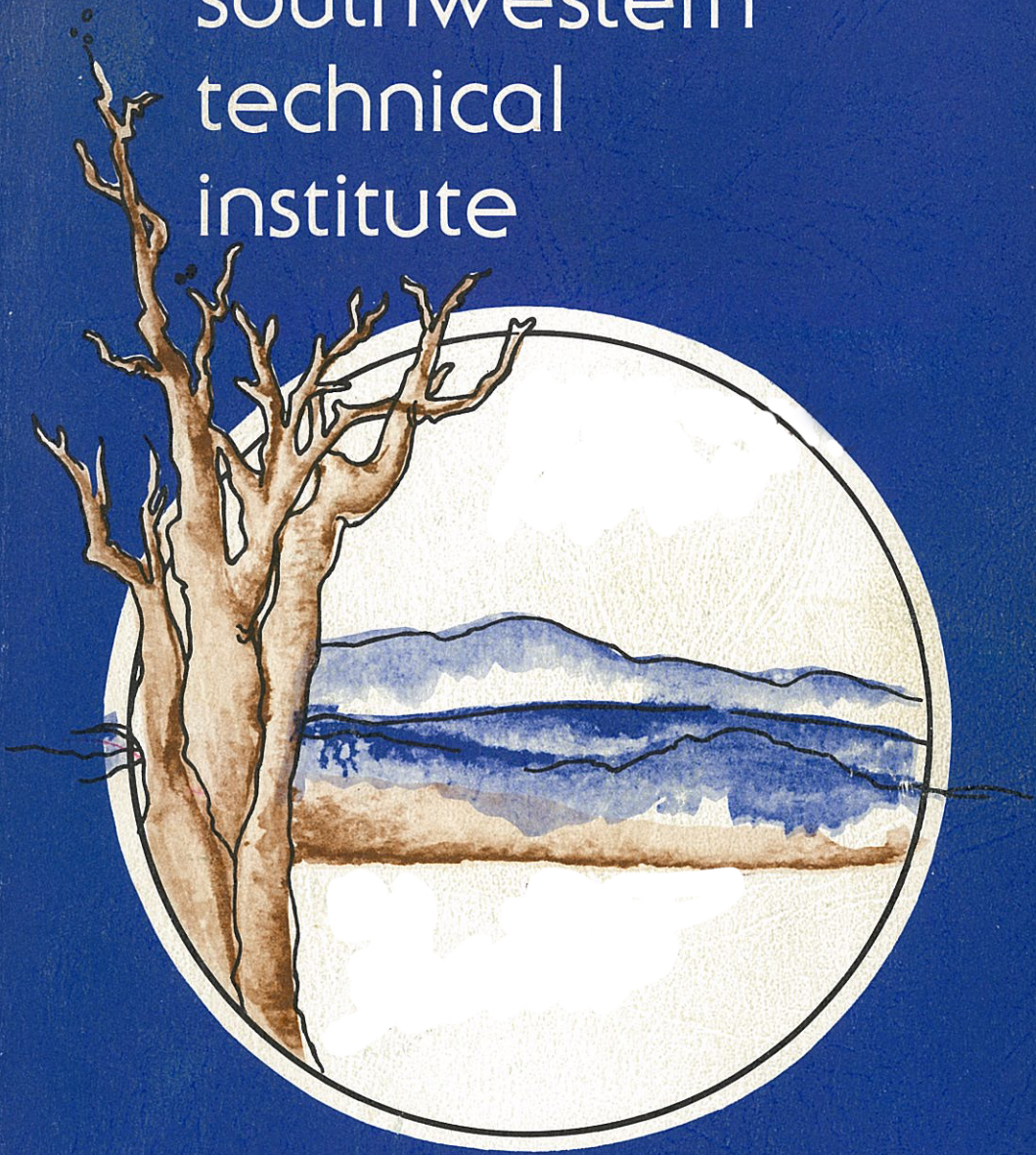
southwestern technical institute



1978-1979 catalog

Cover Design by Debbie Andrews
Commercial Art Curriculum, '77

SOUTHWESTERN TECHNICAL INSTITUTE

SYLVA, NORTH CAROLINA 28779

CATALOG 1978-1979

AN INSTITUTION
OF
THE NORTH CAROLINA DEPARTMENT
OF COMMUNITY COLLEGES

Mailing Address	Southwestern Technical Institute P. O. Box 85 Sylva, North Carolina 28779
Telephone Number	586-4091 Area Code 704

For prompt handling, inquiries should be addressed to the offices indicated below:

General Information	President
Business Affairs	Business Manager
Admissions Student Information Financial Aid Counseling Services	Director of Student Services
Vocation-Technical Programs	Dean of Instruction
Continuing Education	Director of Continuing Education

Visitors are always welcome at Southwestern Technical Institute. The Administrative Offices are open Monday through Thursday from 8 a.m. to 10 p.m. and Friday from 8 a.m. to 5 p.m. Visitors desiring interviews with members of the staff are urged to make appointments in advance.

SCHOOL CALENDAR 1977-78

FALL QUARTER
55 DAYS

Instructor In-Service	Wednesday, September 28 and Thursday, September 29
Registration	Friday, September 30
Classes Begin	Monday, October 3
Fall Quarter Ends	Tuesday, December 20
Instructor Work Day	Wednesday, December 21

Thanksgiving Holidays — November 24, 25

WINTER QUARTER
55 DAYS

Registration	Monday, January 2
Classes Begin	Tuesday, January 3
Winter Quarter Ends	Monday, March 20
Instructor Work Day	Tuesday, March 21

SPRING QUARTER
55 DAYS

Registration	Tuesday, March 28
Classes Begin	Wednesday, March 29
Spring Quarter Ends	Tuesday, June 13
Instructor Work Day	Wednesday, June 14
Spring Graduation	Tuesday, June 13

SUMMER QUARTER
55 DAYS

Registration	Wednesday, July 5
Classes Begin	Thursday, July 6
Summer Quarter Ends	Thursday, September 21
Instructor Work Day	Friday, September 22
Summer Graduation	Thursday, September 21

Labor Day — September 4

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SOUTHWESTERN TECHNICAL INSTITUTE LIBRARY
P. O. BOX 95
SYLVA, NORTH CAROLINA 28779

PROPOSED

SCHOOL CALENDAR 1978-79

FALL QUARTER
55 DAYS

Instructor In-Service ---------- September 27, 28, 29
October 2

Registration ---------- October 3

Classes Begin ---------- October 4

Fall Quarter Ends ---------- December 21

Instructor Work Day ---------- December 22

Thanksgiving Holidays — November 23, 24

WINTER QUARTER
55 DAYS

Registration ---------- January 2

Classes Begin ---------- January 3

Winter Quarter Ends ---------- March 20

Instructor Work Day ---------- March 21

SPRING QUARTER
55 DAYS

Registration ---------- March 26

Classes Begin ---------- March 27

Spring Quarter Ends ---------- June 13

Instructor Work Day ---------- June 14

Spring Graduation ---------- June 13

Easter — April 13, 16

SUMMER QUARTER
55 DAYS

Registration ---------- July 5

Classes Begin ---------- July 6

Summer Quarter Ends ---------- September 21

Instructor Work Day ---------- September 24

Summer Graduation ---------- September 21

Labor Day — September 3

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THE INSTITUTE

ADMISSIONS

EXPENSES

ACADEMIC INFORMATION

SERVICES TO STUDENTS

THE INSTITUTE

Under the Community College Act passed in 1963 by the North Carolina General Assembly, a system of comprehensive community colleges, technical institutes, and industrial education centers was created to operate under the State Board of Education.

Southwestern Technical Institute was founded in 1964 as an area educational institution within the system of community colleges of North Carolina. Jackson, Swain, and Macon counties make up the primary service area of this institution.

From the time of its creation in 1964 until January 1, 1968, it was part of Asheville-Buncombe Technical Institute. On January 1, 1968, the school became an independent institution and was renamed Southwestern Technical Institute.

The Vocational Building, housing a variety of curricula, was constructed in 1965 and renovated into a two-story structure in 1976. In 1970 the Technical Building was constructed housing Commercial Specialties, Human Services, and General Education. A third facility, the Services Building, houses administrative offices, additional classrooms, gymnasium, and cafeteria was completed in the summer of 1974.

Situated on a beautiful hill in the midst of a fifty acre tract of land with spectacular scenery in all directions, the Institute is located on Webster Road two miles south of Sylva, five miles from Western Carolina University, and twenty miles from the Cherokee Indian Reservation and Great Smoky Mountains National Park. Franklin is twenty miles to the west. Cashiers-Highlands is thirty miles south, and the Blue Ridge Parkway is twelve miles away.

PHILOSOPHY

The philosophy of Southwestern Technical Institute's open door policy has been stated by Dr. Dallas Herring former Chairman of the State Board of Education:

> The only valid philosophy for North Carolina is the philosophy of 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 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.

PURPOSE

The purpose of Southwestern Technical Institute is to provide convenient learning opportunities for people of the area by offering vocational, technical and developmental programs and general adult education courses to any individual beyond high school age. These courses and programs will better prepare individuals to join the labor market as new employees, qualify them for employment opportunities in new and existing industry, provide specific skills training, and encourage personal improvement, self-satisfaction, and an understanding of the responsibilities and privileges of citizenship.

Specifically stated, the objectives are:

To provide educational opportunities for adults desiring to continue their education.

To provide inexpensive, nearby educational opportunities for high school graduates.

To provide vocational programs for individuals seeking employment in trades.

To provide two-year technical programs for individuals desiring employment in business and industry.

To provide programs of vocational education for employed adults needing training, re-training or wishing to gain personal benefit from the program.

To provide suitable courses for individuals desiring to enrich their lives and to continue personal growth.

To offer testing, guidance and educational counseling services to students and prospective students, as well as to any other person in the area who has need of such service.

ADMISSIONS INFORMATION

Admissions Requirements
Southwestern Technical Institute operates under the OPEN DOOR POLICY of the Department of Community Colleges, and students are accepted without regard to race, religion, sex, or national origin. Thus, any person who is at least eighteen years of age or is a high school graduate may be accepted to the institution.

Students must meet minimum requirements before being accepted to a specific curriculum. Deficiencies may be removed through courses available at Southwestern Technical Institute. The institute administers the General Education Development (GED or High School Equivalency) tests.

Admission to degree programs requires a high school diploma or the equivalent. Admission to diploma programs normally requires a high school diploma or the equivalent; however, an exception may be made for the applicant who demonstrates the ability and motivation to enter the curriculum.

Admission Procedures — Applicants for On-Campus Curriculum Classes (Degree, Diploma, Certificate)

1.) Submit a completed admissions form to the Admissions Office.
2.) Have records (transcripts) of all previous education mailed directly to the Admissions Officer from the school where work was taken. Applicants with the High School Equivalency Certificate should submit a copy of the certificate in addition to asking their school to send transcripts of all work taken.

Note: Admission counseling is available within the Student Services department.

The following programs require additional admissions procedures:

PNE-applicants take placement exams at STI and submit the following:

(1) Official doctors physical condition report accompanied by:
  (a) Report of chest x-ray
  (b) Serology test report
(2) Official dentist's dental health report
(3) Official immunization record
(4) Personal letter to the Admissions Officer stating why the applicant wishes to become an LPN
(5) Instructor Interview

Law Enforcement — applicants submit the following:

(1) Physical exam form
(2) Submit a recommendation from any of the following: Sheriff of county in which applicant resides; a chief of police; a state or federal law enforcement officer.

—Applicants for Off-Campus Curriculum classes (Degree, Diploma, Certificate)

(1) Obtain and complete admissions form — Forms available at Main Campus or Field Offices.
(2) Returns completed admissions form to Main Campus Admissions Office (8 AM-5 PM, Monday through Friday) or Field Office during the hours of registration as published by Continuing Education Office.
(3) Brings transcript of:

  (1). High school and/or High School Equivalency
  (2). All post-secondary training

Notes: (1). Hand carried copies of transcripts will be accepted temporarily-official copies must be mailed directly to the institute from the school providing transcripts.
(2). Applicants for nursing and law enforcement are processed only through the Main Campus Admissions Office.

(3). Applicants that do not apply prior to or during the hours of registration as published by the Continuing Education Office must follow the admissions procedure as outlined in the school catalogue.

—Applicants for on-off Campus Curriculum Class. Special Credit Students — Auditing Students. (Not a candidate for a degree-diploma or certificate).

(1). Obtains admissions form at registration/first class meeting.

(2). Completes front side of the admissions form.

(3). Presents admissions form with registration materials when paying tuition and fees.

—Foreign Students

(1). Submit a completed Admissions Form to the Admissions Office

(2). Submit a completed Form 1-20 to the Admissions Office

(3). Give Name and address of their United States sponsor

—Applicants for Readmission (Students who have officially withdrawn or who have been dropped or who have missed a full quarters work)

(1). Submit a completed Admissions Form to the Admissions Office.

Transfer Credit

TRANSFER OF EARNED CREDIT BETWEEN INSTITUTIONS

Accepted applicants who have attended other institutions of higher learning may transfer credit earned in comparable courses or programs of study if the student is transferring from a regionally accredited institution, or from another institution in the North Carolina Community College System. A student requesting credit for work completed in any other type of training program or institution may be given advanced standing on the basis of a challenge examination. Transfer credits will be evaluated by the Registrar.

Students requesting credit for training completed in Armed Services School should submit official records of service schools completed. Credit may be granted for training comparable to course work offered in the student's curriculum. The amount of credit granted is subject to approval by the instructor or department head and will not exceed the recommendations in the Guide to the Evaluation of Educational Experiences in the Armed Services published by the American Council on Education.

TRANSFER OF EARNED CREDIT BETWEEN PROGRAM WITHIN THE INSTITUTE

Credits earned in any degree program may be credited toward a degree, diploma or certificate program upon evaluation by the Registrar. Credits earned in a diploma or certificate program are not acceptable for transfer to an associate degree program but may be credited toward a second diploma or certificate major.

REGISTRATION

Registration is held each quarter on the day as published in the school's academic calendar. Registration procedures are included in the Student Handbook.

PRE-REGISTRATION

Pre-registration is held each quarter between the 10th class day prior to the end of the quarter and the 5th class day prior to the end of the quarter. Pre-registration procedures are included in the Student Handbook.

DROP/ADD

The drop/add period is the first 10 class days of each quarter. Schedule changes are permitted during this time without grade penalty.

EXPENSES

TUITION PER QUARTER

Full-Time Student		$39.00
Part-Time Student (Per Quarter Credit Hour)		3.25
Extension Student (Per Class)		5.00
Activity Fee (Per Quarter)	12 Credit Hours	2.50
	9-11 Credit Hours	1.85
	6-8 Credit Hours	1.25
	0-5 Credit Hours	.50
Insurance (Per Year)		2.50
Late Registration Fee		$ 5.00

Graduation fees will be paid when the student registers for his last quarter of work prior to graduation.

ADDITIONAL FEES

In addition to the above fees, students enrolled in Cosmetology and Practical Nurse Education are required to pay an additional insurance fee and to purchase uniforms. Cosmetology students must purchase a cosmetology kit.

Because costs are so inexpensive, the institute does not provide for installment payments of fees and charges.

NON-RESIDENT FEES

Southwestern Technical Institute will charge out-of-state tuition in accordance with General Statutes 116-143.1, 1971, as amended by the 1977 General Assembly. Out of state tuition $198.00 per quarter or $16.50 per Credit Hour.

ESTABLISHING STATE RESIDENCY

To qualify for in-state tuition legal residents must have maintained domicile in North Carolina for at least the 12 months immediately prior to classification as residents for tuition purposes. In order to be eligible for such classification, individuals must establish that their presence in the State during such twelve-month period was for purposes of maintaining a bona fide domicile rather than for purposes of mere temporary residence incident to enrollment in an institution of higher education.

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

Students who believe that they have obtained eligibility for a change in classification must petition the residency classification committee for a decision. Changes in classification are effective with the beginning of the next quarter.

REFUNDS

Tuition refund for students shall not be made unless the student is, In the judgment of the Institution, compelled to withdraw for unavoidable reasons. In such cases, two-thirds of the student's tuition may be refunded if the student officially withdraws within 10 calendar days after the first day of classes as published in the school calendar. 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.

In order to comply with federal regulations in institutions not regionally accredited, that State Board authorized modifications of the tuition refund policy so that veterans or war orphans receiving benefits under U.S. Code. Title 38, Chapters 33 and 35, can be refunded the pro rata portion of the tuition fee not used up at the time of withdrawal of such students.

OBLIGATION TOWARD TUITION AND FEES

Tuition and fees are due and payable at the time of the student's registration. No student will be permitted to graduate or register for a new quarter if he has unpaid parking fines, an unpaid balance due, or an account from any previous quarter unless payment of such an outstanding balance has been guaranteed in writing by a financially responsible person or organization.

Any student experiencing special difficulties may make special arrangements with the business manager.

In the event a student completes registration and withdraws before paying the appropriate fees and tuition, the institution will make three attempts during the current year by letter and personal contact to collect these funds. If the institution is unsuccessful, the account will be turned over to the North Carolina Attorney General's office for disposition.

TEXTBOOKS

All curriculum students will be expected to purchase adopted textbooks in all courses. These textbooks will be sold at less than retail price to students. Every effort will be made to keep the quarterly price of all textbooks between $15 and $30.

Recommended textbooks are to be purchased at the beginning of the quarter in which they are to be used. Textbooks used in any one quarter must be purchased by the end of the second week of classes of that particular quarter.

STUDENT FINANCIAL AID

The purpose of the Financial Aid Program at Southwestern Technical Institute is to provide financial assistance to students who, without aid, would be unable to attend the Institute. Financial assistance is available to needy students in the form of loans, grants, work study and scholarships. These programs may be used in combination or singly to meet the expenses of students whose parents cannot totally finance their education.

Information concerning applications and forms for financial assistance may be obtained from high school guidance counselors or from the Southwestern Technical Institute Financial Aide office.

Financial Aide forms should be mailed directly to the address given on the form. Applicants should designate Southwestern Tech as school reclpient.

COLLEGE WORK STUDY PROGRAM

A program of employment in which the student, particularly from a low income family, is compensated for the number of hours he works for the Institute or an off campus agency. Students who are employed in this program may work up to 15 hours per week while attending classes full time. During vacation periods, when the student is not in school, he may work up to 40 hours per week. On campus jobs can include work in offices, shops, libraries, and maintenance.

The Federal Government currently provides 80 percent of student earnings. The Institute and participating organizations arrange for the other 20 percent.

VOCATIONAL WORK STUDY PROGRAM

A limited number of students may be employed on a part time basis by the Institute under the provisions of the federal work study program. Applicants for work study must be under 21 years of age and show that earnings are needed to commence or continue training at the Institute on a full time basis

BASIC EDUCATIONAL OPPORTUNITY GRANT PROGRAM

This is a new federal program of student financial aid which provides for grants of $1400 less the expected family contribution for all eligible students to assist them in meeting educational costs. The concept of this program is one of *entitlement*, "That every eligible student with demonstrated need is assured financial resources to continue his education beyond high school." The Basic Grant program will potientially assist students from families up to an income level of approximately $13,000.

A student who wishes to receive a Basic Grant must complete an Application For Determination Of Basic Grant Eligibility. This form can be obtained in the Student Services Office, high school counselor's office, post offices, and libraries.

N. C. STUDENT INCENTIVE GRANT PROGRAM

Legal residents of North Carolina accepted for enrollment or enrolled full time, in good standing, may apply for Student Incentive Grants to help pay their educational expenses. Students must demonstrate "substantial financial need" as determined through the need analysis system of either the College Scholarship Service or American College Testing Program. The amount of each grant will be based on the individual student's demonstrated financial need in relation to resources and cost of education but may not exceed $1,500 per academic year. SPECIAL NOTE: All students applying for Incentive Grants must first apply for Basic Grants. Both Incentive Grant and Basic Grant applications are available from the student aid office at Southwestern Tech and high school counselor's offices.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS

This program provides grants to students of exceptional financial need, who, for the lack of financial means of their own or of their families, would be unable to enter or to remain at the Institute. Grants, ranging from $200 to $1,000, are available to a limited number of students and must be matched with other aid funds. Supplemental Grants do not have to be repaid.

NATIONAL DIRECT STUDENT LOANS

The National Direct Student Loan Program provides long term, low interest loans to qualified students in need of financial assistance to pursue a course of study at the Institute. A student may borrow up to $1,000 for each year of study. The repayment period and interest, at the rate of 3 percent, begins nine months after a student ends his studies at the Institute.

The Federal Government provides 90 percent of each student loan. The Institute provides the other 10 percent.

COLLEGE FOUNDATION INCORPORATED LOAN FUND

Legal residents of North Carolina who are enrolled or have been accepted for enrollment in an eligible college, university, technical or vocational school in a full-time undergraduate program are eligible to apply. Applicants must meet certain academic requirements as related to their course of study and must provide proof of financial need. Students in good standing may reapply each year that additional funds are needed.

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NORTH CAROLINA STATE BOARD OF EDUCATION
STUDENT LOAN FUND

Full-time students enrolled in a vocational or technical program in an institution under the North Carolina Department of Community Colleges may borrow a maximum of $300 per year.

JAMES FRANK COWAN MEMORIAL STUDENT LOAN FUND

This fund was established by friends and fellow STI staff members at the time of Mr. Cowan's death in October, 1974.

The purpose of the fund is to provide short duration loans in small amounts to full-time students.

ROTARY CLUB LOAN FUND

A limited amount of money is available to students enrolled in vocational programs in the form of emergency loans, sponsored by the Sylva Rotary Club.

FIRST UNION NATIONAL BANK

The Educational Checkloan is designed for those families who can afford higher education for their children but need to spread the cost over a number of years. A flexible grogram, it allows any qualified resident of North Carolina to borrow up to $10,000 for four years of higher education.

SUZANNE M. DAVIS

Low interest loans are available to Cherokee Indians through the Suzanne M. Davis Loan Fund administered through the Historical Association, Cherokee, North Carolina.

LAW ENFORCEMENT EDUCATION PROGRAM

LEEP was established by Congress to provide for and encourage training, education, research and development for the purpose of improving law enforcement by increasing the educational level of its personnel. To this end, Congress saw fit to provide financial assistance to allow in-service law enforcement officers to continue their education at the college and university level.

NURSING SCHOLARSHIPS

The Health Careers Scholarship Program of the James G. K. McClure Educational and Development Fund is to aid financially deserving and academically promising residents of Western North Carolina to enter the Licensed Practical Nursing Program. Evidence of Christian character and the desire to be of service to one's fellowmen are considered of basic importance in the selection of the recipients.

W. N. C. LUNG ASSOCIATION SCHOLARSHIP

The Western North Carolina Lung Association grants a scholarship to the Institute each year to be used by a student enrolled in the Practical Nursing Education Program.

GREENEBAUM SCHOLARSHIPS

The James G. K. McClure Educational and Development Fund provides scholarships, given by the family and friends of the late Edward De Zulueta Greenebaum, for residents of Jackson County. Awards are based upon scholarship, financial need and recommendations.

ART SCHOLARSHIP

Southwestern Technical Institute offers two scholarships each year to the two top contestants in the annual Commercial Art contest sponsored by the school.

AD CLUB SCHOLARSHIP

The Western North Carolina Advertising Club sponsors a scholarship for a second-year student enrolled at the Institute in the Commercial Art and Advertising Design Program.

TOMMY LOVE MEMORIAL SCHOLARSHIP

This scholarship will pay tuition for one year at Southwestern Technical Institute for a deserving graduate of Sylva-Webster High School.

ALCOA FOUNDATION SCHOLARSHIPS

Alcoa Foundation of Pittsburgh awards scholarships to eligible students in the counties of Macon, Jackson, Swain, Graham and Cherokee. These scholarships are administered through the STI Student Financial Aid Office.

HAROLD'S SUPERMARKET SCHOLARSHIP

This program provides a scholarship each year for employees of Harold Potts or their children. If there are no applicants in the above category, then the Scholarship is open to anyone from Jackson County who demonstrates a financial need.

MACON COUNTY RETIRED TEACHERS ASSOCIATION NURSING SCHOLARSHIP

This scholarship will pay tuition for one year for a Macon County student entering the Licensed Practical Nurses Program at Southwestern Technical Institute.

SOUTHWESTERN TECHNICAL INSTITUTE FOUNDATION STUDENT FINANCIAL AID

The Southwestern Technical Institute Foundation Student Aid Program is designed to complement the present aid program operated by the Institute. Applications may be obtained from the Student Services Office.

THE STUDENT SCHOLARSHIP AND GRANT PROGRAM will serve all students, especially those not qualified for federal aid.

STUDENT EMPLOYMENT is a program to aid both the student and Southwestern Technical Institute as students use their skills and knowledge in support of the Institute and its purpose.

The *STUDENT LOAN PROGRAM* will provide long-term, low interest loans to students who otherwise would be unable to attend Southwestern Technical Institute.

The *EMERGENCY LOAN FUND* is a short-term or "petty cash" loan fund to permit the Institute to satisfy the emergency needs of students. Emergency needs may include tuition, fees, books, rent or grocery money, etc. This fund will provide small amounts of money for a short period of time.

DARRIS GREENE MEMORIAL FUND provides loans to students entering the Commercial Art and Advertising Design Program at the Institute.

NORTH CAROLINA DIVISION OF REHABILITATION

The Institute is approved for the training and education of personnel who qualify under the provisions of the North Carolina Division of Vocational Rehabilitation, Department of Public Instruction.

SOCIAL SECURITY ADMINISTRATION

Eligible persons may receive educational benefits from the Social Security Administration if the head of the household is over 62 and retired or disabled.

BUREAU OF INDIAN AFFAIRS

Educational assistance is provided to the Cherokee Indians through the Bureau of Indian Affairs, Cherokee, North Carolina.

ACADEMIC INFORMATION

DEGREE PROGRAM

Southwestern Technical Institute will confer an Associate of Applied Science degree in the name of the State Board of Education in all technical curricula. A state comprehensive examination may be required before graduation in any technical curriculum.

DIPLOMA PROGRAM

Southwestern Technical Institute will grant diplomas in the name of the Southwestern Technical Institute Board of Trustees upon successful completion of any vocational level curricula four quarters in length (or the part-time equivalency). A state comprehensive examination may be required before graduation in any vocational level curriculum.

CERTIFICATE PROGRAM

Certificates will be issued in the name of Southwestern Technical Institute to students who successfully complete curricula less than four full quarters in length.

GRADING SYSTEM

Grades will be issued the end of the term. Students enrolled in any curriculum will be graded by the following system:

A 93-100 Excellent
B 84-92 Above Average
C 75-83 Passing or Average
I Incomplete

R-Repeat Course
W-Withdrawal
S-Credit by examination
Aud-Audit

INCOMPLETES

An "I", or Incomplete, indicates that a student has done work of a passing grade in a course but has not completed all required work. (Must have completed a min. of 70% of Requirements). It is the student's responsibility to have this deficiency removed within the following quarter. When in the judgment of the instructor a student is not making a reasonable effort to remove the Incomplete and has not done so within the required period, the grade will be automatically changed to an R.

ACADEMIC PROBATION — SUSPENSION

A student who receives two R's during one quarter or who has accumulated two R's will be placed on academic probation for the following quarter. A student who receives any additional R's during the probationary period will be placed on academic suspension for the following quarter. When a student returns to S.T.I. at the end of the suspension period, he will be placed under previous probationary requirements. The student is obligated to reregister for any course in which an R has been made at the earliest date that the course is scheduled.

QUALITY POINTS

At the end of each quarter quality points are assigned in accordance with the following formula: The minimum quality point ratio for graduation is 2.00 or an average grade of C.

A—4 quality points per credit hour

B—3 quality points per credit hour

C—2 quality points per credit hour

I —no quality points

R—no quality points

Audit—No quality points

Quality point ratios are determined by dividing the total number of quality points by the number of hours completed.

DEAN'S LIST

1. Only full-time students are considered. (A full-time student is defined as a student enrolled in a curriculum program, carrying a minimum of 12 quarter hours.)
2. The student is to have a minimum 3.50 quality point average to qualify for the quarter under consideration.
3. Incompletes and withdrawals will automatically eliminate a student from this list for that particular quarter. Students receiving credit for a course by examination or transfer are not affected.

GENERAL ATTENDANCE REQUIREMENTS

All students are expected to be present and regular in attendance for all scheduled classes and open labs. Absences will be considered justified and excusable only in cases of emergencies, serious illness, or death in the immediate family.

Any work missed because of absences must be made up.

Special Requirements for Students Receiving VA Benefits in Compliance with VA Regulations

The last date of attendance is determined by the instructors and is submitted to the Veterans Affairs Office within the three (3) days after the student has officially withdrawn or dropped in accordance with the school's attendance policy.

Special Procedures for Students Receiving VA Benefits in Compliance with VA Regulations Concerning Satisfactory Progress

Satisfactory progress for veterans is determined by the following steps:

1. Veterans Coordinator will check with each department at mid-term of each quarter to see if any veterans are having problems.
2. If a veteran(s) is having problems, a counseling session will be arranged between the instructor, veteran, and Coordinator of Veterans. A plan of action is determined to remedy the problem.
3. If the veteran fails to reach or maintain satisfactory progress as determined by the grading system and the instructor, the instructor will officially drop the veteran and will complete the Veterans Load Adjustment Form.
4. The Veterans Coordinator will send completed VA Form 22-1999b to the Veterans Administration stating that the veteran has been dropped from the course or courses indicated.

CHANGE OF SCHEDULE OR PROGRAM

(1.) During the Drop/Add period, changes in class schedule may be made with the approval of the advisor, instructors involved and the Registrar.

(2). After acceptance, a change of educational objective (program of training) must be approved by the Admissions Officer, Advisors, Instructors and Registrar.

WITHDRAWAL PROCEDURE

If a student wishes to withdraw for any reason he should:

(1). Discuss it with his advisor.

(2.) Complete a withdrawal form with his advisor.

(3.) Have the librarian and financial aids officer sign the withdrawal form.

(4.) Take the completed withdrawal form and the student ID card to the Registrar.

(5.) Present withdrawal form to the cashier.

STUDENT CONDUCT

Students of Southwestern Technical Institute will be expected to conduct themselves at all times at mature adults. Students who do not respect the rights and privileges and personal property of other students and who fail to demonstrate a high regard for school facilities and property will be subject to dismissal.

Violation of rules and regulations relating to drug abuse and use of alcoholic beverages may result in disciplinary measures or dismissal.

Possession of firearms or other weapons as defined in G. S. 14-284-1 while on campus is unlawful whether carried openly or concealed. Violations may result in dismissal and prosecution.

Students of the institute are subject to the operating policies and rules of the school, the local ordinances, the North Carolina General Statutes and the laws of the United States.

FACULTY ADVISOR

Each student will be assigned an advisor by the Department Chairman in his major field. The purpose of this program is to provide each student with personal assistance in orientation and with guidance as he progresses in his course of study.

CREDIT BY EXAMINATION

Advanced placement is offered to those students who because of their demonstrated abilities are qualified to accelerate their studies. To obtain advanced placement a student may take a proficiency examination in any subject when he believes he already has mastery of the course material. Permission for such an examination must be obtained from the appropriate Department Chairman with the Dean of Instruction concurring. The examination may be written, oral, performance, or all of these. Students failing such an examination may not request a second examination until evidence of further study in the subject concerned is presented. The decision of the examining instructor will be final.

A veteran student may apply for credit toward graduation for training received under any of the armed forces college training programs. Credit may also be granted for specialized and technical training done under the auspices of the armed forces and courses taken through USAFI.

Course Credit in Residence

A minimum of two quarters of work must be completed in residence at Southwestern Technical Institute.

COOPERATIVE EDUCATION

In keeping with its policy of offering new and enriching educational experiences to students, Southwestern Technical Institute has introduced Cooperative Education in some of its curricula and will extend it to others later. Cooperative Education, as the name implies, is a joint enterprise between the school and private industry. Within this program, students are employed for a specific period of off-campus work as a requirement of their course. This employment will be related as closely as possible to the student's course of study. Cooperative Education combines classroom teaching with practical experience on the job. Students interested in the Cooperative Education program should check with their counselor or instructor.

NIGHT CURRICULUM PROGRAMS

It is the intent of Southwestern Technical Institute to make all courses available to all who want them during both day and night. Therefore, we are making available curriculum level courses during the evening hours. One may enroll for classes during both the day and night. For additional information, contact the Evening Program Director.

GRADUATION

Between the first and the tenth class day of the quarter in which a student expects to complete requirements for graduation, the student must make application for graduation.

Candidate responsibility is as follows:

(1.) Obtain Applications for Graduation at the Registrar's Office.

(2.) Complete candidates section of the application.

(3.) Pay graduation fees — Cashiers Office

(4.) Take Application to advisor.

Note: Off-campus students obtain Application for Graduation from advisor and pay fees to advisor.

Candidates for graduation are required to participate in graduation exercises if they wish to receive their degree or diploma.

SERVICES TO STUDENTS

Student Services is a distinct and vitally important aspect in the development, administration, operation, and future planning of Southwestern Technical Institute. Such services are provided primarily to serve the student effectively.

A definite program of service is offered to assist the student in selecting, entering, progressing within, and completing a program of study. In addition, the individual is provided numerous opportunities for personal development and social growth through a variety of planned activities.

TESTING

The Institute provides an extensive program of aptitude, achievement, and individual testing at the school.

COUNSELING

Counseling services are provided by trained personnel and are available to all students entering or enrolled in the institution. Students may come to the counselor's office at any time when a problem arises which could affect his or her progress in school. Faculty members are asked to encourage students to use this service. Students needing assistance should contact Student Services.

HOUSING

Southwestern Technical Institute was established to serve students within the commuting distance of the campus. Thus, the Southwestern Technical Institute has no dormitory or housing facilities on campus. However, the Student Services Department maintains a listing of available apartments, rooms, or trailers for rent in addition to dormitory rooms at near-by Western Carolina University. Although it assumes no responsibility for housing, the Institute will assist out-of-town students in locating suitable living accommodations if it is requested through the Student Services Office.

ORIENTATION

At the beginning of each quarter, an Orientation program is held for new students to acquaint them with basic ideas, procedures, academic areas, administrative personnel and services of the Institute. The primary purpose for scheduling this program is to inform new students of important information about the Institute in an effort to assist them in making an easy transition to new surroundings.

CAREER PLANNING AND JOB PLACEMENT CENTER

Southwestern Technical Institutes obligation to its students does not end when their programs of study are completed. Successful job placement is the goal of the student and while the Institute cannot assure each graduate of getting the job he or she wants, every effort is made in obtaining job interviews and providing information on job openings. The placement service is an integral part of a comprehensive student personnel program. It is one of the final activities within the jurisdiction of the institute. The Career Planning and Job Placement Center also plays a role in aiding the student in reaching a career decision based on a full appreciation of his potential. This can be accomplished by working in conjunction with counselors and other faculty and staff members.

VETERANS AFFAIRS

The Student Services Division maintains a Veterans Office for purposes of counseling and helping veterans obtain their educational benefits, selecting a

program of education, and helping the veteran in general while attending Southwestern Technical Institute. This also includes war orphans and dependents of disabled or deceased veterans that qualify for educational assistance under the G. I. Bill.

Any veteran with 181 or more days of continuous active duty after January 31, 1955 or who was discharged or released under conditions other than dishonorable can qualify for benefits. Length of entitlement is 1½ months for each month of active duty up to a maximum of 45 months.

The Veterans Office also coordinates the awarding of North Carolina Veterans Scholarships which may be given to qualified veterans or their dependents.

HEALTH SERVICES

The Institute does not have a Health Clinic to provide hospitalization or emergency services. Injuries and/or serious illness should be referred to the Student Personnel Office.

In the event of a accident or sickness, the following procedures should be followed:

1. Notify the Student Services Office.
2. The person should not be moved, but made comfortable until help arrives.

All curriculum students enrolling in the Institute are required to fill out a student medical data form. This information is used for the purpose of referral in the event of an emergency. For more detailed information refer to the student handbook.

LOST AND FOUND

The Student Services Office will post information on articles that have been lost and turned in. Any lost articles should be reported to the Student Services Office.

STUDENT IDENTIFICATION CARD

Student identification cards are distributed during one's initial registration with the Institute. These cards will be available in the Student Services Office after registration.

CHANGE OF ADDRESS

A student should report any change of address immediately to the Student Services Office.

CONFIDENTIALITY OF STUDENT RECORDS

All student records are held in confidence by the institute. Placement credentials, transcripts, and other information will be made available only upon written, signed request of the student. If the student is under age 18, the parent or legal guardian must sign the request form. Transcript request forms are available in the Registrar's Office.

TRANSCRIPTS OF STUDENT RECORDS

All student records are held in confidence by the Institute. Placement credentials, transcripts, and other information will be made available only upon written, signed request of the student. If the student is under age 18, the parent or legal guardian must sign the request form. Transcript release forms are available in the registrar's office.

PARKING AND TRAFFIC REGULATIONS

Campus parking and vehicular traffic is governed in accordance with the Southwestern Technical Institute Traffic Code:

SOUTHWESTERN TECHNICAL INSTITUTE
TRAFFIC CODE
(As Amended May 5, 1977)

ARTICLE #1 The set of regulations governing traffic and parking on the STI campus shall be known officially as Southwestern Technical Institute's Traffic Code.

ARTICLE #2 Chapter 20 of the General Statutes of the State of North Carolina, along with any other rules and regulations as approved by the Board of Trustees, shall be used to govern campus traffic.

ARTICLE #3 A complete copy of Chapter 20 of the General Statutes of the State of North Carolina shall be available in the library for students, staff and faculty reference.

ARTICLE #4 At student orientation, students shall be advised of the STI Traffic Code and of the availability of a reference copy of Chapter 20 of the General Statutes of the State of North Carolina in the library.

ARTICLE #5 At the beginning of each fall quarter, starting with Fall Quarter, 1972, all cars to be operated on campus must be registered and display a bumper sticker. Students enrolling at times other than the fall quarter will also be required to register their cars. Failure to comply with the car registration procedure constitutes an offense equal to a first parking violation.

ARTICLE #6 The following system of citations and fines shall be effective as of Fall Quarter, school year 1972:

a. Fines: 1st offense—Warning citation
   2nd offense—$5.00
   3rd and additional offenses—Appear before the Student Court with the possibility of losing campus parking privileges.

b. After the first week of school in each quarter, the Traffic and Safety Committee shall be responsible for issuing citations for improper parking.

c. Failure to comply with these regulations within a period of seven (7) calendar days after the citation date shall constitute a separate offense. Violators may be subject to an additional $5.00 fine and/or suspension of campus parking privileges at the discretion of the Student Court.

ARTICLE #7 Students, faculty, and staff not satisfied with a citation may appeal the same to the Student Court, Student Services, STI's President, and the Board of Trustees. Persons appealing a citation shall not be held liable for Article #6-c until all appeals have failed.

ARTICLE #8 Fines shall be made payable to the Business Office and receipted by the Cashier. All money receipted for parking violations will be used to replenish the bumper sticker supply.

ARTICLE #9 A complete copy of this Traffic Code shall be included in all Student Handbooks printed after August 11, 1971.

ARTICLE #10 Each student registering each school year will be given a copy of the STI Parking Regulations as approved by the Trustees.

ARTICLE #11 Persons failing to abide by the penalties of these articles will be summoned by the Student Court.

ARTICLE #12 The institution may prohibit a student from registering for the next quarter if the student owes campus parking fines from a previous quarter.

ARTICLE #13 The institution may withhold grades and deny graduation for failue to pay parking fines.

STUDENT ORGANIZATIONS AND ACTIVITIES

Southwestern Tech encourages student participation in student organizations and activities. Although student activities are viewed as secondary to the central purpose of academic preparation, they are nevertheless an important phase of student growth and development. A faculty sponsor is required for each student group and organization.

The groups currently functioning on the campus are:

STUDENT GOVERNMENT

Students at Southwestern Technical Institute have the opportunity to participate in Student Government through the Student Government Association.

The Student Government Association is designed to promote the general welfare of the college in a democratic fashion and to facilitate communication between the student body, the faculty, and the administration. The student council provides a means through which students can promote interest in student activities both on and off campus.

Copies of the Student Government Constitution are available in the Student Handbook.

OUTING CLUB

The Outing Club provides a wide variety of activities of interest to all students. Present activities include: canoeing, hiking, snow and water skiing, hang gliding, and swimming. Activites wll be added accordng to student interest and as facilities and equipment become available. Membership to the Outing Club is open to all students with a minimum membership fee.

INTERCOLLEGIATE ATHLETICS

The intercollegiate activities of Southwestern Technical Institute feature a men and womens basketball team, golf and softball teams.

VETERANS CLUB

Members must be veterans of at least six months active duty in the armed forces of the United States. Its purpose is to provide information for incoming veterans concerning VA benefits, and to focus their efforts and opinions for the benefit of the school.

STUDENT YEARBOOK

The Open Door is published yearly by the yearbook staff and co-sponsored by the Student Government Association. Any person wishing to work on the student yearbook should contact the president of the Student Government Association.

SMOKY MOUNTAIN AMATEUR RADIO CLUB

The Amateur Radio Club, chartered in 1976, was an out growth of the Electronics Engineering program and is directly involved in amateur radio classes at Southwestern Technical Institute. Students in amateur radio classes become members automatically upon receipt of their amateur radio license. The club station is located in the electronics department. Membership is open to the community for licensed ham radio operators. The station call granted by the F.C.C. is WB4NLZ.

LIBRARY AND MEDIA SERVICES

The Library and Media Services Division provides various types of media for students, faculty, and staff at Southwestern Technical Institute. The Library has a continuously growing collection of approximately 17,500 books which are primarily scientific and technical. The reference collection contains encyclopedias and many specialized dictionaries and handbooks. A fine collection of fiction and books of general interest is provided for recreational reading. In addition to housing the book collection, the Library receives more than 300 magazines and several newspapers. New resources are being added continuously in order to stay abreast of the technological advancements.

The Library also provides other material such as pamphlets and clippings. Included in the collection are bound volumes and microfilm of approximately 90 periodical titles. The Library also provides microfiche of several document titles.

Many types of audiovisual materials and equipment are available through Media Services. The audiovisual media include films, filmstrips, tapes, slides, transparencies, film loops, and video tapes. The materials may be used in the Library at the study carrells or taken to a classroom.

The Printing and Duplicating Department handles the printing needs of the school as well as keeps a stock of supplies for institutional use. Students may obtain xerox copies of materials for a nominal charge.

The Library and Media Services staff of trained personnel is always willing to assist any users in locating and using the various types of media.

The Library is open from 8:00 a.m. to 9:00 p.m. Monday through Thursday and from 8:00 a.m. to 5:00 p.m. on Friday. The Library serves not only faculty, staff, and students of Southwestern Technical Institute, but also residents of the community including people in business and industry.

COMMERCIAL SPECIALTIES

BUSINESS

Accounting
Business Administration
Secretarial Science

COMMERCIAL ART AND ADVERTISING DESIGN

ACCOUNTING

Purpose

Accounting is a process of measuring and reporting various functions of business and governmental organizations. These measurements are in terms of dollars and material, labor, time, index numbers, and other valid units of measurement. Accounting gives meaning to these measurements, and is justly described as the "language of business."

The duties and responsibilities of an accountant vary somewhat in different firms. An accountant may record transactions, render periodic reports, maintain cost records, make special reports, complete tax returns, audit the books, and advise management in areas of financial affairs.

Job Description

The graduates of the Accounting Curriculum may qualify for various jobs in business and industry leading to any of the following accounting positions: accounting clerk, payroll clerk, accounting machine operator, auditor, and cost accountant. This training plus further experience should prepare them to become office managers or accounting supervisors, and to fill other responsible positions in a business firm.

Curriculum By Quarters

			Class	Lab	Hours Credit
First Quarter					
ENG	100	English I	5	0	5
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	110	Office Machines	0	2	1
BUS	102	Typing I	2	3	3
			17	5	19
Second Quarter					
ENG	101	English II	5	0	5
BUS	120	Accounting I	4	3	5
BUS	248	Business Economics I	5	0	5
EDP	104	Introduction to Data Processing	3	0	3
			17	3	18
Third Quarter					
ENG	102	English III	5	0	5
BUS	121	Accounting II	4	3	5
BUS	235	Business Management	5	0	5
BUS	249	Business Economics II	5	0	5
			19	3	20
Fourth Quarter					
ENG	204	English IV	3	0	3
BUS	122	Accounting III	4	3	5
BUS	239	Marketing	5	0	5
BUS	152	Consumer Awareness	3	0	3
			15	3	16

Fifth Quarter

ENG	103	English VI	3	0	3
BUS	115	Business Law I	5	0	5
BUS	222	Intermediate Accounting I	3	2	4
BUS	229	Income Taxes I	3	2	4
			14	4	16

Sixth Quarter

BUS	223	Intermediate Accounting II	3	2	4
BUS	237	Small Business Management	3	0	3
BUS	231	Income Taxes II	3	2	4
BUS	225	Cost Accounting	3	2	4
			12	6	15

Seventh Quarter

BUS	127	Financial Management	3	2	4
BUS	224	Intermediate Accounting III	3	2	4
BUS	271	Office Management	3	2	4
BUS	279	Profit Planning & Budgetary Control	3	2	4
BUS	277	Credit & Collection	3	0	3
			15	8	19

BUSINESS ADMINISTRATION

(Industrial Management Option)

Purpose

Industry's needs in positions of supervision and mid-management have grown extensively with the development of new methods of manufacturing. The supervisor and persons in mid-management and must be concerned daily with human behavior and the psychological factors which affect personnel working under their direction.

This program is designed to develop the individual's abilities in the art of communicating with his fellow worker by providing him with training in business and industrial management, production methods, and the general and social education that broadens one's perspective. This training should provide the student with the opportunity to enter into an industrial occupation and, with experience, assume the responsibilities that go woth supervisory and mid-management positions in industry.

Job Description

The graduate of the Business Administration Curriculum, Industrial Management Option, may enter a variety of career opportunities: First-Line Supervisor, Industrial Engineering Assistant, Purchasing Expediter, Production Planner, Quality Control Technician, Safety Manager, Budget Clerk.

Curriculum By Quarters

			Class	Lab	Hours Credit
First Quarter					
ENG	100	English I	5	0	5
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	110	Office Machines	0	2	1
BUS	102	Typing I	2	3	3
			17	5	19
Second Quarter					
ENG	101	English II	5	0	5
BUS	120	Accounting I	4	3	5
BUS	248	Business Economics I	5	0	5
EDP	104	Introduction to Data Processing	3	0	3
			17	3	18
Third Quarter					
ENG	102	English III	5	0	5
BUS	235	Business Management	5	0	5
BUS	127	Financial Management	3	2	4
BUS	121	Accounting II	4	3	5
			17	5	19

Fourth Quarter

ENG	204	English IV	3	0	3
BUS	272	Principles of Supervision	5	0	5
BUS	273	Personnel Management	5	0	5
BUS	122	Accounting III	4	3	5
			17	3	18

Fifth Quarter

ENG	103	English VI	3	0	3
BUS	115	Business Law I	5	0	5
BUS	229	Income Taxes I	3	2	4
BUS	109	Seminar on Human Relations	3	0	3
BUS	269	Safety Engineering	3	2	4
			17	4	19

Sixth Quarter

BUS	261	Manufacturing Cycles	5	0	5
BUS	266	Value Analysis	3	0	3
BUS	265	Work Measurement	3	2	4
BUS	267	Production Control	3	2	4
DFT	101	Technical Drafting	0	6	2
			14	10	18

Seventh Quarter

BUS	131	Business Communications	3	2	4
BUS	263	Quality Control	3	2	4
BUS	268	Plant Layout	3	2	4
BUS	262	Current Trends in Industrial Mgmt.	3	0	3
BUS	279	Profit Planning & Budgetary Control	3	2	4
			15	8	19

BUSINESS ADMINISTRATION

(Retail Management Option)

Purpose

In North Carolina the opportunities in business are increasing in pace with the population; thus, our local businesses offer more opportunity for employment. These positions will be filled by people with specialized education beyond the high school level. The Business Administration Curriculum, Retail management option, is designed to prepare the student for employment in one of many occupations common to the retailing business.

Job Description

The graduate of the Business Administration Curriculum, Retail Management Option, may enter a variety of career opportunities from beginning sales clerk to manager. Potential job opportunities include: advertlsing, banking, credit, finance, retailing, wholesaling, hotel, tourist and travel industry, transportation, and communications.

Curriculum By Quarters

First Quarter			Class	Lab	Hours Credit
ENG	100	English I	5	0	5
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	110	Office Machines	0	2	1
BUS	102	Typing I	2	3	3
			17	5	19
Second Quarter					
ENG	101	English II	5	0	5
BUS	120	Accounting I	4	3	5
BUS	248	Business Economics I	5	0	5
EDP	104	Introductlon to Data Processing	3	0	3
			17	3	18
Third Quarter					
ENG	102	English III	5	0	5
BUS	235	Business Management	5	0	5
BUS	127	Financial Management	3	2	4
BUS	121	Accounting II	4	3	5
			17	5	19
Fourth Quarter					
ENG	204	English IV	3	0	3
BUS	122	Accounting III	4	3	5
BUS	272	Principles of Supervision	5	0	5
BUS	239	Marketing	5	0	5
BUS	273	Personnel Management	5	0	5
			22	3	23

Fifth Quarter

ENG	103	English VI	3	0	3
BUS	115	Business Law I	5	0	5
BUS	229	Income Taxes I	3	2	4
BUS	109	Seminar on Human Relations	3	0	3
BUS	269	Safety Engineering	3	2	4
			17	4	19

Sixth Quarter

BUS	224	Retail Management	5	0	5
BUS	232	Sales Development	3	2	4
BUS	237	Small Business Management	3	0	3
BUS	243	Advertising	5	0	5
BUS	242	Public Relations	3	2	4
			19	4	21

Seventh Quarter

BUS	131	Business Communications	3	2	4
BUS	246	Current Trends in Retail Mgmt.	3	0	3
BUS	276	Purchasing & Inventory Control	3	2	4
BUS	271	Office Management	3	2	4
BUS	277	Credit & Collection	3	0	3
			15	6	18

SECRETARIAL SCIENCE

(Shorthand Option)

Purpose

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 training program that will provide training in the accepted procedures required by the business, industrial, and professional areas to enable persons to become proficient soon after employment in their particular field. Special training in secretarial subjects as supplemented by related courses in math, accounting, and personality development. During the fourth quarter, students are placed on actual jobs which provide valuable experience.

Job Description

Students may take courses in shorthand or have the option of courses which give them a broader business background. This option gives students a choice of concentrated study preparing them for employment as stenographers and secretaries or for a variety of secretarial positions where shorthand skills are not required.

Curriculum By Quarters

					Hours
First Quarter			Class	Lab	Credit
	ENG 100	English I	5	0	5
	MAT 110	Business Math	5	0	5
	BUS 101	Introduction to Business	5	0	5
	BUS 102	Typing I	2	3	3
OR	BUS 243	Advertising	5	0	5
	BUS 106	Shorthand I	3	2	4
OR	PSY 102	Psychology	3	0	3
Second Quarter					
	ENG 101	English II	5	0	5
	BUS 103	Typing II	2	3	3
	BUS 107	Shorthand II	3	2	4
OR	BUS 232	Sales Development	3	2	4
	BUS 248	Business Economics I	5	0	5
	EDP 104	Introduction to Data Processing	3	0	3
Third Quarter					
	ENG 102	English III	5	0	5
	BUS 131	Business Communications	3	2	4
	BUS 104	Typing III	2	3	3
	BUS 108	Shorthand III	3	2	4
OR	BUS 277	Credit & Collection	3	0	3
	BUS 110	Office Machines	0	2	1
	BUS 209	Machine Transcription	2	0	2
Fourth Quarter					
	BUS 215	Office Applications	0	30	3
	BUS 216	Orientation and Evaluation	3	0	3
	BUS 217	Skill Performance and Production	3	0	3
	BUS 218	Business Techniques	3	0	3

Fifth Quarter

	BUS 205	Advanced Typing	2	3	3
	BUS 206	Dictation and Transcription I	3	2	4
OR	BUS 109	Seminar on Human Relations	3	0	3
	ENG 204	English IV	3	0	3
	BUS 201	Word Processing Communications & Applications	3	0	3
	BUS 229	Income Taxes I	3	2	4

Sixth Quarter

	BUS 207	Dictation and Transcription II	3	2	4
OR	BUS 242	Public Relations	3	2	4
	BUS 152	Consumer Awareness	3	0	3
	BUS 117	Secretarial Accounting I	3	2	4
	BUS 202	Word Processing Systems	3	0	3
	ENG 103	English VI	3	0	3

Seventh Quarter

	BUS 214	Secretarial Procedures	3	2	4
	BUS 208	Dictation and Transcription III	3	2	4
OR	BUS 235	Business Management	5	0	5
	BUS 271	Office Management	3	2	4
	BUS 118	Secretarial Accounting II	3	2	4
	BUS 251	Personality Development	3	0	3

COMMERCIAL ART

ADVERTISING DESIGN

Purpose

This curriculum will prepare a graduate with a sound, well-rounded background for technical and creative achievement throughout his professional life. Design and illustration for commerce is continually advancing its standards, therefore, the background offered the student must be well-developed to prepare him for performance on a contemporary professional level. Graduates of this program will have an adequate background in illustration, layout and lettering design, and production.

Equipped with professional competence and the potential for continuing growth and improvement, graduates are qualified for employment in most fields of commercial art.

Job Description

The commercial artist or advertising designer creates and designs layouts and illustrations for printing, creates posters, signboards, billboards, and show cards. He may design and prepare charts, diagrams, sketches, and maps for publication and exhibition, perform responsible illustrative work for package design, photography, lettering, and art work for the printing processes. Opportunities for graduates of this program may be in advertising agencies, newspapers and magazines, television studios, industrial advertising departments and design studios, department stores, government agencies, or in printing and publishing houses.

Curriculum By Quarters

			Class	Lab	Hours Credit
First Quarter					
ENG	100	English I	5	0	5
CAT	100	Orientation	1	0	1
DFT	101	Technical Drafting I	0	6	2
CAT	101	Advertising Principles	3	0	3
CAT	102	Art and Design	2	6	4
CAT	121	Commercial Art & Advertising Design I	4	6	6
			15	18	21
Second Quarter					
ENG	101	English II	5	0	5
DFT	102	Technical Drafting II	0	6	2
CAT	105	Life Study I	2	3	3
CAT	122	Commercial Art & Advertising Design II	4	6	6
			11	15	16
Third Quarter					
ENG	102	English III	5	0	5
CAT	106	Life Study II	0	6	2
CAT	116	Photography I	2	6	4
CAT	123	Commercial Art & Advertising Design III	6	6	8
			13	18	19

Fourth Quarter

CAT	227	Fashion Illustration	4	6	6
CAT	117	Photography II	2	6	4
CAT	205	Advertising Copywriting & Fitting	4	0	4
CAT	201	Art History	5	0	5
CAT	212	Industrial Art & Design	2	3	3
			17	15	22

Fifth Quarter

ENG	204	English IV	3	0	3
CAT	110	General Illustration	2	6	4
CAT	224	Commercial Art & Advertising Design IV	4	6	6
			2	3	3
CAT	206	Project Seminar	2	3	3
		Business Elective	13	18	19

Sixth Quarter

CAT or BUS		Elective			4
CAT	225	Commercial Art & Advertising Design V	6	6	8
CAT	217	Silk-Screen Techniques	2	6	4
CAT	231	Project Seminar	2	3	3
			13	17	19

Seventh Quarter

CAT or BUS		Elective			4
CAT	226	Commercial Art & Advertising Design VI	6	6	8
CAT	235	Advertising & Art Directions	5	0	5
CAT	232	Project Seminar	1	6	3
			15	14	20

Total Credit Hours — 136

GENERAL EDUCATION

DEVELOPMENTAL STUDIES

ASSOCIATE DEGREE PROGRAM FOR VOCATIONAL INSTRUCTORS

RELATED INSTRUCTION IN THE HUMANITIES SOCIAL AND NATURAL SCIENCES

DEVELOPMENTAL STUDIES

Purpose

The Developmental Program is a series of courses designed for students who, at their present educational level, cannot enter regular curriculum courses or who have not completed their high school education. This program gives every person the opportunity of re-entering school and meeting requirements of the world of work and of further education. The courses are structured to meet individual needs, and placement of a student in a course of studies depends upon the person's level of achievement when he registers for the course. Emphasis is placed on reading, math, and English. The student may select other electives which he may need to meet his particular objective. The program also assists students who have a physical handicap or who have a personal situation that would put them at a disadvantage in getting the vocational training they want.

Objectives

1. To help students make such academic progress that he can make an acceptable score on the GED.
2. To encourage students to develop study skills, test taking proficiencies and to give him a general idea of what will be expected of him in the world of work.
3. To enable a student to assess his actual potiential so that he can make wise vocational choices.
4. To provide individual instruction and tutoring for any student in the program who has specific problems not common to the whole class and such reinforcement for students who have already completed the program.
5. To provide enrichment courses in communication, mathematics, and reading for high school graduates who are planning to enter a university.

Programs of Study

PRE-TECHNICAL T-099

A program of studies based on the needs of particular students in areas of deficiencies. Structured to bring up these specific areas so that a student may succeed in a technical curriculum.

PRE-VOCATIONAL V-099

Basic courses structured to meet the needs of students preparing to enter a vocational curriculum.

HIGH SCHOOL EQUIVALENCY

A program of studies outlined for students who have not received a high school diploma. A student may enter the program at any time during a quarter. After he is tested, a sequence of courses is outlined so that a student may work toward a level of achievement which will enable him to make a passing score on the GED.

Admission

The Developmental Studies Program is open from 8:00 A.M. until 3:00 P.M. Monday through Friday and from 6:30 P.M. until 9:30 P.M. Monday through Thursday. A student may register for as many hours as his time allows. Veterans may receive benefits for full time or part-time work. A veteran who has not finished high school may receive benefits up to twelve months.

Any applicant wishing to enroll in Developmental Studies should follow the application procedures.

ASSOCIATE DEGREE PROGRAM FOR VOCATIONAL INSTRUCTORS

Purpose

The program is designed for persons who have developed a skill, trade or technical specialty and desire to teach or pursue a degree. Successful graduates of the program may find employment in the public high schools, community colleges and technical institutes. It is also designed for those already teaching in such programs who have not had the opportunity to acquire professional educational training.

This program is unique in its design and offers the opportunity to earn an Associate in Applied Science Degree allowing credit for previous training experience, and formal study in the student's area of expertise, supplemented by course work to broaden the student personally and develop professional skills in the techniques of teaching.

Program

Credit will be awarded to skilled craftsmen based on educational experience and work experience. Credit will be awarded in the following manner:

1. A. Twenty-four quarter hours' credit for full-time trade school, twelve months in one special skilled are certified by diploma or letter by trade school officials, maximum twenty-four quarter credit hours.

   and/or

   B. One quarter hour credit per sixty hours of full-time trade instruction for programs of less than one year duration. Certified by diploma or letter by trade school officials, maximum eight credit hours.

2. One quarter hour credit per forty hours of special short course instruction - company sponsored school. Certified by diploma, certificate or letter by company school. Maximum five hours.

3. Five quarter hours' credit for each full year of employment in a teaching situation. Teaching must be the primary responsibility of employment. Maximum ten hours.

4. Two quarter hours' credit for each full year of employment in the specialty occupation qualified to teach. Maximum ten hours.

The maximum number of hours awarded for specialty skills toward an Associate in Applied Science Degree is 48 quarter hours.

A minimum of 56 quarter hours' credit must be earned through course work at Southwestern Technical Institute or another recognized college or technical institute program. In order to earn an Associate in Applied Science Degree at Southwestern Technical Institute, the general education requirements must be met either through transfer credit, challenge examination, or formal course work.

A program of study will be prepared for each individual vocational instructor or potential instructor who makes application for the program. The Dean of Instruction or the Director of Occupational Education will serve as advisor.

Following are minimum requirements for an associate in Applied Science Degree for this curriculum. Anyone who needs additional hours may choose electives from any technical curriculum with the approval of the advisor.

Three areas of development and the hours required for each are:

		Min. Quarter Hours Required
A. Specialty Skills		48
B. Personal Skills (Sciences, Humanities)		28
English	15	
Social Sciences	6	
Math	5	
Science	2	
C. Professional Skills (Vocational Educational)		28
TOTAL		104

COURSE REQUIREMENTS

English (The English requirements may be met by completion of 15 hours from the following courses.)

ENG	100	English I	5	0	5
ENG	101	English II	5	0	5
ENG	102	English III	5	0	5
ENG	204	English IV	3	0	3
ENG	103	English VI	3	0	3
ENG	206	English VII	3	0	3

Social Sciences (The Social Sciences requirements may be met by completion of a minimum of 6 hours from courses listed under PSY, HIS, SOC, SSC, ECO or POL in the Course Description Section.)

Mathematics (Mathematics requirements may be met by completion of 5 hours from the following courses.)

MAT	101	Technical Math	5	0	5
MAT	104	Statistics	5	0	5
MAT	110	Business Math	5	0	5

Science (Science requirements may be met by completion of a minimum of 2 hours from courses listed under PHY, BIO, CHM or SCI in the course description section.)

Vocational Education (Vocational Education requirements may be met by completion of 28 hours from the following courses.)

EDU	110	Methods of Teaching Industrial Subjects	3	0	3
EDU	111	Use of Media in Instruction	3	0	3
EDU	112	Shop Organization and Planning I	2	2	3
EDU	113	Shop Organization and Planning II	2	0	3
EDU	114	Safety in the School Shop and Laboratory	3	0	3
EDU	115	Introduction to Industrial Education	3	0	3
EDU	116	History and Philosophy of Industrial Ed.	3	0	3
EDU	117	Program and Course Development	3	0	3
EDU	118	Principles of Cooperative Education	3	0	3
EDU	119	Occupational Guidance	3	0	3
EDU	121	Drafting for Vocational Instructor I	3	0	3
EDU	123	Environmental Concepts in Education	1	2	2
EDU	124	Teaching the Handicapped Student in Occupational Education	3	0	3
EDU	125	Drafting for Vocational Instructor II	3	0	3
EDU	140	Use of Media in Instruction	3	0	3
EDU	235	Group Communication Dynamics	3	0	3

HUMAN SERVICES

COSMETOLOGY

EARLY CHILDHOOD SPECIALIST

ENVIRONMENTAL SCIENCE TECHNOLOGY

FOOD SERVICE MANAGEMENT

LAW ENFORCEMENT

PARALEGAL TECHNOLOGY

PRACTICAL NURSE EDUCATION

RECREATION TECHNOLOGY

COSMETOLOGY

Purpose

This curriculum is approved by the North Carolina State Board of Cosmetic Art Examiners. After successfully completing the requirements of this course, a student must apply to the State Board of Cosmetic Art Examiners for examination. Successful candidates will receive their North Carolina license in Cosmetology.

Job Description

The licensed Cosmetologist is in great demand throughout the United States. Many newly licensed Cosmetologists join the staffs of beauty salons while others open their own shops or form partnerships.

Curriculum By Quarters

	Class	Lab	Hours Credit
First Quarter			
COS 1001—Scientific Study I	4	6	6
COS 1011—Mannequin Practice	1	19	7
	5	25	13
Second Quarter			
COS 1002—Scientific Study II	5	0	5
COS 1022—Clinical Applications I	0	29	9
	5	29	14
Third Quarter			
COS 1003—Scientific Study III	5	0	5
COS 1033—Clinical Applications II	0	29	9
	5	29	14
Fourth Quarter			
COS 1004—Scientific Study IV	5	0	5
COS 1044—Clinical Applications III	0	29	9
	5	29	14

TOTAL CONTACT HOURS 1452

EARLY CHILDHOOD SPECIALIST

Purpose

The Early Childhood Specialist program intends to provide for the prospective teacher assistant in both the early childhood and the middle childhood years an opportunity to learn to understand and to meet the needs of young children in the four areas of growth and development. The curriculum is designed to provide a general cultural background for the student as well as the necessary skills to work successfully with teachers and children in the schools. This type of background will better enable the student to continue his preparation beyond the Associate of Applied Science, which this program leads to should he so desire, as well as provide the qualifications for a more responsible position in this field of work.

Job Description

The Early Childhood Specialist program is designed to prepare the student for working in either the pre-school programs or in the public schools in the area of early childhood. Some emphasis is placed on the importance of reading in the early years and how to assist the student in understanding her role as a reading-assistant to the Special reading teacher.

Curriculum By Quarters

			Class	Lab	Hours Credit
First Quarter					
ENG	100	English I	5	0	5
EDU	133	The Family: A Cross Cultural Survey	3	0	3
SCI	101	Child Growth and Development	3	0	3
EDU	101	General Science	3	2	4
EDU	222	Media Resources & Library Skills	3	2	4
			17	4	19
Second Quarter					
ENG	101	English II	5	0	5
EDU	131	Human Growth and Development: Prenatal Infant & Early Childhood	5	0	5
EDU	102	Programming for Young Children	3	6	5
MAT	100	Basic Mathematics	5	0	5
			18	6	20
Third Quarter					
ENG	102	English III	5	0	5
EDU	106	Arts & Crafts for Young Children	1	2	2
EDU	103	Working with Young Children	3	6	6
EDU	135	The Family in the Community	3	0	3
HEA	101	First Aid	2	0	2
			14	8	18
Fourth Quarter					
ENG	204	English IV	3	0	3
EDU	201	Activities for Young Children	3	9	6
EDU	210	The Child and Community Services	3	0	3
EDU	104	Introducing Reading	5	0	5
HIS	211	United States History I	3	0	3
			17	9	20

Fifth Quarter

EDU	211	Children's Literature	3	0	3
EDU	203	The Exceptional Child	3	0	3
HIS	212	United States History II	3	0	3
EDU	204	Parent Education	3	0	3
EDU	105	Music for the Early Years	2	0	2
NUT	102	Nutrition and Health for Young Children	3	2	5
			17	2	19

Sixth Quarter

EDU	207	Special Problems in Early Childhood	2	0	2
EDU	202	Seminar-Practicum	4	12	8
			6	12	10

Teacher Assistant Option

The student may elect an optional major as Teacher Assistant by taking the following program in the second year.

Fourth Quarter

EDU	220	Role of the Teacher Assistant	3	0	3
EDU	221	Library Materials & Resources	3	0	3
ENG	204	English IV	3	0	3
EDU	208	Physical Activities for Young Children	3	0	3
EDU	227	Seminar Practicum	0	15	5
			12	15	17

Fifth Quarter

EDU	211	Children's Literature	3	0	3
EDU	222	Media Resources	3	2	4
EDU	223	School Records and Reports	3	0	3
EDU	228	Seminar Practicum	0	15	5
		Elective	3	0	3
			12	17	18

Sixth Quarter

EDU	204	Parent Education	3	0	3
EDU	229	Seminar Practicum	0	15	5
EDU	107	Mathematics for Young Children	3	0	3
		Elective(s)	6	0	6
			12	15	17

Electives

EDU	104	Introducing Reading	5	0	5
EDU	105	Music for the Early Years	2	0	2
EDU	106	Arts & Crafts for Young Children	1	2	2
EDU	108	Crafts for Young Children	1	2	2
			9	4	11

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ENVIRONMENTAL SCIENCE TECHNOLOGY

Purpose

This curriculum provides the necessary background in environmental science oriented courses supplemented by basic courses in English, math, government and science. Emphasis is on environmental problems, the overall effect of these problems, and the proposed solutions. The broad program of study better qualifies the student to grasp and solve environmental problems.

Job Description

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

Curriculum By Quarters

				Class	Lab	Hours Credit
First Quarter						
ENG	100	English I		5	0	5
MAT	101	Technical Math		5	0	5
BIO	101	General Biology		3	4	5
ENV	210	Ecology		3	2	4
				16	6	19
Second Quarter						
ENG	101	English II		5	0	5
CHM	101	Chemistry I		3	4	5
MAT	102	Technical Math II		5	0	5
ENV	120	Land Resource Management		3	4	5
				16	8	20
Third Quarter						
ENG	102	English III		5	0	5
CHM	102	Chemistry II		3	4	5
MAT	104	Statistics		5	0	5
*ENV	208	Fisheries Management	OR	*3	2	4
*ENV	216	Environmental Health		*3	2	4
				16	6	19
Fourth Quarter						
ENV	201	Laboratory Applications		3	0	3
ENV	202	Data Studies		3	0	3
ENV	203	Use of Instruments		3	0	3
ENV	204	Field Studies		0	30	3
				9	30	12

Fifth Quarter

ENG	204	English IV	3	0	3
PHY	101	Physics I	3	2	5
ENV	220	Water Sampling, Analysis, Cont.	3	4	5
ENV	130	Microbiology	3	4	5
			12	10	17

Sixth Quarter

ENV	213	Air Sampling, Analysis, Control	3	4	5
ENV	229	Meteorology	3	4	5
ENV	223	Instrument Maintenance	1	4	3
GEO	105	Population Geography	3	0	3
			10	12	16

Seventh Quarter

ENV	230	Environmental Quality, Laws, and Enforcement	3	0	3
ENV	231	Environmental Project	1	12	5
*ENV	208	Fisheries Management OR	*3	2	4
*ENV	216	Environmental Health	*3	2	4
			7	14	12

*Fisheries Management and Environmental Health will be offered alternately every year.

FOOD SERVICE MANAGEMENT

Purpose

This curriculum is designed to train students in the art of commercial food preparation, with particular emphasis being placed on restaurant operations. Extensive training is offered in food production as well as supervision and management.

Uniforms will be required for all students. These must be purchased at the expense of the student.

Job Description

A graduate of the Food Service Management curriculum should quallfy for entry into positions as assistant cook, short order cook, chef's assistant, assistant baker, cook-manager, food production supervisor, or restaurant manager.

Curriculum By Quarters

			Class	Lab	Hours Credit
First Quarter					
ENG	100	English I	5	0	5
FSO	101	Orientation to Food Services	1	0	1
FSO	102	Food Preparation I	2	9	5
FSO	103	Equipment — Use and Care	3	0	3
FSO	104	Sanitation and Safety	3	0	3
			14	9	17
Second Quarter					
ENG	101	English II	5	0	5
MAT	100	Basic Math	5	0	5
FSO	112	Food Preparation II	2	9	5
FSO	107	Baking I	2	6	4
			14	15	19
Third Quarter					
ENG	102	English III	5	0	5
FSO	204	Food Purchasing and Cost Control	3	0	3
FSO	122	Food Preparation III	0	12	4
FSO	117	Baking II	2	6	4
FSO	114	Menu Planning	3	0	3
			13	18	19

Fourth Quarter

FSO	110	Supervised Work Experience	2	40	6
			2	40	6

Fifth Quarter

ENG	204	English IV	3	0	3
FSO	202	Food Preparation IV	2	9	5
MAT	110	Business Math	5	0	5
BUS	110	Office Machines	0	2	1
BUS	109	Seminar on Human Relations	3	0	3
			13	11	17

Sixth Quarter

BUS	272	Principles of Supervision	5	0	5
FSO	212	Food Preparation V	0	9	4
FSO	108	Personnel Management	3	0	3
FSO	201	Equipment - Layout and Design	3	0	3
FSO	109	Production Management	3	0	3
			14	9	18

Seventh Quarter

FSO	141	Food Service Management	3	0	3
FSO	207	Food Merchandising	2	6	4
FSO	214	Specialty Cooking	2	4	3
FSO	139	Convenience Foods	2	0	2
BUS	242	Public Relations	3	2	4
			12	12	16

LAW ENFORCEMENT

Purpose

The Law Enforcement Curriculum is designed to prepare the student for entry into the field of police work and other allied occupations. Police science vocations have evolved from simple jobs requiring minimal qualifications to highly complex activities requiring great capacity for highly specialized knowledge and techniques.

Applicants to this curriculum must have a physical examination and must submit a recommendation from any of the following: Sheriff of County in which applicant resides; a Chief of Police; a state or federal law enforcement officer.

Job Description

Job opportunities are abundant on the federal, state, county, and municipal levels. Many industries now employ skilled technicians trained in protective techniques.

Curriculum By Quarters

First Quarter			Class	Lab	Hours Credit
ENG	100	English I	5	0	5
MAT	100	Basic Math	5	0	5
PSC	101	Introduction to Law Enforcement	5	0	5
LEX	209	Investigative Photography	2	6	4
			17	6	19

Second Quarter					
PSC	221	Police Operations & Techniques	5	0	5
MAT	104	Statistics	5	0	5
ENG	101	English II	5	0	5
LEX	106	Constitutional Law	3	0	3
PSC	110	Crime & Delinquency	5	0	5
			23	0	23

Third Quarter					
LEX	205	Traffic & Accident Investigation	3	2	4
ENG	102	English III	5	0	5
LEX	105	Criminal Investigation	3	2	4
PSC	102	Science of Fingerprinting	3	3	4
			14	7	17

Fourth Quarter					
PSY	102	General Psychology	3	0	3
PSC	210	Emergency First Aid	0	3	1
PSC	209	Criminal Justice Field Training	0	32	8
			3	35	12

Fifth Quarter

PHY	101	Physics	3	2	4
ENG	204	English IV	3	0	3
LEX	208	Criminal Law	5	0	5
PSC	206	Police Community Relations	5	0	5
SOC	102	Principles of Sociology	5	0	5
			21	2	22

Sixth Quarter

LEX	107	Criminal Evidence & Procedure	3	2	4
ENG	103	English VI	3	0	3
CHM	101	Chemistry I	3	4	5
PSC	224	Narcotics & Dangerous Drugs	3	0	3
POL	103	National, State & Local Government	3	0	3
			15	6	18

Seventh Quarter

PSC	111	Police Organization & Administration	5	0	5
PSC	223	Defensive Tactics and Firearms	2	3	3
PSC	212	Criminalistics	4	2	5
PSC	228	Courtroom Techniques	4	2	5
ENV	205	Methods of Chemical Analysis	1	4	3
			16	11	21

Electives:

PSC	130	Parole & Probation	5	0	5
PSC	131	Introductions to Jail Operations	3	0	3
PSC	132	Introduction to Jail Management	3	0	3
PSC	133	Juvenile Delinquency	5	0	5
BUS	109	Human Relations	3	0	3

PARALEGAL TECHNOLOGY

Purpose

The legal profession is a very involved one and a profession that requires specialists and general practitioners. A legal specialist may be a lawyer specializing in one facet of law or a paralegal assisting a lawyer or group of lawyers.

This curriculum is designed to train individuals to work by the side of a lawyer, to relieve the lawyer of routine matters and assist him in the conduct of more complicated and difficult tasks.

Job Description

The graduate of the Paralegal Curriculum will be able to directly assist the lawyer in most facets of law but must always work under the supervision of the lawyer.

Curriculum By Quarters

			Class	Lab	Hours Credit
First Quarter					
ENG	100	English I	5	0	5
LEX	100	Paralegal Orientation	5	0	5
MAT	110	Business Mathematics	5	0	5
BUS	115	Business Law I	5	0	5
			20	0	20
Second Quarter					
BUS	120	Accounting I	4	3	5
BUS	116	Business Law II	5	0	5
ENG	101	English II	5	0	5
LEX	106	Constitutional Law	3	0	3
			17	3	18
Third Quarter					
ENG	102	English III	5	0	5
LEX	103	Legal Research I	3	3	4
LEX	205	Traffic & Accident Investigation	3	2	4
LEX	105	Criminal Investigation	3	2	4
			14	7	17
Fourth Quarter					
LEX	220	Legal Research II	1	4	3
LEX	230	Appellate Practice	3	3	4
LEX	232	Estate Administration	3	0	3
LEX	211	Title Abstracting	3	0	3
			10	7	13

Fifth Quarter

LEX	201	N. C. Legal Systems I	3	0	3
ENG	204	English IV	3	0	3
LEX	208	Criminal Law	5	0	5
BUS	229	Income Tax I	3	2	4
LEX	209	Investigative Photography	2	6	4
			16	8	19

Sixth Quarter

ENG	103	English VI	3	0	3
LEX	202	N. C. Legal Systems II	3	0	3
LEX	107	Criminal Evidence & Procedure	3	2	4
BUS	231	Income Tax II	3	2	4
LEX	215	The Law Office	3	3	4
			15	7	18

Seventh Quarter

LEX	225	Litigation Preparation	3	0	3
LEX	226	Medical Terminology	3	0	3
LEX	227	Paralegal Profession	3	3	4
LEX	210	Mechanics of Property Transaction	3	0	3
			12	3	13

PRACTICAL NURSE EDUCATION

Purpose

The Practical Nursing Program gives qualified persons the opportunity to prepare for participation in care of patients of all ages, in various states of dependency, and with a variety of illness conditions.

Students are selected on the basis of demonstrated aptitude for nursing as determined by pre-entrance tests, interviews with faculty members, high school records, character references, and reports of medical and dental examination.

Evaluation of student performance consists of tests on all phases of course content, evaluation of clinical performance, and evaluation of adjustments to the responsibilities of nursing. A passing score is required on all graded work, plus demonstrated progress in application of nursing skills to actual patient care.

Graduates of accredited programs of practical nurse education are eligible to write the licensing examination given by the North Carolina Board of Nursing. This examination is given twice each year, usually in April and September. A passing score entitles the individual to receive a license and to use a legal title, "Licensed Practical Nurse." The license must be renewed annually. The Licensed Practical Nurse can apply for license in some states on the basis of a satisfactory examination score without repeating the examination.

Job Description

The LPN Is prepared to function in a variety of situations: hospitals of all types, nursing homes, clinics, doctors' and dentists' offices and, in some localities, public health facilities. In all situations the LPN functons under supervision of a registered nurse and/or licensed physician. This supervision may be minimal in situations where the patient's condition is stable and not complex, or it may consist of continuous direction in situations requiring the knowledge and skills of the registered nurse or physician. In the latter situation, the LPN functions in an assisting role in order to avoid assuming responsibility beyond that for which the one-year program prepares the individual.

Curriculum By Quarters

Course Title			Hrs. Per Week			Quarter Hours
First Quarter			C	L	P	Credit
NUR	1020	Fundamentals of Practical Nursing	6	6	0	8
NUR	1021	Nutrition and Diet Therapy	3	0	0	3
NUR	1022	Anatomy and Physiology	3	0	0	3
NUR	1023	Growth and Development	2	0	0	2
NUR	1024	Intro to Drug Administration	3	0	0	3
ENG	1103	English (Study Skills)	3	0	0	3
			20	6	0	22
Second Quarter						
NUR	1025	Medical-Surgical Nursing I	6	0	0	6
NUR	1026	Maternity Nursing	4	0	0	4
NUR	1027	Nursing of Children	3	0	0	3
NUR	1028	Clinical Experience I	0	0	16	5
			13	0	16	18

Third Quarter			Hrs.	Per	Week	Quarter Hours Credit
NUR	1029	Medical-Surgical Nursing II	6	0	0	6
NUR	1030	Drug Therapy	4	0	0	4
NUR	1031	Clinical Experience II	0	0	24	8
ENG	1104	ENGLISH (Communication Skills)	2	0	0	2
			12	0	24	20

Fourth Quarter						
NUR	1032	Medical-Surgical Nursing III	7	0	0	7
NUR	1034	Personal and Vocational Relationships	2	0	0	2
NUR	1035	Clinical Experience III	0	0	24	8
PSY	1101	Human Relations	3	0	0	3
			12	0	24	20

NOTE: The North Carolina Board of Nursing may deny license to individuals "convicted of a felony or any other crime involving moral turpitude."

RECREATION TECHNOLOGY

Purpose

Recreation Technology is designed to prepare students for staff skills and administrative responsibility in a wide variety of public and private recreational and group work facilities. Specific attention will be given to training in the areas of municipal recreation and outdoor recreation. Opportunity for specialization will be provided through the selection of electives, field work and special in-class projects which relate to settings or groups in which the student has the keenest interest and the most ability.

Applicants must meet all of the requirements for admission to the school. In addition to general school policies, admission requirements, test requirements and transfer credits, students are selected on the basis of demonstrated aptitude and moral character for recreation as determined by interest inventories, pre-entrance tests, high school transcript of grades and activities, interviews with faculty members, a physical examination report and character references.

Job Description

The recreation industry has become a significant factor in the American economy. Job opportunities are becoming available nearly everywhere that people gather to enjoy their leisure time—resorts; summer camps; scouting; YWCA's and YMCA's; city and county recreation centers; municipal, state and federal parks and playgrounds; industrial and hospital recreation programs—especially for professionally trained recreation leaders.

Suggested Curriculum By Quarters

			Class	Lab	Hours Credit
First Quarter					
ENG	100	English I	5	0	5
MAT	110	Business Math	5	0	5
BIO	101	General Biology	3	4	5
REC	110	Professional Orientation	3	2	4
REC	125	Team Sports	2	4	4
			18	10	23
Second Quarter					
ENG	101	English II	5	0	5
GEO	108	Cultural Geography	3	0	3
REC	260	Maintenance & Operations	4	2	5
REC	111	Arts-Crafts	4	2	5
			16	4	18
Third Quarter					
ENG	102	English III	5	0	5
REC	258	Swimming Pool Manag.	2	4	4
REC	134	First Aid and Safety	1	2	2
REC	135	Individual Lifetime Sports	2	4	4
REC	120	Social Recreation Leadership	2	2	3
		Elective	0	4	1
			12	16	19

Fourth Quarter

REC	240	Field Studies	0	30	3
REC	247	Skill Performance	3	0	3
REC	248	Orientation & Evaluation	3	0	3
REC	249	Leadership Techniques	3	0	3
			9	30	12

Fifth Quarter

ENG	204	English IV	3	0	3
BUS	109	Seminar on Human Relations	3	0	3
REC	256	Conservation of Renewable Resources	2	3	3
REC	250	Recreation Programming	3	2	4
REC	265	Campground Management	2	4	4
			13	9	17

Sixth Quarter

BUS	242	Public Relations	3	2	4
REC	259	Recreation Administration	3	2	4
REC	266	Special Recreation	3	0	3
REC	268	Legal Principles & Practices in Recreation	3	2	4
		Elective	0	4	1
			12	10	16

Seventh Quarter

REC	273	Recreational Grounds Manag.	2	4	4
REC	277	State & Federal Lands Manag.	3	2	4
REC	278	Planning of Recreational Areas, Facilities and Equipment	2	4	4
REC	279	Seminar	3	2	4
		Elective	0	4	1
			10	16	17

Electives

REC	140	Elementary Swimming	0	2	1
REC	141	Intermediate Swimming	0	2	1
REC	142	Senior Life-Saving. Pre.: REC 141	0	2	1
REC	143	Water Safety Instructor. Pre.: REC 142	0	2	1
REC	241	Intermediate Tennis. Pre.: REC 135	0	2	1
REC	118,	128, 138, 158, 168, 178 Field Work I-VI Consent of Advisor	0	4	1
REC	119,	129, 139, 159, 169, 179 Intramurals I-VI	0	2	1
REC	160	Indoor Conditioning Activities	0	2	1
REC	144	Canoeing	0	2	1
REC	242	Intermediate Hiking	0	2	1
REC	243	Mountaineering	0	2	1
REC	244	Snow Skiing			

INDUSTRIAL-VOCATIONAL EDUCATION

AUTOMOTIVE MECHANICS

CARPENTRY

ELECTRONIC ENGINEERING TECHNOLOGY

LIGHT CONSTRUCTION

PLUMBING AND PIPEFITTING

RADIO BROADCASTING

SURVEYING

AUTOMOTIVE MECHANICS

Purpose

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair, or adjust automotive vehicles.

The courses are arranged in a sequence that gives the student the required technological and special skills as they are needed to coordinate with laboratory experiences. A high school diploma is required. Admission to the fifth and sixth quarter must be approved by the instructor. Emphasis is placed on the mechanical parts and operation of the various automobile units. Trouble shooting and servicing is also stressed.

Job Description

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

Suggested Curriculum By Quarters

			Hours Class	Lab	Credit
First Quarter					
MAT	1101	Fundamentals of Mathematics	5	0	5
PHY	1101	Applied Science I	3	2	4
PME	1101	Internal Combustion Engines	3	14	7
			11	16	16
Second Quarter					
PHY	1102	Applied Science II	3	2	4
ENG	1106	Fundamentals of English	5	0	5
PME	1102	Engine Electrical and Fuel Systems	5	14	9
			13	16	18
Third Quarter					
AUT	1121	Braking Systems	1	2	2
BUS	1103	Small Business Management	3	0	3
AUT	1123	Automotive Chassis and Suspension Systems	3	12	7
AUT	1101	Small Engines	1	2	2
WLD	1101	Beginning Welding	0	3	1
DFT	1101	Schematics and Diagrams: Power Mechanics	2	1	2
			10	20	17

			Class	Lab	Hours Credit
Fourth Quarter					
PSY	1101	Human Relations	3	0	3
AUT	1124	Automotive Power Train Systems	2	9	6
AUT	1125	Automotive Servicing	2	6	5
AHR	1101	Air Conditioning Systems	2	6	5
			9	21	19
Fifth Quarter					
AUT	1201	Practical Shop I	0	27	9
AUT	1205	Automotive Seminar I	3	0	3
			3	27	12
Sixth Quarter					
AUT	1202	Practical Shop II	0	27	9
AUT	1206	Automotive Seminar II	3	0	3
			3	27	12

CARPENTRY

Purpose

The curriculum in carpentry is designed to train the individual to enter the trade with a background in both shop skills and related information. He must have a knowledge of mathematics, blueprint reading, methods of construction and a thorough knowledge of building materials.

The modern carpenter will work on new construction, maintenance, and repair of many types of structures, both residential and commercial.

Job Description

Most carpenters are employed by contractors in the building construction fields. When specializing in a particular phase of carpentry, the job is designated according to the specialty such as layout carpenter, framing carpenter, concrete form carpenter, scaffolding carpenter, accoustical and insulating carpenter, and finish carpenter.

Curriculum By Quarters

First Quarter			Class	Lab	Hours Credit
MAT	1112	Mathematics: Building Trades	5	0	5
DFT	1110	Blueprint Reading: Building Trades	0	3	1
CAR	1101	Basic Carpentry	5	17	10
			10	20	16

Second Quarter					
ENG	1106	Fundamentals of English	5	0	5
CAR	1113	Carpentry: Estimating	3	2	4
CAR	1103	Carpentry: Framing	5	15	10
			13	17	19

Third Quarter					
BUS	1103	Small Business Management	3	0	3
CAR	1104	Carpentry: Finishing	5	16	10
CAR	1114	Building Codes & Specifications	3	3	4
			11	19	17

Fourth Quarter					
CAR	1106	Millwork and Cabinet Making	5	15	10
CAR	1108	Building Safety	3	0	3
CAR	1109	Seminar: Special Techniques	2	5	4
			10	20	17

Carpentry V 007
Solar Applications in Construction

Fifth Quarter					
CAR	1120	Introduction to Solar Concepts	3	2	4
CAR	1121	Methods and Materials of Construction	1	9	4
CAR	1122	Systems Installation	1	4	3
CAR	1123	Seminar; Project I	0	10	3
			5	25	14
Sixth Quarter					
CAR	1125	Domestic Solar Hot Water Systems	2	6	4
CAR	1126	Heat Storage Systems	2	5	4
CAR	1124	Advanced Solar Concepts	3	2	4
CAR	1127	Seminar: Project II	0	10	3
			7	23	15

(Optional-Enrollment by Permission of Instructor Only)

ELECTRONICS ENGINEERING TECHNOLOGY

Purpose

The field of electronics has undergone tremendous growth and a complete revolution in both theory and practice during the last twenty-five years. To-days electronic technician must possess a solid foundation in the scientific theory of electronics as well as a high aptitude in applied and field skills. He is the individual most often required to build, install, maintain, and operate the equipment and systems that are produced by scientists and engineers.

Job Description

The graduate has a technical proficiency which prepares him in manufacturing, laboratory research, data gathering, and field engineering. These opportunities exist world-wide and the demand is growing daily, thus assuring the electronic technician a wide choice of types of work as well as geographic locations. The graduate is also assured of very attractive salaries that are considerably higher than most positions in industry requiring an A.A.S. degree.

Curriculum By Quarters

			Class	Lab	Hours Credit
First Quarter					
ENG	100	English I	5	0	5
MAT	115	Electrical Math I	5	0	5
ELC	102	D. C. Fundamentals	5	7	8
DFT	107	Schematic Drawing I	1	2	2
			16	9	20
Second Quarter					
ENG	101	English II	5	0	5
MAT	116	Electrical Math II	5	0	5
ELC	104	A. C. Fundamentals	5	7	8
DFT	108	Schematic Drawing II	1	2	2
			16	9	20
Third Quarter					
ENG	102	English III	5	0	5
MAT	117	Electrical Math III	5	0	5
ELN	101	Electronics I	5	7	8
PHY	101	Physics I	3	2	4
			18	9	22
Fourth Quarter					
ELN	106	Entertainment Systems	3	10	8
MAT	118	Electrical Math IV	5	0	5
ELN	125	FCC Radio telephone License Preparation I	5	0	5
PSY	102	General Psychology	3	0	3
			16	10	21

MASONRY

			Class	Lab	Hours Credit
First Quarter					
DFT	1111	Blue Print Reading	0	2	1
MAS	1006	Masonry Shop 1A	1	12	5
		Total	1	14	6
Second Quarter					
MAT	1101	Fundamentals of Math	5	0	5
MAS	1107	Masonry Shop 1B	1	12	5
		Total	6	12	10
Third Quarter					
DFT	1112	Advanced Blue Print Reading	2	3	3
MAS	1012	Masonry Shop 2A	1	9	4
		Total	3	12	7
Fourth Quarter					
MAS	1013	Masonry Shop 2B	1	14	6
		Total	1	14	6
(Optlonal)					
MAS	1003	Principles of Rock Construction	3	0	3
MAS	1011	Masonry Shop III	0	27	9
			3	27	12
Elective:					
MAS	1004	Fireplace Construction	0	3	1

CARPENTRY

			Class	Lab	Hours Credit
First Quarter					
CAR	1000	Carpentry I (Intro)	2	10	5
DFT	1110	Blueprint Reading — Building Trades	0	3	1
			2	13	6
Second Quarter					
CAR	1001	Carpentry II (Framing)	2	7	4
CAR	1114	Building Codes & Specifications	3	3	4
			5	10	8
Third Quarter					
CAR	1002	Carpentry III (Finishing)	2	5	3
CAR	1108	Building Safety	3	0	3
CAR	1113	Carpentry Estimating	3	2	4
			8	7	10
Fourth Quarter					
CAR	1107	Cabinet Making	0	8	3
CAR	1109	Special Techniques	2	5	4
			2	13	7

HYDRONIC HEATING

			Class	Lab	Hours Credit
First Quarter					
PLU	1122	Panel Heating	3	3	4
PLU	1123	Hot Water Boilers	3	6	5
			6	9	9
Second Quarter					
PLU	1131	Fuels and Burners	3	6	5
ELC	1101	Electronic Instrumentation	4	2	5
			7	8	10
Third Quarter					
PLU	1135	Oil Burner Installation	3	4	4
PLU	1132	Circuits and Controls	3	5	4
			6	9	8
Fourth Quarter					
PLU	1120	Low Pressure Systems	5	10	9
			5	10	9

WARM AIR HEATING

			Class	Lab	Hours Credit
First Quarter					
PLU	1010	Furnace Construction	3	7	5
PLU	1011	Warm Air Furnaces	5	0	5
			8	7	10
Second Quarter					
PLU	1012	Furnace Size and Ratings	3	7	5
PLU	1013	Air Humidification	5	0	5
			8	7	10
Third Quarter					
PLU	1014	Warm Air Systems	3	4	5
PLU	1015	Registers, Duct Design	3	0	3
PLU	1017	Noise Level Control	3	2	4
			9	6	12
Fourth Quarter					
PLU	1016	Forced-Circulation Systems (Residential)	5	10	10
			5	10	10

SOLAR APPLICATION IN CONSTRUCTION

			Class	Lab	Hours Credit
First Quarter					
CAR	1120	Introduction to Solar Concepts	3	2	4
CAR	1121	Methods and Materials of Construction	1	9	4
			4	11	8
Second Quarter					
CAR	1122	Systems Installation	1	4	3
CAR	1123	Seminar: Project I	0	10	3
			1	14	6
Third Quarter					
CAR	1125	Domestic Solar Hot Water Systems	2	6	4
CAR	1126	Heat Storage Systems	2	5	4
			4	11	8
Fourth Quarter					
CAR	1124	Advanced Solar Concepts	3	2	4
CAR	1127	Seminar: Project II	0	10	3
			3	12	7

LIGHT CONSTRUCTION—PLUMBING

First Quarter					
MAT	1114	Mathematics for Plumbers	5	0	5
DFT	1115	Blueprint Reading: Plumbing Trades I	0	5	2
PLU	1006	Plumbing Pipework (Plu Codes)	2	3	3
			7	8	10
Second Quarter					
PHY	1101	Applied Science I	3	2	4
PLU	1007	Domestic Water Systems (Plu Codes)	2	8	5
			5	10	9
Third Quarter					
DFT	1119	Blueprint Reading: Plumbing Trades II	2	3	3
PLU	1008	Commercial Piping (Plu Codes)	2	3	3
PLU	1009	Construction Estimating	3	2	4
			7	8	10

PLUMBING AND PIPEFITTING

Purpose

The curriculum in plumbing and pipefitting is designed to give the student the knowledge and basic skills to perform effectively. Courses in plumbing practices and pipefitting are included to provide practical experience as well as theoretical information. Other courses in communication skills, physics, human relations and business operations are provided to assist the individual in occupational growth.

Job Description

A substantial proportion of plumbers are self-employed or work for plumbing contractors doing repair, alteration, or modernization work. Some plumbers install and maintain pipe systems for government agencies and public utilities, and some work on the construction of ships and aircraft. Pipefitters, in particular, are employed as maintenance personnel in the petroleum, chemical, and food-processing industries.

PLUMBING CURRICULUM

			Class	Lab	Hours Credit
First Quarter					
MAT	1112	Math for Building Trades	5	0	5
PLU	1110	Plumbing Pipework	3	10	6
PLU	1108	Working with Plastics	2	7	4
DFT	1110	Blueprint Reading (Building Trades)	0	3	1
			10	20	16
Elective:					
BUS	1103	Small Business Management	5	0	5
Second Quarter					
PHY	1101	Applied Science I	3	2	4
MAT	1114	Math for Plumbers	5	0	5
PLU	1100	Soldering and Silver Soldering	2	7	4
PLU	1111	Domestic Cold & Hot Water Systems	3	8	5
			13	17	18
Elective:					
PSY	1101	Human Relations	5	0	5
Third Quarter					
ENG	1106	Fundamentals of English	5	0	5
PLU	1118	Plumbing Codes	10	0	10
DFT	1116	Plumbing Drawings (Residential)	6	0	6
PLU	1112	Installation of Plumbing Fixtures (Residential)	0	9	3
			21	9	24
Elective:					
DFT	1110	Blueprint Reading (Building Trades)	0	3	1

Fourth Quarter

			Class	Lab	Hours Credit
DFT	1117	Plumbing Drawings (Commercial)	7	0	7
PLU	1114	Commercial Plumbing	3	6	5
PLU	1105	Construction Estimating	4	3	5
ELC	1110	Basic Electricity	3	2	4
			17	11	21

PIPEFITTING AND WELDING

First Quarter

MAT	1112	Math for Building Trades	5	0	5
WLD	1113	Metallurgy	3	0	3
WLD	1102	Oxyacetylene Welding	3	13	7
DFT	1121	Blueprint Reading for Welders	3	0	3
			14	13	18

Elective:

BUS	1103	Small Business Management	5	0	5

Second Quarter

MAT	1114	Math for Plumbers & Fitters	5	0	5
DFT	1120	Template Development	2	5	3
WLD	1108	Arc Welding	3	15	8
			10	20	16

Elective:

PSY	1101	Human Relations	5	0	5

Third Quarter

ENG	1106	Fundamentals of English	5	0	5
WLD	1110	Burning & Fitting Pipe Joints I	2	10	5
WLD	1112	Advanced Arc and Inert Gas Welding	2	11	5
			9	21	15

Elective:

DFT	1110	Blueprint Reading: Building Trades	0	3	1

Fourth Quarter

WLD	1106	Pipe Welding	3	11	6
WLD	1107	Test of Welded Joints	2	3	3
WLD	1111	Burning & Fitting Pipe Joints II	2	9	5
			7	23	14

PLUMBING CURRICULUM V 037

HYDRONIC HEATING

First Quarter

PLU	1122	Panel Heating	3	3	4
PLU	1123	Hot Water Boilers	3	6	5
PLU	1131	Fuels and Burners	3	6	5
ELC	1101	Electronic Instrumentation	4	2	5
			13	17	19

Second Quarter

PLU	1120	Low Pressure Systems	5	10	9
PLU	1135	Oil Burner Installation	3	4	4
PLU	1132	Circuits and Controls	3	5	4
			11	19	17

PLUMBING CURRICULUM V037

WARM AIR HEATING

First Quarter

PLU	1010	Furnace Construction	3	7	5
PLU	1011	Warm Air Furnaces	5	0	5
PLU	1012	Furnace Size and Ratings	3	7	5
PLU	1013	Air Humidification	5	0	5
			16	14	20

Second Quarter

PLU	1016	Forced Circulating Systems (Residential)	5	10	10
PLU	1014	Warm Air Systems	3	4	5
PLU	1015	Registers, Duct Design	3	0	3
PLU	1017	Noise Level Control	3	2	4
			14	16	22

Solar Applications in Construction

Fifth Quarter

CAR	1120	Introduction to Solar Concepts	3	2	4
CAR	1121	Methods and Materials of Construction	1	9	4
CAR	1122	Systems Installation	1	4	3
CAR	1123	Seminar; Project I	0	10	3
			5	25	14

Sixth Quarter

CAR	1125	Domestic Solar Hot Water Systems	2	6	4
CAR	1126	Heat Storage Systems	2	5	4
CAR	1124	Advanced Solar Concepts	3	2	4
CAR	1127	Seminar: Project II	0	10	3
			7	23	15

(Optional-Enrollment by Permission of Instructor Only)

RADIO BROADCASTING

The broadcasting curriculum is designed to prepare students for vocations in the field of broadcasting engineering and technology. It provides the student a chance to broaden his knowledge in all areas of broadcasting, and at the same time presenting the technical side of the field for preparation of the Federal Communications Commission radiotelephone license.

			Class	Lab	Hours Credit
First Quarter					
ENG	100	English I	5	0	5
MAT	115	Electrical Math I	5	0	5
ELC	102	D. C. Fundamentals	5	7	8
DFT	107	Schematic Drawing I	1	2	2
			16	9	20
Second Quarter					
ENG	101	English II	5	0	5
MAT	116	Electrical Math II	5	0	5
ELC	104	A. C. Fundamentals	5	7	8
DFT	108	Schematic Drawing II	1	2	2
			16	9	20
Third Quarter					
ENG	102	English III	5	0	5
MAT	117	Electrical Math III	5	0	5
ELN	101	Electronics I	5	7	8
PHY	101	Physics I	3	2	4
			18	9	22
Fourth Quarter					
ENG	204	English IV	3	0	3
ELN	125	Radio Telephone License Prep. I	5	0	5
RTV	101	Introduction to Broadcasting	2	6	4
RTV	200	Broadcast Production Technology	3	6	6
BUS	102	Typewriting I	2	3	3
			15	15	21
Fifth Quarter					
BUS	232	Sales Development	3	2	4
RTV	206	Programming and Promotion	3	2	4
RTV	245	Journalism (Introduction)	3	0	3
CAT	110	General Illustration	2	6	4
BUS	243	Advertising	5	0	5
			16	10	20

			Class	Lab	Hours Credit
Sixth Quarter					
RTV	210	Field Operations	3	6	6
BUS	235	Business Mgt.	5	0	5
ELN	210	T.V. Systems Analysis	3	2	4
RTV	211	Studio Operations	3	6	6
			14	14	21
Seventh Quarter					
RTV	217	Technical Production	3	6	6
RTV	218	Electronic Editing	2	3	4
RTV	219	Advanced Practicum	3	6	6
RTV	220	Preproduction Planning	3	2	4
			11	17	20
Electives					
RTV	102	Newswriting	3	2	4
RTV	112	Creative Writing	3	0	3

SURVEYING

Purpose

This curriculum is designed to give the students knowledge of the fundamentals of surveying. The course covers the legal principles of boundary controls as well as practical surveying.

Plane, land, topographical, route, building, and road construction surveying are covered in the course. Mapping, drafting, blueprint reading and applied mathematics are included.

This curriculum is recognized by the North Carolina State Board of Registration for Professional Engineers and Land Surveyors. Successful completion of the program is accepted as one year's credit toward the statutory experience requirement for registration as a Land Surveyor.

Job Description

With the tremendous growth of road construction, real estate business and industry, employment, opportunities are found with state and federal agencies, private contractors, engineering firms, industries and private land surveyors. Classes meet in the evening—field work on Saturday.

Curriculum By Quarters

			Hours			
First Quarter			Class	Lab	Field	Credit
CIV	101	Surveying I	1	3	4	3½
MAT	100	Basic Mathematics	5	0	0	5
			6	3	4	8½
Second Quarter						
DFT	105	Surveying Drafting	2	2	0	3
MAT	101	Technical Mathematics I	5	0	0	5
BUS	248	Business Economics I	5	0	0	5
			12	2	0	13
Third Quarter						
CIV	102	Surveying II	1	3	4	3½
MAT	102	Technical Mathematics II	5	0	0	5
			6	3	4	8½
Fourth Quarter						
CIV	103	Surveying III	1	3	4	3½
CIV	100	Boundary Control	4	0	0	4
			5	3	4	7½

COURSE DESCRIPTIONS

AIR CONDITIONING AND REFRIGERATION (AHR)

AHR 1101—AIR CONDITIONING SYSTEMS (2 - 6 - 5)
General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary in the mechanisms, the methods of operation, and control; proper handling of refrigerants in charging the system.

AUTOMOTIVE (AUT)

AUT 1101—SMALL ENGINES (1 - 2 - 2)
The purpose of this course is to teach the why and how of gasoline engine operations. A careful study of the theory and operating principles, plus actual practice in servicing and repairing engines will enable anyone to minimize engine troubles and to correct those troubles that do exist. The course will deal with small engines. Multicylinder engines will be included.

AUT 1121—BRAKING SYSTEMS (1 - 2 - 2)
Braking principles are studies in relation to the coefficiencies of friction and heat, and the expansion of materials. The operating principles of hydraulic, pneumatic, combination, and vacuum brake systems are emphasized. Laboratory instruction is offered in the installation of brake lining shoes, shoe reconditioning, drum turning, assembling and adjusting of brake systems and servicing of auxiliary units.

AUT 1123—AUTOMOTIVE CHASSIS AND SUSPENSION SYSTEMS (3 - 12 - 7)
Principles and functions of the components of automotive chassis. Practical job instruction in adjusting and repairing of suspension, and steering systems. Units to be studied will be shock absorbers, springs, steering systems, steering linkage, front end and alignment. Prerequisite:

AUT 1124—AUTOMOTIVE POWER TRAIN SYSTEMS (2 - 9 - 6)
Principles and functions of automotive power train systems, clutches, transmission gears, torque converters, drive shaft assemblies, rear axles and differentials. Identification of troubles, servicing, and repair.

AUT 1125—AUTOMOTIVE SERVICING (2 - 6 - 5)
Emphasis is on the shop procedures necessary in determining the nature of troubles developed in the various component systems of the automobile. Extensive use of testing equipment will be made on the actual problem situations. A close simulation to the actual automotive shop will be maintained and every close effort will be made to give the student a full range of testing and servicing experience.

AUT 1201—PRACTICAL SHOP I (0 - 27 - 9)
A program that exposes the student to the unpredictable total car problems that occur on a day-to-day basis in a working shop. It is designed to provide the student with the opportunity to pull together and develop their skills in a working situation.

AUT 1202—PRACTICAL SHOP II (0 - 27 - 9)
A continuation of AUT 1201

AUT 1205—AUTOMOTIVE SEMINAR I (3 - 0 - 3)
Students meet with instructor to discuss problems and explore the deeper theoretical and practical concepts involved in advanced servicing.

AUT 1206—AUTOMOTIVE SEMINAR II (3 - 0 - 3)
A continuation of AUT 1205.

AUTOMOTIVE ELECTIVES (AUT)

AUT 1207—AUTOMOTIVE SHOP MAINTENANCE (0 - 5 - 2)
This course is designed to provide the student with the opportunity to experience the fundamentals of maintaining common automotive shop tools and equipment. Emphasis is directed toward preventive maintenance and shop safety.

AUT 1208—FOREIGN CAR REPAIR (0 - 5 - 2)
The purpose of this course is to familiarize the student with the construction and operation of the component systems which constitute various foreign automobiles. Students enrolled in this course will also become acquainted with the metric system concerning automotive related measurements and tools.

AUT 1209—RECREATIONAL VEHICLE REPAIR (0 - 3 - 1)
The scope of this course encompasses the maintenance and repair of recreational vehicles such as motorcycles, marine vehicles, snowmobiles, dune buggies, and the like. The student will have the opportunity to become familiar with the basic operation and maintenance procedures involved in servicing various internal combustion engine powered vehicles.

BUSINESS (BUS)

BUS 101—INTRODUCTION TO BUSINESS (5 - 0 - 5)
A survey of the business world with particular attention devoted to the structure of the various types of business organizations, methods of financing, internal organization, and management.

BUS 102—TYPEWRITING I (2 - 3 - 3)
Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. Speed and accuracy requirements: 30 words per minute for five minutes; maximum of five errors.

BUS 103—TYPEWRITING II (2 - 3 - 3)
Instruction emphasizes the development of speed and accuracy with further mastery of correct typewriting techniques. These skills and techniques are applied in tabulation, manuscript, correspondence, and business forms. Speed and accuracy requirements: 40 words per minute for five minutes; maximum of five errors. Prerequisite: BUS 102 or equivalent.

BUS 104—TYPEWRITING III (2 - 3 - 3)
Emphasis on problems and speed building. Greater attention to development of production typing skills. Development of the student's ability to function as an expert typist, producing mailable copies, is stressed. Introduction to methods of duplication is also included. Speed and accuracy requirements: 50 words per minute for five minutes; maximum of five errors. Prerequisite: BUS 103

BUS 106—SHORTHAND I (3 - 2 - 4)
A beginning course in the theory and practice of reading and writing shorthand. Emphasis on phonetics, penmanship, word families, brief forms, phrases, and word beginnings and endings. Dictation rate of 40 words per minute required.

BUS 107—SHORTHAND II (3 - 2 - 4)
Continued theory study with greater emphasis on dictation and elementary transcription. Dictation rate of 60 words per minute required. Prerequisite: BUS 106 or equivalent.

BUS 108—SHORTHAND III (3 - 2 - 4)
Theory and speed building. Introduction to office style dictation. Emphasis on development of speed in dictation and accuracy in transcription. Dictation rate of 80 words per minute required. Prerequisite: BUS 107.

BUS 109—SEMINAR ON HUMAN RELATIONS (3 - 0 - 3)
Discussions concerning the interactions of people in all types of situations. Emphasis on interactions of people in subordinate positions as well as management positions.

BUS 110—OFFICE MACHINES (0 - 2 - 1)
A general survey of the business and office machines. Students will receive training in the techniques, processes, operation, and application of the ten-key adding machine, ten-key printing calculator, full-keyboard adding machine, and electronic calculator.

BUS 115—BUSINESS LAW I (5 - 0 - 5)
A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instruments, and agencies.

BUS 116—BUSINESS LAW II (5 - 0 - 5)
Includes the study of laws pertaining to bailments, sales, risk-bearing, partnership-corporation, mortgages, and property right. Prerequisite: BUS 115.

BUS 117—SECRETARIAL ACCOUNTING I (3 - 2 - 4)
This course shows how and why financial data is analyzed, recorded, and summarized. By working with the basic accounting records of a service business, which becomes a service-trading business (to introduce the concept of merchandise), the student follows the continuity of an accounting system and learns about the procedures for handling purchases, sales, cash payments, cash receipts, and coverage of payroll, petty cash, and banking procedures.

BUS 118—SECRETARIAL ACCOUNTING II (3 - 2 - 4)
This course is a continuation of Accounting for Secretaries I.

BUS 120—ACCOUNTING I (4 - 3 - 5)
Principles, techniques and tools of accounting, for understanding of the mechanics of accounting. Collecting, summarizing, analyzing and reporting information about service and mercantile enterprises, to include practical application of the principles learned. Prerequisite: MAT 110.

BUS 121—ACCOUNTING II (4 - 3 - 5)
Partnership and corporation accounting. Emphasis is placed on recording, summarizing, and interpreting data for management control rather than on skills. Accounting services are shown as they contribute to the recognition and solution of management problems. Prerequisite: BUS 120.

BUS 122—ACCOUNTING III (4 - 3 - 5)
Study of long term liabilities and investments, analysis of financial statements, cost, budgets and flow of funds. Prerequisite: BUS 121.

BUS 123—BUSINESS FINANCE (5 - 0 - 5)
Financing of business units, as individuals, partnerships, corporations, and trusts. A detailed study is made of short-term and consumer financing.

BUS 131—BUSINESS COMMUNICATION (3 - 2 - 4)
A communication course designed for business students who must learn to initiate written documents. Primary emphasis is placed upon the development of skills in the techniques of writing business letters, such as credit and collection, complaints, orders, acknowledgements, remittances, inquiries, application letters and data sheets.

BUS 152—CONSUMER AWARENESS (3 - 0 - 3)
Introduces the basic economic concepts of supply, demand, and substitutability. Using these concepts, students will study and discuss consumer laws, consumer credit, product safety and warranties, advertising and packaging appeals, and sources of consumer information, emphasizing avenues of recourse for consumer grievances.

BUS 201—WORD PROCESSING COMMUNICATIONS AND APPLICATIONS (3 - 0 - 3)
An introduction to Word Processing concepts. Training in the transferable skills of operation and application of magnetic keyboards in conjunction with dictation/transcription equipment. Prerequisite: BUS 209.

BUS 202—WORD PROCESSING SYSTEMS (3 - 0 - 3)
Through contacts with various firms throughout the country, students will become aware of the variety of Word Processing systems. Students will also develop research techniques. Prerequisite: BUS 201.

BUS 205—ADVANCED TYPEWRITING (2 - 3 - 3)
Emphasis is placed on the development of individual production rates. The student learns the techniques needed in planning and typing projects that closely approximate the work appropriate to the field of study. Some of the projects involve: correspondence, manuscripts, reports, tabulation, technical, legal, government, and medical typing problems. Speed and accuracy requirements: 60 words per minute for five minutes; maximum of five errors. Prerequisite: BUS 104.

BUS 206—DICTATION AND TRANSCRIPTION I (3 - 2 - 4)
Develops the skill of taking dictation and of transcribing at the typewriter materials appropriate to the course of study, which includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. Dictation rate of 100 words per minute required. Prerequisite: BUS 108.

BUS 207—DICTATION AND TRANSCRIPTION II (3 - 2 - 4)
Covering materials appropriate to the course of study, the student develops the accuracy, speed, and vocabulary that will enable her to meet the stenographic requirements of business and professional offices. Dictation rate of 110 words per minute required. Prerequisite: BUS 206.

BUS 208—DICTATION AND TRANSCRIPTION III (3 - 2 - 4)
Principally a speed building course, covering materials appropriate to the course of study, with emphasis on speed as well as accuracy. Dictation rate of 120 words per minute required. Prerequisite: BUS 207.

BUS 209—MACHINE TRANSCRIPTION (2 - 0 - 2)
Training in the operation and applications of dictation/transcription equipment.

BUS 214—SECRETARIAL PROCEDURES (3 - 2 - 4)
Designed to acquaint the student with the responsibilities encountered by a secretary during the work day. Some of these responsibilities include: receptionist duties, handling the mail, telephone techniques, travel information, telegrams, office records, purchasing of supplies, and office organization.

BUS 215—OFFICE APPLICATIONS (0 - 30 - 3)
During the fourth quarter, students are assigned to work in a business or professional office for a minimum of thirty hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned. Prerequisite: All course requirements of the first three quarters or approval of the department head.

BUS 216 ORIENTATION AND EVALUATION (3 - 0 - 3)
On the first day of the quarter, the students will meet as a group with the school supervisor for work experience orientation. The students will meet again with the supervisor, both as a group and individually, at the end of the quarter for final evaluation discussions. The employer will fill out progress reports and rating sheets on each student to aid in this final evaluation. Prerequisite: All course requirements of the first three quarters or approval of the department head.

BUS 217—SKILL PERFORMANCE AND PRODUCTION (3 - 0 - 3)
The objective is to futher develop and give hands-on experience in skill and production areas. The school supervisor will visit each student on the job to measure the student's performance in both areas. Prerequisite: All course requirements of the first three quarters or approval of the department head.

BUS 218—BUSINESS TECHNIQUES (3 - 0 - 3)
The objecives are to further develop and give hands-on experience in business techniques and to help the student improve and become aware of the importance of desirable personal traits. Business techniques, abilities, and personal traits will be measured by the school supervisor during on-the-job visits with the students. Prerequisite: All course requirements of the first three quarters or approval of he department head.

BUS 222—INTERMEDIATE ACCOUNTING I (3 - 2 - 4)
Thorough treatment of the field of general accounting, providing the necessary foundation for specialized studies that follow. The course includes among other aspects, the balance sheet, income and retained earnings statements, fundamental processes of recording, cash and temporary investments, and analysis of working capital. Prerequisite: BUS 122.

BUS 223—INTERMEDIATE ACCOUNTING II (3 - 2 - 4)
Additional study of intermediate accounting with emphasis on investments, plant and equipment, intangible assets and deferred charges, long-term liabilities, paid in capital, retained earnings, and special analytical processes. Prerequisite: BUS 222.

BUS 224—INTERMEDIATE ACCOUNTING III (3 - 2 - 4)
Interpreting accounting data for managerial decisions. Budget preparations. Prerequisite: BUS 223.

BUS 225—COST ACCOUNTING (3 - 2 - 4)
Nature and purposes of cost accounting: accounting for direct labor, materials, and factory overhead; job cost, process cost, and standard cost principles and procedures; selling and distribution costs, budgets and executive use of cost figures. Prerequisite: BUS 122.

BUS 229—INCOME TAXES I (3 - 2 - 4)
Application of federal and state tax laws to individual tax situations with special emphasis on current tax law changes.

BUS 231—INCOME TAXES II (3 - 2 - 4)
Application of federal and state tax laws to partnership and corporations with special emphasis on current tax law changes. Continuation of BUS 229 with practical experience.

BUS 232—SALES DEVELOPMENT (3 - 2 - 4)
A study of retail, wholesale and specialty selling. Emphasis is placed upon mastering and applying the fundamentals of selling. Preparation for and execution of sales demonstrations required.

BUS 235—BUSINESS MANAGEMENT (5 - 0 - 5)
Principles of business management including overview of major functions of management, such as planning, staffing, controlling, directing, and financing. Clarification of the decision making function versus the operating function. Role of management in business qualifications and requirements.

BUS 237—SMALL BUSINESS MANAGEMENT (3 - 0 - 3)
Introduces the problems of small business operation, business forms and records, financial problems, orders and inventories, layout of equipment and offices, methods of improving business, and employer-employee relations.

BUS 239—MARKETING (5 - 0 - 5)
A general survey of the field of marketing, with a detailed study of the functions, policies, and institutions involved in such marketing process.

BUS 242—PUBLIC RELATIONS (3 - 2 - 4)
Designed to make the student familiar with the practice of public relations, the problems most likely to be met, and the tools with which to approach these problems to be professionally effective.

BUS 243—ADVERTISING (5 - 0 - 5)
The role of advertising in a free economy and its place in the media of mass communications. A study of advertising appeals, product and market research, selection of media, means of testing effectiveness of advertising. Theory and practice of writing advertising copy or various media.

BUS 244—RETAIL MANAGEMENT (5 - 0 - 5)
A study of the operations of a retail firm including: merchandising, buying, selling, advertising, and related functions such as financial management.

BUS 246—CURRENT TRENDS IN RETAIL MANAGEMENT (3 - 0 - 3)
A course designed to develop the student's ability to keep up to date in the retail area. Case studies and lectures centering around retailing and business periodicals are the major teaching techniques used.

BUS 248—BUSINESS ECONOMICS I (5 - 0 - 5)
The fundamental principles of economics including the institutions and practices by which people gain a livelihood. Included is a study of the laws of supply and demand and the principles bearing upon production, exchange, distribution and consumption both in relation to the individual enterprise and to society at large.

BUS 249—BUSINESS ECONOMICS II (5 - 0 - 5)
Greater depth in principles of economics, including a penetration into the composition and pricing of national output, distribution of income, international trade and finance, and current economic problems. Prerequisite: BUS 248.

BUS 251—PERSONALITY DEVELOPMENT (3 - 0 - 3)
Designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on grooming and methods of personality improvement.

BUS 261—MANUFACTURING CYCLES (5 - 0 - 5)
A study of various manufacturing cycles, processes, the equipment, tools and materials used, the principles involved and the products produced. Films and field trips further introduce the broad subjects of manufacturing.

BUS 262—CURRENT TRENDS IN INDUSTRIAL MANAGEMENT (3 - 0 - 3)
A course designed to develop the student's ability to keep up to date in his profession. Case studies and lectures centering around industrial and business periodicals are the major teaching techniques used.

BUS 263—QUALITY CONTROL (3 - 2 - 4)
Principles and techniques of quality control and cost saving. Organization and procedure for efficient quality control. Functions, responsibilities, structure, costs, reports, records, personnel and vendor-customer relationships in quality control. Sampling inspections, process control and tests for signficance.

BUS 265—WORK MEASUREMENT (3 - 2 - 4)
Principles of work simplification including administration of job methods improvement, motion study fundamentals and time study techniques. Use of flow and process charts; multiple activity charts, operation charts, flow diagrams and methods evaluation.

BUS 266—VALUE ANALYSIS (3 - 0 - 3)
The modern concept in the control of manufacturing production. This course will provide the students an opportunity to study a production system with the specific purpose of identifying unnecessary costs. The objective of the concepts and techniques of value analysis is to make possible a degree of effectiveness in identifying and removing unnecessary cost by the use of sound decisions through a common sense approach.

BUS 267—PRODUCTION CONTROL (3 - 2 - 4)
Day-to-day plant direction, forecasting, product planning and control scheduling, dispatching, routing, and inventory control.

BUS 268—PLANT LAYOUT (3 - 2 - 4)
A practical study of factory planning with emphasis on the most effficient arrangements of work areas to achieve lower manufacturing costs. Layouts for small and medium sized plants, layout fundamentals, selection of production equipment and materials handling equipment. Effective management of men, money and materials in a manufacturing operation.

BUS 269—SAFETY ENGINEERING (3 - 2 - 4)
Management and supervisory responsibility for accident prevention, accident reports, machine guarding, personnel protective equipment, flrst aid, etc. The course centers around OSHA standards with practical exercises in their use and interpretation.

BUS 271—OFFICE MANAGEMENT (3 - 2 - 4)
Presentation of the fundamental principles of office management. Emphasis on the role of office management including its functions, office automation, planning, controlling, organizing and actuating office problems.

BUS 272—PRINCIPLES OF SUPERVISION (5 - 0 - 5)
Introduces the basic responsibilities and duties of the supervisor and his relationship to superiors, subordinates, and the associates. Emphasis on securing effective work force and the role of the supervisor. Methods of supervision are stressed.

BUS 273—PERSONNEL MANAGEMENT (5 - 0 - 5)
Principles of organization and management of personnel, procurement, placement, training, performance checking, supervision, remuneration, labor relations, fringe benefits and security.

BUS 276—PURCHASING AND INVENTORY CONTROL (3 - 2 - 4)
The organization of a purchasing department, methods of procurement, purchasing policies, sources of supply, legal aspects and controlling inventory.

BUS 277—CREDIT AND COLLECTION (3 - 0 - 3)
This course presents fundamental principles and practices of credit and collection. Meaningful projects are included in order to provide a better understanding of credit principles, concepts, procedures, job activities and responsibility.

BUS 279—PROFIT PLANNING AND BUDGET CONTROL (3 - 2 - 4)
The course is designed to familiarize students with the entire process of developing the profit plan and budget, and controlling expenditures through responsibility reporting.

BUS 1103—SMALL BUSINESS MANAGEMENT (3 - 0 - 3)
An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, orders and inventories, layout of equipment and offices, methods of improving business, and employer-employee relations.

CARPENTRY (CAR)

CAR 1000—CARPENTRY I (Intro) (2 - 10 - 5)
An introduction to the construction industry, the care and use of hand and power tools, materials, and methods of construction and basic building layout.

CAR 1001—CARPENTRY II (Framing) (2 - 7 - 4)
All aspects of the framing of residential structures are covered. Coordination with other trades is introduced.

CAR 1002—CARPENTRY III (Finishing) (2 - 5 - 3)
The interior and exterior finishing of residential structures and built-ins.

CAR 1101—BASIC CARPENTRY (5 - 17 - 10)
A brief history of carpentry and present trends of the construction industry. The course will involve operation, care and safe use of carpenter's handtools and powertools in cutting, shaping and joining construction materials. Major topics of study will include theoretical and practical applications involving materials and methods of construction, building layout, preparation of site, footings and foundation wall construction including form construction and erection.

CAR 1103—CARPENTRY-FRAMING (5 - 15 - 10)
A thorough introduction to the principles and practices of frame construction including sills, floor joist, subfloor, wall framing, ceilings, rafters bridging, sheathing partitions, and roof construction. Coordination with other skills will be stressed. Prerequisite: CAR 1101.

CAR 1104—CARPENTRY-FINISHING (5 - 16 - 10)
Methods and techniques of interior and exterior finishing will be covered including baseboards, door and window trim, stairways, door and window hanging, hardware, exterior trim, built-ins; emphasis will be on quality work. Prerequisites: CAR 1113, CAR 1103.

CAR 1106—MILLWORK AND CABINET MAKING (5 - 15 - 10)
Cabinet making and millwork as performed by the general carpenter for building construction. Use of shop tools and equipment will be emphasized in learning methods of construction of millwork and cabinetry. Practical applications will include measuring, layout and construction of base and wall cabinets, built-ins, arches, stairs, and interior and exterior cornice and trim. Materials and finishes are also covered.

CAR 1107—CABINET MAKING (0 - 8 - 3)
The construction and installation of cabinets, shelves, and other built-ins encountered by the general carpenter on site are covered.

CAR 1108—BUILDING SAFETY (3 - 0 - 3)
All aspects of personal safety and proper job procedures are examined including a careful analysis of the Occupational Safety and Health Act as it applies to the construction trades.

CAR 1109-SEMINAR: SPECIAL TECHNIQUES (2 - 5 - 4)
A course designed to cover those general problems of construction not covered in the specific courses, including: coordination with other trades for smooth work flow and special problems encountered in light commercial construction.

CAR 1113—CARPENTRY-ESTIMATING (3 - 2 - 4)
A practical course in job estimating from basic data and working drawings. Student will work with quantities and grades of materials and develop cash estimates. Prerequisites; MAT 1101, CAR 1101.

CAR 1114—BUILDING CODES (3 - 3 - 4)
A thorough study of the building code requirements of city, county, state and federal agencies, and their application. Prerequisite: CAR 1113, 1103.

CAR 1120—INTRODUCTION TO SOLAR CONCEPTS (3 - 3 - 4)
The basic theory and current state of the art of solar energy usage in residential and industrial heating and hot water. Basic concepts of solar radiation, heat transfer, and properties of materials will be covered.

CAR 1121—METHODS AND MATERIALS OF CONSTRUCTION (1 - 9 - 4)
Course introduces the types, principles, materials, and techniques of building and installing collection devices. Various designs of flat plate and concentrating collectors will be designed, built, and field tested for thermal performance.

CAR 1122—SYSTEMS INSTALLATION (1 - 5 - 3)
Methods of adapting solar systems to existing buildings as well as new construction will be introduced, including insulation, thermal storage, piping, controls, systems orientation.

CAR 1123—SEMINAR—PROJECT I (0 - 10 - 3)
The student will design, build, and test an experimental hot water heating system suitable for residential use.

CAR 1124—ADVANCED SOLAR CONCEPTS (2 - 2 - 3)
A continuation of CAR 1120 with emphasis on heat transfer, collection and storage efficiency.

CA R1125—DOMESTIC HOT WATER SYSTEMS (2 - 6 - 4)
Both retrofit and new installation will be covered, including use of heat exchangers.

CAR 1126—HEAT STORAGE SYSTEMS (2 - 6 - 4)
The currently accepted methods of heat storage will be covered, including water salts and rock. Sizing, Insulation of components, and heat transfer techniques are included.

CAR 1127—SEMINAR—PROJECT II (0 - 10 - 3)
The student will build on the experience gained in CAR 1123 to refine the system for practical use.

COMMERCIAL ART (CAT)

CAT 100—ART ORIENTATION (1 - 0 - 1)
Designed to aid the student in the understanding of the technical institute. Faculty and staff members explain the various functions of the institute. Exercises in developing study habits, writing and research techniques are completed by the students.

CAT 101—ADVERTISING PRINCIPLES (3 - 0 - 3)
A comprehensive survey of the history and development of advertising including a discussion of its economic and social values. An introduction to advertising media and current publications in the field.

CAT 102—ART AND DESIGN (2 - 6 - 4)
The plastic elements; Relationship of the Arts; Problems in Basic Design; Relationships of Materials and Techniques to form; Color Theory; Applied Problems.

CAT 105—LIFE STUDY I (2 - 3 - 3)
Basic drawing in charcoal from the live model with emphasis on proportions, bone structure, muscles and main body masses.

CAT 106—LIFE STUDY (0 - 6 - 2)
A continuation and application of basic life study. Action and motion of figure, study of character, expression and the draped figure. Introducing various drawing techniques such as pen and ink, wash, pastels and paint. Prerequisite: CAT 105

CAT 110—GENERAL ILLUSTRATION (2 - 6 - 4)
Study of creative methods and rendering techniques used in the illustration field. Editorial illustration, advertising spots, cartooning, fashion and retail product. Black and white and color problems will be assigned, using various media and materials. Emphasis on good drawing and research.

CAT 116—PHOTOGRAPHY I (2 - 6 - 4)
An introduction to the field of photography, photographic equipment and materials. A study of the fundamental techniques of the camera and its expressive possibilities in relation to the field of design and visual communlcations. Assigned camera projects, darkroom procedures and equipment.

CAT 117—PHOTOGRAPHY II (2 - 6 - 4)
Advanced photographic techniques and materials. Participation in studio and laboratory procedures illustrating various applications and creative possibilities of photography. Applied problems using the 35mm, copy and twin lens reflex cameras.

CAT 121—COMMERCIAL ART AND ADVERTISING DESIGN I (4 - 6 - 6)
Basic design fundamentals. Emphasis is on form, line, dimension and composition. The relation of nature and fine art to commercial art and design. Basic lettering form and style. Rough and finished lettering techniques.

CAT 122—COMMERCIAL ART AND ADVERTISING DESIGN II (4 - 6 - 6)
Basic color fundamentals and principles. The color wheel. Introduction of color into basic design problems. Typography; background, faces, uses, terms and specifying. Typographic design, indication and layout for type-setter. Prerequisite: CAT 121.

CAT 123—COMMERCIAL ART AND ADVERTISING DESIGN III (6 - 6 - 8)
Professional approach to advertising and editorial layout. The indicating of finished art concepts, visuals, and ideals. Pencil roughs, colored sketches and comprehensive layouts. Prerequisites: CAT 122, DFT 102.

CAT 201—ART HISTORY (5 - 0 - 5)
An examining of ideas, philosophies common to all periods of Art History, and a comparison of periods in terms other than chronological development.

CAT 205—ADVERTISING COPYWRITING AND FITTING (4 - 0 - 4)
A study of the techniques used in creating effective advertising copy for various types of media; purposes and duties of the copywriter and legal problems encountered in copywriting. Theory and practice will be given in writing copy for the various media including retail and fashion copy, mail order, direct mail, business, publications, radio and television.

CAT—206—PROJECT SEMINAR (2 - 3 - 3)
Each student selects and pursues project work in the field of his choice. Maximum individual attention is available.

CAT 212—INDUSTRIAL ART AND DESIGN (2 - 3 - 3)
A study of art and design for industry and business. Forms, charts and graphs, letterhead, trademarks and company publications. Use of the airbrush, photo retouching and airbrush art. Handling of annual reports. Prerequisite: CAT 123.

CAT 217—SILK SCREEN TECHNIQUES (2 - 6 - 4)
Commercial approach to silk screen printing. Applied problems using paper, tusche and glue, laquer, film, aquafilm, and photographic film methods. Problems in multicolor printing.

CAT 224—COMMERCIAL ART AND ADVERTISING DESIGN IV (4 - 6 - 6)
A thorough background in production methods for various media. Study of printing and engraving processes. Color separation process. Assignments in art mechanicals, reproduction methods and printing paper qualities and selection. Trips to printing, engraving and paper plants. Prerequisite: CAT 123.

CAT 225—COMMERCIAL ART AND ADVERTISING DESIGN V (6 - 6 - 6)
A course providing simulated professional working conditions. The student will utilize all previous instruction "job" assignments. Work will start the student's individual portfolio or professional samples. There will be class critique and discussion of assignments and solutions.

CAT 226—COMMERCIAL ART AND ADVERTISING DESIGN VI (6 - 6 - 8)
Course providing simulated professional working conditions. Advanced "job" problems. Emphasis on self-expression and originality. The student will complete his professional portfolio. Prerequisite: CAT 225.

CAT 227—FASHION ILLUSTRATION (4 - 6 - 6)
Drawing the fashion figure, and employing basic types of rendering used in fashion advertising.

CAT 231—PROJECT SEMINAR (2 -3 - 3)
Each student selects and pursues project work in the field of his choice. Maximum individual attention is available.

CAT 232—PROJECT SEMINAR (1 - 6 - 3)
Individual attention is given each student in the areas of learning which need strengthening. Project development is stressed.

CAT 235—ADVERTISING ART DIRECTION (5 - 0 - 5)
A study of the art director's profession. The creating and coordinating of effective advertising campaigns and editorial designs for both national and local markets. The practical consideration, procedures and job opportunities restrictions. Media selection, frequency of insertion, direct mail and response. The value of market research. Emphasis on dealing with professionals in related fields.

COSMETOLOGY (COS)

COS 1001—SCIENTIFIC STUDY I (4 - 6 - 6)
An introduction to the field of cosmetology. Subjects covered include professional ethics, grooming, hygiene and personality development, sterilization, sanitation, first aid and bacteriology, cosmetology law, anatomy, chemistry, nails, hair, scalp and skin disorders.

COS 1002—SCIENTIFIC STUDY II (5 - 0 - 5)
Theory of skin, scalp, hair, nails and disorders, salesmanship, permanent waving, croquignole and chemical hair relaxing, hairdressing and wig styling, hair coloring.

COS 1003—SCIENTIFIC STUDY III (5 - 0 - 5)
Theory of anatomy, manicuring, chemistry of cosmetics and facials, hair styling, massage scalp treatments, superfluous hair removal and grooming and hygiene.

COS 1004—SCIENTIFIC STUDY IV (5 - 0 - 5)
Theory of skin, scalp, hair, nails and disorders, salesmanship, permanent wave styling, beauty salon management, electricity, hair shaping, chemistry, sanitation and sterilization, cold waving.

COS 1011—MANNEQUIN PRACTICE (1 - 19 - 7)
An introduction to the practice of fingerwaving, pin curling, rollers, marcelling and hair relaxing, shampooing and rinses, scalp treatment, hair shaping, permanent waving, hairdressing and combing, hair tinting, bleaching, frosting and streaking, wigs—care and styling.

COS 1022—CLINICAL APPLICATION I (0 - 29 - 9)
An introduction to actual clinical practice covering bacteriology, pin curling, finger waving and roller, permanent waving, hair styling and wigs, manicuring and pedicuring, skin and scalp disorders, coloring, shaping.

COS 1033—CLINICAL APPLICATION II (0 - 29 - 9)
Shop practice in hair shaping, professional ethics, manicuring, cosmetics and facials, hairstyling, cold waving, hair coloring and scalp treatment.

COS 1044—CLINICAL APPLICATION III (0 - 29 - 9)
Advanced shop techniques in hair coloring and lash and brow tinting, artistry in hairstyling and wigs, cold waving, hair shaping, sterilization, sanitation and chemistry.

DRAFTING (DFT)

DFT 101—TECHNICAL DRAFTING I (0 - 6 - 2)
The field of drafting is introduced as the student begins study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills and techniques of drafting included are use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique and perspective are introduced.

DFT 102—TECHNICAL DRAFTING II (0 - 6 - 2)
The application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, simple and successive revolutions, and sections and conventions will be studied. Most important is the introduction of the graphic analysis to space problems. Problems of practical design elements involving points, lines, planes, and a combination of these elements shall be studied. Dimensioning practices for "details" and working drawings approval by the American Standards Association will also be included. Introduction is given to intersections and developments of various types of geometric objects. Prerequisite: DFT 101.

DFT 105—SURVEYING DRAFTING (2 - 2 - 3)
An introduction to drafting and the study of drafting practices. Instruction is given in the selection, use and care of instruments, single stroke lettering, applied geometry, freehand sketching consisting of orthographic and pictorial drawings. Orthographic projection, reading and instrument drawing of principal views, single auxiliary views (primary), and double oblique auxiliary views will be emphasized. Dimensioning and note practices will be studied with reference to the American Standards Association practices. Methods of reproducing drawings will be included at the appropriate time.

DFT 107—SCHEMATIC DRAWING I (1 - 2 - 2)
An introduction to basic drafting tools, equipment, supplies, and methods for the beginning student. Lettering, dementioning and geometric construction techniques are emphasized. The student is familiarized with types of schematic symbols, diagrams and standards necessary to the electronics draftsman.

DFT 108—SCHEMATIC DRAWING II (1 - 2 - 2)
A continued study of schematic diagrams and their relatlonships to the generation of hardware. Printed Circuit Board design and manufacture are emphasized. Logie symbols and intergrated circuits are introduced to provide baslc skills necessary for digital designing.

DFT 1101—SCHEMATICS AND DIAGRAMS: POWER MECHANICS (2 - 1 - 2)
Interpretation and reading of schematics and diagrams. Development of ability to read and interpret blueprints, charts instruction and service manuals, and wiring diagrams. Information on the basic principles of lines, views, dimensioning procedures, and notes.

DFT 1102—BLUEPRINT READING: MECHANICAL (0 - 3 - 1)
Interpretation and reading of blueprints. Information on the basic principles of the blueprint; lines, views, dimensioning procedures and notes.

DFT 1103—BLUEPRINT READING: MECHANICAL (0 - 3 - 1)
Further practice in interpretation of blueprints as they are used industry; study of prints supplied by industry; making plans of operations; introduction to drafting room procedures; sketching as a means of passing on ideas, information and processes.

DFT 1108—BLUEPRINT READING: MECHANICAL (0 - 3 - 1)
Advanced blueprint reading and sketching as related to detail and assembly drawings used in machine shops. The interpretation of drawings of complex parts and mechanisms for features of fabrication, construction and assembly. Prerequisite: DFT 1103.

DFT 1110—BLUEPRINT READING: BUILDING TRADES (0 - 3 - 1)
Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three view and pictorial sketches.

DFT 1111—BLUEPRINT READING MASONRY (0 - 2 - 1)
Blueprint reading directly related to masonry. Estimating quantities and calculating dimensions from plans.

DFT 1112—ADVANCED BLUEPRINT READING MASONRY (2 - 3 - 3)
Advanced blueprint reading related to estimating.

DFT 1113—ELECTRICAL DRAWING (2- -3 - 3)
Interpretation of schematics, diagrams and blueprints applicable to electrical installation with emphasis on electrical plans for domestic, commercial and industrial buildings. The sketching of schematics, diagrams and electrical plans and using appropriate symbols and notes according to the national electrical code will be emphasized.

DFT 1115—BLUEPRINT READING: PLUMBING TRADES (0 - 3 - 1)
Sketching diagrams and schematics, and interpretation of blueprints applicable to the plumbing trades. Emphasis will be on plumbing plans for domestic and commercial buildings. Piping symbols, schematics, diagrams and notes will be studied in detail. Applicable building and plumbing codes will be used for reference. Prerequisite: DFT 1110.

DFT 1116—PLUMBING DRAWINGS: RESIDENTIAL (6 - 0 - 6)
A specialized course in drafting for residential plumbing and hydronic heating. Emphasis will be placed on reading of blueprints that are common to the trade; blueprints of mechanical components, assembly drawings, wiring diagrams and schematics, floor plans, plumbing and heating plans, including layout plans, and shop sketches. The student will make tracings of floor plans and layout plumbing systems. Prerequisites: DFT 1110, DFT 1115.

DFT 1117—PLUMBING DRAWINGS (COMMERCIAL) (7 - 0 - 7)
A study of different types of business and drawing plans for the plumbing and heating for the different types of business such as Offices, Motels, Schools, etc. This will give the student a better understanding of the industry. Prerequisites: DFT 1116, DFT 1115.

DFT 1119—BLUEPRINT READING—PLUMBING TRADES II (2 - 3 - 3)
A specialized course in drafting for residential and commercial plumbing including pipe drawings, isometric pipe layout, abbreviations, and symbols. The student will be introduced to blueprints of varying types of business and to water treatment and chemical waste systems. The student will make tracings of floor plans and layouts of plumbing systems. Prerequisate DFT 1115.

DFT 1120—TEMPLATE DEVELOPMENT (2 - 5 - 3)
A study of methods used in layout of sheet steel. Emphasis is placed on developing pipe and angle layouts by the use of patterns and templates.

DFT 1121—BLUEPRINT READING FOR WELDERS (3 - 0 - 3)
A thorough study of trade drawings in which welding procedures are indicated. Interpretation, use and application of welding symbols, abbreviations and specifications will be emphasized.

EDUCATION (EDU)

EDU 101—CHILD GROWTH AND DEVELOPMENT (3 - 0 - 3)
Study of early growth and development, with emphasis on the principles and techniques for promoting the physical and mental health of the young child.

EDU 102—PROGRAMMING FOR YOUNG CHILDREN (3 - 6 - 5)
Study of principles and practices of early childhood education: the types of experiences, facilities, and media which will promote optimal development of each child. Guidelines for identifying, planning, organizing, and implementing appropriate programs for various levels of development are derived through group discussion and individual projects. Laboatory experience provides opportunities to participate in planning activities, in selecting equipment and materials, in defining the adult role, and in developing techniques for managing children in a group situation. Prerequisite: EDU 101.

EDU 103—WORKING WITH YOUNG CHILDREN (3 - 6 - 6)
Case presentations, films, observations, and group discussions are utilized to study characteristic behaviors of each level of development and to derive guidelines for promoting desirable behaviors and for coping with undesirable behaviors. Laboratory experiences will provide opportunities to develop observation skills, effective techniques, and beginning skill in adapting activities to the needs of individual children. Through coordination with PSY 106, theories from behavioral science are identified as the foundation of techniques for working with young children. Prerequisite: EDU 102.

EDU 104—INTRODUCING READING (5 - 0 - 5)
An introduction to reading and the young child with emphasis on the development of readiness activities and methods and materials for beginning reading skills.

EDU 105—MUSIC FOR THE EARLY YEARS (2 - 0 - 2)
Music activities for young children; demonstrations and practice work as well as an introduction to music materials available for various age levels and interests.

EDU 106—ARTS AND CRAFTS FOR YOUNG CHILDREN (1 - 2 - 2)
Methods and materials especially suited for young children will be examined. A variety of media will be used to develop basic skills appreciation and understanding of the child's work will be emphasized.

EDU 107—MATH FOR YOUNG CHILDREN (1 - 2 - 2)
The teaching of basic number concepts through appropriate methods, materials and activities for the young child. Developmental experiences will be emphasized.

EDU 108—CRAFTS FOR YOUNG CHILDREN (1 - 2 - 2)
Demonstration and practical experiences to develop a wide range of craft activities suitable for the young child. A variety of media will be used to develop basic skills.

EUD 110—METHODS OF TEACHING INDUSTRIAL SUBJECTS (3 - 0 - 3)
A study of effective methods and techniques of teaching industrial subjects. Emphasis is given to class organization; student-teacher planning; methods of teaching manipulative skills and related information; lesson planning; shop safety; and evaluation. Teaching problems will be studied and analyzed following directed observations in the public schools.

EDU 111—USE OF MEDIA IN INSTRUCTION (3 - 0 - 3)
A basic course in the planning and production of slides, still plctures, mounting and preserving materials, graphics, transparencies, and audio recordings for instructional use. The design and application of these materials are related to current theories of instruction. Emphasis will be placed on developing audio-visual materials designed to achieve specific instructional objectives.

EDU 112—SHOP ORGANIZATION AND PLANNING I (2 - 2 - 3)
A study of problems related to vocational shop layout, planning and management, supplies and equipment handling, textbooks, sources of materials.

EDU 113—SHOP ORGANIZATION AND PLANNING II (2 - 2 - 3)
A continuation of EDU 112.

EDU 114—SAFETY IN THE SCHOOL SHOP AND LABORATORY (3 - 0 - 3)
A course designed to cover the basic requirement necessary for a safe environment for the inexperienced student. A thorough study of the requirements of the Federal Occupational Safety and Health Act as it applies to school problems will be conducted.

EDU 115—INTRODUCTION TO INDUSTRIAL EDUCATION (3 - 0 - 3)
The place of vocational education in a program of public education and the fundamental principles upon which this work is based.

EDU 116—HISTORY AND PHILOSOPHY OF INDUSTRIAL EDUCATION (3 - 0 - 3)
Historical study of trade and technical education movement. Place, function, and changing concepts of industrial and technical education in American education. Economic, sociological and psychological aspects.

EDU 117—PROGRAM AND COURSE DEVELOPMENT (3 - 0 - 3)
Methods of developing program and course content and structuring into a workable instructional system. Individualized instructional techniques will be covered. Each student will prepare a selected program in detail.

EDU 118—PRINCIPLES OF COOPERATIVE EDUCATION (3 - 0 - 3)
A discussion of the principles and practices of cooperative education in use today. The advantages and problems of the technique as a facet of total education will be covered along with techniques of implementation in various programs.

EDU 119—OCCUPATIONAL GIJIDANCE (3 - 0 - 3)
An introduction to the understanding and motivation of vocational students. Proper use of records, tests In cooperation with available counseling services in evaluating student problems and potential. Stimulating learning through understanding and control of personal and environmenal variables in the classroom.

EDU 123—ENVIRONMENTAL CONCEPTS IN EDUCATION (1 - 2 - 2)
A workshop to introduce instructors to the significance of human ecology in their own discipline. Environmental teaching aids, curriculum materials and area resource personnel will be introduced. Methods of including environmental concern into regular subject matter will be covered.

EDU 130—THE DYNAMICS OF HUMAN BEHAVIOR (3 - 2 - 4)
Study of human behavior, with emphasis on developmental aspects, motivations, common behavioral patterns, and the role of defense mechanisms in human behavior. Laboratory experiences will demonstrate a variety of theories related to human behavior.

EDU 131—HUMAN GROWTH AND DEVELOPMENT: PRENATAL INFANT (5-0-5)
A detailed study of the developmental sequence of the prenatal and infant periods, with emphasis on developmental influences and conditions necessary for optimal development of individuals. Prerequisite: EDU 130.

EDU 132—HUMAN GROWTH AND DEVELOPMENT: EARLY CHILDHOOD (3 - 0 - 3)
A detailed study of the developmental sequence during the preschool period, ages 2 to 6. Emphasis is given to factors influencing development; the importance of experiences in establishing patterns of behavior, attitudes, interpersonal skills; language usage; and the relationship of early childhood to later realization of potential. Prerequisite: EDU 131.

EDU 133—THE FAMILY: A CROSS-CULTRAL SURVEY (3 - 0 - 3)
Study of the family as a social unit, with primary focus on the influence of family relationships during infancy and childhood. Historical patterns and the evolution of family roles in various types of cultures provide opportunities to analyze and interpret the influence of the culture and the family in relation to the large society.

EDU 134—FAMILIES IN THE AMERICAN CULTURE (3 - 0 - 3)
Study of the family in the American culture, changing patterns in family roles, the influence of socio-economic status on family relationships, factors associated with cultural reprivation, and the effects on children in such families. Prerequisite: EDU 133.

EDU 135—THE FAMILY IN THE COMMUNITY (3 - 0 - 3)
Study of community agencies concerned with physical and mental health in families, socio-economic problems, and education for child-rearing. Prerequisite: EDU 134.

EDU 201—ACTIVITIES FOR YOUNG CHILDREN (3 - 9 - 6)
Individual and group exploration of activities and media for promoting optimal overall development of children, with special emphasis on music, art, science, and oral language development. Laboratory experiences provide opportunities to plan and implement a program which demonstrates the adaptability of specified activities and media to a variety of age levels. Prerequisite: EDU 103.

EDU 203—THE EXCEPTIONAL CHILD (3 - 0 - 3)
Study of children with developmental variations requiring modification in activities. Consideration is given to recognition of problems, community resources, and appropriate activities for the child with exceptional deviations in personality or physical development. Prerequisites: EDU 201, EDU 210.

EDU 204—PARENT EDUCATION (3 - 0 - 3)
Study of ways parents can be involved in the child development center, of the purposes and value of home visitation, and of techniques for reporting child progress to parents. The role of the early childhood specialist in aiding parents in guidance of the child's development is emphasized. Each student will develop a series of programs appropriate for presentation to the parents of preschool children. Prerequisite: EDU 135.

EDU 202—SEMINAR-PRACTICUM (4 - 12 - 8)
Seminar on child development problems. Continued experience in a variety of child care facilities. Prerequisite: EDU 201.

EDU 207—SPECIAL PROBLEMS IN EARLY CHILDHOOD (2 - 0 - 2)
Directed study of a specialized area of early childhood, appropriate to the individual career interests of students. Prerequisites: EDU 202, EDU 203.

EDU 208—PHYSICAL ACTIVITIES FOR CHILDREN (3 - 0 - 3)
This course is designed to help the student gain an understanding and appreciation of the role that physical education plays in the development of the pre-school child. Selection of activities and organization willl be stressed.

EDU 210—THE CHILD AND COMMUNITY SERVICES (3 - 0 - 3)
Study of the types of facilities needed by a community concerned with the well-being of its children. Analysis of child needs which can be met through community planning, with identification of local, state and national resources. Prerequisite: EDU 135.

EDU 211—CHILDREN'S LITERATURE (3 - 0 - 3)
A survey of literature appropriate for the pre-school child. Emphasis will be on selection and use in Day Care and Kindergarten programs.

EDU 220—ROLE OF THE TEACHER ASSISTANT ((3 - 0 - 3)
An introductory survey course for the teacher aide. Emphasis is placed on the history of auxiliary personnel in the school and community, in addition to the various duties and ethical responsibilities of the teacher aide.

EDU 221—LIBRARY MATERIALS & RESOURCES (3 - 0 - 3)
A practical guide to the use of the elementary library as a resource center. Structure of the library and its various types of services as they relate to the teaching program.

EDU 222—MEDIA RESOURCES & LIBRARY SKILLS (3 - 2 - 4)
Demonstrations and practical experiences in the use of instructional media of all types along with a practical guide to the use of the library and its various types of services as they relate to the teaching program.

EDU 223—SCHOOL RECORDS & REPORTS (3 - 0 - 3)
A basic course providing background on the needs for school records as well as the types of information to be recorded. Experience in record-keeping, summarizing, accurate filing, etc.

EDU 227-228-229—SEMINAR PRACTICUM (0 - 16 - 5)
Appllication of knowledge of young children through guided experiences in a school setting.

EDU 121—DRAFTING FOR THE VOCATIONAL INSTRUCTOR I (3 - 0 - 3)
An introduction of basic skill and techniques of drafting. Included are used of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instruments drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective are introduced.

EDU 125—DRAFTING FOR THE VOCATIONAL INSTRUCTOR II (3 - 0 - 3)
An extension and broadening of the techniques used in Edu 121.

EDU 124 TEACHING THE HANDICAPPED STUDENT IN OCCUPATIONAL EDUCATION (3 - 0 - 3)
An exploration into the psychological and educational processes necessary in the teaching of the handicapped student are explored. Different handicaps are discussed and evaluated as to the expectation and accomodation of the handicapped student in a regular classroom setting.

EDU 140—USE OF MEDIA IN INSTRUCTION II (3 - 0 - 3)
Students are glven hands on experience in the use of media that will be of practical use in the classroom. Projects and demonstration of skills in the use of media from and instructional need is required of those successfully completing the course.

EDU 235—GROUP COMMUNICATIONS DYNAMICS (3 - 0 - 3)
This course stresses the interchange of communications and the psychology of the spoken word in relating to people in groups. The group introduces topics for discussion with interrelations to the group. Evaluations are a result of the group reaction to the topics introduced by individuals from the group.

ELECTRICAL (ELC)

ELC 102—D. C. FUNDAMENTALS (5 - 7 - 8)
Basic direct current circuits are introduced through elementary matter—particle theory, sources and general applications of the D.C. Topics include: current, voltage, resistance, Ohm's law, Kirchoff's laws, series and parallel circuits, and magnetism. Poper use and care of D.C. instruments introduced to permit early use of laboratory facilities. Fundamental concepts emphasized.

ELC 104—A.C. FUNDAMENTALS (5 - 7 - 8)
Sinewave generation, alternators, inductors, transformers, resistance, capacitance, and impedance are studied as well as circuits involving series and parallel components, tuning, resonance, anti-resonance, filters, and networks. Basic A.C. test equipment is introduced. Laboratory application of principles emphasized.

ELC 1101—ELECTRONICS INSTRUMENTATION (5 - 2 - 6)
The study and the testing and uses of common instruments.

ELC 1005—CODE SEMINAR I (3 - 0 - 3)
An in-depth study of the National Electrical Code as it pertains to residential wiring. Emphasis will be placed on improving the students ability to locate rapidly and read accurately appropriate code sections.

ELC 1006—CODE SEMINAR II (3 - 0 - 3)
An in-depth study of the National Electrical Code as it pertains to commercial wiring. Emphasis will be placed on improving the students ability to locate rapidly and read accurately appropriate code sections.

ELC 1007—CODE SEMINAR III (3 - 0 - 3)
An in-depth study of the National Electrical Code as it pertains to industrial wiring. Emphasis will be placed on improving the students ability to locate rapidly and read accurately appropriate code sections.

ELC 1108—RESIDENTIAL WIRING (2 - 5 - 4)
Provides instruction and application in the fundamentals of blueprint reading, planning, layout, and installation of wiring in residential applications such as: services, switchboards, lighting, fusing, wire sizes, branch circuits, conduits, National Electrical Code regulations in actual building mock-ups.

ELC 1109—COMMERCIAL WIRING (2 - 5 - 4)
Interpretation of construction and electrical specification along with the planning and installation of wiring systems in a variety of commercial structures is provided. The three-phase, four-wire system will be introduced and emphasized.

ELC 1110—BASIC ELECTRICITY (3 - 2 - 4)
The basic electricity subjects studied include structure of matter, electrical terminology and symbols, electron theory of current flow, magnets and magnetic field. The course stresses a mathematical analysis of direct and alternating current resistive circuits. Ohm''s Law, Kirchoff's Law and power law are studied. Fundamental principles of inductors, capacitors and time constant circuits are introduced. Also covered are Thevenin's Theorem, Noton's Theorem, superpositlon and reciprocity.

ELC 1114—INDUSTRIAL WIRING (2 - 5 - 4)
Construction specifications and electrical systems are introduced with installation practices being an integral part of the course study. Also introduced into the field of study will be unit substation and high-voltage metering equipment, feeder ducts and distribution transformers, panelboards and sub-feeders, general circuits, motors and controllers, precipitron units, synchronous condensers, signal systems, ventilating and air-conditioning units, and alternate methods of feeder layout.

ELC 120—INTRODUCTORY DIRECT CURRENT (1 - 2 - 2)
An introductory course for non-majors. Basic D. C circuits are introduced with emphasis on theory, components, circuits and general applications of D. C. Proper use and care of test instruments is emphasized.

ELC 121—INTRODUCTORY ALTERNATING CURRENT (1 - 2 - 2)
An introductory course for non-majors. Basic A. C. circuits are introduced. Wave generation, component actions in A. C. circuits and A. C. test equipment is studied. Applications of principle are reenforced by laboratory exercises.

ELC 122—BASIC ELECTRONICS (1 - 2 - 2)
Principles and applications of vacuum tubes and discrete solid state devices will be covered. Application of tuned circuits, amplifiers, and oscillators are explored. Instruction oriented toward industrial and hobby applications. Primarily designed to satisfy the needs of in-service industrial personnel.

ELECTRONICS (ELN)

ELN 101—ELECTRONICS I (5 - 7 - 8)
Principles and application of vacuum tubes in tuned circuits, amplifiers and oscillators are explored. Precision electronic equipment used to test and evaluate student-built test, power, and amplifier circuits. Basic switches, relays, and electronic controls are covered. Application of principles emphasized.

ELN 106—ENTERTAINMENT SYSTEMS (3 - 10 - 3)
Various amplifiers, record changers, and audio equipment are covered. Principles of the latest techniques of home entertainment systems are presented along with troubleshooting and project building.

ELN 107—DIGITAL ENGINEERING TECHNIQUES: MICROPROCESSORS AND MINICOMPUTERS (3 - 2 - 4)
Study of various logic circuits including electronic gates, adder circuits, shift registers, memory circuits, and timing circuits. The world of microprocessors and mini-computers is explored. Laboratory application of theory is emphasized.

ELN 108—MECHANICAL CIRCUIT LAYOUT (2 - 2 - 3)
Space, weight, and component, interaction problems involving layout and construction. Unit performance emphasized.

ELN 109—DIGITAL CONCEPTS (2 - 0 - 2)
An introduction to the world of digital electronics. Emphasis placed on number systems and familiarization with the different logic gates and symbols.

ELN 120—RADIO AMATEUR LICENSE PREPARATION I (4 - 2 - 5)
Exposure to the exciting world of Amateur Radio. Emphasis placed on operating rules and regulations along with basis theory and code needed to pass the novice examination.

ELN 121—RADIO AMATEUR LICENSE PREPARATION II (4 - 2 - 5)
Continuation of theory for preparation of general class license. Question and answer method used with related laboratory applications. Code speed emphasized.

ELN 122—RADIO AMATEUR LICENSE PREPARATION III (4 - 2 - 5)
Addition theory for preparation of advanced class amateur license.

ELN 123—RADIO AMATEUR LICENSE PREPARATION IV (3 - 3 - 4)
Designed for the individual who seeks the highest level of amateur license—the Amateur Extra. Emphasis is on high speed code and advanced levels of theory and operating practices.

ELN 124—CITIZENS BAND RADIO (0 - 6 - 3)
Designed to provide the Citizens Band Radio Operator with information and skills for proper licensing, operation, and owner maintenance and installation of citizen band radio transceivers, antenna and accessories.

ELN 125—FCC RADIO TELEPHONE LICENSE PREPARATION I (5- -0 - 5)
Preparation for the FCC Second Class examinations. Question and answer method of study used in conjunction with open discussions.

ELN 126—FCC RADIO, TELEPHONE LICENSE PREPARATION II (5 - 0 - 5)
Elective for the review of material normally given in the FCC First and Second Class examinations. Prerequisite: ELN 125.

ELN 201—ELECTRONICS II
The modern and fascinating field of solid state electronics is covered. Topics include diodes, transistors, SCR's, thyristors, and special purpose solid state devices. Laboratory application is emphasized. Prerequisite: ELN 101.

ELN 203—PULSE CIRCUITS (3 - 0 - 3)
Study of waveform analysis, basic networks including integrators, differentiators, multivibrators, blocking oscillators, saw tooth generators and various other nonsinusoidal circuits. Basic application emphasized.

ELN 204—ELECTRONICS III (5 - 10 - 10)
Theory and application of AF and RF amplifiers; basic transmitter design, including AM, FM, and single sideband principles are covered. AF and RF measurements are presented in a combination of classroom and laboratory assignments designed to sustain student interest. Prerequisite: ELN 201.

ELN 207—ELECTRONICS IV (5 - 10 - 10)
Applied pulse circuitry associated with televislon, microwave equipment, radar, and other special communications circuits. Emphasis placed on microwave and special purpose antennas along with waveguide and other high frequency transmission media. Applications of klystrons, magnetrons, and TWT's covered. Prerequisite: ELN 204.

ELN 210—TV SYSTEMS ANALYSIS (3 - 2 - 4)
T. V. broadcast theory introduced along with detailed study of basic T. V. receiver circuits. Black and white along with color theory is proven by laboratory tests and measurements utilizing up-to-date test equipment especially designed to gather such data.

ELN 214—ELECTRONIC INSTRUMENTATION (0 - 3 - 1)
Novel and exceptional uses of common instruments are studied and tested. Field conditions are simulated using improvised instruments.

ELN 216—INDUSTRIAL ELECTRONICS (3 - 0 - 3)
Standard and novel industrial methods and systems of counting, switching, speed control are covered. Emphasis is placed on the latest techniques of high speed controls using diacs, triacs and other solid state devices.

ELN 220—ANTENNA DESIGN (3 - 0 - 3)
Involves study of simple and complex antennas, materials, physical dimensions, design formulae, skin effect, gain, radiation patterns, line loss, standing wave ratio, reflected power, and various methods of field strength evaluation. Antenna project building included.

ELN 222—SPECIAL PROJECT BUILDING (0 - 5 - 2)
An elective offered for the student interested in building a special project—either original design or kit form. Construction techniques emphasized.

ELN 225—ADVANCED TROUBLESHOOTING PROCEDURES (3 - 2 - 4)
Expedient and efficient methods are covered in detail, using logical "system and module" approach. Solid state circuits emphasized.

ELN 226—DIGITAL CONCEPTS (2 - 0 - 2)
An introduction to the world of digital electronics. Emphasis placed on number systems and familiarization with the different logic gates and symbols.

ENGLISH (ENG)

ENG 087—BASIC ENGLISH I (2 - 3 - 3)
A basic study of the fundamentals of grammar and reading. Especially designed for students who need special work before taking ENG 100.

ENG 100—ENGLISH I (5 - 0 - 5)
Designed to encourage the student's development of reading comprehension and reading rate. Emphasizes the grasp of basic ideas rather than words. Offers workable techniques which the student may use in reading assignments, helping him to identify, interpret and evaluate ideas.

ENG 101—ENGLISH II (5 - 0 - 5)
Designed to aid the student in the improvement of self-expression in grammar. The approach is functional with emphasis on grammar, diction, sentence structure, punctuation, and spelling. Intended to stimulate students in applying the basic principles of English gramma in their day-to-day situations. Prerequisite: ENG 100.

ENG 102—ENGLISH III (5 - 0 - 5)
Designed to aid the student in the improvement of self-expression in written composition. Emphasis is on the sentence, paragraph and whole composition. Prerequisite: ENG 101.

ENG 103—ENGLISH VI (3 - 0 - 3)
The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports using writing techniques and graphic devices are completed by the students. Practical application in the preparation of a full-length report is required of each student at the end of the term. This report must relate to his chosen curriculum. Prerequisite: ENG 102.

ENG 204—ENGLISH IV (3 - 0 - 3)
A study of basic concepts and principles of oral communications to enable the student to communicate with others. Emphasis is placed on the speaker's attitude, improving diction, voice, and the application of particular techniques of theory to correct speaking habits and to produce effective oral presentation. Particular attention given to conducting meetings, conferences, and interviews. Prerequisite: 102.

ENG 1103—ENGLISH FOR NURSES (3 - 0 - 3)
A self-paced course designed to help the student acquire desirable study habits through the development of listening and reading skills. Basic grammar skills are reviewed.

ENG 1104—ENGLISH FOR NURSES (2 - 0 - 2)
A self-paced composition course designed to improve the student's writing ability, and to develop skills in organization of thought and self-expression. Descriptive, analytic, and expository writing of topics relating the various aspects of the student's personal experiences is emphasized.

ENG 1106—FUNDAMENTALS OF ENGLISH (5 - 0 - 5)
Designed to aid the student in the improvement of self-expression in grammar, composition, and the basic reading skills. Special machines are used for class drill to broaden the span of recognition, increase eye coordination, and word group comprehension.

ELECTRONIC DATA PROCESSING (EDP)

EDP 104—INTRODUCTION TO DATA PROCESSING SYSTEMS (3 - 0 - 3)
Fundamental concepts and operational processing systems, as an aid in developing a basic knowledge of computers, prerequisite to the detailed study of particular computer problems.

ENVIRONMENTAL SCIENCE (ENV)

ENV 120—LAND RESOURCE MANAGEMENT (3 - 4 - 5)
An integrated course covering aspects of geology, soil and water conservation, and the relationship of these factors to the biological community. Methods of land management will be discussed allowing controlled growth without environmental degradation.

ENV 130—MICROBIOLOGY (3 - 4 - 5)
A study of general microbiology with emphasis on micro-organisms associated with pollutants such as industrial waste and sewage. Lab will include methods of isolating, culturing, and staining selected micro-organisms. Prerequisites: BIO 101, CHM 101.

ENV 201—LABORATORY APPLICATIONS (3 - 0 - 3)
Studies of laboratory techniques applied to field problems.

ENV 202—DATA STUDIES (3 - 0 - 3)
A practical application of the principles of data collection, analysis and presentation.

ENV 203—USE OF INSTRUMENTS (3 - 0 - 3)
Studies in the use of field instruments in data collection.

ENV 204—FIELD STUDIES (0 - 30 - 3)
Practical on-site experience with environmental monitoring operation.

ENV 205—METHODS OF CHEMICAL ANALYSIS (1 - 4 - 3)
A course designed to familiarize the student with special chemical analysis methods, especially those used by environmental technicians. Procedures to be taught include volumetric and gravimetric quantitative analysis, thin layer chromatography, and instrumental analysis including gas chromatography, and spectrophotometry.

ENV 208—FISHERIES MANAGEMENT (3 - 2 - 4)
A study of the aquatic environmental and fishery science. Life history and biology of important game and commercial fishes, age and growth analysis, population estimations, fish culture, fish management, and pollution studies.

ENV 209—FISH CULTURE (2 - 2 - 3)
A course dealing with the anatomy, physiology, embryology, and culture of fish including trout and catfish farming. Fish disease diagnosis and treatment, and farm pond management will also be studied.

ENV 210—ECOLOGY (3 - 2 - 4)
A basic course designed to acquaint the student with the relationships between organisms and their environment, and of interactions among organisms. Lectures, laboratories, and field trips present a balanced perspective in environmental biology. Included will be productivity, nutrient cycling; pollution, environmental factors affecting aquatic and terrestial systems, regulation and dynamics of populations, interactions among species, community ecology; and the ecological viewpoint in modern land management.

ENV 213—AIR SAMPLING, ANALYSIS, & CONTROL (3 - 4 - 5)
A study of air quality standards, air monitoring equipment, and techniques for sampling air. Lab will include sampling and analysis of ambient air.

ENV 216—ENVIRONMENTAL HEALTH (3 - 2 - 4)
The influence of envlronmental conditions on human health. Special emphasis given to medical laboratory procedures including bacteriology, hemotology, clinical chemistry, and urinalysis, used in assessing health.

ENV 220—WATER SAMPLING, ANALYSIS, CONTROL (3 - 4 - 5)
A basic study of water quality standards, water monitoring equipment, water monitoring techniques, and analysis of results.

ENV 223—INSTRUMENT MAINTENANCE (1 - 4 - 3)
Basic types of instruments and their design principles covers simple mechanical and electronic faults that can be repaired by a technician in a laboratory. Instrument calibrations and standardization will be discussed.

ENV 229—METEOROLOGY (3 - 4 - 5)
Physical aspects of weather and climate, with labs to accompany lectures.

ENV 230—EVIRONMENTAL QUALITY LAWS AND ENFORCEMENT (3 - 0 - 3)
A study of local, state, and federal laws and acts concerning environmental quality standards and the use of resources, legal procedure for enforcing laws, and problems concerning enforcement. Included will be environmental standards dealing with polluting sources such as industry, agriculture, municipalities, and individuals.

ENV 231—ENVIRONMENTAL PROJECT (1 - 12 - 5)
This course consists of a supervised project concerning an environmental problem in the area which would enable the student to put to use some of the knowledge gained in class. The student will write a report on his project and accomplishments.

FOOD SERVICE MANAGEMENT (FSO)

FSO 101—ORIENTATION TO FOOD SERVICES (1 - 0 - 1)
Introduction to and history of food service and the outlook for the food service industry. Broad objectives and specific goals of training with an investigation of job opportunities and personal qualifications.

FSO 102—FOOD PREPARATION I (2 - 9 - 5)
A study of the scientific principles of food preparation and different methods of cooking. Students will be instructed In the preparation of salads, soups, stocks, sauces, gravies, and beverages. Manual skills (cutting techniques, flipping a pan, stirring a pan, mixing, pouring liquids from one container to another) will be demonstrated and the student will be expected to master the skills before the end of the course. Also, the student will become familiar with different weights and measurements used in cooking.

FSO 103—EQUIPMENT USE AND CARE (3 - 0 - 3)
Designed to teach the student how to operate and care for most standard kitchen equipment. Particular emphasis will be placed on proper operating and cleaning procedures.

FSO 104—SANITATION AND SAFETY (3 - 0 - 3
A study of sanitation standards and safety precautions as related to food storage, preparation, and service.

FSO 107—BAKING I (2 - 6 - 4)
Students will learn the basic tools, appliances, and other equipment necessary for baking as well as typical baking measurements and terms. Students will learn how to prepare quick breads, yeast-raised products, fried products (doughnuts and crullers), variety pies, and cakes.

FSO 108—PERSONNEL MANAGEMENT (3 - 0 - 3)
A study of the job responsibilities and duties of the food service worker: his relationship to his associates, with emphasis on understanding human behavior; labor policies and legislation; and the importance of self-development in relation to professional responsibility.

FSO 109—PRODUCTION MANAGEMENT (3 - 0 - 3)
Designed to emphasize the use of standardized recipes and portion control. Students will be required to compile a notebook of all standardized reclpes used throughout the course. Recipe forms will be provided by the instructor.

FSO 110—SUPERVISED WORK EXPERIENCE (2 - 40 - 6)
Designed for the student to gain practical experience by actually working in an approved restaurant or hotel in the area. All preceding required courses in the Food Services Curriculum must have been completed with a grade of "C" or better before registering for the work experience course. If the student completes the work experience with a satisfactory grade, he will be readmitted for the second year of the program.

FSO 112—FOOD PREPARATION II (2 - 9 - 5)
Emphasis in this course will be placed on preparing food dishes (deep frying, roasting, sauteing, boiling, steaming, broiling). The use of standardized recipes and portion control will be stressed because students will actually prepare dishes for service in the cafeteria. Sandwich-making and breakfast cookery will also be covered.

FSO 114—MENU PLANNING (3 - 0 - 3)
Designed to teach the student how to write different types of menus depending on seasons, clientele, employee skills, and food costs.

FSO 117—BAKING II (2 - 6 - 4)
Designed to teach the student more elaborate preparations. Assorted pastries will be made and cake decorating will be introduced.

FSO 122—FOOD PREPARATION III (0 - 12 - 4)
This class involves the student in actual cafeteria service. Preparation will basically include short order items made to order. Students will also be oriented to front-of-the house operations like order-taking, table setting, and cashiering.

FOS 139—CONVENIENCE FOODS (2 - 0 - 2)
The use and availability of convenience foods will be discussed. Also, the need for specialized equipment will be demonstrated.

FSO 141—FOOD SERVICE MANAGEMENT (3 - 0 - 3)
Designed to teach the student how to plan and operate a successful food service operation. Guidelines such as site selection, automation, and effective use of manpower will be stressed.

FSO 201—EQUIPMENT LAYOUT AND DESIGN (3 - 0 - 3)
This course will teach the student how to design restaurant interiors. Design essentials such as selecting a name, theme and decor, color scheme, flooring, furniture, and construction/design materials will be covered in depth.

FSO 202—FOOD PREPARATION IV (2 - 9 - 5)
Emphasis in this course will be placed on buffet preparations with menu themes. Food display and presentation will be stressed.

FSO 204—FOOD PURCHASING AND COST CONTROL (3 - 0 - 3)
Designed to give the student practical experience in costing, ordering, receiving, storage, inventory-taking, and record-keeping.

FSO 207—FOOD MERCHANDISING (2 - 6 - 4)
A basic look at the principles involved in retail food merchandising. All principles including buying, pricing, display, computerized ordering, and inventory control will be covered.

FSO 211—SEMINAR (3 - 0 - 3)
Job orientation and overall evaluation of work experience by the student, instructor, and supervisor.

FSO 212—FOOD PREPARATION V (0 - 9 - 4)
Emphasis in this course will be placed on cafeteria-style preparation and service. Meals will be served cafeteria-style.

FSO 214—SPECIALTY COOKING (2 - 4 - 3)
Designed to expose the student to different international cuisines, particularly Italian, German, and Chinese.

HEALTH SERVICES (HEA, NUT)

HEA 101—FIRST AID (2 - 0 - 2)
A study of emergency measures used in case of accident or illness. An American Red Cross Certification is offered.

NUT 102—NUTRITION FOR YOUNG CHILDREN (2 - 3 - 5)
Study of basic nutrition, with emphasis on (1) methods of helping young children and their families learn nutritional concepts and (2) planning balanced diets for preschool children.

HISTORY (HIS)—POLITICAL SCIENCE (POL)
GEOGRAPHY (GEO)

GEO 105—POPULATION GEOGRAPHY (3 - 0 - 3)
A study of population groups in various parts of the world with emphasis on basic demographic theory, the composition of populations, and the relationship of population and the environment including such factors as health, land utilization and the internal development of particular nations.

GEO 108—CULTURAL GEOGRAPHY (3 - 0 - 3)
Interrelationships between man, the earth and culture; the geography of race, language, religion, political and economic patterns; settlement types and the cultural landscape; population growth and movements.

HIS 211—UNITED STATES HISTORY I (3 - 0 - 3)
Emphasis will be upon the backgrounds of discovery, settlement, constitutional development and union. Manifest destiny and the developing sectionalism up until the 1850's will be a part of this survey.

HIS 212—UNITED STATES HISTORY II (3 - 0 - 3)
The continuing study of the development of the United States will cover the causes of the Civil War, the war, Reconstruction, imperialistic tendencies, the progressive movement and World War I. Prerequisite: HIS 211.

POL 101—INTRODUCTION TO AMERICAN GOVERNMENT (3 - 0 - 3)
A study of political institutions, including the form and functions of American federal, state and local governments, emphasizing the rights and responsibilities of citizenship.

POL 103—NATIONAL, STATE AND LOCAL GOVERNMENT (3 - 0 - 3)
A study of the organization and functions of national, state, and local governments, intergovernmental relationships, and contemporary significant problems.

INDUSTRIAL SAFETY (ISC)

ISC 1101—INDUSTRIAL SAFETY (3 - 0 - 3)
A study of the development of industrial safety; accident occurrence and prevention; analysis of accident causes and costs; basic factors of accident control; safety education and training; accident reporting and records; employer and employee responsibility; safety organizations; first aid; mechanical safeguards; personal protective equipment use; materials handling; fire prevention and protection; safety codes; and accident statistics.

LAW ENFORCEMENT (PSC)

PSC 101—INTRODUCTION TO LAW ENFORCEMENT (5 - 0 - 5)
An introduction to the development of law enforcement, court, and correctional procedures and philosophies from ancient to modern times. Explanation of the American concept of criminal justice as a heritage of Anglo-Saxon of England. A survey of the primary duties and responsibilities of the various law enforcement agencies, and an orientation relative to criminal justice as a career.

PSC 102—SCIENCE OF FINGERPRINTING (3 - 3 - 3)
A study of the history of fingerprints, and of the problem of fingerprint pattern interpretation, classification and comparison. Examination of latent impressions, and developing and maintaining fingerprint files by classification.

PSC 110—CRIME AND DELINQUENCY (5 - 0 - 5)
A brief survey of crime in the United States; trends, economic impact and victimization. Uniform crime reporting and crime statistics as they relate to the criminal justice system, and emphasis on organized crime. The responsIbilities of law enforcement officers and their interaction with various juvenile agencies in the system. Delinquency preventive measures and specific problems, and the influence of the environment.

PSC 111—POLICE ORGANIZATION AND ADMINISTRATION (5 - 0 - 5)
The principles of organization and administration in law enforcement agencies; recruitment, selection, training, descipline and promotion. Line and staff functions, chain of command, and the relationship between supervisor and subordinate.

PSC 130—PROBATION AND PAROLE (5 - 0 - 5)
To acquaint the student with complete correctional process. Historical aspects of the penal institution as well as probation and parole.

PSC 131—INTRODUCTION TO JAIL OPERATIONS (3 - 0 - 3)
An introductory course for the jailer. Outlines the duties and responsibilities of the jailer for pre-sentenced prisoner.

PSC 132—INTRODUCTION OF JAIL MANAGEMENT (3 - 0 - 3)
This course gives an overall view of the responsibility for a complete jail operation.

PSC 133—JUVENILE DELINQUENCY (5 - 0 - 5)
Designed to give an in-depth study of the causes and development of the phenonemom of juvenile delinquency.

PSC 206—POLICE COMMUNITY RELATIONS (5 - 0 - 5)
A general orientation to the responsibilities of law enforcement in the areas of social protest, minority groups, and the problems of youth. This course will provide the student with an understanding of community structures as they relate to law enforcement. Prerequisites: PSC 110, and SOC 102.

PSC 209—CRIMINAL JUSTICE FIELD TRAINING (0 - 32 - 8)
Provide supervised observation and participation in uniformed patrol duty, investigation, communication, records, corrections, and crime laboratory work. This course is designed for the career student to bridge the gap between theory and practice, and requires a thirty-two-hour minimum of field work experience. Enrollment by special permission of instructor.

PSC 210—EMERGENCY FIIRST AID (0 - 3 - 1)
Instruction in the immediate and temporary care in cases of accident, illness, polsoning, asphyxiation and emergency childbirth. Emergency rescue procedures and procedures applicable to electrical and gas emergencies will also be emphasized.

PSC 212—CRIMINALISTICS (4 - 2 - 5)
This course will serve as an introduction to the forensic sciences, including trace element, examination, glass fragments, tool marks, blood samples, tire impressions, questioned documents, and polygraph examination procedures.

PSC 221—POLICE OPERATIONS AND TECHNIQUES (5 - 0 - 5)
A study of police problems and responsibilities, including the operation procedures, communications and records, police operations in disaster and disturbances arrest, search and seizure techniques. Answering of the "in-progress" call, responding to handling of other special situation calls, and pursuit and defensive driving techniques.

PSC 223—DEFENSIVE TACTICS AND FIREARMS TRAINING (2 - 3 - 3)
Instruction includes familiarizatlon with handgun, shotgun, rifle, and tear gas weaponry. Applicable laws and safety will be emphasized. Includes the participation in learning techniques for the defensive control of arrested persons through a gymnasium environment.

PSC 224—NARCOTICS AND DANGEROUS DRUGS (3 - 0 - 3)
This course will familiarize the student with the North Carolina Drug Laws and introduce the student to the identificatlon and classification of drugs. Emphasis will be placed upon the various effects that the different drugs have upon the human body and the effects it produces in the temperament of individuals.

PSC 228—COURTROOM TECHNIQUES (4 - 2 - 5)
Particular emphasis is on preparation for the officer to appear in the courtroom, including demeanor and presentation. A practical application will include a mock trial with students serving as the participants. Concentration will be upon police professionalism and ethics.

MASONRY (MAS)

MAS 1000—MASONRY SHOP I (2 - 23 - 10)
History of brick and block laying, fundamental skills, laying to line, use and care of tools and equipment. Mortar mixing techniques and general masonry procedures.

MAS 1003—PRINCIPLES OF ROCK CONSTRUCTION (3 - 0 - 3)
A thorough study of rock construction and the unique techniques and tools required for quality work.

MAS 1004—FIREPLACE CONSTRUCTION (0 - 3 - 1)
Layout and erection of various fireplace designs for use in wall, corner, freestanding locations. Course includes proper draw, various materials and construction techniques, outdoor barbecue pits and chimney-pit combinations.

MAS 1010—MASONRY SHOP II (2 - 23 - 10)
Development of fundamental skills, bond layout, projects with various types of masonry units, fireplaces, ornamental work, recent developments in the masonry field.

MAS 1011—MASONRY SHOP III (0 - 27 - 9)
Practice in depth covering the construction of walls and retaining walls, fireplaces, barbecue pits, wing walls, bridge work.

MAS 1006, 1107—MASONRY SHOP 1-A AND 1-B (1 - 12 - 5)
Identical to MAS 1000 offered in two quarters.

MAS 1012, 1013—MASONRY SHOP 2-A AND 2-B (1 - 9 - 4))1 - 14 - 6)
Identical to MAS 1010 offered in two quarters.

MATHEMATICS (MAT)

MAT 094—REMEDIAL MATH

MAT 100—BASIC MATHEMATICS (5 - 0 - 5)
A course covering the fundamental elements of mathematics. Topics covered include basic computation with whole numbers, fractions,decimals, dimensional analysis, elements of geometry and algebra.

MAT 101—TECHNICAL MATHEMATICS I (5 - 0 - 5)
A course designed to develop the sound mathematical tools required by the technician. Topics include operations on numbers, operations on polynomials, linear equations, graphing, scientific notation, basic trigonometry, and vectors.

MAT 102—TECHNICAL MATHEMATICS II (5 - 0 - 5)
The real number system is developed as an extension of natural numbers. Number systems of various bases are introduced. Fundamental algebraic operations, the rectangular coordinate system, as well as fundamental trigonometric concepts and operations are introduced. The application of these principles to practical problems is stressed.

MAT 104—STATISTICS (5 - 0 - 5)
An introduction to elementary probability and statistics. Topics include descriptive methods, probability, the binomial and normal distributions, hypothesis testing, correlation and regression. Prerequisites: MAT 100 and MAT 101.

MAT 110—BUSINESS MATHEMATICS (5 - 0 - 5)
This course stresses the fundamental operations and their application to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business.

MAT 115—ELECTRICAL MATH I (5 - 0 - 5)
A self-paced introductory algebra course. Topics include operations on numbers, operations on polynomials, exponents, square roots, powers of ten, units and dimensions and use of the slide rule.

MAT 116—ELECTRICAL MATH II (5 - 0 - 5)
A self-paced course designed to develop the sound mathematical background needed in studying electronics. Topics covered include linear equations and lines, factoring and operations on algebraic fractions, quadratic equations and curves, and basic trigonometry and vectors. Prerequisite: MAT 115.

MAT 117—ELECTRICAL MATH III (5 - 0 - 5)
A course covering the particular mathematical tools and techniques used in the fields of electronics and electrical technology. Topics covered include simultaneous equations, quadratic equations, logarithms, trigonometric functions, and graphic analysis. Prerequisite: MAT 116.

MAT 118—ELECTRICAL MATH IV (5 - 0 - 5)
A course emphasizing the applications of trigonometry, logarithms, Boolean algebra, and calculus in the fields of electronics and electrical technology. Prerequisite: MAT 117.

MAT 1101—FUNDAMENTALS OF MATHEMATICS (5 - 0 - 5)
Practical number theory. Analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ration and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Introduction to algebra used in trades. Practice in depth.

MAT 1103—GEOMETRY (3 - 0 - 3)
Fundamental properties and definitions; plane and solid geometric figures, selected general theorems, geometric construction of lines, angles, and plane figures. Dihedral angles, areas of plane figures, volumes of solids. Geometric principles are applied to shop operations.

MAT 1104—TRIGONOMETRY (3 - 0 - 3)
Trigonometric ratios; solving problems with right triangles, using tables, and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions, trigonometric equations. All topics are applied to practical problems. Prerequisites: MAT 1103.

MAT 1112—MATHEMATICS: BUILDING TRADES (5 - 0 - 5)
Analysis of basic operations, addition, subtraction, multiplication, and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures, measurements of surfaces and volumes, basic algebra related to usage in the trades.

MAT 1114—MATH FOR PLUMBERS (5 - 0 - 5)
Emphasis is placed upon the development of usable skills in the layout, measurements and computations of pipelengths, including fitting allowances, volumes, pressure, capacities, cylinder stretchouts, heatloss, radiator size and estimating the size of piping are subject for various calculations. Prerequisite: MAT 1101.

MAT 1115—ELECTRICAL MATH (5 - 0 - 5)
A study of fundamental concepts of algebra; basic operations of addition, subtraction, multiplication, and division; solution of first order equations, use of letters and signs, grouping, factoring, exponents, ratios, and proporations; solution of equations, algebraically and graphically; a study of logarithms and use of tables; and introduction to trigonometric functions and their application to right angles; and a study of vectors for use in alternating current.

PARALEGAL TECHNOLOGY (LEX)

LEX 100—PARALEGAL ORIENTATION (5 - 0 - 5)
This course is a brief overview of criminal law, civil procedure, legal research, techniques of investigation and preparation and presentation of a trial brief.

LEX 103—LEGAL RESEARCH I (3 - 3 - 4)
Methods of Legal research, proper citation of authority, acquaintance with legal treaties, text, and reporter, shepardizing cases. Prerequisite: None.

LEX 105—CRIMINAL INVESTIGATION (3 - 2 - 4)
A course in the theory of investigative process, sources of information, and the investigation of specific offenses, such as arson, larceny, burglary, robbery, homicide and sex offenses. Methods of interrogation, as well as the techniques, are included. The search for physical evidence and the location, reproduction, identification, collection, perservation, and transporting of evidence to the crime laboratory.

LEX 106—CONSTITUTIONAL LAW (3 - 0 - 3)
Instruction to provide an understanding of the United States Constitution as the basis for our criminal justice system, and to include constitutional rights of accused persons and the limitations on the criminal justice system. Designed to present the evolution of the criminal law and the State and Federal Court systems.

LEX 107—CRIMINAL EVIDENCE AND PROCEDURE (3 - 2 - 4)
A study of the rules of evidence and admissibility of evidence in court; the kinds of evidence, judical notice, opinion evidence and the hearsay rule; evidence distinguished from proof and the burden of proof. The law of arrest; search and seizure will be emphasized coupled with the civil liabilities that may accure. North Carolina Criminal Procedure from arrest to trial will be examined in depth with the problems of nontestimonial identificatlon.

LEX 201—N. C. LEGAL SYSTEMS I (3 - 0 - 3)
This is a study in the preparation of approximately 15 specific types of legal proceedings in the State of North Carolina. Detailed attention will be paid to the preparation of check lists and forms for each individual step in the various legal processes that are studied.

LEX 202—N. C. LEGAL SYSTEMS II (3 - 0 - 3)
This is a continuation of LEX 201 and deals specifically with 15 particular types of legal processes, including federal actions.

LEX 205——TRAFFIC AND ACCIDENT INVESTIGATION (3 - 2 - 4)
A study of the traffic enforcement problem. In-depth study of the North Carolina traffic code with the emphasis on enforcement and education of the code. Instruction methods in procedures and reports applicable to traffic accidents. Particular emphasis will be on the interviewing of drivers and witnesses, as well as photography, measurements, and diagrams.

LEX 208—CRIMINAL LAW (5 - 0 - 5)
A study of the elements required for specific crimes; classification of various crimes. Emphasis on case research for interpretation of North Carolina Criminal Code. The study of the evolution of crimlnal law, parties to crime, capacity to commit a crime, and criminal defenses.

LEX 209—INVESTIGATIVE PHOTOGRAPHY (2 - 6 - 4)
An introduction to the field of photography. A study of the fundamental techniques of the camera and its role in the investigative process. Assigned photo projects within the field of investigation, use of the darkroom and prepare a complete photo case for court presentation.

LEX 210—MECHANICS OF PROPERTY TRANSACTIONS (3 - 0 - 3)
Includes the study of the preparation of simple contracts for sale of real estate; ordering title search; examining title searches and preparing simple titles, ordering title insurance; preparation of settlement sheet and holding closing. (1) Inform purchaser of needed documents and funds; (2) disbursement of funds and recording documents; (3) search continuation and preparation of certificate of title for lawyer's signature.

LEX 211—TITLE ABSTRACTING (3 - 0 - 3)
An examination will be made of the applicable statutory and common law principles including the form and adequate execution of documents; the functions of judgments and estates in the determination of whether a title to real estate is marketable; the study and function of various documents, indices and files on public records in various county offices. Forms of abstracting title information from public records and summaries thereof will be included. Various typical problems and errors which may render a title unmarketable will be included.

LEX 215—THE LAW OFFICE (3 - 3 - 4)
This course includes the study of the organization of a law office, office forms and legal forms, filing equipment and system, accounting systems for a lawyer's time, fees, and filing, client relations and office procedure. This will also familiarize the student with the operation of office machines and equipment.

LEX 220—LEGAL RESEARCH II (1 - 4 - 3)
Advanced research into particular points of law together with the writing of briefs and presentation of various materials.

LEX 225—LITIGATION PREPARATION (3 - 0 - 3)
This course will teach the paralegal how a lawyer prepares hls briefs prior to entering court proceedings. The student will be taught how to review a file, prepare subpoenas ready for the lawyer's signature, prepare exhibits for court, file pleadings, index interrogatorles, depositions, admissions, pleadings. The course will prepare the student to interview witnesses and record statements in writing and on tape.

LEX 226—MEDICAL TERMINOLOGY (3 -0 - 3)
This course is designed to cover terminology as applied to the whole man as well as medical methods and terms used by physicians and lawyers.

LEX 227—PARALEGAL PROFESSION (3 - 3 - 4)
This course is designed to teach the ethical and professional duties and responsibilities of the paralegals. Descriptions of the limltations and activities of the paralegal will be emphasized. The final five weeks of this course will consist of each student being placed in a work situation under the supervision of a licensed attorney to enable the student to experience the direct responsibility and training available only through active participation in the field.

LEX 230—APPELLATE PRACTICE (3 -3 - 4)
A study of the N. C. Appellate System coupled with the preparation of record narratives and all documents and forms for appeals, as well as preparation and research of appellate brief.

LEX 232—ESTATE ADMINISTRATION (3 - 0 - 3)
In this course, the student will be instructed in the drawing of wills, making arrangements with the probate office for probate of will, or issuance of Letter of Administration, preparing simple transfer of inheritance tax forms, marshaling of assets, payment of debts of Estate, preparations of interim and final accounting and preparation of refunding bonds and releases.

PRACTICAL NURSE EDUCATION (NUR)

NUR 1020—FUNDAMENTALS OF PRACTICAL NURSING (6 - 6 - 0 - 8*)
Interpretation of the role of the practical nurse student and basic knowledge to be used in performing nursing. Philosophy and objectives of practical nursing in the technical institute setting. Use of study methods and materials. Principles of interpersonal relationships in nursing. Body mechanics for nurse and patient. Sterilization and disinfection methods. Principles of medical and surgical asepsis. Use of hospital equipment. Techniques for daily hygienic patient care. Spoken and written communicaions for nurses. Laboratory practice in nursing skills. Prerequisite: None.

NUR 1021—NUTRITION AND DIET THERAPY (3 - 0 - 0 - 3)
Designed to give knowledge of the use of nutrients for nurse and patient. Functions and sources of nutrients. The mechanics of digestion, absorption and metabolism. Principles of meal planning. Nutritional requirements for all age groups modified by religious, cultural, social, and psychological factors. Common therapeutic diets and their effect on disease conditions. Prerequisite: None.

NUR 1022—ANATOMY AND PHYSIOLOGY (3 - 0 - 0 - 3)
A study of the general plan of the body and ten systems: musculoskeletal, integumentary, digestive, respiratory, circulatory, urinary, endocrine, reproductive, nervous, and sensory systems. Designed for understanding how the human body controls its functions, stands erect and moves, distributes food and oxygen, eliminates wastes, and provides for survival. Prerequisite: None.

NUR 1023—GROWTH AND DEVELOPMENT (2 - 0 - 0 - 2)
Normal growth and development throughout the life cycle with consideration of the social, biological, and cultural influences upon growth from birth to senescence. Physical, mental, and personality changes with age. Community responsibilities and resources for young and old. Prerequisite: None.

NUR 1024—INTRODUCTION TO DRUG ADMINISTRATION (3 - 0 - 0 - 3)
Review of adding, subtracting, multiplying, dividing, fractions, decimals, ratio, and percentage. Systems for measuring drugs. Solving problems of measurement, conversion within systems and from system to system. Legal aspects of medication preparation. Prerequisite: None.

NUR 1025—MEDICAL-SURGICAL NURSING I (6 - 0 - 0 - 6)
An introduction to nursing needs of the adult medical and surgical patient. Uses nursing knowledge gained in all courses in Quarter I. Prepares for nursing care of physical emotional problems caused by illness, body responses to disease and pain. Assisting patients during diagnostic tests. Pre-operative and post-operative care, safety and comfort measures for the aging, and meeting needs of patients with a communicable disease. Rehabilitation. Modification of diet for disease conditions. Prerequisites: NUR 1020, 1021, 1022, 1023, 1024.

NUR 1026—MATERNITY NURSING (4 - 0 - 0 - 4)
Presentation of modern aspects of maternity nursing. The nursing care of the normal obstetrical patient and newborn child. Detailed nursing care of patients during antepartum, labor, and postpartum periods. Emphasis on provision of better and safer nursing care for the expectant mother and her baby. Prerequisites: NUR 1020, 1021, 1022, 1023, 1024.

NUR 1027—NURSING OF CHILDREN (4 - 0-0-4)
Comparison of normal growth and development patterns of the newborn, school age child and adolescent. Physical differences in the child and adult. Methods of meeting needs of the hospitalized child and his parents. Nursing care of children with common home and hospitalized disorders. Prerequisites: NUR 1020, 1021, 1022, 1023, 1024.

NUR 1028—CLINICAL EXPERIENCE I (0 - 0 - 16 - 5)
Eleven weeks experience with patients of all ages in a general hospital under supervision of clinical teachers. Five weeks of experience with young adults, adults of middle years and the aging. Six weeks of experience with mothers and newborns or with sick children from the age of newborn to the adolescent. Opportunities for practicing skills learned in laboratory. Emphasis on basic hygienic care for ambulatory and bed patients. Experience in making observations, and charting simple needs of hospitalized patients. Opportunities to begin development of attitudes and skills necessary for successful practical nursing careers. Beginning this quarter, each student is assigned two days of observational experience in operating and recovery rooms. Prerequisites: NUR 1020, 1021, 1022, 1023, 1024.

NUR 1029—MEDICAL-SURGICAL NURSING II (6 - 0 - 0 - 6)
Principles and concepts of complex rehabilitative nursing. Cancer nursing. Study of nursing care and socio-psychological implications of common disorders of adults in the following body systems: Musculoskeletal, gastrointestional, respiratory cardiovascular and urinary. Prerequisites: NUR 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028.

NUR 1030—DRUG THERAPY (4 - 0 - 0 - 6)
A beginning study for the practical nurse student of the classification of common drugs, related to the systems of the human body, their dosage, actions, uses, side effects and modes of administration. Storage and preparation of narcotics. Prerequisites: NUR 1024, 1028.

NUR 1031—CLINICAL EXPERIENCE II (0 - 0 - 24 - 8)
Continued experience with adults or experience with children or experience in the maternity nursing units. Assignment to patients with nursing needs of the musculo-skeletal, gastrointestional, respiratory, cardiovascular, and urinary systems. Practice of isolation technique and oxygen therapy. Continued experience in operating room and recovery room observation. Prerequisites: NUR 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030.

NUR 1032—MEDICAL-SURGICAL NURSING III (7 - 0 - 0 - 7)
Continuation of study of disorders of body systems. Includes nursing care of clients with medical surgical conditions of the eye, ear, and skin. Nursing care of clients with disease conditions of the reproductive, endocrine and nervous systems. Introduction to the nursing needs of patients with psychosomatic illness, personality problems, alcoholism, drug addiction. Prerequisites: NUR 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031.

NUR 1034—PERSONAL AND VOCATIONAL RELATIONSHIPS (2 - 0 - 0 - 2)
Advanced practical nursing ethics. Medico-legal aspects of practical nursing. North Carolina nursing law. Role of nurses in community and state. Job descriptions. Evaluating, applying for or resigning positions. Work resume'. Organizations for the graduate practical nurse. Continuing education. Preparation for State Board Examinations. Coreq iisites: NUR 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1)31, 1032.

NUR 1035—CLINICAL EXPERIENCE III (0 - 0 - 24 - 8)
Student learns her role as an assistant to the professional nurse in caring for the more serlously ill patients. Continued experience with adult medical-surgical nursing, pediatric nursing or materniay nursing. Experience in more complicated nursing treatments. Assignment to patients with condition of circulatory, nervous, reproduction, and endocrine systems and socal illnesses. Prerequisites: NUR 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033.

PLUMBING (PLU)

PLU 1100—SOLDERING AND SILVER SOLDERING (2 - 7 - 4)
This course will introduce students to the tools, fittings, and small equipment used by plumbers. Most of the time will be spent in the shop, where the student will learn how to handle these materials correctly. The student will perform operations such as sweating various sizes of copper tubing and fittings with different grades of solder used in the trade. Also silver soldering copper tubing as used in the trade.

PLU 1101—WORKING WITH PLASTICS
The cutting, joining and welding of plastic pipe in cold water and drainage installation.

PLU 1105—CONSTRUCTION ESTIMATING (4 - 3 - 5)
Estimating plans and specifications of different buildings for plumbing and heating construction. Actual material take off from plans and specifications and all information pertaining thereto.

PLU 1110—PLUMBING PIPEWORK (3 - 10 - 6)
This course will introduce students to the tools, fittings, and small equipment used by plumbers. Most of the time will be spent in the shop, where the student can learn how to handle these materials correctly. The student will perform operations such as threading, cutting, and caulking of the various kinds of pipe used in the trade.

PLU 1111—DOMESTIC COLD AND HOT WATER SYSTEMS (3 - 8 - 5)
The installation of water distributlon systems beginning with the source of supply and including the location of pipes, valves, and pumps in both single-story and multi-story buildings will be studied. Plumbing installations will be made to provide practical applications. Private and public sewage and drainage systems, including their ventilation, is a part of this course. Field trips will be taken to study various types of installation. Prerequisite: PLU 1110.

PLU 1112—INSTALLATION OF PLUMBING FIXTURES: RESIDENTIAL (0 - 9 - 3)
The differences in materials and styles of lavatories, bathtubs and sinks, and the many ways that these fixtures can be installed, will form the basis of this course. The proper use of traps is included. The student will get actual practice by making installations. Prerequisite: 1111.

PLU 1114—COMMERCIAL PIPING (PLUMBING) (3 - 6 - 5)
The differences in materials and styles of fixtures and the many ways that these fixtures can be installed will form the basis of this course. Field trips will be taken to study various types of installations. Prerequisites: PLU 1100, PLU 1110. PLU 1112, PLU 1113.

PLU 1118—PLUMBING CODES (10 - 0 - 10)
A study of plumbing definitions and the rules and regulations governing installations, repairs, alterations and maintenance of all plumbing and materials. Consideration is given to the study of the rules and regulations governing the installation of storage heaters, storage tanks, and appliances. Regulations governing public water supply, workmanship, licenses, permits and fees. Inspection and test as set forth in the plumbing code.

PLU 1120—LOW PRESSURE STEAM SYSTEM (6 - 10 - 9)
The student will become acquainted with types of low pressure steam boilers, and the principles of boiler operation. Boiler accessories such as connectors, fittings, and insulation are to be included. Low pressure steam systems, their layout, and component parts will be studied and installed. Equipment used in heat transmission, such as radiators, coils, and connectors will be included.

PLU 1123—PANEL HEATING AND HOT WATER BOILERS (3 - 9 - 6)
The piping and accessory equipment needed to transfer hot water to radiators, heaters, and coils, and the advantages and disadvantages of each of these units will be studied, including apparatus for radiant heating and panel heating. Methods of "Sizing" equipment for various installations will be included. Practical application will be provided in installing this equipment.

PLU 1131—FUEL AND BURNERS (3 - 4 - 4)
Fuels and burners used in supplying heat for various types of heating systems coal, oil, natural gas, manufactured gas, liquified petroleum gas, and electricity. Experiments in equipment selecting, installation, adjusting and servicing will be conducted.

PLU 1132—CIRCUITS AND CONTROLS (3 - 4 - 4)
Electric, electronic and pneumatic controls as related to ventilation, refrigeration and air-conditioning systems. Practices in layouts, including symbols and schematic diagrams. Laboratory work in installation of control systems. Test instruments of their use. System adjustments for proper operation.

PLU 1135—OIL BURNER INSTALLATION (3 - 8 - 5)
Instruction covers the correct standards and methods of new and replacement oil burner installation, operational check out and balancing procedures with emphasis on safety aspects.

PLU 1010—FURNACE CONSTRUCTION (3 - 7 - 5)
Teaches the student the different designs of furnaces and its integrated components.

PLU 1011—WARM AIR FURNACES (5 - 0 - 5)
The student will learn the general knowledge of comfort systems for the customer in conditioning the air for heating, using guides for the different designs of furnaces for a residence.

PLU 1012—FURNACE SIZE AND RATINGS (3 - 7 - 5)
Introduction to actual load figuring and using short forms on residential heating loads.

PLU 1013—AIR HUMIDIFICATION (5 - 0 - 5)
Introduction to basic methods of sizing humidifiers for the various designs of warm air heating systems.

PLU 1014—WARM AIR SYSTEMS (3 - 4 - 5)
Introduction to duct designing for residences using various types of designs.

PLU 1015—REGISTERS, DUCT DESIGNS (3 - 0 - 3)
Introduction and practical usage of the various types of registers used in duct designs.

PLU 1016—FORCED-CIRCULATION SYSTEMS (RESIDENTIAL) (5 - 10 - 10)
A study of volumes and air friction within duct designs.

PLU 1017—NOISE LEVEL CONTROL (3 - 2 - 4)
The student will learn how to control noise level in a duct system pertaining to velocities, fittings, grills and insulation. The decimeter and velocity meter are used.

PLU 1006—PLUMBING PIPEWORK (PLU CODES) (2 - 3 - 3)
Introduction to the various types of plumbing tools, fittings, and small equipment as well as practical experience with threading, cutting, and caulking of various kinds of pipe used in the trade. The soldering of tubing and fittings will be included.

PLU 1007—DOMESTIC WATER SYSTEMS (PLU CODES) 2 - 8 - 5)
Introduction to hot and cold water systems including the location of pipes, valves, pumps, heating devices for private and public uses. Introduction to private and public sewerage and drainage systems including proper ventilation. Introduction to plumbing materials and installation of fixtures such as lavatories, bathtubs, and sinks along with proper trapping. Residential plumbing code will be emphasized.

PLU 1008—COMMERCIAL PIPING (PLU CODES) (2 - 3 - 3)
Introduction to commercial materials and fixtures with techniques of installation. Commercial plumbing code will be emphasized.

PLU 1009—CONSTRUCTION ESTIMATING (3 - 2 - 4)
Estimation of plumbing materials and cost from specifications of different types of structures.

POWER MECHANICS (PME)

PME 1101—INTERNAL COMBUSTION ENGINE (3 - 14 - 7)
Development of a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems; proper lubrication; and methods of testing, diagnosing and repairing.

PME 1102—ENGINE ELECTRICAL AND FUEL SYSTEMS (5 - 14 - 9)
A thorough study of the electrical and fuel systems of the automobile. Battery cranking mechanism, generator, ignition,, accessories and wiring; fuel pumps, carburetors, and fuel injectors. Characteristics of fuels, types of fuel systems, special tools, and testing equipment for the fuel and electrical system. Prerequisite: PME 1101.

PSYCHOLOGY (PSY)

PSY 102—GENERAL PSYCHOLOGY (3 - 0 - 3)
A study of the various fields of psychology; the developmental process: motivation; emotion, frustration and adjustment. mental health, attention and perception; problems of group living. Attention is given to applications of these topics to problems of study, self-understanding and adjustment to the demands of society.

PSY 1101—HUMAN RELATIONS (3 - 0 - 3)
A study of basic principles of human behavior. The problems of the individual are studied in relation to society, group membership, and relationships within the work situation.

RECREATION TECHNOLOGY (REC)

REC 110—PROFESSIONAL ORIENTATION (3 - 2 - 4)
Designed to introduce the history and fundamentals of organized recreation services, major program areas, organizations, special agencies and institutions which serve the recreation need of society. Group Dynamics field trips to be arranged.

REC 111—ARTS, CRAFTS (4 - 2 - 5)
Designed to acquaint students with practical activities and materials which groups practice in leather tooling, copper enameling, weaving, ceramics, pottery, poster making, paper-mache, clay modeling, wood carving, dyeing with natural and artificial dyes and other recreational arts and crafts. Emphasis on program planning. Use of such dramatic techniques as pantomime, spontaneous dialogue, characterization, story-telling, dramatic games in varied recreation situation. Emphasis on skills, knowledge, understanding and promotion of drama rather than on formal play-production.

REC 120—SOCIAL RECREATION LEADERSHIP (2 - 2 - 3)
A study of recreation based on group leadership techniques. Includes methods and materials for planning, organizing and conducting social activities for groups of various sizes and ages in a variety of social situations. Emphasis is on mechanics of planning and presenting a repertoire of activities for social recreation events. Major activities will be discussed, played, and/or demonstrated. Emphasis also on group involvement. Prerequisite: REC 110.

REC 125—TEAM SPORTS (2 - 4 - 4)
Offers a survey of the basic terminology, skills, and rules of selected team sports (softball, soccer, touch or flag football, volleyball, basketball) and their use in recreation. Emphasis is upon the supervisory aspects of the organization and administration and promotion of sports, including policies, problems, types of competition, record and forms rather than on mastery of performance skill. Emphasis on seasonal outdoor recreation and safety.

REC 134—FIRST AID AND SAFETY (1 - 2 - 2)
Prevention of accidents, standard and advanced courses as organized by the American Red Cross. Safety precautions in various recreational areas and situations.

REC 135—INDIVIDUAL LIFETIME SPORTS (2 - 4 - 4)
Offers a survey of the basic terminology, skills, and rules for selected individual lifetime sports, i.e., archery, badminton, bowling, golf, tennis. Emphasis is upon the supervisory aspect, knowledge and understanding of the organization, administration and promotion of sports including policies, problems, types of competition, records and form rather than a mastery of performance skills. Emphasis on seasonal outdoor recreation; safety.

REC 240—FIELD STUDIES (0 - 30 - 3)
Students are assigned to work in agencies (Y.W.C.A.'s, Y.M.C.A.'s, Boy Scout, Girl Scout Camps, Rest Homes, Community Recreation Centers, Playgrounds, Private Camps) for 30 hours a week minimum. This course is designed to give practical experience under supervision, and the student will be working as a recreation leader with responsibility for planning, conducting and evaluating an activity or program.

REC 247—SKILL PERFORMANCE (3 - 0 - 3)
The student will be teaching and/or performing activity skills under supervision as planned on a study guide; includes organization and scheduling of activity; equipment order and preparation; tournaments and informal game play; suitability of activity to age group, time and location.

REC 248—ORIENTATION AND EVALUATION (3 - 0 - 3)
Designed to introduce the student to his/her specific job as detailed in the Field Studies course: Attention is given to class organization, student instructor planning and method of teaching skills, evaluation of work experience.

REC 249—LEADERSHIP TECHNIQUES (3 - 0 - 3)
Directed observation of staffings; factors that shape and condition administrative decisions; function of supervision, the organization and planning of supervision.

REC 250—RECREATION PROGRAMMING (3 - 2 - 4)
Study of the nine major program areas in recreation. Look at types of recreation opportunities available to individuals, groups, neighborhoods or municipalities and the modern methods of providing these opportunities.

REC 256—CONSERVATION OF RENEWABLE RESOURCES (2 - 3 - 3)
The concepts and problems of coordinated use and management of the renewable resources; namely soil, air, water, vegetation and fauna. Field trips will be utilized to demonstrate the proper management as well as misuse of renewable resources.

REC 258—SWIMMING POOL MANAGEMENT (2 - 4 - 4)
Emphasis on pool sanitation, filtration, personnel, and safety. Also covered will be pool designing, events and trends.

REC 259—RECREATION ADMINISTRATION (3 - 2 - 4)
Responsibilities of the administrator; administration of tax-supported recreation; other sources of recreation funds, setting up guiding policies; financial planning, records, fees and charges, expenditures, budgets, unit costs; measuring attendance and participation; annual departmental reports, personnel recruitment and selection, position classification plan, performance evaluation, promotions, hours and conditions of work; In-service training. Public relations, use of community resources; cooperation with local public agencies, other communities, county, state and federal authorities.

REC 260—MAINTENANCE AND OPERATIONS (4 - 2 - 5)
Methods of operation of various park and recreation facilities for public use, protection and law enforcement; job planning and scheduling, preventive maintenance and modern maintenance techniques and materials.

REC 265—CAMPGROUUND MANAGEMENT (2 - 4 - 4)
Study of the trends of outdoor recreation and camping; franchises; costs and upkeep; user fees; problems of campground management; emphasis on family camping; programs. Includes study of private state and federal campground locally, nationally and an overview of campground management around the world. Field trips.

REC 266—SPECIAL RECREATION (3 - 0 - 3)
Emphasis will be given to recreation programs and employment opportunities in rest homes, hospitals, industry and retirement resorts or villages and service organization.

R EC268—LEGAL PRINCIPLES AND PRACTICES IN RECREATION (3 - 2 - 4)
This course is designed to acquaint the student with the general legal principles which are followed in recreational agency law. It trains the student in the application of those principles to business situations. Specific emphasis on areas of legal liability in medical treatment, insurance; recreation legislation; State recreation enabling acts; court decisions on specific areas such as segregation; defenses against negligence; value of releases and waivers; accident reports.

REC 273—RECREATIONAL GROUNDS MANAGEMENT (2 - 4 - 4)
Presents basic horticulture and park layout. Use of plant materials as designing elements in the recreational landscape and play areas. Turf maintenance in special use and heavy use areas.

REC 277—STATE AND FEDERAL LANDS MANAGEMENT (3 - 2 - 4)
State and Federal lands management design problems relating to the recreational use of national parks, forests, waterways and other non-urban areas. Survey of responsibilities of park personnel; recreation program administration; construction and maintenance; enforcement of regulations on state and national lands.

REC 278—P'LANNING OF RECREATIONAL AREAS, FACILITIES AND EQUIPMENT (2 - 4 - 4)
Site design and layout; area types and standards, methods of acquiring land for recreation; design and equipment for recreation areas and indoor recreation. Purchase care and dispensing methods for equipment and supplies.

REC 279—SEMINAR (3 - 2 - 4)
A culminating course dealing with group discussion of selected current controversial issues and problems and providing opportunity for practice in seeking unbiased solution to professional problem. Prerequisite: six previous quarters in Recreational Technology.

RECREATION TECHNOLOGY (REC)

ELECTIVES

REC 140—ELEMENTARY SWIMMING (0 - 2 - 1)
Required of all students who have failed the swimming classification test. Designed to provide basic water safety skills outlined by the American National Red Cross.

REC 141—INTERMEDIATE SWIMMING (0 - 2 - 1)
The course follows the American National Red Cross outline for intermediate swimming including the basic strokes and diving skills.

REC 142—SENIOR LIFE-SAVING (0 - 2 - 1)
Lifesaving skills and techniques. Red Cross Certification issued.

REC 143—WATER SAFETY INSTRUCTOR (0 - 2 - 1)
Red Cross certification issued. Prerequisite: REC 142.

REC 144—CANOEING (0 - 2 - 1)
Handling, carrying and paddling the canoe.

REC 241—INTERMEDIATE TENNIS (0 - 2 - 1)
Game practice of basic skiils. Emphasis on games, strategy and doubles. Prerequisite: FEC 125.

REC 242—INTERMEDIATE HIKING (0 - 2 - 1)
Practice of basic hiking skills. Endurance and survival hikes.

REC 243—MOUNTAINEERING (0 - 2 - 1)
Rock climbing and basic mountaineering skills.

REC 244—SNOW SKIING (0 - 2 - 1)
Beginning and Intermediate skills. Offered at a ski lodge located within forty miles of campus.

REC 118, 128, 138, 158, 158, 178—FIELD WORK I-VI (0 - 2 - 1)
Practical experience in working with an agency leader as a junior leader. Exposure to leadership responsibilities in working with various age and sizes of groups. Also work experience in intramural program as activity supervisor. Prerequisite: Pre-test; consent of advisor.

REC 119, 129, 139, 159, 169, 179—INTRAMURALS I-VI (0 - 2 - 1)
Practical experience in setting up a program of activities for the Student body meets at noon daily. Care and dispensing of equipment; supervision of activities.

REC 160—INDOOR SLIMNASTIC EXCERSISES CONDITIONING ACTIVITIES (0 - 2 - 1)

RADIO BROADCASTING (RTV)

RTV 101—INTRODUCTION TO BROADCASTING (2 - 6 - 4)
An overview of the entire field of radio broadcasting, including the history of the origin and development of the broadcasting industry. An introduction to control board operations including mike techniques, announcing, voice control, mixing and other processes utilized in broadcast control and studio areas. Emphasis is placed on audio equipment, including recorders and players.

RTV 102—NEWSWRITING (3 - 2 - 4)
A more advanced look at the field of broadcast journalism, with special emphasis placed upon the gathering, writing, editing, and processing of news and speciality programs, including documentaries.

RTV 112—CREATIVE WRITING (3 - 0 - 3)
An introductory course in writing for electronic media. Includes writing techniques and fundamentals of creating meaningful sounds.

RTV 200—BROADCAST PRODUCTION TECHNOLOGY (3 - 6 - 6)
The development and practice of writing and producing continuity for radio, including special events. Uses of dialogue, sound effects, music, and verse for appealing continuity. Emphasis is placed on producing a short radio program for school station.

RTV 206—PROGRAMMING AND PROMOTION (3 - 2 - 4)
Concentration placed on the logging and format of various radio programs. Principles of successful radio-television advertising; with emphasis on media research, rate structure, programming and creativity.

RTV 210—FIELD OPERATIONS (3 - 6 - 6)
Experience with small camera systems. Uses of the porta-pak and single camera systems. Portable or mobile set-ups for remote taping or broadcasting, along with experience in basic production techniques such as fades, followthrough focus and audio dub.

RTV 211—STUDIO OPERATIONS (3 - 6 - 6)
Overview of elements of television: cameras, sound, lighting, film chains, videotape recordings, optics, and studio control centers.

RTV 217—TECHNICAL PRODUCTION (3 - 6 - 6)
Application of control room facilities. Operation of waveform monitors, switchers, color set-up, and basic signal monitors.

RTV 218—ELECTRONIC EDITING (2 - 3 - 4)
The background and history of electronic editing is explored. Different types of electronic editing is discussed such as add and insert editing.

RTV 219—ADVANCED PRACTICUM (3 - 6 - 6)
A course In program origination, producing, directing, and performing. Concentration is placed on being director of the school station or training at a local and audience analysis along with the design of an evaluation system.

RTV 220—PREPRODUCTION PLANNING (3 - 2 - 4)
Designing and developing a videotape production, from concept to finish tape. Emphasis is placed on the need for specific objectives, choice of strategies, and audience analysis along with the design of an evaluation system.

RTV 245—JOURNALISM (3 - 0 - 3)
A journalist approach and techniques in writlng for electronics media.

SCIENCE (BIO, CHM, PHY, SCI)

BIOLOGY (BIO)

BIO 101—GENERAL BIOLOGY (3 - 4 - 5)
An introduction to the biological principles; a study of the chemical and physical properties of the living cell; selected laboratory experiments to reinforce lectures.

CHEMISTRY (CHM)

CHM 101—CHEMISTRY I (3 - 4 - 5)
Study of the physical and chemical properties of substances; atomic structure, bondlng, stoichiometry, gas laws, preparations and properties of solutions. Laboratory experiences parallel lecture topics.

CHM 102—CHEMISTRY II (3 - 4 - 5)
Continuation of Chemistry I; qualitative analysis, organic chemistry and environmental chemistry. Laboratory experiences to accompany lecture.

PHYSICS (PHY)

PHY 100—GENERAL PHYSICS (1 -2 - 3)
An introduction to physical principles and their application in industry. Topics in this course include measurements; properties of solids, liquids and gases; basic electrical principles.

PHY 101—PHYSICS I: PROPERTIES OF MATTER (3 - 2 - 4)
A fundamental course covering several basic principles of physics. Atomic theory of matter, solids and their characteristics, liquids at rest and in motion, gas law and applications. Includes laboratory experiences.

PHY 102—PHYSICS II: WORK, ENERGY, POWER (3 - 2 - 4)
Includes such topics as statics, forces, center of gravity, and dynamics. Both English and metric measurement systems are included. Practical application of theory and data emphasized.

PHY 103—PHYSICS III: LIGHT AND SOUND (3 - 2 - 4)
Introduces the theory of wave motion. Principles involvlng wave generation, propagation, control, and uses are dealt with both in theory and In laboratory experiences.

PHY 1101—APPLIED SCIENCE I (3 - 2 - 4)
An introduction to physical principles and their application in industry. Topics in this course include measurement; properties of solids, liquids, and gases; basic electrical principles.

PHY 1102—APPLIED SCIENCE II (3 - 2 - 4)
The second course in applied physical principles. Topics introduced are heat and thermometry and principles of force, motion, work, energy, and power. Prerequisite: PHY 1101.

GENERAL SCIENCE (SCI)

SCI 101—GENERAL SCIENCE (3 - 2 - 4)
Study of basic concepts from biological, physical and natural sciences. Laboratory experiences provide opportunities to develop projects for demonstrating simple science concepts to young children, utilizing materials from nature and simple equipment. Each student will develop a series of projects appropriate for a specific level of development.

SOCIAL SCIENCE (SSC)

SSC 201—SOCIAL SCIENCE I (3 - 2 - 4)
An integrated course in the social sciences drawing from the fields of anthropology, psychology, history, and sociology.

SSC 202—SOCIAL SCIENCE II (3 - 2 - 4)
A further study of social sciences with emphasis on economics, political science, and social problems as they relate to the individual. Prerequisite: SSC 201.

SOCIOLOGY (SOC)

SOC 102—PRINCIPLES OF SOCIOLOGY (5 - 0 - 5)
A study in the principles of sociology, providing an understanding of culture, collective behavior, community life, social Institutions and social change. Presents the scientific study of man's behavior in relation to others, the general principles affecting the organization of such relationships and the effects of social life on human personality and behavior.

SOC 207—SOCIOLOGY—RURAL SOCIETY (3 - 0 - 3)
A study of selected elements of rural sociology with emphasis on current social changes. The course provides a sociological background for the understanding of rural social changes. Areas of study include rural culture, group relationships, social classes, rural and suburban communities, farm organizations, the communication of agricultural technology, rural social problems, agricultural adjustment and population change.

SURVEYING (CIV)

CIV 100—BOUNDARY CONTROL (4 - 0 - 0 - 4)
The course covers the legal principles of boundary control to acquaint the student with the correct interpretations of deed description.

CIV 101—SURVEYING (1 - 3 - 4 - 3½)
Care and use of instruments, theory and practice of plane surveying including taping differential and profile leveling, transit, stadia, and transit-tape surveys.

CIV 102—SURVEYING II (1 -3 - 4 - 3½)
Triangulation of ordinary precision, use of plane table, calculation of areas of land, land surveying, topographic surveys and mapping.

CIV 103—SURVEYING III (1 - 3 - 4 - 3½)
Route surveys by ground and aerial methods; simple, compound, reverse parabolic and spiral curves; geometric design of highways, highway surveys and plans including mass diagrams.

WELDING (WLD)

WLD 1101—BEGINNING WELDING (0 - 3 - 1)
Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice will be given for surface welding, bronze welding, silver-soldering, and flame-cutting methods applicable to mechanical repair work.

WLD 1102—OXYACETYLENE WELDING (3 - 13 - 7)
Introduction and practical operations in the use of oxyacetylene welding methods applicable to general repair, open butt welding and pipe welding. Safety in the assembly and operation of equipment and worksite wlll be stressed.

WLD 1104—ARC WELDING (3 - 9 - 6)
Introduction to the history of oxyacetylene and arc welding, the principles of welding and cutting, nomenclature of the equipment, assembly of unit. The operation of various AC transformers. AC and DC rectifiers, and DC motor generator arc welding units. Welding procedures such as practice of puddling and carrylng puddle, running flat beads, and the cutting of straight lines with the torch. Safety precedures are stressed throughout the program of instruction.

WLD 1106—PIPE WELDING (3 - 11 - 6)
A course designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed positions using shield metal arc welding processes. Prerequisites: WLD 1108 and WLD 1112.

WLD 1107—TEST OF WELDED JOINTS (2 - 3 - 3)
This unit covers both destructive and non-destructive testing of welded joints. Prerequisites: WLD 1102 and WLD 1108.

WLD 1108—ARC WELDING (3 - 15 - 8)
Introduction to arc welding, the principles of welding and nomenclature of the equipment, assembly of unit. The operation of various AC transformers, AC and DC rectifiers, and DC motor generator arc welding units. Welding procedures such as practice of puddling and carrying puddle, running flat beads. Safety procedures are stressed throughout the program of instruction.

WLD 1110—BURNING AND FITTING PIPE JOINTS I (2 - 10 - 5)
This course is designed to provide practice in the preparation of pipe joints.

WLD 1111—BURNING AND FITTING PIPE JOINTS II (2 - 9 - 5)
A continuation of Burning and Fitting Pipe Joints I with more time devoted to the actual fitting and tack welding pipe joints. Prerequisite: WLD 1110.

WLD 1112—ADVANCED ARC AND INERT GAS WELDING (2 - 11 - 5)
A continuation of WLD 1108. Introduction and practical operations in the use of Tungsten Inert gas welding. Prerequisite: WLD 1108.

WL D1113—METALLURGY (3 - 0 - 3)
An introduction course in metallurgy; emphasizing the properties and manufacturing of metals, the purpose of heat treatment, and annealing, hardening and tempering.

WLD 1141—WELDING PROCEDURES (3 - 7 - 5)
Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice will be given for surface welding and flame cutting. Emphasis on electric arc and gas welding methods applicable to mechanical repair work. Bronze welding and silver soldering may also be covered.

CONTINUING EDUCATION

OCCUPATIONAL EXTENSION

ADULT BASIC EDUCATION

OFF-CAMPUS CURRICULUM

HUMAN RESOURCES DEVELOPMENT

COMMUNITY SERVICE

CONTINUING EDUCATION

The Institue, through its Extension Office, offers to any adult, regardless of his educational background, an opportunity to continue learning in a wide variety of fields. Classes can be organized either on or off campus, whenever and wherever there is a need expressed by a sufficient number of interested persons in any community in the primary service area of Jackson, Macon and Swain counties.

Extension courses are specially designed courses, usually of short duration ranging from a few hours to one or more quarters, structured so that they provide educational opportunities *either to prepare for entry* into an occupation, to *upgrade* the occupational competence of those already employed in the occupation, or work toward self-improvement.

Extension classes do not earn academic credits which can be recognized in a diploma or degree program; however, a certificate is awarded upon successful completion. For some courses, C.E.U.'s (Continuing Education Units) will be awarded, one C.E.U. to be given for each ten contact hours of participation in an organized Continuing Education experience under responsible sponsorship, capable direction and qualified instruction

Continuing education also provides supportive services for off-campus curriculums. The courses meet the same standards and carry the same credit as on-campus courses and are transferrable into the appropriate full-time curriculum.

OCCUPATIONAL EXTENSION

Through occupational extension, a wide varlety of courses are offered for academic, technical, vocational training or self-improvement. Classes designed to provide academic, vocational and technical skills will require a $3.00 registration fee. Exceptions will be Adult Basic Education, Firemanship Training and Law Enforcement Classes of a recreational or hobby nature must be self-supporting. An adult 18 years old or older may enroll.

Courses are available in the following areas:

(ACADEMIC)

ARTS & CRAFTS: Basketry, Ceramics, Decoupage, Cornshuck Crafts, Jewelry, Leathercraft, Painting, Pottery, Weaving, Woodworking.

HUMANITIES: Language, Religion, Economics, Political Science.

HIGH SCHOOL EQUIVALENCY PREPARATION: To assist adults in preparing for the G.E.D. testing (High School Equivalency Certificate) the continuing educational division holds classes in G.E.D. preparation, which covers the following areas: Grammar, Literature, Mathematics Social Studies, Natural Science. Students wishing to take the G.E.D. tests are referred to the evening director at Southwestern Technical Institute, under whose direction these tests are administered.

(TECHNICAL)

CIVIL ENGINEERING: Surveying, Drafting, Architecture, Wastewater Treatment.
PHYSICS: Electronics, Electricity, Mechanics.

(VOCATIONAL)

AGRICULTURAL: Farm Records, Gardening, Animal Science, Pest Control, Ornamental Horticulture.

BUSINESS: Advertisement, Finance and Credit, Insurance, Marketing, Real Estate, Transportation, Office Management, Bookkeeping, Typing Accounting, Shorthand, Personal Improvement.

HEALTH AND SAFETY: Ambulance Attendant, Emergency Medical Technician, Civil Preparedness, Drlver Education, First Aid, Nurse's Aide, Safety.

HOME ECONOMICS: Sewing, Child Care, Food Preparation, Interior Design.

TRADES AND INDUSTRY: Carpentry, Metal Working, Plastics, Printing, Public Utilities, Automotive Servicing, Graphic Arts, Electrical Wiring, Masonry, Plumbing, Textiles, Woodworking.

SPECIALTY OCCUPATIONS: There are five areas of specialized training offered through the continuing education division which are assisted by area consultants. These classes are designed to meet the general or specific training and re-training needs of groups, private individuals, employees in business, governmental agencies and other public institutions. Participants can earn a number of certificates and awards upon successful completion.

LAW ENFORCEMENT

Introduction to Police Science — 160 hours

This course is designed to provide the newly-employed law enforcement officer with the basic job knowledge, skills and abilities to perform entry level police work. The material covers: Constltutional law, basic principles of North Carolina Criminal and Motor Vehicle Law, traffic accident investigation and reporting basic laws of arrest, search and seizure, evidence, general criminal investigation, court structure and procedure, report writing, testifying in court, patrol operations, techniques and methods of arrest, public and human relations, first aid, firearms and defensive tactics.

Upon successful completion of this course, the officer can be certified by the Criminal Justice Training and Standards Council as a law enforcement officer in the State of North Carolina.

Upon successful completion of this course, an officer may wish to pursue a full degree program. See description of Law Enforcement in curriculum section. In addition to basic law enforcement training courses, various specialized law enforcement courses are conducted in the area served by Southwestern Technical Institute such as: Training required for Breathalyzer Operators, Criminal Law and Procedures, Narcotics and Dangerous Drugs, Criminal Investigation and related courses.

FISHERIES TRAINING

The program is designed to assist present trout growers make their operations more efficient as well as provide potential growers the necessary information to set up a profitable operation. Major topics are Trout Feeding, Diseases and Parasites, Marketing, Processing, Recreation Sales, Waste Disposal and Laws and Regulations; Watershed Management courses give needed information concerning wise Land Use Management; and Artificial Bait Construction (Flytying) is designed to provide training needed to construct dry flies, wet fles, nymphs, and streamers.

FIRE SERVICE TRAINING

A variety of courses are offered in cooperation with individual fire departments in the service area. Specific units of study are designed to increase the firefighter's technical knowledge and improve his skills in fire-ground operation. Classes may be offered in any order according to the needs of each fire department. Examples of Firemanship classes are:

Area Fire Schools
Arson Detection
Civil Disorder
Compressed Gas Emergencies
Fire Apparatus Practices
Fire Brigade Training
Firefighting Procedures
Fire Stream Practices
Forcible Entry
Home Fire Safety
Hospital Fire Safety
Hose Practices
Introduction to Firefighting
Ladder Practices
Officer Training
Portable Fire Extinguishers
Protective Breathing Equipment
Rescue Practices
Rope Practices
Salvage and Overhaul Practices
School Bus Evacuation
Ventilation
Teacher Education
Bombing and Bomb Threats

MANAGEMENT DEVELOPMENT PROGRAM

The Management Development Program is designed to upgrade the supervisory and mid-management personnel in business and industry. Classes are scheduled in accordance with the needs of industry. Qualified instructors are provided without charge to the employee.

The courses listed below are available at Southwestern Technical Institute and may be credited toward the Diploma in Management Development Training awarded by the Department of Community Colleges for the completion of any combination of courses totaling 160 hours. Credit may be given for courses previously taken at S. T. I. or elsewhere.

Course Title

Principles of Supervision
Job Relations Training
Science of Human Relations
Art of Motivating People
Economics in Business and Industry
Effective Communications
Effective Writing
Effective Speaking
Speed Reading
Work Measurement
Job Methods
Conference Leadership Training
Instructor Training
Creative Thinking
Industrial Safety and Accident Prevention
Industrial First Aid
The Supervisor in North Carolina
Job Analysis Training
Management Primer
Cost Accounting for Supervisors
Supervision in Hospitals

HOSPITALITY

The Department of Community Colleges offers Hospitality Training as one answer to North Carolina's need for more trained personnel in the area of food, lodging, recreation and travel. Some examples of classes are:

Food Purchasing
Food Preparation
Housekeeping
Hospital Human Relations, Services
Hotel-Motel Management
Menu Planning
Modified Diets
School Food Service
Quantity Food Production
Use and Care of Equipment
Waiter-Waitress Training

NEW AND EXPANDING INDUSTRIES

"One of the basic objectives of Southwestern Technical Institute is to stimulate the creation of more challenging and rewarding jobs for the people of our area by providing a customized training service to new and expanding industries. Subject to only minimal limitation this institution, in cooperation with the Industrial Services Division of the State Department of Community Colleges, will design and administer a special program for training the production manpower required by any new or expanding industry creating new job opportunities in North Carolina."

This program includes the following services:

1. Consultation in determining training areas and developing appropriate courses.
2. Selection, training and salary for instructors for duration of training period.
3. Provision of suitable space for training prior to plant completion.
4. Assumption of equipment installment costs and some non-salvageable materials.

ADULT BASIC EDUCATION

Adult Basic Education is a federally funded program coordinated through the Department of Community Colleges. In the Southwestern Tech service area, two-thirds of the population over age 25 do not have a high school education. ABE classes are aimed at providing a beginning or continuing education for these people. Classes on three levels cover from beginning reading, writing and arithmetic to a more advanced study of English grammar and usage, mathematics and social sciences.

The materials and the instruction are designed to meet adults' interests. Special emphasis is given to developing "coping skills;" for example, reading and mathematics are presented through use of Consumer Education materials.

The program lays the groundwork for individuals to enter the High School Equivalency classes or take the G. E. D. examination.

At least one class in each county maintains open enrollment regardless of numbers throughout the school year to insure all adults an opportunity to continue their education. Special pre-service and in-service training is provided for all instructors to better enable them to provide meaningful educational experiences for all adults.

OFF-CAMPUS CURRICULUM

Through the Continuing Education Division, almost any curriculum (credit) course can be offered off-campus. Exceptions are those courses which require facilities and materials which are available only on the STI campus. The classes are designed to suit the needs of our service area residents who cannot attend regular campus classes.

Courses are organized by requests from individuals or groups (minimum of 10) and held at a time and place convenient for class members.

The cost of off-campus classes is $3.25 per credit hour. Any adult 18 years of age and older may enroll. For specific information regarding admission requirements, see appropriate subject area elsewhere in the catalogue.

COUNSELING SERVICES

The Division of Continuing Education arranges off-campus counseling as the need arises. This is coordinated through Student Services. Referrals are made to other programs and assistance is given in arranging for G. E. D. testing through the Evening Director.

GENERAL EDUCATION DEVELOPMENT TESTS

In July, 1969, Southwestern Technical Institute became an official General Educational Development Testing Center. These tests cover five broad areas: English Expression, Literature, Mathematics, Social Studies, Natural Science.

Persons receiving a total passing score of 225 points with no single test score below 35 are awarded a High School Equivalency Certificate by the North Carolina Department of Public Instruction. This certificate is generally accepted in the same basis as a high school diploma for employment, job promotion and higher education.

Preparation: A person wishing to take the G.E.D. tests should come to the institute for an initial interview and preliminary counseling. If it appears that the individual is not yet fully ready to take the tests, he can select one of three ways to complete hs preparation: The Adult Basic Education program, High School Equivalency classes, or Developmental Studies. Any of these will help him acquire the skills necessary for success on the tests.

Application requirements: In order to take the G.E.D. tests, a person must:

1. Be at least 18 years of age.
2. Be a resident of North Carolina.
3. File an application which is available at the institute or from his county Superintendent of Schools.

In the event that any single test score or the total score is unsatisfactory, a retest may be taken after six (6) months of further study.
At the time of application, a testing date will be set up. Every effort will be made to arrange a time which will be at the convenience of the applicant so that he will not have to take time off from work or other responsibilities.

HUMAN RESOURCE DEVELOPMENT

The Human Resource Development Program provides pre-employment training, job placement and job coaching for disadvantaged adults in the service area. Anyone eighteen (18) years of age or over who is unemployed or experiencing difficulty in retaining employment is eligible to participate in the program.

Adult Education (120 hours) is provided to assist students in expansion of academic skills in preparation for their G.E.D. Human Resource Development (120 hours) is provided to expand the students communication, human relations, and job survival skills necessary in maintaining more permanent employment.

The classes are eight weeks, with the cycles being repeated for to five times per year. For further information and class registration, contact the H.R.D. office at STI or Phone: 586-4471.

COMMUNITY SERVICE PROGRAMS

The Continuing Education Department is always alert to possibilities of sponsoring public events for which no charge is made. Such programs may consist of art exhibits, dramatic presentations, poetry or other readings, lectures on a wide variety of subjects, or any other topic of special interest. With the completion this year of new facilities, the community services program will be expanded.

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B.S., M.A., Western Carolina University

George Stanley ---- Administrative Assistant to Business Manager
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Peggy D. Gates ---- Supply and Equipment Coordinator

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Mabel Bennett ---- Secretary-Receptionist
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B.S., Western Carolina University

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Carl Queen ---- Automotive Mechanics
B.S., M.I.E., Western Carolina University

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B.S., Western Carolina University

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B.A., Mary Washington College; M.A., A.B.D., University of North
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A.B., J.D., University of North Carolina at Chapel Hill

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B.A., M.A., Western Carolina University

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B.S., Western Carolina University, Graduate Study, Western Carolina
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