

SOUTHWESTERN TECHNICAL INSTITUTE

|
AN
OPEN
DOOR



Catalog 1972-74

SOUTHWESTERN TECHNICAL INSTITUTE

SYLVA, NORTH CAROLINA 28779

Accredited by
Southern Association of Colleges and Schools
North Carolina State Board of Education

Approved and Recognized by
North Carolina State Board of Registration
for Professional Engineers and Land Surveyors
North Carolina Board of Cosmetic Arts
Board of Nursing
Veterans Administration

**Catalog 1972-1973
1973-1974**

AN INSTITUTION
OF
THE NORTH CAROLINA DEPARTMENT
OF COMMUNITY COLLEGES

NOTE

Southwestern Technical Institute issues this catalog for the purpose of furnishing prospective students and other interested persons with information about the institution and its programs. Announcements contained herein are subject to change without notice and may not be regarded in the nature of binding obligations on the Institute or the State. Efforts will be made to keep changes to a minimum, but changes in policy by the State Board of Education, The Department of Community Colleges, or by local conditions may make some alterations in curriculums and fees necessary.

VISITORS

Visitors and prospective students are always welcome at Southwestern Technical Institute, which is located on the Webster Road. Guide service for groups or individuals will be provided by the Director of Student Services on week days between 9:00 a.m. and 4:00 p.m. The school is open until 10:00 p.m., and individuals may visit at their convenience.

FOREWORD

Southwestern Technical Institute is dedicated to the task of providing the educational and training opportunities needed by any of the citizens within its service area. In addition, the institution pledges itself to help its students grow in the ability to contribute to society to their fullest potentialities.

Southwestern Technical Institute offers a variety of educational programs and training opportunities. These are available on campus and in the various communities within the service area. These programs are offered during the day and in the evening. Each program is designed to meet specific needs of all adults of Southwestern North Carolina.

At the present time some of the technical curricula are being changed to seven quarters and some course content is being rewritten. Addenda to this edition of the catalog will be published as they become available.

E. E. Bryson

President

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SCHOOL CALENDAR

1972-73

Fall Quarter

| | |
|-------------------------|------------------------|
| Registration | Thursday, September 7 |
| Classes Begin | Friday, September 8 |
| Fall Quarter Ends | Wednesday, November 22 |

Winter Quarter

| | |
|--|----------------------|
| Registration and Classes Begin | Monday, December 4 |
| Last Day Before Christmas Holidays | Friday, December 22 |
| Classes Resume | Wednesday, January 3 |
| Winter Quarter Ends | Tuesday, February 27 |

Spring Quarter

| | |
|---------------------------------------|--------------------|
| Registration and Classes Begin | Monday, March 12 |
| Last Day Before Easter Holidays | Thursday, April 19 |
| Classes Resume | Tuesday, April 24 |
| Spring Quarter Ends | Tuesday, May 29 |

Summer Quarter

| | |
|--------------------------------------|-------------------|
| Registration and Classes Begin | Monday, June 11 |
| Summer Quarter Ends | Monday, August 27 |
| GRADUATION | Friday, August 24 |

SCHOOL CALENDAR

1973-74

Fall Quarter

| | |
|-----------------------------|--|
| Instructor In-Service | Tuesday through Friday September 4, 5, 6, 7 |
| Registration | Monday, September 10 |
| Classes Begin | Tuesday, September 11 |
| Thanksgiving Holidays | Thursday and Friday November 22, 23 |
| Fall Quarter Ends | Tuesday, November 27 |
| Instructor Work Day | Wednesday, November 28 |

Winter Quarter

| | |
|---------------------------|---|
| Registration | Monday, December 10 |
| Classes Begin | Tuesday, December 11 |
| Christmas Holidays | Monday, December 24 through Tuesday, January 1 |
| Winter Quarter Ends | Tuesday, March 5* |
| Instructor Work Day | Wednesday, March 6 |

Spring Quarter

| | |
|---------------------------|-------------------|
| Registration | Monday, March 18 |
| Classes Begin | Tuesday, March 19 |
| Easter Holiday | Monday, April 15 |
| Spring Quarter Ends | Monday, June 3 |
| Instructor Work Day | Tuesday, June 4 |

Summer Quarter

| | |
|--|----------------------------------|
| Registration | Monday, June 10 |
| Classes Begin | Tuesday, June 11 |
| Independence Day Holidays | Thursday and Friday July 4, 5 |
| Summer Quarter Ends | Tuesday, August 27 |
| GRADUATION | Friday, August 23 |
| Instructor Work Day | Wednesday, August 28 |
| * Days lost due to inclement weather will be made up during this period. | |

STATE BOARD OF EDUCATION

Robert W. Scott.....Governor
 H. P. Taylor.....Lieutenant Governor
 Edwin Gill.....State Treasurer
 Dr. A. Craig Phillips.....State Supt. of Public Instruction, Secretary
 W. Dallas Herring.....Rose Hill, Chairman
 Dr. Ben E. Fountain, Jr.....State President
 Department of Community Colleges
 Anthony Bevacqua.....Dean of Degree and Diploma Programs
 Department of Community Colleges

BOARD OF TRUSTEES

James B. Childress.....Sylva
 W. B. Dillard.....Sylva
 Paul Ellis, Chairman.....Sylva
 Paul Holt, Jr.....Sylva
 Oscar Ledford.....Franklin
 Bruce MacMurray.....Franklin
 Noah Powell.....Cherokee
 Odell Shuler.....Bryson City
 Charles S. Slagle.....Franklin
 Carl Stanford.....Sylva
 George J. Stewart.....Cashiers
 John Wikle.....Bryson City

CURRICULUM ADVISORY COMMITTEES

Automotive Mechanics

Roger Gunter
 Ray Kinsland
 C. C. Mason
 Roy Rickman
 Don Scott
 Jon Sossaman

Building Trades

W. B. Dillard
 Ed Erwin
 Dan Hooper
 Charles Queen
 Claude Welch

Business

James Barrett
 James Childress
 Bruce MacMurray
 Dr. Eugene Vosecky
 Bill Wilson

Carpentry

Clyde Andrews
 Ray Clark
 Dan Hooper
 Edwin Ulsenheimer
 Bruce Wike

Commercial Art and Advertising Design

Wick Andrews
 George Becker
 Bob Biddle
 John Parris
 Jimmy Reed
 Representative Charles Taylor

Management Development Training

John Brown
 P. K. Ferree
 Jim Parrish
 Jim Rogers
 Bob Scott
 George Shannon

Practical Nurse Education

Roger Bisson
 Ruby Bryson, R.N.
 Rev. Robert Clegg
 Dr. P. E. Dewees
 Verayle Franks
 Polly Fuller
 Carolyn Middleton, L. P. N.
 Don Morgan
 Helen A. Poteet
 Dr. Creighton Sossamon
 Mildred Thutt, R.N.

Cosmetology

Sue Hall
 Johnny Heinz
 Ruth Moore
 Eunice Skidmore
 Muriel Smith
 Cathy Williams
 Mary Gunter

Electronics Servicing

Sam Buff
 Claude Campbell
 Julian Hirt
 Bill Mast
 Howard Warren

Fire Service Training

P. R. Bennett
 John Bulgin
 George Crawford, Jr.
 Thomas (Bud) Rogers
 Boyd Sossamon
 James Talley

Hospitality Training

Lois Alexander
 Ruby Bumgarner
 Eileen Dillard
 Merriman Doster

Law Enforcement

Carl Arvey
 Tom Gibbs
 Bill Ledford
 James T. Maxey
 Ernest Wright
 Kenneth Cope
 Fred Holcombe
 William D. Lewis
 George Moses

Recreation Technology

Jere Farley
 J. D. Foust
 Jack H. Frauson
 Charles Hensley
 J. W. Jenkins

ADMINISTRATION

President

Edward E. Bryson.....President
 B.S., M.A., Western Carolina University
 Betty H. Arbaugh.....Secretary

Instructional Services

Donald N. Irwin.....Dean of Instruction (Acting)
 B.A., Kings College, New York; Ed.M., University of Delaware
 Sheridan Smith.....Occupational Education Director (Acting)
 B.A., Western Carolina University
 Kathryn Zachary.....Continuing Education Director
 B.S., Western Carolina University; Graduate Study,
 Western Carolina University and University of North
 Carolina at Greensboro
 Charles W. Graham, Jr.....Evening Director (Acting)
 B.A., M.A., Western Carolina University
 Dorris Beck.....Media Services Director
 B.S., M.A., Western Carolina University
 Nelda Mills.....Librarian
 B.S., Western Carolina University; Graduate Study, Western
 Carolina University and Appalachian State University
 Norman Gilbert.....Cooperative Education Director
 B.A., Piedmont College
 Audrey Cox.....Secretary
 Judith Ray.....Secretary-Library Aide
 Inez Smith.....Secretary-Library Aide
 Aletta Pangle.....Secretary
 Sandra Rankin.....Secretary
 Christine Walker.....Media Production Technician

Student Services

Richard O. Wilson.....Student Services Director
 B.S., M.A., Western Carolina University
 Grady W. Corbin.....Assistant Director of Student Services
 B.S., Western Carolina University
 David A. McClure.....Registrar
 B.S., Western Carolina University; Graduate Study,
 University of Tennessee
 Jinnie Hall.....Financial Aids Coordinator
 Martha L. Robinson.....Secretary

Fiscal Services

John Winfred Ashe.....Business Manager
 B.S., M.A., Western Carolina University
 George Stanley.....Administrative Assistant to Business Manager
 Evelyn J. Southard.....Bookkeeper-Office Supervisor
 Peggy D. Gates.....Supply and Equipment Coordinator
 Joan Johnston.....Secretary-Cashier
 Susan Davis.....Secretary-Receptionist
 Frank Cowan.....Maintenance Supervisor
 Alvin Gates.....Custodian

Planning and Development Services

Eric L. Brady.....Planning and Development Director
 B.S., Western Carolina University
 Joyce Cloer.....Secretary

Area Consultants

W. Barton Cope.....Firemanship Coordinator
 Claude D. Davis.....Law Enforcement Coordinator
 Charles Johnson.....Inland-Fisheries Coordinator
 Kathleen Coggins.....Secretary

FACULTY

Commercial Specialties

Phyllis Hart.....Business
 B.S., M.A., Western Carolina University
 Bobby Lee Clark.....Commercial Art
 B.S., Berea College; Graduate Study, Pratt Institute
 Joy McCollum.....Business
 B.A., Graduate Study, Western Carolina University
 Carol Martin.....Business
 B.A., Catawba College
 Joseph B. Simpson, Jr.....Business
 A.B., Duke University
 Sheridan Smith.....Business
 B.A., Western Carolina University
 Anne Hooper Ellen.....Commercial Art
 B.S., Western Carolina University

General Education

Sibyl Reed.....Developmental
 B.S., M.A., Western Carolina University
 Nina Anderson.....English
 B.S., M.A., Western Carolina University
 Lillian Hirt.....General Education
 A.B., Western Carolina University
 Ruth W. Nerboso.....General Education
 A.B., Tufts University; M.A., American University;
 Graduate Study, Harvard University
 Hazel M. Clayton.....Developmental-English
 B.S., M.A., Western Carolina University
 Joyce A. Cooper.....Social Studies-Math
 B.S., Western Carolina University

Industrial-Vocational Education

Roy Kennedy.....Plumbing
 Polk Co. Ed. Institute; Palm Beach County Vocational
 School; Plumbing Trade; Purdue University
 Clarence R. Brown.....Automotive Mechanics
 General Motors Training Center; Massey Technical Institute;
 U. S. Army Maintenance School
 Robert Guy Buchanan.....Masonry
 James R. Lane.....Industrial Electronics
 B.S., Valdosta State College; M.S., University of
 Southern Mississippi
 Verlin M. Battle, Sr.....Plumbing
 Master Plumber, Contractor
 Michael R. Buchanan.....Automotive Mechanics
 James M. Raby.....Carpentry
 B.S., North Carolina State College

Human Services

Nancy E. Derrick.....Cosmetology
 Bladen Technical Institute
 Margaret Arney.....Practical Nurse Education
 Pre-nursing, University of North Carolina at Greensboro;
 North Carolina Baptist School of Nursing
 Madge L. Bryson.....Cosmetology
 Asheville Beauty School; State College School of Beauty,
 Detroit, Michigan; Revlon, Clairol, Lo'real, N. Y., N. Y.;
 Mitchell's Hairstyling Academy, Raleigh, N. C.
 Mozelle Liner.....Practical Nurse Education
 B.S.N., Emory University; North Carolina Baptist Hospital
 Elisabeth Price.....Recreation Technology
 B.S., Blue Mountain College; M.E., University of Mississippi
 William H. Earp.....Recreation Technology
 B. S., North Carolina State University

PHILOSOPHY

The philosophy of the open door institution has been stated by Dr. Dallas Herring, Chairman of the State Board of Education, as follows:

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 limited or however different from the traditional), the state needs and must develop to the fullest possible degree.

That is why the doors to the institutions in North Carolina's system of community colleges must never be closed to anyone of suitable age who can learn what they teach. We must take the people where they are and carry them as far as they can go within the assigned function of the system.

If they cannot read, then we will simply teach them to read and make them proud of their achievement. If they did not finish high school, but have a mind to do it, then we will offer them a high school education at a time and in a place convenient to them and at a price within their reach.

If their talent is technical or vocational, then we will simply offer them instruction, whatever the field, however complex or however simple, that will provide them with the knowledge and the skill they can sell in the marketplace of our state, and thereby contribute to its scientific and industrial growth.

If their needs are in the great tradition of liberal education then we will simply provide them the instruction, extending through two years of standard college work, which will enable them to go to the University or senior college and on into life in numbers unheard of in North Carolina. If their needs are for cultural advancement, intellectual growth or civic understanding, then we will simply make available to them the wisdom of the ages and the enlightenment of our times and help them on to maturity. 1

The State Board of Education adopted the following policy statement relative to the role of the open door institution:

The Community College System has been established to fill an educational opportunity gap between the high schools and the four-year colleges and the university system. The filling of this gap requires open door admission of both high school graduates and of others who are eighteen years old or older but are not high school graduates. The provision of educational opportunity for this broad range of student ability and needs requires a broad range of curriculum offerings, including college level, high school level, and for some, elementary level studies.

¹PROCEEDINGS . . . An Orientation Conference . . . Community Colleges, Technical Institutes, Industrial Education Centers; June 7-8, 1964, Chapel Hill, N. C.

The carrying out of this responsibility assigns a unique role to the institutions in the Community College System, which role is fundamentally different from the more selective role traditionally assigned to four-year colleges and universities. Because of this, for a community college to aspire to become a four-year college would not represent normal growth, but would destroy the community college role and replace it with an entirely different type of institution.

The State Board of Education is completely committed to maintaining the unique, comprehensive role of the institutions in the Community College System and is opposed to any consideration of a community college as an embryonic four-year college. 2

PURPOSE

As defined in the General Statutes of North Carolina, a "technical institute" is an educational institution dedicated to the educational needs of the particular area which it serves. It has the responsibility of offering vocational programs, technical programs, and general adult courses to any young person or adult in the area.

The purpose of Southwestern Technical Institute is in keeping with the idea that the most meaningful knowledge is that which can be put to productive use by meeting the diverse educational needs of adults within the area and by serving the demands of new and existing industries.

Our aims reflect a firm philosophy that education should equip every individual, within his capacities, with the competence to attain his economic, social and intellectual goals. Physical and mental skills will be developed so that each student will be able to contribute significantly to society. In addition to skills and knowledge, the curriculum offers exploration into the humanities to help students understand their responsibilities of citizenship.

OBJECTIVES

In keeping with these purposes, the Board of Trustees, the faculty, and the administrative staff have adopted the following specific objectives:

1. To provide expanded educational opportunities for young people and adults who will not continue their education otherwise.
2. To provide relatively inexpensive, nearby educational opportunities for high school graduates, school dropouts, and adults.
3. To provide two-year technical programs for individuals who desire employment as technicians.
4. To provide vocational programs for individuals who seek employment in trades.
5. To provide programs of vocational education for employed adults who need training or re-training or who can profit from the program otherwise.
6. To provide suitable courses for individuals who wish to further their education and enrich their lives.
7. To offer testing, guidance and counseling services to students, as well as to any other person in the area who has need of such service.

²Loc. cit.

GENERAL INFORMATION

HISTORY

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 to 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.

LOCATION

Southwestern Technical Institute is located two miles south of Sylva off the Webster road near the 14th Division, State Highway Commission offices.

Situated on a beautiful hill in the midst of a twenty-three acre tract of land with spectacular scenery in all directions, the Institute is five miles from the Western Carolina University campus and only 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 only twelve miles away.

LEARNING RESOURCE CENTER

The Learning Resource Center has a growing collection of books and materials which are primarily scientific and technical. The reference collection contains encyclopedias, many specialized dictionaries and handbooks. In addition to housing the book collection, the Center receives more than 200 magazines and periodicals and several newspapers.

The Learning Resource Center also provides other material such as pamphlets and clippings. Included in the collection are bound volumes and microfilm of several periodicals. The Learning Resource Center provides audiovisual equipment and materials for use by students and faculty.

Library services are directed by a professional librarian. 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 Center is open to persons in business, industry, and the community.

ADMISSION REQUIREMENTS AND PROCEDURES

General Procedures

Southwestern Technical Institute admits students in accordance with the "Open Door" policy. Any applicant who is eighteen years old or older, whether he is a high school graduate or not, can find an educational opportunity fitted to his ability and his need at Southwestern Technical Institute.

Admission requirements are dependent upon the curriculum or course to be taken. The requirements for the associate degree programs are higher than for other programs.

Applicants are accepted directly into a curriculum program if minimum standards are met on entrance tests administered by the institute. When minimum standards are not met, students will be referred to Developmental Studies. The student will be scheduled in specific basic courses to work off deficiencies.

Specific Procedures

Each applicant must complete the following steps in order to enter a pre-employment technical or vocational program.

1. Complete and submit the standard application and health forms. These forms are available from high school counselors or from the Southwestern Technical Institute Student Services Office.
2. Complete a battery of tests administered by the Institute.
3. Take the General Aptitude Test Battery administered by the North Carolina Employment Security Commission and have the scores forwarded to the school if the applicant is planning to enter Practical Nurse Education.
4. Submit a final transcript of high school and post-high-school education to the Institute.
5. Arrange a personal interview with the Director of Student Services or the counselor.
6. Provide evidence of acceptable physical and mental health if deemed necessary. All applicants to Cosmetology and Practical Nurse Education must file a complete medical record.

ADMISSION PROCEDURE FOR SPECIAL STUDENTS

While most new students will be seeking enrollment in a curriculum and should follow the steps listed above, the Institute recognizes that many adults in the community will wish to register for one or more courses as a student not a candidate for a degree or diploma. In order to encourage this type of interest, the Institute will allow a qualified person to be admitted to the Institute and enroll for courses without taking the pre-enrollment test battery provided the person does not wish to enter a degree or diploma curriculum.

The Institute reserves the privilege of limiting the number of quarters during which a student may maintain this special status and the number of hours that can be taken before the student has to meet the specific standards.

Notification of Acceptance

Qualified applicants for each program will be accepted as admissions procedures are completed on a first-come, first-serve basis. Prospective students will be notified of their acceptance immediately after all required information is received.

Transfer

Southwestern Technical Institute will accept credits from all institutions within the Department of Community Colleges as well as from other accredited colleges, technical institutes, and vocational schools. Only course grades of C or better will be accepted and such courses must be comparable to the content of Southwestern Technical Institute courses.

Auditing

By special permission, an applicant may be admitted to certain courses as an auditor. Such students receive no credit for the course (s). Auditors will be expected to attend classes and participate in the same manner as credit students. Fees for auditing students will be identical to those charged to regular students.

Foreign Students

The Institute is authorized under Federal law to enroll non-immigrant alien students. Students enrolling under this classification will be treated as nonresident with respect to tuition and fees. An immigrant alien is subject to the same considerations as a citizen.

Readmission

Students with credit from STI who withdraw for any reason before completing the requirements for a diploma or degree may be readmitted by simple application and a conference with the counselor.

Advanced Standing

Applicants who have reason to believe they are proficient in a subject may request credit by examination. 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. Decision of the examining instructor will be final.

No quality points will be awarded for such credit.

STUDENT SERVICES

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

Southwestern Technical Institute provides a professional, competent counseling program. The purpose of this program is to assist students in solving academic, vocational, personal, and socio-economic problems. This service is most valuable when requested by the students. Therefore, students needing assistance should contact the Student Services Office.

Housing

Southwestern Technical Institute was established to serve students within the commuting distance of the campus. Thus, Southwestern Technical Institute has no dormitory or housing facilities on campus. 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

All students enrolling in the fall quarter participate in student orientation. This program is designed to acquaint students with Southwestern Technical Institute's policies, environment, courses, philosophy, staff and other students. Assemblies, open discussions, lectures, and student handbooks help prepare the student for beginning studies at Southwestern Technical Institute.

Placement

Assistance in locating employment is available to all Southwestern Technical Institute students and graduates. Qualified students are referred to employers contacting the Institute, and the school provides facilities for employers desiring on-campus interviews.

COOPERATIVE EDUCATION

In keeping with its policy of offering new and enriching educational experiences to students, Southwestern Technical Institute is preparing to introduce Cooperative Education in some of its curricula and 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.

INTRAMURAL ACTIVITIES

An intramural program, with wide variety and scope provides activities of interest to all students. Present activities include: archery, badminton, volleyball, bowling, table tennis, horseshoes, box hockey, chess, checkers, bridge and snow skiing. Additional activities will be added according to student interest and as facilities and equipment become available. The idea of activity clubs for students and faculty is being developed which features a snow skiing club.

INTERCOLLEGIATE ATHLETICS

The intercollegiate activities of Southwestern Technical Institute feature a men's basketball team with a cheerleader squad, golf and bowling teams.

STUDENT FINANCIAL AID PROGRAM

Student financial assistance in the form of low interest loans, grants, scholarships, and part-time employment is available to students who apply and qualify for the various aid programs.

Generally aid is provided on a "needs" basis to persons who qualify. Inquiries about aid and requests for appropriate application forms should be directed to the Student Financial Aid Officer, Southwestern Technical Institute, P. O. Box 95, Sylva, N. C. 28779.

College Work-Study Program

The purpose of the College Work-Study Program is to expand part-time employment opportunities for students, particularly those from low-income families who are in need of the earnings from part-time employment in order to pursue a course of study at an institution of higher education. Federal grants are made to institutions of higher education to enable them to create job opportunities for their eligible students. The institution may arrange for the employment of its eligible students in work for the institution or work in the public interest for a public or private non-profit organization.

The Federal Government currently provides 80 per cent of student earnings. Participating colleges and universities arrange for the other 20 per cent. They are also responsible for selecting the students who receive jobs.

National Defense Student Loans

The National Defense Education Act of 1958 affirms that "we must increase our efforts to identify and educate more of the talent of our Nation. This requires programs that will give assurance that no student of ability will be denied an opportunity for higher education because of financial need." In pursuance of that objective, Title II of the act provides for establishment at institutions of higher education of National Defense Student Loan Funds for the purpose of making long-term, low interest loans to qualified students in need of financial assistance to pursue a course of study on at least a half-time basis at such institutions. The program of study includes loan cancellation provisions designed to attract superior students to the teaching profession for service at all academic levels.

The Federal Government provides 90 per cent of each student loan. Participating colleges and universities provide the other 10 per cent. They are also responsible for determining which student will receive loans and for establishing the size of each loan.

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.

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. A maximum of \$300 per year may be borrowed.

EDUCATIONAL OPPORTUNITY GRANTS

The purpose of the program is to provide Educational Opportunity 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 in institutions of higher education participating in the program. The Educational Opportunity Grants Program was established by Title IV, Part A, of the Higher Education Act of 1965. (Public Law 89-329) The Federal Government provides the funds for each EOG. Participating institutions are responsible for selecting the students to receive EOGs and establishing the amount they will need.

OTHER AID PROGRAMS

Nursing Scholarships

C. J. Harris Community Hospital Auxiliary and McClure Foundation award scholarships to eligible nursing students. These awards are based upon scholarship, need and recommendations.

Veterans Administration

Eligible persons may receive education benefits under the G. I. Bill or the War Orphans Plan. Recently the law was passed that wives of disabled veterans may attend school on the G. I. Bill.

Moody Funeral Home

Moody Funeral Home of Sylva, North Carolina provides an annual gift to be used in student financial aid.

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.

Art Scholarship

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

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.

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.

EMERGENCY LOAN FUND

A limited amount of money is available to certain qualified students in the form of emergency loans.

FEES AND TUITION

TUITION PER QUARTER

| | |
|--|---------|
| Full-Time Student..... | \$32.00 |
| Part-Time Student (Per quarter credit hour)..... | \$ 2.50 |

GRADUATION

| | |
|------------------|---------|
| Vocational | \$12.00 |
| Technical | \$14.00 |

ACTIVITY (per year).....\$10.00

INSURANCE (per year).....\$ 2.25

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

Student activity fees will be assessed at the rate of \$2.50 per quarter. Activity fees for part-time students will be assessed on a pro rata basis. In addition to the above fees, students in Cosmetology and Practical Nursing are required to pay an additional insurance fee and to purchase uniforms. Cosmetology student must purchase a cosmetology kit. Students in Automotive Mechanics will be required to purchase necessary tools.

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

No registration or tuition fees are charged students enrolling in Adult Education, Extension, Firemanship or other special classes. Small charges in some instances, however, may be made for instructional materials or textbooks required in these classes.

Non-Resident Fees

Any student whose legal residence is outside North Carolina, or, in the case of students who are boarding or living with relatives in the community, whose parents or guardians live outside the state, will pay tuition fees two and one-half times the resident rate.

Any student entering North Carolina for the specific purpose of enrolling in this institution shall be identified as a non-resident for the entire time that he is enrolled, even though he may purchase property, pay taxes, and vote in the regular public elections.

REFUNDS

For Tuition Fees

Tuition refund for students shall not be made unless the student is, in the judgement 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, the 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.

For Graduation Fees

A student must secure permission from the President to be absent from graduation because of unforeseen difficulties or emergencies. A student may then receive a refund of one half of his graduation fees. If excused, vocational students will be refunded \$6.00 and technical students will be refunded \$7.00. By keeping at least half the fee, the school will be able to cover the cost of diplomas, of mailing diplomas, plus any incidental expense which might occur.

TIME DUE, DEFERRED PAYMENT, AND 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 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 by following the above procedure.

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.

CURRICULA DEGREES, DIPLOMAS AND CERTIFICATES

Degree Program Defined

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 curricula.

Diploma Program Defined

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 curricula.

Certificate Program Defined

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 at midterm and at the end of the term. Students will be graded on the acquirement of technical skills, ability to work under supervision, initiative, and the ability to apply related information. 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 (see instructor) | |
| I ** | Incomplete (repeat course) | |

WP Withdrawal Passing — Student doing passing work at the time of withdrawal.

WI Withdrawal Incomplete — Student doing unsatisfactory work at the time of withdrawal.

Any student who receives an incomplete may choose to negotiate a written contract with the instructor involved, or he may choose to let the incomplete stand and have a grade of withdrawal incomplete (WI) entered on his permanent record. Contracts negotiated between the student and the instructor will specify a definite completion date for the requirements in addition to the types of activities set forth by the instructor to help the student achieve the minimum objectives of the course. At the option of the instructor, the contracts may include: general education courses; individualized programs, including reading, term papers, projects; and other innovative ideas which help the student achieve the minimum objectives of the course. If the student does not complete the minimum objectives in the time negotiated in the contract, the student is dropped from the course.

A student, who receives an I in a course which is pre-requisite to another course, has the responsibility of obtaining the written permission of the instructor in which the I was received and the instructor of the course in which the student desires to enroll.

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 |

WP—given when a student officially withdraws and is passing his work at the time. This will not influence the quality point ratio.

WI—given when the student officially withdraws and is doing unsatisfactory at time of withdrawal. This will not influence the quality point ratio.

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. 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.
4. This list will be published following every quarter in the Asheville papers and in the hometown papers of qualifying students.

ATTENDANCE REQUIREMENTS

All students are expected to be present and regular in attendance for all scheduled classes and school functions. 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 excused absences must be made up.

GRADUATION REQUIREMENTS

The student will be held responsible for fulfilling all requirements for the degree or diploma for which he is registered. It is also the student's responsibility to apply officially to the Student Services Office for his degree or diploma at the beginning of the last quarter the student is enrolled. The \$12.00 or \$14.00 graduation fee must accompany the application.

Every candidate for an Associate Degree in Applied Science or a diploma must satisfy all of the requirements for the specific program from which he is graduating.

Candidates for graduation are required to participate in graduation exercises in order to receive their degree or diploma. Exceptions to this requirement may be made if justifiable reasons are presented in writing to the President.

STUDENT CONDUCT

Students of Southwestern Technical Institute will be expected to conduct themselves at all times as 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.

Possession of alcoholic beverages or illegal hallucinatory drugs will not be condoned on the campus or at Institute sponsored functions. Violation of rules and regulations may subject the student to 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.

STUDENT LOUNGES

For the convenience of students and faculty, each building provides a refreshment and lounge area equipped with a variety of modern vending machines. Food and drinks may not be carried into a classroom, shop or laboratory.

CHANGE OF SCHEDULE

Changes in class schedule after registration may be made only with the approval of the students advisor and the registrar. The last day that courses may be dropped or added will be no later than the tenth class day after the beginning of each quarter.

WITHDRAWAL POLICY

If a student wishes to withdraw for any reason, he should first discuss it with his advisor; second, report his decision to the Student Services Office; third, obtain a clearance form from Student Services that will be signed by each subject instructor, the librarian, the business office, and the Director of Student Services; fourth, leave the completed withdrawal form with the registrar.

STUDENT GOVERNMENT

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

Copies of the Student Government Constitution are available through the Student Personnel Office.

COMMERCIAL SPECIALTIES

BUSINESS:

Accounting

Business Administration

Secretarial Science (Shorthand Option)

COMMERCIAL ART AND ADVERTISING DESIGN

ACCOUNTING

The specific objectives of the Accounting Curriculum are to develop the following competencies:

1. Understanding of the principles of organization and management in business operations.
2. Understanding of the fundamentals of accounting and analysis of financial statements.
3. Understanding and skill in effective communications for business.

Occupational Opportunities

The duties and responsibilities of an accountant vary somewhat in different firms. Some of the duties an accountant might perform are 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.

The graduate 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, and cost accountant. This training plus further experience should prepare them to become office managers, accounting supervisors and to fill other responsible positions in a business firm.

First Quarter

| | | | Class | Lab | Hours Credit |
|------|-----|-----------------------------|-------|-------|-----------------|
| ENG | 100 | English I | 3 | 2 | 4 |
| MAT | 110 | Business Math | 5 | 0 | 5 |
| BUS | 101 | Introduction to Business | 3 | 2 | 4 |
| BUS | 110 | Office Machines | 2 | 2 | 3 |
| *BUS | 102 | Typewriting I (or elective) | 2 | 3 | 3 |
| BUS | 100 | Orientation | 1 | 0 | 1 |
| | | | <hr/> | <hr/> | <hr/> |
| | | | 16 | 9 | 20 |

Second Quarter

| | | | | | |
|-----|-----|----------------|-------|-------|-------|
| ENG | 101 | English II | 3 | 2 | 4 |
| BUS | 120 | Accounting I | 4 | 3 | 5 |
| ECO | 102 | Economics | 3 | 2 | 4 |
| BUS | 115 | Business Law | 3 | 0 | 3 |
| SSC | 201 | Social Science | 3 | 2 | 4 |
| | | | <hr/> | <hr/> | <hr/> |
| | | | 16 | 9 | 20 |

Third Quarter

| | | | | |
|---------|--------------------|-------|-------|-------|
| ENG 102 | English III | 3 | 2 | 4 |
| ECO 104 | Economics | 3 | 2 | 4 |
| BUS 121 | Accounting II | 4 | 3 | 5 |
| BUS 116 | Business Law | 3 | 0 | 3 |
| BUS 247 | Business Insurance | 3 | 0 | 3 |
| | | <hr/> | <hr/> | <hr/> |
| | | 16 | 7 | 19 |

Fourth Quarter

| | | | | |
|---------|---------------------|-------|-------|-------|
| BUS 232 | Sales Development | 3 | 2 | 4 |
| BUS 122 | Accounting III | 4 | 3 | 5 |
| BUS 235 | Business Management | 3 | 2 | 4 |
| BUS 123 | Business Finance | 3 | 2 | 4 |
| | | <hr/> | <hr/> | <hr/> |
| | | 13 | 9 | 17 |

Fifth Quarter

| | | | | |
|---------|---------------------------|-------|-------|-------|
| ENG 204 | English IV | 3 | 0 | 3 |
| BUS 222 | Intermediate Accounting I | 4 | 3 | 5 |
| BUS 229 | Income Taxes | 3 | 2 | 4 |
| BUS 239 | Marketing | 5 | 0 | 5 |
| | | <hr/> | <hr/> | <hr/> |
| | | 15 | 5 | 17 |

Sixth Quarter

| | | | | |
|---------|----------------------------|-------|-------|-------|
| ENG 103 | English VI | 3 | 0 | 3 |
| BUS 271 | Office Management | 3 | 2 | 4 |
| BUS 223 | Intermediate Accounting II | 4 | 3 | 5 |
| BUS 225 | Cost Accounting | 3 | 2 | 4 |
| | | <hr/> | <hr/> | <hr/> |
| | | 13 | 7 | 16 |

Seventh Quarter

| | | | | |
|---------|---|-------|-------|-------|
| BUS 226 | Managerial Accounting | 3 | 2 | 4 |
| BUS 227 | Accounting Systems | 3 | 2 | 4 |
| EDP 104 | Introduction to Data Processing Systems | 3 | 2 | 4 |
| | Elective | 3 | 0 | 3 |
| | | <hr/> | <hr/> | <hr/> |
| | | 12 | 6 | 15 |

TOTAL CREDIT HOURS 124

ACCOUNTING**Course Descriptions by Quarters****First Quarter****ENG 100—ENGLISH I**

A sincere effort to encourage the student's development of reading comprehension and reading rate. Emphasizing the grasp of basic ideas rather than words. To have a storehouse of workable techniques which the student may use in reading assignments. Thus, helping him to identify, interpret and evaluate ideas. With purposeful practice and adequate motivation, the student's achievement will improve.

MAT 110—BUSINESS MATHEMATICS

This course stresses the fundamental operations and their application to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business.

BUS 101—INTRODUCTION TO BUSINESS

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 110—OFFICE MACHINES

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 machines, full keyboard adding machines, and calculator.

BUS 102—TYPEWRITING I

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts.

BUS 100—ORIENTATION

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.

Second Quarter**ENG 101—ENGLISH II**

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 grammar in their day-to-day situations in industry and social life. Prerequisite: Eng 100

BUS 120—ACCOUNTING I

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.

ECO 102—ECONOMICS

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 115—BUSINESS LAW

A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instruments, and agencies.

SSC 201—SOCIAL SCIENCE

An integrated course in the social sciences drawing from the fields of anthropology, psychology, history, and sociology.

Third Quarter**ENG 102—ENGLISH III**

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.

ECO 104—ECONOMICS

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: ECO 102.

BUS 121—ACCOUNTING II

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

BUS 116—BUSINESS LAW

Includes the study of laws pertaining to bailments, sales, risk-bearing, partnership-corporation, mortgages, and property rights.

Prerequisite: BUS 115.

BUS 247—BUSINESS INSURANCE

A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included. Prerequisite: BUS 115.

Fourth Quarter**BUS 232—SALES DEVELOPMENT**

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 122—ACCOUNTING III

Study of long term liabilities and investments, analysis of financial statements, cost, budgets and flow of funds. Prerequisite: BUS 121.

BUS 235—BUSINESS MANAGEMENT

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 123—BUSINESS FINANCE

Financing of business units, as individuals, partnerships, corporations, and trusts. A detailed study is made of short-term and consumer financing.

Fifth Quarter**ENG 204—ENGLISH IV**

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: ENG 102.

BUS 222—INTERMEDIATE ACCOUNTING I

Through 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 229—INCOME TAXES

Application of federal and state taxes to various businesses and business conditions. A study of the following taxes: income, payroll, intangible, capital gain, sales and use, excise, and inheritance. Prerequisite: BUS 122.

BUS 239—MARKETING

A general survey of the field of marketing, with a detailed study of the functions, policies, and institutions involved in such marketing process.

Sixth Quarter**ENG 103—ENGLISH VI**

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 have to do with something in his chosen curriculum. Prerequisite: ENG 204.

BUS 271—OFFICE MANAGEMENT

Presents 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 223—INTERMEDIATE ACCOUNTING II

Additional study of intermediate accounting with emphasis on investments, plant and equipment, intangible assets and deferred charges, longterm liabilities, paid in capital, retained earnings, and special analytical processes. Prerequisite: BUS 222.

BUS 225—COST ACCOUNTING

Nature and purposes of cost accounting; accounting for direct labor materials and factory overhead; job cost and standard cost principles and procedures; selling and distribution cost, budgets and executive use of cost figures. Prerequisite: BUS 122.

Seventh Quarter**BUS 226—MANAGERIAL ACCOUNTING**

Interpreting accounting data for managerial decisions. Budget preparations. Prerequisite: BUS 225.

BUS 227—ACCOUNTING SYSTEMS

Design and development of an accounting system for a small business. Prerequisite: BUS 223.

EDP—INTRODUCTION TO DATA PROCESSING SYSTEMS

Fundamental concepts and operational processing systems, as an aid in developing a basic knowledge of computers, prerequisite to the detail study of particular computer problems.

Elective

BUSINESS ADMINISTRATION

The specific objectives of the Business Administration Curriculum are to develop the following competencies:

1. Understanding the principles of organization and management in business operation.
2. Understanding and skill in effective communication for business.
3. Knowledge of human relations as it applies to the successful operations in the rapidly expanding economy.

Occupational Opportunities

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

| | Class | Lab | Hours Credit | |
|-----------------------|---|-----|-----------------|----|
| First Quarter | | | | |
| ENG 100 | English I | 3 | 2 | 4 |
| MAT 110 | Business Math | 5 | 0 | 5 |
| BUS 101 | Introduction to Business | 3 | 2 | 4 |
| BUS 110 | Office Machines | 2 | 2 | 3 |
| BUS 102 | Typewriting (or elective) | 2 | 3 | 3 |
| BUS 100 | Orientation | 1 | 0 | 1 |
| | | 16 | 9 | 20 |
| Second Quarter | | | | |
| ENG 101 | English II | 3 | 2 | 4 |
| BUS 120 | Accounting I | 4 | 3 | 5 |
| ECO 102 | Economics | 3 | 2 | 4 |
| BUS 115 | Business Law | 3 | 0 | 3 |
| SSC 201 | Social Science | 3 | 2 | 4 |
| | | 16 | 9 | 20 |
| Third Quarter | | | | |
| ENG 102 | English III | 3 | 2 | 4 |
| ECO 104 | Economics | 3 | 2 | 4 |
| BUS 121 | Accounting II | 4 | 3 | 5 |
| BUS 116 | Business Law | 3 | 0 | 3 |
| BUS 247 | Business Insurance | 3 | 0 | 3 |
| | | 16 | 7 | 19 |
| Fourth Quarter | | | | |
| BUS 232 | Sales Development | 3 | 2 | 4 |
| EDP 104 | Introduction to Data Processing Systems | 3 | 2 | 4 |
| BUS 123 | Business Finance | 3 | 2 | 4 |
| BUS 235 | Business Management | 3 | 2 | 4 |
| | | 12 | 8 | 16 |
| Fifth Quarter | | | | |
| ENG 204 | English IV | 3 | 0 | 3 |
| BUS 229 | Income Taxes | 3 | 2 | 4 |
| BUS 243 | Advertising | 3 | 2 | 4 |
| BUS 239 | Marketing | 5 | 0 | 5 |
| | | 14 | 4 | 16 |

* A proficiency test required
or PSY 102 General Psychology

| | | | Class | Lab | Hours Credit |
|------------------------|-----|----------------------------------|-------|-------|-----------------|
| Sixth Quarter | | | | | |
| ENG | 206 | English V | 3 | 0 | 3 |
| BUS | 271 | Office Management | 3 | 2 | 4 |
| BUS | 272 | Principles of Supervision | 3 | 2 | 4 |
| PSY | 206 | Applied Psychology | 3 | 2 | 4 |
| | | | <hr/> | <hr/> | <hr/> |
| | | | 12 | 6 | 15 |
| Seventh Quarter | | | | | |
| ENG | 103 | English VI | 3 | 0 | 3 |
| BUS | 288 | Organizing a Small Business | 3 | 4 | 5 |
| ECO | 106 | Labor Economics | 3 | 2 | 4 |
| BUS | 270 | Methods for Managerial Decisions | 3 | 0 | 3 |
| | | | <hr/> | <hr/> | <hr/> |
| | | | 12 | 6 | 15 |

First Quarter Elective

PSY 102—GENERAL PSYCHOLOGY

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.

TOTAL CREDIT HOURS 121

BUSINESS ADMINISTRATION

Course Descriptions by Quarters

First Quarter

ENG 100—ENGLISH I

A sincere effort to encourage the student's development of reading comprehension and reading rate. Emphasizing the grasp of basic ideas rather than words. To have a storehouse of workable techniques which the student may use in reading assignments. Thus, helping him to identify, interpret and evaluate ideas. With purposeful practice and adequate motivation, the student's achievement will improve.

MAT 110—BUSINESS MATHEMATICS

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.

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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 110—OFFICE MACHINES

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 machines, full keyboard adding machines, and calculator.

BUS 102—TYPEWRITING

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts.

BUS 100—ORIENTATION

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.

Second Quarter

ENG 101—ENGLISH II

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 grammar in their day-to-day situations in industry and social life. Prerequisite: ENG 100.

BUS 120—ACCOUNTING

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.

ECO 102—ECONOMICS

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 115—BUSINESS LAW

A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instruments, and agencies.

SSC 201—SOCIAL SCIENCE

An integrated course in the social sciences drawing from the fields of anthropology, psychology, history, and sociology.

Third Quarter

ENG 102—ENGLISH III

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.

ECO 104—ECONOMICS

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: ECO 102.

BUS 121—ACCOUNTING II

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

BUS 116—BUSINESS LAW

Includes the study of laws pertaining to bailments, sales, risk-bearing, partnership-corporation, mortgages, and property rights. Prerequisite: BUS 115.

BUS 247—BUSINESS INSURANCE

A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included. Prerequisite: BUS 115.

Fourth Quarter

BUS 232—SALES DEVELOPMENT

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.

EDP 104—INTRODUCTION TO DATA PROCESSING SYSTEMS

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.

BUS 123—BUSINESS FINANCE

Financing of business units, as individuals, partnerships, corporations, and trusts. A detailed study is made of short-term and consumer financing.

BUS 235—BUSINESS MANAGEMENT

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.

Fifth Quarter

ENG 204—ENGLISH IV

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: ENG 102.

BUS 229—INCOME TAXES

Application of federal and state taxes to various businesses and business conditions. A study of the following taxes: income, payroll, intangible, capital gain, sales and use, excise, and inheritance. Prerequisite: BUS 122.

243—ADVERTISING

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 239—MARKETING

A general survey of the field of marketing, with a detailed study of the functions, policies, and institutions involved in such marketing process.

Sixth Quarter**ENG 206—ENGLISH V**

Develops skills in techniques in writing business communications. Emphasis is placed on writing action-getting sales letters and prospectuses, business reports, summaries of business conferences, letters involving credit, collections, adjustments, complaints, orders, acknowledgements, remittances and inquiry. Prerequisite: ENG 102.

BUS 271—OFFICE MANAGEMENT

Presents 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

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.

PSY 206—APPLIED PSYCHOLOGY

A study of the principles of psychology that will be of assistance in the understanding of inter-personal relations on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated are employee selection, supervision, job satisfaction and industrial conflicts.

Seventh Quarter**ENG 103—ENGLISH VI**

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 have to do with something in his chosen curriculum. Prerequisite: ENG 204.

BUS 288—ORGANIZING A SMALL BUSINESS

A study of the problems in the fields of organization, personnel, finance, sales outlets price policies, regulations by governments, and taxation. In a special project, the students will simulate the procedures of organizing a small business.

ECO 106—LABOR ECONOMICS

Current labor problems and theories; the labor market; the development of labor unions; wage theories and the development of effective labor and wage policies. Prerequisite: ECO 104.

BUS 270—METHODS FOR MANAGERIAL DECISIONS

This course is designed to explain useful techniques which have been developed to improved decision making in management. Value analysis, payoff tables and decision trees; critical path analysis- Pert, and Operations Research are introduced. Prerequisite: BUS 101.

First Quarter Elective**PSY 102—GENERAL PSYCHOLOGY**

A study of the various field 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.

SECRETARIAL SCIENCE**(Shorthand Option)**

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.

The student may take courses in shorthand or have the option of courses that give them a broader business background. This option gives the student a choice of concentrated study preparing her for employment as a stenographer and secretary or for a variety of secretarial positions where shorthand skills are not required.

The special training in secretarial subjects is supplemented by related courses in mathematics, accounting, business law, and personality development.

First Quarter

| | | Class | Lab | Hours Credit |
|----------|-----------------------------|-------|-----|-----------------|
| ENG 100 | English I | 3 | 2 | 4 |
| MAT 110 | Business Math | 5 | 0 | 5 |
| BUS 101 | Introduction to Business | 3 | 2 | 4 |
| *BUS 102 | Typewriting I (or elective) | 2 | 3 | 3 |
| *BUS 106 | Shorthand I (or elective) | 3 | 2 | 4 |
| BUS 100 | Orientation | 1 | 0 | 1 |
| | | 17 | 9 | 21 |

Second Quarter

| | | | | |
|----------|------------------------------|----|---|----|
| ENG 101 | English II | 3 | 2 | 4 |
| *BUS 103 | Typewriting II (or elective) | 2 | 3 | 3 |
| BUS 107 | Shorthand II (or elective) | 3 | 2 | 4 |
| BUS 115 | Business Law | 3 | 0 | 3 |
| ECO 102 | Economics | 3 | 2 | 4 |
| | | 14 | 9 | 18 |

Third Quarter

| | | | | |
|---------|-----------------------------|----|---|----|
| ENG 102 | English III | 3 | 2 | 4 |
| BUS 104 | Typewriting III | 2 | 3 | 3 |
| BUS 108 | Shorthand III (or elective) | 3 | 2 | 4 |
| BUS 110 | Office Machines | 2 | 2 | 3 |
| BUS 112 | Filing | 3 | 0 | 3 |
| | | 13 | 9 | 17 |

Fourth Quarter

| | | | | |
|----------|--------------------|---|----|---|
| BUS 215E | Office Application | 0 | 30 | 3 |
|----------|--------------------|---|----|---|

Fifth Quarter

| | | | | |
|---------|---|----|----|----|
| ENG 204 | English IV | 3 | 0 | 3 |
| BUS 120 | Accounting | 4 | 3 | 5 |
| BUS 206 | Dictation and Transcriptions (or elective) | 3 | 2 | 4 |
| BUS 205 | Advanced Typewriting | 2 | 3 | 3 |
| BUS 211 | Office Machines and Machine Transcription | 2 | 2 | 3 |
| | | 14 | 10 | 18 |

*A proficiency test required
or Psy 102 General Psychology

| Sixth Quarter | | | | |
|---------------------------|---|--------------|------------|-------|
| | | Class | Lab | |
| BUS 207 | Dictation and Transcription (or elective) | 3 | 2 | 4 |
| BUS 183 | Terminology and Vocabulary (Technical, Legal, Medical) | 3 | 0 | 3 |
| SSC 201 | Social Science | 3 | 2 | 4 |
| PSY 112 | Personality Development | 3 | 0 | 3 |
| BUS 121 | Accounting | 4 | 3 | 5 |
| | | <hr/> | <hr/> | <hr/> |
| | | 16 | 7 | 19 |
| Seventh Quarter | | | | |
| ENG 205 | English V for Secretaries | 3 | 0 | 3 |
| BUS 214 | Secretarial Procedures | 3 | 2 | 4 |
| BUS 208 | Dictation and Transcription (or elective) | 3 | 4 | 5 |
| BUS 271 | Office Management | 3 | 2 | 4 |
| EDP 104 | Introduction to Data Processing | 3 | 2 | 4 |
| | | <hr/> | <hr/> | <hr/> |
| | | 15 | 10 | 20 |
| TOTAL CREDIT HOURS | | | | |
| | | 116 | | |

SECRETARIAL SCIENCE Course Descriptions by Quarters

First Quarter

ENG 100—ENGLISH I

A sincere effort to encourage the student's development of reading comprehension and reading rate. Emphasizing the grasp of basic ideas rather than words. To have a storehouse of workable techniques which the student may use in reading assignments. Thus, helping him to identify, interpret and evaluate ideas. With purposeful practice and adequate motivation, the student's achievement will improve.

MAT 110—BUSINESS MATHEMATICS

This course stresses the fundamental operations and their application to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business.

BUS 101—INTRODUCTION TO BUSINESS

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

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts.

BUS 106—SHORTHAND

A beginning course in the theory and practice of reading and writing shorthand. Emphasis on phonetics, penmanship, word families, brief forms, and phrases.

BUS 100 ORIENTATION

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.

Second Quarter

ENG 101—ENGLISH II

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 grammar in their day-to-day situations in industry and social life. Prerequisite: ENG 100.

BUS 103—TYPEWRITING II

Instruction emphasizes the development of speed and accuracy with further mastery of correct typewriting techniques. These skills and techniques are applied in tabulation, manuscript, correspondence, and business forms. Prerequisite: BUS 102 or the equivalent. Speed requirement, 30 words per minute for five minutes.

BUS 107—SHORTHAND

Continued study of theory with greater emphasis on dictation and elementary transcription. Prerequisite: BUS 106 or equivalent.

BUS 115—BUSINESS LAW

A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instruments, and agencies.

ECO 102—ECONOMICS

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.

Third Quarter

ENG 102—ENGLISH III

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.

BUS 104—TYPEWRITING III

Emphasis on production typing, problems and speed building. Attention to the development of the student's ability to function as an expert typist, producing mailable copies. The production units are tabulation, manuscript, correspondence, and business forms. Prerequisite: BUS 103 or the equivalent. Speed requirement, 40 words per minute for 5 minutes.

BUS 108—SHORTHAND III

Theory and speed building. Introduction to office style dictation. Emphasis on development of speed in dictation and accuracy in transcription. Prerequisite: BUS 107.

BUS 110—OFFICE MACHINES

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 machines, full keyboard adding machines, and calculator.

BUS 112—FILING

Fundamentals of indexing and filing, combining theory and practice by the use of miniature letters, filing boxes and guides. Alphabetic, Triple Check, Automatic, Geographic, Subject, Soundex and Dewey Decimal filing.

Fourth Quarter

BUS 215E—OFFICE APPLICATIONS

The students are assigned to work in a business, technical, or professional office for 30 hours per week. The objective is to provide actual work experience (in a minimum of two different offices) for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned. Prerequisite: All course requirements completed or by approval of department head.

Fifth Quarter

ENG 204—ENGLISH IV

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: ENG 102.

BUS 120—ACCOUNTING

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 206—DICTATION AND TRANSCRIPTION

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. Minimum dictation rate of 100 words per minute required for five full minutes. Prerequisite: BUS 108.

BUS 205—ADVANCED TYPEWRITING

Emphasis is placed on the development of individual production rates. The student learns the techniques needed in planning and in typing projects that closely approximate the work appropriate to the field of study. These projects include review of letter forms, methods of duplication, statistical tabulation, and the typing of reports, manuscripts, and legal documents. Prerequisite: BUS 104. Speed requirements 50 words per minute.

BUS 211—OFFICE MACHINES AND MACHINE TRANSCRIPTION

Instructions in the operation of the bookkeeping-accounting machines, continued duplicating equipment, and the dictation and transcribing machines. Practice in increasing speed and efficient utilization of office machines. Prerequisite: BUS 110.

Sixth Quarter**BUS 207—Dictation and Transcription**

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. Minimum dictation rate of 110 words per minute. Prerequisite: BUS 206.

BUS 183—TERMINOLOGY AND VOCABULARY

To develop an understanding of the terminology and vocabulary appropriate to the course of study, as it is used in business, technical, and professional offices.

SSC 201—SOCIAL SCIENCE

An integrated course in the social sciences drawing from the fields of anthropology, psychology, history, and sociology.

PSY 112—PERSONALITY DEVELOPMENT

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 121—ACCOUNTING

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

Seventh Quarter**ENG 205—ENGLISH V FOR SECRETARIES**

A communications course designed for secretarial students who must learn to initiate written documents for the employer. Primary emphasis is placed upon the development of skills in the techniques of writing business letters, such as credit and collections, complaints, orders, acknowledgements, remittances, inquiries and answers to inquiries. The student will also learn to write business reports based upon the accumulation of primary data and to summarize business conferences. Prerequisite: ENG 204.

BUS 214—SECRETARIAL PROCEDURES

Designed to acquaint the student with the responsibilities encountered by a secretary during the work day. These include the following: receptionist duties, handling the mail, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims.

BUS 208—DICTATION AND TRANSCRIPTION

Principally a speed building course, covering materials appropriate to the course of study, with emphasis on speed as well as accuracy. Minimum dictation rate of 120 words per minute. Prerequisite: BUS 207.

BUS 271—OFFICE MANAGEMENT

Presents 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.

EDP 104—INTRODUCTION TO DATA PROCESSING SYSTEMS

Fundamental concepts and operational processing systems, as an aid in developing a basic knowledge of computers, prerequisite to the detail study of particular computer problems.

COMMERCIAL ART AND ADVERTISING DESIGN

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.

Occupational Opportunities

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.

| First Quarter | | Class | Lab | Hours Credit |
|-------------------------|---|-------|-----|-----------------|
| ENG 100 | English I | 3 | 2 | 4 |
| CAT 100 | Art 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 and Advertising Design I | 4 | 6 | 6 |
| | | 13 | 20 | 20 |
| Second Quarter | | Class | Lab | Hours Credit |
| ENG 101 | English II | 3 | 2 | 4 |
| BUS 101 | Introduction to Business | 3 | 2 | 4 |
| DFT 102 | Technical Drafting II | 0 | 6 | 2 |
| CAT 105 | Life Study | 2 | 3 | 3 |
| CAT 122 | Commercial Art and Advertising Design II | 4 | 6 | 6 |
| | | 12 | 19 | 19 |
| Third Quarter | | Class | Lab | Hours Credit |
| ENG 102 | English III | 3 | 2 | 4 |
| CAT 106 | Life Study | 0 | 6 | 2 |
| CAT 116 | Photography I | 2 | 6 | 4 |
| CAT 123 | Commercial Art and Advertising Design III | 6 | 6 | 8 |
| | | 11 | 20 | 18 |
| Fourth Quarter (Summer) | | Class | Lab | Hours Credit |
| CAT 227 | Fashion Illustration | 4 | 6 | 6 |
| CAT 117 | Photography II | 2 | 6 | 4 |
| CAT 205 | Advertising Copywriting and Fitting | 3 | 2 | 4 |
| CAT 201 | Art History | 5 | 0 | 5 |
| | | 14 | 14 | 19 |

Fifth Quarter

| | | | | |
|---------|--|-------|-------|-------|
| ENG 204 | English IV | 3 | 0 | 3 |
| CAT 110 | General Illustration | 2 | 6 | 4 |
| CAT 212 | Industrial Art and Design | 2 | 3 | 3 |
| CAT 224 | Commercial Art and Advertising Design IV | 4 | 6 | 6 |
| CAT 206 | Project Seminar | 2 | 3 | 3 |
| | | <hr/> | <hr/> | <hr/> |
| | | 13 | 18 | 19 |

Sixth Quarter

| | | | | |
|---------|-----------------|-------|-------|-------|
| BUS 243 | Advertising | 3 | 2 | 4 |
| CAT 225 | Commercial Art | 6 | 6 | 8 |
| CAT 217 | Photography III | 2 | 6 | 4 |
| CAT 231 | Project Seminar | 2 | 3 | 3 |
| | | <hr/> | <hr/> | <hr/> |
| | | 13 | 17 | 19 |

Seventh Quarter

| | | Class | Lab | |
|---------|---------------------------|-------|-------|-------|
| ECO 100 | Applied Economics | 3 | 2 | 4 |
| CAT 226 | Commercial Art | 6 | 6 | 8 |
| CAT 235 | Advertising Art Direction | 5 | 0 | 5 |
| CAT 232 | Project Seminar | 1 | 6 | 3 |
| | | <hr/> | <hr/> | <hr/> |
| | | 15 | 14 | 20 |

*135 Total Hours

COMMERCIAL ART AND ADVERTISING DESIGN**Course Descriptions by Quarters****First Quarter****ENG 100—ENGLISH I**

A sincere effort to encourage the student's development of reading comprehension and reading rate. Emphasizing the grasp of basic ideas rather than words. To have a storehouse of workable techniques which the student may use in reading assignments. Thus, helping him to identify, interpret and evaluate ideas. With purposeful practice and adequate motivation, the student's achievement will improve.

CAT 100—ART ORIENTATION

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.

DFT 101—TECHNICAL DRAFTING I

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.

CAT 101—ADVERTISING PRINCIPLES

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

The plastic elements; Relationship of the Arts; Problems in Basic Design; Relationships of Materials and Techniques to form; Color Theory; Applied Problems.

CAT 121—COMMERCIAL ART AND ADVERTISING DESIGN I

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.

Second Quarter**ENG 101—ENGLISH II**

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 grammar in their day-to-day situations in industry and social life. Prerequisite: ENG 100.

BUS 101—INTRODUCTION TO BUSINESS

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.

DFT 102—TECHNICAL DRAFTING II

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 of 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.

CAT 105—LIFE STUDY

Basic drawing in charcoal from the live model with emphasis on proportions, bone structure, muscles and main body masses.

CAT 122—COMMERCIAL ART AND ADVERTISING DESIGN II

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. Prerequisite: CAT 121.

Third Quarter**ENG 102—ENGLISH III**

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.

CAT 106—LIFE STUDY

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 116—PHOTOGRAPHY I

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

CAT 123—COMMERCIAL ART AND ADVERTISING DESIGN III

Professional approach to advertising and editorial layout. The indicating of finished art concepts, visuals, and ideas. Pencil roughs, colored sketches and comprehensive layouts. Prerequisites: CAT 122, DFT 102.

Fourth Quarter**CAT 227—FASHION ILLUSTRATION**

Drawing the fashion figure, and employing basic types of rendering used in fashion advertising.

CAT 117—PHOTOGRAPHY II

Advanced photographic techniques and materials. Participation in studio and laboratory procedures illustrating various applications and creative possibilities of photography. Applied problems using the 35mm & 2¼ camera.

CAT 205—ADVERTISING COPYWRITING AND FITTING

A study of the techniques used in creating effective advertising copy for various types of media; purposes and duties of the copywriting 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 201 ART HISTORY

An examining of ideas, philosophies common to all periods of Art History, and a comparison of periods in terms other than chronological development.

Fifth Quarter

ENG 204—ENGLISH IV

A study of the 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: ENG 102.

CAT 110—GENERAL ILLUSTRATION

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 212—INDUSTRIAL ART AND DESIGN

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 224—COMMERCIAL ART AND ADVERTISING DESIGN IV

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 206—PROJECT SEMINAR

Each student selects and pursues project work in the field of his choice. Maximum individual attention is available.

Sixth Quarter

BUS 243—ADVERTISING

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 for various media.

CAT 225—COMMERCIAL ART

First phase of a course providing simulated professional working conditions. The student will utilize all previous instruction "job" assignments. Work will start the students individual portfolio of professional samples. There will be class critique and discussion of assignments and solutions.

CAT 217—PHOTOGRAPHY III

Advanced photographic and darkroom principles using the 4 x 5, 2 1/4, and 35 mm camera. Applied Problems executing prints up to 16 x 20.

CAT 231—PROJECT SEMINAR

Each student selects and pursues project work in the field of his choice. Maximum individual attention is available.

Seventh Quarter

ECO 100—APPLIED ECONOMICS

A practical course in applied economics as it relates to man and his efforts to make a living. These economic endeavors will include forms of money, kinds of wages, uses of purchasing power, basic types of insurance, the importance of the effects of the business cycle, and the relationship of value to price based on the laws of supply and demand.

CAT 226—COMMERCIAL ART

Second phase of 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 235—ADVERTISING ART DIRECTION

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 considerations, 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.

CAT 232—PROJECT SEMINAR

Individual attention is given each student in the areas of learning which need strengthening. Project development is stressed.

GENERAL EDUCATION

ASSOCIATE DEGREE IN GENERAL EDUCATION

DEVELOPMENTAL STUDIES

SPECIAL SERVICES

ASSOCIATE IN GENERAL EDUCATION DEGREE

As our industrial and societal needs have developed, the requirements in the various professions have forced the education of such persons to be drawn out over a longer period of time. Technical advances also have demanded more intensive training in this complex area of knowledge and skills. A large number of citizens, however, fall clearly into neither professional nor technical categories. These people constitute the majority of citizens whose occupational activities and interests demand a high degree of literacy and some special training but whose educational goals are neither professional nor highly technical. They are the managers of small independent businesses; the department managers of larger concerns; some employees of local, state and federal government; the housewives desiring to keep abreast of their husbands' expanding knowledge and interests; young women in general; and any who have a thirst for a wider and deeper insight into life and the workings of our society.

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

| | |
|--------------------------|------------------|
| English and Literature | 18 quarter hours |
| Fine Arts and Philosophy | 9 quarter hours |
| Social Science | 15 quarter hours |
| Science and Mathematics | 18 quarter hours |

This introduction into the broad fields of knowledge permits the student to find himself and clarify his life goals. With this background he is able to intelligently choose additional course work in terms of his own interests and social needs. The program provides a wide choice of electives and permits the student to explore areas of interest uninhibited by specific professional or technical requirements. Beyond the basic general education, the student's program is flexible to the impulse and variety of human needs. He may explore courses in building construction, interior design, Boolean algebra, great books, home and family living, some of the introductory professional courses, or something in arts and crafts.

The program is principally designed for students wanting only two years of higher education; however, many of the required and elective courses in the program are the equivalent of regular freshman and sophomore work.

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

ASSOCIATE IN GENERAL EDUCATION PROGRAM

| Year | English | Social Science | Natural Science and Mathematics | Humanities | Electives | Quarter |
|--------|-------------------------------------|-----------------------|------------------------------------|------------------------------|-----------|---------|
| Fresh. | ENG 111 English | HIS 101 World Civ. | NSC 101 Physical Sci. | MUS 101 Mus. Appr. | | 1 |
| | ENG 112 English | HIS 102 World Civ. | MTH 101 Modern Math | ART 101 Art Appr. | | 2 |
| | Eng. Mstpcs.* ENG 113 Soc. Sci. | HIS 103 World Civ.* | MTH 102 Intro to Logic | PSY 101 Intro. to Psychology | | 3 |
| | Eng. Mstpcs.* ENG 211 Nat. Sci. | BIO 201 Gen. Zoology* | | | | 4 |
| Soph. | Eng. Mstpcs.* ENG 212 Humanities | BIO 202 Gen. Botany | PHI 202 Intro. to Phil.* | | | 5 |
| | Creative ENG 213 Writing | | PHI 203 Cont. Issues | | | 6 |

*Indicates Co-requisite Course.

| | FIRST YEAR | SECOND YEAR | Total Credit Hours |
|----------------|---|-------------------------------|-----------------------|
| First Quarter | General Education Credit Hours 12 | Elective Credit Hours 4 | 16 |
| Second Quarter | 12 | 4 | 16 |
| Third Quarter | 12 | 4 | 16 |
| Fourth Quarter | 7 | 9 | 16 |
| Fifth Quarter | 10 | 6 | 16 |
| Sixth Quarter | 6 | 10 | 16 |
| TOTALS | 59 | 37 | 96 |

Course Description by Quarters

First Quarter

ENG 111—ENGLISH 3 hours
A brief history of the English language and review of grammar with particular emphasis on composition and expository writing.

HIS 101—WORLD CIVILIZATION 3 hours
A survey of the cultural beginnings of Eastern and Western civilizations, dealing with migrations, cultural diffusion, and the development of governmental and ethical structures through the fall of the Roman Empire.

NSC 101—PHYSICAL SCIENCE 3 hours
A study of facts, principles, theories and basic concepts from the areas of astronomy, geology and climatology. Special emphasis will be given to evaluation of landscapes, effects of glaciers, streams, wind, weather, and the geological timetable.

MUS 101—MUSIC APPRECIATION 3 hours
Designed to give a basic orientation to music with emphasis on simple form and analysis, instrumentation, aesthetics, masterpieces and other significant works.

Elective 4 hours

Second Quarter

ENG 112—ENGLISH 3 hours
A continuation of ENG 101 with special emphasis on reading, expository writing and speaking, with an introduction to poetry and the short story.

HIS 102—WORLD CIVILIZATION 3 hours
A continuation of HIS 101 from the Middle Ages, through the Renaissance, the Voyages of Discovery, Colonization, the Reformation, and the Age of Enlightenment.

MTH 101—MODERN MATHEMATICS 3 hours
An introduction to mathematical concepts necessary for effective citizenship. The course includes sets, the development of number systems, an introduction to probability, algebra and statistics.

ART 101—ART APPRECIATION 3 hours
An introduction to fundamental elements and principles of creative art expression emphasizing composition, design, shape, value, styles, and movements.

Elective 4 hours

Third Quarter

ENG 113—ENGLISH MASTERPIECES IN THE SOCIAL SCIENCES 3 hours
A continuation of ENG 111 and ENG 112 introducing the novel and with increased emphasis on writing and speaking on topics related to contemporary social problems. (Co-requisite with HIS 103)

HIS 103—WORLD CIVILIZATION 3 hours
A continuation beginning with the Industrial Revolution, the impact of industrial imperialism, the American and French Revolution, the rise of political democracy and modern nationalism to the present. (Co-requisite with ENG 113)

MTH 102—INTRODUCTION TO LOGIC 3 hours
Emphasis on both inductive and deductive logic with particular attention to the bases of scientific evidence, probability theory, hypothetical and categorical syllogisms, causation and common fallacies.

PSY 101—INTRODUCTION TO PSYCHOLOGY 3 hours
Introductory survey of the field of psychology wherein the student becomes better acquainted with a human being as a biological-social organism. Topics covered include history of psychological development, the scientific method in psychology, theory of statistical concepts, intelligence, motivation, emotions and learning.

Elective 4 hours

Fourth Quarter

ENG 211—ENGLISH MASTERPIECES IN THE NATURAL SCIENCES 3 hours
A continuation, introducing the essay and with emphasis on writing and speaking on topics related to man in his biological and physical environment. (Co-requisite with BIO 201)

BIO 201—GENERAL ZOOLOGY 4 hours
A comprehensive study of the animal kingdom, with special emphasis on the morphology, anatomy, physiology, genetics and ecological relationships. (Co-requisite with ENG 201)
Electives 9 hours

Fifth Quarter

ENG 212—ENGLISH MASTERPIECES IN THE HUMANITIES 3 hours
A continuation drawing from all literary forms with emphasis on expository writing and speaking on man and philosophy. (Co-requisite with PHI 202)

BIO 202—GENERAL BOTANY 4 hours
A comprehensive study of the plant kingdom with special emphasis on morphology, anatomy, physiology, taxonomy and ecology.

PHI 202—INTRODUCTION TO PHILOSOPHY 3 hours
An introduction to philosophic world frames emphasizing cosmology, ontology, epistemology, and axiology. (Co-requisite with ENG 202)

Electives 6 hours

Sixth Quarter

ENG 213—CREATIVE WRITING 3 hours
Creative writing laboratory. Emphasis on imaginative writing with special emphasis on essays, short stories, and poetry.

PHI 203—CONTEMPORARY ISSUES 3 hours
A culminating interdisciplinary course dealing with the basic economic, social, scientific and moral issues confronting human society.

Electives 10 hours

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.

The program meets the needs of the following persons:

1. Those who do not have a high school diploma
2. Those who have entered a curriculum and who are experiencing difficulties
3. Those who need extra preparation before entering a particular curriculum
4. Those who have handicaps which may have prevented them from attending regular school

Specific 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 potential 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

Program of Studies

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 GED-099

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.

The Developmental Studies Program is open from 8:00 A.M. until 4:00 P.M. Monday through Friday and from 6:00 P.M. until 10:00 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. This does not count against his regular 36 months.

HUMAN SERVICES

CHILD CARE WORKER
 COSMETOLOGY
 EARLY CHILDHOOD SPECIALIST
 ENVIRONMENTAL SCIENCE
 PRACTICAL NURSE EDUCATION
 RECREATION TECHNOLOGY

CHILD CARE WORKER

The child care worker assists professional personnel in implementing a planned program of activities. This requires understanding of a wide variety of activities: how to prepare materials, how to assist children to participate and how to care for materials at the completion of an activity. The worker must be able to perform these functions and carry out routine procedures while continuously observing the children and relating to each according to his needs.

Graduates of this basic course may find employment in day care centers, nursery schools, kindergartens, child development centers, hospitals, institutions, camps, and recreation centers. With appropriate in-service training, graduates could be prepared to assist professional personnel in centers for children with developmental handicaps — the emotionally disturbed, the retarded, or the physically disabled.

| First Quarter | Class | Lab | Hours Credit | |
|----------------------------|--|-----|-----------------|-----------|
| EDU 1001 | The Nature and Scope of Day Care for Young Children | 5 | 0 | 5 |
| EDU 1002 | Health and Safety of Young Children | 5 | 0 | 5 |
| EDU 1003 | Creative Activities for Young Children | 5 | 3 | 6 |
| EDU 1004 | Field Experience in Child Care Facilities | | 6 | 2 |
| ECO 1000 | Applied Economics | 3 | 0 | 3 |
| | | 18 | 9 | 21 |
| Second Quarter | | | | |
| EDU 1005 | Working with the Young Child | 3 | 9 | 6 |
| EDU 1006 | Communicating Effectively with the Young Child | 3 | 0 | 3 |
| EDU 1007 | Music in the Early Childhood Program | 2 | 3 | 3 |
| EDU 1008 | Science in the Early Childhood Program | 2 | 3 | 3 |
| EDU 1009 | Art in the Early Childhood Program | 2 | 3 | 3 |
| | | 12 | 18 | 18 |
| Third Quarter | | | | |
| EDU 1010 | Working with the Young Child with Problems | 3 | 9 | 6 |
| EDU 1011 | Conceptual and Language Development | 3 | 0 | 3 |
| EDU 1012 | Literature in the Early Childhood Program | 3 | 0 | 3 |
| EDU 1013 | Parent Education** | 3 | 0 | 3 |
| EDU 1014 | Administration and Supervision in A Preschool Facility** | 3 | 0 | 3 |
| EDU 1015 | Group Care of Infants** | 3 | 0 | 3 |
| | | 15 | 9 | 18 |
| TOTAL QUARTER HOURS | | | | 57 |

**Student to select two.

CHILD CARE WORKER

Course Descriptions by Quarters

First Quarter

EDU—1001—THE NATURE AND SCOPE OF DAY CARE FOR YOUNG CHILDREN

Designed to promote understanding of the role and responsibilities of day care workers. Classroom activities include study of personal adjustment, the developmental sequence in infancy and childhood, and needs of young children for optimal intellectual, emotional, and social development. The importance of the adult-child relationship is emphasized throughout the course.

EDU 1002—HEALTH AND SAFETY OF YOUNG CHILDREN

Designed to promote understanding of factors which influence physical and emotional health during infancy and childhood. Classroom activities focus on practices and procedures for promoting good health among children in group care. The influence of child care workers on health and safety and on the teaching of health habits is emphasized throughout the course.

EDU 1003—CREATIVE ACTIVITIES FOR YOUNG CHILDREN

Designed to promote appreciation for the importance of a varied program of activities for young children and to develop understanding of types of activities which should be provided in a group care facility. Classroom activities include discussion of media and techniques, experimentation with various media, and participation in planning activity programs for different age groups.

EDU 1004—FIELD EXPERIENCE IN CHILD CARE FACILITIES

Designed to provide opportunities for students to apply classroom learnings to observation of young children and to participate in their care under the supervision of the teacher. Experience in various types of child care facilities will be related to classroom learnings through assignments, group discussions, and conferences. This course is intended to indicate the experiences needed to reinforce learnings of EDU 1001, EDU 1002, and EDU 1003. Satisfactory performance in EDU 1004 is required for completion of the basic pre-employment course for child care workers.

ECO 1000—APPLIED ECONOMICS

Designed to help the student understand present-day economics problems. Topics include: production, consumption, exchange and distribution, money and credit, business fluctuations, labor and management relations, and challenges to our system of free enterprise.

Second Quarter

EDU 1005—WORKING WITH THE YOUNG CHILD

An introduction to the relationships of developmental stages to behavior patterns, with emphasis on those methods of interacting with children which promote healthy progress from one developmental stage to the next. Discussions and assignments are designed to develop insight into the student's own attitudes and biases, as a basis for self-understanding and increased capacity for relating to children and adults effectively. Prerequisite: EDU 1001.

EDU 1006—COMMUNICATING EFFECTIVELY WITH THE YOUNG CHILD

Study of language developments in relation to adult models and the child's early experiences. Remedial approaches to improving the student's oral communication, in order to serve as an effective model. Case studies provide opportunities to analyze problems of adult-child communication and to derive guidelines for establishing effective communication patterns with young children. Prerequisite: EDU 1001.

EDU 1007—MUSIC IN THE EARLY CHILDHOOD PROGRAM

Study of music which is appropriate for young children and ways of integrating music into the total program of activities. Students learn to utilize a wide variety of materials for rhythm, instrumental performance, and dramatic play. Laboratory sessions provide opportunities for learning songs and developing extensive files; field experience provides opportunities to participate in and evaluate music activities for various age groups. Prerequisite: EDU 1003.

EDU 1008—SCIENCE IN THE EARLY CHILDHOOD PROGRAM
 Study of those scientific facts, concepts, and phenomena that are of interest to young children. Laboratory experiences provide opportunities to carry out simple experiments in which young children could participate. Each student will plan a science program which could be used as an integral component of the overall program for young children in group care. Prerequisite: EDU 1003.

EDU 1009—ART IN THE EARLY CHILDHOOD PROGRAM
 Study of art media in relation to the creative process in young children, of the educational component that each medium reinforces, and of the ways a variety of low-cost art activities can be incorporated into a program for young children. Laboratory sessions provide first-hand experience with all of the media, opportunities to explore the uses of each, and practice in the care and storage of materials. Each student will plan a meaningful sequence of art activities which could be incorporated into a program for young children. Prerequisite: EDU 1003.

Third Quarter

EDU 1010—WORKING WITH THE YOUNG CHILD WITH PROBLEMS
 Further study of behavior in relation to developmental stages, with emphasis on behavior which is symptomatic of emotional or physical handicaps. Case studies and field observations are utilized for analysis of problems commonly encountered in group situations. Effective interaction and other types of remedial help are explored. Behavior of the child care worker is analyzed as a possible factor in contributing to or alleviating of mal-adjustment, with focus on the importance of constructively utilizing an analytic approach to self-development and to improved interpersonal skills. Prerequisite: EDU 1005

EDU 1011—CONCEPTUAL AND LANGUAGE DEVELOPMENT
 Study of means for helping children develop in their ability to communicate and formulate concepts about their environment. Emphasis is on utilization of all facets of the program to reinforce concept development and to increase vocabulary through stimulation of oral communication. Reading assignments and recordings of children's speech provide opportunities to study speech development, to establish realistic expectations and to identify children with needs for special attention to language development. Prerequisite: EDU 1006.

EDU 1012—LITERATURE IN THE EARLY CHILDHOOD PROGRAM
 Study of literature for young children, with emphasis on criteria for evaluating the literary value of children's books. Extensive reading and development of a topical file provide resources for selection of appropriate materials to use in field practice, to develop skill in oral reading and in story telling. Prerequisite: EDU 1006.

EDU 1013—PARENT EDUCATION
 Designed to develop understanding of the rewards and difficulties of parents. Role playing provides opportunities to practice ways of working with parents through home visits, individual conferences, informal conversations and group meetings. The relationship of the child care facility to other community agencies is explored, including ways each can best serve children and their families. Emphasis is given to the responsibility of child care workers to know about community resources, to be sensitive to needs of parents, and to help parents become aware of and utilize services of the community. Prerequisite: EDU 1001.

EDU 1014—ADMINISTRATION AND SUPERVISION IN A PRE-SCHOOL FACILITY

Designed to assist students to develop a philosophy of preschool education which can serve as a guide in establishing policies and procedures for the operation of a center for group care of young children. Emphasis is given to principles of supervision and techniques for promoting acceptance of a philosophy by the total staff. Prerequisite: EDU 1001.

EDU 1015—GROUP CARE OF INFANTS
 Study of development from birth to age three of the problems specific to group care of children under three. Each student will develop a plan of care for a group of five children; the plan must reflect concern for the child's total development and show procedures for dealing with the practical problems of providing safe care for infants and toddlers. Prerequisites: EDU 1001 and EDU 1002.

COSMETOLOGY

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. 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.

| Course Title | Contact Hrs. | | Hours | | Credit |
|---------------------------------------|--------------|------|-------|-----|--------|
| | Class | Lab | Class | Lab | |
| First Quarter | | | | | |
| Cos. 1001 — Scientific Study I | 42 | 63 | 4 | 6 | 6 |
| Cos. 1011 — Mannequin Practice | 13 | 212 | 1 | 19 | 7 |
| | | | 5 | 25 | 13 |
| Second Quarter | | | | | |
| Cos. 1002 — Scientific Study II | 55 | 0 | 5 | 0 | 5 |
| Cos. 1022 — Clinical Applications I | 0 | 275 | 0 | 25 | 8 |
| | | | 5 | 25 | 13 |
| Third Quarter | | | | | |
| Cos. 1003 — Scientific Study III | 55 | 0 | 5 | 0 | 5 |
| Cos. 1033 — Clinical Applications II | 0 | 275 | 0 | 25 | 8 |
| | | | 5 | 25 | 13 |
| Fourth Quarter | | | | | |
| Cos. 1004 — Scientific Study IV | 55 | 0 | 5 | 0 | 5 |
| Cos. 1044 — Clinical Applications III | 0 | 275 | 0 | 25 | 8 |
| | | | 5 | 25 | 13 |
| TOTALS | | 220 | 1100 | | |
| TOTAL CONTACT HOURS | | 1320 | | | |

COSMETOLOGY

Course Descriptions by Quarters

First Quarter

COS 1001—SCIENTIFIC STUDY I
 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 1011—MANNEQUIN PRACTICE
 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.

Second Quarter

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

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

Third Quarter

COS 1003—SCIENTIFIC STUDY III

Theory of anatomy, manicuring, chemistry of cosmetics and facials, hair styling, massage scalp treatments, superfluous hair removal and grooming and hygiene.

COS 1033—CLINICAL APPLICATION II

Shop practice in hair shaping, professional ethics, manicuring, cosmetics and facials, hair styling, cold waving, hair coloring and scalp treatment.

Fourth Quarter

COS 1004—SCIENTIFIC STUDY IV

Theory of hair coloring, lighteners, lash and brow tinting, hair styling, wig styling, beauty salon management, electricity, hair shaping, chemistry, sanitation and sterilization, cold waving.

COS 1044—CLINICAL APPLICATION III

Advanced shop techniques in hair coloring and lash and brow tinting, artistry in hairstyling and wigs, cold waving, hair shaping, sterilization, sanitation and chemistry.

EARLY CHILDHOOD SPECIALIST

Early childhood specialists provide infants and young children a program which will promote the optimal development of each child. The specialist must understand and be able to (1) meet the physical and nutritional needs of preschool children; (2) provide activities which stimulate intellectual, emotional, and social growth of children; (3) guide children in the formation of acceptable habits and attitudes; and (4) assist children in their learning to communicate effectively with others.

The early childhood specialist may choose to work with exceptional children as an aide to the kindergarten teacher or to organize and operate a child care facility as a private enterprise.

| | | | Class | Lab | Hours Credit |
|-----------------------|-----|---|-------|-------|-----------------|
| First Quarter | | | | | |
| ENG | 100 | English I | 3 | 2 | 4 |
| PSY | 104 | The Dynamics of Human Behavior | 3 | 2 | 4 |
| SOC | 104 | The Family: A Cross-Cultural Survey | 3 | 0 | 3 |
| EDU | 101 | Child Growth and Development | 3 | 0 | 3 |
| SCI | 101 | General Science | 3 | 4 | 5 |
| | | | <hr/> | <hr/> | <hr/> |
| | | | 15 | 8 | 19 |
| Second Quarter | | | | | |
| ENG | 101 | English II | 3 | 2 | 4 |
| PSY | 105 | Human Growth and Development: Prenatal and Infant | 3 | 0 | 3 |
| SOC | 105 | Families in the American Culture | 3 | 0 | 3 |
| EDU | 102 | Programming for Young Children | 3 | 6 | 5 |
| NUT | 102 | Nutrition for Young Children | 2 | 3 | 3 |
| | | | <hr/> | <hr/> | <hr/> |
| | | | 14 | 11 | 18 |
| Third Quarter | | | | | |
| ENG | 102 | English III | 3 | 2 | 4 |
| PSY | 106 | Human Growth and Development: Early Childhood | 3 | 0 | 3 |
| SOC | 106 | The Family in the Community | 3 | 0 | 3 |
| EDU | 103 | Working with Young Children | 3 | 9 | 6 |
| HEA | 101 | Personal Hygiene and Health | 2 | 0 | 2 |
| | | | <hr/> | <hr/> | <hr/> |
| | | | 14 | 11 | 18 |
| Fourth Quarter | | | | | |
| ENG | 204 | English IV | 3 | 2 | 4 |
| PSY | 201 | Human Growth and Development: Middle Childhood and Adolescence | 3 | 0 | 3 |
| EDU | 201 | Activities for Young Children | 3 | 9 | 6 |
| SOC | 201 | The Child and Community Services Elective | 3 | 0 | 3 |
| | | | <hr/> | <hr/> | <hr/> |
| | | | 15 | 11 | 19 |
| Fifth Quarter | | | | | |
| ENG | 103 | English V | 3 | 0 | 3 |
| PSY | 202 | Human Growth and Development: Adulthood | 3 | 0 | 3 |
| EDU | 202 | Seminar-Practicum in Early Childhood | 4 | 12 | 8 |
| EDU | 203 | The Exceptional Child | 3 | 0 | 3 |
| | | | <hr/> | <hr/> | <hr/> |
| | | | 13 | 12 | 17 |
| Sixth Quarter | | | | | |
| | | Elective | 3 | 0 | 3 |
| EDU | 204 | Parent Education | 3 | 0 | 3 |
| EDU | 205 | Seminar-Practicum | 2 | 15 | 7 |
| EDU | 207 | Special Problems in Early Childhood Elective | 2 | 0 | 2 |
| | | | <hr/> | <hr/> | <hr/> |
| | | | 13 | 17 | 19 |

EARLY CHILDHOOD SPECIALIST

Course Descriptions by Quarters

First Quarter

ENG 100—ENGLISH I

A sincere effort to encourage the student's development of reading comprehension and reading rate. Emphasizing the grasp of basic ideas rather than words. To have a storehouse of workable techniques which the student may use in reading assignments. Thus, helping him to identify, interpret and evaluate ideas. With purposeful practice and adequate motivation, the student's achievement will improve.

PSY 104—THE DYNAMICS OF HUMAN BEHAVIOR

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.

SOC 104—THE FAMILY: A CROSS-CULTURAL SURVEY

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 101—CHILD GROWTH AND DEVELOPMENT

Study of early growth and development, with emphasis on the principles and techniques for promoting the physical and mental health of the young child.

SCI 101—GENERAL SCIENCE

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.

Second Quarter

ENG 101—ENGLISH II

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 grammar in their day-to-day situations in industry and social life. Prerequisite: ENG 100.

PSY 105—HUMAN GROWTH AND DEVELOPMENT: PRENATAL AND INFANT

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: PSY 104.

SOC 105—FAMILIES IN THE AMERICAN CULTURE

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 deprivation, and the effects on children in such families. Prerequisite: SOC 104.

EDU 102—PROGRAMMING FOR YOUNG CHILDREN

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. Laboratory 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.

NUT 102—NUTRITION FOR YOUNG CHILDREN

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. Prerequisite: None

Third Quarter

ENG 102—ENGLISH III

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.

PSY 106—HUMAN GROWTH AND DEVELOPMENT: EARLY CHILDHOOD

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: PSY 105.

SOC 106—THE FAMILY IN THE COMMUNITY

Study of community agencies concerned with physical and mental health in families, socio-economic problems, and education for child-rearing. Prerequisite: SOC 105.

EDU 103—WORKING WITH YOUNG CHILDREN

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.

HEA 101—PERSONAL HYGIENE AND HEALTH

Study of influences on physical and mental health, individual practices which aid in maintaining good physical and mental health throughout the life span, and responsibilities of those working with young children to maintain personal health and to serve as models for health practices. Prerequisite: None

Fourth Quarter

ENG 204—ENGLISH IV

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: ENG 102.

PSY 201—HUMAN GROWTH AND DEVELOPMENT: MIDDLE CHILDHOOD AND ADOLESCENCE

A detailed study of the developmental sequence during the middle childhood and adolescence; emphasis is given to environmental and social factors which influence developmental rates, formulation of behavior patterns, and establishment of value systems and interests. Prerequisite: PSY 106.

EDU 201—ACTIVITIES FOR YOUNG CHILDREN

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.

SOC 201—THE CHILD AND COMMUNITY SERVICES

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: SOC 106.

Fifth Quarter

ENG 103—ENGLISH VI

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 student. Practical application in the preparation of a full-length report is required of each student at the end of the term. This report must have to do with something in his chosen curriculum. Prerequisite: ENG 204.

PSY 202—HUMAN GROWTH AND DEVELOPMENT: ADULTHOOD
A study of adulthood in terms of developmental tasks, life problems, crises, adjustment mechanisms, and problems related to intellectual, emotional, and social aspects of the individual in relation to others and to society. Prerequisite: PSY 201.

EDU 202—SEMINAR-PRACTICUM IN EARLY CHILDHOOD
Experience in a variety of child care settings to develop further skill in working with young children, in assisting with programming activities, and in adapting to the needs of individual children. Analysis of individual problems encountered in working with specific age groups. Prerequisite: EDU 201.

EDU 203—THE EXCEPTIONAL CHILD
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 and SOC 201.

Sixth Quarter

EDU 204—PARENT EDUCATION
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. Prerequisites: SOC 106 and PSY 202.

EDU 205—SEMINAR-PRACTICUM
Seminar on child development problems. Continued experience in a variety of child care facilities. Prerequisite: EDU 202.

EDU 206—SPECIAL PROBLEMS IN EARLY CHILDHOOD
Directed study of a specialized area of early childhood, appropriate to the individual career interests of students. Prerequisites: EDU 202 and EDU 203.

SOCIAL SCIENCE ELECTIVES

ECO 102—ECONOMICS
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. Prerequisite: None

SSC 205—AMERICAN INSTITUTIONS
A study of the effect of American social, economic, and political institutions upon the individual as a citizen and as a worker. The course dwells upon current local, national, and global problems viewed in the light of our political and economical heritage. Prerequisite: None

POL 201—UNITED STATES GOVERNMENT
A study of government with emphasis on basic concepts, structure, power, procedures, and problems. Prerequisite: None

SOC 207—RURAL SOCIETY
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. Prerequisite: None

ISC 201—INDUSTRIAL ORGANIZATION AND MANAGEMENT
Organizational structure for industrial management; operational and financial activities, including accounting, budgeting, banking, credit and industrial risk, forecasting of markets, selection and layout of physical facilities; selection, training and supervision of personnel as found in typical industrial organizations. Prerequisite: None

ENVIRONMENTAL SCIENCE

During the last few years our ever-increasing population and spiralling environmental problems have caused local, state, and national concern. Increasing pressure from the public and stricter environmental quality laws have caused industry, business and government agencies to show new interest in environmental quality. The trend is moving toward solving a wide range of environmental problems such as conserving the resources we have left and cleaning up the mess we have made.

Many broadly trained environmental science technicians will be needed to perform a wide variety of duties.

The curriculum provides the necessary balanced, broad background in environmentally oriented courses supplemented by basic courses such as English, math, government, and economics. Emphasis will be on environmental problems, overall effect of these problems on our environment, and proposed solutions to these problems. Since environmental problems are interrelated, this broad training will better qualify the student to grasp and solve environmental problems.

Occupational Opportunities

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

First Quarter

| | Class | Field and Lab | Hours Credit |
|---------|---------------------------|---------------|--------------|
| ENG 100 | English I | 3 2 | 4 |
| MAT 101 | Technical Math | 5 0 | 5 |
| BIO 101 | General Biology | 3 4 | 5 |
| ENV 100 | Environmental Orientation | 1 2 | 2 |
| ENV 110 | Pollution | 2 3 | 3 |
| | | 14 11 | 19 |

Second Quarter

| | | | |
|---------|--------------------------------|------|----|
| ENG 101 | English II | 3 2 | 4 |
| CHM 101 | Chemistry I | 3 4 | 5 |
| MAT 102 | Technical Math | 5 0 | 5 |
| ENV 120 | Renewable Resources Management | 2 3 | 3 |
| | Elective | 3 0 | 3 |
| | | 16 9 | 20 |

Third Quarter

| | | | |
|---------|---------------------------------|-------|----|
| ENG 102 | English III | 3 2 | 4 |
| CHM 108 | Industrial and Agricultural Chm | 3 4 | 5 |
| PHY 101 | Physics | 3 4 | 5 |
| ENV 130 | Environmental Microbiology | 3 4 | 5 |
| | | 12 14 | 19 |

Fourth Quarter

| | | | |
|---------|-----------------------------|--|-------|
| ENV 200 | Cooperative Work Experience | | 40 13 |
|---------|-----------------------------|--|-------|

Fifth Quarter

| | | | |
|---------|----------------------------|-------|----|
| ENG 204 | English IV | 3 0 | 3 |
| ENV 210 | Ecology | 3 3 | 4 |
| ENV 211 | Water Resources Management | 2 3 | 3 |
| ENV 212 | Air Resources Management | 2 3 | 3 |
| | Electives | 3 2 | 4 |
| | | 13 11 | 17 |

| Sixth Quarter | | | | |
|------------------------|--|-------|-------|-------|
| POL 103 | National, State, Local Government | 3 | 0 | 3 |
| ENV 220 | Water Sampling and Analysis | 2 | 6 | 4 |
| ENV 221 | Air Sampling and Analysis | 2 | 6 | 4 |
| ENV 222 | Regional Environmental Problems | 2 | 3 | 3 |
| | Electives | 3 | 2 | 4 |
| | | <hr/> | <hr/> | <hr/> |
| | | 12 | 17 | 18 |
| Seventh Quarter | | | | |
| ECO 100 | Economics | 3 | 2 | 4 |
| ENV 230 | Environmental Quality Laws and Enforcement | 3 | 2 | 4 |
| ENV 231 | Environmental Project | 1 | 12 | 5 |
| | Elective | 4 | 0 | 4 |
| | | <hr/> | <hr/> | <hr/> |
| | | 11 | 16 | 17 |
| Electives | | | | |
| ENV 213 | Soils Management and Erosion Control | 2 | 3 | 3 |
| ENV 214 | Pesticide and Herbicide Use and Control | 2 | 3 | 3 |
| ENV 215 | Conservation of Natural Resources | 4 | 3 | 5 |
| ENV 216 | Multiple Use Timber Cutting | 3 | 6 | 5 |
| ENV 223 | Water and Sewage Management | 3 | 3 | 4 |
| ENV 224 | Industrial Waste Treatment and Recycling | 3 | 3 | 4 |

ENVIRONMENTAL SCIENCE Course Descriptions by Quarters

First Quarter

ENG 100—ENGLISH I

A sincere effort to encourage the student's development of reading comprehension and reading rate. Emphasizing the grasp of basic ideas rather than words. To have a storehouse of workable techniques which the student may use in reading assignments. Thus, helping him to identify, interpret and evaluate ideas. With purposeful practice and adequate motivation the student's achievement will improve.

MAT 101—TECHNICAL MATH

An introduction to mathematical concepts necessary for effective citizenship. The course includes sets, the development of number systems, and introduction to probability, algebra and statistics.

BIO 101—GENERAL BIOLOGY

An introduction to the biological principles; a study of the chemical and physical properties of the living cell; selected laboratory experiments to reinforce lectures.

ENV 100—ENVIRONMENTAL ORIENTATION

An introduction to environmental education, fields of environmental employment, and duties performed. Guest lecturers in environmentally related fields.

ENV 110—POLLUTION

An introductory environmental course dealing with our nations overall pollution problems. This course is designed to give the student a general background before he is exposed to specialized environmental courses.

Second Quarter

ENG 101—ENGLISH II

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 grammar in their day-to-day situations in industry and social life.

CHM 101—CHEMISTRY I

Study of the physical and chemical properties of substances, chemical changes, elements, compounds, gases, chemical combinations, weights and measurements; theory of metals, acids, bases, salts, solvents, solutions, and emulsions. In addition, study of carbohydrates; electrochemistry, electrolytes, and electrolysis in their application of chemistry to industry.

MAT 102—TECHNICAL MATH

A continuation of MAT 101. Advanced algebraic and trigonometric topics including quadratics, logarithms, determinants, progressions, the binomial trigonometric functions are studied in depth. Prerequisite: MAT 101.

ENV 120—RENEWABLE RESOURCES MANAGEMENT

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.

Third Quarter

ENG 102—ENGLISH III

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.

CHM 108—INDUSTRIAL AND AGRICULTURAL CHEMISTRY

Course dealing with the application of inorganic and organic chemistry principles to fertilizers, pesticides, herbicides and industrial wastes, testing properties. Soil and fertilizer methods of analysis used in North Carolina and their interpretations. Prerequisite: CHM 101.

PHY 101—PHYSICS

A foundation course in general physics, treating the atomic theory of matter; properties of solids, liquids, gases; fluid in motion; Newton's Law of Motion; concepts of force, mass, weight, vector, momentum, centrifugal and centripetal forces, speed, velocity, acceleration. Laboratory experiments deals with these topics.

ENV 130—ENVIRONMENTAL MICROBIOLOGY

A study of general microbiology with emphasis on microorganisms associated with pollutants such as industrial waste and sewage. Lab will include methods of isolating, culturing, and staining selected microorganisms. Prerequisites: BIO 101 and CHM 101.

Fourth Quarter

ENV 200—COOPERATIVE WORK EXPERIENCE

This course consists of one quarter of supervised cooperative work experience with an agency or business. The objective is to provide the student, before graduation, with actual employment experience in environmentally related work. The student will be advised by the instructor and supervised by the employer. An agreement will be made with the employer as to duties to be performed by the student. The student will give a class talk concerning his work experience.

Fifth Quarter

ENG 204—ENGLISH IV

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: ENG 102.

ENV 201—ECOLOGY

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 terrestrial systems; regulation and dynamics of populations; interactions among species; community ecology; and the ecological viewpoint in modern land management.

ENG 211—WATER RESOURCES MANAGEMENT

Consists of water pollution problems, characteristics of water pollutants, the overall effect these pollutants have on the environment and on water pollution abatement.

ENV 212 AIR RESOURCES MANAGEMENT

Consists of basic meteorology, air pollution problems, characteristics of air pollutants, the overall effect these pollutants have on the environment, and air pollution abatement.

Sixth Quarter

POL 103—NATIONAL, STATE, LOCAL GOVERNMENT

A study of the organization and functions of national, state, and local governments, intergovernmental relationships, and contemporary significant problems.

ENV 220—WATER SAMPLING AND ANALYSIS

A basic study of water quality standards, water monitoring equipment, water monitoring techniques, and analysis of results.

ENV 221—AIR SAMPLING AND ANALYSIS

A basic study of air quality standards, air monitoring equipment, air monitoring techniques, and analysis of results.

ENV 222—REGIONAL ENVIRONMENTAL PROBLEMS

Designed to give the student an awareness of environmental problems such as water and air pollution, waste disposal, erosion, dams, roads, forest management, agricultural practices, and mining in the Southern Appalachians. The effect these problems are having on our environment and solutions to these problems will be examined.

Seventh Quarter

ECO 100—ECONOMICS

A practical course in applied economics as it relates to man and his efforts to make a living. These economic endeavors will include forms of money, kinds of wages, uses of purchasing power, basic types of insurance, the importance of the effects of the business cycle, and the relationship of value to price based on the laws of supply and demand.

The role of government in the economy, a look at such problems as governmental services, governmental controls over such agencies as banking and credit institutions, and justification of government spending will be undertaken.

Free enterprise and its place among world economic systems will be examined.

ENV 230—ENVIRONMENTAL QUALITY LAWS AND ENFORCEMENT

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

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.

Several electives are offered so that the student can specialize in a particular phase of the environmental field.

PRACTICAL NURSE EDUCATION

The aim of the Practical Nurse Education Program is to give 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 record, 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 adjustment 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 take 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 other states on the basis of a satisfactory examination score without repeating the examination.

Occupational Opportunities

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 functions 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 may function in an assisting role in order to avoid assuming responsibility beyond that for which the one-year program can prepare the individual.

| | Class | Lab | Clinic | Contact Hours | Credit Hours |
|------------------------------|-------|-----|--------|---------------|--------------|
| First Quarter | | | | | |
| Practical Nursing I | 300 | 30 | 0 | 330 | 20 |
| Fundamentals of Nursing | 120 | 30 | | | |
| Anatomy and Physiology | 85 | | | | |
| Nutrition and Diet | 35 | | | | |
| Intro. Drug. Adm. | 60 | | | | |
| English 1101 | 2 | 0 | | | 2 |
| Second Quarter | | | | | |
| Practical Nursing II | 231 | 0 | 154 | 385 | 20 |
| Medical-Surgical Nursing I | 71 | | 54 | | |
| Maternity Nursing | 70 | | 50 | | |
| Pediatric Nursing | 70 | | 50 | | |
| Communicable Diseases | 20 | | | | |
| English 1102 | 3 | 0 | | | 3 |
| Third Quarter | | | | | |
| Practical Nursing III | 154 | 0 | 231 | 385 | 20 |
| Medical-Surgical Nursing II | 100 | | 231 | | |
| Drug & Administration | 54 | | | | |
| Fourth Quarter | | | | | |
| Practical Nursing IV | 154 | 0 | 231 | 385 | 20 |
| Medical-Surgical Nursing III | 124 | | 231 | | |
| Mental Illness | 20 | | | | |
| Vocational Adjustments | 10 | | | | |
| Total | | | | 1485 | |

PRACTICAL NURSE EDUCATION

Course Descriptions by Quarters

First Quarter

NUR 1001—PRACTICAL NURSING I

Designed to assist students in acquiring the knowledge, understandings, appreciations, and attitudes basic to effective nursing of patients of all ages and backgrounds. Emphasis is on nursing needs arising both from the individuality of the patient and from inability for self-care as a result of a health deviation. Patient-centered studies include analysis of patient needs both through classroom study of hypothetical patient situations and through planned experiences in the clinical environment. Beginning skills in nursing methods are developed through planned laboratory practice and supervised patient care.

ENG 1101—ENGLISH A

Designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognition, and to train for comprehension in larger units.

Second Quarter

NUR 1002—PRACTICAL NURSING II

Designed to introduce the student to deviations from normal, to nursing methods and therapeutic procedures, and to the clinical specialties. Continued patient-centered study, with introduction of the illness condition as an additional source of nursing needs. Increased emphasis on clinical activities and selected patient care.

ENG 1102—ENGLISH B

Development of the student's ability to communicate effectively with other individuals through the medium of good language usage in speaking and writing, to think more clearly, and to reason more forcefully in work problems pertaining to his job. Prerequisite ENG 1101.

Third Quarter

NUR 1003—PRACTICAL NURSING III

Designed to acquaint the student with common illness conditions, related nursing needs and therapeutic methods, and role of the practical nurse in care of patients with specific conditions. Learning situations are selected to illustrate commonalities with a wide variety of similar conditions and to promote student awareness of similarities and differences. Clinical practice emphasizes student experience in care of subacutely ill patients with a wide variety of illnesses, correlated with classroom studies insofar as possible.

NUR 1004—PRACTICAL NURSING IV

Designed to introduce the student to care of patients with complex nursing needs and to the assisting role of the practical nurse in situations requiring judgments based on depth of knowledge. Clinical practice includes supervised care of labor patients and seriously ill adults and children.

RECREATION TECHNOLOGY

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.

The curriculum is designed to qualify personnel to plan and directly supervise recreational activities for all age groups; to plan, develop, operate and maintain recreational sites and facilities which offer all practical activities, and to actively promote conservation and outdoor recreation through area educational and recreational agencies.

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.

ADMISSION TO THE PROGRAM

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.

Acceptance to the program does not carry with it candidacy for the Associate of Applied Science degree. To become a candidate, the student must after one quarter of study in recreation:

- remove any condition of admission to the school
- demonstrate ability to do work at the Associate degree level
- demonstrate leadership ability as determined by standard evaluation procedures
- with his/her advisor, project the program to completion indicating any remedial work necessary and/or areas of specialization.

Throughout the program, there are additional expenses for supplies and incidentals.

Occupational Opportunities

Employment opportunities for professionally trained leaders exist in community recreation programs, projects of local governments, YMCA's, YWCA's, Boys Clubs, Boy Scouts, Girl Scouts, hospitals, nursing homes, penal institutions, state parks, federal parks, industry, public and private resorts, summer camps, rehabilitation agencies and regional institutions.

RECREATION TECHNOLOGY

Courses and admissions requirements for this program are being revised. Revisions will be released as they are completed.

| First Quarter | Class | Lab | Credit |
|------------------------------------|-------|-----|--------|
| ENG 100 English I | 3 | 2 | 4 |
| MAT 110 Bus Math | 5 | 0 | 5 |
| BUS 102 Typewriting (or elective) | 2 | 3 | 3 |
| REC 110 Professional (Orientation) | 3 | 2 | 4 |
| REC 111 Arts, Crafts, Drama | 2 | 4 | 4 |
| | 15 | 11 | 20 |

Second Quarter

| | | | | |
|---------|-------------------------|---|---|---|
| ENG 101 | English II | 3 | 2 | 4 |
| ECO 100 | Applied Economics | 3 | 2 | 4 |
| REC 120 | Recreational Leadership | 3 | 2 | 4 |
| REC 121 | Music | 3 | 2 | 4 |
| REC 123 | Conservation Education | 5 | 0 | 5 |

17 8 21

Third Quarter

| | | | | |
|---------|---------------------------------|---|---|---|
| ENG 102 | English III | 3 | 2 | 4 |
| BUS 123 | Business Finance | 3 | 2 | 4 |
| REC 131 | Drama | 3 | 2 | 4 |
| REC 132 | Outdoor Education | 3 | 2 | 4 |
| REC 133 | Recreational Grounds Management | 2 | 6 | 5 |

14 14 21

Fourth Quarter

| | | | | |
|---------|-----------|---|-------|----|
| REC 140 | Practicum | 6 | 30-40 | 15 |
|---------|-----------|---|-------|----|

Fifth Quarter

| | | | | |
|---------|-----------------------------------|---|---|---|
| ENG 204 | English IV | 3 | 2 | 4 |
| SSC 201 | Social Science | 3 | 2 | 4 |
| REC 255 | Fall Activities | 2 | 3 | 3 |
| REC 257 | State and Federal Land Management | 3 | 2 | 4 |
| REC 258 | Water-Related Activities | 2 | 3 | 3 |

13 12 18

Sixth Quarter

| | | | | |
|---------|-------------------------------------|---|---|---|
| ENG 103 | English V | 3 | 0 | 3 |
| SSC 202 | Social Science | 3 | 2 | 4 |
| REC 265 | Winter Activities | 2 | 5 | 4 |
| REC 267 | Municipal Recreation Administration | 5 | 0 | 5 |
| REC 266 | Special Recreation | 3 | 2 | 4 |

16 9 20

Seventh Quarter

| | | | | |
|---------|--------------------------------|---|---|---|
| REC 271 | Dance | 2 | 3 | 3 |
| REC 272 | First Aid and Safety | 3 | 0 | 3 |
| REC 275 | Spring Activities | 2 | 3 | 3 |
| REC 279 | Seminar in Recreation Elective | 5 | 2 | 5 |
| | | 3 | 2 | 4 |

15 10 18

Electives

| | | | | |
|---------|--------------------------------|---|---|---|
| REC 140 | Elementary Swimming | 0 | 3 | 1 |
| REC 141 | Intermediate Swimming | 0 | 3 | 1 |
| REC 142 | Advanced Synchronized Swimming | 0 | 2 | 1 |
| REC 143 | Senior Life-Saving | 0 | 2 | 1 |
| REC 148 | Water Safety Instructor | 0 | 2 | 1 |

RECREATION TECHNOLOGY

Course Descriptions by Quarters

First Quarter**ENG 100—ENGLISH I**

A sincere effort to encourage the student's development of reading comprehension and reading rate. Emphasizing the grasp of basic ideas rather than words. To have a storehouse of workable techniques which the student may use in reading assignments. Thus, helping him to identify, interpret and evaluate ideas. With purposeful practice and adequate motivation, the student's achievement will improve.

MAT 110—BUS MATH

This course stresses the fundamental operations and their application to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business.

BUS 102—TYPEWRITING

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts.

REC 110—PROFESSIONAL ORIENTATION

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. Field trips to be arranged.

REC 111—ARTS AND CRAFTS

Designed to acquaint students with practical activities and materials which can be used in a variety of recreational settings by all groups. Practice in woodcrafts, jewelry making, photography, lapidary, ceramics, and other recreational arts and crafts.

Second Quarter**ENG 101—ENGLISH II**

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 grammar in their day-to-day situations in industry and social life. Prerequisite: ENG 100.

ECO 100—APPLIED ECONOMICS

A practical course in applied economics as it relates to man and his efforts to make a living. These economic endeavors will include forms of money, kinds of wages, uses of purchasing power, basic types of insurance, the importance of the effects of the business cycle, and the relationship of value to price based on the laws of supply and demand.

REC 120—RECREATIONAL LEADERSHIP

A study of recreation based on leadership techniques. Emphasis is on group work. Provides insight into the theory, principles and practice of planning, org, and effective rec. programs.

REC 121—MUSIC

Presents music as an integral part of a well-planned recreation program. Group singing, instruments, rhythms, and music appreciation are included with emphasis on music as recreation rather than a performing art.

REC 123—CONSERVATION EDUCATION

An overview of the broad aspects of conservation practices in recreation emphasizing creative use of natural resources and environment, including land (forests) water, air and wildlife. Field trips to be arranged.

Third Quarter**ENG 102—ENGLISH III**

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.

BUS 123—BUSINESS FINANCE

Financing of business units, as individuals, partnerships, corporations, and trusts. A detailed study is made of short-term and consumer financing.

REC 131—DRAMA

Use in such dramatic techniques as pantomime, spontaneous dialogue and characterization. Emphasis is on possibilities of use in varied recreation situations rather than on skills or play-production.

REC 132—OUTDOOR EDUCATION

Includes study of the history, developments, and trends of outdoor recreation and organized camping. Emphasis is on laboratory work, field trips, development of outdoor and camping skills, and leadership training for camp counselors and directors.

REC 133—RECREATIONAL GROUNDS MANAGEMENT

Deals with principles and problems involved in the construction and utilization of outdoor recreational facilities. Presents basic horticulture and part layout.

Fourth Quarter**REC 140—PRACTICUM**

Fifth Quarter

ENG 204—ENGLISH IV

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: ENG 102.

SSC 201—SOCIAL SCIENCE

An integrated course in the social sciences drawing from the fields of anthropology, psychology, history, and sociology.

REC 255—FALL ACTIVITIES

A survey of the basic terminology, skills and rules of team and lifetime activities suited to but not restricted to the autumn months. Includes tag football, handball, badminton, table tennis, billiards, etc. Emphasis is on organizational and promotion rather than mastery of performance skills.

REC 257—STATE AND FEDERAL LANDS MANAGEMENT

Survey of responsibilities of park personnel: recreation program administration, construction and maintenance, enforcement of regulations in state and national lands. Report writing and record keeping.

REC 258—WATER-RELATED ACTIVITIES

Includes the basic terminology skills and techniques of selected water-related activities, e.g. water relays, boating, canoeing, and tubing etc.

Sixth Quarter

ENG 103—ENGLISH V

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 have to do with something in his chosen curriculum. Prerequisite: ENG 204.

SSC 202—SOCIAL SCIENCE

A further study of social sciences with emphasis on economics, political science, and social problems as they relate to the individual. Prerequisite: SSC 201.

REC 265—WINTER ACTIVITIES

A survey of the basic terminology, skills and rules of team and life-time activities suited to but not restricted to the winter months. Includes skiing, hunting, tobogganing, skating, volleyball and basketball. Emphasis is on organization and promotion rather than on mastery of performance skills.

REC 267 MUNICIPAL RECREATION ADMINISTRATION

A study of the history, principles, organization, administration and operation of community recreation facilities and programs. Emphasis is on organized programs and service, fund-raising, publicity, etc. with particular emphasis on summer activities.

REC 266—SPECIAL RECREATION

Emphasis will be given to recreation programs and employment opportunities in rest homes, hospitals, industry and retirement resorts or villages and service organizations.

Seventh Quarter

REC 271—DANCE

Introduces methods and materials of folk, square, creative and social dance. Attention is given to terminology, skills, selection and presentation of dances. Emphasis is on knowledge and understanding of the organization and promotion of activities rather than on dancing skills.

REC 272—FIRST AID AND SAFETY

Prevention of accidents; standard and advanced courses as organized by the American Red Cross.

REC 275—SPRING ACTIVITIES

A survey of the basic terminology, skills and rules of team and lifetime activities suited to but not restricted to the spring months. Includes archery, baseball, softball, golf, tennis, etc. Emphasis is on organization and performance skills.

REC 279—SEMINAR IN RECREATION

A culminating experience dealing with current practical problems in recreation growing out of reading from extant literature and from field experiences.

Elective

Electives

REC 140—ELEMENTARY SWIMMING

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

The course follows the American National Red Cross outline for intermediate swimming including the basic strokes and diving skills.

REC 142—ADVANCED SYNCHRONIZED SWIMMING

Perfection of swimming skills and group work. Prerequisite: REC 141.

REC 143—SENIOR LIFE-SAVING

Life Saving Skills and Techniques. Red Cross certification issued. Prerequisite: REC 141.

REC 148—WATER SAFETY INSTRUCTOR

Red Cross certification issued.

INDUSTRIAL-VOCATIONAL EDUCATION

**AUTO BODY REPAIR
AUTOMOTIVE MECHANICS
CARPENTRY
ELECTRONIC SERVICING
GENERAL MASONRY
PLUMBING AND PIPEFITTING
SURVEYING**

AUTO BODY REPAIR

The field of automotive body repair and painting needs more well-trained people to meet the growing demands in this area of employment. In this program, much of the student's time in the shop is devoted to learning skills and practicing these skills on car bodies and the component parts. Every attempt is made to make these practical experiences as close as possible to actual on the job situations. The practical experience and related training provide an ideal way to prepare the students for entry into an occupation that offers many job opportunities.

Occupational Opportunities

Graduates of the Auto Body Repair Curriculum are qualified for jobs in which they remove dents in automobile bodies and fenders; replace fenders; straighten frames, doors, hoods, and deck lids; and align wheels. In their work these craftsmen operate welding equipment, make tests on and repair engine cooling systems, shrink stretched metal and prepare it for painting, paint fenders and panels as well as paint a complete vehicle. In addition to these duties, auto body repairmen remove, cut, fit, and install glass; remove and install interior trim; cut, sew, and install headings and seat covers; repair and replace upholstery and fabric tops on vehicles; and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. They also make orders for repairs and parts as well as make estimates and statements for adjusters. After gaining experience, many of these craftsmen open their own businesses or become body shop foremen, supervisors, or managers.

| | Class | Lab | Credit |
|--|-------|-----|--------|
| First Quarter | | | |
| AUT 1111 Auto Body Repair | 3 | 12 | 7 |
| MAT 1101 Fundamentals of Mathematics | 5 | 0 | 5 |
| PHY 1101 Applied Science | 3 | 2 | 4 |
| ENG 1101 English A | 2 | 0 | 2 |
| WLD 1101 Basic Welding | 0 | 3 | 1 |
| | 13 | 17 | 19 |
| Second Quarter | | | |
| AUT 1112 Auto Body Repair | 3 | 12 | 7 |
| WLD 1105 Auto Body Welding | 1 | 3 | 2 |
| DFT 1101 Schematics and Diagrams: Power Mechanics | 0 | 3 | 1 |
| PHY 1102 Applied Science | 3 | 2 | 4 |
| ENG 1102 English B | 3 | 0 | 3 |
| | 10 | 20 | 17 |
| Third Quarter | | | |
| AUT 1113 Metal Finishing and Paintings | 3 | 12 | 7 |
| PSY 1101 Human Relations | 3 | 0 | 3 |
| AUT 1115 Trim, Glass and Radiator Repair | 2 | 10 | 5 |
| | 8 | 22 | 15 |
| Fourth Quarter | | | |
| AUT 1114 Body Shop Application | 3 | 21 | 10 |
| BUS 1103 Small Business Management | 3 | 0 | 3 |
| ECO 1000 Applied Economics | 3 | 0 | 3 |
| | 9 | 21 | 16 |

AUTO BODY REPAIR

Course Descriptions by Quarters

First Quarter

AUT 1111—AUTO BODY REPAIR

Basic principles of automobile construction, design, and manufacturing. A thorough study of angles, crown, and forming of steel into the complex contour of the present day vehicles. The student applies the basic principles of straightening, aligning, and painting of damaged areas.

MAT 1101—FUNDAMENTALS OF MATHEMATICS

Practical number theory. Analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Introduction to algebra used in trades. Practice in depth.

PHY 1101—APPLIED SCIENCE

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.

ENG 1101—ENGLISH A

Designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognition and to train for comprehension in larger units.

WLD 1101—BASIC WELDING

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.

Second Quarter

AUT 1112—AUTO BODY REPAIR

A thorough study of the requirements for a metal worker, including the use of essential tools, forming fender flanges and beads, and straightening typical auto body damage. The student begins acquiring skills such as shaping angles, crowns, and contour of the metal of the body and fenders. Metal working and painting. Prerequisites: AUT 1111, WLD 1101, PHY 1101, MAT 1101.

WLD 1105—AUTO BODY WELDING

Welding practices on material applicable to the installation of body panels and repairs to doors, fenders, hoods and deck lids. Student runs beads, does butt and fillet welding. Perform tests to detect strength and weaknesses of welded joints. Safety procedures are emphasized throughout the course. Prerequisite: WLD 1101.

DFT 1101—SCHEMATICS AND DIAGRAMS: POWER MECHANICS

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.

PHY 1102—APPLIED SCIENCE

The second in a series of courses of applied physical principles. Topics introduced in this course are heat and thermometry and principles of force, motion, work, energy, and power. Prerequisite: PHY 1101.

ENG 1102—ENGLISH B

Development of the student's ability to communicate effectively with other individuals through the medium of good language usage in speaking and writing, to think more clearly, and to reason more forcefully in work problems pertaining to his job. Prerequisite: ENG 1101.

Third Quarter

AUT 1113—METAL FINISHING AND PAINTING

Development of the skill to shrink stretched metal, soldering and leading, and preparation of the metal for painting. Straightening of doors, hoods, and deck lids; fitting and aligning. Painting fenders and panels, spot repairs, and complete vehicle painting; the use and application of power tools. Prerequisites: AUT 1112, WLD 1105.

PSY 1101—HUMAN RELATIONS

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.

AUT 1115—TRIM, GLASS AND RADIATOR REPAIR

Methods of removing and installing interior trim; cutting, sewing and installing headlinings, seat covers, and door trim panels; painting of trim parts and accessories. Glass removal, cutting, fitting, and installation. The student gains a thorough knowledge of the engine cooling system and repairs and replaces damaged cooling system components. Tests are made to insure normal engine cooling operation. Prerequisites: AUT 1112, WLD 1105.

Fourth Quarter**AUT 1114—BODY SHOP APPLICATIONS**

General introduction and instruction in the automotive frame and front end suspension systems, the methods of operation and control, and the safety of the vehicle. Unit job application covers straightening of frames and front wheel alignment. The student applies all phases of training. Repair order writing, parts purchasing, estimates of damage, and developing the final settlement with the adjuster. Prerequisites: AUT 1115, PHY 1102, DFT 1101.

BUS 1103—SMALL BUSINESS MANAGEMENT

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations.

ECO 1000—APPLIED ECONOMICS

Designed to help the student understand present-day economic problems. Topics include: production, consumption, exchange and distribution, money and credit, business fluctuations, labor and management relations, and challenges to our system of free enterprise.

AUTOMOTIVE MECHANICS

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

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

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

Occupational Opportunities

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.

| First Quarter | | Class | Lab | Credit |
|-----------------------|--|--------------|------------|---------------|
| PME 1101 | Internal Combustion Engines | 3 | 14 | 7 |
| MAT 1101 | Fundamentals of Mathematics | 3 | 0 | 3 |
| ENG 1101 | English A | 2 | 0 | 2 |
| PHY 1101 | Applied Science | 3 | 2 | 4 |
| ECO 1000 | Applied Economics | 3 | 0 | 3 |
| | | 14 | 16 | 19 |
| Second Quarter | | | | |
| PME 1102A | Engine Electrical and Fuel Systems | 5 | 14 | 9 |
| PHY 1102 | Applied Science | 3 | 2 | 4 |
| ENG 1102 | English B | 3 | 0 | 3 |
| DFT 1101 | Schematics and Diagrams: Power Mechanics | 0 | 3 | 1 |
| | | 11 | 19 | 17 |
| Third Quarter | | | | |
| AUT 1123 | Automotive Chassis and Suspension Systems | 3 | 12 | 7 |
| AUT 1101 | Small Engine | 3 | 3 | 4 |
| PSY 1101 | Human Relations | 3 | 0 | 3 |
| WLD 1101 | Basic Welding | 0 | 3 | 1 |
| AUT 1121 | Braking Systems | 0 | 3 | 1 |
| | | 9 | 21 | 16 |
| Fourth Quarter | | | | |
| AUT 1124 | Automotive Power Train Systems | 3 | 9 | 6 |
| BUS 1103 | Small Business Management | 3 | 0 | 3 |
| AUT 1125 | Automotive Servicing | 3 | 7 | 5 |
| AHR 1101 | Air Conditioning Systems | 2 | 3 | 3 |
| | | 11 | 19 | 17 |

**AUTOMOTIVE MECHANICS
Course Descriptions by Quarters****First Quarter****PME 1101—INTERNAL COMBUSTION ENGINE**

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.

MAT 1101—FUNDAMENTALS OF MATHEMATICS

Practical number theory. Analysis of basic operations; addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Introduction to algebra used in trades. Practice in depth.

ENG 1101—ENGLISH A

Designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognition and to train for comprehension in larger units.

PHY 1101—APPLIED SCIENCE

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.

ECO 1000—APPLIED ECONOMICS

Designed to help the student understand present-day economic problems. Topics include: production, consumption, exchange and distribution, money and credit, business fluctuations, labor and management relations, and challenges to our system of free enterprise.

Second Quarter**PME 1102A—ENGINE ELECTRICAL AND FUEL SYSTEMS**

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.

PHY 1102—APPLIED SCIENCE

The second in a series of courses of applied physical principles. Topics introduced in this course are heat and thermometry and principles of force, motion, work, energy, and power. Prerequisite: PHY 1101.

ENG 1102—ENGLISH B

Development of the student's ability to communicate effectively with other individuals through the medium of good language usage in speaking and writing, to think more clearly, and to reason more forcefully in work problems pertaining to his job. Prerequisite ENG 1101.

DFT 1101—SCHEMATICS AND DIAGRAMS: POWER MECHANICS

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.

Third Quarter**AUT 1123—AUTOMOTIVE CHASSIS AND SUSPENSION SYSTEMS**

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, and front end and alignment. Prerequisite: PME 1102.

AUT 1101—SMALL ENGINES

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 in general deal with small engines. Multicylinder engines will be included.

PSY 1101—HUMAN RELATIONS

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.

WLD 1101—BASIC WELDING

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.

PME 1121—BRAKING SYSTEMS

Braking principles are studied in relation to the efficiencies 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.

Fourth Quarter**AUT 1124—AUTOMOTIVE POWER TRAIN SYSTEMS**

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. Prerequisites: PHY 1102, AUT 1123.

BUS 1103—SMALL BUSINESS MANAGEMENT

An introduction to the business world, problems of small business operation, basic business law; business forms and records, financial problems, order and inventories, layout of equipment and offices, methods of improving business, and employer-employee relations.

AUT 1125—AUTOMOTIVE SERVICING

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. Prerequisites: AUT 1121, 1122, 1123, 1123.

AHR 1101—AIR CONDITIONING SYSTEMS

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. Prerequisite: PHY 1102.

CARPENTRY

Carpentry is one of the basic trades in the construction field. Carpenters construct, erect, install, and repair structures of wood, plywood, and wallboard, using hand and powertools. The work must conform to local building codes for both residential and commercial structures.

This 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. He should have an understanding of building materials, concrete form construction, rough framing, roof and stair construction, the application of interior and exterior trim, and the installation of cabinets and fixtures. 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 as layout carpenter, framing carpenter, concrete form carpenter, scaffolding carpenter, accoustical and insulating carpenter, and finish carpenter.

Occupational Opportunities

The carpenter constructs, erects, installs and repairs structures and fixtures of wood, plywood, wall board and other materials, using carpenters handtools and powertools to conform to local building codes. He is required to use blueprints, sketches or building plans for information pertaining to type of material, dimensions, layout and design of structure, and method of construction.

CARPENTRY

| | | | Hours Per Week | | |
|----------------|------|------------------------------------|----------------|-----|--------------|
| First Quarter | | | Class | Lab | Hours Credit |
| ENG | 1101 | English A | 2 | 0 | 2 |
| MAT | 1101 | Fundamentals of Mathematics | 3 | 0 | 3 |
| DFT | 1101 | Blueprint Reading: Building Trades | 0 | 3 | 1 |
| CAR | 1101 | Carpentry | 5 | 17 | 10 |
| | | | 10 | 20 | 16 |
| Second Quarter | | | | | |
| ENG | 1102 | English B | 3 | 0 | 3 |
| CAR | 1113 | Carpentry: Estimating | 3 | 3 | 4 |
| CAR | 1103 | Carpentry: Framing | 3 | 18 | 9 |
| | | | 9 | 21 | 16 |
| Third Quarter | | | | | |
| BUS | 1103 | Small Business Management | 3 | 0 | 3 |
| CAR | 1114 | Building Codes | 3 | 3 | 4 |
| CAR | 1104 | Carpentry: Finishing | 3 | 18 | 9 |
| | | | 9 | 21 | 16 |

First Quarter

ENG 1101—ENGLISH A
Designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognition and to train for comprehension in larger units.

MAT 1101—FUNDAMENTALS OF MATHEMATICS

Practical number theory. Analysis of basic operations; addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Introduction to algebra used in trades. Practice in depth.

1101-DFT 1100—BLUEPRINT READING: BUILDING TRADES

Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three view and pictorial sketches.

CAR 1101—CARPENTRY

A brief history of carpentry and present trends of the construction industry. The course will involve operation care and safe use of carpenters handtools and powertools in cutting, shaping and joining construction materials used by the carpenter. 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.

Second Quarter

ENG 1102—ENGLISH B

Development of the student's ability to communicate effectively with other individuals through the medium of good language usage in speaking and writing, to think more clearly, and to reason more forcefully in work problems pertaining to his job. Prerequisite: ENG 1101.

CAR 1113 CARPENTRY—ESTIMATING

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 1103 CARPENTRY—FRAMING

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

Third Quarter

BUS 1103—SMALL BUSINESS MANAGEMENT

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.

CAR 1114—BUILDING CODES

A thorough study of the building code requirements of city, county, state and federal agencies, and their application. Prerequisites: CAR 1113, 1103

CAR 1104 CARPENTRY—FINISHING

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

ELECTRONICS SERVICING

With the advent of the space age and its technical advances, particularly in the field of electronics, many completely new positions in specialized fields have been opened to the enterprising and adequately qualified technician.

For this reason, the curriculum has been especially designed to provide the student with both the technical training and the practical experience necessary to succeed in his chosen field.

There are two courses of study that the student may follow. Students desiring to prepare for the FCC second class radiotelephone license examination or to enter the field of TV servicing may choose a one year program of study. Those interested in advanced training may continue for an additional four quarters. Upon completion the graduate will have earned his FCC first class radiotelephone license with a radar endorsement.

Occupational Opportunities

Graduates of the one year program may be employed as a TV serviceman, communications technician or electronic maintenance technician. Two year graduates may find additional opportunities in such fields as radio-TV broadcasting, computers and digital circuitry, aviation electronics, microwave and radar.

| First Quarter | | | | |
|-----------------------|--------------------------------------|------------|---------------|----|
| | Class | Lab | Credit | |
| MAT 1115 | Electrical Math | 5 | 0 | 5 |
| ELC 1112 | Direct and Alternating Current | 5 | 18 | 11 |
| ENG 1101 | English A | 2 | 0 | 2 |
| | | 12 | 18 | 18 |
| Second Quarter | | | | |
| MAT 1116 | Electrical Math | 5 | 0 | 5 |
| ELN 1112 | Vacuum Tubes and Solid State Devices | 7 | 15 | 12 |
| ENG 1102 | English B | 3 | 0 | 3 |
| | | 15 | 15 | 20 |
| Third Quarter | | | | |
| ELN 1123 | Home Entertainment Systems | 5 | 5 | 7 |
| ELN 1125 | Radio Receiver Servicing | 5 | 12 | 9 |
| PSY 1101 | Human Relations | 3 | 0 | 3 |
| | | 13 | 17 | 19 |
| Fourth Quarter | | | | |
| ELN 1113 | Television Theory and Circuits | 7 | 12 | 11 |
| ELN 1130 | Two-Way Mobile Maintenance | 5 | 3 | 6 |
| BUS 1103 | Small Business Management | 3 | 0 | 3 |
| | | 15 | 15 | 20 |

Fifth Quarter

| | | | | |
|----------|--|----|----|----|
| ELN 1127 | Television Receiver Circuits and Servicing | 5 | 12 | 9 |
| ELN 1129 | Single Sideband Systems | 3 | 5 | 5 |
| ELN 1135 | Antenna Theory | 3 | 2 | 4 |
| | | 11 | 19 | 18 |

Sixth Quarter

| | | | | |
|----------|---------------------------|----|----|----|
| ELN 1140 | Broadcast Communications | 5 | 9 | 8 |
| ELN 1111 | Introduction to Computers | 5 | 8 | 8 |
| ECO 1000 | Applied Economics | 3 | 0 | 3 |
| | | 13 | 17 | 19 |

Seventh Quarter

| | | | | |
|----------|-------------------|----|----|----|
| ELN 1180 | Microwave Systems | 7 | 12 | 11 |
| ELN 1185 | Special Circuitry | 5 | 6 | 7 |
| | | 12 | 18 | 18 |

Eighth Quarter

| | | | | |
|----------|---------------------|----|----|----|
| ELN 1190 | Radar Fundamentals | 7 | 12 | 11 |
| ELN 1147 | Navigational Aids | 3 | 5 | 5 |
| ELN 1199 | Electronics Seminar | 3 | 0 | 3 |
| | | 13 | 17 | 19 |

ELECTRONICS SERVICING Course Descriptions by Quarters

First Quarter

MAT 1115—ELECTRICAL MATH

An introductory algebra course with the trigonometry and vectors required for alternating current. Algebraic operations of addition, subtraction, multiplication, division, exponents, square roots, and powers of ten will be covered.

ELC 1112—DIRECT AND ALTERNATING CURRENT

A study of electron theory and the relationship between voltage, current and resistance in series, parallel, and series parallel circuits. The course will also include the fundamental concepts of alternating current with a study of reactance, impedance, phase angle, power, resonance, and alternating current circuit analysis.

ENG 1101—ENGLISH A

Designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognition and to train for comprehension in larger units.

Second Quarter

MAT 1116—ELECTRICAL MATH

Network simplification, simultaneous equations, quadratic equations, logarithms, decibels, angles, trigonometric functions, and number systems for computers. Prerequisite: MAT 1115.

ELN 1112—VACUUM TUBES AND SOLID STATE DEVICES

An introduction to vacuum tubes and their development; the theory, characteristics and operation of vacuum tubes, semi-conductor diodes, rectifier circuits, filter circuits, triodes and simple voltage amplifier circuits. Transistor theory, operation, characteristics and their application to audio, radio frequency and oscillator circuits. Prerequisite: ELC 1112.

ENG 1102—ENGLISH B

Development of the student's ability to communicate effectively with other individuals through the medium of good language usage in speaking and writing, to think more clearly, and to reason more forcefully in work problems pertaining to his job. Prerequisite: ENG 1101

Third Quarter

ELN 1123—HOME ENTERTAINMENT SYSTEMS

An introduction of commonly used servicing techniques as applied to monophonic and stereophonic high fidelity amplifiers and auxiliary equipment. The operation and servicing of intercommunication amplifiers and switching circuits will also be taught. Prerequisite: ELN 1112.

ELN 1125—RADIO RECEIVER SERVICING

Principles of radio reception and practices of servicing; included are block diagrams of radio receivers, servicing techniques of AM and FM receivers by resistance measurements, signal injection, voltage analysis, oscilloscope methods of locating faulty stages and components and the alignment of AM and FM receivers. Prerequisite: ELN 1112.

PSY 1101—HUMAN RELATIONS

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.

Fourth Quarter**ELN 1113—TELEVISION THEORY AND CIRCUITS**

This is a beginning theory course which introduces the study of the following: brightness control and DC re-insertion circuits, video detector stages, automatic gain control circuits, deflection oscillator and amplifier stages, automatic frequency control circuits, picture IF amplifier stages and RF tuner units, etc. Shop work will include analysis, testing and troubleshooting of the stages studied in class. Prerequisite: ELN 1123, ELN 1125.

ELN 1130—TWO-WAY MOBILE MAINTENANCE

A course to acquaint the student with the theory and maintenance of fixed station and mobile station transmitters and receivers. Emphasis shall be placed on preparation for the FCC second class radiotelephone license examination. Prerequisite: ELN 1123, ELN 1125.

BUS 1103—SMALL BUSINESS MANAGEMENT

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.

Fifth Quarter**ELN 1127—TELEVISION RECEIVER CIRCUITS AND SERVICING**

A study of principles of television receivers, alignment of radio and intermediate frequency amplifiers, adjustment of horizontal and vertical sweep circuits will be taught. Techniques of troubleshooting and repair of TV receivers with the proper use of associated test equipment will be stressed. Additional study of more specialized servicing techniques and oscilloscope waveform analysis will be used in the adjustment, troubleshooting and repair of the color television circuits. Prerequisite: ELN 1113.

ELN 1129—SINGLE SIDEBAND SYSTEMS

An introductory course of single sideband transmission systems with carrier frequency or without and the associated balanced modulator of phasing system used to produce this type of transmission. Time will be allotted also to the necessary circuitry in the receiver to receive this type transmission. Prerequisite: ELN 1125.

ELN 1135—ANTENNA THEORY

A study of basic antenna theory and wave propagation. The course is designed to acquaint the student with the various types of antenna systems and the advantages of each. Installation, transmission lines, polarization, directional characteristics and loading techniques will be included. Prerequisite: ELN 1130.

Sixth Quarter**ELN 1140—BROADCAST COMMUNICATIONS**

A course in advanced transmitter theory with emphasis on preparation for the FCC first class radio-telephone license examination. Commercial AM, FM, and TV systems will be included.

ELN 1111—INTRODUCTION TO COMPUTERS

An introduction to computer gates; a study of computer circuits, basic diode logic circuits, gates, logic inverters, and adders. Prerequisite: MAT 1116, ELN 1112.

ECO 1000—APPLIED ECONOMICS

Designed to help the student understand present-day economic problems. Topics include: production, consumption, exchange and distribution, money and credit, business fluctuations, labor and management relations, and challenges to our system of free enterprise.

Seventh Quarter**ELN 1180—MICROWAVE SYSTEMS**

Designed to familiarize the student with the basic concepts of equipment operating at ultra high frequencies. Wave guides, klystrons, magnetrons, resonant cavities and other special components will be included in the study. Prerequisites: ELN 1130, ELN 1135, ELN 1140.

ELN 1185—SPECIAL CIRCUITRY

The design and analysis of special circuitry; wave shaping, pulse techniques, broad-band amplifiers, diode switches, multivibrators, gates, magnetic amplifiers, chopper amplifiers, clipper and clamping circuits, synchro and servo systems, photo control devices, step counters and other specific application circuitry. Prerequisites: ELN 1127, ELN 1140.

Eighth Quarter**ELN 1190—RADAR FUNDAMENTALS**

A study of basic radar circuits and systems with emphasis on alignment and troubleshooting techniques. Sufficient information will be given to take the FCC radar endorsement examination. Prerequisites: ELN 1180, ELN 1185.

ELN 1147—NAVIGATIONAL AIDS

A study of the electronic systems found in today's aircraft. Distance measuring equipment, automatic direction finders, instrument landing systems, radar beacon transponders and other associated equipment will be included. Time will also be allotted to shop facilities and regulations. Prerequisites: ELN 1180, ELN 1185.

ELN 1199—ELECTRONICS SEMINAR

Designed to allow independent thought and research into the rapidly expanding field of electronics. Recent developments and technical advances will be stressed. Time will also be allotted to an investigation of current employment opportunities. Prerequisites: ELN 1180, ELN 1185.

GENERAL MASONRY

Opportunities for employment in various types of masonry construction are numerous. Demand for bricklayers, blocklayers, and tile setters is on the increase as the building industry expands. The work is somewhat seasonal, but wages are usually good.

The masonry course offers students training in various aspects of the trowel trades and includes instruction in brick and block work.

The curriculum includes related study in mathematics, blueprint reading, and estimating so that the individual may develop greater total competence and be better prepared for advancement. On final completion of the six months program, a certificate will be awarded to the graduate by Southwestern Technical Institute.

MASONRY

| First Quarter | | | Class | Lab | Credit |
|----------------|------|---|-------|-------|--------|
| MAS | 1000 | Masonry Shop | 2 | 20 | 9 |
| MAS | 1001 | Related Mathematics and Blueprint Reading | 5 | 0 | 5 |
| ECO | 1000 | Applied Economics | 3 | 0 | 3 |
| | | | <hr/> | <hr/> | <hr/> |
| | | | 10 | 20 | 17 |
| Second Quarter | | | | | |
| MAS | 2000 | Masonry Shop | 2 | 23 | 10 |
| MAS | 1002 | Advanced Blueprint Reading and Mathematics | 5 | 0 | 5 |
| | | | <hr/> | <hr/> | <hr/> |
| | | | 7 | 23 | 15 |

GENERAL MASONRY

Course Descriptions by Quarters

First Quarter

MAS 1000—MASONRY SHOP

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 1001—MASONRY

Mathematics and blueprint reading directly related to masonry. Estimating quantities and calculating dimensions from plans.

ECO 1000—APPLIED ECONOMICS

Designed to help the student understand present-day economic problems. Topics include: production, consumption, exchange and distribution, money and credit, business fluctuations, labor and management relations, and challenges to our system of free enterprise.

Second Quarter

MAS 2000 MASONRY

Development of fundamental skills, bond layout, projects with various types of masonry units, fireplaces, ornamental work, recent developments in the masonry field.

MAS 1002—ADVANCED BLUEPRINT READING AND MATHEMATICS

Advanced blueprint reading and mathematics related to estimating.

PLUMBING AND PIPEFITTING

Plumbers are the craftsmen who install pipe systems which carry water, steam, air, or other liquids or gases needed for sanitation, heating, industrial production and various other uses. During the past decade there has been a steady increase in the demand for these craftsmen. As building construction continues to increase, this demand for plumbers will also increase.

This curriculum in plumbing and pipefitting is designed to train the individual to enter this occupation with the knowledge and basic skills that will enable him to perform effectively. Courses in plumbing practices and pipefitting are included to provide practical experience as well as the theoretical information that one must know to advance and keep up-to-date with new innovations. Other courses in communication skills, physics, human relations and business operations are provided to assist the individual in occupational growth.

Occupational Opportunities

Opportunities for plumbers and pipefitters may be found with plumbing and pipefitting contractors in new building construction. 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.

Most plumbers are employed by contractors in the building construction fields to install pipe systems which carry water, steam, air and other liquids or gases for sanitation, heating, industrial production and various other uses. They also alter and repair existing pipe systems and install plumbing fixtures, appliances, and heating refrigeration units.

Plumbing and pipefitting are sometimes considered to be a single trade. Journeymen in this field can specialize in either one. Water, gas, and waste disposal systems are installed by plumbers. Pipefitters install both high and low pressure pipes that carry hot water, steam, and other liquids as gases, especially those in industrial and commercial buildings and defense establishments, such as missile launching and testing sites.

PLUMBING AND PIPEFITTING

| First Quarter | | | Class | Lab | Credit |
|----------------|------|--|-------|-------|--------|
| ENG | 1101 | English A | 2 | 0 | 2 |
| PHY | 1101 | Applied Science | 3 | 2 | 4 |
| DFT | 1110 | Blueprint Readings: Building Trades | 0 | 3 | 1 |
| MAT | 1101 | Fundamentals of Math | 3 | 0 | 3 |
| PLU | 1110 | Plumbing Pipework | 5 | 12 | 9 |
| | | | <hr/> | <hr/> | <hr/> |
| | | | 13 | 17 | 19 |
| Second Quarter | | | | | |
| ENG | 1102 | English B | 3 | 0 | 3 |
| PHY | 1102 | Applied Science | 3 | 2 | 4 |
| DFT | 1115 | Blueprint Reading: Plumbing Trades | 3 | 0 | 3 |
| PLU | 1111 | Domestic Cold Water Systems | 2 | 9 | 5 |
| PLU | 1113 | Domestic Hot Water Systems | 6 | 2 | 7 |
| | | | <hr/> | <hr/> | <hr/> |
| | | | 17 | 13 | 22 |

| | | | | |
|------------------------|--|-------|-------|-------|
| Third Quarter | | | | |
| PSY 1101 | Human Relations | 3 | 0 | 3 |
| DFT 1116 | Plumbing Drawings: Residential | 6 | 0 | 6 |
| PLU 1112 | Installation of Plumbing Fixtures: Residential | 0 | 9 | 6 |
| PLU 1100 | Soldering and Silver Soldering | 3 | 9 | 6 |
| | | <hr/> | <hr/> | <hr/> |
| | | 12 | 18 | 21 |
| Fourth Quarter | | | | |
| BUS 1103 | Small Business Management | 3 | 0 | 3 |
| PLU 1126 | Hydraulic System Plumbing | 2 | 3 | 3 |
| PLU 1114 | Commercial Piping (Plumbing) | 3 | 6 | 5 |
| WLD 1141 | Basic Welding | 3 | 7 | 5 |
| PLU 1118 | Plumbing Codes | 3 | 0 | 3 |
| | | <hr/> | <hr/> | <hr/> |
| | | 14 | 16 | 19 |
| Fifth Quarter | | | | |
| ECO 1000 | Applied Economics | 3 | 0 | 3 |
| PLU 1112 | Construction Estimating | 3 | 3 | 4 |
| DFT 1117 | Plumbing Drawings (Commercial) | 3 | 6 | 5 |
| WLD 1104 | Basic ARC Welding | 3 | 9 | 6 |
| | | <hr/> | <hr/> | <hr/> |
| | | 12 | 18 | 18 |
| Sixth Quarter | | | | |
| MAT 1114 | Math for Plumbers | 3 | 0 | 3 |
| PLU 1101 | Working with Lead | 2 | 9 | 5 |
| DFT 1118 | Plumbing Drawings (Industrial) | 3 | 3 | 4 |
| PLU 1125 | Industrial Piping | 3 | 7 | 6 |
| | | <hr/> | <hr/> | <hr/> |
| | | 11 | 19 | 18 |
| Seventh Quarter | | | | |
| PLU 1120 | Low Pressure Steam System | 2 | 6 | 4 |
| AHR 1116 | Oil Burner Installation | 3 | 9 | 6 |
| PLU 1123 | Panel Heating and Hot Water Boilers | 3 | 7 | 5 |
| | | <hr/> | <hr/> | <hr/> |
| | | 8 | 22 | 15 |
| Eighth Quarter | | | | |
| PLU 1121 | High Pressure Steam System | 3 | 10 | 6 |
| ISC 1101 | Industrial Safety | 3 | 0 | 3 |
| PLU 1131 | Fuels and Burners | 3 | 4 | 4 |
| PLU 1132 | Circuit and Controls | 3 | 4 | 4 |
| | | <hr/> | <hr/> | <hr/> |
| | | 12 | 18 | 17 |

PLUMBING AND PIPEFITTING Course Descriptions by Quarters

First Quarter

ENG 1101—ENGLISH A

Designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognition and to train for comprehension in larger units. Prerequisite: None

PHY 1101—APPLIED SCIENCE

An introduction to physical principles and their application in industry. Topics in this course include measurement; properties of solids, and gases; basic electrical principles. Prerequisite: None

DFT 1110—BLUEPRINT READING: BUILDING TRADES

Principles of interpreting blueprints and trade specifications common to the building trades. Development of proficiency in making three view and pictorial sketches. Prerequisite: None

MAT 1101—FUNDAMENTALS OF MATHEMATICS

Practical number theory. Analysis of basic operations; addition, subtraction, multiplication and division. Fractions, decimals, power roots, percentages, ratio and production. Plane and solid geometric figures used in industry measurement of surfaces and volumes. Introduction to algebra used in trades. Practice in depth. Prerequisite: None

PLU 1110—PLUMBING PIPEWORK

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. Prerequisite: None

Second Quarter

ENG 1102—ENGLISH B

Development of the student's ability to communicate effectively with other individuals through the medium of good language usage in speaking and writing, to think more clearly, and to reason more forcefully in work problems pertaining to his job. Prerequisite: ENG 1101.

PHY 1102—APPLIED SCIENCE

The second in a series of two courses of applied physical principles. Topics introduced in this course are heat and thermometry, and principles of force, motion, work, energy, and power. Prerequisite: PHY 1101.

DFT 1115—BLUEPRINT READING: PLUMBING TRADES

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.

PLU 1111—DOMESTIC COLD WATER SYSTEMS

The installation of water distribution 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 installations. Prerequisite: PLU 1110.

PLU 1113—DOMESTIC HOT WATER SYSTEMS

The installation of hot water distribution systems beginning with the source of supply and including the location of pipes, valves, pumps, heating devices, and the storage and circulation of hot water for private and public use will be studied. Field trips will be taken to study various types of installations. Prerequisites: PLU 1110, PLU 1111.

Third Quarter

PSY 1101—HUMAN RELATIONS

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. Prerequisite: None

DFT 1116—PLUMBING DRAWINGS: RESIDENTIAL

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.

PLU 1112—INSTALLATION OF PLUMBING FIXTURES: RESIDENTIAL

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. Prerequisites: PLU 1111, PLU 1113.

PLU 1100—SOLDERING AND SILVER SOLDERING

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. Prerequisite: PLU 1111, PLU 1113.

Fourth Quarter

BUS 1103—SMALL BUSINESS MANAGEMENT

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. Prerequisite: None

PLU 1126—HYDRAULIC SYSTEM PLUMBING

Plumbing applications in hydraulic systems. Hydraulic principles, circuits, control valves, actuators, pumps, fluids and various accessories that complete hydraulic systems will be studied. Installation and servicing methods of these systems will be undertaken. Prerequisites: PLU 1110, PLU 1100, PHY 1101, PHY 1102.

PLU 1114—COMMERCIAL PIPING (PLUMBING)

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, DFT 1115, PLU 1113, DFT 1116, PLU 1112.

WLD 1141—BASIC WELDING

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. Prerequisite: None

PLU 1118—PLUMBING CODES

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.

Fifth Quarter

ECO 1000—APPLIED ECONOMICS

Designed to help the student understand present-day economic problems. Topics include: production, consumption, exchange and distribution, money and credit, business fluctuations, labor and management relations, and challenges to our system of free enterprise.

PLU 1112—CONSTRUCTION ESTIMATING

Estimating plans and specifications of different buildings for plumbing and heating construction. Actual material take off from plans and specifications and all aburtant information pertaining there too. Prerequisite: None

DFT 1117—PLUMBING DRAWINGS (COMMERCIAL)

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.

WLD 1104—BASIS ARC WELDING

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 carrying puddle, running flat beads, and the cutting of straight lines with the torch. Safety procedures are stressed throughout the program of instruction. Prerequisite: None

Sixth Quarter

MAT 1114—MATH FOR PLUMBERS

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.

PLU 1101—WORKING WITH LEAD

Introduction to the history of lead and its use in plumbing. The student will study the tools required as well as safety precautions in regards to

lead wiping, working lead pipe, working with sheet lead and lead burning. This will help the student to understand lead work as applied to plumbing. Prerequisite: None

DFT 1118—PLUMBING DRAWINGS (INDUSTRIAL)

The student will become familiar with industrial plans and specifications, different plumbing layouts, water treatment and chemical waste, different types of material used for this application. This will give the student a better understanding of the trade. Prerequisites: DFT 1110, DFT 1115, DFT 1116, DFT 1117.

PLU 1125—INDUSTRIAL PIPING

Piping systems of boilers, turbines, and steam engines especially as they are used in steam power plants, and process piping such as is used in the chemical industries will be the major emphasis of this course. Prerequisites: PLU 1112, WLD 1141, WLD 1104, PLU 1114, MAT 1114, PHY 1102, PLU 1110.

Seventh Quarter

PLU 1120—LOW PRESSURE STEAM SYSTEM

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. Prerequisites: PLU 1110, PLU 1113, PLU 1100, PLU 1114, WLD 1141, WLD 1104, MAT 1114, PHY 1102.

AHR 1116—OIL BURNER INSTALLATION

Burner fundamentals, high pressure gun-type burners, pressure regulating valves, nozzles, fans and air control devices, low-pressure atomization burners, rotary burners, vaporization pot-type burners, thermostats, pressure burner controls, vaporizing burner controls. Service and maintenance. Prerequisite: None.

PLU 1123—PANEL HEATING AND HOT WATER BOILERS

The piping and accessory equipment needed to transfer hot water to radiators, heaters, and coils, and the advantages and disadvantages of each to 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. Prerequisites: PLU 1120, PLU 1111, PLU 1113, PLU 1110, PLU 1126, PLU 1100, MAT 1114.

Eighth Quarter

PLU 1121—HIGH PRESSURE STEAM SYSTEM

Applications of low pressure steam equipment will be continued. Principles involved in industrial applications of both low-pressure and high-pressure steam equipment. Commercial and industrial blueprints will be studied utilizing low and high pressure equipment. High Pressure boilers and installations of high pressure systems will be emphasized. Prerequisite: PLU 1120.

ISC 1101—INDUSTRIAL SAFETY

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. Prerequisite: None

PLU 1131—FUELS AND BURNERS

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. Prerequisites: PHY 1101, PHY 1102, AHR 1116.

PLU 1132—CIRCUIT AND CONTROLS

Electric, electronic and pneumatic controls as related to ventilation, refrigeration and air-conditioning systems. Practice in layouts, including symbols and schematic diagrams. Laboratory work in installation of control systems. Test instruments of their use. System adjustments for proper operation. Prerequisites: PHY 1101, PHY 1102.

SURVEYING (Part-time)

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.

Occupational Opportunities

With the tremendous growth of road construction, real estate business and industry, employment is no problem. 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.

| | Class | Lab | Field | Hours Credit |
|----------------------------|-------|-----|-------|-----------------|
| First Quarter | | | | |
| DFT 1121 | 2 | 2 | 0 | 3 |
| MAT 1101 | 3 | 0 | 0 | 3 |
| | 5 | 2 | 0 | 6 |
| Second Quarter | | | | |
| MAT 101 | 5 | 0 | 0 | 5 |
| CIV 101 | 1 | 3 | 4 | 3½ |
| | 6 | 3 | 4 | 8½ |
| Third Quarter | | | | |
| MAT 102 | 5 | 0 | 0 | 5 |
| CIV 102 | 1 | 3 | 4 | 3½ |
| | 5 | 3 | 4 | 8½ |
| Fourth Quarter | | | | |
| CIV 103 | 1 | 3 | 4 | 3½ |
| CIV 100 | 2 | 0 | 0 | 2 |
| ECO 1000 Applied Economics | 3 | 0 | 0 | 3 |
| | 6 | 3 | 4 | 8½ |

SURVEYING Course Descriptions by Quarters

First Quarter

DFT 1121—INTRODUCTION TO SURVEYING DRAFTING

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.

MAT 1101—FUNDAMENTALS OF MATHEMATICS

Practical number theory. Analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometry; measurement of surfaces and volumes. Introduction to algebra. Practice in depth.

Second Quarter

MAT 101—TECHNICAL MATHEMATICS

The real number systems 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.

CIV 101—SURVEYING I

Care and use of instruments, theory and practice of plane surveying including taping, differential and profile leveling, transit, stadia, and transit-tape surveys.

Third Quarter

MAT 102—TECHNICAL MATHEMATICS

A continuation of MAT 101. Advanced algebraic and trigonometric topics including quadratics, logarithms, determinants, progressions, the binomial expansion, complex numbers, solutions of oblique triangles and graphs of the trigonometric functions are studied in depth. Prerequisite: MAT 101.

CIV 102—SURVEYING II

Triangulation of ordinary precision, use of plane table, calculation of areas of land, land surveying, topographic surveys and mapping.

Fourth Quarter

CIV 103—SURVEYING III

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.

CIV 100—BOUNDARY CONTROL

The course covers the legal principles of boundary control to acquaint the student with the correct interpretations of deed description.

ECO 1000—APPLIED ECONOMICS

Designed to help the student understand present-day economic problems. Topics include: production, consumption, exchange and distribution, money and credit, business fluctuations, labor and management relations, and challenges to our system of free enterprise.

ADULT EDUCATION AND COMMUNITY SERVICES

OCCUPATIONAL EXTENSION TRAINING FOR NEW AND EXPANDING INDUSTRIES GENERAL ADULT EXTENSION

ADULT EDUCATION

GENERAL INFORMATION

Education is a process that continues throughout an individual's life. It is the Institute's aim to offer individuals the opportunity to develop their fullest potential in whatever areas of vocation and cultural activity they desire. In this way, the Institute helps people meet the demand of a rapidly changing technological economy and a complex democratic society which requires the making of intelligent choices if we are to prepare what is valuable and important and change what needs changing in the culture of our society.

The Institute, 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, to teach practically any subject that is vocationally or culturally upgrading, whenever and wherever there is a need expressed by a sufficient number of interested people in any community in the primary service area of Jackson, Macon and Swain counties.

Such extension courses can be classed in two broad categories; Occupational Extension and General Adult Extension.

Admission

The admission procedure is the same for both Occupational Extension and General Adult Extension. Any adult eighteen years of age or older may enroll in an extension class. In special cases, out-of-school youths may also be permitted to enroll at age sixteen.

Registration

Persons interested in taking an extension class in either an area described below or some other subject of interest to them, should contact the Extension Office, and an effort will be made to organize a class. Registration for classes is held either at the Southwestern Tech campus or at designated places in the service area where a class is expected to be offered. Following registration, classes will begin as soon as an instructor is secured, if one has not already been found to meet the needs of the students enrolled. Every effort will be made to avoid conflicts and to arrange courses for the convenience of students. Students who complete registration will be notified when classes will begin.

Costs

No tuition charges are made for enrollment in extension classes. In many cases, instructional materials are provided free; however, in some classes, especially in the area of arts and crafts, students may be expected to pay for the materials they use and keep.

Duration of Classes

The length of an extension class is determined by the needs of the students and the content of the course. Most courses last from 18 to 144 hours and generally meet one or two times a week for sessions of 2 to 3 hours. The majority of classes are held in the evening, although daytime classes can be arranged upon demand.

Requirements for Certificates:

Certificates are awarded on the basis of the following:

1. Official enrollment
2. Class participation, discussions, and projects
3. Regular attendance (Certificates cannot be awarded to those whose attendance is less than eighty per cent of the clock hours assigned to each course).

OCCUPATIONAL EXTENSION

An occupational extension course is one which is a part-time course and does not count toward a diploma or degree, but for which a certificate of completion may be given. Classes are designed to meet the general or specific training or retraining needs of groups or private individuals or employees in businesses, industry, governmental agencies, and other public institutions. Most occupational extension offerings are flexible in that the length and content can be tailored to meet specific groups needs. Classes are initiated as such needs are indicated by surveys, interviews, personal requests, and enrollment in existing or proposed programs. A partial listing of classes offered in the last year includes:

Supervisory Development Training Program

In an effort to meet the needs of North Carolina industry, a Supervisory Development Training program has been developed by the Department of Community Colleges.

The Supervisory Development Training Program is designed to train persons interested in becoming supervisors and to provide instruction for supervisors at various levels of management as preparation for advancement.

| Course No. | Course Title | Classroom Hours |
|------------|---|-----------------|
| SDT 1 | Principles of Supervision | 44-46 |
| SDT 2 | Job Relations Training | 10 |
| SDT 3 | Science of Human Relations | 18-20 |
| SDT 4 | Art of Motivating People | 22 |
| SDT 5 | Economics in Business and Industry | 22 |
| SDT 6 | Effective Communications | 22 |
| SDT 7 | Effective Writing | 22 |
| SDT 8 | Effective Speaking | 15 |
| SDT 9 | Speed Reading | 20 |
| SDT 10 | Work Measurement | 22 |
| SDT 11 | Job Methods | 10 |
| SDT 12 | Conference Leadership Training | 10 |
| SDT 13 | Instructor Training | 15 |
| SDT 14 | Creative Thinking | 22 |
| SDT 15 | Industrial Safety and Accident Prevention | 22 |
| SDT 16 | Industrial First Aid | 10 |
| SDT 17 | The Supervisor in N. C. | 10 |
| SDT 18 | Job Analysis Training | 12 |
| SDT 19 | Management Primer | 44 |
| SDT 20 | Cost Accounting for Supervisors | 14 |
| SDT 21 | Supervision in Hospitals | 40 |

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 fire fighter's technical knowledge and improve his skills in fire-ground operation and may be offered in any order, according to the needs of each fire department. It is suggested, however, that a final summary course in firefighting procedures conclude any protracted program in which all of the units are studied. For a more detailed explanation of offerings, contact the Extension Office.

Fisheries Training

As the need arises trout production classes will be held. These classes are designed to help the present growers to make their operation more efficient as well as to give potential trout growers information they need to set up a profitable operation. Major topics included in the classes are site selection, management operation, design and layout, hatching, feeding, diseases and parasites, marketing, processing, recreation sales, waste disposal, and laws and regulations. Contact the Extension Office for more detailed information.

Law Enforcement Training

A training program similar to that offered to fire departments is available to law enforcement officers in the area. The program of study was developed by the Institute of Government at Chapel Hill. A partial listing of courses available includes:

- Elements of Offenses
- Law of Arrest and Search and Seizure
- Motor Vehicle Law
- Court Structure and Procedure
- Liquor Law
- Law Enforcement Procedures
- General Criminal Investigation

Any interested person should contact the extension office for more specific information.

TRAINING FOR 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 job description; defining areas of training; and in prescribing appropriate course outlines, training schedules, and materials.
2. Selecting and training of instructors. These instructors may be recruited from the company and from outside sources.
3. Payment of instructors' wages for the duration of the training program.
4. Provision of suitable space for a temporary training facility prior to the completion of the new plant, should such temporary space be required. This may be space with Southwestern Technical Institute or leased space in the community.
5. Assumption of installation costs of equipment in the temporary training facility.
6. Payment for one-half the cost of nonsalvageable materials expended in the training program.

"The purpose of this service is to help a new or expanding industry meet its immediate manpower needs and to encourage each industry to develop a long-range training program of its own to satisfy its continuing replacement and retraining needs."

GENERAL ADULT EXTENSION

The Institute offers a wide range of programs which are designed to provide individuals with an opportunity to attain skills and knowledge for personal use and general education. Some courses are of an academic nature while others are rational or cultural. The main goal of the general extension program is to help adults obtain a fuller life through development of their creative talents and more fruitful use of leisure time and through expanding their opportunities for greater economic well-being by improving their academic skills so that they may qualify for job promotions or more advanced vocational training. Programs offered are as follows:

Community Service Extension Courses

Southwestern Technical Institute offers a wide variety of courses, depending upon group interests as expressed by surveys, and personal requests, which contribute to the cultural enrichment and improvement of daily living, or vocational interest of participants. Examples of these classes which were offered in the past year are:

| | |
|----------------------------|-------------------------|
| Basket Weaving | Fabric Painting |
| Beadwork | Family Life Education |
| Beauty and Charm | Floral Arrangement |
| Bible Study | Golf |
| Bricklaying for Housewives | Gourmet Foods |
| Bridge | Guitar |
| Cake Decorating | Interior Decorating |
| Canning | Knitting |
| Ceramics | Leathercraft |
| Cherokee Language | Low Cost Foods |
| Chess | Modern Math |
| Christmas Decoration | Painting |
| Consumer Education | Photography |
| Creative Stitchery | "Powder Puff" Mechanics |
| Decoupage | Sewing |
| Drapery Making | Slimnastics |
| Dressmaking | Speed Reading |
| Driver Training | Tailoring |
| Exceptional Children | Woodcraft |

Adult Basic Education

The Adult Basic Education program provides basic education to adults age 18 or over whose educational accomplishment is below the twelfth grade level. Originally authorized under the Economic Opportunity Act of 1964, the program is now administered by the U. S. Office of Education. In North Carolina, the Department of Community Colleges has been designated as the agency in charge of the program.

Adult Basic Education classes are organized at several locations throughout the Southwestern Tech service area to provide free instruction on various levels from beginning reading, writing, and arithmetic, to more advanced study of English grammar and usage, mathematics, social studies, and science.

The materials used and the teaching provided are designed to meet adult interests. For example, family budgeting and preparation of income tax forms may provide practice in mathematics or social studies discussions may center around the adult's role as a citizen.

The program lays the groundwork for many individuals to take the high school equivalency examinations described below. Students enrolled in the classes benefit from group discussion, teacher explanations, workbook exercises, and periodic evaluations to determine progress.

LEARNING LABORATORY

The Learning Laboratory offers an educational opportunity to all persons 18 years of age or older. This age limit may be changed to meet special needs. The Learning Laboratory offers study in a variety of materials, which range from first grade level to college level. This enables the Learning Lab to offer help to a wider range of people, regardless of their educational level.

The Learning Laboratory has been designed to serve the following groups:

1. Persons who would like to learn to read and write.
2. Persons who would like to complete the equivalent of 8th grade education.
3. Persons who would like to earn the equivalent of a high school diploma. The Learning Lab is an ideal situation for persons to study and prepare to take the G. E. D. Test.
4. Persons who would like to refresh in any subject before entering college or any other training program.

5. Persons who would like to explore a subject of interest for personal enrichment. (For example: English expression, literature, mathematics, science, social studies, basic income tax, shorthand, typing, bookkeeping, modern math, foreign languages, consumer education, etc.)

Supervision and help are provided for the students by the Learning Lab Coordinator who interviews students, helps them determine their goals, and sets up a program of study to help them achieve their goals. The coordinator also helps the students to see their own progress as they move to gain their goal.

Southwestern Technical Institute maintains four Learning Laboratories. One is located at Bryson City in Mobile Unit Number 2 at the Swain County High School. The Franklin Learning Lab is located in Room 216 of the Franklin High School. The Nantahala Learning Lab is located at Nantahala High School. The Cashiers Learning Lab is located in the Mobile Classroom parked at Cashiers Elementary School.

The schedule for the labs is as follows:

Bryson City: 6:30 to 9:30 p.m. Monday through Thursday.
 Franklin: 5:00 to 9:30 p.m. Wednesday and Thursday and
 4:30 to 9:30 p.m. on Friday.

Nantahala: 5:00 to 9:30 p.m. Monday and Tuesday.
 Cashiers: 6:30 to 9:30 p.m. Tuesday and Thursday.

A student can enroll in the Learning Lab at any time without waiting for a new quarter to begin. The Labs are open twelve months of the year. All studies in the Learning Laboratories are free of charge.

General Education Development Tests

In July, 1969, Southwestern Technical Institute became an official General Educational Development Testing Center. These tests cover five broad areas:

1. English Expression
2. Literature
3. Mathematics
4. Social Studies
5. 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 on the same basis as a high school diploma for employment, job promotion and higher education.

Preparation: A person wishing to take the GED 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 two ways to complete his preparation: The Adult Basic Education program, or the Learning Lab; either of which will help him acquire the skills necessary for success on the tests.

Application requirements: In order to take the GED 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
4. Have a valid vocational, educational, or other purpose in applying
5. Pay a fee of \$3.00 at the time of application

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. There is a charge of \$1.00 for each section of the tests taken on a retest.

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.

Mobile Classroom

The Extension Department also operates a Mobile Classroom for communities that are isolated from the campus by distance and bad roads. The classroom is designed for a variety of short courses that are suitable for its limited space. Use of the classroom is limited to those communities that find it difficult to come to the campus of Southwestern Technical Institute. The Mobile Classroom is also used at night as a Mobile Learning Laboratory. For further information about the Mobile Classroom, contact the Extension Office.

SOUTHWESTERN TECHNICAL INSTITUTE
 POST OFFICE BOX 95, SYLVA, NORTH CAROLINA 28779
 APPLICATION FOR ADMISSION (Please Type or Print in Ink)

NAME: _____
 Last First Middle Telephone Age Sex S.S. Number

Mailing Address: _____
 Street or Route City State Zip Code Height Weight
 () Single; () Married; () Divorced; () Widowed Date of Birth _____
 _____ Month _____ Day _____ Year

Circle Highest School Grade Completed: _____ Place of Birth _____
 Grade School High School Trade College Type of Diploma
 1 2 3 4 5 6 7 8 1 2 3 4 1 2 3 1 2 3 4 Received: _____

High School: Name _____ 19____/19____
 Address _____ From/To (Reason for Leaving) _____

Trade or College: Name _____ 19____/19____
 Address _____ From/To (Reason for Leaving) _____

Parent's or Name _____
 Spouse: Address _____ Relation Telephone No. _____

Military Service: Draft Status _____ Select. Serv. No. _____/_____/_____
 Local Board: Number _____ Address _____

Veterans: Branch of Service _____ Type of Discharge _____
 Length of Service _____ Date of Discharge _____
 (Years-Months) (Month-Day-Year)

Describe any Physical Defect _____

Will you need any financial assistance to attend school? _____ If yes, how much per year? _____ Will you need housing? _____ If yes, what type? () Room () House () Apartment

Have you ever been convicted of any crime other than minor traffic violations? _____

Check the type of training you want: () DAY PROGRAM () NIGHT PROGRAM

() Accounting () Cosmetology
 () Business Administration () Electronics Servicing
 () Commercial Art and Advertising Design () Environmental Science
 () Secretarial Science () Practical Nurse Education
 () Recreation Technology () Surveying
 () Automotive Mechanics () Plumbing and Pipefitting
 () Early Childhood Specialist () Associate Degree in General Education
 () General Masonry () Developmental Studies
 () Child Care Worker

When do you wish to start? Fall: _____; Winter: _____; Spring: _____; Summer: _____: 19____

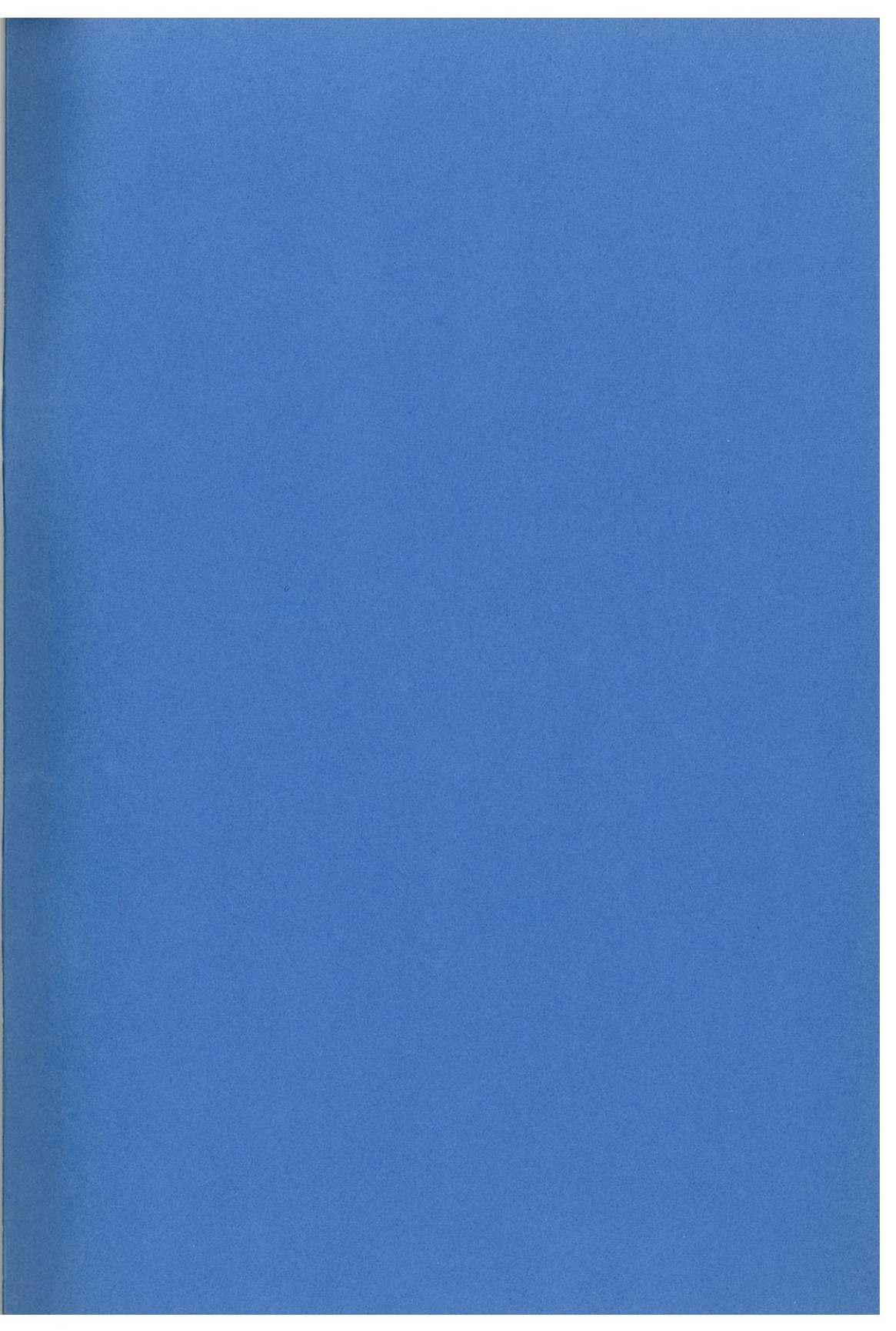
References: List three persons, other than members of your family, who know your character. (Law Enforcement applicants must give law enforcement officers as references.)

| Name | Address | Telephone | Occupation |
|-------|---------|-----------|------------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

() Check if you have requested your school to send Southwestern Technical Institute a transcript of your school record. If you have not, you should do so. Have you previously applied for admission to Southwestern Technical Institute? _____

TO THE APPLICANT: A tuition deposit of \$5.00 will be required when a curriculum students' application for admission is approved; such deposit shall be credited to the student's tuition when the student enrolls, and refund for such shall not be made unless the course fails to materialize.

Signature in Full _____ Date _____



SOUTHWESTERN TECHNICAL INSTITUTE
P. O. Box 95
Sylva, N. C. 28779

To _____
