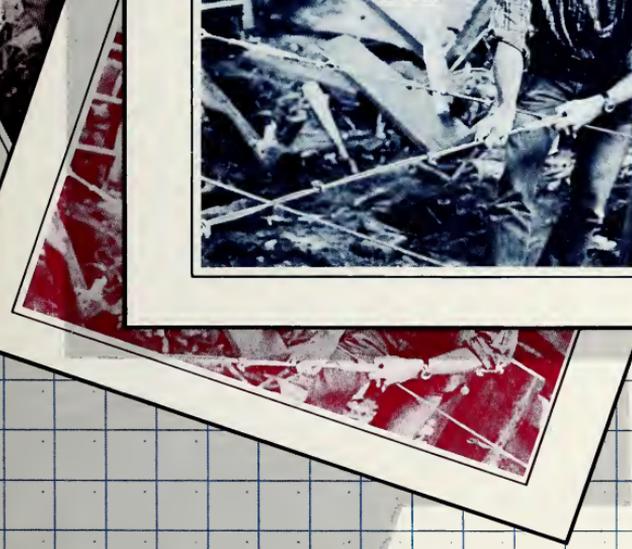
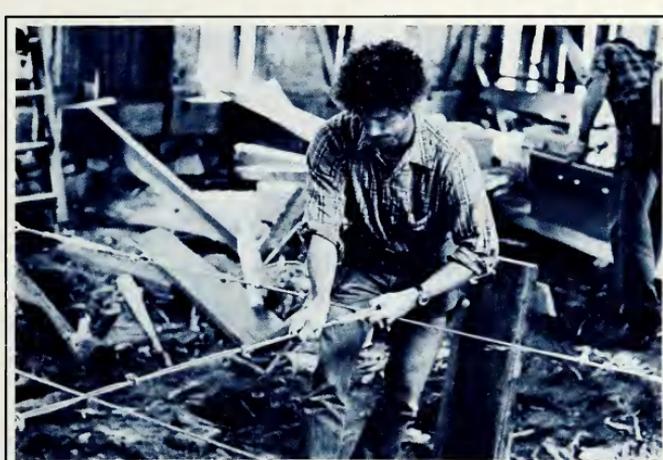
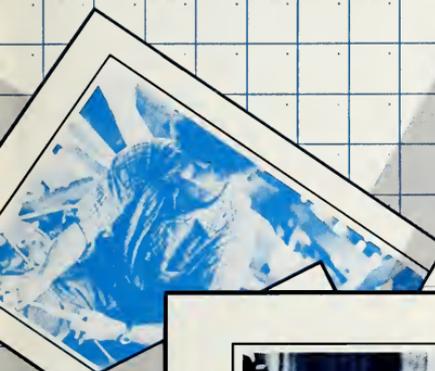


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T E C H N I C A L  
I N S T I T U T E



G E N E R A L   C A T A L O G  
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# Durham Technical Institute

## General Catalog

### 1981 - 83



1637 Lawson Street  
Durham, North Carolina  
27703

(919) - 596 - 9311

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

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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.

## In Memory Of.....



Dr. Sherwood Githens, Jr.  
1908 - 1980

Dr. Sherwood Githens, Jr. served as an original member of the Board of Trustees of Durham Industrial Education Center from its inception until March 31, 1965, and as a member of the Board of Trustees of Durham Technical Institute from April 1, 1965, until his death on August 16, 1980.

Dr. Githens was a nationally renowned scientist and educator who provided educational expertise and leadership to the Board of Trustees while devising innovations that have been implemented in public schools throughout the country. His genuine interest in the welfare of all students has definitely enriched the educational process. Through dedicated service, a humanitarian philosophy, and intellectual curiosity, Dr. Githens touched the lives of many.

# Academic Calendar

## Summer Quarter - 1981

July 3, 1981  
July 4 Holiday  
July 8, 1981  
Summer Classes Begin  
September 7, 1981  
Labor Day Holiday  
September 23, 1981  
Summer Classes End

## Summer Quarter - 1982

July 5, 1982  
July 4 Holiday  
July 7, 1982  
Summer Classes Begin  
September 6, 1982  
Labor Day Holiday  
September 22, 1982  
Summer Classes End

## Fall Quarter - 1981

September 30, 1981  
Fall Classes Begin  
November 26-27, 1981  
Thanksgiving Holidays  
December 17, 1981  
Fall Classes End  
December 23, 1981 -  
January 1, 1982  
Christmas Holidays, Vacation

## Fall Quarter - 1982

September 29, 1982  
Fall Classes Begin  
November 25-26, 1982  
Thanksgiving Holidays  
December 16, 1982  
Fall Classes End  
December 23, 1982 -  
January 3, 1983  
Christmas Holidays, Vacation

## Winter Quarter - 1982

January 6, 1982  
Winter Classes Begin  
March 23, 1982  
Winter Classes End

## Winter Quarter - 1983

January 6, 1983  
Winter Classes Begin  
March 23, 1983  
Winter Classes End

## Spring Quarter - 1982

March 30, 1982  
Spring Classes Begin  
April 9-12, 1982  
Easter Holidays  
May 31, 1982  
Memorial Day Holiday  
June 17, 1982  
Spring Classes End

## Spring Quarter - 1983

March 30, 1983  
Spring Classes Begin  
April 1-4, 1983  
Easter Holidays  
May 30, 1983  
Memorial Day Holiday  
June 17, 1983  
Spring Classes End



## 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 evolved from the egalitarian 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 and single courses of a cultural or personal improvement nature.

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."

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

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# Section

# 1

# General Information

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## 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 the 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. This 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 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 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 classroom and laboratories at Durham High School and at Hillside High School. Admission requests to these programs and tuition rates were essentially the same then as they are today.

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 provide a separate educational facility that would provide for the educational needs of the local 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 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 so as to provide as many educational opportunities as possible for specialized training by means of the "open door with guided placement" policy. More specifically, Durham Tech attempts to accept the individual where he is and strives to provide him 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 objectives by providing:

Post-secondary occupational education to develop skills and knowledge in its students for employment as qualified technicians and skilled craftspersons.

A wide array of technical and vocational programs which 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.

Numerous programs and courses which afford 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. Programs accredited by national associations are:

The Dental Laboratory Technology program is accredited by the Commission on Dental Accreditation of the American Dental Association.

The Opticianry program is accredited by the National Academy of Opticianry.

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

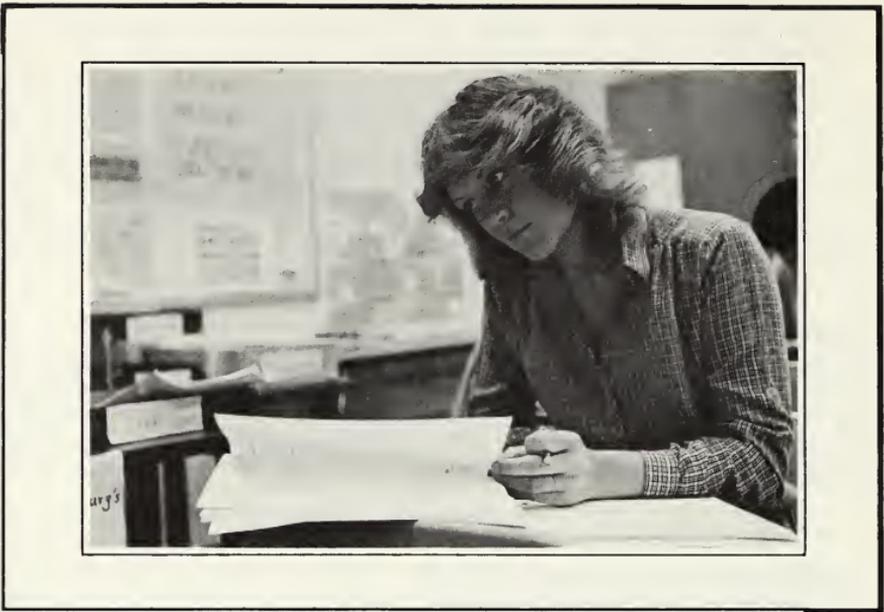
## Approved By

Durham Technical Institute is approved by and is a member of the North Carolina Department of Community Colleges. Programs approved by state agencies are:

The Opticianry program is approved by the North Carolina State Board of Opticians.

The Practical Nurse Education program is approved by the North Carolina State Board of Nursing.

The Fundamentals of Real Estate course is approved by the North Carolina Real Estate Licensing Board.



# Section 2

# Admissions Fees Financial Aid

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## 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 curriculum programs.

The admissions process includes the initial application, transcripts of secondary and post secondary 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 data should be on file at least one month 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 one month 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 capacity.

## Transcripts

Official transcripts are required from the high school and /or all post-secondary institutions attended. Applicants who have earned high school diploma equivalency certificates 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 do not have a high school diploma or equivalency education may complete a high school equivalency program at Durham Technical Institute. Inquiries concerning the Adult High School Education Program should be directed to the Continuing and Adult 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. 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/college counselor write to the admissions officer. 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.

# Admission 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. In addition, all nursing applicants are required to submit proof of a dental examination and a schedule of disease immunizations.

### 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.

These skills are:

Arithmetic operations with integers.

Arithmetic operations with fractions (including mixed numbers and decimal numbers).

Arithmetic operations with percent and percentage problems.

Arithmetic operations with signed numbers.

It is essential that students entering **Electronics Engineering Technology** and **Science and Engineering Technology** have mathematical skills sufficient to cope with engineering technology courses. It is expected that students entering this curriculum have completed Algebra I in high school, or an equivalent course. Applicants for this program 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 mathematics skills is limited.

Students entering the **Opticianry, Respiratory Therapy, and Dental Laboratory Technology** curriculums 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 curriculum. 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.

## Provisional Admission

Students applying too late to secure all supporting documents may be admitted as provisional students. In such a case, all requirements 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." Students enrolling under this classification will be treated as nonresident with respect to tuition and fees and cannot be classified as a resident.

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).

All foreign applicants must submit evidence of adequate financial resources to support them 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. Foreign students must take the placement test. Tests cannot be mailed to prospective foreign students outside the United States.

## 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 at such times as 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 completely meet any outstanding debt such as the following: 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. Any indebtedness to this institution will make one ineligible to enter any other institution of the Community College System of North Carolina.

## 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 without receiving a "W".

## 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 or diploma at the beginning of the quarter preceding the completion of his 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.



## 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 his or her 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 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 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 most recent previous educational agency attended 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 one 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 \$3.25/\$16.50 per credit hour tuition rate applies to all regularly enrolled students. Tuition is subject to change by the North Carolina Legislature.

### Resident Tuition for Legal Residents of North Carolina

All students enrolled for twelve or more credit hours are charged a maximum tuition fee of \$39.00 per quarter. Resident students enrolled for eleven or less credit hours per quarter are charged a part-time student rate of \$3.25 per credit hour enrolled per quarter.

### Tuition for Out-of-State Students

Tuition for any student whose legal residence is outside North Carolina is approximately five times the resident rate. Full-time nonresident students enrolled for twelve or more credit hours will be charged a maximum of \$198.00 per quarter. Tuition for nonresident

students enrolled for eleven or less credit hours is \$16.50 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 exempted 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 is eligible to graduate before paying. It 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.

## Nursing Uniform Deposit

Nursing students enrolling for their first quarter (or re-enrolling) are required to make a \$27.00 uniform deposit. This deposit is payable, along with the other required fees and tuition, to the Business Office during the day(s) of registration.

The uniform deposit entitles each nursing student to use 2 aprons or 2 shirts. Nursing caps are not included, but can be acquired from the Institute's student supply store.

Should the student complete the requirements for graduation and return all uniforms in satisfactory condition, the uniform deposit will be paid to the State to cover the required cost of taking the State Nursing Board Examination. In this case there is no refund. However the deposit is refundable to those who leave school and are not eligible to take the State Examinations and who return all uniforms in satisfactory condition.

## Insurance - Accidental

A student may obtain coverage for expenses incurred for accidents associated with school activities for \$4.00 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. It is not refundable.

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

The \$4.00 fee is for policy coverage commencing in October and terminating in September of each year. Policy coverage is available at registration time of any quarter; however, the coverage is only through September 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 Technologies and Practical Nursing programs 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 a uniform deposit for Practical Nursing, 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, uniforms and stethoscope for Respiratory Therapy, and a camera for Communication Technology. Lab coats and other miscellaneous supplies may also be required in some programs. Certain Health Technologies require professional liability insurance.

## 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

A \$5.00 fee is charged for each continuing education course. There may also be a fee payable to outside agencies co-sponsoring courses with Durham Technical Institute.

# 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

**Basic Educational Opportunity Grant** - (BEOG or Basic Grant) - A student may be eligible for this federal grant if he or she:

- 1) is enrolled at least 1/2 time,
- 2) is in an eligible curriculum program,
- 3) is a U.S. citizen or eligible noncitizen,
- 4) shows financial need according to the BEOG formula,
- 5) does not have a Bachelor's degree, and
- 6) has received no more than four full years of BEOG payments.

Before receiving any BEOG 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

A limited number of scholarships are available at Durham Technical Institute. Specific program scholarships include the American Fund for Dental Health (for Dental Lab students) and the Galeski and Crowder Scholarships (for Opticianry students). Contact the Financial Aid Office for more information about these scholarships.

The N.C. Department of Veterans Affairs sponsors scholarships for children of certain disabled or deceased veterans. Inquiries and applications should be directed to the **Department of Veterans Affairs, Box 2187, Raleigh, N.C. 27602.**

In the past, general scholarships have been awarded by Home Security Life, Chapel Hill Women's Club, and Union Baptist Church, among others.

## 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 only.

## 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. Comprehensive Employment and Training Act (CETA) funds are provided for qualifying unemployed, under employed, or disadvantaged students in selected occupational programs. There is a CETA Office on the Durham Tech campus.
  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.
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# Section

# 3

# Academic Policies

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The information given below constitutes Durham Technical Institute's academic policies, effective October 1, 1980. These policies are applicable to all enrolled students (with the exception of students enrolled in continuing education classes) and supercedes all previous policies.

Under special conditions, these policies may be modified or waived by the Vice President of Academic Services upon justification by the program coordinator, the department chairman and the Dean.

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

## Requirements for a Program of Study

A student admitted to a degree, diploma, or certificate program must be enrolled for 12 or more credit hours to be considered full-time and must meet with a faculty advisor to sign a curriculum agreement with the Institute. The agreement contains the prescribed courses which the student must complete in order to receive a degree, diploma, or certificate. If the student takes fewer than the prescribed courses designated for any given quarter by the curriculum agreement, the student may not be eligible to complete the program according to the time frame of the agreement.

Only those courses prescribed by the curriculum agreement or approved equivalent courses shall count toward graduation. Other courses shall not be included in calculating the cumulative grade point average for graduation.

A student who has enrolled for course credit but has not been admitted to a degree, diploma, or certificate program is considered a special student, and is affected only by the grading system, the prerequisite courses, and the attendance requirements. A special student desiring to work toward a degree, diploma, or certificate must meet all institutional and departmental requirements.

# Grading System

Letter grades assigned and their grade point equivalents are as follows:

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
D	70 - 77	Below average, passing work	1
F	Below 70	Unsatisfactory work	0
W		Withdrawal	
I		Incomplete	
AU		Audit	
WA		Course Waiver	
CH		Challenge Examination	
MP		Making Progress	

Certain courses within a program of study may require the grade C or better, while others may require only a passing grade. In either case, these courses shall be designated by the faculty of the program, subject to the Dean's approval.

The grade C or better is required for all clinical and clinical preparation courses. Such courses shall be designated by the faculty of the program subject to the Dean's approval.

## Grade Point Average

Academic progress at Durham Technical Institute is based on a cumulative grade point average system. The student accumulates grade points based on grades earned per quarter. 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	D	5	×	1	=	5
		<u>13</u>				<u>26</u>

2.00 = Grade Point Average

Divide 13  $\overline{) 26.00}$   
 26.00  
 00.00

The 2.00 is equivalent to the grade C at Durham Technical Institute; however, the grade D may not transfer to a senior institution or meet the requirements for graduation from certain programs at Durham Technical Institute.

If a course required by the curriculum agreement is not passed, the course must be repeated with a passing grade to make the student eligible for the associate degree, diploma, or certificate.

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 is not applicable to veteran students enrolled prior to the fall quarter, 1978. For these students all grades are figured in the cumulative grade point average.

All grades remain on the permanent record.

## Change of Grade

The program coordinator must approve all grade changes, including removal of the grade of Incomplete.

## Standards of Academic Progress

A final 2.00 cumulative grade point average is required for graduation in all programs. As a period of adjustment is often needed for the new student, the following scale will be used to determine satisfactory progress:

Hours Toward Degree / Diploma	G.P.A.
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0 - 12	1.00
13 - 25	1.25
26 - 37	1.50
38 - 49	1.75
50 or more	2.00

Hours Toward Certificate	G.P.A.
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0 - 12	1.25
13 - 25	1.50
26 - 37	1.75
38 or more	2.00

A student whose cumulative grade point average falls below 2.0 at the end of a quarter should meet with the faculty advisor prior to or during the registration period to review his or her academic progress.

When the cumulative grade point average falls below 1.5, the student should not register for more than 12 credit hours the following quarter and is encouraged to meet with Counseling Services for special academic assistance.

## Explanation of Special Grades

### The Grade of Incomplete (I)

The grade **I** is given when the student has not completed certain course work due to unusual circumstances. There is no penalty, and hours will not be counted for the quarter in which the grade **I** is recorded. Except in extenuating circumstances, the student must complete the course work by specific arrangement with the instructor during the following quarter, preferably within the first ten (10) calendar days of the quarter, whether enrolled or not. The grade **I** received during the quarter prior to the quarter of graduation must be removed by mid-term of the quarter in which the student graduates. If the grade **I** is not removed by the end of the next quarter, the student will receive the grade **W** for withdrawal from the course.

### Withdrawal from Course (W)

The grade **W** is given when a student withdraws or is dropped from a course after the drop/add period. A student may withdraw from a course within the first ten calendar days of the quarter with no record of the course shown on the permanent record. After the first ten (10) calendar days, the grade **W** will be recorded on the student's permanent record. No quality points can be earned for the grade **W**. Students receiving financial aid should refer to the financial aid policy governing the particular program if they receive the grade **W**.

### The Grade for Making Progress (MP)

Under special circumstances and with approval of the program coordinator, the grade **MP** is given when the student needs additional time beyond the traditional time frame of the course to satisfy the course objectives. Upon receiving the grade **MP**, the student must re-register for the course during the next quarter in residence and continue working toward the course objectives in a regularly scheduled class or on an arranged basis with the instructor. The arranged

course shall be designated as multi-entry/ulti-exit (ME) as per policy on arranged courses.

## Course Audit (AU)

The grade **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 benefits from 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.

## Course Waiver (WA)

Through equivalent work experience, a course may be waived **during the first quarter in residence only**, with approval of the program coordinator and department chairman. Work experience credit will be considered for qualified persons on an individualized basis. Factors considered include:

1. Years of prior work experience.
2. Type of professional credentials and recognition earned.
3. Demonstrated professional ability.

The amount of work experience credit awarded is dependent upon evaluation of the student's total professional record, and such credit is awarded only when there is clear evidence that the student already possesses the knowledge and skills necessary to complete the course. If clear evidence cannot be furnished, the student may take the course in the standard manner or challenge the course by written or performance examination.

## Challenge Examination (CH)

A student wishing to receive course credit through challenge examination must petition the instructor in writing by offering a clear justification for taking the examination. Such a petition, upon approval of the program coordinator, must be made and the examination completed within the first ten (10) calendar days of the quarter.

The challenge examination must be in written form, with the exception of performance type examinations used in laboratory, shop, practicum, and clinical activities. For performance exams, written documentation should be filed in the student's folder within the office of the program coordinator to support the challenge grade. The challenge examination grade **CH** constitutes the course grade with the grade **C** or better required on the challenge examination. Although no quality points are earned, appropriate credit hours are given. These hours are not counted in computing cumulative grade point average. A student must attend class until the challenge examination is successfully completed. At this point the challenge examination grade of **CH** is recorded by the instructor as a final grade and the student is no longer required to attend class. If the student makes below **C** on the challenge examination, he or she will not be penalized but will be required to continue the course.

## Transfer Credit

Durham Technical Institute accepts transfer credit for courses with the grade **C** or better from member institutions of the North Carolina Department of Community Colleges and Technical Institutes and other accredited institutions of higher education. Persons having been enrolled in any post-secondary institution including Durham Technical Institute have the option of transferring all, part, or none of their previous academic work to Durham Technical Institute as per the current transfer credit policies. The content of such courses should be equivalent to courses offered by Durham Technical Institute. When any course is in question the program coordinator must be consulted before transfer credit is officially awarded.

The following academic policies apply to transfer credit:

1. **Transfer Credit and Cumulative Grade Point Average**  
Credits transferred from another institution will not be used in calculating the student's grade point average for academic progress and graduation.
2. **Transfer Credit and Grade Requirements**  
In order to receive transfer credit for a course taken at another institution, the student must have earned the grade C or better in the course.
3. **Transfer Credit and Residence Requirements**  
A student transferring from another institution must complete at least one-fourth of the total credit hours required at Durham Technical Institute in order to be eligible for graduation.
4. **Transfer Credit and General Education Courses**  
Courses accepted for transfer credit as general education courses (i.e., English, humanities, social sciences, mathematics, and physical sciences) should be equivalent to courses offered at Durham Technical Institute. When any such course is in question, the appropriate general education coordinator should be consulted.  
A student holding a baccalaureate or an associate degree from an accredited institution of higher education, including those within the North Carolina Department of Community Colleges and Technical Institutes, may receive credit for Durham Technical Institute's general education requirements of up to twelve (12) hours in English and six (6) hours of general education electives, or may choose to complete one or more of these courses for credit. It may be necessary to take certain mathematics or science courses to complete the prescribed program of study.
5. **Transfer Credit Within Durham Technical Institute**  
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 transferrable, grade for grade; however, the student has the option of transferring or repeating such courses. The decision to transfer or repeat these courses should be made upon admission to the new curriculum.

## Academic Recognition

To be eligible for academic recognition, a student must have completed a minimum of twelve (12) credit hours per quarter with a grade point average of 3.25 or better. Upon completing the program with a cumulative grade point average of 3.25, the student will graduate with honors.

## Prerequisite Courses

All prerequisite courses or equivalents must be passed prior to taking the next course in sequence. The grade of Incomplete on prerequisite courses must be removed prior to registration for the next course in sequence unless approved by the program coordinator.

## Attendance Requirements

Upon enrolling in a course, a student is responsible for fulfilling the requirements of the course by regular class attendance and completion of all course assignments.

### **The student's responsibilities are as follows:**

1. Keeping a record of absences and tardies.
2. Getting assignments from the instructor prior to the absence, whenever possible, so that work may be completed upon returning.
3. Requesting to make up work due to absences, subject to the instructor's approval. The final course grade may be affected when missed course work is not made up.

### **The instructor's responsibilities are as follows:**

1. Informing the student of special attendance policies for labs, clinical experiences, practicums, or other class variations.
2. Maintaining an accurate attendance record on each student.
3. Consulting promptly with the student on any attendance problems.

To receive course credit, a student should attend a minimum of 85 percent of the contact hours of the class. Therefore, upon exceeding 15 percent of the class contact hours, the student may be withdrawn from the course at the instructor's discretion. Five (5) tardies of at least five (5) minutes in a class, lab, or shop may constitute one absence.

## Arranged Courses (Multi-Entry / Multi-Exit)

Under special situations approved by the program coordinator, certain classes may be taught on an arranged basis. An arranged course is identified as an approved curriculum course for which the instructor works out a time schedule with the student to meet the course objectives or to remove the grade of MP through independent study. All arranged courses are to be classified as multi-entry/multi-exit (M/E) courses with only the personal contact hours with the student counting as membership hours, including the time for examinations.

All arranged courses must be shown on the quarterly master teaching schedule and identified as M/E with the appropriate index number, course number and title.

## Student Conduct

Durham Technical Institute encourages responsible conduct for all students enrolled. Violation of the student code of conduct includes:

1. Disruption of the educational process.
2. Damage or destruction of institutional property.
3. Damage or destruction of private property.
4. Assault on an institutional employee.
5. Physical abuse of a student or other person not employed by the Institute.
6. Possession, use, or being under the influence of alcoholic beverages, marijuana, illegal drugs or controlled substances.
7. Possession, handling, or transmitting weapons and dangerous instruments.
8. Cheating and plagiarism.

Disciplinary action resulting from any violation may be probation, suspension, or expulsion.

## 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.

# Procedure for Determining Academic Progress for Veterans

A final 2.00 cumulative grade point average is required for graduation in all programs. As a period of adjustment is often needed for a new student, the following scale will be used to determine satisfactory progress:

Hours Toward Degree / Diploma	G.P.A.
0 - 15	1.00
16 - 30	1.25
31 - 45	1.50
46 - 60	1.75
61 - 71	1.90
72 or more	2.00

Hours Toward Certificate	G.P.A.
0 - 12	1.25
13 - 25	1.50
26 - 37	1.75
38 or more	2.00

This scale will be used as the basis for determining a student's status for certification purposes to the Veterans Administration. The veteran student will be given a warning the first quarter the cumulative grade point average falls below the above standard. If at the completion of the following quarter, the cumulative grade point average falls below the above standard, the student will be placed on probation with benefits. If at the completion of one quarter's probationary period, the student's cumulative grade point average does not equal or exceed the standard, the student will be classified as not making satisfactory progress and veterans benefits will be terminated. If the cumulative grade point average is raised to meet the standard at the end of the probationary quarter, the student will be taken off probation the subsequent quarter and considered to be making satisfactory progress.

Progress records on all veterans are maintained by the Veterans Counselor and can be furnished to any veteran requesting a copy.

## Grades of I, W, F, and AU, MP, WA, and CH

The grade of **I** or Incomplete is given when a veteran does not complete course requirements at the end of the quarter due to legitimate reasons such as sickness at exam time, death in the family, etc. In the quarter that an **I** is received, the **I** will not be computed in that quarter's grade point average. If an **I** is not removed by or before the end of the subsequent quarter, whether or not the veteran is enrolled, the **I** will become a **W** and may result in an overpayment from VA. Veterans must retake the course to receive a passing grade and meet graduation requirements.

The grade **W** is given when a student withdraws or is dropped by an instructor from a course or courses after the drop/add period and may result in an overpayment from VA. Veterans must retake the course to receive a passing grade and meet graduation requirements. The grade **F** is given when a course is not passed. Such a course must be repeated and passed to meet graduation requirements. Veterans are entitled to receive benefits for repeating a course. Veterans who are taking two or more courses and receive all **F**'s will be placed on VA probation the following quarter. Benefits will be terminated when a veteran receives a total of thirteen (13) credit hours of failing grades (**F**).

The grade of **AU** or Audit is given when a student attends a class but receives no credit for attendance or participation in the class. Courses taken for audit are not eligible for veterans benefits.

The grade **MP** or Making Progress is given when the student needs additional time beyond the traditional time frame of the course to satisfy the course objectives. Veterans may not be paid for courses in which they receive the grade of **MP**.

The grade **WA** is given when a course is waived through equivalent work experience. Courses waived are not eligible for veterans benefits.

The grade **CH** is given when a student receives course credit through challenge examinations. Courses in which challenge examinations are successfully completed are not eligible for veterans benefits.

**NOTE:** Veterans who retake courses to satisfy graduation requirements are cautioned that they may not be eligible to receive VA benefits if they have taken too many hours to complete a program, have made unsatisfactory progress, or have accumulated too many F's.

## Procedure for Determining Attendance of Veterans

Attendance requirements are the same for veteran and non-veteran students. However, veterans must complete a VA Attendance Report each month, due the last class day of each month. The blue form is for General Education and Technical veterans and the white form is for Vocational veterans. As these forms are used to verify attendance, failure to turn them in will result in termination of benefits. 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 go through Veterans Administration Guidance and Counseling before they can be recertified for educational benefits. This required counseling session 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, Police Science and Health Technologies are eligible to transfer to Campbell University. Business Administration graduates may pursue the Bachelor of Business Administration degree. Police Science graduates may earn the Bachelor of Special Studies degree in Police Science. 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

Engineering Technology 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.

Police Science graduates may apply for the Bachelor of Science degree program in Correctional Services. Admission to the program is granted on an individual basis.

## 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 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 Central University

Graduates with an associate degree may transfer as a junior to North Carolina Central University to pursue a Bachelor of Science degree in Post-Secondary Teacher Education. Graduates of Electronics Engineering Technology may transfer to the Bachelor of Science degree program in Physics. 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 Police Science may transfer to the Bachelor of Science degree program in Criminal Justice.

## North Carolina Wesleyan College

Graduates of several associate degree programs are eligible to earn a Bachelor of Science in Technology degree at North Carolina Wesleyan College. The approved programs are Accounting, Business Administration, Business Data Processing, Electronics Engineering Technology, General Office Technology, and Secretarial Science.

Police Science graduates may transfer to the Bachelor of Science in Police Science degree 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.

## Old Dominion University

Graduates of Electronics Engineering Technology may enter the Bachelor of Science degree program in Engineering Technology at Old Dominion University.

## 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.

## 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 Police Science program are eligible to enter the Bachelor of Science degree program in Law Enforcement and Administration 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.

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# Section

# 4

# Services And Special Programs

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## 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 individualized as we seek to determine each student's needs and possible resources to meet these needs.

The function of Counseling Services includes:

### Counseling

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 is a worthwhile goal for everyone. In the process of achieving this goal, 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.

### Tutorial Services

Tutorial services is simply "students helping students." Tutors are recommended by instructors and are given special training by the tutorial counselor. Any student who has trouble with any course should come by Counseling Services immediately and request help. Any student who feels qualified to tutor, who cares about people, who has some free time, and who is interested in fellow students should contact our tutorial counselor. There is no charge to the student for tutorial services.

## 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.

## Services to Foreign Students

The Director of Counseling Services serves as advisor to international students. The director 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 have an interview with the department head/coordinator of the program in which he or she wishes to enroll. 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.

## Student Activities

At Durham Technical Institute the Student Government Association sponsors all student activities and all athletics, and approves all student clubs. Student initiative, interest, and leadership are absolutely necessary for an effective SGA to function. All students are encouraged to support and become active in the Student Government Association. For more information and to become involved, please 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 employment for part-time and career employment. All students are urged to register at least 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 over an indefinite period.

## Veterans Affairs Office

The Veterans Affairs Office assists students in applying for VA benefits and certifies the veteran's enrollment. All veterans receiving educational benefits must be enrolled in a curriculum leading to a degree diploma, or certificate. Benefit payments will not begin until the veteran's enrollment has been certified.

All veterans should have and be familiar with the Veterans Affairs Handbook. The handbook information will help veterans to continue receiving VA educational allowances while attending school. Additional information may be obtained from the Veterans Affairs Office.

# Learning Resources Center

The Learning Resources Center is a merger of the Library, Printing Services, and the Curriculum Center. In creating the role of the Learning Resources Center, (LRC), the Institute has moved away from the traditional view of the library as a collection of books to a Center where learning occurs. Students may use the LRC to browse, study, complete research assignments, or enroll in a course for credit or personal enrichment. Trained staff members are available to assist the individual in finding and interpreting information.

As a service agency, the Learning Resources Center provides assistance to the students, faculty, and staff of Durham Technical Institute as well as to any community citizen who desires to use it. The LRC is open during the Institute's regular hours.

## Library

The library is an integral part of academic life at Durham Technical Institute. There are over 20,000 volumes and holdings that include films, slides, tapes, records, microfilm, newspapers, and maps. The Institute's audiovisual equipment is located in the library and an audiovisual technician is available to assist faculty and students.

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 apply for a library card.

## Curriculum Center

The Curriculum Center provides a setting for self-instruction and/or one-to-one instruction in a number of areas including mathematics, foreign languages, reading improvement, basic sciences, and English grammar.

Each quarter various curriculum credit courses are offered through the Curriculum Center. These credit courses are listed on the Durham Technical Institute quarter schedule and students register for these courses as they do for any credit course. Tuition is charged.

Durham Technical Institute's telecourses are also administered through the Curriculum Center. Each quarter, certain curriculum credit courses are broadcast over local educational television. Students register for these courses as they do any credit course, and tuition is charged. Students view the courses in their homes, but must come to campus for orientations, workshops, and exams.

Persons who are not credit curriculum students may also enroll in the Curriculum Center in order to reach certain personal objectives. The Center provides review for Durham Technical Institute placement tests. Persons may also enroll for certain high school level courses which are required by other educational institutions (a total high school completion program is offered through Durham Tech's Adult Education programs.) Persons may also enroll in the Curriculum Center to study any available courses offered by the Center for general interest. There is no charge for non-credit courses.

## Community Video Services

Community Video Services is the media production unit for the Institute. Services provided include photography, graphics, slide/tape and videotape design and production. Community Video Services has three main functions: instructional support, working with the faculty to develop instructional media for support of classroom and curriculum activities; promotion, including production of video commercials and slide/tape programs; community programs, assisting government agencies or community groups with production requests.

Community Video Services provides video programs on the Durham Cablevision public access channel. Industrial or travel films, general interest programs and Durham Tech programs are available for viewing on Durham Cablevision.

An on-campus cable system allows faculty members access to videotapes for classroom use.

## 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. The main component of Daisy is a literacy program which provides basic reading and writing skills to the adult non-reader. Students participating in the DAISY Literacy Program receive personalized instruction. 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 (entertainment).

DAISY operates 7 days a week, 24 hours a day. During the hours 1 p.m. to 9 p.m. Monday thru Thursday and 1 p.m. to 5 p.m. on Friday, 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, P.O. Box 11307, Durham, North Carolina 27703.**

## 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 participate more fully in the life of their community through significant volunteer service.

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

Last year, 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. Last year RSVP helped 335 Retired Senior Volunteers find satisfying ways of contributing over 43,000 hours of service through 43 non-profit agencies. This enabled the community to enjoy comforts and extend services that would not have been available otherwise.

## Special Services Project

The Special Services Project is a comprehensive academic support service to assist youths in entering, continuing, or resuming academic programs at Durham Technical Institute. The project provides services to a target population of 225 students. The aim of the project is to help each student gain the academic strengths to successfully complete 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 enroll in Special Services a student must be enrolled or accepted for enrollment in a curriculum program at Durham Technical Institute and possess the academic potential to complete a post-secondary educational program. Another criterion is that a student must either be academically disadvantaged, culturally disadvantaged, physically handicapped, economically deprived, or possess limited English speaking ability.

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, 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.

## The Visiting Artist Program

The Visiting Artist Program is a cooperative grant program of the Department of Community Colleges, the North Carolina Arts Council, and Durham Technical Institute. It is a responsibility of the North Carolina Arts Council to recruit and screen artists of exceptional merit to become approved candidates. The artist is available without fee for lecture-demonstrations, performances and exhibitions, workshops, consultancies and special projects in the Durham area. The Durham Technical Institute artist also participates in exchange performances and short term residencies with artists at other Community College institutions.

Programs are held for schools, civic groups, churches, business and industry, and other organizations. A typical program may include a demonstration or performance, a slide-lecture presentation, and a discussion or question and answer session to provide an understanding of the art experience.

Arrangements to schedule a program may be made in advance by contacting the office of the dean or the artist's studio at Durham Technical Institute.

## Weekend College

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

Courses are offered in five main curriculum areas - Business Administration, Business Data Processing, Early Childhood Education, Electronics Engineering Technology, and Optical Laboratory Mechanics. Curriculum course offerings are structured around a related skill development module concept - related courses offered in sequence that qualify the student for a certain skill within the overall program area. Certificates are awarded upon completion of related skill development modules.

A full range of services is available for the weekend student. The Learning Resource Center (including the Library and Curriculum Center) is open until 10 p.m. on Fridays and from 8 a.m. until 5 p.m. on Saturdays. A weekend administrator is available during the hours the school is open.

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# Section

# 5

# Programs Of Study

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Accounting  
Architectural Drafting  
Automotive Mechanics  
Business Administration  
Business Data Processing  
Communications Technology  
Dental Laboratory Technology  
Early Childhood Associate  
Electrical Installation and  
Maintenance  
Electronics Engineering  
Technology  
Fire Science  
General Education  
General Office Technology

Industrial Management  
Technology  
Machinist  
Optical Laboratory Mechanics  
Opticianry  
Paralegal Technology  
Pharmacy Technology  
Police Science  
Practical Nurse Education  
Residential Carpentry and  
Preservation  
Respiratory Therapy  
Science and Engineering  
Technology  
Secretarial Science

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



# Accounting

Accounting is often thought of as "the language of business." This is 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: private or industrial accounting, governmental, and public accounting.

Accounting is much more than a routine, clerical type of work. An accountant has to meet with and talk to important executives, and 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 lay a solid foundation with three courses in the basic accounting principles and two intermediate accounting courses. Upon this foundation, advanced courses such as cost accounting, managerial accounting, auditing, theory, two tax courses, and statistics are required. Related course work in English, business, and the social sciences is included to augment the accounting skills.

The two-year program in accounting is both intensive and concise. Associate degree; day-six quarters; evening-nine quarters; enroll any quarter.

Day Program - Six Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	BUS 101	Introduction to Business	5	0	5	5
	BUS 120	Accounting I	5	2	7	6
	ECO 102	Economics I	3	0	3	3
	ENG 101	Communication Skills	3	0	3	3
2	BUS 125	Math of Finance	5	0	5	5
	BUS 121	Accounting II	5	2	7	6
	ECO 104	Economics II	3	0	3	3
	ENG 102	Communication Skills	3	0	3	3
3		General Education Elective	3	0	3	3
	BUS 115	Business Law I	3	0	3	3
	BUS 122	Accounting III	5	2	7	6
	ENG 103	Communication Skills	3	0	3	3
	BUS 229	Taxes I	3	2	5	4
4		General Education Elective	3	0	3	3
	BUS 221	Statistics	5	0	5	5
	BUS 116	Business Law II	3	0	3	3
	BUS 225	Cost Accounting	3	2	5	4
	BUS 230	Taxes II	3	2	5	4
5	ENG 203	Interpersonal Communications	3	0	3	3
	BUS 222	Intermediate Accounting I	5	2	7	6
	BUS 226	Managerial Accounting	5	2	7	6
	BUS 216	Business Communication	3	0	3	3
6	BDP 101	Introduction to Data Processing	5	0	5	5
	BUS 223	Intermediate Accounting II	5	2	7	6
	BUS 227	Accounting Theory	3	2	5	4
	BUS 269	Auditing	3	2	5	4
		Technical Elective	3	0	3	3

### Total Credit Hours

**112**

Evening Program - Nine Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	BUS 101	Introduction to Business	5	0	5	5
	ENG 101	Communication Skills	3	0	3	3
2	BUS 125	Math of Finance	5	0	5	5
	BUS 120	Accounting I	5	2	7	6
	ENG 102	Communication Skills	3	0	3	3
3		General Education Elective	3	0	3	3
	BUS 115	Business Law I	3	0	3	3
	BUS 121	Accounting II	5	2	7	6
	ECO 102	Economics I	3	0	3	3
4	BUS 122	Accounting III	5	2	7	6
	ENG 103	Communication Skills	3	0	3	3
	ECO 104	Economics II	3	0	3	3
5	BUS 116	Business Law II	3	0	3	3
	BUS 221	Statistics	5	0	5	5
	BUS 225	Cost Accounting	3	2	5	4
6	BUS 222	Intermediate Accounting I	5	2	7	6
	ENG 203	Interpersonal Communication	3	0	3	3
		General Education Elective	3	0	3	3
7	BDP 101	Introduction to Data Processing	5	0	5	5
	BUS 223	Intermediate Accounting II	5	2	7	6
	BUS 216	Business Communications	3	0	3	3
8	BUS 226	Managerial Accounting	5	2	7	6
	BUS 229	Taxes I	3	2	5	4
		Technical Elective	3	0	3	3
9	BUS 227	Accounting Theory	3	2	5	4
	BUS 269	Auditing	3	2	5	4
	BUS 230	Taxes II	3	2	5	4

### Total Credit Hours

**112**



## Architectural Drafting

The drafter is a highly skilled individual who can take rough sketches of written information and through the use of standard graphic practice, develop a working drawing. Acquisition of the drafting practices comes through both formal and on-the-job training. The drafter works with architects, designers, engineers, planners, inventors and many other professionals who need their services.

The architectural drafter is more than just a technician who works for an architect. Many architectural drafters find challenging careers in contracting, estimating, building, inspection, interior design, surveying, architectural millwork, landscape architecture, engineering and related fields. The architectural drafter acquires a variety of skills ranging from developing site plans to working knowledge of local building codes. In the Architectural Drafting program at Durham Technical Institute, emphasis is placed on drawing and acquiring technical skills and the application of those skills. The architectural drafter is a unique individual and for that reason, many advance into higher paying positions.

The one-year Architectural Drafting curriculum is broad in course offerings yet quite intensive and demanding. Related course work is provided in areas of communication skills, mathematics, physics, and selected electives to provide a more diversified background.

The outlook for employment in the Research Triangle area is bright. The projected growth rate from 1980 to 1990 calls for an increase of over one hundred ninety-four thousand people in the Triangle area alone and for a statewide growth rate of over fifteen percent in the same ten year period. The State of North Carolina is moving towards an industrial economy, and this is particularly evident in the Research Triangle area.

Diploma; day-four quarters;  
enroll fall quarter.

Day Program - Four Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	DFT 1101	Architectural Drafting I	3	12	15	7
	MAT 1050	Applied Mathematics	3	0	3	3
	ENG 1101	Reading Improvement	3	0	3	3
	DFT 1112	Architectural Materials	3	0	3	3
2	DFT 1102	Architectural Drafting II	3	12	15	7
	DFT 1111	Descriptive Mathematics	3	3	6	4
	ENG 1102	Communication Skills	3	0	3	3
	PHY 1050	Applied Science	3	2	5	4
3	DFT 1103	Architectural Drafting III	3	12	15	7
	DFT 1113	Structural Drafting	3	6	9	5
	DFT 1117	Architectural Estimating	3	0	3	3
4	DFT 1104	Architectural Drafting IV	3	12	15	7
	DFT 1114	Technical Illustration	1	6	7	3
	DFT 1115	Surveying for Architectural Drafters	3	5	8	5
<b>Total Credit Hours</b>						<b>64</b>



## Automotive Mechanics

As an occupation, auto mechanics is the largest "repair" occupation, and one out of every seven persons employed in the United States is in some type of automotive business. To give you some idea of the importance of the auto mechanic, let's take a look at a prediction of the Automobile Manufacture's Association. According to this source, by 1985 there will be more than one hundred fifty million cars, trucks, and buses in operation. Naturally, these vehicles require maintenance, inspection, and repair.

Your work as an auto mechanic will vary according to the type of shop in which you are employed. If you are located in a small shop you probably will be doing a variety of jobs on all kinds of vehicles. Other small shops specialize in only one type of service. Large garages often include several departments, each manned by mechanics who specialize. Specialization covers repair of the engine, electrical system, transmission, steering, brakes, carburetor, radiator, and the like.

The Automotive Mechanics program provides training for developing the basic knowledge and skills needed to inspect, test, diagnose, repair, or service automotive vehicles. Manual skills are developed in practical lab activities. Thorough understanding of the operating principles involved in the modern automobile comes in class assignments, discussion, and practical lab experiences.

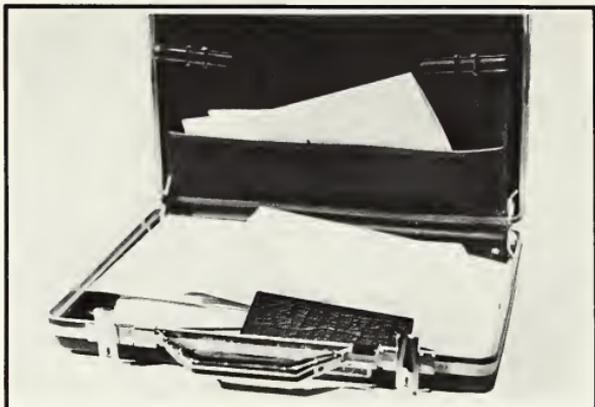
Complexity in automotive vehicles increases each year because of scientific discovery and new engineering. These changes are reflected not only in passenger vehicles, but also in trucks, buses, and a variety of gasoline-powered equipment. The Automotive Mechanics program provides a basis for the student to compare and adapt to new techniques for servicing and repair as vehicles are changed year by year.

Diploma; day-four quarters/enroll fall quarter;

evening-eight quarters/enroll any quarter.

Day Program - Four Quarters				Class Hours	Lab Hours	Contact Hours	Credit Hours
1	AUT	1113	Engine Fundamentals and Systems Servicing	2	6	8	4
	AUT	1104	Charging and Starting Systems	2	6	8	4
	AUT	1118	Technical Specifications	3	0	3	3
	MAT	1070	Applied Mathematics	3	0	3	3
2	ENG	1101	Reading Improvement	3	0	3	3
	AUT	1116	Electrical Systems and Accessories	2	6	8	4
3	AUT	1103	Carburetion, Fuel and Exhaust Systems	2	6	8	4
	AUT	1107	Tune-Up and Emission Control	2	6	8	4
	ENG	1102	Communication Skills	3	0	3	3
	AUT	1117	Engine Service and Repair	2	6	8	4
4	AUT	1106	Steering and Suspension Systems	2	6	8	4
	AUT	1102	Brakes and Tires	2	6	8	4
	PHY	1070	Applied Science	3	2	5	4
	AUT	1105	Air Conditioning	2	6	8	4
5	AUT	1109	Systems Troubleshooting and Servicing	2	6	8	4
	AUT	1110	Manual Transmissions and Power Trains	2	6	8	4
	AUT	1112	Automatic Transmissions	2	6	8	4
	<b>Total Credit Hours</b>						

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



## Business Administration

The Business Administration program is a two-year course of study leading to an associate degree in Business Administration. In order to meet the diverse needs of the students, the full program is offered day and evening. The content of the day and evening classes in the same subject is standardized allowing students maximum flexibility in scheduling. Students may attend day classes, evening classes or a combination of both. 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 Durham Technical Institute's Business Administration program, one would have the management skills necessary to function effectively in many different industries. A sampling of the graduates show 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.

Associate degree; day-six quarters; evening-nine quarters;  
enroll any quarter.

Day Program - Six Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	BUS 101	Introduction to Business	5	0	5	5
	BUS 102	Typewriting I	3	2	5	4
2	ECO 102	Economics I	3	0	3	3
	ENG 101	Communication Skills	3	0	3	3
	MAT 110	Business Mathematics	5	0	5	5
3	BUS 120	Accounting I	5	2	7	6
	BUS 239	Marketing	5	0	5	5
	ECO 104	Economics II	3	0	3	3
4	ENG 102	Communication Skills	3	0	3	3
	BUS 115	Business Law I	3	0	3	3
5	BUS 121	Accounting II	5	2	7	6
	BUS 232	Salesmanship	3	0	3	3
	BUS 232	Business Elective	3	0	3	3
6	ENG 103	Communication Skills	3	0	3	3
	BUS 116	Business Law II	3	0	3	3
7	BUS 123	Business Finance	3	0	3	3
	BUS 123	Business Elective	3	0	3	3
8	BDP 101	Introduction to Data Processing	5	0	5	5
	ENG 203	Interpersonal Communications	3	0	3	3
9	BUS 124	Personal Finance	3	0	3	3
	BUS 235	Business Elective	3	0	3	3
10	BUS 235	Small Business Management	3	0	3	3
	BUS 216	Business Communication	3	0	3	3
11	BUS 216	General Education Elective	3	0	3	3
	BUS 229	Business Elective	3	0	3	3
12	BUS 271	Taxes I	3	2	5	4
	BUS 271	Office Management	3	0	3	3
	BUS 272	Principles of Supervision	3	0	3	3
13	BUS 272	General Education Elective	3	0	3	3
	<b>Total Credit Hours</b>			<b>103</b>		

Evening Program - Nine Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	BUS 101	Introduction to Business	5	0	5	5
	ENG 101	Communication Skills	3	0	3	3
2	MAT 110	Business Mathematics	5	0	5	5
	BUS 239	Marketing	5	0	5	5
3	ENG 102	Communication Skills	3	0	3	3
	BUS 102	Typewriting I	3	2	5	4
4	BUS 115	Business Law I	3	0	3	3
	BUS 120	Accounting I	5	2	7	6
5	ECO 102	Economics I	3	0	3	3
	BUS 121	Accounting II	5	2	7	6
6	ECO 104	Economics II	3	0	3	3
	ENG 103	Communication Skills	3	0	3	3
7	BUS 123	Business Finance	3	0	3	3
	BUS 123	Business Elective	3	0	3	3
8	ENG 203	Interpersonal Communications	3	0	3	3
	ENG 203	General Education Elective	3	0	3	3
9	BUS 116	Business Law II	3	0	3	3
	BUS 124	Personal Finance	3	0	3	3
10	BUS 232	Business Elective	3	0	3	3
	BUS 272	Principles of Supervision	3	0	3	3
11	BUS 235	Business Electives	6	0	6	6
	BUS 235	Small Business Management	3	0	3	3
12	BUS 216	Business Communication	3	0	3	3
	BUS 229	Taxes I	3	2	5	4
13	BUS 232	Salesmanship	3	0	3	3
	BDP 101	Introduction to Data Processing	5	0	5	5
14	BUS 271	Office Management	3	0	3	3
	BUS 271	General Education Elective	3	0	3	3
<b>Total Credit Hours</b>			<b>103</b>			



## Business Data Processing

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 the Business Data Processing program 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.

The Business Data Processing program 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 customers, payroll, and inventory. Emphasis is upon the use of machines in solving business problems.

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

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.

Associate degree; day-seven quarters; evening-eight quarters;  
enroll any quarter.

Day Program - Seven Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	BDP 101	Introduction to Data Processing	5	0	5	5
	BDP 102	Logic and Decision Making	2	2	4	3
	MAT 120	Introduction to Algebra	5	0	5	5
	ENG 101	Communication Skills	3	0	3	3
2		General Education Elective	3	0	3	3
	BDP 111	COBOL I	3	2	5	4
	MAT 101	Introduction to College Mathematics	5	0	5	5
	ENG 102	Communication Skills	3	0	3	3
	ECO 102	Economics I	3	0	3	3
3	BDP 112	COBOL II	3	2	5	4
	MAT 102	Intermediate Algebra I	5	0	5	5
	ENG 103	Communication Skills	3	0	3	3
4	BUS 120	Accounting I	5	2	7	6
	BDP 121	Basic RPG	3	2	5	4
	BDP 171	Computer Systems I	2	2	4	3
	ENG 203	Interpersonal Communications	3	0	3	3
	BUS 121	Accounting II	5	2	7	6
5		Business Elective	3	0	3	3
	BDP 222	Advanced RPG	3	2	5	4
	BDP 231	Assembler Language I	4	2	6	5
	BUS 221	Statistics	5	0	5	5
		Business Elective	3	0	3	3
6	BDP 272	Computer Systems II	2	2	4	3
	BDP 281	Systems and Procedures	4	0	4	4
		Business Data Processing Elective	3	2	5	4
		Business Elective	3	0	3	3
7	BDP 290	Data Processing Project	1	8	9	4
		Business Data Processing Electives	6	4	10	8

### Total Credit Hours

114

Evening Program - Eight Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	BDP 101	Introduction to Data Processing	5	0	5	5
	BDP 102	Logic and Decision Making	2	2	4	3
	ENG 101	Communication Skills	3	0	3	3
	MAT 120	Introduction to Algebra	5	0	5	5
2	BDP 111	COBOL I	3	2	5	4
	MAT 101	Introduction to College Mathematics	5	0	5	5
	ECO 102	Economics I	3	0	3	3
		General Education Elective	3	0	3	3
3	BDP 112	COBOL II	3	2	5	4
	MAT 102	Intermediate Algebra I	5	0	5	5
	BUS 120	Accounting I	5	2	7	6
4	BDP 121	Basic RPG	3	2	5	4
	BUS 121	Accounting II	5	2	7	6
	ENG 102	Communication Skills	3	0	3	3
5	BDP 171	Computer Systems I	2	2	4	3
	BDP 222	Advanced RPG	3	2	5	4
	BUS 221	Statistics	5	0	5	5
	ENG 103	Communication Skills	3	0	3	3
6	BDP 231	Assembler Language I	4	2	6	5
		Business Data Processing Elective	3	2	5	4
	ENG 203	Interpersonal Communications	3	0	3	3
		Business Elective	3	0	3	3
7	BDP 272	Computer Systems II	2	2	4	3
	BDP 281	Systems and Procedures	4	0	4	4
		Business Data Processing Elective	3	2	5	4
		Business Elective	3	0	3	3
8	BDP 290	Data Processing Project	1	8	9	4
		Business Data Processing Elective	3	2	5	4
		Business Elective	3	0	3	3

### Total Credit Hours

114



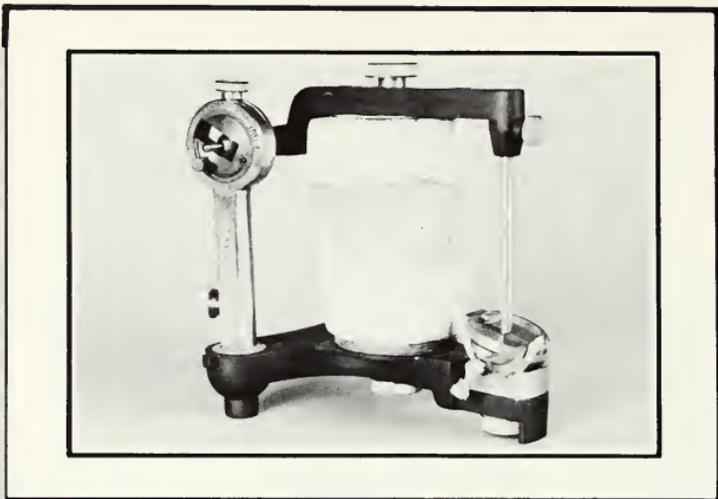
## Communications Technology

The Communications Technology curriculum is a two-year technical program leading to an associate degree. It is designed to prepare persons to enter the communications field in industry or education. Students will acquire technical and professional experience in various aspects of media production. Graduates may be employed as media technicians by industrial educational departments, libraries, public schools, community colleges, universities, medical centers or other educational facilities. Communications Technology will provide students with a broad range of skills from which they may choose to specialize. Technicians may have duties including photographer, graphic artist, producer, director, equipment maintenance and others.

Associate degree; day seven quarters;  
enroll fall quarter.

**NOTE:** This program was being reviewed at the time of catalog publication. Therefore, some changes in the program may take place.

Day Program - Seven Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	ENG 101	Communication Skills	3	0	3	3
	AVT 103	Visual Communications	3	0	3	3
	PHO 101	Photography I	3	2	5	4
2	SCI 111	Mathematics and Science for Media	3	4	7	5
	AVT 101	AV Production I	3	4	7	4
	RTV 101	TV Production	2	4	6	3
	PSY 111	Creative Problem Solving	3	0	3	3
3	ENG 102	Communication Skills	3	0	3	3
	ENG 103	Communication Skills	3	0	3	3
	ENG 203	Interpersonal Communications	3	0	3	3
	AVT 105	Design I	3	4	7	4
4	PHO 102	Photography II	2	3	5	4
	AVT 102	AV Production II	3	4	7	4
	PHO 103	Filmaking	2	3	5	4
	DFT 102	Drafting for Media	2	4	6	3
5	ART 101	Art Appreciation	3	0	3	3
	AVT 201	AV Production III	3	12	15	7
	PHO 201	Photography III	2	3	5	4
6		General Education Elective	3	0	3	3
	AVT 202	AV Production IV	3	12	15	7
	AVT 203	Portfolio Review	3	0	3	3
	AVT 204	Special Project	1	6	7	3
7		General Education Elective	3	0	3	3
	AVT 205	Work Experience	1	15	16	3
	AVT 206	Design II	1	6	7	3
		Technical Electives	6	0	6	6
<b>Total Credit Hours</b>						<b>98</b>



# Dental Laboratory Technology

The purpose of the Dental Laboratory Technology program is to teach the art and science of fabricating artificial dental restorations as prescribed by a licensed practicing dentist. The program is designed to enable the graduate to function effectively as a general technician or as a specialist in the dental laboratory.

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

Some dental laboratory technicians perform a variety of laboratory work. Others are specialists in particular aspects such as crowns and bridges, full 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. The students are introduced to actual laboratory work by using prescriptions from various legal sources.

Associate degree; day-seven quarters;  
enroll fall quarter.

Day Program - Seven Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	SCI 150	Physical Science for Dental Technicians	5	2	7	6
	DEN 101	Dental Anatomy	2	9	11	5
	DEN 104	Dental Materials	2	6	8	4
2	DEN 106	Complete Denture Techniques	1	6	7	3
	ENG 101	Communication Skills	3	0	3	3
	DEN 102	Oral Anatomy and Physiology	2	0	2	2
	DEN 107	Complete Denture Techniques	1	9	10	4
	DEN 111	Dental Metallurgy	2	0	2	2
	DEN 113	Cast Inlay and Crown Techniques	2	9	11	5
3	ENG 102	Communication Skills	3	0	3	3
	MAT 110	Business Mathematics	5	0	5	5
	DEN 108	Partial Denture Techniques	2	9	11	5
	DEN 115	Crown and Bridge Techniques	1	9	10	4
4	ENG 103	Communication Skills	3	0	3	3
	DEN 109	Partial Denture Techniques	1	12	13	5
	DEN 116	Crown and Bridge Techniques	1	12	13	5
5	DEN 201	Advanced Complete Denture Techniques	2	12	14	6
	DEN 204	Partial Denture Techniques	1	6	7	3
	DEN 207	Ceramic Techniques	2	9	11	5
		General Education Elective	3	0	3	3
6	DEN 205	Advanced Partial Denture Techniques	1	9	10	4
	DEN 211	Ceramic Techniques	2	6	8	4
	DEN 213	Dental Laboratory Practice	1	6	7	3
		General Education Elective	3	0	3	3
7	ENG 203	Interpersonal Communications	3	0	3	3
	DEN 209	Jurisprudence and Ethics Seminar	3	0	3	3
	DEN 212	Advanced Ceramic Techniques	2	12	14	6
	DEN 214	Advanced Dental Laboratory Practice	1	6	7	3
<b>Total Credit Hours</b>						<b>110</b>



## 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.

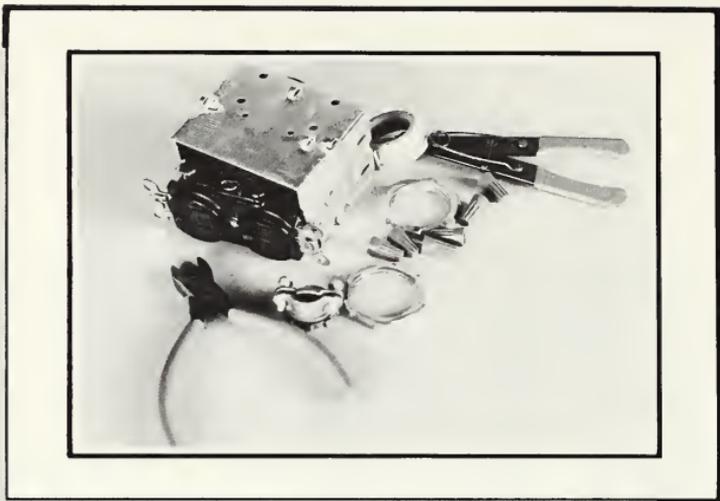
Training is provided by the Early Childhood Associate program for persons who are beginning careers in day care, who currently are employed in working with young children and wish to increase their professional skills, or who would like to start their own day-care centers or homes. Teacher's aides, parents,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

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.

Associate degree-six quarters; Diploma-four quarters;  
day and evening; enroll any quarter.

## Day and Evening Program - Six Quarters

			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	EDU 101	Child Growth and Development I	3	0	3	3
	EDU 104	Creative Activities	2	3	5	3
	EDU 105	Health and Safety of Young Children	3	0	3	3
	EDU 204	Preschool Education	3	0	3	3
2	EDU 111	Seminar - Practicum I	3	6	9	5
	EDU 102	Child Growth and Development II	3	0	3	3
	EDU 107	Interpersonal Relationships	3	0	3	3
	EDU 108	Physical Activities	2	3	5	3
3	EDU 205	Community Resources	3	0	3	3
	EDU 112	Seminar - Practicum II	3	6	9	5
	EDU 103	Child Growth and Development III	3	0	3	3
	EDU 106	Children's Literature	3	0	3	3
4	EDU 110	Nutrition	3	0	3	3
	ENG 101	Communication Skills	3	0	3	3
	EDU 113	Seminar - Practicum III	3	6	9	5
	EDU 109	Exceptional Child	3	0	3	3
5	AVT 104	Audio-Visual Equipment	3	0	3	3
	EDU 206	Adjustment Problems in Childhood	3	0	3	3
	ENG 102	Communication Skills	3	0	3	3
	EDU 201	Seminar - Practicum IV	3	6	9	5
6	PSY 100	Introduction to General Psychology	3	0	3	3
	SOC 100	Principles of Sociology	3	0	3	3
	ENG 103	Communication Skills	3	0	3	3
	EDU 202	Seminar - Practicum V Elective	3	6	9	5
	SSC 290	Marriage and Family	3	0	3	3
	EDU 207	Career Information	3	0	3	3
	ENG 203	Interpersonal Communications	3	0	3	3
	EDU 203	Seminar - Practicum VI Elective	3	6	9	5
<b>Total Credit Hours</b>						<b>102</b>



# 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.

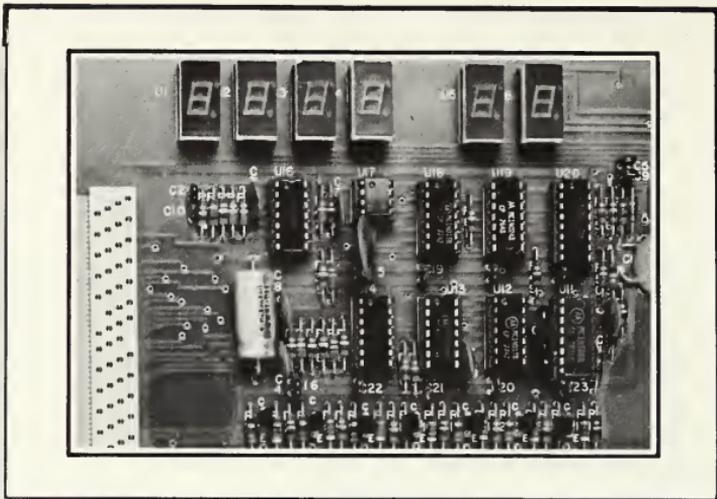
The training program in Electrical Installation and Maintenance provides the graduate with entry-level job skills for the electrical trades. Electricians assemble, install, test, and repair fixtures and wiring used in electrical systems. Electricians sometimes work from blueprints, wiring diagrams, or 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.

Diploma; evening-seven quarters;  
enroll any quarter.

## Evening Program - Seven Quarters

			Class Hours	Lab Hours	Contact Hours	Credit Hours	
1	ELC	1101	Introduction to Electricity	4	6	10	6
	MAT	1101	Fundamentals of Mathematics	3	0	3	3
	ENG	1101	Reading Improvement	3	0	3	3
2	DFT	1105	Mechanical Drafting	1	3	4	2
	ELC	1102	Residential Wiring	4	6	10	6
	MAT	1102	Fundamentals of Mathematics	2	0	2	2
3	ELC	1103	Commercial Wiring	4	6	10	6
	ENG	1102	Communication Skills	3	0	3	3
4	MAT	1103	Applied Mathematics	5	0	5	5
	ELC	1104	Industrial Wiring	4	6	10	6
5	ELN	1101	Industrial Electronics I	3	6	9	5
	MAT	1062	Applied Mathematics	3	0	3	3
6	ELN	1102	Industrial Electronics II	3	6	9	5
	ELC	1105	Electrical Machines and Controls	2	3	5	3
7	ELC	1106	Blueprint Readings and Calculations	5	0	5	5
	PHY	1111	Applied Science	3	2	5	4
<b>Total Credit Hours</b>						<b>67</b>	



# 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. The electronics technician applies his 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 microprocessor technology, a data processing course designed for electronic applications, and an option in the eighth quarter of choosing one of three technical electives for further skill development.

The program at Durham Technical Institute is designed to prepare an individual for employment in the electronics field; however, for persons who desire additional education, the credits at Durham Technical Institute can apply toward the Bachelor of Technology degree offered at a number of universities.

Associate degree; day-eight quarters;  
enroll fall quarter.

Day Program - Eight Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	ENG 101	Communication Skills	3	0	3	3
	MAT 160	Technical Mathematics	5	0	5	5
	ELC 101	Introduction to Electricity	4	6	10	6
	DFT 101	Engineering Drawing	1	4	5	2
2	ENG 102	Communication Skills	3	0	3	3
	MAT 161	Technical Mathematics	5	0	5	5
	ELC 102	Fundamentals of Electricity	4	6	10	6
	ELN 100	Introduction to Electronics	2	3	5	3
3	MAT 162	Technical Mathematics	5	0	5	5
	MEC 101	Machine Processes for Electronics	1	3	4	2
	ELN 105	Introduction to Active Devices	4	6	10	6
4	ENG 103	Communication Skills	3	0	3	3
	ELC 104	System Servicing	2	4	6	3
	ELN 205	Application of Active Devices I	4	4	8	5
	EDP 120	FORTTRAN IV for Electronics Applications	3	2	5	4
5	ENG 203	Interpersonal Communications	3	0	3	3
	ELN 218	Application of Active Devices II	4	4	8	5
		Elective	3	0	3	3
6	ELN 220	Electronics Systems I	4	4	8	5
	ELN 216	Pause and Waveshaping Circuits	4	6	10	6
	PHY 260	Physics	4	2	6	5
7	DFT 201	Electronic Drafting	1	3	4	2
	ELN 240	Digital Electronics	4	6	10	6
	PHY 261	Physics	4	2	6	5
		Elective	3	0	3	3
8	ELN 270	Microprocessor Fundamentals	4	6	10	6
	ELN 201	Construction of Electronic Devices	1	6	7	3
		Elective	3	4	7	4
<b>Total Credit Hours</b>					<b>117</b>	



## 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.  
Associate degree; evening - six quarters;  
enroll any quarter.

Evening Program - Six Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	ENG 101	Communication Skills	3	0	3	3
	PHY 170	Physics	3	2	5	4
	MAT 170	Technical Mathematics	5	0	5	5
	FIP 115	Prevention Programs	3	0	3	3
	FIP 101	Introduction to Fire Protection Hazards	3	0	3	3
2	ENG 102	Communication Skills	3	0	3	3
	PSY 100	Introduction to General Psychology	3	0	3	3
	PSC 230	Police Supervision	5	0	5	5
	FIP 211	Grading of Fire Defenses	3	0	3	3
	FIP 102	Municipal Fire Protection	3	0	3	3
3	ENG 103	Communication Skills	3	0	3	3
	FIP 105	Applied Electricity of Fire Protection	3	2	5	4
	FIP 120	Municipal Finance	5	0	5	5
	FIP 135	Training Programs and Methods of Instruction	3	0	3	3
4	ENG 203	Interpersonal Communications	3	0	3	3
	CHM 170	Chemistry	3	2	5	4
	FIP 230	Hydraulics and Water Distribution Systems	5	0	5	5
	FIP 104	Building Construction for Fire Service	3	0	3	3
		Elective	3	0	3	3
5	FIP 220	Fire Fighting Strategy	3	2	5	4
	FIP 218	Chemistry of Hazardous Material	3	2	5	4
	FIP 208	Municipal Public Relations	3	0	3	3
6		Technical Elective	5	0	5	5
	FIP 235	Inspection Principles and Practices	3	0	3	3
	BUS 233	Personnel Management	3	0	3	3
	FIP 225	Fire Protection Law	3	0	3	3
	FIP 201	Fire Detection and Investigation	3	0	3	3
	Elective	3	0	3	3	
<b>Total Credit Hours</b>					<b>99</b>	



## 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.

Associate degree; day-six quarters; evening-eight quarters;  
enroll any quarter.

Day Program - Six Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	ENG 106	Composition I	3	0	3	3
	HIS 101	Western Civilization I	3	0	3	3
	MAT 101	Introduction to College Mathematics	5	0	5	5
2	MUS 101	Music Appreciation	3	0	3	3
	PHI 101	Introduction to Philosophy	3	0	3	3
	ART 101	Art Appreciation	3	0	3	3
3	BIO 101	General Biology I	3	2	5	4
	ENG 107	Composition II	3	0	3	3
	HIS 102	Western Civilization II	3	0	3	3
4	MAT 102	Intermediate Algebra I	5	0	5	5
	BIO 102	General Biology II	3	2	5	4
	ENG 108	Composition III	3	0	3	3
5	ENG 204	Introduction to Public Speaking	3	0	3	3
	HIS 103	Western Civilization III	3	0	3	3
	MAT 103	Intermediate Algebra II	3	0	3	3
6	ECO 102	Economics I	3	0	3	3
	ENG 211	World Literature I	3	0	3	3
	PSY 100	Introduction to General Psychology	3	0	3	3
7		Electives	3	0	6	6
	ECO 104	Economics II	3	0	3	3
	ENG 205	American Literature I	3	0	3	3
8	ENG 212	World Literature II	3	0	3	3
	SOC 100	Principles of Sociology	3	0	3	3
	SSC 190	Introduction to Social Science	3	0	3	3
9		Electives	6	0	6	6
	ENG 206	American Literature II	3	0	3	3
	ENG 213	World Literature III	3	0	3	3
10	POL 190	United States Government	3	0	3	3
		Electives	9	0	9	9
	<b>Total Credit Hours</b>					<b>105</b>

Evening Program - Eight Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	ENG 106	Composition I	3	0	3	3
	HIS 101	Western Civilization I	3	0	3	3
	MAT 101	Introduction to College Mathematics	5	0	5	5
2	PHI 101	Introduction to Philosophy	3	0	3	3
	ART 101	Art Appreciation	3	0	3	3
	ENG 107	Composition II	3	0	3	3
3	HIS 102	Western Civilization II	3	0	3	3
	MAT 102	Intermediate Algebra I	5	0	5	5
	ENG 108	Composition III	3	0	3	3
4	ENG 204	Introduction to Public Speaking	3	0	3	3
	HIS 103	Western Civilization III	3	0	3	3
	MAT 103	Intermediate Algebra II	3	0	3	3
5	BIO 101	General Biology I	3	2	5	4
	ECO 102	Economics I	3	0	3	3
	ENG 211	World Literature I	3	0	3	3
6		Elective	3	0	3	3
	BIO 102	General Biology II	3	2	5	4
	ECO 104	Economics II	3	0	3	3
7	ENG 212	World Literature II	3	0	3	3
		Elective	3	0	3	3
	ENG 205	American Literature I	3	0	3	3
8	ENG 213	World Literature III	3	0	3	3
	PSY 100	Introduction to General Psychology	3	0	3	3
		Elective	3	0	3	3
9	ENG 206	American Literature II	3	0	3	3
	SOC 100	Principles of Sociology	3	0	3	3
	SSC 190	Introduction to Social Science	3	0	3	3
10		Electives	6	0	6	6
	MUS 101	Music Appreciation	3	0	3	3
	POL 190	United States Government	3	0	3	3
	Electives	6	0	6	6	
<b>Total Credit Hours</b>					<b>105</b>	



## 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 to be proficient in 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

Associate degree; day-six quarters; evening-nine quarters;  
enroll any quarter.

Day Program - Six Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	BUS 102	Typewriting I	3	2	5	4
	BUS 109	Interpersonal Relationships	3	0	3	3
	ENG 183	English Grammar	5	0	5	5
	MAT 110	Business Mathematics	5	0	5	5
2	BUS 101	Introduction to Business	5	0	5	5
	BUS 103	Typewriting II	2	3	5	3
	BUS 120	Accounting I	5	2	7	6
	ENG 101	Communication Skills	3	0	3	3
		Technical Elective	3	0	3	3
		General Education Elective	3	0	3	3
3	BUS 104	Typewriting III	2	3	5	3
	BUS 112	Records Management	3	2	5	4
	ENG 102	Communication Skills	3	0	3	3
		Technical Elective	3	0	3	3
		General Education Elective	3	0	3	3
4	BUS 205	Typewriting IV	2	3	5	3
	BDP 101	Introduction to Data Processing	5	0	5	5
	ENG 103	Communication Skills	3	0	3	3
	BUS 212	Machine Transcription	3	2	5	4
	BUS 110	Office Machines	3	2	5	4
5	BUS 209	Typewriting V	2	3	5	3
	BUS 214	ABC Shorthand I	3	2	5	4
	BUS 213	Office Procedures	3	2	5	4
		Technical Elective	3	0	3	3
6	BUS 217	ABC Shorthand II	3	2	5	4
	BUS 215	Work Experience	1	15	16	3
	BUS 216	Business Communication	3	0	3	3
		Technical Electives	6	0	6	6

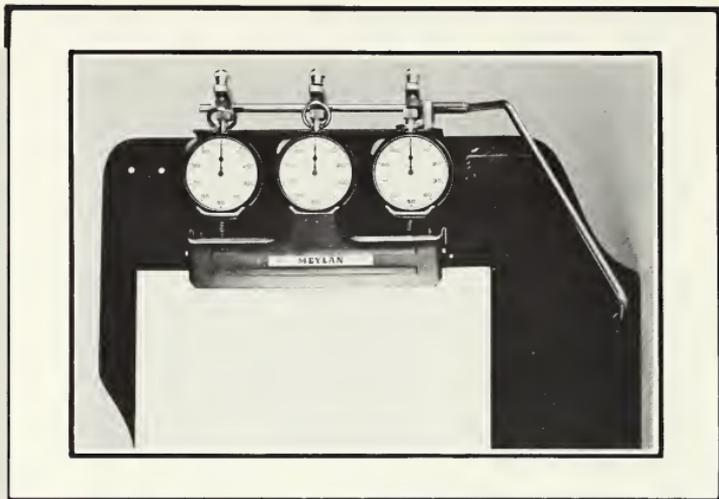
### Total Credit Hours

107

Evening Program - Nine Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	BUS 102	Typewriting I	3	2	5	4
	BUS 109	Interpersonal Relationships	3	0	3	3
	ENG 183	English Grammar	5	0	5	5
2	MAT 110	Business Mathematics	5	0	5	5
	BUS 101	Introduction to Business	5	0	5	5
	BUS 103	Typewriting II	2	3	5	3
3	BUS 120	Accounting I	5	2	7	6
	ENG 101	Communication Skills	3	0	3	3
		Technical Elective	3	0	3	3
4		General Education Elective	3	0	3	3
	BUS 104	Typewriting III	2	3	5	3
	BUS 112	Records Management	3	2	5	4
	ENG 102	Communication Skills	3	0	3	3
5	ENG 103	Communication Skills III	3	0	3	3
	BUS 205	Typewriting IV	2	3	5	3
		Technical Elective	3	0	3	3
		General Education Elective	3	0	3	3
6	BDP 101	Introduction to Data Processing	5	0	5	5
	BUS 212	Machine Transcription	3	2	5	4
	BUS 110	Office Machines	3	2	5	4
7	BUS 209	Typewriting V	2	3	5	3
	BUS 214	ABC Shorthand I	3	2	5	4
	BUS 213	Office Procedures	3	2	5	4
		Technical Elective	3	0	3	3
8	BUS 217	ABC Shorthand II	3	2	5	4
	BUS 216	Business Communications	3	0	3	3
		Technical Elective	6	0	6	6
9	BUS 215	Work Experience	1	15	16	3

### Total Credit Hours

107



# Industrial Management Technology

Durham Technical Institute has developed a degree program designed to prepare individuals for supervisory and middle-management positions in industry. The Industrial Management program provides the skills needed to become a manager or supervisor.

The Industrial Management program provides training 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 gives the students practical "hands-on" experiences along with classroom training. This two-year program offers entry level training for the student seeking a career in management, and it can provide the established professional with the opportunity to update job skills and abilities by studying modern concepts and the latest changes in the field.

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 total curriculum is a combination of twenty-nine courses that offer balanced training for the practicing manager or student.

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.

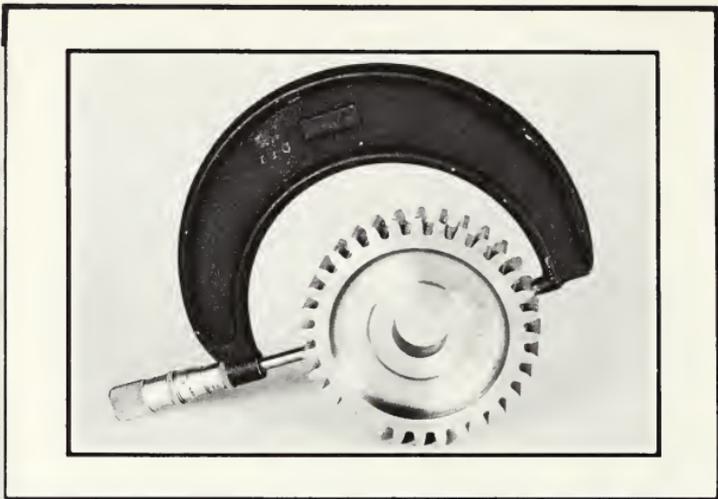
Associate degree; evening-nine quarters;  
enroll any quarter.

## Evening Program - Nine Quarters

			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	ENG 101	Communication Skills	3	0	3	3
	MAT 110	Business Mathematics	5	0	5	5
	ISC 120	Principles of Industrial Management	3	0	3	3
2	ISC 114	Graphics and Presentation	0	2	2	1
	ENG 102	Communication Skills	3	0	3	3
	MAT 120	Introduction to Algebra	5	0	5	5
	DFT 103	Technical Drawing	2	3	5	3
3	ISC 130	Business Elective	3	0	3	3
	ENG 103	Communication Skills	3	0	3	3
	MAT 102	Intermediate Algebra I	5	0	5	5
	BUS 235	Small Business Management	3	0	3	3
4	ISC 130	Industrial Safety	3	0	3	3
	BUS 221	Statistics	5	0	5	5
	BUS 233	Personnel Management	3	0	3	3
5	ISC 132	Job Analysis and Evaluation	3	2	5	4
	BUS 120	Accounting I	5	2	7	6
6	ISC 214	Work Measurement	5	2	7	6
	ENG 203	Interpersonal Communications	3	0	3	3
	PSY 100	Introduction to General Psychology	3	0	3	3
	BUS 274	Labor Relations	3	0	3	3
7	ISC 226	Production Planning and Control	3	2	5	4
	ISC 203	Methods Time Measurement (MTM)	5	2	7	6
	BUS 272	Principles of Supervision	3	0	3	3
8	ISC 236	Plant Layout	3	2	5	4
	ISC 231	Manufacturing Processes	3	2	5	4
	BUS 229	Taxes I	3	2	5	4
9	ISC 232	Quality Control	3	2	5	4
	BDP 101	Introduction to Data Processing	5	0	5	5
		General Education Elective	3	0	3	3

**Total Credit Hours**

**110**



## 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.

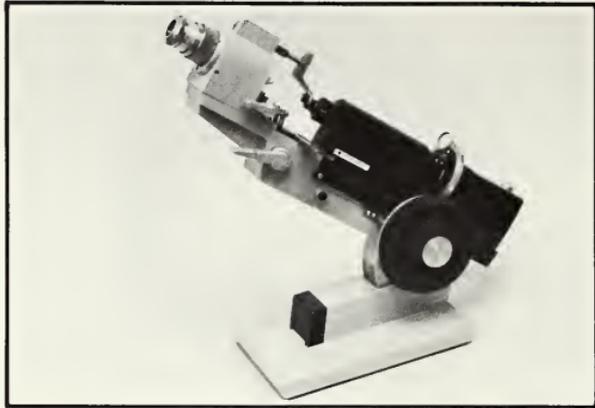
Durham Technical Institute's Machinist program is designed to enable an individual to acquire the basic skills necessary to become a machinist. The student learns to set up and operate various machine tools, to read blueprints, and to make calculations required to produce precision parts. In addition 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. The majority of machinists working today are near the retirement age; therefore, the demand for new machinists will continue to grow.

Precision is the key to the work of a machinist. The challenge of creating precision metal parts can provide rewarding work for the individual seeking a career.

Diploma; evening-eight quarters;  
enroll fall quarter.

Evening Program - Eight Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	MAT 1101	Fundamentals of Mathematics	3	0	3	3
	MEC 1101	Machine Shop - Theory and Practice	2	6	8	4
2	ENG 1101	Reading Improvement	3	0	3	3
	MAT 1102	Fundamentals of Mathematics	2	0	2	2
	DFT 1105	Mechanical Drafting	1	3	4	2
	MEC 1102	Machine Shop - Theory and Practice	1	6	7	3
3	ENG 1102	Communication Skills	3	0	3	3
	DFT 1106	Blueprint Reading I: Mechanical	3	0	3	3
	MEC 1103	Machine Shop - Theory and Practice	2	6	8	4
4	MEC 1104	Machine Shop-Theory and Practice	1	6	7	3
5	MAT 1103	Applied Mathematics	5	0	5	5
	DFT 1107	Blueprint ReadingII: Mechanical	3	0	3	3
	MEC 1105	Machine Shop - Theory and Practice	1	9	10	4
6	MEC 1109	Fundamentals of Numerical Control	1	3	4	2
	MAT 1123	Machinist Mathematics	5	0	5	5
	MEC 1106	Machine Shop - Theory and Practice	2	3	5	3
7	PHY 1111	Applied Science	3	2	5	4
	MEC 1107	Machine Shop - Theory and Practice	1	9	10	4
8	MEC 1119	Applied Metallurgy	2	3	5	3
	MEC 1108	Machine Shop - Theory and Practice	2	3	5	3
<b>Total Credit Hours</b>						<b>66</b>



## 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.

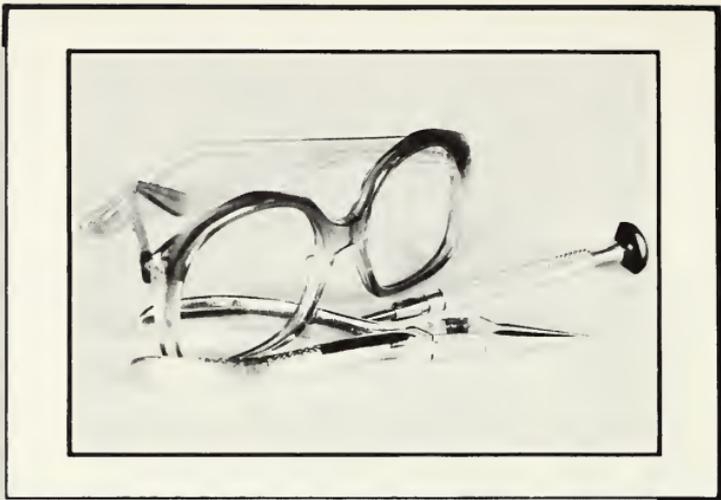
The program includes theoretical and practical courses designed to teach the student a vast array of technical skills such as beveling, edging, blocking, mounting, and framing of lenses.

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.

Certificate; day-four quarters;  
enroll fall or spring quarters.

Day Program - Four Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	OPT 1101	Introduction to Optics	3	0	3	3
	OPT 1102	Spectacle Fabrication	0	3	3	1
	OPT 1140	Physics of Light	3	0	3	3
2	MAT 1040	Technical Mathematics	5	0	5	5
	OPT 1103	Lens Design I	3	0	3	3
	OPT 1111	Mechanical Optics I	0	6	6	2
	OPT 1122	Equipment Maintenance and Repair	2	2	4	3
3	OPT 1141	Geometric Optics	3	0	3	3
	OPT 1104	Lens Design II	3	0	3	3
	OPT 1112	Mechanical Optics II	0	6	6	2
4	OPT 1131	Optical Dispensing I	4	2	6	5
	OPT 1113	Mechanical Optics III	0	4	4	1
	OPT 1132	Optical Dispensing II	4	2	6	5
	OPT 1142	Anatomy and Physiology of the Eye	3	0	3	3
<b>Total Credit Hours</b>						<b>42</b>



## 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 eyeglasses 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.

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.

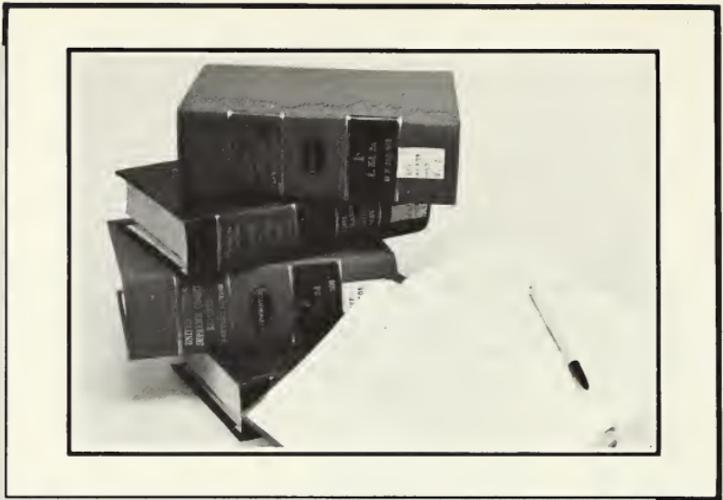
Durham Technical Institute is accredited by the Southern Association of Colleges and Schools. The Opticianry program is accredited by the National Academy of Opticianry and approved by the North Carolina State Board of Opticians.

Associate degree; day-seven quarters;  
enroll fall quarter.

Day Program - Seven Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	OPT 101	Introduction to Opticianry	4	0	4	4
	OPT 111	Mechanical Optics	0	6	6	2
	ENG 101	Communication Skills	3	0	3	3
	MAT 140	Technical Mathematics	5	0	5	5
2		Technical Elective	3	0	3	3
	OPT 102	Theoretical Optics	4	0	4	4
	OPT 112	Mechanical Optics	0	6	6	2
	ENG 102	Communication Skills	3	0	3	3
3	MAT 141	Technical Mathematics	5	0	5	5
	PHY 140	Physics	3	2	5	4
	OPT 103	Theoretical Optics	4	0	4	4
	OPT 113	Mechanical Optics	0	6	6	2
4	CHM 140	Chemistry	4	3	7	5
	OPT 141	Geometrical Optics	3	2	5	4
	ENG 103	Communication Skills	3	0	3	3
	OPT 104	Benchwork Procedure	2	0	2	2
5	OPT 114	Mechanical Optics	0	6	6	2
	OPT 142	Geometrical Optics	3	2	5	4
	OPT 199	Plastic Materials	2	3	5	3
	BUS 235	Small Business Management	3	0	3	3
	OPT 241	Anatomy of the Eye	2	0	2	2
	OPT 204	Theoretical Optics	2	0	2	2
6	OPT 214	Mechanical Optics	0	6	6	2
	OPT 231	Ophthalmic Dispensing	5	4	9	6
	OPT 242	Physiology of the Eye	2	0	2	2
	ENG 203	Interpersonal Communications	3	0	3	3
	OPT 205	Theoretical Optics	2	0	2	2
	OPT 215	Mechanical Optics	0	6	6	2
7	OPT 232	Ophthalmic Dispensing	4	6	10	6
	OPT 261	Contact Lenses	3	0	3	3
		General Education Elective	3	0	3	3
	OPT 206	Theoretical Optics	2	0	2	2
	OPT 216	Mechanical Optics	0	6	6	2
	OPT 233	Ophthalmic Dispensing	4	6	10	6
	OPT 273	Seminar	1	0	1	1
		General Education Elective	3	0	3	3

**Total Credit Hours**

**114**



## Paralegal Technology

The Paralegal Technology program is designed to teach individuals to work under the direction of lawyers as legal assistants performing those tasks not restricted by law to attorneys. The legal technician can relieve lawyers of routine matters and assist them with more complicated and difficult tasks.

The student is taught specialized legal skills including: searching titles, abstracting titles, preparing loan packages, conducting legal research, writing legal memoranda and briefs, preparing contracts, interviewing clients and other individuals, managing a law office, preparing complaints and responsive pleadings, directing and responding to discovery pleadings, preparing estate documents, and conducting investigations. Emphasis is placed upon practical skills rather than theory. The legal research course is taught at a law school library. Title abstracting is taught at the Durham County Courthouse in the record room of the Register of Deeds.

Graduates of the Paralegal Technology program are able to assist a lawyer or a group of lawyers in most facets of law, but they must always work under the supervision of a lawyer.

Associate degree; evening-nine quarters;  
enroll any quarter.

Evening Program - Nine Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	LEX 100	Introduction to the Legal System	3	0	3	3
	LEX 101	Real Property	5	0	5	5
	LEX 102	Family and Juvenile Law	5	0	5	5
2	ENG 106	Composition I	3	0	3	3
	LEX 104	Title Abstracting I	5	0	5	5
	LEX 105	Commercial Law I	4	0	4	4
3	ENG 107	Composition II	3	0	3	3
	LEX 106	Title Abstracting II	4	0	4	4
	LEX 113	Commercial Law II	4	0	4	4
	ENG 108	Composition III	3	0	3	3
4		General Education Elective	3	0	3	3
	LEX 120	Real Estate Transactions	5	0	5	5
	ENG 204	Introduction to Public Speaking	3	0	3	3
5	LEX 107	Personal Injury	4	0	4	4
	LEX 103	Criminal Law and Procedure	5	0	5	5
	LEX 114	Legal Research	5	0	5	5
6	BUS 120	Accounting I	5	2	7	6
	LEX 108	Civil Litigation I	4	0	4	4
	LEX 112	Law Office Management	3	0	3	3
7	BUS 121	Accounting II	5	2	7	6
	LEX 109	Estate Administration I	4	0	4	4
	LEX 110	Civil Litigation II	4	0	4	4
8		Technical Elective	4	0	4	4
	LEX 111	Estate Administration II	4	0	4	4
	LEX 118	Consumer Protection	5	0	5	5
9		Technical Elective	4	0	4	4
	LEX 119	Public Administration	3	0	3	3
	BUS 229	Taxes I	3	2	5	4
	PSC 210	Criminal Investigation	5	0	5	5
		General Education Elective	3	0	3	3
<b>Total Credit Hours</b>						<b>123</b>



## Pharmacy Technology

The Pharmacy Technology program is designed to teach students to be pharmacy technicians. These allied health specialist 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, maintaining 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.

Certificate; day-three quarters;  
enroll fall or spring quarters.

## Day Program - Three Quarters

			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	PHM 110	Pharmacology I	3	0	3	3
	PHM 101	Hospital Pharmacy	3	2	5	4
	BIO 120	Anatomy and Physiology	4	2	6	5
	MAT 150	Pharmaceutical Mathematics	5	0	5	5
2	PHM 111	Pharmacology II	3	0	3	3
	PHM 102	Hospital Pharmacy	2	2	4	3
	CHM 120	General Chemistry	4	2	6	5
	BUS 111	Pharmacy Typewriting	3	2	5	4
3	PHM 104	Community Pharmacy	2	0	2	2
	PHM 105	Pharmacy Clinical	0	24*	24*	8
	BIO 121	Microbiology and Pathology	3	0	3	3

**Total Credit Hours**

**45**

\*Clinical Hours



## Police Science

The Police Science 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, 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, and 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.

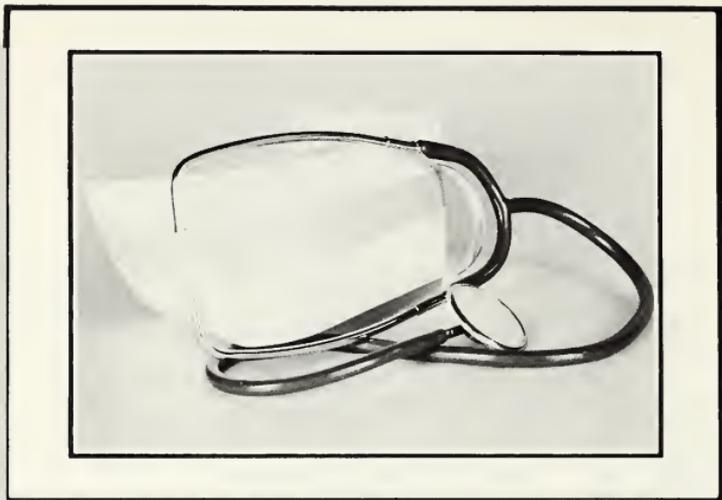
Associate degree - seven quarters; day and evening;  
enroll any quarter.

Day and Evening  
Program - Seven Quarters

			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	PSC 101	Introduction to Law Enforcement	5	0	5	5
	PSC 105	Introduction to Criminal Law and Procedure	5	0	5	5
2	ENG 101	Communication Skills	3	0	3	3
	SOC 100	Principles of Sociology	3	0	3	3
3	PSC 115	Criminal Law	5	0	5	5
	PSC 130	Police Problems in Sociology	5	0	5	5
4	ENG 102	Communication Skills	3	0	3	3
	PSY 100	Introduction to General Psychology	3	0	3	3
5	PSC 110	Police Role in Crime	5	0	5	5
	PSC 225	Criminal Procedure	5	0	5	5
6	ENG 103	Communication Skills	3	0	3	3
	POL 190	United States Government	3	0	3	3
7	PSC 120	Civil Law and Procedure	5	0	5	5
	PSC 150	Patrol Operations	5	0	5	5
8	PSC 220	Police Organization	5	0	5	5
	ENG 203	Interpersonal Communications	3	0	3	3
9	PSC 201	Traffic Administration	5	0	5	5
	PSC 250	Police Psychology	5	0	5	5
10	POL 171	State and Local Government	3	0	3	3
	CHM 170	Chemistry	3	2	5	4
11	PSC 205	Criminal Evidence	5	0	5	5
	PSC 210	Criminal Investigation	5	0	5	5
12	PSC 215	Fingerprints	5	0	5	5
	PSY 170	Adolescent Psychology	3	0	3	3
13	PSC 211	Introduction to Criminalistics	5	0	5	5
	PSC 230	Police Supervision	5	0	5	5
14	PSC 270	Constitutional Law	5	0	5	5
	MAT 170	Technical Mathematics	5	0	5	5

**Total Credit Hours**

**121**



## Practical Nurse Education

The primary purpose of the Practical Nurse Program is to prepare students for employment involving the care of patients in various states of illness and with a variety of common medical - surgical problems. The licensed practical nurse is involved in 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 to perform 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 are received at Duke Medical Center, Durham County General Hospital, and Hillhaven Convalescent Center.

Graduates of the program are awarded a diploma in Practical Nurse Education and are eligible to write the practical nurse licensing examination given by the North Carolina Board of Nursing. The licensed practical nurse is prepared for employment in hospitals, nursing homes, extended care units, clinics, doctors' and dentists' offices, and other health care agencies.

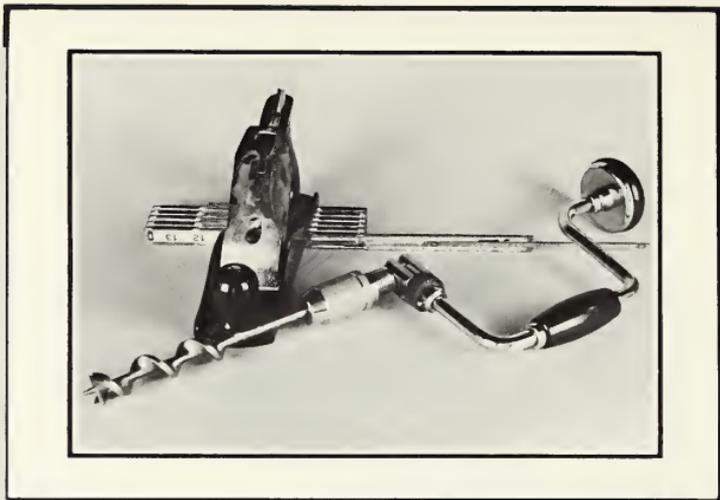
Diploma; day-four quarters;  
enroll any quarter.

Day Program - Four Quarters				Class Hours	Lab Hours	Contact Hours	Credit Hours
1	NUR 1101	Fundamentals of Nursing		9	5	14	11
	NUR 1102	Body Structure and Function		8	0	8	8
	NUR 1103	Nutrition and Diet Therapy		4	0	4	4
2	NUR 1110	Pharmacology I		3	1	4	4
	NUR 1104	Medical and Surgical Nursing I		5	3	8	6
	NUR 1107	Maternal and Child Health I		6	0	6	6
3	NUR 1111	Pharmacology II		3	0	3	3
	NUR 1109	Clinical Experience		0	12*	12*	4
	NUR 1105	Medical and Surgical Nursing II		9	0	9	9
4	NUR 1108	Maternal and Child Health II		6	0	6	6
	NUR 1114A	Clinical Experience		0	15*	15*	5
	NUR 1106	Medical and Surgical Nursing III		7	0	7	7
	NUR 1112	Vocational Relationships and Adjustments to Nursing		7	0	7	7
	NUR 1114B	Clinical Experience		0	15*	15*	5

**Total Credit Hours**

**85**

\*Clinical Hours



## 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.

Three options are available to students: a certificate in Residential Carpentry and Preservation, or Residential Carpentry, or Historic Preservation. Certificate; day and evening-four quarters;  
enroll any quarter.

## Day and Evening Program - Four Quarters

			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	HPT 1101	Introduction to Historic Preservation	4	0	4	4
	HPT 1102	American Architectural Style	4	0	4	4
	DFT 1118	Architectural Blueprint Reading	3	0	3	3
	CAR 1101	Carpentry I	1	7	8	3
2	MAT 1101	Fundamentals of Mathematics	3	0	3	3
	HPT 1103	History of Building Technology	2	0	2	2
	HPT 1104	Recording Historic Sites	1	5	6	3
	HPT 1105	Conservation of Masonry and Plaster	2	4	6	4
3	CAR 1102	Carpentry II	1	7	8	3
	CAR 1103	Carpentry III	1	7	8	3
	HPT 1106	Traditional Woodworking	1	5	6	3
	HPT 1107	Construction Management	4	0	4	4
4	HPT 1108	Conservation of Wood	1	3	4	2
	HPT 1109	Paint	1	5	6	3
	HPT 1110	Restoration Workshop	0	8	8	3
	CAR 1104	Carpentry IV	1	7	8	3
<b>Total Credit Hours</b>						<b>50</b>



## Respiratory Therapy

The respiratory therapist is an allied health specialist employed in the treatment, management, control and care of patients with deficiencies and abnormalities associated with breathing. Respiratory therapists are involved in the administration of medical gases including air and oxygen and are responsible for the administration of drugs and various forms of aerosol therapy. They are directly involved in emergency cardiopulmonary resuscitation, the management of patients who need the assistance of mechanical life support systems, performance of pulmonary diagnostic studies, and the rehabilitation of patients with lung diseases. Respiratory therapists are vital resources to physicians because their training enables them to perform specific testing techniques employed in monitoring, evaluating, and treating their patients. These skills are also used to assist in research and education.

The Respiratory Therapy program accomplishes its objectives in three phases: classroom instruction, the clinical laboratory, and in-hospital clinical practice. The classroom portion of the program occurs primarily within the first year. Professional level courses produce a sound and detailed foundation of respiratory therapy for adult and pediatric patients. The clinical laboratory provides a training and evaluation area for all necessary psychomotor skills learned and demonstrated during lecture sessions. The clinical practice portion of the program is primarily accomplished during the second year of the program. Students gain clinical experience at two major area hospitals.

Upon completion of the two-year program students will be awarded the Associate in Applied Science degree which satisfies the educational requirements for the National Board of Respiratory Therapy and allows the graduate to sit for the National Registry Examinations.

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

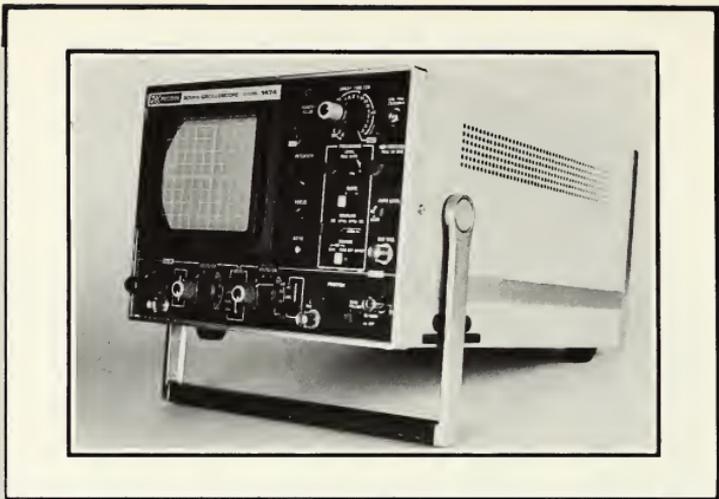
Associate degree; day-eight quarters;  
enroll summer quarter.

Day Program - Eight Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	BIO 130	General Biology	3	2	5	4
	MAT 131	Technical Mathematics	5	0	5	5
	ENG 101	Communication Skills	3	0	3	3
	PHY 130	Physics I	3	2	5	4
	RTH 101	Therapy I	3	2	5	4
2	PHY 131	Physics II	3	2	5	4
	CHM 130	Chemistry	5	2	7	6
	BIO 131	Anatomy and Physiology	4	2	6	5
	RTH 102	Therapy II	6	2	8	7
3	BIO 230	Microbiology	4	2	6	5
	BIO 132	Cardiopulmonary Anatomy and Physiology	3	0	3	3
	ENG 102	Communication Skills	3	0	3	3
	SOC 100	Principles of Sociology	3	0	3	3
	RTH 103	Therapy III	6	2	8	7
4	ENG 103	Communication Skills	3	0	3	3
	MED 130	Pharmacology	4	0	4	4
	MED 131	Acid/Base, Electrolytes and Blood Gas Interpretation	3	0	3	3
	RTH 104	Mechanical Ventilation I	3	2	5	4
	RTH 105	Clinical Practice I	0	8*	8*	3
5	MED 230	Pathology	4	0	4	4
	RTH 201	Mechanical Ventilation II	2	2	4	3
	RTH 202	Clinical Practice II	0	24*	24*	8
	RTH 203	Pediatrics	2	2	4	3
6	RTH 204	Pediatric Pathophysiology	3	0	3	3
	RTH 205	Pulmonary Function Testing	3	2	5	4
	RTH 206	Clinical Practice III	0	24*	24*	8
7	RTH 207	Assessment and Treatment	4	0	4	4
	RTH 208	Clinical Practice IV	0	24*	24*	8
8	RTH 209	Clinical Practice V	0	24*	24*	8
	PSY 100	Introduction to General Psychology	3	0	3	3
	ENG 203	Interpersonal Communication	3	0	3	3

**Total Credit Hours**

**139**

\*Clinical Hours



# Science and Engineering Technology

Science and engineering technicians may work in support of scientists or engineers in research, development or test laboratories of industry, education, or government; or in the application of new electronic instrumentation and controls to many manufacturing or industrial processes. Science and engineering technicians are particularly suited to the many positions which overlap the traditional fields of science and engineering.

This program has a number of courses involving modern electronic instruments and apparatus used for measurement, detection, or testing and control in research, development, or engineering applications. Science and engineering technicians will know the basic concepts, definitions, and principles of physics, chemistry, and biology, and how these relate to real devices or systems in technology.

Durham Tech graduates will be familiar with the properties of a variety of different materials used in research, manufacturing, or engineering applications; will be able to read and interpret mechanical and electrical drawings; and will be able to prepare rough, but correctly detailed, drawings or sketches.

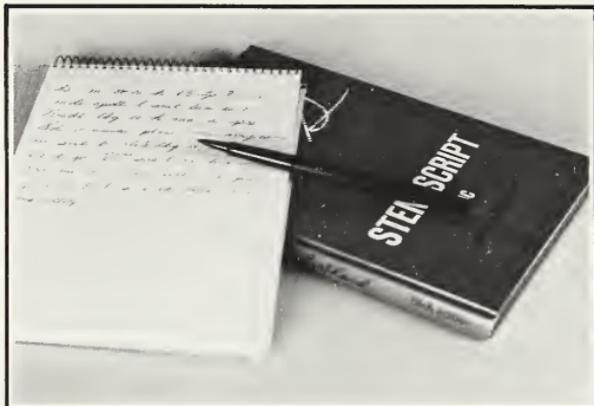
To provide maximum flexibility the program has the following options: **Option 1 - Diploma Program** - includes the technical courses needed by a general laboratory technician. Courses are offered in the evening over a period of eight quarters.

**Option 2 - Associate Degree Program** - the following additional courses will be required: twelve credit hours in English, six credit hours in the social sciences, and four credit hours in electives.

**Option 3 - Certificate Programs** - A certificate is awarded for a minimum of sixteen credit hours in a specialized area of study.

Enroll any quarter.

Evening Program - Eight Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	MAT 160	Technical Mathematics	5	0	5	5
2	DFT 103	Technical Drawing	2	3	5	3
	MAT 161	Technical Mathematics	5	0	5	5
	ELN 165	Calculator and Computer Techniques	1	3	4	2
3	DFT 104	Technical Drawing II	1	5	6	3
	MAT 162	Technical Mathematics	5	0	5	5
4	ELN 168	Electronic Components, Transducers, and Basic Circuits	4	6	10	6
5	ELN 266	Electronic Systems	3	3	6	4
6	ELN 265	Analog and Digital Electronics	4	6	10	6
7	ELN 270	Microprocessor Fundamentals	4	6	10	6
8	BIO 166	Human Anatomy and Physiology	4	2	6	5
	PHY 260	Physics	4	2	6	5
	CHM 167	Chemical and Physical Properties	4	2	6	5
	PHY 261	Physics	4	2	6	5
	CHM 168	Chemical Sampling and Analysis	4	2	6	5
	MEC 101	Machine Processes for Electronics	1	3	4	2
	ISC 231	Manufacturing Processes	3	2	5	4
<b>Total Credit Hours</b>						<b>76</b>



## 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.

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

Associate degree; day-six quarters;  
enroll any quarter.

Day Program - Six Quarters			Class Hours	Lab Hours	Contact Hours	Credit Hours
1	BUS 102	Typewriting I	3	2	5	4
	BUS 109	Interpersonal Relationships	3	0	3	3
	ENG 183	English Grammar	5	0	5	5
	MAT 110	Business Mathematics	5	0	5	5
2	BUS 101	Introduction to Business	5	0	5	5
	BUS 103	Typewriting II	2	3	5	3
	BUS 106	Shorthand I	3	2	5	4
	BUS 120	Accounting I	5	2	7	6
3	ENG 101	Communication Skills Technical Elective	3	0	3	3
	BUS 104	Typewriting III	2	3	5	3
	BUS 112	Records Management	3	2	5	4
	ENG 102	Communication Skills	3	0	3	3
4	BUS 107	Shorthand II General Education Elective	3	2	5	4
	BUS 205	Typewriting IV	2	3	5	3
	BDP 101	Introduction to Data Processing	5	0	5	5
	ENG 103	Communication Skills	3	0	3	3
5	BUS 108	Shorthand III	3	2	5	4
	BUS 110	Office Machines	3	2	5	4
	BUS 209	Typewriting V	2	3	5	3
	BUS 206	Shorthand IV	3	2	5	4
6	BUS 213	Office Procedures General Education Elective Technical Elective	3	2	5	4
	BUS 207	Shorthand V	3	0	3	3
	BUS 215	Work Experience	3	0	3	3
	BUS 216	Business Communications Technical Electives Technical Elective	6	0	6	6
<b>Total Credit Hours</b>						<b>112</b>



# Section

# 6

# Continuing And Adult Education

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The Department of Continuing and Adult Education operates under the open door concept of North Carolina's Community College System by providing the opportunity for every adult to enroll in a course. Continuing Education is any course of study, taken by an adult, that is not part of a degree or diploma program. Such courses do not earn college credits, but Durham Tech does award a certificate and Continuing Education Units (CEU's) upon a student's satisfactory completion of a continuing education course. To enroll in continuing education classes, one must have reached his or her eighteenth birthday, or sixteenth if enrolled full time in secondary school.

Through continuing education, one may take a personal enrichment course, learn to read, complete high school, take refresher courses in the basics (reading, English, mathematics), sharpen job skills, learn English as a second language, develop a skill, learn hobbies, or become certified in life-saving techniques and other areas.

Catagories of study that are included in present course offerings are Allied Health; Health Extension; Police and Fire Science; Community Education, including special programs for senior citizens; programs for residents of nursing and rest homes, prisons and sheltered workshops; job skills courses; human relations and mental health courses and personal enrichment courses.

In addition to several classes being held at Durham Technical Institute, other classes are held throughout Durham and Orange counties at community centers, recreation sites, public school buildings, churches, senior centers and public housing sites.

Registration fee for Continuing Education courses is five dollars (\$5.00) per course plus, in some instances, a co-sponsoring agency fee. Persons sixty-five years of age and older are exempt from the payment of the five-dollar (\$5.00) registration fee.

Students may register for continuing education courses either through the mail, at the first class session, or in the Continuing Education Office located in the Classroom Building on the Durham Technical Institute campus. By telephoning the office at 596-9311, a student may receive a mail-in registration form.

Residents of Durham and Orange counties may request that a continuing education course be offered. Whenever a minimum of 12-15 persons request a course - in any subject area except recreation, continuing education staff can acquire a class site, hire an instructor and start the class.

Several of continuing and adult education's courses are co-sponsored by local agencies and organizations. These include the Durham City Schools, Durham County Schools, Durham Recreation Department, YWCA, Durham Arts Council, Durham County Library, the Greater Durham Accommodations Association, and the Durham Chamber of Commerce.

Course offerings through continuing education constantly expand. Following is a list of potential course offerings:

## General Interest - Community Education Courses

Speed Reading	Human Relations
Consumer Protection	Communication Skills
Estate Settlement	Bookkeeping
Contact Training	Plumbing
Building Weatherization	Upholstery
Volunteer Administration	Small Engine Repair
Data Processing	Sewing
Typing	Electronics
Automotive Mechanics	Income Tax Preparation
Carpentry	Spanish
Job Placement	Ventriloquism
Brick Masonry	

## Special Courses for Older Adults

Successful Aging  
The Woman Alone  
Financial and Legal Problems of Retirees  
How to Use Your Money Wisely  
Commonsense Cooking and Nutrition  
Home Nursing and Blood Pressure

## Health Extension and Allied Health Courses

Phlebotomy Technician  
Basic Life Support  
Geriatric Nursing Assignment  
First Aid  
Central Service Technician  
Continuing Education Courses for Nurses  
Continuing Education Courses for Allied Health Professionals

## Police and Fire Science

Basic Law Enforcement	Arson Detection
Chemical Test for Alcohol	Fire-Fighting Procedures
Civil Law	Hospital Fire Safety
Interview and Interrogation	Rope Practices
Criminal Law	Radio Communications
Community Relations	Bombing and Bomb Threats
Court Structures & Procedures	Home Fire Safety
Criminal Investigations	Ladder Practices
	Protective Breathing Equipment

## Hospitality Courses

Beverage Operations and Management  
Culinary School  
Waiter-Waitress Training  
Front Office Procedures  
Human Relations

## Adult Education Programs

Durham Technical Institute offers four programs in the area of Adult Education that allow area residents to learn to speak and write English, to obtain an eighth grade level of education, and to complete high school through the Adult High School Diploma or Adult High School Equivalency programs. Classes are offered at Durham Technical Institute as well as community centers, churches, public schools, and prisons in Durham, Chapel Hill, and Hillsborough. Following is a brief description of each of the programs. For more information, contact the Adult Education Office at Durham Technical Institute.

### English as a Second Language

This program is offered to any non-English speaking persons who are age sixteen years or older. The program is designed to accommodate students at different levels, from beginning to advanced level. Upon completing an advanced level, students are encouraged to enter the Adult Basic Education program, the GED program, or other educational programs offered by Durham Technical Institute.

### Adult Basic Education

The Adult Basic Education program offers free instruction to participants from non-readers to eighth grade level. Students enrolled in the program must be at least sixteen years old. Students are placed following a pre-test and are allowed to proceed at their own pace. A variety of learning materials are used to accommodate varied styles of learning. Upon obtaining eighth grade level competency in reading and math, students are encouraged to enter the Adult High School Diploma Program or GED (High School Equivalency) program.

### Adult High School Diploma Program

Durham Technical Institute and the local public school systems have entered into a cooperative agreement to offer the High School Diploma Program. The purpose of this agreement is to provide a program that would allow the participant to complete high school. Students entering the program must be eighteen years old. Upon written recommendation of the local school superintendent, individuals between the ages of sixteen and eighteen may be admitted. A copy of the high school transcript is required before a student enters this program. With the help of the instructor, students proceed at their own pace towards the completion of nine subjects. Upon successful completion of the Competency Exam, an Adult High School Diploma is awarded.

### High School Equivalency Program (GED)

Durham Technical Institute offers a second option for adults to receive a high school diploma. This program is frequently referred to as the GED program. The GED testing program provides an opportunity for adults who did not complete high school to demonstrate their general education development on a five-part examination and to be awarded a certificate. This certificate is accepted as equivalent to a high school diploma.

The GED program involves study in the five subject areas of English, social studies, science, reading, and mathematics. When students are ready to be tested, they are given the General Education Development test which is administered at Durham Technical Institute. Appointments to take the test can be made by contacting the Admissions Office. A fee of \$5.00 is charged.

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# Section

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**7**

# Course Descriptions

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## 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 in this course will be placed on brake operation and the servicing and repairing of drum and disc brakes. The second part of this 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 Carburetion, Fuel and Exhaust Systems

This is a study of fuel and exhaust system failures and how to correct these problems. Emphasis will be placed on diagnosing and repairing failures on carburetors, fuel pumps, and gasoline tanks. 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, 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 and/or standard transmissions, clutch systems, drive lines, and differentials. The student will learn to diagnose problems and to overhaul all types of standard transmissions and differentials. Also, the student will service clutch systems and drive shafts.

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. All 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

## **Audio - Visual**

### **AVT 101 AV Production I**

This course provides the student an understanding of the operation of projection equipment, tape recorders, record players and synchronization equipment. Instruction includes production techniques for

basic transparencies and sound/slide presentations.

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

Prerequisite: None

### **AVT 102 AV Production II**

This course trains the student in the production of still projected media, such as overhead transparencies. Also the student produces a simple sound/slide program.

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

Prerequisite: AVT 101 or approval of instructor.

### **AVT 103 Visual Communications**

This course is designed as an introduction to a broad range of media such as film, television, and radio. Each medium is examined as an independent art form through analysis of its components. Both perception and communication theory are studied.

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

Prerequisite: None

### **AVT 104 Audio - Visual Equipment**

This course is designed to introduce the operation and applications of audio-visual equipment to students who are not in the Communications Technology curriculum. Emphasis will be placed on selection of appropriate media.

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

Prerequisite: None

### **AVT 105 Design I**

This course is an introduction to the fundamentals of drawing and design. Emphasis is placed on the values of line, shape, perspective, shading, and color theory.

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

Prerequisite: None

### **AVT 201 AV Production III**

This course trains the student to design and produce an instructional sound/slide program. Also design and production strategies, including multi-screen projection, are examined.

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

Prerequisite: AVT 102 or approval of instructor.

### **AVT 202 AV Production IV**

In this course the student designs and produces an instructional unit in an appropriate medium (sound/slide, film, video, etc.). Emphasis is placed on development of effective designer/client relationships and interpersonal skills.

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

Prerequisite: AVT 201 or approval of instructor.

### **AVT 203 Portfolio Review**

This course is designed to provide the student nearing completion of the Communications Technology sequence an opportunity for portfolio review. Group critique and individual sessions with the instructor are scheduled to deal with the organization, packaging, and use of a portfolio as a primary tool in a job search and to determine what revisions are necessary to improve the portfolio. Satisfactory completion of such revision is required.

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

Prerequisite: None

### **AVT 204 Special Project**

This course is designed to provide the student the opportunity to work in a variety of media not otherwise studied. Media for study may be selected from alternatives such as silk-screen printing, lithography, graphic arts, and photography.

Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3.

Prerequisite: None

### **AVT 205 Work Experience**

In this course the student receives on-the-job training at a local school, library, hospital, or business under the close supervision of the Communications Technology Coordinator.

Course Hours Per Week: Class, 1. Lab, 15. Quarter Hours Credit, 3.

Prerequisite: AVT 203 or approval of instructor.

## **AVT 206 Design II**

This course is a continuation of Design I with further emphasis on design capabilities on both the technical and conceptual level. The working experience is structured around a client/designer relationship similar to what the student might encounter on the job.

Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3.  
Prerequisite: AVT 105

## **Business Data Processing**

### **BDP 101 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 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, punched card processing, the program development cycle, and binary and hexadecimal number systems.

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

### **BDP 102 Logic and Decision Making**

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, development of structured program logic, and walkthrough of logic.

Course Hours Per Week: Class, 2. Lab, 2. Quarter Hours Credit, 3.  
Prerequisite: None

### **BDP 103 Keypunch I**

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

### **BDP 104 Keypunch II**

This course continues to utilize the concepts gained in BDP 103 in data entry techniques. The student should be able to punch a minimum of 12,000 strokes per hour at the completion of the course.

Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4.  
Prerequisite: BDP 103.

### **BDP 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 writing structured COBOL programs for business applications.

Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4.  
Prerequisites: BDP 101, BDP 102, MAT 120

### **BDP 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: BDP 111

### **BDP 121 Basic 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.  
Prerequisite: BDP 111

### **BDP 171 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, 2. Lab, 2. Quarter Hours Credit, 3.  
Prerequisite: BDP 112

### **BDP 213 COBOL III**

This course enables the student to improve the quality of a program and to master the programming techniques learned in Computer Systems I and Computer Systems II. Students work in small groups and have their work reviewed by 'peer' programmers who make up the programming team. The student should become proficient in designing and programming business applications which require table handling, subprogramming, sequential, and indexed sequential disk file processing.

Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4.  
Prerequisite: BDP 212

### **BDP 222 Advanced RPG**

This course, designed as a continuation of Basic 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: BDP 121

### **BDP 231 Assembler Language I**

This is an introductory course in Assembler Language programming for the IBM 370 computer. The course provides an understanding of the fundamental differences between high-level and low-level programming languages. Study includes rules and specifications for the binary and decimal instructions in an operating system environment. Input/output will be restricted to card input and printer output. Other subject areas include system 370 hardware concepts, basic programming techniques, instructional formats, data transfer and sequence control, number systems, and testing and debugging.

Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5.  
Prerequisite: BDP 111

### **BDP 232 Assembler Language II**

This course is a continuation of Assembler Language I, designed to provide a thorough study of binary and decimal instruction sets, OS JCL, OS Macros, exter-

nal subroutines and linkages, loop control and indexing, address modification and table processing, and debugging assembler programs. Emphasis is placed on the application of these facilities to solve business - type problems.

Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5.  
Prerequisite: BDP 231

### **BDP 241 PL/1 Programming**

This course is designed to give the student an understanding of the fundamentals of PL/1 (Programming Language/One). 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 material includes character strings, edited I/O, internal procedures, augments, parameters, manipulation of arrays, and loop control.

Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4.  
Prerequisite: BDP 111

### **BDP 251 FORTRAN IV Programming**

This introductory course will provide the student with the necessary information required to solve business - oriented problems using the FORTRAN computer language. It is assumed that the student has gained reasonable proficiency in flowcharting and pseudocode, and is familiar with keypunching, program testing and debugging. This course emphasizes 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: BDP 111

### **BDP 260 Computer Language Survey I**

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: BDP 111

### **BDP 261 Computer Language Survey II**

This course is a continuation of the languages and techniques studied in BDP 260. Languages included are 360/370, Assembler, and RPG as well as others selected by the instructor.

Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4.  
Prerequisite: BDP 260

### **BDP 272 Computer Systems II**

This course is a continuation of Computer Systems I, 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, payroll calculations, and on developing proficiency in the use of indexed sequential file processing, utility sorts, table processing, copy utilities, and subprogramming. The student will write programs to create, maintain, and update indexed sequential files.

Course Hours Per Week: Class, 2. Lab, 2. Quarter Hours Credit, 3.  
Prerequisite: BDP 171

### **BDP 281 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: BDP 171

## **BDP 282 Applied Business Systems**

This course provides the student the opportunity to apply the principles established in BDP 281 and to develop a small business computer system, i.e., a payroll system, general ledger system, or inventory system.

Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4.  
Prerequisite: BDP 281

### **BDP 290 Data Processing Project**

The data processing project is designed for students seeking a career in computer programming. Actual business problems are undertaken, and students acquire substantial work experience in applying the skills gained in previous DP courses. The schedule for laboratory and outside work is flexible. In - house work projects are scheduled from those actually developed by the school's administrative DP department. Other projects are provided by local businesses and industries.

Course Hours Per Week: Class, 1. Lab, 8. Quarter Hours Credit, 4.  
Prerequisite: Last quarter standing and instructor's permission.

## **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 the 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. The course is designed for students continuing their studies in anatomy and

physiology or microbiology. 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: BIO 130 or BIO 101

### **BIO 132 Cardiopulmonary Anatomy and Physiology**

This course is a concentrated study of the structural and functional integration of the respiratory system, in conjunction with the circulatory system. Included are the factors involved in the mechanics of respiration, ventilation, pulmonary circulation, tissue metabolism, oxygen, transport, and carbon dioxide elimination.

Course Hours Per Week: Class, 3. Quarter Hours Credit, 3.  
Prerequisite: BIO 131

### **BIO 166 Human Anatomy and Physiology**

This course is designed to provide the student in Science and Engineering Technology a comprehensive study of the anatomical components and structures of the human body, their function and control mechanisms, and their relationships and integrations in tissue and organ systems. Emphasis is placed on the physiology of the nervous, cardiovascular, pulmonary, and excretory systems and their interrelation towards the maintenance of homeostasis.

Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5.  
Prerequisite: None

### **BIO 230 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 microbia 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.  
Prerequisites: BIO 130, BIO 131

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## **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 ap

plicable 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: GOT and SS majors, BUS 104

### **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 thirty 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 corporation 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**

Accounting III is the third course in accounting principles. Emphasis is placed on the corporate form of business and the related complex accounting procedures that are required for reporting corporate organization, operating results, and 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 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. Lab, 3. Quarter Hours Credit, 3.

Prerequisite: BUS 104

## **BUS 206 Shorthand IV**

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 Shorthand V**

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 Typewriting V**

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 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 104, 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 212

## **BUS 214 ABC Shorthand I**

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.

Prerequisites: BUS 104, ENG 103

## **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, 15. 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 II**

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 mailable 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 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 102

## **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 222

## **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 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 250 Risk and Insurance**

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

## **BUS 251 Life and Health Insurance**

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, workmen's compensation, and other social insurance coverages.

Course Hours Per Week: Class, 2. Quarter Hours Credit, 2.

Prerequisite: BUS 250

## **BUS 252 Property and Liability Insurance**

This course identifies and describes the risks associated with the ownership of property and legal liability flowing therefrom.

Course Hours Per Week: Class, 2. Quarter Hours Credit, 2.

Prerequisite: BUS 250

## **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. Lab, 2. Quarter Hours Credit, 4.  
Prerequisite: BUS 122

## **BUS 270 Fundamentals of Real Estate for Salesman**

This course covers the fundamentals of real estate. Topics include brokerage, agreements of sale, deeds, financing, mortgages, judgments, valuation and appraisal, and lease laws. Upon satisfactory completion of this course, the student is eligible to take the Real Estate Salesman Examination.

Course Hours Per Week: Class, 6. Quarter Hours Credit, 6.  
Prerequisite: None

## **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 this course, the student is eligible to take the Real Estate Broker's Examination.

Course Hours Per Week: Class, 9. Quarter Hours Credit, 9.  
Prerequisite: None

## **BUS 274 Labor Relations**

This course 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 299 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

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## **Carpentry**

### **CAR 1101 Carpentry I**

Carpentry I is a basic 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 Carpentry II**

Carpentry II 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: CAR 1101

### **CAR 1103 Carpentry III**

Carpentry III 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: CAR 1102

### **CAR 1104 Carpentry IV**

Carpentry IV covers interior finishing and millwork. The course develops skills in trim work, flooring, hardware installation, and an introduction to the basic skills of cabinet work.

Course Hours Per Week: Class, 1. Lab, 7. Quarter Hours Credit, 3.  
Prerequisite: CAR 1103

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## **Chemistry**

### **CHM 120 General Chemistry**

This course provides the student in Pharmacy Technology with 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 is designed to provide the student in Opticianry a study of the physical and chemical properties and changes of substances and a study of elements, compounds, structure of matter, chemical combinations, metals, acids, 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, 3. Quarter Hours Credit, 5.  
Prerequisite: None

### **CHM 167 Chemical and Physical Properties**

This course is designed to provide the student in Science and Engineering Technology with an introduction to chemistry and the chemistry laboratory. Topics covered include laboratory safety, structure of the atom, the periodic table, bonding, solutions and concentrations, acids, bases, and chemical equilibrium.

Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5.  
Prerequisite: None

## **CHM 168 Chemical Sampling and Analysis**

This course is designed to introduce the Science and Engineering Technology student to nuclear chemistry, gas laws, and analytical techniques that are utilized in a chemistry laboratory. Topics covered include electrochemistry and spectroscopy.

Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5.  
Prerequisite: CHM 167 or approval of instructor.

## **CHM 170 Chemistry**

This course is designed to provide the Police Science student an introductory study of the physical and chemical properties of substances, chemical changes, weights and measurements, acids, bases, salts, solvents and solutions. Also included is an introduction to organic chemistry with emphasis on substances used in analysis in a police laboratory.

Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4.  
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 104, 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 201 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, 1. Lab, 6. Quarter Hours Credit, 3.  
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, 5.  
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.  
Prerequisites: DEN 201, and/or DEN 205, and/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 precious metal. The laboratory phase includes various crown and pontic sub - structure designs for porcelain fused to metal fixed bridges and techniques for personalizing the porcelain veneer.

Course Hours Per Week: Class, 2. Lab, 12. Quarter Hours Credit, 6.  
Prerequisite: DEN 211

## **DEN 213 Dental Laboratory Practice**

This course 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 101 Engineering Drawing**

This is an introductory course in basic drafting. Lettering, geometric construction, sketching, size and shape description, orthographic projection, dimensions and sections will be included. A study of the proper use of drafting equipment will be stressed along with typical electrical symbols.

Course Hours Per Week: Class, 1. Lab, 4. Quarter Hours Credit, 2.  
Prerequisite: None

### **DFT 102 Drafting for Media**

This is an introductory course in the fundamentals of technical drawing as related to Communications Technology. Use and care of drafting equipment, lettering, geometric construction, sketching, orthographic projection, dimensions and one - and two - point perspective drawings will be included.

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

### **DFT 103 Technical Drawing**

This is an introductory course in the fundamentals of basic drafting as it relates to Industrial Management. 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 104 Technical Drawing II**

This course is an introduction to the principles and applications of drafting as it relates to electronics, electricity, mechanics, hydraulics, and pneumatics. The course will cover basic drawing techniques including chassis fabrication, electronic diagrams, electronic symbols, electrical symbols, electrical plans, isometric exploded drawings, working drawings, detail drawings, single line and double line pipe drawings, isometric piping drawings, and pipe symbols.

Course Hours Per Week: Class, 1. Lab, 5. Quarter Hours Credit, 3.  
Prerequisite: DFT 103

### **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 101 as well as cover basic drawing interpretation, datum dimensioning, schematic symbols, and block diagrams. 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 101

### **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 1111

## **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 illustrations 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

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## **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

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## Electronic Data Processing

### EDP 120 FORTRAN IV for Electronics Applications

This is an introductory course in data processing and computer programming using the FORTRAN IV Language. Study and laboratory exercises deal with solving problems normally encountered in electronic laboratory applications.

Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4.  
Prerequisite: ELC 102 or approval of instructor

### EDP 291 Special Topics In Data Processing

This is a flexible course designed to enable the student to investigate through research, study, and/or computer programming any area of data processing of special interest. Small computer applications will be emphasized.

Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3.  
Prerequisite: Approval of instructor

## 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

### EDU 103 Child Growth and Development III

This course is an analysis of the development of the pre - school 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

### 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 pre - schoolers. 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 pre - schoolers.

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. Discussion 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 pre - school age children. Participation in rhythmic games, songs, dance, creative movement, and dramatization provide opportunities to learn basic concepts and stimulate thinking.

Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3.  
Prerequisite: EDU 104

### 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: EDU 103

### 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 111 Seminar - Practicum I

This 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 112 Seminar - Practicum II

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 111

### EDU 113 Seminar - Practicum III

The objective of this course is to enable the student to select developmentally appropriate activities for

specific age groups. The student is trained to assess the child's level of development through the use of the Learning Accomplishment Profile (LAP), as well as through informal observation at the practicum site. Emphasis is on planning programs that promote the optimal development of each child.

Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5.  
Prerequisite: EDU 112

### **EDU 201 Seminar - Practicum IV**

This 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 113

### **EDU 202 Seminar - Practicum V**

This course deals with the independent implementation of child care skills, giving special attention to overall performance and the evaluation of competencies. The seminar focuses on meeting the child's physical, social, emotional, and intellectual needs.

Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5.  
Prerequisite: EDU 201

### **EDU 203 Seminar - Practicum VI**

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 202

### **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.  
Prerequisites: EDU 101, EDU 102, EDU 103

### **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 101 Introduction To Electricity**

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, electrostatics, 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, 6.  
Prerequisite: None  
Corequisite: MAT 160

### **ELC 102 Fundamentals of Electricity**

This course is a continuation of ELC 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, 6.  
Prerequisite: ELC 101 or permission of instructor  
Corequisite: MAT 161

### **ELC 104 System Servicing**

This course provides an introduction to the servicing of electronic equipment systems. Topics included are operation, servicing, preventive maintenance, and safety.

Course Hours Per Week: Class, 2. Lab, 4. Quarter Hours Credit, 3.  
Prerequisite: ELN 105 or permission of instructor

### **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, 6.  
Prerequisite: ELC 1101

### **ELC 1103 Commercial Wiring**

This course is designed to acquaint the student with the elementary principles of commercial wiring. The course includes an introduction to conduit systems and allows for detailed study of branch circuits, low voltage remote control lighting, and appliance circuits. Emphasis is also placed on the use and installation of the emergency power systems, over-current protection, short circuit calculations, and coordination of over-current protective devices.

Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6.  
Prerequisite: ELC 1102

### **ELC 1104 Industrial Wiring**

This course is designed to introduce the student to the elementary principles of industrial wiring. Emphasis will be placed on substations, transformers, and bus ducts. The student will continue studying in detail the fundamental practices of the National Electrical Code.

Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6.  
Prerequisite: ELC 1103

### **ELC 1105 Electrical Machines and Controls**

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, switching, and open and closed loop service systems.

Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3.  
Prerequisite: ELC 1104

### **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 1105

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## **Electronics**

### **ELN 100 Introduction to Electronics**

This course is a study of the fundamental principles, concepts, and theories of electronics. Emphasis will be on the descriptive aspect of the basic principles with some analytical work.

Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3.  
Prerequisite: ELC 101 or approval of instructor

### **ELN 105 Introduction to Active Devices**

This course is a study of active circuit devices through the techniques of graphical and numerical analysis. Topics covered include diodes, vacuum tubes, semiconductors, triodes, pentodes, special tubes, transistors, basic circuit configurations, and device parameters.

Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6.  
Prerequisite: ELC 102 or approval of instructor

### **ELN 165 Calculator and Computer Techniques**

This course introduces the student to the hand-held calculator and BASIC computer language so that they may be utilized in other courses and in job situations. Topics include four-function calculators, scientific calculators, programmable calculators, and use of BASIC on free standing computers.

Course Hours Per Week: Class, 1. Lab, 3. Quarter Hours Credit, 2.  
Prerequisite: None

### **ELN 168 Electronic Components, Transducers, and Basic Circuits**

This course introduces the student to electronic components, basic electronic circuits, and basic test instruments. The course also covers the principles of transducers of temperature, light, sound, force and displacement.

Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6.  
Prerequisite: None

### **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 approval of instructor

### **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 frequency amplifiers and amplifier circuits.

Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 5.  
Prerequisite: ELN 105 or approval of instructor

### **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, 6. Quarter Hours Credit, 6.  
Prerequisite: ELN 218 or approval of instructor

### **ELN 218 Application of Active Devices II**

This course is a study of circuit applications of active devices through the techniques of graphical and numerical circuit analysis. Topics covered are feedback in amplifier circuits, sinusoidal oscillators, power amplifiers, power supplies, and integrated circuits.

Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 5.  
Prerequisite: ELN 205 or approval of instructor

### **ELN 220 Electronic Systems I**

This course is a study of communication systems and circuits dealing with such topics as amplitude modulation receivers and transmitters, frequency modulation receivers and transmitters, television systems, transmission lines and antenna systems, and communication theory. Also included is a study of electronic circuits related to communication systems.

Course Hours Per Week: Class, 4. Lab, 4. Quarter Hours Credit, 5.  
Prerequisite: ELN 218 or approval of instructor

### **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, 6.  
Prerequisite: MAT 162 or approval of instructor

### **ELN 245 Electronic Design Project**

This course requires the student to design and construct a project approved by the instructor. The process involves selection, design, construction, and testing of the completed project. Projects may include AM or FM transmitters or receivers, amplifiers, test equipment, control devices, simple counters, lasers, and masers.

Course Hours Per Week: Class, 3. Lab, 4. Quarter Hours Credit, 4.  
Prerequisite: ELN 220

### **ELN 250 Electronic Systems II**

This course is a study of special topics in electrical circuits and systems not previously covered. Possible areas of study include systems such as single side band, UHF techniques, wave guides, antennas, transmission lines, and radio frequency propagation.

Course Hours Per Week: Class, 3. Lab, 4. Quarter Hours Credit, 4.  
Prerequisite: ELN 218 or approval of instructor

### **ELN 265 Analog and Digital Electronics**

This course introduces the student to the principles of reactive circuits and to the characteristics of active linear circuit devices. In addition, the study of digital circuit concepts prepares the student to handle digital processing and control systems. Laboratory exercises are designed to provide the student with practical applications of electronic circuit operation and trouble shooting.

Course Hours Per Week: Class, 4. Lab, 6. Quarter Hours Credit, 6.  
Prerequisite: ELN 168

### **ELN 266 Electronic Systems**

This course provides the student with a working knowledge of complete instrument systems. The course is an integration of skills and theory needed

for the practical applications of instrumentation devices and circuits.

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

Prerequisite: ELN 265

### **ELN 270 Microprocessor Fundamentals**

This is an introductory course in microprocessor fundamentals. Subjects covered include 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, 6.

Prerequisite: None

### **ELN 1101 Industrial Electronics I**

This course is a study of the fundamental principles, concepts, and theories of electronics with emphasis on basic industrial devices. Topics covered include diodes, transistors, and Field-Effect transistors (FET's).

Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5.

Prerequisite: ELC 1101

### **ELN 1102 Industrial Electronics II**

This course is a continuation of ELN 1101 covering the use and operation of electronic devices such as SCR, TRIAC, DIAC, etc. Also the course introduces operational amplifiers and basic digital circuits.

Course Hours Per Week: Class, 3. Lab, 6. Quarter Hours Credit, 5.

Prerequisite: ELN 1101, ELC 1101

or DEN 205, and/or DEN 211

## **English**

### **ENG 100 Basic English**

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 Learning Resources Center.

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: None

### **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: None

### **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 190 Introduction to Drama**

This course is an introduction to dramatic literature designed to enable the student to understand the development of drama in its historical setting, the purpose of drama, and the changes in the art form as the preferences of the audience change.

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

Prerequisite: None

### **ENG 191 Introduction to Literature**

This course is designed to enable the student to examine critically the four literary genres: poetry, drama, the novel, and the short story. The student will study representative works from each genre and demonstrate his understanding of these works through the writing of critical essays.

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

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 group problem solving and decision making, to interview for a job, and to understand the role of attitudes, values, and motives in the development of the individual and of 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 by evaluating the oral presentations of others.

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

Prerequisite: None

### **ENG 205 American Literature I**

This course is a critical survey of selected masterpieces 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 Career 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.

Prerequisites: ENG 101, ENG 102, ENG 103

### **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 SQR, (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 102 Municipal Fire Protection**

This course examines the effectiveness of fire department organization, personnel management, and relationships with other city departments. Fire services, equipment, and training needs are also evaluated.

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 105 Applied Electricity of Fire Protection**

This course is a study of methods and means of utilizing electricity to provide power. The dangers and problems that may be encountered from electricity by the fire service are discussed in detail.

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

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 120 Municipal Finance**

This course is a study of budget items, preparation and justification of budgets, financial statements, and record systems. The proper utilization of sound financial principles and practices for fire service is also discussed.

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

Prerequisite: None

### **FIP 135 Training Programs and 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, 3. Quarter Hours Credit, 3.

Prerequisite: None

### **FIP 201 Fire Detection and 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, 3. Quarter Hours Credit, 3.

Prerequisite: None

## **FIP 208 Municipal Public Relations**

This course is a general survey of municipal public relations and their effect on the governmental process. Principles of public relations such as planning, staffing, controlling, and directing information to the general public are studied. Emphasis is placed upon personal responsibilities, means of communications, and policies and organization of an effective public relations program.

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

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 Chemistry of Hazardous Material**

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 are 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 Hydraulic 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 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

## **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, 4. Quarter Hours Credit, 4.

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 civiliza-

tions 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

### **HIS 201 American History I**

This course is a survey of American history from the discovery of America to the Civil War period, designed to enable the student to understand the relationship between ideas and events from colonial times up to the Civil War and to understand the philosophical, religious, political, and economic ideas of the Revolutionary and the pre - Civil War periods.

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

Prerequisite: None

### **HIS 202 American History II**

This course is a continuation of American history covering the period from the Civil War through World War I. The course is designed to enable the student to understand the relationship of ideas and events from the Civil War to World War I, and to understand the factors that influenced American national and international policy from 1863 to 1914.

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

Prerequisite: None

### **HIS 203 American History III**

This course is a continuation of American history from 1914 to present. The course is designed to enable the student to understand the trends in United States government during the past 60 years; to understand the continuing historical development of American culture and society; and to understand the development of public assistance programs influencing the present welfare system.

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

Prerequisite: None

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## **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 American Architectural Style**

This course is a survey of American architectural styles and the relationship of stylistic development to the process of recording historic sites. The student will develop skills in the identification of architectural styles and in the use of architectural terminology.

Course Hours Per Week: Class, 4. Quarter Hours Credit, 4.

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 Recording Historic Sites**

Recording historic sites is a vital part of preservation because until one knows what is historic and where it is, preservation cannot begin. This course develops skills in the application of the recording methodology including inventory forms, site evaluation, photography, catalog work, use of maps, drawings, and prints and photographs in interpreting the built environment. Historical research and writing will be required to produce a catalog manuscript.

Course Hours Per Week: Class, 1. Lab, 5. Quarter Hours Credit, 3.

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, 4.

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 tenon 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**

Wood is the critical building material, and often it is economically possible and historically important to save it. Conservation of wood can be cosmetic, structural or preventive maintenance. This course covers the principles for protecting wood from decay, epoxy consolidation, structural repair, and termite infestation.

Course Hours Per Week: Class, 1. Lab, 3. Quarter Hours Credit, 2.

Prerequisite: None

### **HPT 1109 Paint**

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. Skills will be developed in the use of tools, woodgraining, marbling, 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 day 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

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## **Humanities**

### **HUM 110 Introduction to Western Culture**

This course is a comparative survey of past and present cultures, designed to provide the student an understanding of the influences of past civilizations on the present, and consequently the historical and cultural relationships between the past and present.

Course Hours Per Week: Class, 3. Quarter Hours Credit, 3.  
Prerequisite: None

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## **Industrial Science**

### **ISC 114 Graphics and Presentation**

This course introduces the student to the fundamentals of data presentation and analysis. Basic charting techniques, network diagramming, flow process analysis and other analytical techniques are presented and demonstrated.

Course Hours Per Week: Class, 0. Lab, 2. Quarter Hours Credit, 1.  
Prerequisite: None

### **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.

Course Hours Per Week: Class, 3. Quarter Hours Credit, 3.  
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: BUS 221

### **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: MAT 120

### **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: MAT 102 or MAT 162

### **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, reliability, testing methods, and control charting.

Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4.  
Prerequisite: BUS 221

### **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: ISC 214

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## **Paralegal**

### **LEX 100 Introduction to the Legal System**

This course introduces the student to the structure of the state and federal court system in order to provide an understanding of the basic legal structure within which he or she will be working. Emphasis is placed on legal terminology and vocabulary which will be encountered in subsequent courses.

Course Hours Per Week: Class, 3. Quarter Hours Credit, 3.  
Prerequisite: None

### **LEX 101 Real Property**

This course is designed to provide the paralegal student 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 course in title abstracting and real estate transactions.

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

### **LEX 102 Family and Juvenile 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

### **LEX 103 Criminal Law and Procedure**

This course teaches the basic elements of the crimes commonly dealt with in a North Carolina criminal law practice. The course further provides a thorough examination of the North Carolina Rules of Criminal Procedure as contained in the North Carolina General Statutes. A primary purpose of the course is to prepare the paralegal to assist in interviewing, investigating, and preparation of criminal law forms, including those relating to discovery and various motions.

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

Prerequisite: None

### **LEX 104 Title Abstracting I**

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.

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

Prerequisite: LEX 101

### **LEX 105 Commercial Law I**

This course introduces the student to the basic principles of the Uniform Commercial Code including contracts, negotiable instruments, agencies, and consumer finance. The course further introduces the student to forms of business associations including partnerships and the various types of corporations.

Course Hours Per Week: Class, 4. Quarter Hours Credit, 4.

Prerequisite: None

### **LEX 106 Title Abstracting II**

This course completes the student's training in title abstracting and introduces the preparation of real estate packages. The student actually prepares title abstracts, deeds, and other real estate instruments, as well as drafting and interpreting surveys.

Course Hours Per Week: Class, 4. Quarter Hours Credit, 4.

Prerequisite: LEX 104

### **LEX 107 Personal Injury**

This course covers the applicable law of Tort involved in personal injury actions resulting from automobile accidents. The student prepares a sample case from injury to settlement including the initial interview, retainer agreement, and discovery process as well as the usual correspondence attempting settlement.

Course Hours Per Week: Class, 4. Quarter Hours Credit, 4.

Prerequisite: None

### **LEX 108 Civil Litigation I**

This course is designed to prepare the paralegal student to assist the attorney in every phase of civil litigation from beginning to end of the case. The student is taught to interview the client, investigate the facts, prepare correspondence, assist in preparation of motions and responses, and coordinate the discovery process.

Course Hours Per Week: Class, 4. Quarter Hours Credit, 4.

Prerequisite: None

### **LEX 109 Estate Administration I**

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, 4. Quarter Hours Credit, 4.

Prerequisite: None

### **LEX 110 Civil Litigation II**

This course is a continuation of LEX 108 and is intended to give the student a more practical training in civil litigation. The student is given a sample case in which to apply the skills learned earlier with special emphasis on the law of evidence and the North Carolina Rules of Civil Procedure.

Course Hours Per Week: Class, 4. Quarter Hours Credit, 4.

Prerequisite: LEX 108

### **LEX 111 Estate Administration II**

This course provides the student the basic laws involved in, and the preparation of, various gift and estate tax forms. The student also learns to interview the client, to provide all of the necessary information to an attorney, and to advise the client of the advantages of the applicable tax laws.

Course Hours Per Week: Class, 4. Quarter Hours Credit, 4.

Prerequisite: None

### **LEX 112 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, 3. Quarter Hours Credit, 3.

Prerequisite: None

### **LEX 113 Commercial Law II**

This course continues the study of commercial law begun in Commercial Law I. Specific application of the principles begun in the initial course will be taught and applied to the North Carolina case law and North Carolina General Statutes.

Course Hours Per Week: Class, 4. Quarter Hours Credit, 4.

Prerequisite: LEX 105

### **LEX 114 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, including preparation of appellate briefs.

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

Prerequisite: None

### **LEX 118 Consumer Protection**

This course teaches the basic duties imposed by statute and case law upon merchants and manufacturers to maintain quality and care in production of goods and services. The course also covers the remedies available to the consumer injured by a defective product, or in receipt of defective goods or services.

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

Prerequisite: None

### **LEX 119 Public Administration**

This course is a very basic coverage of administrative law, designed to enable the paralegal to assist the attorney in daily dealings with administrative agencies on the federal, state, and local levels. The paralegal is taught the necessity of exhausting administrative remedies before resorting to court action. The course emphasizes the practical concerns of whom to see about what.

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

Prerequisite: None

### **LEX 120 Real Estate Transactions**

In this course the student actually prepares sample real estate packages including those from HUD, VA, FHA, and conventional loans. The course continues the study begun in LEX 106 but is a more exhaustive study designed to prepare the paralegal graduate to assume full responsibility to an attorney in a North Carolina law office for preparing real estate packages for closing.

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

Prerequisite: LEX 106

## 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 101 Introduction To 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.

Prerequisites: MAT 100, MAT 120 or satisfactory score on placement test

### MAT 102 Intermediate Algebra I

This course is designed to provide the student the basics of algebra including polynomials, linear equations, graphs, fractional equations, radical expressions, quadratic equations, functions, and systems of linear equations.

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

Prerequisite: MAT 120 or satisfactory score on placement test

### MAT 103 Intermediate Algebra II

This course is a continuation of MAT 102 and includes 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 102

### 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 equivalent

### MAT 120 Introduction To Algebra

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 equations and inequalities, operations with polynomials and operations with rational expressions.

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

Prerequisite: MAT 100 or equivalent

### 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 102 or equivalent

### 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, circle triangles, the Pythagorean Theorem and similar triangles, the sphere and cone, defini-

tions 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 form.

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

Prerequisite: None

### MAT 160 Technical Mathematics

This course is designed to provide the student with a review of basic algebraic operations including signed numbers, law of exponents, linear equations and linear systems, rectangular coordinate systems, factorization of binomials and trinomials, scientific notation, evaluation of formulas, ratio and proportion, and exponential functions. Emphasis is placed on the solution of practical problems in electricity. Also basic trigonometry is introduced.

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

Prerequisite: Entrance in the electronics curriculum or approval of instructor.

### MAT 161 Technical Mathematics

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 approval of instructor.

### MAT 162 Technical Mathematics

This course is designed to provide the student with an in-depth study of exponential and logarithmic equations with their respective graphs, anti-logarithms, 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 approval of instructor.

### MAT 170 Technical Mathematics

This course is designed to enable the student to review and refine skills in arithmetic and practical geometry, and to introduce fundamental algebraic operations, culminating in the solution of linear and quadratic equations.

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

Prerequisite: None

### MAT 260 Introduction to Calculus

This course is designed to cover the advanced mathematical concepts of function theory, limits, differentials and integral calculus with applications of the 2nd and 3rd derivatives and the definite integral. Calculus techniques as applied to trigonometric functions, related ratios and maxima/minima problems are included.

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

Prerequisite: MAT 162 or approval of instructor.

### 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

### **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

### **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 and 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.

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## **Mechanical**

### **MEC 101 Machine Processes for Electronics**

This course introduces the student to shop safety procedures, hand tools, and machine processes for electronic fabrication and construction. Included is a

study of measuring instruments, characteristics of materials, cutting, drilling, threading, tapping, and materials processes.

Course Hours Per Week: Class, 1. Lab, 3. Quarter Hours Credit, 2.

Prerequisite: None

### **MEC 1101 Machine Shop - Theory and Practice**

This course provides an introduction to the metalworking trade as it relates to machining operations. The student is oriented to the machine shop, safety procedures, basic hand tools, metal cutting saws, drill presses, and shop measuring instruments.

Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4.

Prerequisite: None

### **MEC 1102 Machine Shop - Theory and Practice**

This course provides an introduction to the operation of engine lathes and milling machines. The operation of bench grinders and safety procedures will be studied. Instruction will continue on drill presses and metal cutting saws.

Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3.

Prerequisite: MEC 1101

### **MEC 1103 Machine Shop - Theory and Practice**

This course re-emphasizes the use of precision measuring tools, reciprocating power saws, contour band saws, lathes and drill presses, and selection of speeds and feeds.

Course Hours Per Week: Class, 2. Lab, 6. Quarter Hours Credit, 4.

Prerequisite: MEC 1102

### **MEC 1104 Machine Shop - Theory and Practice**

This course provides an introduction to surface grinders with continued emphasis on inspection tools and milling machines. Proper selection of speeds and feeds will be analyzed.

Course Hours Per Week: Class, 1. Lab, 6. Quarter Hours Credit, 3.

Prerequisite: MEC 1103

### **MEC 1105 Machine Shop - Theory and Practice**

This course provides additional instruction and practice in the use of precision measuring tools, milling machines, and surface grinders. Also included is instruction and practice in the use of power feed drills and abrasive saws.

Course Hours Per Week: Class, 1. Lab, 9. Quarter Hours Credit, 4.

Prerequisite: MEC 1104

### **MEC 1106 Machine Shop - Theory and Practice**

This course emphasizes the setting up and operating of machine tools including the selection and use of work holding devices, feeds and speeds, special charts and tables, cutting tools, and coolants.

Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3.

Prerequisite: MEC 1105

### **MEC 1107 Machine Shop - Theory and Practice**

This course is an introduction to advanced milling machine operations and special machining operations requiring the selection of proper tools, methods, and precision machining.

Course Hours Per Week: Class, 1. Lab, 9. Quarter Hours Credit, 4.

Prerequisite: MEC 1106

### **MEC 1108 Machine Shop - Theory and Practice**

This course re-emphasizes advanced milling machine and lathe operations. The grinding of specific surfaces using surface grinders will be stressed.

Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 3.

Prerequisite: MEC 1107

## **MEC 1109 Fundamentals of Numerical Control**

This course introduces the fundamental concepts and skills necessary in programming and operating numerical control machines. Also included are the history, types, descriptions, capabilities, and applications of numerical control (N/C) machine tools used in drilling operations.

Course Hours Per Week: Class, 1. Lab, 3. Quarter Hours Credit, 2.

Prerequisite: MEC 1105

Coresquisite: MEC 1106

## **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.

Prerequisites: MEC 1107, MEC 1109

## **Medical**

### **MED 130 Pharmacology**

This course is designed for comprehensive study of those drugs and medications commonly used in respiratory therapy or in cardiopulmonary diseases. Emphasis will be placed on those drugs affecting the nervous, cardiovascular, respiratory, and excretory systems and on the pharmacodynamics of drug action, correct drug usage, and administration.

Course Hours Per Week: Class, 4. Quarter Hours Credit, 4.

Prerequisite: BIO 131

### **MED 131 Acid/Base, Electrolytes and Blood Gas Interpretation**

This course is designed to meet the specialized needs of Respiratory Therapy students for advanced training in acid-base regulation, fluid electrolyte balance, blood gas values and their clinical interpretation, and the clinical measurement of arterial pH, oxygen, and carbon dioxide.

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

Prerequisites: CHM 130, BIO 131, BIO 132

### **MED 230 Pathology**

This course provides a comprehensive study of the etiology and pathogenesis of respiratory and cardiovascular diseases. Additional focus includes clinical manifestations, complications, and diagnosis.

Course Hours Per Week: Class, 4. Quarter Hours Credit, 4.

Prerequisites: BIO 132, BIO 230

## **Music**

### **MUSIC 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.

Prerequisites: 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, fluid and electrolyte balance.

Course Hours Per Week: Class, 9. Quarter Hours Credit, 9.

Prerequisites: 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 judgement based on previous experience and depth of knowledge. Clinical practice includes supervised care of labor patients and seriously ill adults.

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 is a continuation of NUR 1107. 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 assist 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, 4.  
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 Vocational Relationships and Adjustments to Nursing**

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 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

### **OPT103 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, size, 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 Benchwork Procedure**

This course is a study of all phases of benchwork procedure with emphasis placed on craftsmanship, measurements, materials, and equipment.

Course Hours Per Week: Class, 2. Quarter Hours Credit, 2.  
Prerequisite: OPT 103, OPT 113

### **OPT 111 Mechanical Optics**

This course introduces the beginning Opticianry student to the specific machinery and materials of 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, flow charts, 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 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 spherical and cylindrical 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. Also spherical lenses for high refractive errors (including cataract lenses) are studied. The student will be able to incorporate prism and cylinder in multifocal lenses.

Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2.  
Prerequisites: OPT 102, OPT 112

### **OPT 114 Mechanical Optics**

This course is an introduction to edge beveling and a study of the requirements of eyeglass construction and inspection. Automatic edge beveling and finishing work are introduced with an emphasis on speed and accuracy.

Course Hours Per Week: Class, 0. Lab, 6. Quarter Hours Credit, 2.  
Prerequisites: OPT 103, OPT 113

### **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 140, 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.  
Prerequisites: 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 in this course. Also covered is the relationship between lens aberrations and corrected curve lenses. A research thesis 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 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. Heat 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, 6. Quarter Hours Credit, 6.

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, 6. Quarter Hours Credit, 6.

Prerequisite: OPT 232

### **OPT 241 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, lacrimal, and muscles.

Course Hours Per Week: Class, 2. Quarter Hours Credit, 2.

Prerequisite: None

### **OPT 242 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.

Prerequisites: OPT 241

### **OPT 261 Contact Lenses**

This course is an introduction to the basic principles of contact lenses. A history of contact lenses is covered as well as the fundamental fitting procedures of contact lenses.

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

Prerequisites: OPT 241, OPT 242

### **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**

This course is an introduction to the fabrication of spectacles, lenses, and frames. Frame measurements, types, decentration, layout, cutting, and edging of lenses are covered including mounting, aligning, and inspection of the finished product.

Course Hours Per Week: Class, 0. Lab, 3. 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, 4. Quarter Hours Credit, 1.  
Prerequisite: OPT 1112

### **OPT 1122 Equipment Maintenance and Repair**

This course is a study of the use of standard equipment. The maintenance of production equipment as well as adjusting and troubleshooting of the equipment is covered.

Course Hours Per Week: Class, 2. Lab, 2. Quarter Hours Credit, 3.  
Prerequisite: None

### **OPT 1131 Optical Dispensing I**

This course is an introduction to the history of frames, frameselection, and application. Facial measurements, interpupillary distance, and frame measuring are discussed and applied.

Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5.  
Prerequisite: None

### **OPT 1132 Optical Dispensing II**

This course covers the alignment and adjusting of eyewear for delivery to the consumer. It includes identifying, analyzing, and fitting of multifocal lenses as well as the application of special eyewear to a stated visual function.

Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5.  
Prerequisite: OPT 1131

### **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

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## **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

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## **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 - P

### **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

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## **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 approval of instructor

## **PHO 103 Filmmaking**

This course deals with basic film techniques including camera manipulation, lighting, exposure, and editing. Film history and theory are discussed in terms of their current application.

Course Hours Per Week: Class, 2. Lab, 3. Quarter Hours Credit, 4.  
Prerequisite: PHO 101 or approval of instructor

## **PHO 201 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 approval of instructor

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## **Physics**

### **PHY 130 Physics I**

This course is the first of a two - quarter sequence of physics applied to the health sciences, especially respiratory therapy. It includes a study of physical properties of liquids and gases, the circulatory system, medical applications of pressure and fluid flow, molecular phenomena, temperature, and the effects of heat.

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

### **PHY 131 Physics II**

This course is the second of a two - quarter sequence of physics applied to the health sciences, especially respiratory therapy. It includes basic electricity and magnetism, electrical circuits, electrical safety, electrical and electronic instrumentation, bioelectricity, ultrasonics, and modern physics.

Course Hours Per Week: Class, 3. Lab, 2. Quarter Hours Credit, 4.  
Prerequisite: PHY 130

### **PHY 140 Physics**

This course is an introduction to the basic principles of physics necessary to prepare Opticianry students for courses in geometric optics. Emphasis is on the physical properties of optical materials.

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

### **PHY 170 Physics**

This course is an introduction to physical principles related to fire science. Topics included are measurement, motion, force, work and energy, fluids, heat and basic electricity.

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. 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 properties and their application in industry. Topics in this course include measurements, properties of matter, vectors, motion, heat, and thermometry.

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 force, motion, work, energy, power, strength of materials, and light.

Course Hours Per Week: Class, 4. Lab, 2. Quarter Hours Credit, 5.  
Prerequisite: PHY 260

### **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

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## **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

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## **Police Science**

### **PSC 101 Introduction to Law Enforcement**

This is a general course designed to familiarize the student with a philosophy and history of law enforcement including its legal limitations in a democratic republic. The course includes a survey of the primary duties and responsibilities of the various law enforcement agencies, delineation of the basic processes of justice, evaluation of law enforcement's current position, and an orientation relative to law enforcement as a vocation.

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

### **PSC 105 Introduction to Criminal Law and Procedure**

This course introduces the student to the fundamental concepts of criminal law as it functions within the context of criminal procedure. Emphasis is on the interdependent relationship of criminal law and procedure which affects the enforcement and administration of the law. The focus is on the laws of arrest, concepts of the elements of law, basic tenants

of constitutional rights as they affect criminal procedure, and the structure of the legal system on both the state and federal levels.

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

Prerequisite: None

### **PSC 110 Police Role in Crime**

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

### **PSC 115 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 nonstatutorily defined offenses and elements. Also emphasis is placed on general principles of criminal law applications 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

### **PSC 120 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

### **PSC 130 Police Problems in Sociology**

This course deals with the application of the principles of sociology to the specific social phenomena with which the police must deal. These are divided into the following categories: alcoholism, drug addiction, gambling, child abuse, and other social phenomena that reflect group behavior associated with destructive social forces. The course concentrates on the nature of the problems, their growth, and their impact on society.

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

Prerequisite: None

### **PSC 150 Patrol Operations**

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

### **PSC 201 Traffic Administration**

This course deals with the history of traffic enforcement problems and gives an overview of the problems of today. Attention is given to the 3 E's (Engineering, Education, Enforcement) and legislation, the organization of the traffic unit, the responsibilities to the traffic function of the various units

within the law enforcement agency, enforcement tactics, evaluation of the traffic program effectiveness, and the allocation of men and materials.

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

Prerequisite: None

### **PSC 205 Criminal Evidence**

This course systematically reviews the central issues of the law of evidence. The major topics include court decisions relating to the exclusions 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

### **PSC 210 Criminal Investigation**

This course introduces the student to the fundamentals of investigation, crime scene searching, recording, collection and preservation of evidence, sources of information, and 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

### **PSC 211 Introduction to 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 the use of scientific equipment.

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

Prerequisite: PSC 210

### **PSC 215 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, taking of fingerprints, and handling of simple latent fingerprint patterns.

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

Prerequisite: None

### **PSC 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

### **PSC 225 Criminal Procedure**

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 related to 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

### **PSC 230 Police 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

## **PSC 250 Police Psychology**

This course deals with the application of psychological principles to common police problems 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

## **PSC 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 considered.

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

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 111 Creative Problem Solving**

This course is a practical as well as an academic approach to the use of imagination and creativity, accentuating 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 Therapy I**

This course covers ethics, professionalism, professional organizations, and the history of respiratory therapy. Also physical properties, piping, storage, safety standards, and flow and pressure regulation of medical gases will be covered. Medical terminology and basic cardiopulmonary anatomy and physiology will be introduced.

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

Prerequisite: Matriculating RT student

### **RTH 102 Therapy II**

This course covers the properties and production of therapeutic vapors and aerosols, oxygen administration devices, gas analyzers, blending devices, artificial airways, and manual ventilation devices. The rationale and techniques used in the administration of oxygen and aerosol therapy will also be discussed. Laboratory sessions will involve the complete examination and demonstration of clinical equipment.

Course Hours Per Week: Class, 6. Lab, 2. Quarter Hours Credit, 7.

Prerequisites: RTH 101, PHY 130, MAT 131, BIO 131

### **RTH 103 Therapy III**

This course provides an in-depth study of the indications and contraindications of oxygen, humidity, and aerosol therapy, as well as all modes of bronchopulmonary hygiene and airway maintenance. Laboratory sessions will require the student to demonstrate the use of ventilatory therapy equipment and accessories and will assure exposure to proper administration techniques. The student will also be introduced to all forms of patient information gathering: physical examination techniques, arterial blood gases and chest x-ray interpretation, clinical laboratory values, and basic pulmonary monitoring. The basic nursing arts, pulmonary rehabilitation, and home care will also be covered.

Course Hours Per Week: Class, 6. Lab, 2. Quarter Hours Credit, 7.

Prerequisites: RTH 102, PHY 131

### **RTH 104 Mechanical Ventilation I**

This course is an introduction to ventilators and monitoring devices, procedures and techniques, indications and contraindications as specifically related to prolonged assisted and controlled mechanical ventilation. Laboratory sessions require students to disassemble and reassemble ventilators and monitoring devices to assure student exposure to specific classifications, functions, and problems unique to each device.

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

Prerequisites: RTH 103, BIO 132, BIO 230

### **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 and provide opportunities to observe patient care and practice selected pre-patient contact skills at each of the facilities.

Course Hours Per Week: Class, 0. Clinical, 8. Quarter Hours Credit, 3.

Prerequisites: RTH 103, BIO 132

Corequisites: RTH 104, MED 131, MED 130, MED 230

## **RTH 201 Mechanical Ventilation II**

This course is a continuation of 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, 2. Lab, 2. Quarter Hours Credit, 3.

Prerequisites: RTH 104, MED 130, MED 131, MED 230

## **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 a student's clinical judgement by stressing application of classroom material to patient contact experiences.

Course Hours Per Week: Class, 0. Clinical, 24. Quarter Hours Credit, 8.

Prerequisites: RTH 104, RTH 105

Corequisites: RTH 201, RTH 203

## **RTH 203 Pediatrics**

This will be an introductory course in pediatric respiratory therapy skills, techniques of care, and equipment. Emphasis will be placed on the special consideration and treatment required by premature infants. The student will finish this course with the basic information and technical familiarity needed to begin practicing in pediatric care units.

Course Hours Per Week: Class, 2. Lab, 2. Quarter Hours Credit, 3.

Prerequisites: MED 131, MED 230, RTH 104

Corequisite: RTH 201

## **RTH 204 Pediatric Pathophysiology**

This course will provide the student with a detailed study of genetic, iatrogenic, and disease induced abnormalities commonly found in neonatal/pediatric patients. The treatment, course, and prognostic outcome of pathologic entities will be covered.

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

Prerequisite: RTH 203

Corequisite: RTH 206

## **RTH 205 Pulmonary Function Testing**

This course will cover basic spirometry to computerized testing procedures. All modern testing procedures and many of the practical pulmonary function interpretations will be intensively practiced.

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

Prerequisites: MAT 131, PHY 131, MED 131, MED 230

## **RTH 206 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 D.T.I. laboratory and in the intensive care units of the clinical affiliates.

Course Hours Per Week: Class, 0. Clinical, 24. Quarter Hours Credit, 8.

Prerequisites: RTH 202, RTH 203

## **RTH 207 Assessment and Treatment**

This course utilizes patient care review and seminar formats, and will be oriented toward special problems requiring advanced cardiopulmonary care techniques. Emphasis will be placed upon the student's ability to locate and interpret pertinent journal literature. The terminal goal of this course will be a heightened student ability to analyze patient information and recommend courses of therapy.

Course Hours Per Week: Class, 4. Quarter Hours Credit, 4.

Prerequisites: MED 130, MED 131, MED 230, RTH 206

## **RTH 208 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 premature 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, 24. Quarter Hours Credit, 8.

Prerequisites: RTH 205, RTH 206

## **RTH 209 Clinical Practice V**

During this course the student will, although still under clinical supervision, be encouraged and expected to function quite independently. This course is intended to facilitate the transition from the role of the student to the role of the practicing therapist. In addition, special rotations will be offered in as many of the following areas as is possible: ambulance/emergency medicine, departmental management, out-patient clinic, physical therapy, shift supervision, cardiopulmonary diagnostics, and student preceptorship. Continued experience in neonatal and pediatric units will also be scheduled.

Course Hours Per Week: Class, 0. Clinical, 24. Quarter Hours Credit, 8.

Prerequisite: Successful completion of all RTH and support courses

## **Radio and T.V. Broadcasting**

### **RTV 101 T.V. Production**

This course is an introduction to techniques of camera manipulation, sound, lighting, and videotaping. The student participates in production activities in the studio and on location.

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

Prerequisite: None

## **Science**

### **SCI 111 Mathematics and Science for Media**

This course is designed to introduce the student to basic principles of physical science as related to media, specifically light and sound. This course also includes chemistry involved with film processing and electronics involved with sight and sound reproduction. Math instruction is included where necessary to enable the student to work problems and understand the concepts of science.

Course Hours Per Week: Class, 3. Lab, 4. 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 Processing**

### **SCP 101 Introduction to Semiconductor Processing and Microelectronics**

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.

Prerequisite: None

## 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 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, and communicative.

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

Prerequisite: None

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## Spanish

### SPA 101 Beginning Spanish

This is a course in elementary Spanish 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 is an intermediate course in basic Spanish which builds upon skills gained in SPA 101 and which enables the student to use rules of Spanish grammar, use past and future tenses and imperative mood of verbs, become familiar with many impersonal and idiomatic expressions, and increase knowledge of use of 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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## Social Science

### SSC 190 Introduction to Social Science

This course is a study of four of the social sciences: anthropology, psychology, history, and sociology. The course is designed to enable the student to understand basic concepts and issues relative to each of the social sciences; to gain insights through extensive individual research on a subject relative to any one of the social sciences; and to understand how the social sciences are integrated and how each discipline contributes to the total environment.

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

Prerequisite: None

### SSC 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

### SSC 291 History of Women and Feminism

This course is a historical survey of feminist ideas influencing women today. The course provides the student an opportunity to study the various roles played by women in the past and how these changing roles have affected women's involvement in today's society.

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

Prerequisite: None

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# Section

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# Trustees And Institute Personnel

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## Board Of Trustees

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Mr. James I. Bolden ..... Vice-Chairman

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Term Expires June 30

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Mr. Sherrill R. High ..... 1987  
Dr. Edward W. Ramsey ..... 1983

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Dr. E. Towson Moore ..... 1985  
Mr. George W. Newton ..... 1981  
Mr. Nathaniel B. White ..... 1983

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Mrs. Eula Miller ..... 1987  
Mr. E. L. Phillips ..... 1985  
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Mr. Cedric Baysmore ..... Representative

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## Faculty and Professional Staff

Yvette A. Allen, B.S. ....	Programmer, Automated Service Center
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Nancy D. Avery, A.B.Ed., M.Ed. ....	Instructor, Mathematics
A. K. Bailey, Jr., B.S. ....	Instructor, Machinist
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Augusta J. Crawford, B.A., M.Ed. ....	Programming Coordinator, Community Video Services
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Bette L. Edgerton, L.P.N., B.S.N., R.N. ....	Instructor, Practical Nurse Education
Constance M. Faulks, L.P.N., B.S.N., R.N. ....	Instructor, Practical Nurse Education
Barbara S. Ferrell, A.B., M.L.S. ....	Director, Learning Resources Center
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Harold W. Frazier, Certified Vocational Instructor .....	Instructor, Electrical Installation and Maintenance
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E. Calvin Gillie, A.A.S. ....	Director, Cooperative Skills Program
E. Gene Goss, B.S., M.Ed. ....	Instructor, Business Administration
Linda M. Green, B.A. ....	Instructor, Business Data Processing
Robert H. Gunter, B.S., M.Ed. ....	Video Production Coordinator, Community Video Services
Carl A. Haggard, B.B.A., L.U.T.C., P.T.D. ....	Instructor, Business Administration
Dwight M. Hall, B.S.B.A. ....	Instructor, Business Data Processing
Janie B. Harris .....	Manager, Central Supply
S. Miller Harrison, B.S. ....	Coordinator, Continuing Education
Roberta R. Havner, A.A.S., B.S., M.S. ....	Admissions Officer/Test Administrator
Douglas S. Herbert, B.A. ....	Graphic Artist
Ronald H. Hilbert, B.A. ....	Interim Administrator/Internal Consultant
Gloria D. Horne, B.A., M.A. ....	Coordinator, Curriculum Center
E. Charles Hunt, B.S.C. ....	Accountant, Business Office
Fredrick L. Hunt, B.A., M.A. ....	Director, Special Services Project
Mary M. Ingram, A.B., M.Ed. ....	Coordinator, Continuing Education
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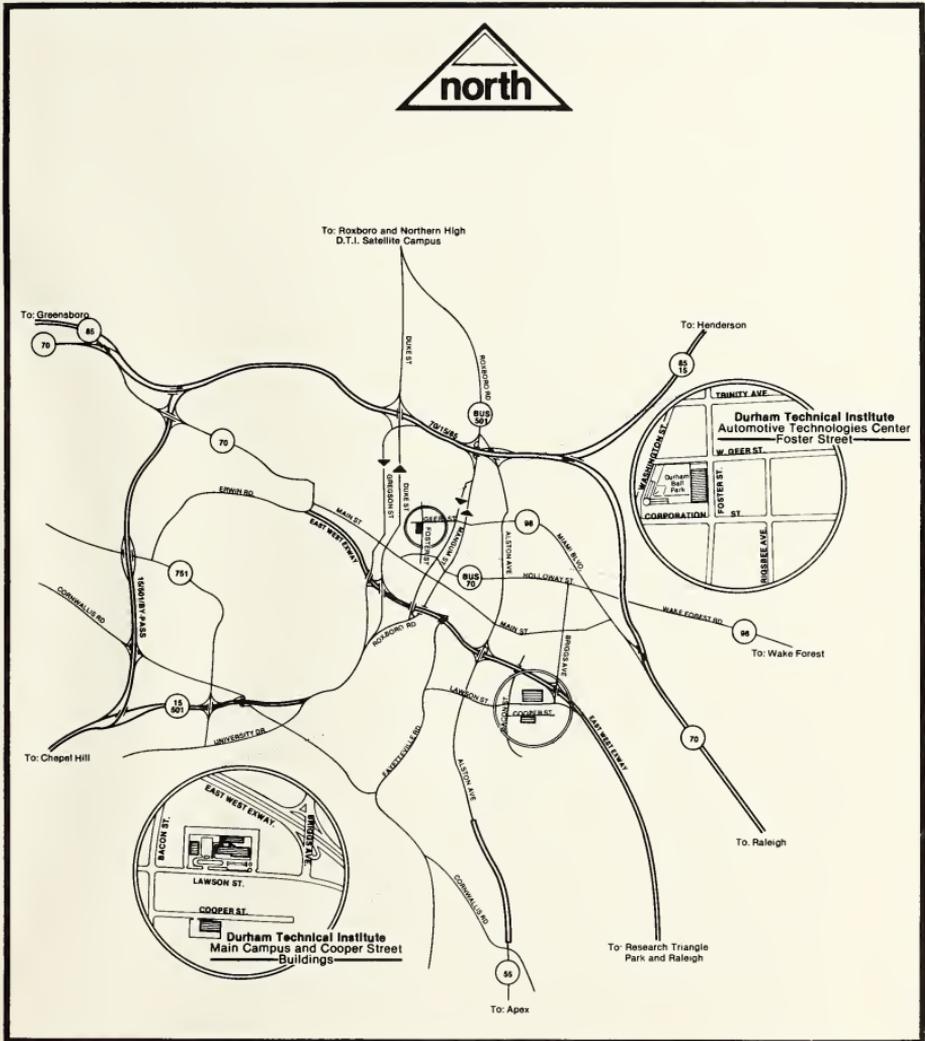
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