill R. High	1987

Appointed By The County Commissioners

Mr. James G. Huckabee, Jr.	1987
Dr. E. Towson Moore	1985
Mr. George W. Newton	1989
Mr. Nathaniel B. White	1991

Appointed By City And County School Boards

Mr. James I. Bolden	1991
Mrs. Wanda J. Garrett	1989
Mrs. Eula Miller	1987
Mr. E. L. Phillips	1985

Administrative Staff

Phail Wynn, Jr., <i>B.A., M.Ed., Ed.D.</i>	President
Augusta A. Julian, <i>B.A., M.Ed.</i>	Executive Assistant to the President
E. Calvin Gillie, <i>A.A.S., A.A.S.</i>	Dean, Adult and Continuing Education
Morris A. Herron, <i>B.S., M.Ed., Ed.S., Ed.D.</i>	Chief Academic Officer/Dean of Instruction
Edward E. Moore, <i>B.S.C., M.B.A.</i>	Chief Student Services and Planning Officer/Affirmative Action Officer
L. A. Veasey, <i>B.A.</i>	Business Manager/Chief Facilities Officer
Dora P. Bailey, <i>A.A.S.</i>	Secretary to the President
Sarah F. Hunt, <i>B.A.</i>	Administrative Assistant for Institutional Self-Study
Howard H. Medlin, III, <i>A.A.S.</i>	Manager, Administrative Data Processing

Academic Department Heads and Program Directors

Willie C. Alston, <i>A.A.S.</i>	Program Director, Automotive Mechanics
Nancy D. Avery, <i>A.B.Ed., M.Ed.</i>	Program Director, Mathematics and Science
Barbara A. Baker, <i>A.A., B.A., M.L.S.</i>	Director, Educational Resources
Deborah M. Butcher, <i>B.S., M.Ed.</i>	Program Director, Early Childhood Associate
Frederick Castrovinci, <i>B.A., A.A.S., R.R.T.</i>	Program Director, Respiratory Therapy
Michael L. Culpepper, <i>B.A., J.D.</i>	Program Director, Paralegal Technology
Charlene B. Daye, <i>B.S., M.S.</i>	Program Director, Office Technologies
Francis A. Ervin, <i>O.D.</i>	Program Director, Opticianry
John N. Fugelso, <i>B.A., M.A.</i>	Program Director, Residential Carpentry and Preservation
Louise J. Gooche, <i>B.S.N., M.A., R.N.</i>	Program Director, Practical Nursing
Linda M. Green, <i>B.A.</i>	Program Director, Business Computer Programming
Nancy M. Hall, <i>B.S.N., M.S.N., R.N.</i>	Program Director, Associate Degree Nursing Program
S. Miller Harrison, <i>B.S.</i>	Program Director, Industrial Management Technology
Thomas D. Hembrick, <i>B.S., M.Ed.</i>	Associate Dean, Industrial and Engineering Technologies
Iris B. Hill, <i>B.S., M.A.</i>	Program Director, English and Social Sciences
Vijay S. Joshi, <i>B.A., M.S., Ph.D.</i>	Program Director, Microelectronics Technology
Donald R. Kritsch, <i>B.A., M.A., C.L.T., S.M.-A.S.C.P.</i>	Assistant Dean, Health Technologies; Program Director, Pharmacy Technology
S. Joshua Parker, Jr., <i>A.B.</i>	Program Director, Industrial Electricity/Motors and Controls
Marilyn R. Peterson, <i>B.S., M.Ed.</i>	Educational Development Officer, Academic Services
Russell O. Pratt, <i>B.A., M.A.</i>	Program Director, Architectural Drafting
William D. Pridgen, <i>J.D.</i>	Associate Dean, Business Technologies; Program Director, Business Administration
William L. Rodgers, <i>A.A.S., C.D.T.</i>	Program Director, Dental Laboratory Technology
Roger J. Rowe, <i>B.A., M.A.</i>	Program Director, Electronics Engineering Technology
William J. Sewell, <i>A.A., B.A., M.A., Ph.D.</i>	Associate Dean, General Education and Public Service Technologies
Robert H. Stagg, <i>B.S., M.S.</i>	Program Director, Public Safety Technologies
Dwight E. Tichenor, <i>B.S.</i>	Program Director, Machinist
Lynne N. West, <i>B.S., M.Ed.</i>	Program Director, Accounting
Thomas W. West, <i>A.A.S.</i>	Program Director, Digital Electronics Repair

Faculty and Staff

Lowell D. Allen, <i>B.A.</i>	Graphic Artist; Marketing, Public Affairs, and Publications
J. Ellen Austin, <i>B.A., M.A., Ed.D.</i>	Coordinator, Admissions and Recruiting
Ethel R. Barlow, <i>B.A., M.R.E.</i>	Admissions Counselor, Admissions and Registration
Randolph F. Bass	Printer; Marketing, Public Affairs, and Publications
Larry B. Bates, <i>C.D.T.</i>	Instructor, Dental Laboratory Technology
Angeline W. Battle, <i>B.S.N., R.N.</i>	Instructor, Practical Nursing
William M. Bilbrey, <i>A.A., B.S., M.Ed.</i>	Instructor, Architectural Drafting
Carol J. Bixler, <i>B.S., M.S.</i>	Instructor, Biology/Chemistry
Carolyn G. Bolden, <i>A.A.S.</i>	Secretary, Personnel Services
Rose G. Britton, <i>A.A., B.S., M.A.</i>	Instructor, Accounting
Dorothy A. Brower, <i>B.A.</i>	Coordinator, New Industry Training
Carolyn G. Brown, <i>B.S.N., R.N.</i>	Instructor, Practical Nursing
Dolores P. Bullock, <i>B.S.N., R.N.</i>	Instructor, Practical Nursing
Larry Byrd, Jr.	Manager, Maintenance
Joan S. Carter, <i>B.S., M.S.</i>	Instructor, Biology/Mathematics
I. Keith Casey, <i>A.A.S.</i>	Instructor, Industrial Electronics
John Christopher, <i>B.S., M.A.T.</i>	Instructor, Mathematics
William H. Cogwell, <i>Master Carpenter, Locksmith Diploma</i>	Carpenter, Maintenance
Horace B. Collins, <i>Mechanical Optics Technician, Dispensing Optician</i>	Instructor, Optical Laboratory Mechanics
Leona A. Crockett, <i>B.S.N., R.N.</i>	Instructor, Practical Nursing
Marian B. Crutchfield	Secretary, Adult and Continuing Education
Penny A. Daniel, <i>B.S.</i>	Instructor, Respiratory Therapy
Pauline David, <i>A.A.S.</i>	Financial Aid and Testing Assistant, Admissions and Registration
Nadine H. Dennis	Word Processing Technician, Word Processing Center
Carmen E. Dorsey, <i>B.S.C.</i>	Study Skills Specialist, Special Services Project
Connie B. Dunlap, <i>A.A.S., B.A.</i>	Secretary, Educational Development; Academic Services
Arthur B. Dunn, <i>A.A.S.</i>	Instructor, Electronics Engineering Technology
Bette L. Edgerton, <i>L.P.N., B.S.N., R.N.</i>	Instructor, Practical Nursing
Joyce N. Elmore, <i>A.A.S.</i>	Accounts Payable Clerk, Business Office
Terri L. Ettson, <i>B.A.</i>	Personnel Services Assistant, Personnel Services
Ann C. Faircloth	Director, Auxiliary Services
Constance M. Faulks, <i>L.P.N., B.S.N., M.Ed., R.N.</i>	Instructor, Practical Nursing

Mary A. Freedman, <i>B.A., M.A.</i>	Coordinator, Continuing Education
Nell R. Gallimore	Accounting Technician/Cashier, Business Office
Janice B. Gentry, <i>A.A.S.</i>	Accounting Technician, Business Office
Richard L. Godfrey, <i>B.S.</i>	Coordinator, Production Specialist; Media Services
N. DeWayne Goode	Printer; Marketing, Public Affairs, and Publications
E. Gene Goss, <i>B.S., M.Ed.</i>	Instructor, Business Administration
Jerry L. Greeson, <i>A.A.S.</i>	Audiovisual Maintenance Technician, Media Services
Dorothy M. Grier, <i>A.A.S.</i>	Secretary, Practical Nursing
Carl A. Haggard, <i>B.B.A., L.U.T.C., P.T.D.</i>	Instructor, Business Administration
Cynthia C. Hall, <i>B.A.</i>	Instructor, Business Computer Programming
Dwight M. Hall, <i>B.S.B.A.</i>	Instructor, Business Computer Programming
Roberta L. Hanks	Secretary, Counseling Services
Eleanor Harrington-Austin, <i>B.A., M.A.</i>	Instructor, English
Eric Harry, <i>A.A.S.</i>	Programmer/Analyst, Administrative Data Processing
Jill Smith Haughton, <i>B.S., M.Ed.</i>	Director, Counseling and Special Services
Roberta R. Havner, <i>A.A.S., B.S., M.S., Ed.D.</i>	Coordinator, Student Records and Veterans Affairs
Barbara H. Hayes, <i>B.S.N., M.Ed., R.N.</i>	Clinical Coordinator, Practical Nursing
Patricia A. Hemingway, <i>B.A., M.A.</i>	Counselor, Counseling Services
Ronald H. Hilbert, <i>B.A.</i>	Coordinator, Planning and Research
Gloria D. Horne, <i>B.A., M.A.</i>	Instructor, Curriculum/Telecourse Center
Brenda S. Hudson, <i>L.P.N.</i>	Coordinator, Career Planning and Placement
Claudia H. Hughes, <i>B.A., M.Ed.</i>	Planning and Research Specialist/Title III Director
E. Charles Hunt, <i>B.S.C.</i>	Special Programs and Accounts Payable Director, Business Office
Sylvia A. Hunt, <i>A.A.S.</i>	Secretary, Admissions and Registration
Michele E. Jacobsen, <i>B.S.</i>	Instructor, Office Technologies
Albert D. Jernigan, <i>B.S., M.Ed.</i>	Instructor, Business Computer Programming
Polly R. Johnson	Central Supply Clerk, Auxiliary Services
Christel G. Jones	Secretary; Marketing, Public Affairs, and Publications
Doris P. Jones	Secretary, Auxiliary Services
Patricia C. Jones, <i>B.S., M.A.</i>	Director, Admissions and Registration
Jo Ann Judkins-Mason, <i>A.A.S.</i>	Financial Aid Officer, Admissions and Registration
Patricia A. Judkins, <i>A.A.S., B.A.</i>	Registration Assistant, Admissions and Registration
Donna L. Kline, <i>B.S., A.A.S.</i>	MIS/ADP Assistant, Administrative Data Processing
Helen R. Laws, <i>A.A.S.</i>	Director, Personnel Services
Brenda J. Lewis, <i>Secretarial Diploma</i>	Receptionist, Admissions and Registration
Mary L. Lewis, <i>A.A.S.</i>	Secretary, Clerical Services
Nancy J. Love, <i>A.A.S.</i>	Records Assistant, Adult and Continuing Education

Watts L. Mangum, <i>A.A.S.</i>	General Accounting and Payroll Services Director, Business Office
Charles M. Mann, <i>A.A.S.</i>	Instructor, Business Computer Programming
Wanda S. Martin, <i>B.A., B.A.</i>	Information Specialist/Copy Editor, Marketing, Public Affairs, and Publications
Bessie F. Marshall	Manager, Bookstore; Auxiliary Services
Anna R. Mason, <i>Secretarial Diploma</i>	Manager, Clerical Services
Rosallene J. Massey, <i>A.A.S.</i>	Computer Operator/Data Control Specialist, Administrative Data Processing
Margaret A. McAdams, <i>A.A.S., B.S.C.</i>	Accountant, Business Office
Jerry S. McDaniel, <i>B.A., B.D., M.Ed.</i>	Director, Marketing, Public Affairs, and Publications
Ruth W. McKee, <i>A.A.S.</i>	Accounting Technician, Business Office
Joyce A. McNeill, <i>A.A.S., A.A.S.</i>	Special Assistant to the Dean, Academic Services
Richard D. Miller, <i>A.A.S., B.S., Ph.D.</i>	Clinical Coordinator, Respiratory Therapy
Alecia T. Mitchell, <i>B.S.</i>	Library Technician, Educational Resources
Lettie R. Moore, <i>B.S.</i>	Accounting Clerk, Business Office
Dollie L. Moser, <i>A.A.S.</i>	Records Assistant/Receptionist, Veterans Affairs; Admissions and Registration
Beatrice A. Muhammed, <i>B.S.</i>	Coordinator, Employment and Training Program (JTPA)
Peggy L. Nash, <i>B.S.</i>	Administrative Assistant, Retired Senior Volunteer Program and DAISY Program
R. Edward Newnam, <i>A.A., B.A., M.Ed.</i>	Administrative Assistant for Scheduling and Technical Services, Academic Services
Vickie A. Newsome, <i>B.A., M.A.</i>	Instructor, Social Sciences
R. Fred Noble, <i>B.A., C.D.T.</i>	Instructor, Dental Laboratory Technology
John M. Paden, <i>B.A.</i>	Assistant, Career Planning and Placement
Alice R. Page	FTE Coordinator, Business Office
Ida R. Page, <i>B.A., M.A.</i>	Instructor, English and Reading
James L. Painter, <i>A.A.S., B.S., M.Ed.</i>	Instructor, Electronics Engineering Technology
Joan A. Parker, <i>A.A.S., B.S.N., R.N.</i>	Instructor, Practical Nursing
Michael T. Patrick, <i>A.A.S.</i>	Instructor, Dental Laboratory Technology
Dwight M. Patterson, <i>B.A., M.A.</i>	Admissions Counselor, Admissions and Registration
Ranova S. Pendergraft, <i>B.S.N., R.N.</i>	Instructor, Practical Nursing
Marie G. Phelps	Secretary, Word Processing Center
Margaret J. Pitt, <i>B.S., A.A.S.</i>	Instructor, Opticianry
Catherine S. Portaro, <i>B.S., M.A.Ed.</i>	Instructor, Accounting
Robert L. Potter, <i>A.A.S., A.A., B.S., J.D.</i>	Instructor, Business Administration
Helen T. Pressley, <i>B.S.</i>	Director, Retired Senior Volunteer Program and DAISY Program
Dorothy J. Rascoe, <i>A.A.S., A.A.S.</i>	Assistant, Veteran Affairs
Claude E. Reams, <i>A.A.S.</i>	Instructor, Automotive Mechanics

Robert N. Reaves, <i>A.A.S., B.S.Ed.</i>	Instructor, Electronics Engineering Technology
Jewelite Reid	Math Skills Specialist, Special Services Project
Mary R. Rhoden	Communications Technician, Clerical Services
Robert T. Rich, <i>A.A.S., B.A., Certified Optician</i>	Instructor, Opticianry
Jan J. Riggsbee, <i>B.A., M.A.</i>	Recruiter, Admissions and Recruiting
Henry E. Riley, Jr., <i>A.A.S.</i>	Programmer/Analyst, Administrative Data Processing
Shirley C. Riley	Secretary, Industrial Technologies
Clyde E. Robbins	Evening Supervisor
Jimmy C. Roberts, <i>A.A.S.</i>	Audiovisual Specialist, Media Services
Marshall E. Rogers	Housekeeper, Housekeeping
Robert M. Rogers	Housekeeper/Shipping and Receiving, Housekeeping
Addie Mae Rucker	Housekeeper, Housekeeping
James S. Russell	Mail Services Technician/Courier, Clerical Services
Nina B. Smith, <i>B.S., M.S.</i>	Instructor, Office Technologies
Marlene M. Stewart, <i>B.A., M.A.</i>	Coordinator; Personnel Development, Title III
Helen D. Thompson, <i>B.A., M.Ed.</i>	Coordinator/Instructor, Curriculum/Telecourse Center
Ernest S. Toomer	Evening Supervisor, Housekeeping
M. Frances Tomic, <i>A.A.S.</i>	Library Technician, Educational Resources
Fay G. Turner	Secretary, Academic Interdepartmental Offices
Jesse L. Uzzell, <i>B.S., M.A.</i>	Assistant Dean, Adult and Continuing Education
Richard I. Vaughan, Jr., <i>B.S., M.B.A.</i>	Instructor, Business Administration
Joseph D. Wade, <i>A.B., B.S., J.D.</i>	Instructor, Criminal Justice
Gina B. Wagner, <i>A.A.S.</i>	Data Control Technician, Business Office
James T. Watkins, <i>A.A.S., B.A.</i>	Junior Programmer, Administrative Data Processing
Richard E. Watson, <i>B.S.</i>	Instructor, Business Computer Programming
Raymond Watts, <i>A.A.S.</i>	Manager, Housekeeping
Adrienne F. Williams, <i>A.A.S.</i>	Registration Technician, Admissions and Registration
Pauline B. Williams	Secretary, Adult and Continuing Education
Teresa T. Williams, <i>B.A.</i>	Coordinator, Adult Education
A. Dillon Wilson, <i>B.A., M.A.</i>	Instructor, English and Reading
Mary A. Winborne	Secretary, Academic Services
Tseng-Yuan Woo, <i>B.S., M.S.</i>	Instructor, Electronics Engineering Technology and Microelectronics Technology
Joseph S. Wooten, Jr.	Maintenance Worker, Maintenance
Richard E. Watson, <i>B.S.</i>	Instructor, Business Computer Programming
Robbi L. Workman, <i>A.A.S.</i>	Secretary/Terminal Operator, Business Office
Jerome R. Worsley, <i>B.S., M.A., Ed.D.</i>	Instructor, Office Technologies
John A. Zunes, <i>B.S.E.E., M.Div.</i>	Instructor, Physics

Adjunct Faculty

Respiratory Therapy/ Respiratory Therapy Technician

Charles Alford, R.R.T.
Clinical Instructor, Durham County General Hospital

Samuel Calderone, R.R.T.
Clinical Instructor, North Carolina Memorial Hospital

Leon W. Geary, M.D.
*Medical Director, Therapist Program;
Durham County General Hospital*

Toni Jarvis, R.R.T.
*Clinical Educational Coordinator,
Durham County General Hospital*

Toni Manenti, R.R.T.
Clinical Instructor, North Carolina Memorial Hospital

James Poe, R.R.T.
*Clinical Educational Coordinator,
North Carolina Memorial Hospital*

Jane Walter, R.R.T.
Clinical Instructor, North Carolina Memorial Hospital

Charles Watson, M.D.
*Medical Director, Technician Program;
North Carolina Memorial Hospital*

Pharmacy Technology

Sandra Covington
*Pharmacy Technician Supervisor,
Durham County General Hospital*

William L. Harris, R.Ph.
*Pharmacy Supervisor,
Duke University Medical Center*

Hortense Jones
*Pharmacy Technician,
Lincoln Community Health Center*

William Martin, R.Ph.
*Assistant Director of Pharmacy Services,
Durham County General Hospital*

Michael Martz, R.Ph., Ph.D.
*Pharmacy Clinical Coordinator,
Veterans Administration Hospital*

Pam Morton
*Pharmacy Technician Supervisor,
Duke University Medical Center*

Wayne Petry, R.Ph.
*Chief of Pharmacy Services,
Veterans Administration Hospital*

Advisory Committee Membership

Accounting

L. Carl Allen, III
Home Security Life Insurance Company

Clifford A. Clark
Price Waterhouse CPA

Scott Edwards
Central Carolina Bank

Rosetta Johnson
General Telephone of the Southeast

Floyd T. Morgan
Nello L. Teer Company

Joan W. Pless
Pless and Pless CPA

Jackie Robinson
General Telephone Company

William E. Self
Bailey, Self, Harris, and Company CPA

Raphael N. Thompson
North Carolina Central University

Architectural Drafting

Nancy Bane
Brockwell-Hoke Architects

Edward H. Couch, Jr., *Committee Chairperson*
Newton Instrument Company

N. A. Currin
IBM Corporation

E. Burton Elliott
Polier-Ballard Associates Architects

Anne B. Gilland
Gary Giles and Josh Gurlitz and Associates

H. Josh Gurlitz
Gary Giles and Josh Gurlitz and Associates

Sam Hodges, *AIA*
Self-Employed

H. B. Maddry, Jr.
J. E. Sirrinc Company

David M. Price
IBM Corporation

William W. (Bill) Sears, *AIA*
Hackney, Sears & Associates Architects

Doris Stanley
Self-Employed

James Knox Tate, IV
Designworks

Automotive Mechanics

Edward Geiger
Harris-Connors BMW

Bill Hanner, *Committee Chairperson*
Motor Parts & Machine Company

H. O. Kelly
Colonial Motors

Billy Kirkland
Elkins Chrysler Plymouth

Bob Morrison
Bob's Gulf Service

J. T. Southerlin
Coggin Pontiac-Mazda Inc.

Melvin Speight
Speight's Auto Service

Michael P. Umstead
Clark & Sorrell Inc.

Business Administration

Lena Bridges
Designer Collections

Edwin B. Clements, Jr.
Clements Funeral Services Inc.

Haywood M. Davis, Jr.
Century 21 Haywood Davis Realtors

Rose Anne Flambeau
Northwestern Bank

Terry P. Hoag
General Electric Company

Tom Jones
Boddie-Noell Enterprises Inc.

Charles T. Mann
Belk Leggett Company

Norma B. Price
E. F. Hutton & Company

C. H. Watson, Jr.
North Carolina Mutual Life Insurance Company

Business Computer Programming

Ralph P. Burgess
Computer Task Group Inc.

Donna Byrd
Computer Sciences Corporation

Mary Cato
Durham Technical Institute Student

Ernest L. Curry
IBM Corporation

D. Gary Grady
Duke University Computation Center

Åmmie Jenkins
Self-Employed, Data Processing Consultant

James Motley
Systems Research and Development

Louis T. Parker, Jr.
North Carolina Educational Computing Services

Bruce Pierce
Northern Telecom

Philip Schinhan, *Committee Chairperson*
Computer Sciences Corporation

Criminal Justice

Gene D. Feeney
Raleigh Police Department

John Goodfellow
Duke Public Safety Department

George Hare
Durham Public Safety Department

Worth Hill
Durham Public Safety Department

Talmadge Lassiter
Durham Public Safety Department

Roland Leary
Durham County Sheriff's Department

Norris S. Lockey
Raleigh Police Department

Melvin T. Munn
Wake County Sheriff's Department

Stephen P. O'Brein
Durham County ABC Law Enforcement

Ralph Pendergraph, *Committee Chairperson*
Chapel Hill Police Department

Lindy Pendergrass
Orange County Sheriff's Department

Ed Sarvis
Durham Public Safety Department

Parrish L. Womble
Wake County Sheriff's Department

Lucy V. Zastrow
Durham County Sheriff's Department

Dental Laboratory Technology

Dennis Ray Chapman
Chapman Crown & Bridge

Richard J. Citrini, *D.D.S.*
Self-Employed

Jerry Dorsett
Dorsett Dental Laboratory

Arey W. Grady, Jr.
Grady Dental Laboratory Inc.

John H. Kelderhouse
Kelderhouse Dental Laboratory Inc.

Jimmy R. Key
Key Dental Laboratory

Richard Kosempa, *Committee Chairperson*
Duke University Medical Center

Gordon C. Mann
Burton Dental Laboratory

Carol Rich
Durham Technical Institute Student

Edith Sorrell
Eure Dental Laboratory Inc.

Debra Woodlief
M & W Dental Laboratory

Early Childhood Associate

Hazel Boyd
Durham Nursery School Association

Lois Brunson
First Presbyterian Day School

Emily Castleberry
Self-Employed

Shirley Delucia
North Carolina Central University

Betty Faucette
Department of Social Services

Kathy Gillespie
First Presbyterian Day School

Dorothy Graham
Durham Day Care Council

Thelma Harms
*Frank Porter Graham Child Development Center
(UNC-CH)*

Hazel Lipscomb
Operation Breakthrough Inc./Headstart

Lois Slade
Durham Day Care Council

Gertrude Williams
R. N. Harris Elementary School

Electronics Engineering Technology

William M. Bagliani
Resco Raleigh Inc. and PPD Inc.

George Beglane
Northern Telecom

Robert Carter, *Committee Chairperson*
Datech Inc.

Gordon Cromwell
C-E Elgin Electronics

Larry A. Dew
Data General Corporation

David O. Hinton
U. S. Environmental Protection Agency

Julian G. Kniolek
General Electric/Microelectronics Center

Luther Scott Mangum
Research Triangle Institute

Shayne McKinley
North Carolina Memorial Hospital

Haywood M. Pendergrass
North Carolina Memorial Hospital

Victor M. Stevens
Sperry Flight Systems

Ross Winters
Mitsubishi Semiconductor America Inc.

Fire Protection Technology

Robert Beck, II, *Committee Chairperson*
Public Safety Academy

Richmond Davis
Raleigh Fire Department

Ken Farmer
N. C. Fire Commission

Earl Fowler
Raleigh Fire Department

George King
Durham Fire Department

Johnny Knight
Durham Public Safety Department

Thomas Kuster
Raleigh Fire Department

Gene Sherron
Durham Public Safety Department

Meryl Smith
Chapel Hill Fire Department

Nathaniel Thompson
Durham Fire Department

Jimmy Warren
Raleigh Fire Department

Industrial Electricity/ Motors and Controls

Joseph F. Barnes
Lufkin Division, The Cooper Group

James Beasley, *Committee Chairperson*
Bryant-Durham Electric Company

Stuart Bennett
General Electric Intersil

Joseph J. Bischoff
Durham County General Hospital

Lloyd A. Brewer
IBM Corporation

Larry Burgess
Duke Power Company

Johnny Evans
Durham County Schools

Lewis Fletcher
Quality Electric

Douglas Knight
Knight Electric Company

Edd H. Lovette, Jr.
American Tobacco Company

Maxie Putnam
Burlington Domestic

Wade Ship
American Tobacco Company

Sam D. Vaughan, Jr.
Vaughan Electric Company

Larry Woodall
Woodall Electric Company

Industrial Management Technology

Susan Cox-Anderson
Edward Weck & Company Inc.

Bobby J. Gothard
General Telephone of the Southeast and Kentucky

Marvin A. Jones
Liggett & Myers Tobacco Company

Tadaaki Mizoguchi
Mitsubishi Semiconductor America Inc.

Wallace Newton
Newton Instrument Company

Stephen Riggsbee
Sperry Corporation

Howard Schultz
Durham Drapery Company Inc.

B. Michael Servais
Northern Telecom Inc.

Joseph D. Taylor
IBM Corporation

Ernest J. Wendell
Durham Products

John Woods, *Committee Chairperson*
General Telephone Company

Machinist

Edward Brinkley
Wright Machinery Company

Sam Clark
Thomas C. Lane Publishing Co. Inc.

Carl Crabtree
Sperry Corporation Electro Components

George Newton
Newton Instrument Company

Frank Stansbury
Alumnus of Machinist Program

Marvin Tart, Jr.
Troxler Electronic Laboratories

Ralph Tilley, *Committee Chairperson*
Liggett & Myers Tobacco Company

Dwight Tyndall
KEPCO Manufacturing Company

Charles Waddell
Waddell Machine Shop Inc.

Rankin Webb
Edward Weck & Company Inc.

Charles J. Weisner
IBM Corporation

Milton Whitfield
Duke University

Microelectronics Technology

Robert M. Burger
Semiconductor Research Corporation

H. Craig Casey
Duke University

Wei-Kan Chu
UNC at Chapel Hill

Michael W. Dennen
General Electric Intersil

Larry A. Dew
Data General Corporation

Richard B. Fair, *Committee Chairperson*
Microelectronics Center of North Carolina

David P. Frankie
Northern Telecom Inc.

J. W. Harrison, Jr.
Research Triangle Institute

Richard T. Kuehn
IBM Corporation

H. Fred Otto
General Electric Intersil

Kenneth A. Pelphrey
General Electric Intersil

James J. Wortman
North Carolina State University

Opticianry/Optical Lab Mechanics

Don Bailey
Professional Opticians

James Anthony Cheek
Durham Technical Institute Student

George Fage't, *Committee Chairperson*
Northgate Optical Company

Karen Jenkins
Federal Correctional Institute

Robert Morris, Sr.
Bob Morris Opticians Inc.

Lee Anne Munsey
Dr. Lillyquist Optometric Office

David Seyler
Federal Correctional Institute

Michael Upchurch
Upchurch Optical Center

Grady Ware
UNC Memorial Hospital

Carlton White
White Optical Company

Paralegal

Brenda Foreman
City of Durham

M. Lynette Hartsell
Attorney At Law

Norma Longo
Durham Technical Institute Student

Ann E. McKown
Attorney At Law

S. Mark Payne
Blue Cross and Blue Shield

Alice W. Penny, *Committee Chairperson*
Poyner, Geraghty, Hartsfield, and Townsend

Dorothy S. Shoaf
Durham District Attorney's Office

Phyllis Tranchese
Former Durham Technical Institute Student and
Present North Carolina Central University Student

Richard Watson
Pulley, Watson, King, and Hoffer, PA

Katherine Wright
Attorney At Law

Pharmacy Technology

Sandra Covington
Durham County General Hospital

Jonas B. Daugherty, *R.Ph.*
Kerr Drug

Loni Gracia, *R.Ph.*
UNC School of Pharmacy

Stephanie Graham, *R.Ph.*
Lincoln Community Health Center

William Harris, *R.Ph.*, *Committee Chairperson*
Duke University Medical Center

Hortense Jones
Lincoln Community Health Center

William Martin, *R.Ph.*
Durham County General Hospital

Michael Martz, *R.Ph.*
Veterans Administration Hospital

Carolyn D. Miller, *R.Ph.*
Lincoln Community Health Center

Pamela J. Morton
Duke University Medical Center

David P. Schultz, *R.Ph.*
UNC at Chapel Hill

Jeff Stillwagon, *R.Ph.*
Clinic Pharmacy

Practical Nursing

Thelma Brown, *R.N.*
Durham County General Hospital

Nianne Bryant, *L.P.N.*
Durham County General Hospital

Chris Coley, *R.N.*
Hillhaven Rehabilitation and Convalescent Center

Sammy Griffin, *L.P.N.*
North Carolina Licensed Practical Nurses
Association

Craig Miller
Durham Care Center

Vida Miller, *L.P.N.*
Hillcrest Convalescent Center

Wilbert Nunn
Durham County Sheriff's Department

Robert Patterson, *L.P.N.*, *Committee Chairperson*
Duke University Medical Center

Marie Robeson, *R.N.*
Durham County General Hospital

Joan Suggs, *L.P.N.*
Duke Medical Center

Evelyn Wicker, *R.N.*
Duke University Medical Center

Elizabeth Willis, *L.P.N.*
John Umstead Hospital

Residential Carpentry and Preservation

Harold Colclough
J. Harold Colclough Associates Inc.

Timothy Crowley
Armadillo Restorations

John L. Hargette
Durham Neighborhood Housing Services Inc.

Scott Johanns, *Committee Chairperson*
C. C. Woods Construction Co.

Pat B. Hall
Carolina Construction Training Council

Kenneth M. McFarland
Stagville Preservation Center

Bill Phillips
Bill Phillips Construction Company Inc.

Victor Ribet
Cole Construction Company

William Steiner
National Trust for Historic Preservation

Respiratory Therapy/ Respiratory Therapy Technician

Houston Anderson, *R.R.T.*
Duke University Medical Center

Hal Brown, *R.R.T.*
Rex Hospital

Steve N. Chaucer, *R.R.T.*
Puritan-Bennett Corp.

Robert Clegg
Respiratory Therapy Student

Donald Cory, *C.P.T.*
Veterans Administration Medical Center

Leon Geary, *M.D.*
Durham County General Hospital

Al Gratta, *R.R.T., Committee Chairperson*
North Carolina Memorial Hospital

Janice Jenkins-Salyers, *R.R.T.*
Duke University Medical Center

R. Alan Leonard, *R.R.T.*
Raleigh Community Hospital

Patricia R. Lovell, *R.R.T.*
Durham County General Hospital

G. Kenneth Morgan
*American Heart Association,
North Carolina Affiliate Inc.*

J. Kenneth Powell, *R.R.T.*
Durham County General Hospital

Michael Robinson, *R.R.T.*
North Carolina Memorial Hospital

Charles Watson, *M.D.*
North Carolina Memorial Hospital

Renee Woody
Respiratory Therapy Technician Student

Secretarial-Executive/ General Office Technology

Matilda Batten, *CPS*
General Telephone Company

Margaret M. Hawley
North Carolina Central University

Brenda Jeffries
*Durham-Durham County Emergency Management
Agency*

Mary Anne Johnson
North Carolina Mutual Life Insurance Company

Dorothy King, *CPS*
Duke University Medical Center

Sharon Massey, *CPS*
General Telephone of the Southeast

Nell Murphy
Systems Development Corporation

Brenda Newkirk
Edward Weck & Company

Sheila Ostling, *CPS, Committee Chairperson*
General Electric

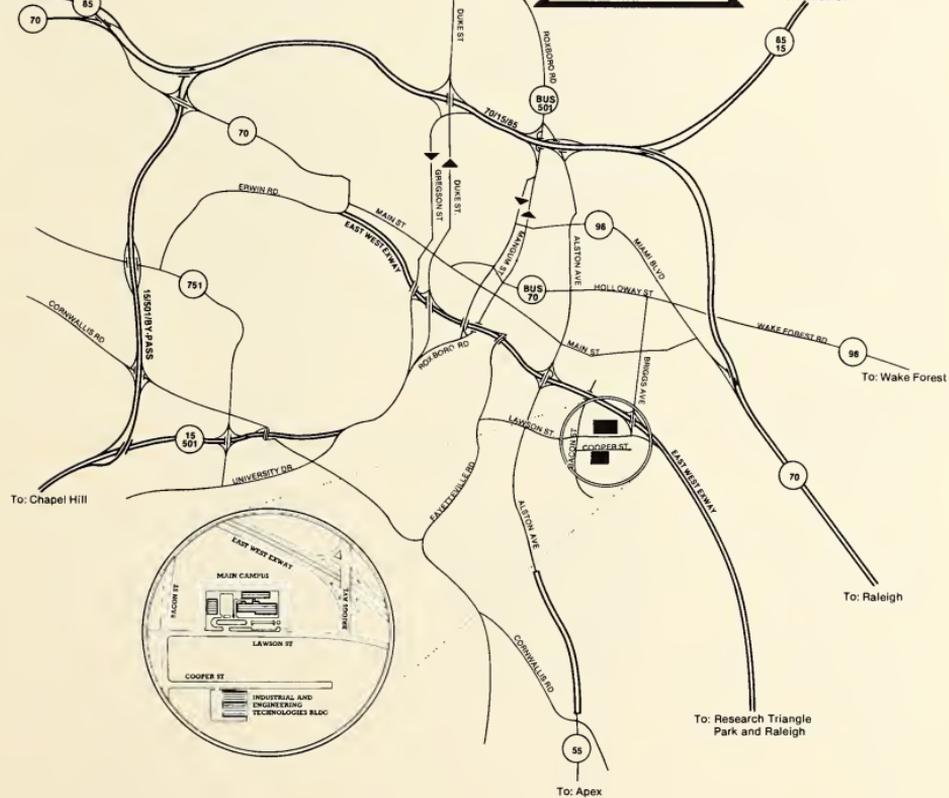
Pat Sharpe, *CPS*
Environmental Protection Agency

To: Roxboro and Northern High
D.T.I. Satellite Campus



To: Greensboro

To: Henderson



Index

- Academic Calendar, 4
Academic Information, 20
Academic Recognition, 23
Accounting, 34
Accreditation, 9
Admission
 Late, 12
 Placement Testing, 10
 Policy, 10
 Procedure, 10
 Requirements, 11
Advisement, 12
Adult and Continuing Education, 31
Adult Education Programs, 32
Adult High School Diploma Program, 32
Advisement and Registration, 12
Advisory Committee Membership, 144
Architectural Drafting, 36
Attendance Requirements, 24
Audit, 23
Automotive Mechanics, 38
Board of Trustees, 137
Books, 15
Business Administration, 40
Business Computer Programming, 42
Career Planning and Placement Center, 27
Classification of Programs of Study, 20
Classification of Students, 20
College Work Study, 17
Conduct, 24
Continuing Education Registration Fee, 16
Counseling Services, 27
Course Descriptions, 88
Credit by Examination, 23
Criminal Justice, 44
Curriculum/Telecourse Center, 27
Dental Laboratory Technology, 46
Dial Access Instructional System (DAISY), 28
Digital Electronic Repair, 48
Durham Technical Institute
 History, 8
 Philosophy, 9
 Purpose, 9
Early Childhood Associate, 50
Educational Resources, 28
Electronics Engineering Technology, 52
English as a Second Language, 32
Fees, 14
Financial Aid, 16
Fire Protection Technology, 54
Grade Reports, 13
General Education, 56
General Information, 8
General Office Technology, 58
Grade Point Average, 23
Grading System, 22
Graduation Fee, 15
Graduation Requirements, 13
Grants, 16
Handicapped Services, 29
High School Equivalency Program (GED), 32
Incomplete Grade, 22
Industrial Electricity/Motors and Controls, 60
Industrial Management Technology, 62
Institute Personnel, 137
Insurance, 16
International Students, 12, 28
Job Placement, 27
Library, 28
Loans, 17
Machinist, 64
Map, 151
Media Services, 28
Microcomputer Applications Technology, 66
Microelectronics Technology, 68
Optical Laboratory Mechanics, 70
Opticianry, 72
Paralegal Technology, 74
Parking Fee, 16
Pharmacy Technology, 76
Plan of Study, 21
Practical Nursing, 78
Prerequisite Courses, 21
Privacy Act, 14
Readmission, 12
Refund Policy, 15
Registration, 12
Release of Information, 14
Residency Status, 14
Residential Carpentry and Preservation, 80
Respiratory Therapy, 82
Respiratory Therapy Technician, 84
Retired Senior Volunteer Program (RSVP), 28
Scholarships, 17
Secretarial-Executive, 86
Special Grades, 22
Special Services Project, 29
Special Students, 11, 20
Student Advisory Council, 29
Supplies, 15
Transfer Credit, 12
Transfer to Senior Institutions, 25
Transcripts, 13, 16
Tuition
 Exemption for Senior Citizens, 15
 Out-of-State Students, 14
 Refund Policy, 15
 Residents of North Carolina, 14
 Tuition and Fees, 14
Tutorial Services, 29
Veterans Educational Benefits, 18
Veterans Information, 18
Visiting Artist Program, 30
Weekend College, 30
Withdrawal
 Course Withdrawal, 22
 Regulations, 13

**Durham Technical Institute
1637 Lawson Street
Durham, North Carolina 27703**