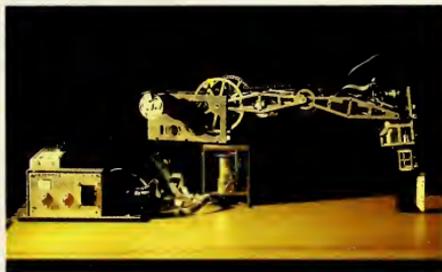
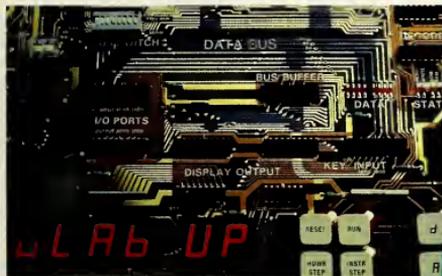


DURHAM TECHNICAL INSTITUTE

GENERAL
CATALOG
1983-84





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**Durham Technical Institute
General Catalog 1983—1984**

Publication Date: August 1983

1637 Lawson Street
Durham, North Carolina 27703
(919) 896-9311

Durham Technical Institute is an
Affirmative Action, Equal Opportunity,
Section 504 Institution, M/F.

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 Information about programs, fees, and regulations contained in earlier issues is now out-of-date.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

Durham Technical Institute, as a member of the North Carolina community college system, subscribes to the policy of open-door admissions. The principle of open-door admissions represents a philosophy of higher education which advocates universal access for all citizens. As an open-door institution, we say to the citizen who wants and needs additional education, "the doors of the institution are open."

Durham Technical Institute prides itself in being a comprehensive educational institution. We offer two-year technical career programs, vocational career programs of one year or less, and extension programs in general adult education. We also offer a variety of short-term, single courses for occupational training, cultural enrichment, and personal improvement.

In addition, Durham Technical Institute has been a leader in providing training and instruction in the high-technology areas of microelectronics and semiconductor technology, robotics, computer-aided drafting and computer graphics, and computer numerical control (CNC) machine technology.

Durham Technical Institute continually strives to ensure easy access of educational opportunity to the citizens of our service area. We offer courses on campus during the day, evenings, and on weekends. Off-campus courses are offered throughout the county at convenient times. Durham Technical Institute also offers televised credit courses in cooperation with the UNC Center for Public Television.

I invite you to visit us and explore our many educational opportunities. We pledge our full cooperation and support in helping you achieve your career goals. Remember, at Durham Technical Institute, we offer "education that works."



A handwritten signature in black ink, which appears to read "Phail Wynn, Jr." followed by a period. The signature is fluid and cursive.

Phail Wynn, Jr., Ed.D.

President, Durham Technical Institute

CONTENTS

- Academic Calendar, 4
- General Information, 6
- Admissions, Fees, Financial Aid, 8
- Academic Information, 16
- Services and Special Programs, 24
- Adult and Continuing Education, 28
- Programs of Study
 - Accounting, 32
 - Architectural Drafting, 34
 - Automotive Mechanics, 36
 - Business Administration, 38
 - Business Computer Programming, 40
 - Criminal Justice, 42
 - Dental Laboratory Technology, 44
 - Early Childhood Associate, 46
 - Electrical Installation and Maintenance, 48
 - Electronics Engineering Technology, 50
 - Fire Science, 52
 - General Education, 54
 - General Office Technology, 56
 - Industrial Management Technology, 58
 - Machinist, 60
 - Microelectronics Technology, 62
 - Optical Laboratory Mechanics, 64
 - Opticianry, 66
 - Paralegal Technology, 68
 - Pharmacy Technology, 70
 - Practical Nurse Education, 72
 - Residential Carpentry and Preservation, 74
 - Respiratory Therapy, 76
 - Respiratory Therapy Technician, 78
 - Secretarial Science, 80
- Course Descriptions, 83
- Trustees and Institute Personnel, 128
- Index, 136
- Map, 138

ACADEMIC CALENDAR

Fall Quarter 1983

August 26-27	Weekend College Registration
August 31-Sept. 1	General Registration
September 5	Labor Day Holiday
September 6	Fall Quarter Classes Begin Late Registration Begins
September 8	Drop/Add Day
September 9-10	Weekend College Classes Begin Weekend College Late Registration
September 12	Late Registration Ends
November 19	Weekend College Classes End
November 21	Fall Quarter Classes End

Winter Quarter 1983-84

November 18-19	Weekend College Registration
November 24-25	Thanksgiving Holidays
November 28	General Registration
November 29	Winter Quarter Classes Begin Late Registration Begins
December 1	Drop/Add Day
December 2-3	Weekend College Classes Begin Weekend College Late Registration
December 5	Late Registration Ends
December 20	Last Day of Classes Before Christmas
Dec. 22-Jan. 2	Christmas Holidays — Faculty and Staff
January 3	Classes Resume
February 24	Winter Quarter Classes End
February 25	Weekend College Classes End
February 27-28	Designated Makeup Days

Spring Quarter 1984

February 24-25	Weekend College Registration
March 1	General Registration
March 2-3	Weekend College Classes Begin Weekend College Late Registration
March 5	Spring Quarter Classes Begin Late Registration Begins
March 7	Drop/Add Day
March 12	Late Registration Ends
April 20-23	Easter Holidays
May 18-19	Weekend College Classes End
May 22	Spring Quarter Classes End
May 23-24	Designated Makeup Days
May 24	1984 Commencement Exercises

Summer Quarter 1984

May 28	Memorial Day Holiday
May 29	General Registration
May 30	Summer Quarter Classes Begin Late Registration Begins
June 4	Drop/Add Day Late Registration Ends
June 28	Last Day of Classes Before Break
June 29-July 13	Summer Break
July 4	Independence Day — Holiday
July 16	Classes Resume
August 22	Summer Quarter Classes End

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 to all of suitable age who wish to learn and who can profit from the instruction provided.

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

The only valid philosophy for North Carolina is the philosophy to 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 instruction, 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

The origin of Durham Technical Institute is both interesting and involved. In the original sense, the history of the Institute may be traced back to June 1948 when a program of Practical Nursing was established under the Vocational and Adult Education Department of the Durham City Schools. Numerous terminal adult education programs were developed in the years that followed. Such programs included Mechanical Drafting, Architectural Drafting, and Electronics Technology. Courses, which in most cases were operated at night, were conducted in the classrooms and laboratories at Durham High School and at Hillside High School.

By 1957, 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, Durham already had a vigorous program in adult education underway. Along with various adult education programs, many short courses were offered in elementary education for adults. Courses to upgrade the skills of workers in a variety of trades were also offered.

As a result of the General Assembly's appropriation, a challenge went out to the various county school administrative units in the state to establish a separate educational facility that would provide for the educational needs of the whole area's population. A new comprehensive curriculum was to be devised for citizens in need of education and technical skills required to advance satisfactorily in the world of work.

Durham was among the first counties in the state to meet this challenge, and in June 1958 the residents of the county made \$500,000 available to purchase the site and to erect the initial building of the Institute. 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 that 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

Realizing the future of American democracy depends on an educated and responsible citizenry, Durham Technical Institute conceives as its purpose the development of the individual toward the attainment of his/her maximum potential in life. Durham Technical Institute was established to provide educational opportunities distinct from traditional academic education as well as to inspire an active desire for continuing personal development. Financially and geographically, Durham Technical Institute is available to all youth and adults who would not otherwise have this educational opportunity.

Durham Technical Institute is an instrument of service for the community as a whole. It takes advantage of its relationship to the community in order that students and faculty may use the community as their workshop for learning. Students at Durham Tech are given the opportunity to learn the art of living as well as the art of earning a living.

Durham Technical Institute strives to be highly flexible in its offerings to provide as many educational opportunities as possible for specialized training by means of the "open door with guided placement" policy. Specifically, Durham Tech attempts to accept the individual where he/she is and strives to provide him/her with an opportunity to pursue an educational program toward the attainment of his career goal.

Purpose

Within the scope and meaning of the North Carolina General Statute 115d, creating and supporting the Institute and the guidelines established by the North Carolina Department of Community Colleges, it is the purpose of this institution through its facilities and services to offer educational opportunities meaningful to the needs of the individual and related to his or her future in the world of

work. The Institute, being comprehensive in its purpose, endeavors to meet these three objectives.

1. Postsecondary occupational education to develop skills and knowledge in its students for employment as qualified technicians and skilled craftspersons.
2. A wide array of technical and vocational programs are designed to improve and upgrade employed workers in their present job situations. Special attention is given to the training and educational needs of new and existing industry.
3. Numerous programs and courses provide adult citizens in our community opportunities to continue their education through the elementary and secondary level as well as courses for vocational interest and personal growth.

Accreditation

Durham Technical Institute is accredited by 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. The following programs are accredited by national associations:

1. The Dental Laboratory Technology program is accredited by the Commission on Dental Accreditation of the American Dental Association.
2. The Optician program is accredited by the National Academy of Opticianry.
3. The Respiratory Therapy program is accredited by the Joint Review Committee for Respiratory Therapy Education and the American Medical Association.

Approved By

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:

1. The Optician program is approved by the North Carolina State Board of Opticians.
2. The Practical Nurse Education program is approved by the North Carolina State Board of Nursing.
3. The Fundamentals of Real Estate courses are approved by the North Carolina Real Estate Licensing Board.
4. The Insurance pre-licensing courses are approved by the North Carolina Insurance Department.

ADMISSIONS, FEES, FINANCIAL AID



General Information

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

Programs of study leading to a degree, diploma, or certificate 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 postsecondary work, placement tests, an optional counseling conference, and in certain instances a health examination.

Applicants are encouraged to complete the admissions process as soon as possible. High school students should apply early during their senior

year. Persons may apply at any time; however, admission will depend upon the individual situation. All applications should be on file at least ten (10) calendar days prior to the beginning of the quarter in which the student plans to enroll.

Placement in various programs of instruction is selective and particular emphasis is placed on vocational guidance. Through counseling conferences prior to admission, applicants may obtain assistance in establishing realistic goals. Educational achievement, employment experience, 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 that such action is in the best interest of the Institute and/or the applicant.

Application forms and detailed information on instructional programs may be obtained by writing

the Admissions Office. The Admissions Office is open Monday through Thursday from 8 a.m. to 8 p.m. and on Friday from 8 a.m. to 5 p.m. Appointments may be made by calling (919) 596-9311 or writing the Admissions Office, Durham Technical Institute, P.O. Box 11307, Durham, North Carolina 27703.

ADMISSIONS PROCEDURE

Application

Applicants should submit a completed application form to the Admissions Office for the quarter in which they desire to enroll. All admission requirements should be completed no later than ten (10) calendar days prior to anticipated enrollment. Early application is recommended to allow for adequate time for processing and to increase the opportunity for entry into programs of limited enrollment.

Transcripts

Official transcripts are required from the high school and/or all postsecondary institutions attended. 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. Individuals who have not completed high school may enroll in a high school program at Durham Technical Institute. Inquiries concerning the Adult High School education program should be directed to the Adult and Continuing Education Department.

Placement Testing

Each applicant may be required to take a series of placement examinations. Test results are used in helping the prospective students to assess their aptitude and achievement in relation to their interests and desires. This information provides an educational basis for placement of the individual in an appropriate program. Minimum scores are required for acceptance into certain programs of study. If the 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 our tests and return all testing materials. Applicants who are unable to keep an appointment should immediately notify the Admissions Office to arrange another appointment.

Counseling Conference

After initial admission requirements and placement tests are completed, a counseling conference is available. The conference will involve a discussion and analysis of the applicant's proposed choice of curriculum in relation to educational preparation, test scores, health factors, work experience, interests, motivation, and career objectives. Applicants who are unable to keep a conference appointment should immediately notify the Admissions Office to arrange another appointment.

Acceptance

Each applicant is notified in writing of admittance to a program of study.

ADMISSIONS AND REGISTRATION REQUIREMENTS

Basic Admission Requirements

The basic admission requirement to any curriculum program is a high school diploma or equivalency education. Admission to certain curriculum programs with limited capacity is selective and/or competitive 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 substantive aptitude in finger and hand dexterity. All applicants are given a wax carving test.

Practical Nurse Education

Practical Nurse applicants are required to have a complete physical examination. Applicants must also submit proof of a dental examination, a schedule of disease immunizations, and a physician's statement that the applicant does not have any physical or mental disease which could impair his/her ability to perform duties in a health related field.

Practical Nurse applicants must demonstrate academic readiness by meeting minimum established criteria on the reading and math placement tests. Reading scores must be at the tenth (10th) grade level or higher. Placement testing may be waived for applicants with a bachelor's degree or applicants with an acceptable score on the Scholastic Aptitude Test (SAT).

Nursing applicants should refer to the Practical Nurse Education Handbook for additional admission requirements.

Respiratory Therapy

Respiratory Therapy applicants are required to have a complete physical examination.

Pharmacy Technology

Pharmacy Technology applicants are required to have a complete physical examination. Written release for a reference evaluation is required for admission.

Mathematic Skills

All students entering associate degree or diploma programs at Durham Technical Institute need to have general mathematical 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 students entering *Electronics Engineering Technology* and *Microelectronics Technology* have mathematical skills sufficient to cope with engineering technology courses. It is expected that students entering these programs have completed Algebra I in high school or an equivalent course. Applicants for these programs will be tested to determine proficiencies in general math and basic algebra prior to entering the first math course. Deficiencies in math skills possibly can be made up as indicated below; however, the time for reviewing and acquiring mathematical skills is limited.

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

Students who need to gain additional competencies in mathematics must acquire the skills needed for maintaining "normal" progress in their programs of study. It is possible to acquire needed mathematics skills at Durham Technical Institute by enrolling in a preparatory mathematics course or by enrolling in the Curriculum Center.

Special Students

Special students are those who are enrolled for course credit but who have not been admitted to a degree, diploma, or certificate program. If a special student should decide to earn an associate degree, diploma, or certificate, he or she must meet all institutional and departmental admission requirements.

Conditional Admission

Students applying too late to secure all supporting documents may be admitted as conditional students. In such cases, all requirements for admission must be completed within the first quarter of attendance.

Foreign Students

According to P. L. 87-195, *This school is authorized under Federal law to enroll nonimmigrant alien students.* A student enrolling under this classification will be treated as nonresident with respect to tuition and fees and cannot be classified as a resident. Foreign students are classified as out-of-state students and must pay out-of-state tuition.

An immigrant alien is subject to the same considerations as a citizen and may establish North Carolina residence in the same manner as any other nonresident.

All foreign applicants must come to the campus for a personal interview and placement testing before they can be accepted and before the Foreign Student Advisor can issue the Certificate of Eligibility (I-20). Tests cannot be mailed to prospective foreign students outside the United States.

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

All foreign applicants must also present evidence of adequate proficiency in the English language as well as sufficient aptitude and previous educational preparation to succeed in a specific educational program.

Readmission

Any student who withdraws from the Institute for as long as two complete quarters, or a student who changes curriculums at any time, must apply to the Admissions Office for readmission. Readmission conditions will depend upon the individual circumstances, but generally a student is eligible to return whenever an appropriate course schedule can be arranged.

Former students will not be readmitted until

they have met all former and current financial obligations to any program or activity under the administrative jurisdiction of the Institute.

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

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. Returning students may register early each quarter. Students are assisted in completing registration by their faculty advisors; essential information is inspected and collected by the Registration Office; and tuition and fees are paid to the Business Office.

Changes of Schedule

The student must obtain a drop/add form from the Registration Office. Registration change dates are set for specific times by the Department of Admissions and Registration. The adding of classes will not be permitted after the designated date. Students are permitted to drop a class through the 10th calendar day of the quarter.

Grade Reports

Grade reports showing students' progress are issued at the end of each quarter. Each course a student completes successfully earns quarter hour credits and quality points.

Requirements for Graduation

An overall grade point average of 2.0 (C) is required to graduate. All outstanding obligations to the Business Office and the library must be cleared to be eligible for graduation.

Students must apply to the Registration Office for their degree, diploma or certificate at the beginning of the quarter preceding the completion of their program. All candidates for graduation must pay a \$6.10 graduation fee to cover the cost of the diploma, cover, and postage. Graduation fees must be paid at registration for the quarter in which a student expects to complete requirements. No refunds are possible after the diplomas have been ordered.

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 pertaining to attendance at Durham Technical Institute are issued upon student request for one dollar (\$1.00) each. Payment is to be made with the request, and the request is to be directed to the Department of Admissions and Registration.

Unofficial transcripts or scholastic record of work completed at Durham Technical Institute are free of charge and issued upon student request.

Address/Name or Social Security Change

The Department of Admissions and Registration should be notified immediately of all name/address and/or social security changes.

Withdrawal Regulations

Any student who wishes to withdraw from the Institute must officially withdraw through the Department of Admissions and Registration.

Students who plan to withdraw should first discuss their plans with their faculty advisor and counselor. The student must 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 a course within the first ten (10) calendar days of the academic quarter without a penalty. Anytime during the quarter, the student may withdraw voluntarily or the instructor may drop the student for attendance reasons. After the first ten (10) calendar days of the quarter, a grade of *W* will be recorded on the student's permanent record. No quality points can be 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 will release no personally identifiable information about students without the expressed written consent of the student. Exceptions to this practice are those types of information defined by law as "directory information" which at Durham Technical Institute includes the student's name, address, telephone listing, date and place of birth, major program of study, participation of officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the previous educational agency attended most recently by the student.

The directory information may be published or made available without the consent of the student. However, any student not wishing that any of this information be released may request such 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.

A student may have access to his or her educational records by making a written request to the Director of Admissions and Registration. Requests for hearings concerning amendments to the record must be made in writing to the Director of Admissions and Registration by the eligible student.

TUITION AND FEES

Tuition and Fees for Curriculum Students

All tuition and fees are due and payable at the Business Office on the official day(s) of registration. Partial payments or credits are not accepted.

There is no required payment nor any tuition deposit necessary prior to the official day(s) 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 who makes the remittance. The written request must be mailed directly to the Business Manager.

Tuition Fee Basis

General Statute 115d establishes the tuition and fees for the community college system. 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 twelve or more credit hours, are charged a maximum tuition fee of \$51.00 per quarter. Resident students enrolled for eleven 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 nonresi-

dent students enrolled for twelve or more credit hours will be charged a maximum of \$255.00 per quarter. Tuition for nonresident students enrolled for eleven or less credit hours is \$21.25 per credit hour enrolled per quarter. Audit and special students who are nonresidents will be charged at the same rate as the nonresident curriculum student.

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*—one's permanent dwelling place of indefinite duration, as distinguished from a temporary place of abode; synonymous with *legal residence*.

1. Domicile may be established:
 - a. By birth until there is a legally effective change in that domicile;
 - b. 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
 - c. By choice (after legal age is attained); a person may establish his or her domicile in a jurisdiction of his or her choice.
2. One always has a domicile.
3. One retains a given domicile until it is abandoned and another is established.
4. One never has more than one domicile at a given time.
5. Establishing a domicile by choice requires the overt act of establishing physical residential presence in North Carolina while maintaining concurrently the intent to make one's permanent home of indefinite duration.
6. A foreign student who has either a F-1 or J-2 visa *cannot* be classified as a resident for tuition purposes.
7. 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.
8. 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

shall be exempt from the payment of 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 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 Government Association 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 the purpose of providing athletic and intramural activities equipment and supplies as well as publications and/or activities the Student Government Association shall so determine. The amount of activity fee is subject to change and could vary from quarter to quarter.

Graduation Fee

A graduation fee of \$6.10 will be due and payable to the Business Office when a curriculum student applies for a degree, diploma, or certificate. This fee covers the cost of the diploma and mailing the diploma to the student's address. The fee is required prior to graduation, but the student should know that he/she is eligible to graduate before paying. The fee is not refundable.

Refund Policy

Tuition refund for students 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 cases, two-thirds (2/3) of the student's tuition may be refunded if the student withdraws within the first ten (10) calendar days. Tuition refunds will not be considered after that time. Tuition refunds will not be considered for tuitions of five dollars (\$5.00) or less, unless a course or curriculum fails to materialize due to no fault of the student.

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

In all refund cases, the student must initiate his withdrawal through the Department of Admissions and Registration. The Business Office will make the allowable refund only after written request is received from the Department of Admissions and Registration.

Books and Supplies

Most of the student's necessary textbooks, supplies, instruments, and materials may be acquired from

the Institute's student supply store. The student supply store is operated on a cash basis and there is no refund on books and supplies. 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 meet 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.

Insurance-Accidental

A student may obtain coverage for expenses incurred for accidents associated with school activities for \$5.50 per year. This group insurance coverage is for the entire school year. It is highly recommended that students take advantage of this coverage, especially those students in Automotive Mechanics, Dental, Electronics, Electrical Installation and Maintenance, Residential Carpentry and Preservation, Respiratory Therapy, and those taking laboratory work in chemistry, physics, and machine shop. The insurance charge is optional and payment may be made upon registering for fall quarter. The insurance charge is not refundable.

Neither the Institute nor the State of North Carolina carries insurance to cover any student for accidents or otherwise.

The \$5.50 fee is for policy coverage commencing in September and terminating in August of each year. Policy coverage is available at registration time of any quarter; however, the coverage is only through August of each year. Any student who engages in any intramural sports activity or work study program is encouraged to take advantage of this accident insurance coverage.

Insurance-Malpractice

Students enrolling in health programs and Practical Nurse Education that require clinical or patient care instruction must purchase malpractice insurance. Coverage on a group plan is available at an annual rate of \$11.00. The rate may vary from year to year.

Additional Expenses

Students in certain programs will 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 Electrical Installation and Maintenance, and uniforms and stethoscope for Respiratory Therapy. Lab coats and other miscellaneous supplies may also be re-

quired in some programs. Certain health programs require professional liability insurance. Students enrolled in selected data processing courses pay a fee of \$7.00 per quarter.

Parking Fee

Students are required to display a parking decal on vehicles parked on the Institute campus. The cost of the decal is \$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 be purchased in the Business Office during regular hours of operation. There is no refund, nor are the decals transferable from one vehicle to another. Vehicles on campus without an up-to-date parking decal will be subject to a parking violation fine and may be towed off the campus.

Transcript Fee

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

Continuing Education Registration Fee

The registration fee for occupational and academic continuing education courses is \$10.00 per course. Students enrolled in avocational and practical skill courses must pay a tuition fee of \$.75 per membership hour.

FINANCIAL AID

The financial aid awarded at Durham Technical Institute is based on student need. All students receiving financial aid must maintain satisfactory progress in their course of study.

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 need and is not available for the summer quarter.

College Work Study

A limited number of eligible students showing financial need (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 the scholarships and application procedures can be obtained 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 need and prior academic achievement.

The Central Carolina Bank Scholarships are awarded to second-year degree students and are based upon financial need and academic performance. 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 scholarship is awarded to second-year technical students and is 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 basis of need, scholastic promise, and prior academic performance. The scholarships are valued at \$500.00.

The Student Government Association scholarships 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.

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 Government Association occasionally makes 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 agency.

1. The N.C. National Guard pays for tuition only for their active members.
2. Paths for Employees (PEP) is an educational advancement program for Duke Medical Center employees.
3. Vocational Rehabilitation assistance is available through the local Division of Vocational Rehabilitation for certain handicapped students.
4. Employment and Training Program funds are provided for qualifying unemployed, underemployed, or disadvantaged students in selected occupational programs.
5. 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 receiving their training at Durham Tech.
6. Veterans benefits may be available to certain veterans. There is a Veterans Affairs Office on campus.
7. Social Security assistance is available to some students who may qualify through their parent's social security benefits.

Satisfactory Progress for Financial Aid

Students receiving financial aid must maintain satisfactory academic progress by completing a minimum of six (6) credit hours per quarter or fifty percent (50%) of the credit hours carried (whichever is less) with a grade of C or better.

Any student who falls below these acceptable stated criteria may continue to be enrolled in school but will not be eligible to receive financial aid until he/she has achieved and maintained satisfactory progress for one quarter.

Veterans Educational Benefits

The Veterans Affairs Office assists students who are eligible for VA educational benefits and certifies their enrollments. Students may be certified in the Adult High School Diploma or High School Equivalency (GED) programs or in a curriculum which leads to a degree, diploma, or certificate.

VA students must have their class schedules approved by the Veterans Affairs Office each quarter before they register and return their registration receipts after fees have been paid.

A Veterans' Handbook is available from the Veterans Office which includes details concerning certification procedures and benefits. See also in this catalog the section entitled Standards of Progress, Attendance, and Conduct for Veterans.

ACADEMIC INFORMATION

The information given in this section explains Durham Technical Institute's basic academic policies effective at the time of publication of this catalog. These policies are applicable 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 in accord with 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 Nurse Education 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 Nurse Education 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 are listed below.

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 above.

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 programs in which they are enrolled.

Special Students — Persons who have not been admitted to any 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 or credit for examination 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 twelve (12) credits as a part-time student 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 a special student applies for admission, he or she must meet all admission requirements in effect at that time.

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

Part-Time Students — Persons who have registered for less than twelve (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 plan of study for that curriculum.

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 those courses listed on the student's plan of study, or 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 earned in order for the student to be eligible for graduation.

A final grade point average of 2.00 (C) is required for graduation from all programs of study.

Students may not be enrolled in more than one degree, diploma, or certificate program at one time.

Students desiring to change from one curriculum to another 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 which denotes 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 technical specialty diplomas and certificates. 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 having 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 eleven weeks in length, except for the summer quarter which is ten 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 eleven (11) week quarter: one (1) hour of classroom instruction per week equals one (1) credit hour; two (2) hours of supervised laboratory instruction per week equals one (1) credit hour; three (3) hours of supervised manipulative laboratory shop or clinical practice per week equals one (1) credit hour; and ten (10) hours of work experience, practicum, or internship per week equals one (1) credit hour.

Student Course Load

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

A student who receives an IR grade or is experiencing academic difficulty should not register for more than twelve (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 unfeasible 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 in advance of registration.

Transfer of Credit

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 the prior permission of the department dean. Courses transferred would be accepted as satisfying the appropriate comparable course requirements in the student's curriculum.

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 1983 fall quarter.

Grade	Numerical Equivalency	Significance	Grade Points Per Quarter Hour
A	90—100	Superior Work	4
B	80—89	Highly Satisfactory Work	3
C	70—79	Average Work	2
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

GRADING SYSTEM FOR THE PRACTICAL NURSE EDUCATION PROGRAM

Grade	Numerical Equivalency	Significance	Grade Points Per Quarter Hour
A	93—100	Superior Work	4
B	86—92	Highly Satisfactory Work	3
C	78—85	Average Work	2
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, or C 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 towards the completion of course objectives but needs additional time to complete a very limited amount of course work due to such justifiable extenuating circumstances as an accident, prolonged illness, or other serious unexpected developments. Prior specific arrangements must be made with the instructor for completing the remaining course work by no 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 within a significantly shorter period of time. Otherwise, the subsequent course must be dropped.

Upon successful completion of the prescribed makeup requirements, the grade of IM will be corrected to an A, B, or C grade.

If the IM is not removed by the end of the following quarter, the IM will be changed to an IR, and the student must repeat the course.

An IM received during the quarter prior to the quarter of graduation must be removed by the mid-term 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 towards completion of minimum course objectives. Consequently, the course must be repeated in its entirety in order for the student to receive course credit.

W: Withdrawal from Course

The special grade of W is given when a student withdraws or is dropped from a course. A student who wishes not to continue in a course must complete an official withdrawal form through the Department of Admissions and Registration.

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

After the first ten (10) calendar days, the grade W will be recorded on the student's transcript if the student withdraws or if withdrawal is initiated by the instructor.

A student who has withdrawn or is dropped may be reinstated subject to the approval and conditions set by the course instructor.

AU: Course Audit

The special grade of AU is given when a student enrolls in a course on a non-credit basis, providing space is available. Although the audit student is exempt from the school's attendance policy, it is recommended that the student attend the course regularly to receive maximum benefit from observing the course. The student may not change from credit-to-audit or audit-to-credit status after the first ten (10) calendar days of the quarter.

CE: Credit by Examination

The special grade of CE will be awarded when a student has successfully completed the requirements for credit by examination. Academic credit for certain courses may be earned by examination by qualified curriculum students having relevant prior training or experience. 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 (7) calendar days and the examination completed within the first fourteen (14) calendar days of the quarter.

In order to receive credit, the student must score at least eighty-five (85) percent on the ex-

amination. The examination may be taken only once, and a student failing the examination must complete the course for credit. No more than ten (10) percent of the total credit hours required by the student's plan of study may be earned by examination unless special approval from the chief academic officer is given to exceed this limit.

Change of Grade

All change of grade requests are to be submitted on a change of grade form for approval by the chief academic officer. All change of grade requests other than the conversion of an IM grade to a letter grade require a written explanation of the reason for the change.

Grade Point Average

Academic progress at Durham Technical Institute is based on a 4.0 (grade of 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 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, only the higher grade and the credit hours for that grade will be counted in the computation of the cumulative grade point average. (This policy does not apply to veteran students enrolled prior to the fall quarter 1978. For these students all grades are figured in the cumulative grade point average.)

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

All grades remain on the student's transcript.

Academic Recognition

A full-time curriculum student who earns a grade point average between 3.25 and 3.74 will be named to the Dean's List for that quarter.

A full-time curriculum student who averages 3.75 or above for the quarter will be named to the President's List for that quarter.

Any full- or part-time student completing the plan of study with grade point averages between 3.25 and 3.74 will be graduated with honors while students maintaining a grade point average of 3.75 or above throughout their studies will be 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 on time, and for providing a full period of effective instruction throughout the quarter; providing the student with complete information on the objectives and requirements of the course, including resources available to the student outside the classroom or laboratory; maintaining an accurate record of attendance on each student and consulting promptly with students on any attendance problems; and 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; obtaining assignments from the instructor prior to being absent, whenever possible, so that work may be submitted upon returning; 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 seeking the assistance of the instructor when clarification or additional help is needed to complete an assignment.

Attendance

Absences from class are a serious detriment to the successful completion of course objectives. Students are expected to attend all scheduled classes for which they are registered. While legitimate circumstances occasionally prevent a student from attending class, all work missed as a result of absences must be made up to the satisfaction of the instructor. Failure to make up work which is missed will adversely affect the student's final grade for the course. The instructor is authorized to drop students exceeding absences of more than 15% of the

scheduled course hours. Excessive tardiness may likewise be taken into consideration by the instructor in assessing the student's performance.

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 or other accredited institutions of higher education. Also, transfer credit may be granted for certain general education courses not offered by Durham Technical Institute. Persons having 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 application is made to a program of study. When any course is in question, the department dean will be 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 in order to be eligible for graduation. Credit transferred from another institution will not be 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 which are commonly required by more than one program will be transferable with the prior achieved grade. The decision to transfer or repeat these courses should be made upon admission to the new curriculum.

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:

1. Cheating and/or plagiarism;
2. Damage or destruction of institutional or private property;
3. Possession or use of alcoholic beverages, weapons, or illegal drugs;
4. Assault or physical abuse of an institutional employee or student;
5. Any breach of federal, state, or local law.

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

VETERANS INFORMATION

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 that clearly state what is expected of the veteran in the area of academic progress, class attendance, and conduct.

Standards of Academic Progress for Students Receiving Veterans Educational Benefits

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

1. **Warning/Unsatisfactory Progress**—Received cumulative total of 2 IRs. Students will be referred to Counseling Services for academic counseling.
2. **Probation/Unsatisfactory Progress**—Received cumulative total of 4 IRs. Students may continue in their curriculums 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 considered on probation as counseling will not be mandatory; however, students will remain at the Step 2 level. (Veterans Administration requirements do not allow benefits for more than two quarters on probation.)
3. **Suspension/Unsatisfactory Progress**—Received cumulative total of 6 IRs. Students are not eligible for benefits for one quarter but may continue in school at their own expense. Students may change curriculum if the VA will accept the change as suitable to abilities of the student. 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 will reenter on Step 2. Students who continue in school without VA 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 with the award of one grade point per credit hour 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 at 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. At the point when a veteran ceases to attend (ordinarily absences should not exceed 15% of the total contact hours), the student is to be dropped from class rosters. Certification will cease effective the last day of attendance.

Students in certificate and diploma programs are required to turn in attendance reports the last day of each month. The Veterans Administration will terminate benefits if the 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, attendance, or conduct must have counseling before they can be recertified for educational benefits. The required counseling sessions may delay the reinstatement of benefits from 2 to 4 months.

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 Office at the senior institution concerning admissions requirements and transfer credits for specific programs of study.

Counseling Services will provide assistance to students concerning transfer 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 is designed primarily to train vocational and technical instructors for technical institutes or community colleges, and technicians with a broad educational background for industry and business.

Atlantic Christian College

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

Campbell University

Graduates of Business Administration, Criminal Justice, and Health Technologies are eligible to transfer to Campbell University. Business Administration graduates may pursue the Bachelor of Business Administration degree. Criminal Justice graduates may earn the Bachelor of Special Studies degree in Police Science and Corrections 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 the Bachelor of Health Science degree. Graduates with the Associate in General Education degree may transfer course credits to complete the baccalaureate degree in a major field of study by fulfilling the additional requirements of the senior institution.

East Carolina University

Electronic Engineering Technology, General Office Technology, and Secretarial Science graduates may transfer to East Carolina University to earn a Bachelor of Science degree in Technical Teacher Education. The degree may be earned within two or three academic years depending on the student's technical and non-technical credits.

Criminal Justice graduates may earn a Bachelor of Science degree in Criminal Justice with 96 quarter hours or 64 semester hours accepted as transfer credit.

Elon College

Graduates with an associate degree may transfer to the Bachelor of Applied Arts or 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.

The program of study will be tailored for graduation and to the student's major at Durham Technical Institute. Graduates with the Associate in General Education degree may transfer course credits to complete the baccalaureate degree in the major field of study by fulfilling the additional requirements of the senior institution.

Fayetteville State University

Graduates with the Associate in Applied Science degree may transfer as juniors 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.

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 2 plus 2 year program receiving 62 semester hours.

Students who earn the associate degree in Early Childhood may transfer into the Child Development major and receive approximately 60 semester hours.

Students in other associate degree programs

are urged to make a personal appointment with an admissions counselor.

North Carolina Central University

Graduates with an associate degree may transfer as juniors to North Carolina Central University to pursue a bachelor's degree.

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

Graduates of Electronics Engineering Technology may transfer to the Bachelor of Science degree program in physics and many more areas of study in the sciences.

Graduates of Criminal Justice may transfer to the bachelor degree program in political science with a concentration in criminal justice.

Graduates of business programs may transfer to the Bachelor of Science degree program in business administration.

North Carolina Wesleyan College

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

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

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

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 seventy semester hours of transfer credit. Those who hold the associate degree may transfer courses that 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, natural, and social sciences. Irrespective of the number of hours transferred, the student must satisfy requirements of the specific area in which he/she elects 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 completion of the prescribed two-year curriculum, the student will 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 the Associate in General Education degree may transfer course credits to Winston-Salem University to complete the baccalaureate degree in the major field of study by fulfilling the additional requirements of the senior institution.

SERVICES AND SPECIAL PROGRAMS



Photographer Roger Manley serves as the 1983-84 visiting artist.

Counseling Services

At Durham Technical Institute counselors are concerned about the *total* student: the student's enrollment, interpersonal development, and academic progress. In expressing these concerns, counselors reach out to each and every student, regardless of their enrollment status. Each student is a special individual, and each one is important to the counseling staff. Therefore, services are individualized as counselors seek to determine each student's needs and possible resources to meet these needs.

The primary objective of counseling at Durham Technical Institute is student development which includes helping students reach their educational and vocational goals. As students work toward achieving these goals, qualified and experienced counselors are available and endeavor to facilitate each person's total development. This development includes social and personal growth as well as obtaining academic and occupational skills.

Acquiring additional academic and occupational skills and successfully coping and competing in today's world are worthwhile goals for everyone. In the process of achieving these goals, students often experience some difficulty due to poor study habits, lack of proper study skills, inability to understand certain technical terms, inadequate interpersonal communication skills, or other reasons. Counselors assist students in these areas and may at times refer the student to other available services.

Curriculum Center

The Curriculum Center provides two distinct educational services: telecourses and individualized instruction. The Center is located in room 20 in the Main Building.

Telecourses are curriculum credit courses which are broadcast by Channel 4 of the UNC Center for Public Television or on local cable. Students register for telecourses as they do for any credit course, 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-instructional, 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 any credit course. Tuition is charged.

Those courses which are 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 students want a general academic review before continuing their education whether at Durham Tech or other postsecondary schools. Special courses may be arranged to allow persons to remove high school deficiencies before entering postsecondary educational institutions. Many students simply enjoy the opportunity to study subjects of general interest.

DAISY

DAISY (Dial Access Instructional SYstem) is a telephone-tape service which provides free instruction and information to Durham area residents.

More than 500 taped programs are available. DAISY's Literacy Program features basic reading and writing skills for the adult non-reader.

DAISY prides itself on having "something for everyone." Besides the literacy component, DAISY offers a wide range of informational tapes. The tape categories are as follows:

1. The DAISY Literacy Program,
2. Durham Tech Information,
3. Educational Skills,
4. Health Information,
5. Public/Consumer Information, and
6. General Listening.

DAISY operates 7 days a week, 24 hours a day. During the hours 3:00 p.m. to 8:00 p.m., 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.*

Employment and Training Program

The primary purpose of the Employment and Training Program (formerly CETA) is to provide occupational training and work opportunities to the unemployed, underemployed, or economically disadvantaged.

The Durham Employment and Training Office contracts with Durham Technical Institute to develop, implement, and administer the educational and training activities for students eligible for assistance. The Employment and Training staff also provides counseling for students receiving assistance.

Students who are not high school graduates must acquire their high school diploma or GED before further training. Based upon their eligibility and interests, students then may enroll in selected programs of study at Durham Tech or in one of the classroom training programs in the off-campus training centers.

Short-term training programs are selected and taught based on job market demands. Many courses are offered on a regular basis. The clerk typist program is designed to develop the necessary variety of office skills for employment in the business world. The retail sales program trains individuals to work in various fields of sales and other customer related services. The electronic

assembler program is designed to provide trainees with the generic skills necessary to perform as electronic assemblers in local industry. A PreGED/GED program is offered on an ongoing basis to those individuals needing to complete high school coursework. Job placement assistance is available upon completion of the training programs.

Foreign Student Advisement

An advisor to international students is located in Counseling Services. This advisor issues Form I-20, the Certificate of Eligibility (for nonimmigrant F-1 student status), to internationals who have met all admissions criteria as well as other forms required by the immigration office. The foreign student must be on campus for placement testing, must make satisfactory scores on these tests, must have an interview with the foreign student advisor, and in some cases an interview will be arranged with the department dean or program director of the student's program of study. The foreign student must also present a notarized document indicating adequate financial support. After acceptance, the foreign student advisor 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 foreign student advisor 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 any question should contact Counseling Services.

Job Placement

Job Placement Services for all students are offered on campus by the Employment Security Commission of North Carolina. An ESC placement counselor is available to assist students and graduates in obtaining suitable work for part-time and career employment. All students are urged to register by the beginning of the final quarter of their educational program to allow time to obtain current occupational information and to begin their job search with counselor assistance.

Once registered, alumni may continue to use the job placement service for an indefinite period.

Library

The library is an integral part of academic life at Durham Technical Institute. It is located in the Main Building.

There are over 20,000 volumes and holdings that include films, slides, tapes, records, microfilm, newspapers, magazines, and maps. Study areas

and individual carrels are provided.

The library participates in the inter-library loan program with other libraries in the North Carolina community college system, local universities, and the public library. To borrow materials from the library, you must provide identification and receive a library card.

The Institute's audiovisual equipment is located in the library and an audiovisual technician is available to assist faculty and students.

Other services include photocopying, tape duplication, and instruction in library skills.

Media Services

Media Services provides audiovisual and media production services to the Institute. It is located in Rooms 310 and 318, Building 3. Services include equipment loan, basic audiovisual production, photography, and slide/tape and videotape design and production. The production staff assists faculty in developing instructional media to be used in the classroom. The staff also provides technical assistance for other institutional projects involving audiovisual production.

An on-campus closed circuit television system gives faculty members access to off-air viewing or taping plus an extensive videotape collection for classroom use. This collection includes both programs produced by the department and additional materials made available by other agencies or organizations.

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 that they may continue to make valuable contributions to their community through volunteer service.

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

In 1982, 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 40 non-profit and public agencies. The contribution of those hours enabled the community to enjoy comforts and extend services that would not have been available otherwise.

Services to the Handicapped

Durham Technical Institute makes appropriate accommodation for handicapped students who otherwise qualify for admission. Counseling Services coordinates all services to the handicapped. Counselors assist in the admissions 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 to assist 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 aim of the project is to help each student gain the academic strengths to complete successfully a program of study at Durham Technical Institute. 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, be a first generation college student, and meet the U.S. Department of Education income criterion.

The project is divided into three components:

1. academic skills,
2. counseling, and
3. academic intervention.

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

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

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

Cultural enrichment experiences are also scheduled for program participants.

For more information contact the Special Services Office in room 49A or call 596-9311, extension 263 or 311.

Student Activities

The Student Government Association sponsors all student activities and athletics at Durham Tech. The SGA also approves all student clubs. Student life outside the classroom is very important, and the SGA strives to provide a vital part of the student's educational experience.

Students may participate in a wide variety of activities such as concerts, fashion shows, talent shows, lecturers, and dances. Durham Tech is a member of the Piedmont Activities Conference which allows students to participate in activity days and sports such as basketball, track and field, softball, volleyball, bowling, golf, and tennis. The student organizations include Future Secretaries of America, Child Development Organization, Tau Eta Sigma (dental fraternity), Scholastic Opticians Association, International Club, and Electronics Engineering Technology Club.

Student initiative, interest, and leadership are necessary for the SGA to function effectively. All students are encouraged to support and become actively involved in the Student Government Association. Additional information about SGA 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 problem of completing a program of study. Service is located in room 23 in the Main Building.

Visiting Artist Program

The Visiting Artist Program is part of a state-wide program involving artists and institutions within the North Carolina community college system. The program was begun in 1971 as a cooperative effort between the North Carolina Arts Council and the Department of Community Colleges. The purpose of the program is the enhancement and cultivation of the arts.

The most important function of visiting artists is to share their particular art form with the community. In this capacity, the artist performs a wide range of functions such as lecture-demonstrations, concerts, exhibits, and special programs for public schools, civic clubs, arts councils, and other community organizations.

The artists also organize and participate in exchange programs with artists from other institutions around the state in order to bring varied artists exposure to communities.

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

Weekend College

Durham Tech's Weekend College program provides educational opportunities on Friday evenings and Saturdays for persons who are 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, computer programming, criminal justice, early childhood education, industrial management, insurance licensure, real estate sales and brokerage preparation, and secretarial science plus a variety of courses in general education subjects.

Curriculum courses taken during Weekend College may be applied to a degree, diploma, or certificate program offered by the Institute. Successful completion of certain specified sequences of skill-related curriculum courses may also result in the awarding of a certificate of completion.

Weekend College students needing instructional assistance or seeking information on a curriculum program should contact the office for Weekend College in room 23, Main Building, 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 center are also open on the weekend for the convenience of Weekend College students.

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, or seminars are designed to teach occupational training, provide cultural enrichment, and promote personal improvement. Students who successfully complete a continuing education course will be awarded either a certificate or Continuing Education Units (CEUs).

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

Anyone who is eighteen years of age or older may enroll in continuing education classes. Students between the ages of sixteen and eighteen may enroll provided they are also enrolled full time in a secondary school.

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

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. By telephoning the office at 596-9311, a student may request a mail-in registration form.

Fees

The registration fee for occupational and academic continuing education courses is \$10.00 per course. Students enrolled in avocational and practical skill courses must pay a tuition fee of \$.75 per membership hour. A cosponsoring agency fee is also charged when courses are taught by both Durham Tech and a cosponsoring agency. North Carolina residents sixty-five years of age or older and prison inmates are exempt from payment of the registration fee. Also exempt from payment are firemen, policemen, rescue, and lifesaving personnel who are enrolled in duty-related courses.

General Interest

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

Special Courses for Older Adults

Successful Aging
The Woman Alone
Financial and Legal Problems of Retirees
Home Health Aids
Commonsense Cooking and Nutrition
Home Nursing and Blood Pressure

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*

Hospitality Courses

*Beverage Operations and Management
Mixology
Waiter-Waitress Training
Front Office Procedures
Human Relations*

Business and Industry Training

*Supervisor Training
Time/Stress Management
Work Simplification
Secretarial Skills
Human Relations
Technical Training*

ADULT EDUCATION

Durham Technical Institute offers four 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 is no registration fee for any of the adult education classes.

Students may register at the first, second, or third session of any individual class or 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 telephoning the Adult Education Office at 596-9311.

English as a Second Language

English as a Second Language is offered to persons sixteen 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 ESL 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 sixteen years old or older. Students are encouraged to progress at their own pace using a variety of learning materials. 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 the local school systems. The program allows students to complete a high school diploma based on eleven 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 twenty-one years old to enroll. Students who live in Orange county must be eighteen years old to enroll in this program. A copy of the student's transcript through the last date of attendance in public school is required.

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. Students who pass the test are awarded the High School Diploma Equivalency. Appointments to take the test can be made by contacting the Admissions Office. 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.

PROGRAMS OF STUDY

Accounting
Architectural Drafting
Automotive Mechanics
Business Administration
Business Computer Programming
Criminal Justice
Dental Laboratory Technology
Early Childhood Associate
Electrical Installation and Maintenance
Electronics Engineering Technology
Fire Science
General Education
General Office Technology
Industrial Management Technology
Machinist
Microelectronics Technology
Optical Laboratory Mechanics
Opticianry
Paralegal Technology
Pharmacy Technology
Practical Nurse Education
Residential Carpentry and Preservation
Respiratory Therapy
Respiratory Therapy Technician
Secretarial Science

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



ACCOUNTING

Accounting is often thought of as "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 fields of accounting: governmental accounting, private or industrial accounting, and public accounting.

Accounting is much more than a routine, clerical type of work. An accountant has to meet and talk with important executives. He or she must be able to communicate clearly and effectively and have the ability to solve 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, evening, and weekend. The day program can be completed in six quarters while the evening program is nine quarters. 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	BUS 101	Introduction to Business	5	0	5
	BUS 120	Accounting I	5	2	6
	BUS 125	Math of Finance	5	0	5
	ECO 102	Economics I	3	0	3
	ENG 101	Communication Skills	3	0	3
2	BUS 121	Accounting II	5	2	6
	ECO 104	Economics II	3	0	3
	ENG 102	Communication Skills	3	0	3
		General Education Elective			
3	BUS 115	Business Law I	3	0	3
	BUS 122	Accounting III	5	2	6
	BUS 229	Taxes I	3	2	4
	ENG 103	Communication Skills	3	0	3
	General Education Elective				
4	BUS 221	Statistics	5	0	5
	BUS 116	Business Law II	3	0	3
	BUS 225	Cost Accounting	3	2	4
	BUS 230	Taxes II	3	2	4
	ENG 203	Interpersonal Communications	3	0	3
5	BUS 222	Intermediate Accounting I	5	2	6
	BUS 226	Managerial Accounting	5	2	6
	BUS 216	Business Communication	3	0	3
	EDP 104	Introduction to Data Processing	5	0	5
6	BUS 223	Intermediate Accounting II	5	2	6
	BUS 227	Accounting Theory	3	2	4
	BUS 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
	BUS 125	Math of Finance	5	0	5
	ENG 101	Communication Skills	3	0	3
2	BUS 120	Accounting I	5	2	6
	ENG 102	Communication Skills	3	0	3
		General Education Elective			
3	BUS 115	Business Law I	3	0	3
	BUS 121	Accounting II	5	2	6
	ECO 102	Economics I	3	0	3
4	BUS 122	Accounting III	5	2	6
	ECO 104	Economics II	3	0	3
	ENG 103	Communication Skills	3	0	3
5	BUS 116	Business Law II	3	0	3
	BUS 221	Statistics	5	0	5
	BUS 225	Cost Accounting	3	2	4
6	BUS 222	Intermediate Accounting I	5	2	6
	ENG 203	Interpersonal Communications	3	0	3
	General Education Elective				
7	EDP 104	Introduction to Data Processing	5	0	5
	BUS 223	Intermediate Accounting II	5	2	6
	BUS 216	Business Communication	3	0	3
8	BUS 226	Managerial Accounting	5	2	6
	BUS 229	Taxes I	3	2	4
		Technical Elective			
9	BUS 227	Accounting Theory	3	2	4
	BUS 269	Auditing	3	2	4
	BUS 230	Taxes II	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

ARCHITECTURAL DRAFTING

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

An architectural drafter specializes in working with architects by transforming the architect's ideas and sketches into working drawings. To be able to do this, the architectural drafter must study the fundamentals of engineering, mechanics, materials, structures, surveying, estimating, and blueprint interpretation with a concentration in the study of architecture. Thus the architectural drafter acquires a variety of skills ranging from developing site plans to a working knowledge of the local building code.

The one-year Architectural Drafting program at Durham Technical Institute is broad in course offerings yet quite intensive and demanding. Emphasis is placed on the application of drawing and technical skills. Mechanical drafting skills are also included. Related course work is offered in the areas of communication skills, mathematics, physics, and selected electives to provide a diversified background.

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

The Architectural Drafting program 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 who successfully complete 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 1050	Applied Mathematics	3	0	3
	ENG 1101	Reading Improvement	3	0	3
2	DFT 1102	Architectural Drafting II	3	12	7
	DFT 1111	Descriptive Mathematics	3	3	4
	PHY 1050	Applied Science	3	2	4
	ENG 1102	Communication Skills	3	0	3
3	DFT 1103	Architectural Drafting III	3	12	7
	DFT 1113	Structural Drafting	3	6	5
	DFT 1117	Architectural Estimating	3	0	3
4	DFT 1104	Architectural Drafting IV	3	12	7
	DFT 1114	Technical Illustration	1	6	3
	DFT 1115	Surveying for Architectural Drafters	3	5	5

Required Courses Credit Hours 64

AUTOMOTIVE MECHANICS

In the United States, one out of every seven employed persons 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, look at the prediction of the Automobile Manufacturer's Association that there will be more than one hundred fifty million cars, trucks, and buses in operation in this country by 1985. All of these vehicles will require maintenance, inspection, and repair.

Work as an auto mechanic will vary according to the type of shop. Small shops will provide a variety of services on all types of vehicles. 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 repair of the engine, electrical system, transmission, steering mechanisms, brakes, carburetor, and radiator.

The Automotive Mechanics program at Durham Technical Institute teaches students the skills needed to inspect, test, diagnose, repair, or service automotive vehicles. Through class assignments, discussions, and practical lab experiences comes an understanding of the operating principles involved in the modern automobile. The program also provides a basis for the student to compare and adapt to new techniques for servicing and repair as vehicles are changed year by year.

Day students enroll fall quarter and their program of study is four quarters. Evening students may enroll any quarter and their program of study is eight quarters. Graduates receive a diploma in Automotive Mechanics.



DAY PROGRAM/4 QUARTERS

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	AUT 1113	Engine Fundamentals and Systems Servicing	2	6	4
	AUT 1104	Charging and Starting Systems	2	6	4
	AUT 1118	Technical Specifications	3	0	3
	MAT 1070	Applied Mathematics	3	0	3
	ENG 1101	Reading Improvement	3	0	3
2	AUT 1116	Electrical Systems and Accessories	2	6	4
	AUT 1103	Fuel and Exhaust Systems	2	6	4
	AUT 1107	Tune-Up and Emission Control	2	6	4
	ENG 1102	Communication Skills	3	0	3
3	AUT 1117	Engine Service and Repair	2	6	4
	AUT 1106	Steering and Suspension Systems	2	6	4
	AUT 1102	Brakes and Tires	2	6	4
	PHY 1070	Applied Science	3	2	4
4	AUT 1105	Air Conditioning	2	6	4
	AUT 1109	Systems Troubleshooting and Servicing	2	6	4
	AUT 1110	Manual Transmissions and Power Trains	2	6	4
	AUT 1112	Automatic Transmissions	2	6	4
Required Courses Credit Hours					64

EVENING PROGRAM/8 QUARTERS

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	AUT 1113	Engine Fundamentals and Systems Servicing	2	6	4
	ENG 1101	Reading Improvement	3	0	3
2	AUT 1104	Charging and Starting Systems	2	6	4
	AUT 1118	Technical Specifications	3	0	3
	ENG 1102	Communication Skills	3	0	3
3	AUT 1116	Electrical Systems and Accessories	2	6	4
	AUT 1107	Tune-Up and Emission Control	2	6	4
4	AUT 1103	Fuel and Exhaust Systems	2	6	4
	AUT 1102	Brakes and Tires	2	6	4
5	AUT 1105	Air Conditioning	2	6	4
	MAT 1070	Applied Mathematics	3	0	3
6	AUT 1117	Engine Service and Repair	2	6	4
	AUT 1106	Steering and Suspension Systems	2	6	4
7	AUT 1110	Manual Transmissions and Power Trains	2	6	4
	PHY 1070	Applied Science	3	2	4
8	AUT 1109	Systems Troubleshooting and Servicing	2	6	4
	AUT 1112	Automatic Transmissions	2	6	4
Required Courses Credit Hours					64

BUSINESS ADMINISTRATION

The Business Administration program is a two-year course of study leading to an Associate in Applied Science degree in Business Administration. In order to meet the diverse needs of the students, the full program is offered day and evening. Selected courses are offered on weekends. The content of the classes is standardized allowing students maximum flexibility in scheduling. Students may attend day, evening, weekend, or a combination of times. Selected classes from the Business Administration program are also offered at Northern High School in the fall, winter, and spring quarters.

The courses offered in the Business Administration curriculum concentrate on the major functional areas in the business world. Training is provided in the areas of management, marketing, accounting, finance, and human resources management.

A graduate of Durham Technical Institute's Business Administration program has received comprehensive training in how to administer or manage. The basic principles of administration are applicable to almost any profession. Consequently, as a graduate of the Business Administration program, one would have the management skills necessary to function effectively in many different industries. A sampling of the graduates shows that they receive employment in the areas of banking and finance, insurance, retailing, real estate, sales, manufacturing, and many other fields. The employment histories of the graduates confirm that as a graduate he or she has 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
	BUS 102	Typewriting I	3	2	4
	ECO 102	Economics I	3	0	3
	MAT 110	Business Mathematics	5	0	5
	ENG 101	Communication Skills	3	0	3
2	BUS 120	Accounting I	5	2	6
	BUS 239	Marketing	5	0	5
	ECO 104	Economics II	3	0	3
	ENG 102	Communication Skills	3	0	3
3	BUS 115	Business Law I	3	0	3
	BUS 121	Accounting II	5	2	6
	BUS 232	Salesmanship	3	0	3
	ENG 103	Communication Skills Technical Elective	3	0	3
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 Technical Elective	3	0	3
5	BUS 124	Personal Finance	3	0	3
	BUS 235	Small Business Management	3	0	3
	BUS 216	Business Communication Technical Elective	3	0	3
		General Education Elective			
6	BUS 229	Taxes I	3	2	4
	BUS 271	Office Management	3	0	3
	BUS 272	Principles of Supervision Technical Elective	3	0	3
		General Education Elective			
		Required Courses Credit Hours	85		
		General Education Electives Credit Hours	6		
		Technical Electives Credit Hours	15		
		Total Credit Hours Required for Graduation	106		

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 102	Typewriting I	3	2	4
	BUS 239	Marketing	5	0	5
	ENG 102	Communication Skills	3	0	3
3	BUS 115	Business Law I	3	0	3
	BUS 120	Accounting I	5	2	6
	ECO 102	Economics I	3	0	3
4	BUS 121	Accounting II	5	2	6
	ECO 104	Economics II	3	0	3
	ENG 103	Communication Skills	3	0	3
5	BUS 123	Business Finance	3	0	3
	ENG 203	Interpersonal Communications Technical Elective	3	0	3
		General Education Elective			
6	BUS 116	Business Law II	3	0	3
	BUS 124	Personal Finance	3	0	3
	BUS 272	Principles of Supervision Technical Elective	3	0	3
7	BUS 216	Business Communication	3	0	3
	BUS 235	Small Business Management Technical Elective	3	0	3
8	EDP 104	Introduction to Data Processing	5	0	5
	BUS 229	Taxes I	3	2	4
	BUS 232	Salesmanship	3	0	3
9	BUS 271	Office Management	3	0	3
		General Education Elective			
		Required Courses Credit Hours	85		
		General Education Electives Credit Hours	6		
		Technical Electives Credit Hours	15		
		Total Credit Hours Required for Graduation	106		

BUSINESS COMPUTER PROGRAMMING

Computers have become an important part of contemporary life. The operations of many businesses depend on computers. We all have some contacts with computers through paychecks, bills, income tax forms, or school registration forms. Computers do the bookkeeping for many businesses in the country. However, computers can not 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 processing information.

Programmers must be able to think logically and should enjoy solving problems. Accuracy and attention to detail are important in the work of a computer programmer.

Business Computer Programming is designed to develop the student's understanding and skills in the areas of computer and systems theories, data processing techniques, logic, flow charting, programming procedures, and computer languages. Students have the opportunity to gain experience in writing computer programs with business applications such as billing, payroll, and inventory. Emphasis is upon the use of computers in solving business problems.

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

Proper 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 form.

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 110	Business Mathematics	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 120	Algebra I	5	0	5
	ENG 102	Communication Skills	3	0	3
		Technical Elective			
3	BUS 120	Accounting I	5	2	6
	EDP 112	COBOL II	3	2	4
	MAT 121	Algebra II	5	0	5
	ENG 103	Communication Skills	3	0	3
4	BUS 121	Accounting II	5	2	6
	EDP 207	Beginning RPG	3	2	4
	EDP 214	Computer Systems I	3	2	4
	ENG 203	Interpersonal Communications	3	0	3
5	BUS 221	Statistics	5	0	5
	EDP 201	Operating Systems and JCL	3	2	4
	EDP 212	Assembler Language I	3	2	4
		Data Processing Elective			
6	EDP 215	Computer 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	86
General Education Electives Credit Hours	6
Technical Electives Credit Hours	9
Data Processing Electives Credit Hours	16
Total Credit Hours Required for Graduation	117

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 110	Business Mathematics	5	0	5
	ENG 101	Communication Skills	3	0	3
2	EDP 109	BASIC Language I	3	2	4
	EDP 111	COBOL I	3	2	4
	MAT 120	Algebra I	5	0	5
		General Education Elective			
3	BUS 120	Accounting I	5	2	6
	EDP 112	COBOL II	3	2	4
	MAT 121	Algebra II	5	0	5
4	BUS 121	Accounting II	5	2	6
	EDP 207	Beginning RPG	3	2	4
	ENG 102	Communication Skills	3	0	3
5	BUS 221	Statistics	5	0	5
	EDP 214	Computer Systems I	3	2	4
	ENG 103	Communication Skills	3	0	3
		Data Processing Elective			
6	EDP 201	Operating Systems and JCL	3	2	4
	EDP 212	Assembler Language I	3	2	4
	ENG 203	Interpersonal Communications	3	0	3
		Technical Elective			
7	EDP 215	Computer Systems II	3	2	4
		Data Processing Elective General Education Elective Technical Elective			
8	EDP 216	Data Processing Project	1	10	2
		Data Processing Elective			
		Data Processing Elective			
		Technical Elective			

Required Courses Credit Hours	86
General Education Electives Credit Hours	6
Technical Electives Credit Hours	9
Data Processing Electives Credit Hours	16

Total Credit Hours Required for Graduation 117

CRIMINAL JUSTICE

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

In addition to these skills, the program also provides a broader perspective for the application of skills within a practical police environment. Course work is included in the areas of psychology, sociology, and social sciences as well as specialized police and law courses. Emphasis is placed upon practical skills to deal with the complex social, psychological, political, and organizational factors that affect the discretionary decisions made by police. This blend of specific skills and informed perspective prepares the graduate to make the difficult decisions in enforcing the law and serving the broader needs of the community.

The curriculum operates day and evening and is seven quarters long. An Associate in Applied Science degree is awarded in Criminal Justice.



DAY AND EVENING PROGRAM/7 QUARTERS

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	PSY 100	Introduction to General Psychology	3	0	3
	CJC 101	Introduction to Criminal Justice	5	0	5
	CJC 115	Criminal Law	5	0	5
	ENG 101	Communication Skills	3	0	3
2	CJC 110	Juvenile Delinquency	5	0	5
	CJC 216	Advanced Criminal Law	5	0	5
	MAT 123	College Mathematics	5	0	5
	ENG 102	Communication Skills	3	0	3
3	POL 171	State and Local Government	3	0	3
	CJC 125	Due Process	5	0	5
	ENG 103	Communication Skills	3	0	3
		Elective			
4	CJC 102	Criminology	5	0	5
	CJC 217	Patrol Procedures	5	0	5
	CJC 220	Police Organization	5	0	5
5	CJC 201	Motor Vehicle Law and Traffic Administration	5	0	5
	CJC 212	Drugs	5	0	5
	ENG 203	Interpersonal Communications	3	0	3
6	POL 190	United States Government	3	0	3
	CJC 205	Evidence	5	0	5
	CJC 210	Criminal Investigation	5	0	5
7	CJC 211	Criminalistics	5	0	5
	CJC 230	Supervision	5	0	5
		Elective			

Required Courses Credit Hours 96
 Electives Credit Hours 9

Total Credit Hours Required for Graduation 105

DENTAL LABORATORY TECHNOLOGY

The purpose of the Dental Laboratory Technology program is to teach the techniques and skills of fabricating artificial dental restorations as prescribed by a licensed practicing dentist. The program is designed to enable the graduate to function effectively in the dental laboratory.

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

Dental laboratory technicians perform a variety of laboratory procedures. Many are specialists in crown and bridge, dentures, and dental ceramics. The dental technician may be employed by dentists, commercial dental laboratories, schools of dentistry, or Veterans Administration hospitals. Companies that manufacture 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, orthodontic, and maxillofacial techniques. Practical experience is gained by the students during their sixth and seventh quarters of study. The students 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	SCI 150	Physical Science for Dental Technicians	5	2	6
	DEN 101	Dental Anatomy	2	9	5
	DEN 104	Dental Materials	2	6	4
	DEN 106	Complete Denture Techniques	1	6	3
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	3	0	3

Required Courses Credit Hours	105
General Education Electives Credit Hours	6
Total Credit Hours Required for Graduation	111

EARLY CHILDHOOD ASSOCIATE

The Early Childhood Associate program is designed for individuals who are interested in working with infants and young children. Because of the increasing number of preschool children requiring day care, and because of an awareness of the importance of early experiences in shaping the child's future behavior, attitudes, and abilities, the need for trained child-care specialists has risen dramatically. The role of the specialist is to meet the developmental needs of the individual child. He or she is a source of warmth and security, an organizer of the environment, and a facilitator of learning. At Durham Technical Institute, classroom learning and fieldwork experiences are integrated to provide students with the training they need to function effectively as child-care specialists.

Training is provided by the Early Childhood Associate program for persons who are beginning careers in day care, who currently are employed in working with young children and wish to increase their professional skills, or who would like to start their own day-care centers or homes. Teacher's aides, parents, and students planning to transfer to a four year college in education can also benefit from the curriculum. Classes are taught in the day, evening, and on weekends to accommodate employees of schools and day-care centers. Persons may enroll as full-time or part-time students any quarter.

The program has two exit levels. Students may graduate after four quarters and receive a Child Development Specialist diploma, or after six quarters and receive an Associate in Applied Science degree in Child Development. Students finishing at either level will have learned how to provide quality care to young children.



DAY AND EVENING PROGRAM/6 QUARTERS

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	EDU 101	Child Growth and Development I	3	0	3
	EDU 104	Creative Activities	2	3	3
	EDU 108	Health and Safety of Young Children	3	0	3
	EDU 118	Introduction to Day Care	3	6	5
	EDU 204	Preschool Education	3	0	3
2	EDU 102	Child Growth and Development II	3	0	3
	EDU 107	Interpersonal Relationships	3	0	3
	EDU 108	Physical Activities	2	3	3
	EDU 110	Nutrition	3	0	3
	EDU 116	Program Planning for Infants, Toddlers, and Two-Year-Olds	3	6	5
3	EDU 103	Child Growth and Development III	3	0	3
	EDU 106	Children's Literature	3	0	3
	EDU 114	Language Arts and Math Concepts	3	0	3
	EDU 117	Curriculum Planning for Three-Through Five-Year-Olds	3	6	5
	ENG 101	Communication Skills	3	0	3
4	EDU 109	Exceptional Child	3	0	3
	EDU 118	Parent Involvement	3	6	5
	EDU 205	Community Resources	3	0	3
	EDU 206	Adjustment Problems in Childhood	3	0	3
	ENG 102	Communication Skills	3	0	3
5	PSY 100	Introduction to General Psychology	3	0	3
	SOC 100	Principles of Sociology	3	0	3
	EDU 119	Human Relations Training	3	6	5
	ENG 103	Communication Skills	3	0	3
		Elective			
6	SOC 290	Marriage and Family	3	0	3
	EDU 120	Administration of a Child Care Program	3	6	5
	EDU 207	Career Information	3	0	3
	ENG 203	Interpersonal Communications	3	0	3
	Elective				

Required Courses Credit Hours 96
 Electives Credit Hours 6
 Total Credit Hours Required for Graduation 102

ELECTRICAL INSTALLATION AND MAINTENANCE

The Electrical Installation and Maintenance program is designed to provide training in the basic knowledge, fundamentals, and practices involved in the electrical trades. The program has a practical orientation. Graduates will have an understanding of electrical theory and its application.

The training program in Electrical Installation and Maintenance provides the graduate with entry-level job skills for the electrical trades. Electricians assemble, install, test, and repair fixtures and wiring used in electrical systems. Electricians sometimes work from blueprints, wiring diagrams, or other specifications. They use meters and other testing devices to locate faulty equipment.

Classroom instruction includes the National Electrical Code, drafting and electronic layout, blueprint reading, mathematics, electrical theory, and electronics. Students have the opportunity to develop skills by performing work-related tasks. Graduates will have a basic knowledge of motor and motor control systems, industrial electronic control systems, and electrical service distribution. They will also have an understanding of electrical conservation and load management as applied to both residential and industrial uses.

The program is four quarters in length for day students or seven quarters for evening students. New students enroll 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 1105	Mechanical Drafting	1	3	2
	MAT 1101	Fundamentals of Mathematics	3	0	3
	MAT 1102	Fundamentals of Mathematics	2	0	2
	ENG 1101	Reading Improvement	3	0	3
2	ELC 1102	Residential Wiring	4	6	6
	ELC 1103	Motor and Transformer Theory	3	0	3
	PHY 1111	Applied Science	3	2	4
	MAT 1103	Applied Mathematics	5	0	5
3	ELC 1104	Commercial and Industrial Wiring	4	6	6
	ELC 1105	Motor Controls	2	6	4
	ELC 1108	Industrial Electrical Systems	3	0	3
	MAT 1062	Applied Mathematics	3	0	3
4	ELC 1106	Blueprint Reading and Calculations	5	0	5
	ELC 1109	Maintenance Procedures and Troubleshooting Techniques	3	3	4
	ELN 1101	Industrial Electronic Systems	3	6	5
	ENG 1102	Communication Skills	3	0	3

Required Courses Credit Hours 67

EVENING PROGRAM/7 QUARTERS

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	ELC 1101	Introduction to Electricity	4	6	6
	MAT 1101	Fundamentals of Mathematics	3	0	3
	ENG 1101	Reading Improvement	3	0	3
2	DFT 1105	Mechanical Drafting	1	3	2
	ELC 1102	Residential Wiring	4	6	6
	MAT 1102	Fundamentals of Mathematics	2	0	2
3	ELC 1103	Motor and Transformer Theory	3	0	3
	PHY 1111	Applied Science	3	2	4
	MAT 1103	Applied Mathematics	5	0	5
4	ELC 1104	Commercial and Industrial Wiring	4	6	6
	ENG 1102	Communication Skills	3	0	3
5	ELC 1106	Blueprint Reading and Calculations	5	0	5
	ELC 1108	Industrial Electrical Systems	3	0	3
6	ELN 1101	Industrial Electronic Systems	3	6	5
	MAT 1062	Applied Mathematics	3	0	3
7	ELC 1105	Motor Controls	2	6	4
	ELC 1109	Maintenance Procedures and Troubleshooting Techniques	3	3	4

Required Courses Credit Hours 67

ELECTRONICS ENGINEERING TECHNOLOGY

We live in a world of electronics. From electronic garage-door openers and videotape recorders for 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 having its effect in the world of business and industry. Medical electronics is a new frontier with the growing number of devices used for diagnostic purposes. The space program depends on electronics. Electronics is a diversified and challenging field that is continuing to grow. Because of rapid expansion and growth, the opportunities for a career in the electronics field are excellent.

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

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

New students enroll 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 apply toward the Bachelor of Technology degree.



PRE-ELECTRONICS ENGINEERING TECHNOLOGY/2 QUARTERS

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	MAT 120	Algebra I	5	0	5
2	MAT 121	Algebra II	5	0	5
	ELC 100	Basic Electricity	3	4	5

DAY PROGRAM/8 QUARTERS

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	ELN 101	DC Circuit Analysis	4	6	7
	MAT 160	Technical Mathematics I	5	0	5
	ENG 101	Communication Skills	3	0	3
2	ELN 102	AC Circuit Analysis	4	6	7
	MAT 161	Technical Mathematics II	5	0	5
	ENG 102	Communication Skills	3	0	3
3	ELN 105	Introduction to Active Devices	4	4	6
	ELN 103	Mechanical Processes for Electronics	1	3	2
	MAT 162	Technical Mathematics III	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 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
	PHY 260	Physics	4	2	5
	DFT 201	Electronic Drafting	1	3	2
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	Technical Mathematics I	5	0	5
	ENG 101	Communication Skills	3	0	3
2	ELN 102	AC Circuit Analysis	4	6	7
	MAT 161	Technical Mathematics II	5	0	5
	ENG 102	Communication Skills	3	0	3
3	ELN 105	Introduction to Active Devices	4	4	6
	MAT 162	Technical Mathematics III	5	0	5
	ENG 203	Communication Skills	3	0	3
4	EDP 109	BASIC Language I	3	2	4
	ELN 103	Mechanical Processes for Electronics	1	3	2
	ELN 205	Application of Active Devices I	4	4	6
5	ELN 218	Application of Active Devices II	4	4	6
	ELN 216	Pulse and Waveshaping Circuits	4	4	6
6	ELN 219	Linear Integrated Circuits	4	4	6
	ELN 240	Digital Electronics	4	6	7
7	DFT 103	Technical Drawing	2	3	3
	ELN 270	Microprocessor Fundamentals	4	6	7
	ENG 207	Technical Communications	3	0	3
8	DFT 201	Electronic Drafting	1	3	2
	ELN 280	Microprocessor Applications	3	6	6
	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

FIRE SCIENCE

The purpose of the Fire Science program is to provide the necessary learning experiences that will enable the student to understand municipal fire protection problems and to apply this knowledge in an effective and economical way. The program is designed to enable the Fire Science graduate to make proper decisions both on and off the emergency fire scene. Work in fire protection requires intelligent, courageous, and dedicated individuals who are willing to keep pace with rapid technical change. This is necessary in order to save lives.

Through classroom and laboratory experience, the student will be introduced to various hazards of the fire service, problems of fire prevention, and administrative problems encountered. The student is taught numerous skills which may include figuring pump hydraulics, investigating arson scenes, fire fighting strategy, grading fire defenses, and municipal fire administration. Emphasis is placed on the utilization of funds, equipment, and manpower needed to provide efficient and economical fire protection. Specific competencies for the performance of fire science administration and supervision duties are included in the curriculum.

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



EVENING PROGRAM/7 QUARTERS

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	PSY 100	Introduction to General Psychology	3	0	3
	FIP 101	Introduction to Fire Protection Hazards	3	0	3
	FIP 225	Fire Protection Law	3	0	3
	ENG 101	Communication Skills	3	0	3
2	FIP 104	Building Construction for Fire Service	3	0	3
	MAT 123	College Mathematics	5	0	5
	ENG 102	Communication Skills Elective	3	0	3
3	FIP 201	Arson Investigation	5	0	5
	CJC 230	Supervision	5	0	5
	ENG 103	Communication Skills	3	0	3
4	FIP 150	Physical Science for Fire Service	3	2	4
	FIP 135	Methods of Instruction	4	0	4
	FIP 235	Inspection Principles and Practices	3	0	3
	FIP 115	Prevention Programs	3	0	3
5	FIP 230	Hydraulics and Water Distribution Systems	5	0	5
	FIP 250	Municipal Fire Administration I	4	0	4
	ENG 203	Interpersonal Communications	3	0	3
6	POL 190	United States Government	3	0	3
	FIP 211	Grading of Fire Defenses	3	0	3
	FIP 218	Hazardous Materials	3	2	4
	FIP 251	Municipal Fire Administration II	4	0	4
7	FIP 220	Fire Fighting Strategy	3	2	4
	FIP 231	Sprinkler and Standpipe Systems	3	0	3
	FIP 252	Municipal Fire Administration III	5	0	5
		Elective			

Required Courses Credit Hours 88
 Electives Credit Hours 10

Total Credit Hours Required for Graduation 98

GENERAL EDUCATION

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

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

The counseling staff at Durham Technical Institute can assist students concerning information about senior institutions and admissions procedures. The identification of educational goals and the selection of 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.



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 Elective	3	0	3
4	ECO 102	Economics I	3	0	3
	PSY 100	Introduction to General Psychology	3	0	3
	ENG 211	World Literature I Elective	3	0	3
5	ECO 104	Economics II	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 clerk-typist, machine dictation transcriber, or 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 development, accounting, business administration, data processing, and industrial management.

The associate degree earned in pursuing proficiency in the above mentioned skills enhances employment placement opportunities. Also, it adds a measure of prestige to the office worker not available 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	BUS 101	Introduction to Business	5	0	5
	BUS 102	Typewriting I	3	2	4
	BUS 109	Interpersonal Relationships	3	0	3
	MAT 110	Business Mathematics	5	0	5
	ENG 183	English Grammar	5	0	5
2	BUS 103	Typewriting II	2	3	3
	BUS 120	Accounting I	5	2	6
	ENG 101	Communication Skills	3	0	3
		Technical Elective General Education Elective			
3	BUS 104	Typewriting III	2	3	3
	BUS 112	Records Management	3	2	4
	ENG 102	Communication Skills	3	0	3
		Technical Elective General Education Elective			
4	BUS 271	Office Management	3	0	3
	BUS 205	Typewriting IV	2	3	3
	BUS 212	Machine Dictation and Transcription	3	2	4
	EDP 104	Introduction to Data Processing	5	0	5
	ENG 103	Communication Skills	3	0	3
5	BUS 209	Simulated Office Application	2	3	3
	BUS 214	ABC Shorthand	3	2	4
	BUS 213	Office Procedures	3	2	4
	BUS 298	Word Processing I	3	2	4
		Technical Elective			
6	BUS 217	ABC Shorthand Dictation and Transcription	3	2	4
	BUS 215	Work Experience	1	20	3
	BUS 216	Business Communication	3	0	3
	BUS 299	Word Processing II	3	2	4
		Technical Elective			
	Required Courses Credit Hours	91			
	General Education Electives Credit Hours	6			
	Technical Electives Credit Hours	10			
	Total Credit Hours Required for Graduation	107			

EVENING PROGRAM/9 QUARTERS

		CLASS HOURS	LAB HOURS	CREDIT HOURS	
1	BUS 102	Typewriting I	3	2	4
	BUS 109	Interpersonal Relationships	3	0	3
	ENG 183	English Grammar	5	0	5
2	BUS 101	Introduction to Business	5	0	5
	BUS 103	Typewriting II	2	3	3
	MAT 110	Business Mathematics	5	0	5
3	BUS 120	Accounting I	5	2	6
	ENG 101	Communication Skills Technical Elective	3	0	3
4	BUS 104	Typewriting III	2	3	3
	BUS 112	Records Management	3	2	4
	ENG 102	Communication Skills	3	0	3
		General Education Elective			
5	BUS 205	Typewriting IV	2	3	3
	ENG 103	Communication Skills	3	0	3
		Technical Elective General Education Elective			
6	EDP 104	Introduction to Data Processing	5	0	5
	BUS 212	Machine Dictation and Transcription	3	2	4
	BUS 271	Office Management	3	0	3
7	BUS 209	Simulated Office Application	2	3	3
	BUS 214	ABC Shorthand	3	2	4
	BUS 213	Office Procedures	3	2	4
	BUS 298	Word Processing I	3	2	4
		Technical Elective			
8	BUS 217	ABC Shorthand Dictation and Transcription	3	2	4
	BUS 216	Business Communication	3	0	3
	BUS 299	Word Processing II	3	2	4
		Technical Elective			
9	BUS 215	Work Experience	1	20	3
	Required Courses Credit Hours	91			
	General Education Electives Credit Hours	6			
	Technical Electives Credit Hours	10			
	Total Credit Hours Required for Graduation	107			

INDUSTRIAL MANAGEMENT TECHNOLOGY

The Industrial Management program is designed to prepare individuals for supervisory and middle-management positions in industry. Training is provided in three primary areas of management responsibility: personal management, personnel management, and resource management. The use of case problems and on-site projects at local industries and businesses give the students practical "hands-on" experiences to complement classroom training. The program offers entry level training for the student seeking a career in management, and it provides the opportunity to update job skills for the established professional.

The Industrial Management program combines analytical and engineering courses such as work measurement, plant layout, and quality control with practical courses in business, communications, finance, and mathematics. The student will be exposed to management principles, supervision concepts, and fundamentals of organization. The graduate will have a working knowledge of engineering at the technology level with specific skills in performing industrial engineering functions.

The Industrial Management program is offered during the evening and is nine quarters in length. 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 110	Business Mathematics	5	0	5
	ENG 101	Communication Skills	3	0	3
2	DFT 103	Technical Drawing	2	3	3
	MAT 120	Algebra I	5	0	5
	ENG 102	Communication Skills	3	0	3
		Technical Elective			
3	BUS 235	Small Business Management	3	0	3
	ISC 130	Industrial Safety	3	0	3
	MAT 121	Algebra II	5	0	5
	ENG 103	Communication Skills	3	0	3
4	BUS 221	Statistics	5	0	5
	ISC 132	Job Analysis and Evaluation	3	2	4
		Technical Elective			
5	BUS 120	Accounting I	5	2	6
	ISC 214	Work Measurement	5	2	6
6	PSY 100	Introduction to General Psychology	3	0	3
	BUS 274	Labor Relations	3	0	3
	ISC 226	Production Planning and Control	3	2	4
	ENG 203	Interpersonal Communications	3	0	3
7	ISC 203	Methods Time Measurement (MTM)	5	2	6
	BUS 272	Principles of Supervision	3	0	3
	ISC 236	Plant Layout	3	2	4
8	ISC 231	Manufacturing Processes	3	2	4
	BUS 229	Taxes I	3	2	4
	ISC 232	Quality Control	3	2	4
9	EDP 104	Introduction to Data Processing General Education Elective	5	0	5

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 craftsman who shapes metal by using machine tools and hand tools. Simply stated, a machinist makes precision parts from metal. Working from a blueprint or written specifications, a machinist selects the proper tools and materials to cut and shape metal to meet size specifications. A machinist is able to set up and operate the machine tools found in a modern shop.

Durham Technical Institute's Machinist program is designed to enable an individual to acquire the basic skills necessary to become a machinist. The student learns to set up and operate various machine tools, to read blueprints, and to make calculations required to produce precision parts. In addition to the use of machine tools, the machinist must be able to use instruments to measure the accuracy of work. A machinist must also know the characteristics of various metals.

By developing the skills of a machinist, an individual can open the door to a career with job security and good earning potential. Currently, the demand for machinists is high. Expanding industries in the Triangle area need skilled machinists, and the demand for new 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 program of study may be completed by attending day classes for four quarters or evening classes for eight quarters. 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 1105	Mechanical Drafting	1	3	2
	MAT 1101	Fundamentals of Mathematics	3	0	3
	MAT 1102	Fundamentals of Mathematics	2	0	2
	ENG 1101	Reading Improvement	3	0	3
2	MEC 1103	Machine Shop Theory and Practice	2	6	4
	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	3	0	3
3	MEC 1106	Machine Shop Theory and Practice	2	6	4
	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	4
	MEC 1108	Machine Shop Theory and Practice	2	6	4
	MEC 1109	Fundamentals of Numerical and Computer Numerical Control	1	3	2
	MEC 1119	Applied Metallurgy	2	3	3

Required Courses Credit Hours 70

EVENING PROGRAM/8 QUARTERS

			CLASS HOURS	LAB HOURS	CREDIT HOURS
1	MEC 1101	Machine Shop Theory and Practice	2	6	4
	MAT 1101	Fundamentals of Mathematics	3	0	3
	ENG 1101	Reading Improvement	3	0	3
2	MEC 1102	Machine Shop Theory and Practice	2	6	4
	DFT 1105	Mechanical Drafting	1	3	2
	MAT 1102	Fundamentals of Mathematics	2	0	2
3	MEC 1103	Machine Shop Theory and Practice	2	6	4
	DFT 1106	Blueprint Reading I: Mechanical	3	0	3
	ENG 1102	Communication Skills	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 Numerical and Computer Numerical Control	1	3	2

Required Courses Credit Hours 70

MICROELECTRONICS TECHNOLOGY

The essence of microelectronics is smaller and smaller electronic components performing increasingly complex electronic functions at ever higher speeds and ever lower costs. It is not an exaggeration to say that most of the technological achievements of the past decade have depended largely on microelectronics applications. Small and reliable microelectronics sensing and control devices are the 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 rapid impact on every segment of our economy.

The Microelectronics Technology program is designed to provide 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 will be 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 is intended to train technicians who will 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 the associate 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	3	4	5
	MAT 105	Microelectronics Math I	4	0	4
	ENG 101	Communications Skills	3	0	3
2	ELN 100	Introduction to Electronics	3	4	5
	SCT 101	Introduction to Semiconductor and Microelectronics Technology	3	0	3
	MAT 106	Microelectronics Math II	4	0	4
	ENG 102	Communications Skills	3	0	3
		General Education Elective			
3	DFT 103	Technical Drawing	2	3	3
	ELN 240	Digital Electronics	4	6	7
	EDP 109	BASIC Language I	3	2	4
		Technical Elective			
4	EDP 115	PASCAL	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	88
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)	102
Total Credit Hours Required for Graduation	(With Work Experience)	107

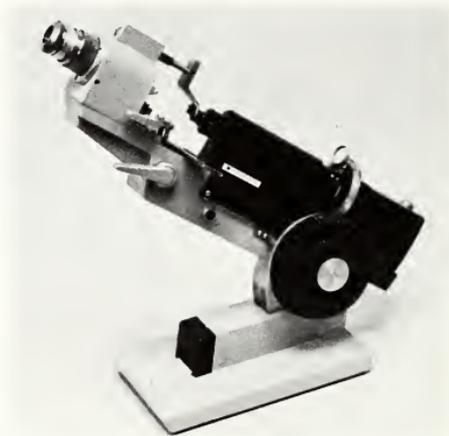
OPTICAL LABORATORY MECHANICS

The Optical Laboratory Mechanics program is a one-year vocational program designed to train 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 designed to teach the student a vast array of technical skills such as beveling, edging, blocking, mounting, and framing of lenses.

Employment opportunities for the optical lab mechanic are available through retail dispensing stores, wholesale laboratories, hospital eye clinics, and by eye doctors desiring to do their own dispensing.

The program is conducted at the Federal Correctional Institute in Butner, North Carolina. A fully equipped laboratory is available. Graduates of the four-quarter, day program receive a certificate. New students may enroll either in the fall or the spring.



DAY PROGRAM/4 QUARTERS

		CLASS HOURS	LAB HOURS	CREDIT HOURS	
1	OPT 1101	Introduction to Optics	3	0	3
	OPT 1102	Spectacle Fabrication and Equipment Maintenance	1	2	1
	OPT 1142	Anatomy and Physiology of the Eye	3	0	3
	MAT 1040	Technical Mathematics	5	0	5
2	OPT 1103	Lens Design I	3	0	3
	OPT 1111	Mechanical Optics I	0	6	2
	OPT 1140	Physics of Light	3	0	3
3	OPT 1104	Lens Design II	3	0	3
	OPT 1112	Mechanical Optics II	0	6	2
	OPT 1131	Optical Dispensing	3	0	3
	OPT 1141	Geometric Optics	3	0	3
4	OPT 1113	Mechanical Optics III	0	12	4
	OPT 1133	Optical Management	2	0	2

Required Courses Credit Hours 37

OPTICIANRY

The Opticianry program is a two-year program of study designed to teach 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 inspection of both plastic and glass single-vision/multi-focal lenses; benchwork which includes hand beveling, safety beveling, heat treating, chemical tempering, tinting, mounting, and framing of lenses; dispensing which includes measuring, adapting, and fitting of eye glasses to the patient as well as a knowledge of both hard and soft contact lenses.

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

An important aspect of the Opticianry curriculum is the student practicum which allows the individual student to practice the competencies and skills learned in the classroom. The 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 which 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	Mechanical Optics	0	6	2
	OPT 121	Anatomy of the Eye	2	0	2
	MAT 140	Technical Mathematics	5	0	5
	ENG 203	Interpersonal Communications	3	0	3
		Technical Elective			
2	OPT 102	Theoretical Optics	4	0	4
	OPT 112	Mechanical Optics	0	6	2
	OPT 122	Physiology of the Eye	2	0	2
	PHY 140	Physics	3	2	4
	MAT 141	Technical Mathematics	5	0	5
3	CHM 140	Chemistry	4	2	5
	OPT 103	Theoretical Optics	4	0	4
	OPT 113	Mechanical Optics	0	6	2
	OPT 141	Geometrical Optics	3	2	4
	ENG 101	Communication Skills	3	0	3
4	OPT 104	Benchwork Procedure	2	0	2
	OPT 114	Mechanical Optics	0	6	2
	OPT 142	Geometrical Optics	3	2	4
	OPT 199	Plastic Materials	2	3	3
	BUS 235	Small Business Management	3	0	3
	ENG 102	Communication Skills	3	0	3
5	OPT 204	Theoretical Optics	2	0	2
	OPT 214	Mechanical Optics	0	6	2
	OPT 231	Ophthalmic Dispensing	5	4	6
	ENG 103	Communication Skills	3	0	3
6	OPT 205	Theoretical Optics	2	0	2
	OPT 215	Mechanical Optics	0	6	2
	OPT 232	Ophthalmic Dispensing	4	4	5
	OPT 261	Contact Lenses I	2	2	3
		General Education Elective			
7	OPT 206	Theoretical Optics	2	0	2
	OPT 216	Mechanical Optics	0	6	2
	OPT 233	Ophthalmic Dispensing	4	4	5
	OPT 262	Contact Lenses II	2	2	3
	OPT 273	Seminar	1	0	1
		General Education Elective			

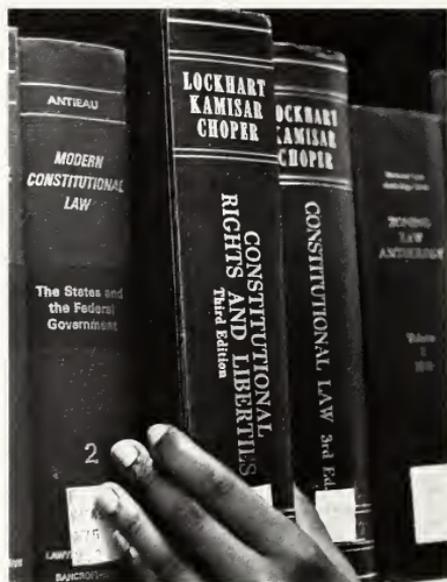
Required Courses	Credit Hours	106
General Education Electives	Credit Hours	6
Technical Electives	Credit Hours	3
Total Credit Hours Required for Graduation		115

PARALEGAL TECHNOLOGY

The Paralegal Technology program of study prepares the student to work under the general direction of lawyers, to relieve lawyers of routine matters, and to assist them in the conduct of more complicated and difficult tasks. Paralegals, also called legal technicians, should be capable of doing independent legal work under the supervision of a lawyer, supervise secretaries in their work for the lawyer, and 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 legal definitions, court systems, laws and techniques of investigation.

Graduates of the Paralegal Technology program should be able to assist a lawyer or group of lawyers directly in most facets of law, but they must always work under the supervision of a lawyer. The legal technician will not be qualified to give legal advice, enter into courtroom procedure, or be involved in litigation except as an assistant to a lawyer. Paralegal graduates will be able to assist in working on probate matters, conducting investigations, searching public records, preparing tax forms, serving and filing legal documents, book-keeping, 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 consecutive quarters for completion. Persons may enroll any quarter. Graduates receive an associate 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	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
		Technical Elective			
7	LEX 220	Commercial Law II	5	0	5
	LEX 225	Law Office Management	5	0	5
		Technical Elective General Education Elective			
8	LEX 230	Family Law	5	0	5
	BUS 220	Accounting for Paralegals	4	2	5
		Technical Elective General Education Elective			

Required Courses	Credit Hours	95
General Education Electives	Credit Hours	6
Technical Electives	Credit Hours	12
Total Credit Hours Required for Graduation		113

PHARMACY TECHNOLOGY

The Pharmacy Technology program is designed to teach students to be pharmacy technicians. These allied health specialists are employed within a pharmacy to perform a variety of technical duties related to preparing and dispensing drugs in accordance with standard procedures and laws under the supervision of a registered pharmacist. Pharmacy technicians are trained to transcribe physicians' medication orders, fill orders to be checked by pharmacists, and 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 attention to professional tasks.

At Durham Technical Institute, the student will receive training in pharmacology and hospital procedures. Additional education will include community pharmacy, pharmaceutical math, chemistry, anatomy-physiology, pathology, and typing. Procedural skills are practiced by the student 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 Hospital, and Lincoln Community Health Center.

With many area hospitals currently faced with rapid expansion of pharmacy services to meet the increasing need for higher quality patient care and to conform to governmental regulations, job opportunities for the Pharmacy Technology graduate remain excellent. Such expansion has necessitated a greater need for technical, supportive personnel to carry out routine functions in the dispensing of drugs to hospital inpatients and ambulatory patients. The formally trained graduate in Pharmacy Technology is prepared to meet this need.

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



DAY PROGRAM/3 QUARTERS

			CLASS HOURS	LAB/CLINICAL HRS.	CREDIT HOURS
1	PHM 110	Pharmacology I	3	0	3
	PHM 101	Hospital Pharmacy	3	2	4
	BIO 120	Anatomy and Physiology	4	2	5
	MAT 150	Pharmaceutical Mathematics	5	0	5
2	PHM 111	Pharmacology II	3	0	3
	PHM 102	Hospital Pharmacy	2	2	3
	CHM 120	General Chemistry	4	2	5
	BUS 111	Pharmacy Typewriting	3	2	4
3	PHM 104	Community Pharmacy	2	0	2
	PHM 105	Pharmacy Clinical	0	24	8
	BIO 121	Microbiology and Pathology	3	0	3

Required Courses Credit Hours 45

PRACTICAL NURSE EDUCATION

The Practical Nurse Education Program prepares students to care for patients in various stages of illness and with a variety of common medical-surgical problems. The licensed practical nurse is dedicated to the prevention of illness, care of the sick, and rehabilitation of the patient.

Approved by the North Carolina State Board of Nursing, this one-year program involves both classroom and clinical activities. The program focus is upon theory and practice. Along with the theory, the student is taught a broad range of nursing activities. These activities encompass direct patient care in relatively stable nursing situations. Formal classroom study takes place at Durham Technical Institute. Practical experiences are gained through the clinical courses which are planned to follow theory and are conducted under the supervision of the instructor. Clinical experiences take place at Duke Medical Center and Durham County General Hospital.

Graduates of the program are awarded a diploma in Practical Nurse Education 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	9	5	11
	NUR 1102	Body Structure and Function	8	0	8
	NUR 1103	Nutrition and Diet Therapy	4	0	4
	NUR 1110	Pharmacology I	3	1	3
2	NUR 1104	Medical and Surgical Nursing I	5	3	6
	NUR 1107	Maternal and Child Health I	6	0	6
	NUR 1111	Pharmacology II	3	0	3
	NUR 1109	Clinical Experience	0	12	4
3	NUR 1105	Medical and Surgical Nursing II	9	0	9
	NUR 1108	Maternal and Child Health II	6	0	6
	NUR 1114A	Clinical Experience	0	15	5
4	NUR 1106	Medical and Surgical Nursing III	7	0	7
	NUR 1112	Nursing Seminar	7	0	7
	NUR 1114B	Clinical Experience	0	15	5

Required Courses Credit Hours 84

RESIDENTIAL CARPENTRY AND PRESERVATION

The carpenter is a highly skilled worker who translates the plans for building into usable space. As the cost of construction goes up, greater demands are placed on the carpenter to be highly skilled in both new construction and preservation of existing buildings. New construction will always be in demand, and rising costs create a demand for workers who understand the preservation and renewal of existing buildings.

Carpenters must have a wide range of skills in order 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 command of the fundamentals of building: math, blueprint 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 the skills of carpentry 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 applying both traditional and modern methods of preserving buildings and materials. This highly skilled technician bridges the gap between old and new technology and building methods. At Durham Technical Institute the tradition of the carpentry trade, 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 28 credit hours in residential carpentry, or (B) a certificate of completion of 34 credit hours in historic preservation. Preservation classes are available during the day and carpentry classes are held during the evening. New students may enroll any quarter. The program is four quarters in length.



DAY AND EVENING PROGRAM/4 QUARTERS

		CLASS HOURS	LAB HOURS	CREDIT HOURS
1	HPT 1101	Introduction to Historic Preservation	4 0 4	
	HPT 1102	Architectural Style and Recording Historic Sites	4 2 6	
	DFT 1118	Architectural Blueprint Reading	3 0 3	
	CAR 1101	Construction Tools	1 7 3	
	MAT 1101	Fundamentals of Mathematics	3 0 3	
2	HPT 1103	History of Building Technology	2 0 2	
	HPT 1104	Building Inspection	4 0 4	
	HPT 1105	Conservation of Masonry and Plaster	2 4 3	
	CAR 1102	Foundation and Framing	1 7 3	
3	HPT 1106	Traditional Woodworking	1 5 3	
	HPT 1107	Construction Management	4 0 4	
	HPT 1108	Conservation of Wood	3 1 3	
	CAR 1103	Exterior Finish	1 7 3	
4	HPT 1109	Restoration Painting	1 5 3	
	HPT 1110	Restoration Workshop	0 8 3	
	CAR 1104	Interior Finish	1 7 3	

Required Courses Credit Hours 52

RESPIRATORY THERAPY

The respiratory therapist is an allied health specialist employed in the treatment, management, control, and care of patients with deficiencies and abnormalities related to breathing and associated organs. The respiratory therapist is involved with patient management and the supervision of technicians and junior therapists. Because their training enables them to perform specific testing techniques employed 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 a training and evaluation area for skills learned and demonstrated during lecture sessions. The clinical phase of the program is conducted at local area hospitals and is administered on a competency-based educational approach to allow for mastery of each skill area.

The seven quarter (21 month) program has academic classes conducted during the day and clinical rotations scheduled both day and evening. Upon completion of the therapist program, the graduate will be 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 (RRT). 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 1 QUARTER

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

DAY PROGRAM/7 QUARTERS

			CLASS HOURS	LAE/CLINICAL HRS	CREDIT HOURS
1	RTH 101	Basic Therapy	3	4	5
	BIO 130	General Biology	3	2	4
	MAT 131	Technical 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	3	0	3
		General Education Elective			
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	3	0	3
		General Education Elective			
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 the treatment, management, control, and care of patients with deficiencies and abnormalities related to breathing and associated organ systems.

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

The Respiratory Therapy Technician program is a four quarter (12 months) program with its academic classes conducted during the evening hours and clinical rotations conducted during the day and evenings. The program is designed to be attractive to those individuals currently working in the field of respiratory care as trainees or assistants. Upon completion of the technician program, the student will be 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 (CRTT). New students enroll in the winter quarter of each year.

The Respiratory Therapy Technician program is accredited 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
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
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
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
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	Career Communications	3	0	3

Total Credit Hours Required for Graduation 75

SECRETARIAL SCIENCE

The demand for better qualified secretaries in our ever-expanding business, industry, government, and professional world is becoming more acute. The purpose of this curriculum is to outline a program that will teach the accepted procedures required by the business, industrial, legal, and professional areas and will enable students to become proficient in their particular field.

The curriculum offers the student courses in typewriting, dictation, transcription, and terminology for employment. The special study in secretarial subjects is supplemented by related courses in English, mathematics, accounting, business law, and personality development.

A graduate of this program will have the knowledge and skills to be a secretary. Graduates will have the necessary skills for dictation and accurate transcription of all correspondence, memoranda, and reports.

Opportunities for employment for the graduate of this program exist in a variety of secretarial positions in legal, medical, engineering, government, and many other technical areas.

An associate degree is awarded to graduates of this six-quarter, day program. 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
	BUS 102	Typewriting I	3	2	4
	BUS 109	Interpersonal Relationships	3	0	3
	MAT 110	Business Mathematics	5	0	5
	ENG 183	English Grammar	5	0	5
2	BUS 103	Typewriting II	2	3	3
	BUS 106	Shorthand I	3	2	4
	BUS 120	Accounting I	5	2	6
	ENG 101	Communication Skills	3	0	3
		Technical Elective			
3	BUS 104	Typewriting III	2	3	3
	BUS 107	Shorthand II	3	2	4
	BUS 112	Records Management	3	2	4
	ENG 102	Communication Skills	3	0	3
		General Education Elective			
4	BUS 205	Typewriting IV	2	3	3
	BUS 108	Shorthand III	3	2	4
	BUS 271	Office Management	3	0	3
	EDP 104	Introduction to Data Processing	5	0	5
	ENG 103	Communication Skills	3	0	3
5	BUS 209	Simulated Office Application	2	3	3
	BUS 206	Dictation and Transcription I	3	2	4
	BUS 213	Office Procedures	3	2	4
		General Education Elective			
		Technical Elective			
6	BUS 207	Dictation and Transcription II	3	2	4
	BUS 215	Work Experience	1	20	3
	BUS 216	Business Communication	3	0	3
	BUS 298	Word Processing I	3	2	4
		Technical Elective			

Required Courses	Credit Hours	95
General Education Electives	Credit Hours	6
Technical Electives	Credit Hours	11

Total Credit Hours Required for Graduation 112



COURSE DESCRIPTIONS

ART

ART 101 Art Appreciation

This is an introductory course in art designed to enable 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 1102 Brakes and Tires

This course is designed to enable students to learn about automotive braking systems employed on both automobiles and light trucks. Emphasis will be placed on brake operation and the servicing and repairing of drum and disc brakes. The second part of the course will emphasize the construction, servicing, and balancing of wheels and tires. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1103 Fuel and Exhaust Systems

This course is a study of fuel and exhaust system operations including failure and correction of related problems. Emphasis will be on diagnosing and repairing failures on carburetion and fuel injection, fuel delivery, and exhaust systems. Students will remove, repair, and replace selected parts of an automobile's system. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1104 Charging and Starting Systems

This course will introduce and explain how automotive charging and starting systems function. Using test equipment, each student must diagnose and repair problems in components such as starters, batteries, wiring, alternators, generators, and regulators. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1105 Air Conditioning

This course provides a general introduction to the principles of refrigeration. Emphasis is placed on assembly components and connections as applied to automobiles and light trucks. The method of operation, control, handling of refrigerants, and safety precautions are studied. Laboratory activities include component installation and service of the air conditioning system. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1106 Steering and Suspension Systems

This course is the study of the principles and functions of the components of an automotive chassis. Practical job instruction in adjusting and repairing of suspension and steering systems will be included. Units to be studied will 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 1107 Tune-Up and Emission Control

This course is a study of automotive ignition and emission control systems. Emphasis is placed on diagnosing with modern test equipment and on malfunctions in these units. Students will perform the following tasks: complete major tune-up, diagnose and repair ignition malfunctions, and test and adjust emission control systems. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1109 Systems Troubleshooting and Servicing

This course permits students to select areas of study that will make them more proficient in specialized phases of automotive repairs. Approved areas include brakes, fuel systems, electrical testing and repairs, front wheel alignment, tune-up and emission controls, and others by prior arrangement. Gas and acetylene welding will be covered as it relates to automotive repair. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: A minimum of one of the following: AUT 1102, AUT 1103, AUT 1104, AUT 1106, AUT 1107, AUT 1113, AUT 1116, AUT 1117, AUT 1118.

AUT 1110 Manual Transmissions and Power Trains

This course is a study of manual transmissions, transaxles, clutch systems, drive lines, and differentials. The student will learn to diagnose problems and to overhaul all types of manual transmissions, differentials, and transaxles. The student will also service clutch systems and drive shafts/lines. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1112 Automatic Transmissions

This course is a study of the operation, service, and repair of automatic transmission systems. Emphasis will be placed on the theory behind the operation of automatic transmissions. Practical shop application will be given to the study of torque converters, hydraulic control systems, and complex planetary gearing. Popular makes of transmissions will be studied. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1113 Engine Fundamentals and Systems Servicing

This course is a study of the theory and principles of the four-stroke cycle engine operation. Emphasis will be on servicing the various engine systems and components. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1116 Electrical Systems and Accessories

This course is a study of various electrical systems and accessories. Specifically, the lighting systems, turn signals, emergency flashers, tracked units, and seat-interlocking systems will be covered. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1117 Engine Service and Repair

This course is designed to enable students to examine all aspects of the internal combustion engine and focuses on engine operation, testing, measuring, troubleshooting, disassembly, and assembly procedures. Major emphasis will be on total engine rebuilding. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

AUT 1118 Technical Specifications

This course emphasizes reading and interpreting automotive charts, graphs, specifications, diagrams, and technical data as found in the various automotive service manuals. The use and interpretation of hydraulic flowcharts will also be covered. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

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 interaction 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 the classification of organisms, 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 120 Anatomy and Physiology

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

BIO 121 Microbiology and Pathology

This course is a comprehensive study of basic microbiology and human pathology. It provides the background and support for student's aseptic techniques, sterile procedures, and study of disease processes for which drugs are used. Included is a general study of the causes of disease, inflammatory processes, epidemiology of nosocomial infections, and the routes of disease transmission. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: BIO 120.

BIO 130 General Biology

This course is an introduction to cellular biology with special emphasis on the ultrastructure of cell anatomy, the molecular aspects of cell physiology, cellular reproduction and genetics, and introductory vertebrate dissection. Laboratory exercises deal with basic biological principles, microscope technique, dissection technique, and the utilization of 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 student in Respiratory Therapy with a comprehensive study of the human organ systems. Emphasis is placed on the physiology of the nervous, cardiovascular, pulmonary, and excretory systems and their interrelation towards the maintenance of homeostasis. Also included are the studies of fluid-electrolyte balance and acid-base regulation. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

BIO 132 Microbiology

This course is an introduction to clinical microbiology with emphasis on the bacterial, viral, and fungal agents of respiratory disease. Included is a general study of bacteriology, immunology, disease transmission, infection processes, nosocomial infection, and microbial control. Laboratory exercises are designed to 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 placed on the clinical manifestations, symptoms, complications, prognoses, and the 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 placed on the cardiac disorders, their interrelationship 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 is an introduction to microbiology with emphasis on its application to the hospital and clinical settings. Included is a general study of bacteriology, immunology, disease transmission, infection processes, nosocomial infection control, aseptic techniques, and disinfection and sterilization procedures. Lab exercises are designed to 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 is a survey of the business world. Emphasis is placed on the environment of business, 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 102 Typewriting I

This course is an introduction to the touch typing system with emphasis on 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.

BUS 103 Typewriting II

This course is a continuation of BUS 102 with emphasis on 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: BUS 102.

BUS 104 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: BUS 103.

BUS 106 Shorthand I

This course is designed to prepare the student in the theory and practice of reading and writing shorthand with emphasis on 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: BUS 102 or Concurrent.

BUS 107 Shorthand II

This course further develops the student's mastery of shorthand through concentrated practice in the reading and writing of shorthand. The course also covers shorthand outlines and two-letter post office abbreviations for 50 states. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: BUS 106.

BUS 108 Shorthand III

This course further emphasizes theory, speed building, and accuracy. Included is an introduction to office style dictation and transcription. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: BUS 107.

BUS 109 Interpersonal Relationships

This course develops the student's self-understanding in relation to the environment with emphasis 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.

BUS 110 Office Machines

This course is a general survey of the use of the electronic calculator and an introduction to various types of word processing equipment utilized by secretarial and general office staff. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

BUS 111 Pharmacy Typewriting

This course is an introduction to the touch typing system with emphasis 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.

BUS 112 Records Management

This course covers the fundamentals of indexing and filing through the use of miniature letters, filing boxes, and guides. Also covered are alphabetical, geographical, subject, and numerical filing systems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

BUS 115 Business Law I

This is an introductory course in the field of business law briefly covering the history of law in general and the court system. Emphasis is placed 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 120 Accounting I

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

BUS 121 Accounting II

Accounting II is a study of partnership and corporate accounting including a study of payrolls and federal and state payroll taxes. Emphasis is placed on the recording, summarizing, and interpreting of data for management control rather than on book-keeping skills. 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: BUS 120.

BUS 122 Accounting III

This course encompasses a study of intercompany investments, international accounting, financial statement analysis, and the principles of cost accounting. Emphasis is placed on the accurate interpretation of financial data, the major elements of a cost accounting system for manufacturing, and the preparation of the statement of changes in financial position. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: BUS 121.

BUS 123 Business Finance

This course is a study of 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 125 Math of Finance

Math of Finance is designed to familiarize accounting majors with the basics of algebra, statistics and computation of interest, discounts, depreciation and depletion. Emphasis is placed on logical thinking and practical applications. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. 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 fundamental of real estate brokerage. The function of the broker and the relationship of real estate to other professions is explored. Detailed coverage of agreements of sale and real estate closings will be included. Additionally, the student will learn 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 205 Typewriting IV

This course develops the student's production and speed building including stroke control, accuracy, and maintenance of speed through the typing of straight copy. Emphasis is placed on the application of typing skills in situations requiring decision making or time limitations and on neat, attractive, and mailable copy. All production work is timed. Course Hours Per Week: Class, 2. Quarter Hours Credit, 3. Prerequisite: BUS 104.

BUS 206 Dictation and Transcription I

This course is designed to develop the student's skill in taking dictation and transcribing at the typewriter. The course includes a review of the dictation of familiar and unfamiliar material at varying rates of speed. A minimal 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: BUS 108.

BUS 207 Dictation and Transcription II

This course develops the student's accuracy, speed, and technical vocabulary needed to satisfy the stenographic requirements for an executive secretary. A minimal 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: BUS 206.

BUS 209 Simulated Office Application

This course provides a transition from classroom to office for the typist. 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: BUS 205.

BUS 210 Investment Analysis

This course is an introduction to the securities market with emphasis on stocks, bonds, mutual funds, and investment management. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 212 Machine Dictation and Transcription

This course consists of study and practice in the use of transcribing machines. Proficiency in word usage, correct grammar, and letter styles is emphasized. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: BUS 103, ENG 102.

BUS 213 Office Procedures

This course is designed to acquaint the student with the responsibilities encountered by a general office worker during the work day. Included are the following: receptionist duties, handling of mail, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: BUS 104, ENG 103, and BUS 108 or BUS 214.

BUS 214 ABC Shorthand

This course is designed to enable the student to develop the principles of ABC Shorthand. The student will gain proficiency in recognizing sounds and recording them in shorthand. Also transcription at the typewriter is introduced. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

BUS 215 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. An opportunity is provided for the practical application of skills and theory from the classroom. Course Hours Per Week: Class, 1. Lab, 20. Quarter Hours Credit, 3. Prerequisite: BUS 213.

BUS 216 Business Communication

This course develops the writing skills and techniques needed for effective business communications. Emphasis is placed on the construction, format, and content of the business letter. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ENG 103.

BUS 217 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 a minute for three minutes. The student is required to produce readable transcripts of this dictation with at least 95 percent accuracy. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: BUS 214.

BUS 220 Accounting for Paralegals

This specialized accounting course is designed to provide the paralegal student with the skills needed to assist an attorney. Content emphasis is placed 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.

BUS 221 Statistics

This course is a study of the theory and application of statistics. Experience is given in the association and use of statistical techniques in the prediction and estimation of the outcome of experiments related to the practical problems in business. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: BUS 125 or MAT 121.

BUS 222 Intermediate Accounting I

Intermediate Accounting I is a thorough treatment of the field of general accounting. The course includes a study of 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: BUS 122.

BUS 223 Intermediate Accounting II

This course is a continued study of intermediate accounting 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: BUS 122.

BUS 225 Cost Accounting

This course is a study of the nature and purposes of cost accounting. Topics include accounting for direct labor, materials, factory burden, job cost, standard cost principles and procedures, selling and distribution cost, budgets, and executive use of cost figures. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: BUS 121.

BUS 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 will be placed 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: BUS 122.

BUS 227 Accounting Theory

This course is designed to provide a frame of reference in the theory of income, asset evaluation, the history of accounting thought, and to provide a general survey in the field of financial accounting. The course also enables 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 and to evaluate critically these abstract points of view. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: BUS 122.

BUS 229 Taxes I

This course is designed to teach persons to understand the application of individual income tax. Emphasis is placed on the U. S. Individual Form 1040 and its multitude of subsidiary schedules. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

BUS 230 Taxes II

This course is a study of 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 for both the individual and business tax return. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: BUS 229.

BUS 232 Salesmanship

This course is a study of the fundamentals of selling. Areas covered include 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. 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 covering 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, sales, purchasing, layout, and design of a business. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 236 Principles of Management

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

BUS 239 Marketing

This course examines the fundamentals of marketing with emphasis on the marketing concepts, 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 of advertising in a free economy. Also included is a study of advertising appeals and an exploration of the issues involved in selecting advertising media. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

BUS 245 Retailing

This course examines methods of retailing with emphasis on franchising, store location and layout, store organization, buying, sales, 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 269 Auditing

This course provides the student a knowledge of how account balances are derived and knowledge of the types of transactions or entries that may alter the proper statement of various account balances. Standard procedures are applied to the account balances in an effort to prove their accuracy. These audit procedures are reviewed and applied to a hypothetical company which is used throughout the course. Emphasis is placed on the responsibilities of the auditor to his client, to interested third parties, and to the general public. Course Hours Per Week: Class, 3. Quarter Hours Credit, 4. Prerequisite: BUS 122.

BUS 271 Office Management

This course covers the fundamental principles of office management. Emphasis is placed on the role of the office manager, office functions, office automation, planning, controlling, organizing, and human relations. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 272 Principles of Supervision

This course, oriented towards the first-line supervisor, covers some of the fundamentals and special techniques of supervising employees along with other job factors. 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 the 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 is an introduction to the history of the labor movement in the United States. Careful examination is made of major legislation affecting workers and the collective bargaining process. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 290 Medical Terminology

This course is an introduction to medical terminology as it occurs in the study of human anatomical systems. Emphasis is placed on the use, spelling, English translation, and pronunciation of these terms. Through such study, familiarity with the structure of each anatomical system and with some of the more common diseases is acquired. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

BUS 291 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 will become proficient with basic medical prefixes, suffixes, and roots and will acquire a basic knowledge of elementary anatomy and physiology. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: BUS 104, BUS 290 or equivalent.

BUS 298 Word Processing I

This course is designed to provide an in-depth introduction to word processing as a total communications system for both administrative and correspondence positions. Emphasis is placed on vocabulary, applications, and operations of various components of the word processing systems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: BUS 104 or equivalent.

BUS 299 Word Processing II

This course is designed to provide production level skill development in word processing. Emphasis will be placed upon accuracy in production as well as skills in editing and formatting of technical, medical, accounting, and executive documents. In addition, advanced applications of word processing will be explored. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: BUS 298.

CARPENTRY

CAR 1101 Construction Tools

This course is an introduction to the tools and materials of the carpentry trade. The student will develop skills in the use of measuring tools and hand and power wood-working tools. Course Hours Per Week: Class, 1. Lab, 7. Quarter Hours Credit, 3. Prerequisite: None.

CAR 1102 Foundations and Framing

This course covers foundations and rough framing. The objective of the course is to develop skills in the layout of buildings, building foundations, and framing floors, walls, doors, windows, and the use of tools. Course Hours Per Week: Class, 1. Lab, 7. Quarter Hours Credit, 3. Prerequisite: None.

CAR 1103 Exterior Finish

This course covers roof framing, roofing, and exterior finish. The objective of the course is to develop skill in the use of tools to build those portions of a building. Course Hours Per Week: Class, 1. Lab, 7. Quarter Hours Credit, 3. Prerequisite: None.

CAR 1104 Interior Finish

This course covers interior finishing and millwork. The student will develop skills in trim work, flooring, and hardware installation. The basic skills of cabinet work are introduced. Course Hours Per Week: Class, 1. Lab, 7. Quarter Hours Credit, 3. Prerequisite: None.

CHEMISTRY

CHM 120 General Chemistry

This course is an introduction to inorganic and organic chemistry. Included is 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, ionization and acid-base chemistry, and organic biochemistry. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

CHM 130 Chemistry

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

CHM 140 Chemistry

This course covers the physical and chemical properties and changes of substances, as well as elements, compounds, structure of matter, chemical combinations, metals, acids, bases, salts, solutions, and emulsions. Also included is an introduction to organic chemistry with an emphasis on polymerization and plastics. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

CHM 167 Chemical and Physical Properties

This course provides an introduction to inorganic and organic chemistry. Included is 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 101 Introduction to Criminal Justice

This is a general course designed to familiarize 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 study is primarily concerned with scientific efforts to understand crime and to understand man in relation to crime phenomena. It deals with those definitions and formulations of crime and criminals upon which an adaptation system of criminology must be based. It examines the law as the basic framework in which social deviations of a peculiar character assume their functions as criminal acts and those broad principles upon which a science of criminology must meet. 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 that has developed as a means of dealing with delinquency. Particular emphasis is placed on the origins of delinquency, treatment programs, and legal rights and procedures that have developed in the juvenile system. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 115 Criminal Law

This course introduces the student to the fundamental concepts of criminal law as it functions within the context of criminal procedure. The emphasis is on the procedure which affects the enforcement and administration of law. The focus is on the laws of arrest, search and seizure, and the basic tenants of constitutional rights as they affect criminal procedure. Special attention will be given to Chapter 15A, the North Carolina Criminal Procedure Act, and the court decisions that shape the application of procedural law. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 125 Due Process

This course is designed to provide the student with a review of court systems, procedures from incident to final disposition, and principles of constitutional, federal, state, and civil laws as they apply to and affect law enforcement. Emphasis is on the state and federal courts and their procedures. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 151 Applied Psychology for Police

This course deals with the application of psychological principles to common police problems by focusing on four main areas: officer stress awareness, crisis theory, psychology of interrogation and confession, and psychology of the offender. Officer stress awareness deals with the means of coping with job stress; crisis theory deals with domestic crisis, rape reactions, trauma, and victim crisis reactions to general crimes; the psychology of interrogation and interviewing involves a study of the sociopathic personality and his reaction to interrogation; the psychology of general offender criminals deals with behavioral patterns and motives of these personalities. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 201 Motor Vehicle Law and Traffic Administration

This course covers the history of traffic enforcement problems and gives an overview of the problems to-day. Attention is given to the 3 E's (Engineering, Education, Enforcement) and legislation, organization of the traffic unit, responsibilities to the traffic function of the various units within the law enforcement agency, enforcement tactics, evaluation of traffic program effectiveness, and allocation of men and materials. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 205 Evidence

This course systematically reviews the central issues of the law of evidence. The major topics include court decisions relating to the exclusion of evidence, rules of evidence, physical evidence, testimonial evidence, and expert testimony. The course explores the application of the law of evidence to police preparation for courtroom 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 patterns, and the Henry system for classification. Emphasis is on training in classification and filing with 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 the fundamentals of investigation, crime scene search, recording, collection and preservation of evidence, sources of information, interview and interrogation. It also deals with case preparation and 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 is a continued study of criminal investigation including a general survey of the methods and techniques used in modern scientific investigation of crime. It emphasizes the practical application of these methods through use of scientific equipment. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: CJC 210.

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. Study focuses on each category of abused drugs and examines the specific generic examples of the drug category. Also studied will be the psychological and physical effects of the drug as well as dependency, adverse reaction, and toxicity of the drug. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 216 Advanced Criminal Law

The major focus of this course will be on the definition of the elements of statutory and common law crimes. It will involve the analysis of statutory elements as well as judicial interpretation and definition of common law and case law for non-statutorily defined offenses and elements. Emphasis is placed on general principles of criminal law application such as the concept of accessory to the crime, double jeopardy, and self-defense. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 217 Patrol Procedures

This course deals with the function and methods of patrol and all functions necessary to create, monitor, and maintain effective patrol. Special emphasis is placed on the analytical tools used to determine patrol staffing needs and allocation of patrol units in specific areas including examination of current field studies of random patrol, special unit assignments, and current staffing studies. Emphasis is also given to crime reporting systems and statistics as a tool for planning effective patrol assignments and patterns. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 220 Police Organization

This course is an examination of the structure and function of the police organization with emphasis on organizational structure, personnel practices, department policies and procedures, employment law, motivation, and organizational behavior. Decision making and budgeting are focal topics. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 230 Supervision

This course deals with the basic principles of supervision including the functions of planning, directing, and controlling group activities. Emphasis is on organizational structure, motivation, performance evaluation, counseling, personnel law, training methods, and group dynamics. Special attention is given to supervisory responsibilities under current interpretations of government regulations and laws governing personnel actions as well as legal liability. Supervisory skills are developed through application of general principles to specific case studies. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 270 Constitutional Law

This course is an intensive study of the United States Constitution and court decisions based on the Constitution. It concentrates on the court and court decisions which determine the admissibility of evidence in criminal cases and which affect police procedures. The criminal procedure process with emphasis on the role of law enforcement in the process is also covered. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

CJC 280 Civil Law and Procedure

This course will present the basic principles of civil law, define the differences of civil and criminal law in substance and procedure, and examine the application of civil law in areas relevant to police work. There will be special emphasis 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.

DENTAL

DEN 101 Dental Anatomy

This course is an introduction to the anatomy of individual teeth. The laboratory portion includes scale drawings of each tooth from central incisors through the second molar on one side of the upper and lower arches. Each of the teeth 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 is a study of the anatomy and physiology of the head, oral cavity, dentition and supporting structures, the temporomandibular joint, occlusion and malocclusion. The course will also expose the student to the morphological, functional, and esthetic relationship between the teeth and supporting dentition. 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. The laboratory exercises are designed to illustrate the properties and uses of the materials studied and the result of proper and improper manipulation. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: None.

DEN 106 Complete Denture Techniques

This course is an introduction to the basic techniques for complete denture construction. Laboratory includes construction of 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 the fabrication of complete dentures. Laboratory work includes construction of 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 is a study of the basic techniques used in the fabrication of cast removable partial denture framework utilizing a chrome-nickel alloy. The laboratory phase includes practical exercises in the fundamentals for surveying the master model and designing the partial denture framework. 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 is a study of various types of removable appliances that include wrought clasps, combination cast and wrought metal frameworks, orthodontic/pedodontic appliances, and maxillofacial prosthesis. The laboratory phase includes fabrication of 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 is a study of the physical and mechanical properties of both precious and non-precious metal alloys, including cast and wrought structure, and the use of various casting and soldering investments. Also included is troubleshooting possible causes for defective castings. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisites: DEN 104, SCI 150.

DEN 113 Cast Inlay and Crown Techniques

This course is a study of techniques for fabricating cast gold restorations and an introduction to terminology and techniques specific to inlays and crowns. In the laboratory, casts and dies are prepared from impressions. Waxing, carving, investing, casting, and polishing of simple and complex inlays, full crowns, and three-quarter crowns are performed. 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 is a study of the techniques used in 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 is a study of the various techniques used for fabricating gold crowns and bridges. The laboratory phase utilizes 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 101 Advanced Complete Denture Techniques

This course is a continuing study of complete denture techniques that 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 is a continuing study of removable partial denture techniques that include articulating casts through the use of 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 the removable partial denture. 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 is a continuing study of various removable partial denture concepts. The course includes precision stress-breaking devices, unique clasping techniques, and an in-depth study of design variations. Course Hours Per Week: Class, 1. Lab, 9. Quarter Hours Credit, 4. Prerequisite: DEN 204.

DEN 207 Ceramic Techniques

This course is a study of the physical properties and manipulation of ceramic materials for fabricating porcelain jacket crowns. Laboratory phase includes preparing dies, adapting platinum matrices, forming, firing, glazing, and personalization. Course Hours Per Week: Class, 2. Lab, 9. Quarter Hours Credit, 8. Prerequisite: DEN 116.

DEN 209 Jurisprudence and Ethics Seminar

This course is a study of the history of the dental profession and the dental laboratory industry, the legal and ethical aspects of the industry, and the dentist-laboratory relationships including an in-depth study of the certification and licensure issues. 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 is a study of the 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 is a continuing study of the techniques for bonding dental porcelain to a non-precious dental alloy. The laboratory phase includes various 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, 8. Prerequisite: DEN 211.

DEN 213 Dental Laboratory Practice

This course is designed to give the student practical experience in interpretation of the written work authorization as well as fabrication of prosthetic appliances. Advisement and supervision will be given by the instructors. Class structure will be as near the structure of a commercial dental laboratory as possible with emphasis placed on the dentist-laboratory techniques and relationships. Students will be 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 is a continuation of practice in fabrication of appliances from casts and prescriptions supplied by various legal sources. Continued emphasis is placed on ethical dentist-laboratory relations. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisite: DEN 213.

DRAFTING

DFT 103 Technical Drawing

This is an introductory course in the fundamentals of basic drafting. The use of drafting equipment, lettering, geometric construction, sketching, size and shape descriptions, orthographic projection, dimension, and sections will be included. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: None.

DFT 201 Electronic Drafting

This course is an introduction to the principles and practical applications of drafting as it relates to the electronic field. The course will review DFT 103 as well as cover basic drawing interpretation, datum dimensioning, schematic symbols, block diagrams, and printed circuit board layout. Students will see first hand 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 presents an introduction to 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 109 and DFT 103 or DFT 1101.

DFT 1101 Architectural Drafting I

This course is an introduction to drafting and the study of drafting practices. Selection, use and care of drawing instruments, single-stroke lettering, and freehand sketching consisting of orthographic and sectional drawings will be covered. In addition, instrument drawings stressing the application of dimensioning, sectioning, multiview, axonometric, and oblique projections will be taught. Drawing reproduction will also be 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. The principles and practice of drawing will be applied in a set of house plans designed by the student. Ramification of architectural drawings and designs relating to residential construction, preliminary considerations, exterior design, wall sections, elevations, wiring, plumbing, mechanical layouts, and rendering will be included. Course Hours Per Week: Class, 3. Lab, 12. Quarter Hours Credit, 7. Prerequisite: DFT 1101.

DFT 1103 Architectural Drafting III

This course is an introduction to 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. Included in the construction drawings will be a floor plan, typical end wall section, transverse section, isometric plumbing plan, as well as door and wall details and various legends. The use of technical pens for inking on drafting film will constitute 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 is an introduction to commercial architecture with emphasis on construction details and structural members. Emphasis will be placed on a study of the commercial applications of building materials and their uses in small buildings. A study of space and functional operations will enable the student to understand the various design considerations. Course Hours Per Week: Class, 3. Lab, 12. Quarter Hours Credit, 7. Prerequisite: DFT 1103.

DFT 1105 Mechanical Drafting

This course is designed to develop competence in the field of drafting technology. Emphasis will be placed on the techniques and principles of drafting and the understanding of drafting equipment. Students will apply this knowledge in the production of working and technical drawings. Course Hours Per Week: Class, 1. Lab, 3. Quarter Hours Credit, 2. Prerequisite: None.

DFT 1106 Blueprint Reading I: Mechanical

This course introduces the student to the interpretation and reading of blueprints. Also covered is information on the basic principles of the blueprint: lines, views and dimensioning, and procedures and notes. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: DFT 1105.

DFT 1107 Blueprint Reading II: Mechanical

This course provides further practice in interpretation of blueprints using prints supplied by industry. Emphasis will be placed 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 Descriptive Mathematics

This course is an introduction to the graphic solutions to problems. Basic descriptive geometry, auxiliary views, oblique views, curved lines, and revolutions will be covered. This course will also deal 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 is a study of basic constructional 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 the development of working drawings for structural building parts: threads and fasteners, welding symbols, and trusses. A complete working drawing will be included in the course as well as discussion of standard structural members. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5. Prerequisite: DFT 1101.

DFT 1114 Technical Illustration

This course is designed to develop competence in the field of architectural and technical illustration. The course will cover techniques of pictorial illustration, including sketching, isometrics, inking and shading, air brush techniques, 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 will be employed. Also included will be orientation, drainage, zoning, and ecological factors that relate to building plots. Course Hours Per Week: Class, 3. Lab, 5. Quarter Hours Credit, 5. Prerequisite: None.

DFT 1117 Architectural Estimating

This course is designed to enable the student to estimate the building cost of a residence. Included in the course will be foundations, framing, plumbing, electricity, and finishing. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: DFT 1112.

DFT 1118 Architectural Blueprint Reading

This course introduces the student to the interpretation of architectural blueprints. Also covered is information on the basic principles of the blueprint: lines, symbols, views, dimensioning, and procedures and notes. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ECONOMICS

ECO 102 Economics I

This course covers basic 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, demand and supply, and pricing. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ECO 104 Economics II

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: ECO 102.

ELECTRONIC DATA PROCESSING

EDP 102 Keypunch

This course deals with the basic operation of data entry machines, utilizing the 029 keypunch for instruction and speed building. Topics covered include control of the machine, familiarization with keyboard, preparation and use of drum cards and related machine functions. The student should be able to punch a minimum of 8,000 strokes per hour at the completion of the course. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

EDP 104 Introduction to Data Processing

This introductory course, assuming no prior knowledge of computers or programming, is designed to give the student an understanding of the fundamental concepts of electronic data processing. Topics include data processing terminology, the role of a data processing department within an institution, historical development of computer hardware, business applications for computers, components of a computer system, input/output devices, the program development cycle, binary and hexadecimal number system, and an introduction to computer programming using the BASIC language. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

EDP 106 Computer Programming Logic

This course is a study in program design and the resolution of business-oriented problems into flowcharts. The student is trained to approach a problem in a systematic manner and to design logical solutions using the correct flowcharting symbols and good flowcharting techniques. Emphasis is placed on analysis of program specifications, logical problem solving, development of structured program logic, 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. Students will learn the BASIC language commands and use them in problem solving and program development. Concepts of microcomputer hardware and computer applications will be introduced. Laboratory exercises will 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: None.

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. Students will design, code, document, and operate a multi-program system. Creative skills and effective program design will be emphasized throughout the course. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 109.

EDP 111 COBOL I

This course develops the student's flowcharting skill and introduces the COBOL language for use in writing business-oriented programs that process card and printer files. The student receives keypunch experience through keypunching programs. Emphasis is placed on the application of structured programming, 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 in writing structured COBOL programs for business applications. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: EDP 104, EDP 106.

EDP 112 COBOL II

This course, a continuation of COBOL I, is designed to improve 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 table processing. Laboratory assignments require the student to develop programs to solve business problems utilizing these new concepts. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 111.

EDP 115 PASCAL

This course is an introduction to the PASCAL programming language. Emphasis is on problem solving, structured programming techniques, and the development of application programs involving the use of calculations, iteration, recursion, arrays, and subprograms. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 109 or EDP 111.

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 will prepare control cards for multiple types of job streams. Several non-JCL operating system facilities are discussed such as the linkage editor, utility programs, and Virtual Sequential Access Method (VSAM). Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 112.

EDP 206 Computer Language Survey

This course is a study of the basic rules and requirements of several computer languages including a discussion of general, good programming techniques used in any language. The languages studied are selected by the instructor. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 111.

EDP 207 Beginning RPG

This course introduces the fundamentals of the RPG II language for developing programs executed on the IBM System/3 computer. The student is required to write a series of entries on predefined specification forms that define the input, processing, and output. Emphasis is placed on fixed RPG logic, input/output processing, arithmetic operations, edit codes, comparing, control breaks, fetch overflow, field/record relations, multiple record relations, multiple record types, and LOOK AHEAD. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: EDP 104, EDP 106.

EDP 208 Advanced RPG

This course, designed as a continuation of Beginning RPG, utilizes more advanced concepts of the RPG programming language. The student will write several business application programs which emphasize the use of arrays, tables, matching records, sequential and indexed sequential file processing, READ-DEMAND files, and exception output. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 207.

EDP 209 COBOL III

This course is designed to utilize advanced COBOL concepts and programming techniques. Students will work in small groups and have their work reviewed by 'peer' programmers who make up the programming team. The advanced concepts covered in the class include work with multi-dimensional tables, subprograms, and the internal SORT routine. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 215.

EDP 210 PL/1 Programming

This course is designed to give the student 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 the programming techniques. Subject materials 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.

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 placed 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 will design, code, test, and debug several FORTRAN programs using the WATFIV compiler. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 112.

EDP 212 Assembler Language I

This is an introductory course in assembler language programming for the IBM 370 computer. While providing an understanding of the fundamental differences between high-level and low-level programming languages, the course stresses how the computer actually operates on data. Input/output will be confined to card input and printer output. The topics covered include System 370 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. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisites: EDP 104, EDP 106.

EDP 213 Assembler Language II

As a continuation of Assembler Language I, this course is designed to provide 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 subroutines, address modification, use of registers, table processing, and debugging techniques. Emphasis is placed on the application of these techniques in solving business problems. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 212.

EDP 214 Computer Systems I

This course is a continuation of COBOL II utilizing more advanced programming techniques. The advanced design and programming concepts include the Operating System, Job Control Language, utility programs, principles of structured programming, testing and debugging techniques, table handling, magnetic tape/disk concepts, input editing, sequential file processing, and program and system documentation. Laboratory assignments include programs to edit input data and to create, maintain, and update sequential disk files. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 112.

EDP 215 Computer Systems II

As a continuation of Computer Systems I, this course is designed to give the student the kind of experience in problem definition, problem analysis, programming, testing, and documentation that would ordinarily be found in a working environment. Emphasis is placed on typical business systems such as inventory control and payroll calculations as well as on developing proficiency in the use of indexed sequential file processing, utility sorts, table processing, and copy utilities. The student will write programs to create, maintain, and update indexed sequential files. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: EDP 214.

EDP 216 Data Processing Project

In this course the student works in a data processing environment to acquire on-the-job experience. Each student is assigned a business-related project in a local business, industry, or governmental agency, or within Durham Technical Institute's administrative data processing department. Learning objectives are identified at the beginning of the quarter by the student, the instructor, and the job supervisor. The schedule for work hours is flexible. Course Hours Per Week: Class, 1. Lab, 10. Quarter Hours Credit, 2. Prerequisite: Last quarter standing or approval of coordinator.

EDP 219 Systems and Procedures

This is an introductory course in systems analysis and design. It provides the student with an understanding of the various tools employed by the analyst in the creation of better systems. Subject areas include preliminary investigation, detailed systems design, and systems development. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: EDP 214.

EDUCATION

EDU 101 Child Growth and Development I

This course is an introduction to the basic principles of child development. Emphasis is on the factors influencing development, the developmental needs of children, and the role of the caregiver in an affective day-care center. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 102 Child Growth and Development II

This course is a detailed study of the physical, social, psychological, and cognitive development of the child from birth to age three. Emphasis is on the importance of experiences in establishing behavior patterns, attitudes, and interpersonal relationships. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: EDU 101 or approval of coordinator.

EDU 103 Child Growth and Development III

This course is an analysis of the development of the preschool child, ages three to six, and the school-age child, ages six to twelve. The physical, emotional, social, moral, and cognitive aspects of growth are explored. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: EDU 102 or approval of coordinator.

EDU 104 Creative Activities

This course covers creative activities including art, music, and crafts aimed at the stimulation of infants and the readiness skills for preschoolers. Basic concepts are examined through a creative approach with emphasis on physical and mental development in preparing young children for learning experiences that lie ahead. The student demonstrates competencies in the selection, application, and designing processes of developmentally appropriate activities for infants and preschoolers. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 105 Health and Safety of Young Children

The objectives of this course are to provide the students with an overview of childhood illnesses, basic first aid instruction, and training in the safe operation of a day-care center. The student is prepared to promote and maintain the health of the children in the center. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 106 Children's Literature

This course is a survey of the various types of children's literature. Discussions focus on the value of children's literature, techniques for incorporating it into the program, and its role in an affective day-care center. The student has the opportunity to evaluate books based on specific criteria, develop topical files, and select projects of interest leading to curriculum design. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 107 Interpersonal Relationships

This course provides the student a framework for understanding and utilizing those emotional and social skills necessary for effective communication from a perspective aimed at three levels: caregiver-child, caregiver-parent, and caregiver-co-worker. Special emphasis is placed on the development of the child's positive self-concept. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 108 Physical Activities

This course is an introduction to developmentally appropriate physical activities for infants and preschool age children. Participation in rhythmic games, songs, dance, creative movement, and dramatization provides opportunities to learn basic concepts and stimulate thinking. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 109 Exceptional Child

This course is designed to orient the student to the field of exceptional children. The student is exposed to current programs, community resources, and professionals essential to supportive efforts in the education and care of the various areas of exceptionalities. Emphasis is placed on procedures in early diagnosis, referral, and remediation. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 110 Nutrition

This course, an introduction to the nutritional needs of infants and young children, is designed to enable the student to identify those nutrients essential for life and well-being and their metabolic functions and food sources. Attention is given to developing the skills needed to plan menus and prepare and serve food in a child-care center, as well as to techniques that can be used to educate children and parents about good nutrition. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 114 Language Arts and Math Concepts

This course is designed to familiarize the student with the sequential development of language arts and math concepts. The student learns to utilize daily experiences and planned activities to teach children language and math skills. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 115 Introduction to Day Care

This seminar-practicum course is an introduction to day care with emphasis on the goals of affective care and the development of a nurturing environment. In addition, the student learns how to provide physical care for infants and young children. The practicum includes fieldtrips, supervised observation, and experience working in a day-care center. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5. Prerequisite: None.

EDU 116 Program Planning for Infants, Toddlers, and Two-Year-Olds

This seminar-practicum course is designed to provide students with the skills and knowledge needed to select developmentally appropriate activities for infants, toddlers, and two-year-olds. Students will learn to evaluate the developmental level of individual children and plan programs that maximize their opportunities for growth and learning. The implications of group care for same-age and mixed-age groups will be explored. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5. Prerequisite: EDU 115 or approval of coordinator. Corequisite: EDU 102 or approval of coordinator.

EDU 117 Curriculum Planning for Three-Through Five-Year-Olds

The objective of this seminar-practicum course is to enable students to plan and implement curriculums for children three to six years of age. Different curriculum models and evaluation methods will be examined, and students will learn to formulate long-term objectives and daily program plans. Attention will be given to the practical implications of meeting the developmental needs of individual children within a group setting. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5. Prerequisite: EDU 115 or approval of coordinator. Corequisite: EDU 103 or approval of coordinator.

EDU 118 Parent Involvement

This seminar practicum course examines the relationship between the family and the day-care center. The emphasis is on the family's influence on the child, the interaction between the parents and the caregivers, and the role of the caregiver in assisting the parents with child guidance. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5. Prerequisite: EDU 115 or approval of coordinator.

EDU 119 Human Relations Training

The seminar portion of this course is structured around "The Heart of Teaching," a training program designed to help teachers develop their interpersonal skills, and the use of affective activities for children. The student learns to help children recognize, accept, and express their feelings. The practicum enables the student to practice these skills. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5. Prerequisite: EDU 115 or approval of coordinator.

EDU 120 Administration of a Child-Care Program

This course prepares the student to assume an administrative position in a day-care center. Emphasis is placed on developing the skills needed for effective organization, supervision, and management. Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5. Prerequisite: EDU 115 or approval of coordinator.

EDU 204 Preschool Education

This course is an introduction to the history and philosophy of early childhood education with emphasis on the role of the teacher in implementing program goals through curriculum development. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 205 Community Resources

This course offers the student a general overview of community resources and an understanding of how they can best be utilized for effective child-care center operations. Discussions focus on the use of resources to enrich program planning and to provide assistance to individual children and their families. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

EDU 206 Adjustment Problems in Childhood

This course is a survey of the normal adjustment problems of childhood. Attention is given to defining the range of normal behavior, knowing when to refer to a specialist, and handling specific problems. Techniques for promoting desirable behaviors and for coping with undesirable behaviors are explored. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: EDU 103 or approval of coordinator.

EDU 207 Career Information

This course is designed for the student approaching the completion of the curriculum. It provides information on career opportunities in the field of child-care and skills to locate and maximize these opportunities. As part of the requirements for this course, the student defines personal goals and conducts job searches. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisites: EDU 103, EDU 107, EDU 204.

ELECTRICITY

ELC 100 Basic Electricity

This course is a study of basic principles, concepts, and theories of DC/AC electricity. Emphasis is placed 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, 3. Lab, 4. Quarter Hours Credit, 5. Prerequisite: MAT 120 or satisfactory score on placement test.

ELC 1101 Introduction to Electricity

This course is designed to acquaint the beginning student in electricity with the elementary principles and theory of electricity. The course includes an introduction to basic electric units, Ohms Law, Kirchoff's Law, magnetics, basic electrical measuring instruments, inductance, capacitance, and the basic electrical circuits. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6. Prerequisite: None.

ELC 1102 Residential Wiring

This course introduces the student to 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, 5. Prerequisite: ELC 1101 or equivalent.

ELC 1103 Motor and Transformer Theory

This course introduces the student to the principles and characteristics of direct and alternating current machines. Emphasis is placed 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 will include transformer losses, taps, delta connections, wye connections, and transformer banks. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: ELC 1101 or equivalent.

ELC 1104 Commercial and Industrial Wiring

This course is designed to acquaint 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 placed 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 Motor Controls

This course includes principles and characteristics of direct and alternating current machines and methods of controlling them. Emphasis is on the various types of single-phase and poly-phase motors, DC motors, motor starting and speed control, and switching and reversing with manual and electromechanical control devices. In addition, electronic motor control devices and techniques will be covered. Devices covered will include but will not be limited to solid state relays, TRIAC's, DIAC's, lead indicators, transient protection, and transformer isolation. Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4. Prerequisite: ELC 1103 or equivalent.

ELC 1106 Blueprint Readings and Calculations

This course provides an in-depth study in designing and calculating for the advanced student in the Electrical Installation and Maintenance program. Emphasis is placed 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 1108 Industrial Electrical Systems

This course introduces the elementary principles, equipment, and techniques of industrial electrical systems. The course includes limit switches, relays, timers, photo cells, temperature and pressure sensors, liquid level, fiber optics, ultrasonics, and proximity detectors as they relate to air-, mechanical-, or hydraulic-operated systems. Emphasis will be placed on schematic and ladder control diagrams and safety precautions. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisites: ELC 1101, PHY 1111 or equivalents.

ELC 1109 Maintenance Procedures and Troubleshooting Techniques

This course acquaints the student with maintenance management techniques and systems. Emphasis will be placed on periodic planned maintenance including checking brushes; cleaning relays, switches, motors, and control cabinets; use of solvents and lubricants; safety precautions; and motor care in a hostile environment. The course also covers troubleshooting logic, fault isolation, testing, system analysis, and high voltage distribution and safety precautions. Course Hours Per Week: Class, 3. Lab, 3. Quarter Hours Credit, 4. Prerequisite: ELC 1108 or equivalent.

ELECTRONICS

ELN 100 Introduction to Electronics

This course is a study of the fundamental principles, concepts, and theories of electronics. Emphasis is placed on solid state devices and their applications including diodes, bipolar transistors, field-effect transistors, photo-devices, special-purpose devices, and IC circuit packages. Course Hours Per Week: Class, 3. Lab, 4. Quarter Hours Credit, 5. Prerequisite: ELC 100.

ELN 101 DC Circuit Analysis

This course is a study of the principles, concepts, and theories of DC electricity. Emphasis is placed 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 is a continuation of ELN 101 and a study of the AC fundamentals, principles, concepts, theories, 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 including 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 circuit configurations, and device parameters. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: ELN 102 or equivalent.

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 will also be included. Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3. Prerequisite: ELN 218 or equivalent.

ELN 205 Application of Active Devices I

This course is a study of circuit applications of active devices through the techniques of graphical and numerical circuit analysis. Topics include the Junction 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 included are 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. Prerequisite: ELN 205 or equivalent.

ELN 218 Application of Active Devices II

This course is a study of 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 industrial active devices to include UJT's, DIAC's, TRIAC's and transducers. 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 covered will include op-amps, active fillers, timer circuits, comparator, summing amps, PLL circuits, and optoelectronic devices. Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 6. Prerequisite: ELN 216 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, storing, timing, gating, and counting. Typical applications in industry are presented. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 7. Prerequisite: MAT 162 or MAT 106 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 that apply to all models of microprocessors. A linear progression from fundamental principles to complete systems covering both the Motorola MC 6800 and Intel 8080 microprocessors will be included. Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 7. Prerequisite: None.

ELN 280 Microprocessor Applications

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

ELN 290 Robotics I

This course is designed to introduce the field of robotics. Specific topics will include the fundamentals of robotic operation, including 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 the use of 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 1101 Industrial Electronic Systems

This course includes an overview of diodes, power supplies, filters, transistors, thyristors, and gates. Also the principles of positive and negative feedback, amplifier classes, cascading, DIAC's, and TRIAC's will be discussed. Emphasis will be 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 1108 or equivalent.

ENGLISH

ENG 100 Reading and Study Skills

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

ENG 101 Communication Skills

This is a fundamental course in written communications 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: None.

ENG 102 Communication Skills

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

ENG 103 Communication Skills

This course, expanding the skills of essay writing, is designed to enable the student to master selected processes in composition and to prepare a documented research paper. Upon completion of this course, the student will be 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 is designed to enable the student to master sentence structure, usage, mechanics, paragraphing, and the most common forms of rhetoric. Regular theme writing covering the several forms of composition is a central focus of the course. Also the student is taught to analyze a work of literature. Course Hours Per Week: Class, 3, Quarter Hours Credit, 3. Prerequisite: None.

ENG 107 Composition II

This course is a continuation of English 106, designed to enable 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 is an introduction to the critical study of poetry and drama, designed to enable 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.

9:35-7:40
7:00-8:00

ENG 183 English Grammar

This course is an introduction to the basics of English usage designed to enable the student to apply to his/her field of study 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: None.

ENG 203 Interpersonal Communications

This course is designed to enable the student to interact effectively with other people in social or career situations. The student is trained to speak with poise before a group, to participate in a group, and to understand the behavior patterns of oneself and of others in improving interpersonal relationships. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ENG 204 Introduction to Public Speaking

This course is designed to train the student to develop confidence and poise in various speaking situations through an awareness of the process involved in public speaking and interpersonal communication by participating in formal speeches, group discussions and conversations, and 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 of American literature from its colonial beginnings to the Civil War, designed to enable the student to study critically selected readings of colonial writers; American Romanticism, symbolism, and transcendentalism; and literary criticism. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisites: ENG 106, ENG 107, ENG 108.

ENG 206 American Literature II

This course is a critical survey of selected masterpieces of American literature from the Civil War to the present, designed to enable the student to study critically 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 is a course in the principles of effective technical communications, designed to enable the student to prepare an informal written report, to prepare 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 211 World Literature I

This course is a critical survey of selected masterpieces of western literature from the ancient world through the Middle Ages, designed to enable the student to analyze and critique representative works and demonstrate an understanding of the growth of western literature as an art form. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisites: ENG 106, ENG 107, ENG 108 or approval of instructor.

ENG 212 World Literature II

This course is a critical survey of the masterpieces of western literature from the Renaissance through Neoclassicism and into the beginnings of Romanticism, designed to enable the student to analyze and critique representative works and 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 instructor.

ENG 213 World Literature III

This course is a critical survey of the masterpieces of western literature from the Romantic period through Nineteenth Century Realism and Naturalism and into the Modern period, designed to enable the student to analyze and critique representative works and 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 instructor.

ENG 290 Reading Advancement

This course is designed to enable the student to improve reading comprehension, speed, and perception; to become aware of the interrelationships of reading, writing, speaking, listening; and to be able to use them as effective aids in improving these skills. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ENG 1101 Reading Improvement

This course is designed to enable the student to apply standard study techniques to required textbooks. The student will learn to use SQR₃ (Survey, Question, Read, Recite and Review) with textbooks; to become familiar with technical vocabulary used in textbooks; and to improve reading speed and comprehension. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

ENG 1102 Communication Skills

This course is a second level course in written and oral language skills designed to enable the student to use correctly technical and general vocabulary terms, 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 Hazards

This course covers the history and development of fire service. It includes an overview of the various problems encountered by fire service and some possible solutions, and consideration of related agencies who may assist with these problems. Identification of general fire hazards and their causes as well as the application 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 is a study of building codes applicable to fire prevention and a study of the principles and practices in various types of building construction. Included is an examination of previous fires whereby construction codes posed the major problem as well as consideration of the solutions to these problems in the future. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 115 Prevention Programs

This course deals with the principles and application of fire prevention related to the community and industrial plants. Emphasis is on special problems and specific hazards that are encountered and the possible solutions to these problems. Related agencies are viewed in relation to how they can assist. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 119 Emergency Medical First Responder

This course covers the skills, knowledge, and abilities necessary to treat immediate medical trauma typically encountered by the first emergency personnel arriving on the scene. The emphasis is on those areas of immediate need for life sustaining action such as CPR, artificial respiration, treatment of shock, control of bleeding, immobilization of fractures, and emergency childbirth. The focus is on practical skills based upon a fundamental working knowledge of physiological reactions and needs. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

FIP 135 Methods of Instruction

This course provides information necessary to research, plan, prepare, present, and evaluate a block of instruction. Also discussed is the purpose of fire service drills and training programs. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

FIP 150 Physical Science for Fire Service

This course presents the fundamental principles of physics and chemistry as they relate to specific fire service application. Particular attention is focused on the laws of motion and force and the mechanics of liquids and gases in physics. The chemistry portion emphasizes chemical changes, reactions, and behaviors as they relate to the combustion process or interact within the field of hazardous materials. Fundamentals of electricity and atomic energy are also covered. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

FIP 201 Arson Investigation

This course concentrates on determining the causes of accidental and incendiary fires, fire loss, and points of origin and deals with the recognition of arson and the preservation of the scene. Also covered are motives and methods for fire setting as well as investigative techniques. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

FIP 211 Grading of Fire Defenses

This course examines the methods used by the Insurance Services Office to grade a municipality. Particular hazards that affect insurance rates are also discussed. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 218 Hazardous Materials

This course deals with the theories of combustion and extinguishment with emphasis on the handling and transporting of hazardous materials, hazardous properties, and possible problems that might be encountered. Solutions for hazardous material incidents are considered. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

FIP 220 Fire Fighting Strategy

In this course the student is trained to analyze tactics and strategies used in fire extinguishing. Also considered are pre-fire plans, mutual aids, availability of manpower and equipment, and conclusions on effective strategy. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

FIP 225 Fire Protection Law

This course deals with the law in relation to fire protection. The liability of fire protection personnel when making inspections and recommendations, fighting fires, and other tasks is closely examined. Also the enforcement of various codes and laws is discussed. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 230 Hydraulics and Water Distribution Systems

This course covers the mechanics of the flow of fluids through fire hoses, nozzles, appliances, pumps, standpipes, water mains, and other devices. Mathematical calculations of gallons per minute and friction loss of various hose lays are also included. 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 and surveys of sprinkler systems as well as fireground support operations of those systems. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

FIP 235 Inspection Principles and Practices

This course covers the fundamentals of fire inspections with emphasis on the standards and techniques of evaluating the degree of hazards and on practical recommendations. Reporting is also emphasized. 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. The emphasis is on the diverse nature of the modern fire service with its specialized functions of fire control, prevention, inspection, emergency medical services, and fire investigation. It is one of a three-part series of courses constituting the Municipal Fire Administration unit. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. 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: fire prevention, inspection services, fire suppression, medical and rescue services, fire and arson investigation, communications, and data processing and analysis. It gives special attention to the application of innovative management tools and modern technology to the unique needs in each of these areas of functional specialization. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

FIP 252 Municipal Fire Administration III

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

FRENCH

FRE 101 Beginning French

This is a course in basic French 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 placed 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 is an intermediate course in basic French which builds upon skills gained in FRE 101 and which 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 is an intermediate course in basic French which builds upon the skills acquired in FRE 101 and FRE 102, and which is designed to enable the student to use correctly more advanced rules of grammar and syntax. 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, designed to enable the student to understand climate, weather, natural resources, and other physical features of the environment; to interpret accurately maps 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 is a course in basic German 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 is an intermediate course in basic German which builds upon skills gained in GER 101 and is designed to enable the beginning student to use correctly rules of more advanced German grammar, conjugational endings of common regular and irregular verbs, and noun, pronoun, and adjective endings. 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 is an intermediate course in German which builds on skills gained in GER 101 and GER 102 and is designed to enable the intermediate level student to use correctly rules of more advanced grammar, morphology, and syntax. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: GER 102 or equivalent.

HISTORY

HIS 101 Western Civilization I

This course is a survey of western civilization from its pre-Greek origins to 1483. The course is designed to enable 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 how 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, 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, 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 Historic Preservation

Historic preservation is a diverse field of many different disciplines. This course explores the meaning and methods of preserving America's cultural heritage. The student will study the history of the preservation movement, legislation, the built environment, methods of preservation, and financial aspects of preservation. In order to study our cultural heritage, the student will make weekend visits to various historic sites. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

HPT 1102 Architectural Style and Recording Historic Sites

This course covers American architectural styles and the relationship of stylistic development to the recording of historic sites. The student will develop skills in the identification of architectural styles and the use of architectural terminology. Also covered is recording methodology including inventory forms, site evaluation, photography, and use of maps, drawings, prints, and photographs in interpreting the built environment. Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5. Prerequisite: None.

HPT 1103 History of Building Technology

The technology of building has evolved throughout the centuries of our American experience. Those changes are important to American culture and are documented by existing older buildings. This course develops skill in identification and understanding of historic building technology. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: None.

HPT 1104 Building Inspection

As an introduction to diagnosing the problems of existing buildings, this course concentrates on the inspection of major building components including foundations, framing, exterior and interior finishes, mechanical systems, plumbing, and wiring. It also covers problems related to the building code. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

HPT 1105 Conservation of Masonry and Plaster

The objective of building preservation is to save as much of the original building material as possible. This conservation course covers two basic building materials: masonry and plaster. Skills will be developed in masonry repointing, cleaning, analysis, and use of materials and tools. Also included is an introduction to plaster casting, patching, materials, and tools. Course Hours Per Week: Class, 2. Lab, 4. Quarter Hours Credit, 3. Prerequisite: None.

HPT 1106 Traditional Woodworking

Many of the tools and skills of older methods of building are similar to those used in modern construction. The tools and materials are basic; however, the framing member design and layout vary. This course develops skills in the use of a variety of older tools, timber hewing, mortise, and tennon joinery. Course Hours Per Week: Class, 1. Lab, 5. Quarter Hours Credit, 3. Prerequisite: None.

HPT 1107 Construction Management

The management of the on-site construction process requires careful planning and estimation. This course covers inspection of a job, planning the work flow, and estimation of materials. Financial management, contracts, and other business aspects of construction will be touched on briefly. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

HPT 1108 Conservation of Wood

This course covers the principles of protecting wood from decay and termite infestation, epoxy consolidation, and structural repair. Study includes the cosmetic, structural, and preventive maintenance aspects of wood conservation. Course Hours Per Week: Class, 3. Lab, 1. Quarter Hours Credit, 3. Prerequisite: None.

HPT 1109 Restoration Painting

Paint is used for protection and decoration of other building materials. This course covers paint as a material, the proper paint job, window glazing, painting tools, and decorative painting. Skill will be developed in the use of tools, woodgraining, marblizing, stenciling, and paint research. Course Hours Per Week: Class, 1. Lab, 5. Quarter Hours Credit, 3. Prerequisite: None.

HPT 1110 Restoration Workshop

The restoration workshop will be a live project on preserving a historic building. The objective of the workshop is to develop skills in the handling of historic building fabric. This will be an intensive eight-hour per week experience. Course Hours Per Week: Class, 0. Lab, 8. Quarter Hours Credit, 3. Prerequisite: None.

HPT 1111 Home Weatherization and Insulation

Today, we all know that energy is money and any energy conserved is money in the bank. This course covers basic principles of insulation, installation methods, and other materials and methods of weatherization. Course Hours Per Week: Class, 1. Lab, 3. Quarter Hours Credit, 2. Prerequisite: None.

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 will also be required of all students. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

ISC 130 Industrial Safety

This course is designed to train the student in 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 of study 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 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 the development of labor standards using MTM principles. Course Hours Per Week: Class, 5. Lab, 2. Quarter Hours Credit, 6. Prerequisite: ISC 214.

ISC 214 Work Measurement

This course is designed to train the student in the techniques used to develop labor standards. Laboratory exercises deal with stopwatch time study and performance rating and 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. Laboratory exercises demonstrate the principles and practices of modern manufacturing. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

ISC 232 Quality Control

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

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

The concept and the nature of risk and insurance management is examined. 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. It discusses solutions to risks associated with the loss of income and 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 associated with the ownership of property and the subsequent legal liability. Course Hours Per Week: Class, 2.

Quarter Hours Credit, 2. Prerequisite: INS 214.

PARALEGAL

LEX 101 Real Property

This course is designed to provide 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 provides a beginning 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. Also, civil and criminal law are further compared. The course provides the student background knowledge 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. This course is taught in the Durham County Deed Vault where the student is trained in all the necessary procedures for searching titles. The student will actually prepare 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 discovering tools 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 actually prepares sample real estate packages including those from VA, FHA, and conventional loans. The course continues study begun in Title Abstracting but is a more exhaustive study designed to enable 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 case law notebook and trial notebook through the trial, judgment, execution, and closing of the case file. The student will develop skills in case law and trial notebook preparation, witness preparation, execution of judgment, and actual closing of a case file. 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 gathering of data for preparation of wills and estate plans. Basic estate and trust principles are included. Study includes the preparation of inventories, accounts, tax returns, and other documents for administration of estates as well as procedures for administration of estates of deceased persons. 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 will introduce the student to the various purposes, forms, and proper format of legal writing. Planning and organizing content as well as style of presentation will be stressed. The most common forms of legal writing will be studied in depth with a final project consisting of the preparation of a formal brief. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

LEX 220 Commercial Law II

This course deals with the various forms of business organization and will prepare the student to select the best form of business structure for a client's consideration. Also covered is the use of the proper forms for establishing the chosen type of business structure. 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 with emphasis on administrative systems and procedures of efficient law office operation. Included are furnishings and layout, filing systems, systems for keeping track of deadlines, and accounting, billing, and time freezing 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 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 is designed for the student needing review or remediation in basic mathematics. The course includes an extensive coverage of arithmetic including operations with whole numbers, fractions, and decimals. Special emphasis is placed on computing with percents. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

MAT 105 Microelectronics Mathematics I

This course is designed to prepare the student to use mathematics in scientific applications. Topics include a study of basic algebraic operations, scientific notation, evaluation and rearrangement of formulas, ratios and proportions, measurement systems, linear equations, linear systems, basic trigonometry, and graphs of linear equations and the trigonometric functions. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

MAT 106 Microelectronics Mathematics II

As a continuation of Mathematics 105, this course covers advanced algebraic topics. Emphasis is placed on factorization of algebraic expressions, algebraic fractions, quadratic equations, fractional exponents and radicals, exponential and logarithmic equations with their respective graphs, common and natural logarithms, vector algebra, number bases, and Boolean algebra. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: MAT 105.

MAT 110 Business Mathematics

This course is designed to develop 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 is designed to provide the student the fundamentals of algebra with emphasis on basic definitions and axioms, operations with signed numbers, factoring, solutions of linear and quadratic equations, 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 is designed to expand the student's knowledge of the basics of algebra, including rational expressions, graphs of linear equations, linear systems, 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 is an introductory course designed to give students a feel for contemporary mathematics and an appreciation of 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 120 or satisfactory score on placement test.

MAT 130 Introduction to Health Mathematics

This course is designed to provide the student with mathematical proficiency needed for the allied health curricula. Topics covered include fundamental algebra, basic geometry, and trigonometry essential in solving problems that will be encountered in the health sciences. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

MAT 131 Technical Mathematics

This course is designed to enable the student to apply mathematics in science and respiratory therapy. The topics include basic trigonometry, ratio, proportion and variation problems, evaluation and rearrangement of formula, 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 130 or MAT 120 or satisfactory score on placement test.

MAT 140 Technical Mathematics

This course is designed to provide the student with 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 placed on solving application problems and algebraic manipulation of formulas. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None (student expected to have basic algebraic concepts).

MAT 141 Technical Mathematics

This course is designed as a continuation of MAT 140, to provide the student with 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 is designed to introduce the student to the metric, apothecary, and avoirdupois systems of weight and volume and their application to the solution of pharmaceutical and dosage problems. The student is also introduced to measured quantities, accuracy and deviation calculations, pharmaceutical abbreviations, and prescription and formulation format. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

MAT 160 Technical Mathematics I

This course is designed to provide 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: Entrance into the Electronics program.

MAT 161 Technical Mathematics II

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 placed 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 Technical Mathematics III

This course is designed to provide the student with an in-depth study of exponential and logarithmic equations with their respective graphs, antilogarithms, natural logarithms, and number bases. Also included is an introduction to Boolean algebra and analytic geometry (rectangular and polar coordinate system), 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 1040 Technical Mathematics

This course is designed to provide the student with mathematical proficiency needed for optical application. Topics covered include 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 1050 Applied Mathematics

This course is designed to provide the student with the knowledge of basic arithmetic operations with whole numbers, common fractions, decimal fractions, percent, and ratio and proportion. The course also includes a study of practical algebra; applied geometry of rectangles, triangles, polygons, circles, and solids; right triangle trigonometry; and the metric system of length, area, volume, and weight. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

MAT 1062 Applied Mathematics

This course is designed to develop the student's proficiency in solving practical mathematical problems in electrical maintenance. Also included are calculations of electrical quantities in specific problems and calculations of material and labor associated with jobs. The National Electrical Code is used extensively in practical problems. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: MAT 1103 or equivalent.

MAT 1070 Applied Mathematics

This course is designed to provide the student with practical number theory. The four basic arithmetic operations are studied using integers, common fractions, and decimal numbers. The other major topics of the course are ratio and proportion, plane and solid figures used in industry, measurement, use of formulas, and graphs. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

MAT 1101 Fundamentals of Mathematics

This course is designed to provide the student a thorough review of the four basic arithmetic operations with integers, common fractions, and decimal numbers. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

MAT 1102 Fundamentals of Mathematics

This course is designed to provide the student with instruction in measurement, the metric system, rectangles, triangles, and regular polygons. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: MAT 1101 or equivalent for evening students. Corequisite: MAT 1101 or equivalent for day students.

MAT 1103 Applied Mathematics

This course covers the fundamentals of practical algebra, ratio and proportion, geometry of circles, common solids, frustums, spheres, rings, and the trigonometry of the right triangle. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: MAT 1102 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 is an introduction to 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

1102-1108 Machine Shop Theory and Practice

In this series of seven courses students learn new competencies by completing required learning modules. Assignments include instruction in layout, measurement, inspection, and setup 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: MEC 1101 for evening students. Corequisite: MEC 1101 for day students.

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 Numerical and Computer Numerical Control

This course introduces the fundamental concepts and skills necessary to program and operate numerical (NC) and computer numerical control (CNC) machines. Topics include the history, types, descriptions, capabilities, and applications of numerical and 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 gives the student practical theory and practice in the treatment of ferrous and non-ferrous metals. Actual practice of heat treatment is performed on sample materials with emphasis on low and high carbon steels. Testing equipment for verification of correct treatment is used. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisite: MEC 1106 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 will be placed 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 is designed as a continued study in meeting the specialized needs of respiratory therapy students for advanced training in nervous system drugs, steroids, and antimicrobial agents. Emphasis will be placed 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 is an introductory course in music, designed to enable the student to trace the historical development of music including pertinent criticism since 1600, to analyze different musical forms, and to establish intellectual relationships between music and general cultural developments. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

NURSING

NUR 1101 Fundamentals of Nursing

This course is designed to provide opportunities for the student to learn the basic principles of nursing and to demonstrate the knowledge of basic nursing skills. Emphasis is also placed on the understanding of human behavior. Course Hours Per Week: Class, 9. Lab, 5. Quarter Hours Credit, 11. Prerequisite: None.

NUR 1102 Body Structure and Function

This course is designed to provide the student with basic facts about body structure and function. Emphasis is placed on relating these facts to health care. The student will be exposed to fundamental pathological conditions associated with each body system. Course Hours Per Week: Class, 8. Quarter Hours Credit, 8. Prerequisite: None.

NUR 1103 Nutrition and Diet Therapy

This course is designed to provide the student with basic facts about nutrition, food elements, and therapeutic diets. Emphasis is placed on nutrition and the effects of illness on the nutritional needs of the patient. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: None.

NUR 1104 Medical and Surgical Nursing I

This course is designed to help the student learn the basic principles and practices of medical and surgical nursing. It introduces the student to deviations and/or altered functions of the body systems and methods of diagnosis and treatment. Course Hours Per Week: Class, 5. Lab, 3. Quarter Hours Credit, 6. Prerequisite: NUR 1101, NUR 1102, NUR 1103, NUR 1110.

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 placed on the care of patients with problems associated with body disturbances which interfere with normal nutrition, elimination, and fluid and electrolyte balance. Course Hours Per Week: Class, 9. Quarter Hours Credit, 9. Prerequisite: NUR 1104, NUR 1109, NUR 1111.

NUR 1106 Medical and Surgical Nursing III

This course is designed to introduce the student to the care of patients with complex nursing needs. Emphasis will be placed on helping the student to identify the role of the practical nurse in situations requiring judgment based on previous experience and depth of knowledge. Integrated throughout the course are the areas of anatomy, physiology, diet therapy, pharmacology, and the psycho-social aspects of caring for patients. Course Hours Per Week: Class, 7. Quarter Hours Credit, 7. Prerequisite: NUR 1105.

NUR 1107 Maternal and Child Health I

This course is designed to acquaint the student with the fundamentals of maternity and pediatric nursing. Emphasis will be placed on the scope and the aim of modern obstetrics; the responsibilities of the nurse in promoting prenatal care; giving support during pregnancy, labor and delivery; and caring for the normal newborn. In addition, the basic principles related to care of sick children will be covered. Course Hours Per Week: Class, 6. Quarter Hours Credit, 6. Prerequisites: NUR 1101, NUR 1102, NUR 1103, NUR 1110.

NUR 1108 Maternal and Child Health II

This course continues the development of the principles of maternal and child nursing. Emphasis is placed on health teaching, evaluation and comprehensive nursing care. The complications and pathological conditions related to maternity, infancy, childhood, and adolescence are covered. Course Hours Per Week: Class, 6. Quarter Hours Credit, 6. Prerequisites: NUR 1104, NUR 1107, NUR 1109, NUR 1111.

NUR 1109 Clinical Experience

Clinical activities are planned to assist students in the development of skills in medical and surgical basic nursing care and procedures in surgical nursing. The student is encouraged to develop basic skills in analyzing patient needs and making nursing decisions. This is done by working with individual patients in the medical and surgical hospital clinics. Course Hours Per Week: Class, 0. Clinical, 12. Quarter Hours Credit, 4. Prerequisites: NUR 1101, NUR 1102, NUR 1103, NUR 1110.

NUR 1110 Pharmacology I

This course is designed to educate 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.

NUR 1111 Pharmacology II

This course is 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, 3. Quarter Hours Credit, 3. Prerequisites: NUR 1101, NUR 1102, NUR 1103, NUR 1110.

NUR 1112 Nursing Seminar

This course includes the current trends in nursing and the legal and ethical responsibilities of the practical nurse. This course is based on knowledge accrued from previous nursing courses and is intended to be an aid to the student by providing a review of nursing principles and practices. Psychiatric nursing and disaster nursing are also included. Course Hours Per Week: Class, 7. Quarter Hours Credit, 7. Prerequisites: NUR 1105, NUR 1108.

NUR 1114A Clinical Experience

This course provides the student 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, 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, NUR 1111.

NUR 1114B Clinical Experience

This course is a continuation of NUR 1114A with supervised study in the development of 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. Prerequisite: NUR 1114A.

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 glass and ophthalmic eyewear. The metric system, physics of light, and geometry of optics are introduced. Ophthalmic lens types, terminologies, and formulas necessary for laboratory projects are discussed in preparation for work in the laboratory. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisite: Entrance into the Opticianry program.

OPT 102 Theoretical Optics

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. Prerequisites: OPT 101, OPT 111.

OPT 103 Theoretical Optics

This course covers the history of multifocals from Ben Franklin to modern ophthalmic reading segments and trifocals for the presbyopic patient. Also included is a study of the different types, sizes, and settings for all multifocal lenses and the relationship between the accommodative mechanism and multifocal optics. Course Hours Per Week: Class, 4. Quarter Hours Credit, 4. Prerequisites: OPT 102, OPT 112.

OPT 104 Benchmark Procedure

This course is a study of all phases of benchmark procedure with emphasis placed on craftsmanship, measurements, materials, and equipment. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisites: OPT 103, OPT 113.

OPT 111 Mechanical Optics

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 is introduced to the focimeter and learns 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: Entrance into the Opticianry program.

OPT 112 Mechanical Optics

This course is designed to enable the student to apply introductory optical laboratory procedures to the surfacing of spherical lenses. All aspects of surfacing spherocylindrical lenses are emphasized including prismatic lens surfacing. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisites: OPT 101, OPT 111.

OPT 113 Mechanical Optics

This course is a study of surfacing procedures and calculations for all types of bifocals, trifocals, and invisible bifocals. Spherical lenses for high refractive errors (including cataract lenses), automatic edging procedures, and the incorporation of prisms and cylinders in multifocal lenses will be covered. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisites: OPT 102, OPT 112.

OPT 114 Mechanical Optics

This course is designed to develop speed and accuracy using automatic and hand-edging devices. Included is a study of the requirements of eyeglass construction and inspection. Pattern-making and heat-treating procedures for lenses are introduced. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisites: OPT 103, OPT 113.

OPT 121 Anatomy of the Eye

This course is a study of the anatomical composition of the eye and its associated structures with emphasis 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 relation to the visual process with emphasis 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 Geometrical Optics

This course is a study of the basic theories of light including such aspects of light as its rectilinear propagation and its 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 through spherical surfaces, thin lenses, thick lenses, and prisms. The procedures for using selected optical instruments are studied. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: OPT 141.

OPT 199 Plastic Materials

This course is a study of the history and development of hard resin lenses, the advantages and disadvantages of hard resin lenses, and patient selection for these lenses. The course covers all laboratory procedures in the grinding of hard resin lenses and includes information on innovations in hard resin lenses including cataract, lenticular, and aspheric lenses. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3. Prerequisites: OPT 103, OPT 113.

OPT 204 Theoretical Optics

This course is an advanced study of all curves in bifocal manufacture and lens curves. Included is a study of special lenses and all cylinder equations with emphasis placed upon accuracy. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisites: OPT 104, OPT 114.

OPT 205 Theoretical Optics

This course is an introduction to heat treating and chemical treating of ophthalmic lenses. Single vision, multifocal, occupational, and absorptive lens identification are included as well as the relationship between lens aberrations and corrected curve lenses. Computer uses for ophthalmic laboratory and dispensing applications will be introduced. A research paper is required. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisites: OPT 204, OPT 214.

OPT 206 Theoretical Optics

This course covers the relationship between the ophthalmic prescription and eyeglass design. The use of optically oriented periodicals and journals will be emphasized as well as speed and accuracy in optical computations from previous course work. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisites: OPT 205, OPT 215.

OPT 214 Mechanical Optics

This course is a continuation of basic finishing operations. Emphasis is placed on building speed and accuracy at the focimeter and in marking, edging, and inserting lenses into assorted frames. The surfacing and finishing of compound prisms is introduced. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisites: OPT 104, OPT 114.

OPT 215 Mechanical Optics

This course covers all stages of multifocal and eyewear finishing with an emphasis on production. The student is trained to identify the different types of ophthalmic lenses. Chemical treating procedures and lens care are introduced. Course Hours Per Week: Class, 0, Lab, 6. Quarter Hours Credit, 2. Prerequisites: OPT 204, OPT 214.

OPT 216 Mechanical Optics

This course is a continued study of all stages of occupational and eyewear finishing with an emphasis on speed and accuracy. Work continues in the craftsmanship of finishing operations. An introduction to rimless and semi-rimless work is provided. Course Hours Per Week: Class, 0, Lab, 6. Quarter Hours Credit, 2. Prerequisites: OPT 205, OPT 215.

OPT 231 Ophthalmic Dispensing

This course is an introductory study of the practice and responsibilities of ophthalmic dispensing with emphasis on taking facial measurements and selecting and fitting frames according to prescription interpretation and analysis. The terminology of eyewear is stressed. Course Hours Per Week: Class, 5, Lab, 4. Quarter Hours Credit, 6. Prerequisite: Completion of first four quarters.

OPT 232 Ophthalmic Dispensing

This course is an introduction to the practice of ophthalmic dispensing procedures relating to bifocals, multifocals, and absorption lenses. Experience in fitting, adjusting, and ordering complex prescriptions is stressed. Course Hours Per Week: Class, 4, Lab, 4. Quarter Hours Credit, 5. Prerequisite: OPT 231.

OPT 233 Ophthalmic Dispensing

This course is a study of aphakia, low vision, and the complex prescription procedures to be utilized in the optical setting. Office management and clinical procedures are covered along with a study of current fashionable eyewear. Course Hours Per Week: Class, 4, Lab, 4. Quarter Hours Credit, 5. Prerequisite: OPT 232.

OPT 261 Contact Lenses I

This course is an introduction to the basics covering the history, development, and manufacture of contact lenses. Clinical application of contact lenses, including patient selection and fitting techniques, will be discussed. Introduction to the primary instruments used with emphasis on keratometer, diameter gauge, and thickness gauge will be stressed in the laboratory. Course Hours Per Week: Class, 2, Lab, 2. Quarter Hours Credit, 3. Prerequisite: OPT 122.

OPT 262 Contact Lenses II

This course is an advanced study of contact lenses. New materials and principles of fitting contact lenses will be stressed. Physiology of the cornea in terms of gas permeability will also be covered. Instrumentation skills will be developed in the lab and will include radioscope and other lens verification methods. Contact lens solutions, wearing schedules, and new developments will be included. Course Hours Per Week: Class, 2, Lab, 2. Quarter Hours Credit, 3. Prerequisite: OPT 261.

OPT 273 Seminar

This course introduces the student to retailers and wholesalers who relate their knowledge of the trends in the optical field today. Topics include professional ethics, job opportunities, and licensure in various states. Course Hours Per Week: Class, 1. Quarter Hours Credit, 1. Prerequisites: OPT 205, OPT 215.

OPT 1101 Introduction to Optics

The history of ophthalmic glass and lens material will be discussed. The evolution of eyewear and the development of optical science will be included. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OPT 1102 Spectacle Fabrication and Equipment Maintenance

This course is an introduction to the fabrication of spectacles, lenses, and frames. Decentration, layout, cutting, and edging of lenses will be introduced. Also included is an in-depth study of the maintenance and repair of standard optical finishing laboratory equipment. Course Hours Per Week: Class, 1, Lab, 2. Quarter Hours Credit, 1. Prerequisite: None.

OPT 1103 Lens Design I

This course introduces the elements of optical design. The dioptric system of optics, spherical and cylindrical surface, lens forms, base curves, corrected curves, and the effect on lenses will be discussed. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OPT 1104 Lens Design II

This course emphasizes the special elements of lens design. Prisms, multifocal lenses, strong lenses and their cumulative effect will be taught for application. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: OPT 1103.

OPT 1111 Mechanical Optics I

This course provides a practical application of spectacle fabrication. Layout work, locating major reference points, and the cutting and edging of lenses will be accomplished. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: None.

OPT 1112 Mechanical Optics II

This course provides further practical application of spectacle fabrication. The fabricating and proper layout work of multifocal lenses will be stressed. Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2. Prerequisite: OPT 1111.

OPT 1113 Mechanical Optics III

This course provides continued practical application of spectacle fabrication. The uses of special lenses, prisms, and low vision aids are covered along with the practical preparation of the eyewear. Course Hours Per Week: Class, 0. Lab, 12. Quarter Hours Credit, 4. Prerequisite: OPT 1112.

OPT 1131 Optical Dispensing

This course is an introduction to the history of frames, frame selection, and application. Facial measurements, interpupillary distance, and frame measuring are discussed and applied. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OPT 1133 Optical Management

This course covers the basic business management skills needed for employment in a finishing laboratory. Emphasis is placed 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 will be covered. Course Hours Per Week: Class, 2. Quarter Hours Credit, 2. Prerequisite: None.

OPT 1140 Physics of Light

This course is an introduction to the physics of light. The theories of light, electromagnetic spectrum, propagation of light, illumination, and general characteristics of light are studied. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

OPT 1141 Geometrical Optics

This course is a study of the theoretical application of light to ophthalmic optics with emphasis on reflection and refraction of light with mirrors, prisms, and lenses. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: OPT 1140.

OPT 1142 Anatomy and Physiology of the Eye

This course provides an overview of man's eye, its relation to vision, and its correction by ophthalmic devices. Emphasis is on the structure and function of the human eye. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

PHILOSOPHY

PHI 101 Introduction to Philosophy

This is an introductory course in philosophy, designed to enable the student to use the historical approach to the understanding of philosophy; to analyze the basic concepts, themes, theories and arguments of ancient, modern, and contemporary philosophers as well as the different philosophical problems that 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 Hospital Pharmacy

This course is designed as a study of and experience in the technical procedures for the safe and accurate preparation and dispensing of drugs under the supervision of a registered pharmacist. The course includes an introduction to the hospital pharmacy environment, the procuring, compounding, packaging, and labeling of drugs as well as 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 110.

PHM 102 Hospital Pharmacy

This course completes the study of the technical procedures including the preparation and dispensing of drugs under the supervision of a pharmacist. Major topics include aseptic techniques, sterile compounding, intravenous admixture systems, computerized dispensing, and purchase and inventory control. Course Hours Per Week: Class, 2. Lab, 2. Quarter Hours Credit, 3. Prerequisites: PHM 101, PHM 110, MAT 150. Corequisite: PHM 111.

PHM 104 Community Pharmacy

This course is designed to provide the student with a working knowledge of the procedures, operations, and theories relating to a community and retail pharmacy. Emphasis is placed 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. Quarter Hours Credit, 2. Prerequisites: PHM 102, PHM 110, PHM 111. Corequisite: PHM 105.

PHM 105 Pharmacy Clinical

This course is designed to give the student "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: PHM 102, PHM 110, PHM 111. Corequisite: PHM 104.

PHM 110 Pharmacology I

An introductory study of drug products, this course includes the most commonly encountered drugs in each therapeutic category. The course acquaints students with the generic and trade names of commonly used drugs, their actions, general uses, and important contraindications in the treatment of disease states. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None. Corequisite: BIO 120 or equivalent.

PHM 111 Pharmacology II

This course completes the introductory study of the most commonly encountered drugs following the sequence of study in the major drug groups. The student is acquainted with the generic and trade names, drug action and uses, and important contraindications. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisites: PHM 110, BIO 120.

PHOTOGRAPHY

PHO 101 Photography I

This course introduces the basic techniques of photography including framing, lighting, exposure, composition, development, and hardware manipulation. Historical issues and current trends are discussed in light of potential career expectations and responsibilities. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

PHO 102 Photography II

This course trains the student in solving visual problems utilizing the basic techniques of photography. Each student is expected to show advancement in technical skill. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 4. Prerequisite: PHO 101 or equivalent.

PHO 103 Photography III

This is an individualized course of study in which the student, working under the close supervision of the instructor, explores specific topics in photography according to the student's development of personal style and methodology. Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 4. Prerequisite: PHO 102 or equivalent.

PHYSICS

PHY 130 Physics

This course covers the principles of physics applicable to the health sciences, especially respiratory therapy. Included is a study of the physical properties of liquids and gases, the circulatory system, medical applications of pressure and fluid flow, molecular phenomena, temperature, the 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 is an introduction to the basic principles of physics with emphasis on 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 is an introduction to physical principles and their application in industry. Topics in this course 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 is a second course in the application of physics in industry. Topics included are 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 is an introduction to solid state physics with an emphasis on semiconductors. It includes 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 1050 Applied Science

This course is a study of physical principles and their application in structures. Topics included are measurements, properties of matter, basic electricity, heat, force, work, energy, acoustics, and color. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

PHY 1070 Applied Science

This course is a study of basic physics as related to automotive mechanics. Topics included are DC and AC electricity, hydraulics, fluid flow, forces and torques, energy, and momentum. Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4. Prerequisite: None.

PHY 1111 Applied Science

This course is an introduction to physical principles and their application in the machine industry. Topics in this course include measurements, properties of matter, basic electrical principles, and heat as it relates to the working of materials. Principles of force, friction, work, 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 with emphasis 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 course is an introductory study of the basic principles of American government, 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 course is an introductory study of psychology designed to enable the student to understand himself in relationship to his 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 as well as an academic approach to the use of imagination and creativity, accenting the visual aspects of problem-solving, designed to enable 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 course is a study of theory and research on adolescent development, 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 course is a survey of behavioral disorders 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 will 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 a member of a general community. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. 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's interaction with the patient and other health care members will also be covered. Particular emphasis will be placed 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 will be covered in detail. The physiology underlying the control, exchange, and transport of respiratory gases will be 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 will concentrate on the administration of intermittent therapy to patients. Pediatric oxygen administration, infection control, and sputum induction will be 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

The course is an introduction to ventilators, artificial airways, and procedures of arterial blood sampling and processing. Techniques of patient assessment involving chest radiography, bedside pulmonary function, and physical assessment will be emphasized. Pediatric assessment, the birth process, and thermal management of neonates will also be 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 as a specific introduction for fourth-quarter students to Durham County General Hospital and North Carolina Memorial Hospital. Students will be 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 will also serve as a general introduction to the practical aspects of patient care in the hospital setting by providing opportunities to observe patient care and 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. Students will become 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 will also introduce the practical aspects of patient care and of 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 will be evaluated for competence in delivering the basic modalities of therapy. Emphasis will be placed 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 provides the Respiratory Therapy Technician student with an introduction to the care of patients requiring intensive respiratory care and continuous mechanical ventilation. All aspects of ventilator commitment, ventilator monitoring, weaning, arterial blood gas analysis, and nasotracheal suction will be practiced and evaluated in the Durham Tech laboratory and in the intensive care units of the clinical affiliate. 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 will be encouraged and expected to work independently while under the supervision of a clinical instructor. Special rotations will be 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 with emphasis 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 will be evaluated for competence in delivering the basic modalities of therapy. In addition, ancillary tasks such as EKG, equipment decontamination, and patient reporting will be covered. Emphasis will be placed on the development of 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 will be emphasized. Common pediatric diseases will also be covered. Course Hours Per Week: Class, 5. Lab, 4. Quarter Hours Credit, 7. Prerequisite: RTH 201.

RTH 204 Clinical Practice III

This course provides an introduction to the care of patients requiring intensive respiratory care and continuous mechanical ventilation. All aspects of ventilator commitment, ventilator monitoring, weaning, arterial blood gas puncture, and nasotracheal suction will be 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 will be placed on the management of the critically ill patient in the intensive care unit. The techniques and procedures of intrahospital patient transport will be covered. Particular emphasis will be placed on the transport of infant patients. Current respiratory therapy literature will be 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 will become fully involved with pediatric and neonatal therapy, rotating through general pediatric, pediatric intensive care, and prearranged intensive care units. Clinical experience with cardiopulmonary diagnostics, specifically pulmonary function testing and interpretation, will also be 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 is designed for the entering applied science or allied health student as an introductory or refresher course in the basic sciences. Through lecture, demonstration, and laboratories, the student is introduced to the beginning essential elements of biology, chemistry, and physics. The goal 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 is designed to provide the Dental Laboratory Technology student a study of the basic physical and chemical principles encountered in working with dental materials. Included are introductory inorganic and organic chemistry emphasizing the metallic elements and those compounds with physical properties advantageous to dental work. 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.

SEMICONDUCTOR TECHNOLOGY

SCT 101 Introduction to Semiconductor and Microelectronics Technology

This course is designed to introduce 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.

SCT 200 Microelectronics Processing and Device Design

This course provides an in-depth study of the field of microelectronics and micro-chip processing technology. The major areas of emphasis are oxidation, diffusion, photolithography, and metallization. Basic bipolar and unipolar IC layouts will be 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 is designed to introduce the student to the major principles and concepts of mechanical processes common to various high-technology industries. Major topics will 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. The lab work involves the type of measuring, testing, and inspection equipment used for microelectronic circuits. The classroom lectures are designed to familiarize the student with the process of wafer fabrication to include circuit layout, mask making, photolithography, diffusion, and thin-film processes. The lectures will 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. An opportunity is provided 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 course is an introductory study of culture, social institutions, socialization, collective behavior, deviance, population, urbanization, and social change, 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 eight major modern inventions — the atom bomb, telecommunications, the computer, the production line, the jet aircraft, plastics, rocketry, and television — and demonstrates how these technological innovations have caused change not only in their own fields but also in totally unrelated fields. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SOC 102 Introduction to Sociology

This course is an introductory study of culture socialization, collective behavior, deviance, social problems, population, intergroup relations, social change, and social institutions. The course will help the student to analyze social problems in modern society and to 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. Areas covered fall into the categories of 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 is designed to enable the student to understand the concepts of courtship, marriage and parenthood; to understand problems facing the contemporary American family; and to prepare a report on a topic involving marriage and family relationships. Course Hours Per Week: Class, 3. Quarter Hours Credit, 3. Prerequisite: None.

SPANISH

SPA 101 Beginning Spanish

This course in elementary Spanish is designed to enable the beginning student to discriminate between English and Spanish vowel consonant sounds, acquire basic rules of grammar and syntax, and form simple sentences. Comprehension, pronunciation, reading, and writing are given equal stress. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: None.

SPA 102 Intermediate Spanish

This intermediate course in basic Spanish builds upon skills gained in SPA 101 and enables the student to use rules of Spanish grammar, including past and future tenses and imperative mood of verbs, impersonal and idiomatic expressions, pronouns, adjectives, adverbs, and prepositions. Equal emphasis is placed upon reading, writing, pronunciation, and comprehension. Course Hours Per Week: Class, 5. Quarter Hours Credit, 5. Prerequisite: SPA 101 or equivalent.

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INDEX

- Academic Information, 16
- Academic Recognition, 20
- Accounting, 32
- Accreditation, 7
- Admission
 - Conditional*, 10
 - Placement Testing*, 9
 - Policy*, 8
 - Procedure*, 9
 - Requirements*, 9
- Adult and Continuing Education, 28
- Adult Education Programs, 29
- Adult High School Diploma Program, 29
- Advisement and Registration, 11
- Architectural Drafting, 34
- Attendance Requirements, 20
- Audit, 19
- Automotive Mechanics, 36
- Board of Trustees, 128
- Books, 13
- Business Administration, 38
- Business Computer Programming, 40
- Calendar, 4
- Child Development Specialist, 46
- Classification of Programs of Study, 16
- Classification of Students, 16
- College Work Study, 14
- Conduct, 20
- Continuing Education Registration Fee, 28
- Counseling Services, 24
- Course Descriptions, 83
- Credit by Examination, 19
- Criminal Justice, 42
- Curriculum Center, 24
- Dental Laboratory Technology, 44
- Dial Access Instructional System (DAISY), 24
- Durham Technical Institute
 - History*, 6
 - Philosophy*, 7
 - Purpose*, 7
- Early Childhood Associate, 46
- Electrical Installation and Maintenance, 48
- Electronics Engineering Technology, 50
- Employment and Training Program, 25
- English as a Second Language, 29
- Fees, 12
- Financial Aid, 14
- Fire Science, 52
- Foreign Students, 10, 25
- General Education, 54
- General Office Technology, 56
- Grade Reports, 11
- Grade Point Average, 19
- Grading System, 18
- Graduation Fee, 13
- Graduation Requirements, 11
- Grants, 14
- Handicapped Services, 26
- High School Equivalency Program (GED), 29
- Incomplete Grade, 18
- Industrial Management Technology, 58
- Institute Personnel, 128
- Insurance, 13
- Job Placement, 25
- Library, 25
- Loans, 15
- Machinist, 60
- Map, 138
- Media Services, 26
- Microelectronics Technology, 62
- Optical Laboratory Mechanics, 64
- Opticianry, 66
- Paralegal Technology, 68
- Parking Fee, 14
- Pharmacy Technology, 70
- Plan of Study, 17
- Practical Nurse Education, 72
- Prerequisite Courses, 17
- Privacy Act, 11
- Readmission, 10
- Registration, 11
- Release of Information, 11
- Residency Status, 12
- Residential Carpentry and Preservation, 74
- Respiratory Therapy, 76
- Respiratory Therapy Technician, 78
- Retired Senior Volunteer Program (RSVP), 26
- Scholarships, 14
- Secretarial Science, 80
- Special Grades, 18
- Special Services Project, 26
- Special Students, 17
- Student Activities, 27
- Student Government Association, 27
- Supplies, 13
- Transfer Credit, 20
- Transfer to Senior Institutions, 22
- Transcripts, 9
- Tuition
 - Exemption for Senior Citizens*, 12
 - Refund Policy*, 13
 - Tuition and Fees*, 12
- Tutorial Services, 27
- Veterans Educational Benefits, 15
- Veterans Information, 21
- Visiting Artist Program, 27
- Weekend College, 27
- Withdrawal
 - Course Withdrawal*, 19
 - Regulations*, 11



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