D. N. Irwin
1968-69

AN OPEN DOOR



Southwestern
TECHNICAL INSTITUTE

SYLVA, NORTH CAROLINA 28779

AN INSTITUTION OF

NORTH CAROLINA DEPARTMENT OF COMMUNITY COLLEGES

SOUTHWESTERN TECHNICAL INSTITUTE

SYLVA, NORTH CAROLINA

CATALOG

1968 – 1969

AN INSTITUTION

OF

THE NORTH CAROLINA DEPARTMENT OF COMMUNITY COLLEGES

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SCHOOL CALENDAR
1968 – 1969

FALL QUARTER

Registration ..... September 11

Classes Begin ..... September 12

Classes End ..... November 27

Total number of class day: 55

Thanksgiving Holidays — November 28 and 29

WINTER QUARTER

Registration ..... December 3

Classes Begin ..... December 4

Classes End ..... February 28

Total number of class days: 55

Christmas Holidays — December 23, 1968 through
January 1, 1969

SPRING QUARTER

Registration ..... March 10

Classes Begin ..... March 11

Classes End ..... May 28

Total number of class days: 55

Easter Holidays — Good Friday, April 4
Easter Monday, April 7

SUMMER QUARTER

Registration ..... June 10

Classes Begin ..... June 11

Classes End ..... August 27

Total number of class days: 55

Holiday — July 4

FOREWORD

Southwestern Technical Institute (formerly the Jackson County Industrial Education Center) was founded in 1964 as an area school to meet the occupational training needs of the people of Western North Carolina and of the growing industrial community.

This institution is dedicated to the task of providing the educational opportunities needed by people to meet the challenging needs of modern industry. 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, one of the North Carolina Department of Community College institutions, offers a variety of programs, both during the day and the evening. Each program is designed to meet specific needs of the young people and adults of Western North Carolina.

E. E. Bryson

President

NOTE

Southwestern Technical Institute issues this catalog for the purpose of furnishing prospective students and other interested persons with information about the institution and is 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, fees, etc., necessary.

VISITORS

Visitors, and in particular 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 Personnel 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.

ADMINISTRATION

STATE BOARD OF EDUCATION

Robert W. Scott ..... Lieutenant Governor

Edwin Gill ..... State Treasurer

Charles F. Carroll ..... State. Supt. of Public Instruction, Secretary

J. A. Pritchett ..... Windsor, Vice-Chairman

W. Dallas Herring ..... Rose Hill, Chairman

Charles E. Jordan ..... Durham

Garland Garriss ..... Troy

William R. Lybrook ..... Winston-Salem

George Douglas Aitken ..... Charlotte

R. Barton Hayes ..... Hudson

John M. Reynolds ..... Asheville

Guy B. Phillips ..... Chapel Hill

Harold L. Trigg ..... Salisbury

STATE STAFF

I. E. Ready ..... Director, Department of Community Colleges

A. J. Bevacqua ..... Director,
Division of Vocational-Technical Programs

BOARD OF TRUSTEES

Paul Buchanan ..... Sylva

James B. Childress ..... Sylva

W. B. Dillard, Chairman ..... Sylva

Paul Ellis ..... Sylva

Paul Holt, Jr. ..... Sylva

Walter Jackson ..... Cherokee

Oscar Ledford ..... Franklin

Bruce MacMurray ..... Franklin

Odell Shuler ..... Bryson City

Charles S. Slagle ..... Franklin

George J. Stewart ..... Cashiers

John Wykle ..... Bryson City

CURRICULUM ADVISORY COMMITTEE

Automotive Mechanics

Sammy Cogdill
John Cope
J. D. Reece
Reid Womack

Business

James Childress
Bruce MacMurry
Dr. Eugene Vosecky
Frances Winstead

Masonry

W. B. Dillard
Dan Hooper

Engineering Graphics

J. E. Corbin
Robert J. Fritz
M. L. Hook
Dr. Rodney Leftwich

Practical Nurse Education

Rev. Robert Clegg
Dr. P. E. Dewees
Vivian Faison
Mrs. T. A. Fuller
Carolyn Middleton
Don C. Morgan
Dr. Creighton Sossomon

Industrial Electronics

Claude Curtis
Verlin Curtis
Robert Lovedahl

PROPOSED CURRICULUMS:

Electronic Data Processing Technology — Business

Associate in General Education Degree

Commercial Art and Advertising Design Technology

Law Enforcement Technology

Auto Body Repair

Heavy Equipment Mechanics

Heavy Equipment Operator

Industrial Sewing Machine Mechanics

OFFICERS OF LOCAL ADMINISTRATION

Bryson, E. E. ..... President
B.S., Western Carolina University; M.A., Western Carolina University

Freeman, Joel ..... Vocational-Technical Director
B.S., Western Carolina University; M.A., Western Carolina University

Wilson, Richard O. ..... Student Personnel Director
B.S., Western Carolina University; M.A., Western Carolina University

Flanagan, Mike ..... Extension Director
Asheville-Biltmore College

Corbin, Grady ..... Adult Education Director
B.S., Degree, Western Carolina University

Wike, Bruce ..... Counselor
B.S., Western Carolina University

McCollum, Joy ..... Bookkeeper
B.A., Western Carolina University

Gates, Peggy, ... Secretary
Sylva-Webster High School

Buchanan, Elizabeth ..... Secretary
Southwestern Technical Institute

Johnson, Evelyn ..... Secretary
Kings College

Crawford, Betty ..... Secretary
Sylva High School

Robinson, Martha ..... Secretary
Western Carolina University

FACULTY

Anderson, J. B. .... Automotive Mechanics
Curtiss-Wright Technical Institute; Chicago's Sun Tune-Up School, General Motors Automotive School; Boeing Aircraft Engine and Maintenance; Extension Work, North Carolina State University

Beck, Dorris D. ..... Librarian
B.S., Western Carolina University

Collins, Darlene ..... Head, Business Department
B.S., Western Carolina University; M.A., Western Carolina University; Graduate Work, George Peabody College

Hart, Phyllis ..... Business
B.S., Western Carolina University; East Tennessee State University; East Carolina College

Lawrence, Linda Laxton .... Practical Nurse Education
B.S.N., University of North Carolina School of Nursing

Parker, Percy ..... Related Subjects
A.B., Wake Forest; Mars Hill College; Western Carolina University

Searcy, James ..... Brick and Block Masonry
B.S., Western Carolina University

Slagle, Helen Field, R.N. ..... Practical Nurse Education
Graduate of Bellevue Hospital School of Nursing; Syracuse University

Ulsenheimer, Edwin ..... Engineering Graphics
University Center, Oahu, Hawaii; St. Petersburg Junior College; Extension Work, North Carolina State University

Walton, Julie Hasselkus ..... Learning Laboratory Coordinator
B.A., Middlebury College; M.A., Vanderbilt University

Woodson, John Rex ..... Industrial Electronics
Philco Service Training Schools; Western Carolina University

PART-TIME FACULTY

Adams, Peggy ..... Shorthand
A.A.S., Knoxville Business College

Ball, Howard ..... Industrial Electronics
Mars Hill College; National Radio Institute, Washington, D. C.

Barrier, Edward Lee ..... Mathematics
M.A., University of Tennessee; University of North Carolina

Byas, Harry Edward, Jr. ..... Surveying
B.S., Clemson University

Elmore, Joanne ..... Typing

Graves, Loretta ..... Typing
B.S., Western Carolina University

Haire, Robert Phillip ..... Business
A.B., University of North Carolina; L.l.B., University of North Carolina

Higgins, Mary Anderson ..... Learning Laboratory
Converse College

Jones, Edward Coleman ..... Business
B.S., Western Carolina University; M.A., Western Carolina University; Graduate Work, University of North Carolina

Morton, Danny ..... Sociology
B.S., Western Carolina University

Phillips, Max ..... Mathematics
B.S., Western Carolina University

Ray, Rufus ..... Automotive Mechanics
G. M. Training Centers, 1951 to 1967

Rodman, Michael Lynn ..... Business
Candidate for B.S., Western Carolina University, 1968

Urion, Charles ..... Physics
B.S., Western Carolina University

ADULT BASIC EDUCATION

Collins, Jane ..... Reading
M.A., Western Carolina University
Disbrow, Esther ..... English
South-Western Normal School, San Marcos, Texas
Dryman, Merle ..... English
M.A., Western Carolina University
Earls, Grace ..... English
B.S., Western Carolina University
Hawkins, LaVern ..... English
B.S., Asheville Teachers College; Western Carolina University
Jones, Ed ..... Social Studies; Science
M.A., Western Carolina University; University of North Carolina
McDonald, Dortha ..... Reading
McKevlin, Cecilia ..... English
M.A., Western Carolina University; St. Genevieve-of-the-Pines
Moss, Gertie ..... English
M.A., Western Carolina University
Owl, Gladys
Sharpe, Kay ..... English
New Orleans Baptist Theological Seminary
Slagle, Alice ..... English
B.S., Western Carolina University
Workman, Suzanne ..... English
A.B., Center College of Kentucky

EXTENSION

Barrier, Edward ..... Mathematics
Beck, Sam ..... Home Fire Safety
Bennett, P. R. ..... Firemanship
Clayton, Joyce ..... Knitting
Cope, Barton ..... Fire and Rescue
Elmore, Jo Ann ..... Business Courses
George, Lucy ..... Indian Crafts
Gibson, Mary Jo ..... Clothing Construction
Graves, Loretta ..... Business Courses
Henry, Howell ..... Auto Mechanics
Hooper, Ralph ..... Art Courses
Howard, Betty ..... Home Economics
Jones, Ed ..... Business Courses
Newman, Gertrude ..... Home Nursing
Ordway, Lorraine ..... Clothing Construction
Pruett, David ..... Adult Driver Education
Ramsey, Frank ..... Adult Driver Education
Simpson, Linda ..... Home Economics

Philosophy

The philosophy of the open door institution has been stated by Dr. Dallas Herring,[1] 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 growh.

"If their needs are in the great tradition of liberal education, then we will simply provide them the instruction, extending through two years of standard college work, which will enable them to go on to the University or 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."

The Community College System in North Carolina provides for those beyond the normal high school age, 18 years or older, whether they are high school graduates or not, *appropriate, economical, nearby learning opportunities*. These opportunities range,

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

depending on individual needs and previous educational achievement, from the first grade level through the second year of college, including vocational, technical, and general adult training to all of suitable age who wish to learn and can profit from the instruction provided.

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.

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."

Objectives

The objectives may be stated as follows:

1. To provide *expanded educational opportunities* for thousands of young people and adults who would not otherwise continue their education.

2. To provide *relatively inexpensive, nearby educational opportunities* for high school graduates, school dropouts, and adults.

3. To provide *technician programs*, preparing students for jobs of this level in industry, agriculture, business, and service occupations.

4. To provide *vocational programs* of less than technician level, preparing students for jobs requiring different levels of ability and skill.

5. To provide programs of *vocational education for employed adults* who need training or re-training, or who can otherwise profit from the program.

6. To provide short courses that will meet the *general adult and community service needs* of the people of the community.

It has been said that technical education is knowledge in action. Objectives of Southwestern Technical Institute embody the belief that the most meaningful knowledge is that which can be put to productive use.

Our objectives are envisioned as specific goals established to enlarge the potential of the individual student through education in the knowledge, skills, and attitudes which will be useful to him and thus his employer. The Institute will provide instruction in numerous special fields to meet the demands of an industrial community, but it will not ignore its responsibility to equip students with the ability to think creatively and abstractly. In addition, certain courses which place emphasis on an understanding of the American free enterprise system and develop interest in the betterment of mankind are common to all areas of study

Our aims reflect a firm philosophy that education should equip every individual, insofar as his capacity permits, with the competence to attain his economic, social, intellectual, and spiritual goals in a democratic society. Physical and mental skills will be developed to the end that each student, as he trains and works in the various occupations, will be able to contribute to the maintenance, improvement, and defense of our American way of life.

Areas of Study

Vocational Division

Courses in the Vocational Division place emphasis on training in those manipulative and mental skills applicable to the particular curriculum in which the student is enrolled. Students work under close supervision to obtain skills on a level acceptable to industry.

Technical Division

Courses offered in the technical division are designed to meet an increasing demand for high level industrial skills in North Carolina. Students entering the Technical Division are required to meet educational and aptitude standards appropriate to the course chosen. Such standards require a firm educational base and a level of maturity expected of adults.

Students who successfully complete courses in this division will be prepared to offer prospective employers the training, knowledge, and skill necessary to work as an Industrial Technician. More time will be required to attain such a degree of proficiency than would be necessary in the less exacting vocational courses. Applicants for the technical division will therefore be urged to enroll for the full-time program.

The Open Door Policy

Any person who is 18 years old or older, whether he is a high school graduate or not, can find an educational opportunity fitted to his ability and his needs at Southwestern Technical Institute.

Admission Requirements and Procedures

General Requirements

Any North Carolina citizen may be enrolled in a course if he meets the admission requirements. Such requirements will necessarily depend upon the course of study chosen. The applicant must be 18 years or older (or be a high school graduate) and must possess certain basic aptitudes and interest. No applicant may enroll in more than one curriculum.

The applicant should be in reasonably good health with no impairment of vision or physical defect that would restrict his ability in a particular field of work. The applicant may under certain conditions be required to furnish evidence of satisfactory health.

Educational background, experience, and aptitudes will all be considered when an application is made to the Institute.

Attendance Requirements

Only excused absences will be permitted. Unexcused absences will be entered as "0" for the daily work. An unexcused absence is any absence from class without a valid excuse presented to the instructor involved on the day of return to (classes) school.

Each clock hour missed is an absence. The number of unexcused absences may not exceed the number of quarter hours credit in each course.

Work missed during any absence must be made up to the satisfaction of the instructor.

Student Conduct

Students will be expected to conduct themselves at all times as individuals of prudence and maturity. The rights and feelings of others will be respected. Each student shall demonstrate a high regard for school facilities and property and for the personal property of others.

School regulations which serve to control such activities as vehicle traffic and parking, smoking, loitering, and other aspects of personal conduct must be stringently observed.

Students may be promptly dismissed for conduct which is considered incompatible with standards of propriety and good judgment.

Student Lounge

A refreshment and lounge area equipped with a variety of modern vending machines is provided for the convenience of students and faculty. Foods and drinks may not be carried into a classroom, shop, or laboratory.

Quality Points

At the end of each quarter quality points are assigned in accordance with the following formula. (The minimum grade-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
D—1 quality point per credit hour
Grades of F (Below 70), WP (withdrawal passing), WF (Withdrawal failing), and I (Incomplete) carry no quality points.

Quality ratings are determined by dividing the total number of quality points by the number of hours attempted. If a course is repeated the last grade will be used in determining a student's hour-quality point ratio. A ratio of 2.00 indicates that the student has an average of C; above 2.00 indicates he has an average above C; below 2.00 indicates that he has an average of below C.

Grading System

Grades will be issued to all students at midterm and at the end of the term. Students will be graded on the acquirement of technical skills, ability to work under supervision, interest in work, initiative, and the ability to apply related information.

Students enrolled in either the school of Technology or the school of Trades will be graded by the following system:

A	93-100	Excellent
B	86-92	Above Average
C	78-85	Average
D	70-77	Passing
F	Below 70	Unsatisfactory
WP	Withdrawal passing	
WF	Withdrawal failing	
I	Incomplete	

Incomplete: Assigned when a student is unable to complete his work or take a final examination because of illness or for other reasons over which the student has no control. This grade is given only with the approval of the Director of Student Personnel. An "incomplete" must be removed within the next term in which the student is enrolled. Otherwise, the grade becomes an "F."

Honor Roll

In order to honor outstanding students, the Honor Roll will be published after each quarter. To qualify for the Honor Roll, a student must maintain an average grade of 88 or above.

Student Personnel Services

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

A definite program of service is offered to assist the student in satisfactorily 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

As mentioned under admission procedure, all applicants will be required to be subjected to a series of aptitude tests. This will be accomplished prior to placement and registration.

In some instances, additional testing may be desirable in order to determine individual ability.

Counseling

The counselor will schedule interviews with students concerning interpretation of their test scores and will advise the student concerning course selections.

Students are encouraged to use the counseling services. The counselor will work with students at any time to keep them informed of the progress they are making or to help them deal with any problems that may develop.

Also reference materials are made available to students during their training.

Placement Service

The Institute provides placement service by working with the Employment Security Commission which will assist the students and alumni in securing employment. The objective of this service is to guide and assist the student and graduate in obtaining the type of position for which he is best qualified.

Active contacts are maintained throughout North Carolina with industries. Informative booklets, brochures, and industrial directories are available to students and alumni. Group and individual job interviews will be arranged.

Admission Procedures

Persons wishing to take courses at the Institute must file an application for admission. Application forms may be obtained by writing or calling the Institute. The telephone number is 586-4091. A transcript of courses and grades from the last school attended must be on file with the Institute before an application is considered complete.

While application for enrollment may be made at any time preceding the anticipated date of entry, it is strongly recommended that this be done at least thirty days prior to such date. Sufficient time will thereby be allotted for necessary testing, counseling, and proper evaluation of results.

All pre-employment students will be required to take entrance examinations. High school students will be tested in their respective high schools when possible.

After the completed application form is received, a date will be set for the prospective student to take the above-mentioned tests (if they have not already been taken). No application will be considered complete until all requested information has been supplied and a personal interview conducted with the President or his representative.

Admission with Advance Standing

Southwestern Technical Institute will accept work and give credit for work completed in other Technical Institutes, Industrial Education Centers, and Colleges. Applicants for admission with advanced standing should make application as a regular applicant and submit a transcript of work from prior schools. Acceptance of such work will be at the discretion of the President.

Degrees, Diplomas and Certificates

Degree Program Defined

Southwestern Technical Institute will confer an Associate in Applied Science degree in all Technical Curricula. A state comprehensive examination may be required before graduation in any Technical curriculum. The degree is awarded in the name of the North Carolina State Board of Education.

Diploma Courses Defined

Southwestern Technical Institute will grant diplomas in the name of the North Carolina State Board of Education upon successful completion of any vocational level curricula. A state comprehensive examination may be required before graduation in any vocational level curriculums.

Certificate Program Defined

Certificates will be issued in the name of the Southwestern Technical Institute to students who successfully complete any short term program or course.

Fees

TUITION:

Full Time Students — per quarter	$32.00
Part Time Students — per credit hour	$ 2.50
INSURANCE — per year	$ 2.25
ACTIVITY — per year	$ 3.00
*GRADUATION	$10.00

*This fee is to be paid when the student registers for his last quarter of work prior to graduation.

Textbooks

All curriculum students will be expected to purchase adopted textbooks in all courses. These textbooks will be sold at a less than retail price to students. Every effort will be made to keep the total price of all textbooks between $30 and $150 in most areas.

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.

Withdrawals

Any student who must withdraw because of illness or personal hardship may, if his work is deemed satisfactory at the time of his withdrawal in good standing, re-enter the course at his discretion. Any student withdrawing under the above conditions without authorization may re-enter only at the discretion of the Director of Student Personnel.

A student may be dismissed from school for failure to achieve a passing grade for two grading periods or for any behavior which is considered contrary to acceptable student behavior. Re-entrance of dismissed students will be at the discretion of the President. A failing grade for one report period will automatically place the student upon probationary standing for the following report period.

Refunds

Tuition refund for students shall not be made unless the student is, in the judgment of the institution, compelled to withdraw for unavoidable reasons. In such cases, two-thirds (2/3) of the student's tuition may be refunded if the student withdraws within ten (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, except if a course or curriculum fails to materialize, all the students' tuitions shall be refunded.

In order to comply with federal regulations in institutions not regionally accredited, the State Board authorized modifications of the tution 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.

Financial Assistance

Student financial assistance in the form of scholarships and loans is increasing annually. Generally such aid is provided on the basis of need or scholarship or a combination of these factors.

Inquiries and request for applications regarding SCHOLARSHIP and/or LOANS should be directed to the Director of Student Personnel.

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 educational benefits under the G. I. Bill or the War Orphans Plan.

College Foundations, Inc.

Southwestern Technical Institute is aproved for membership in the College Foundation, Inc. Eligible students may borrow up to $1,000 yearly.

Moody Funeral Home

A two-year business tuition scholarship is available through Moody Funeral Home of Sylva, North Carolina. Applicants must be graduates of high schools in Jackson County Public Schools.

Orientation

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

Housing

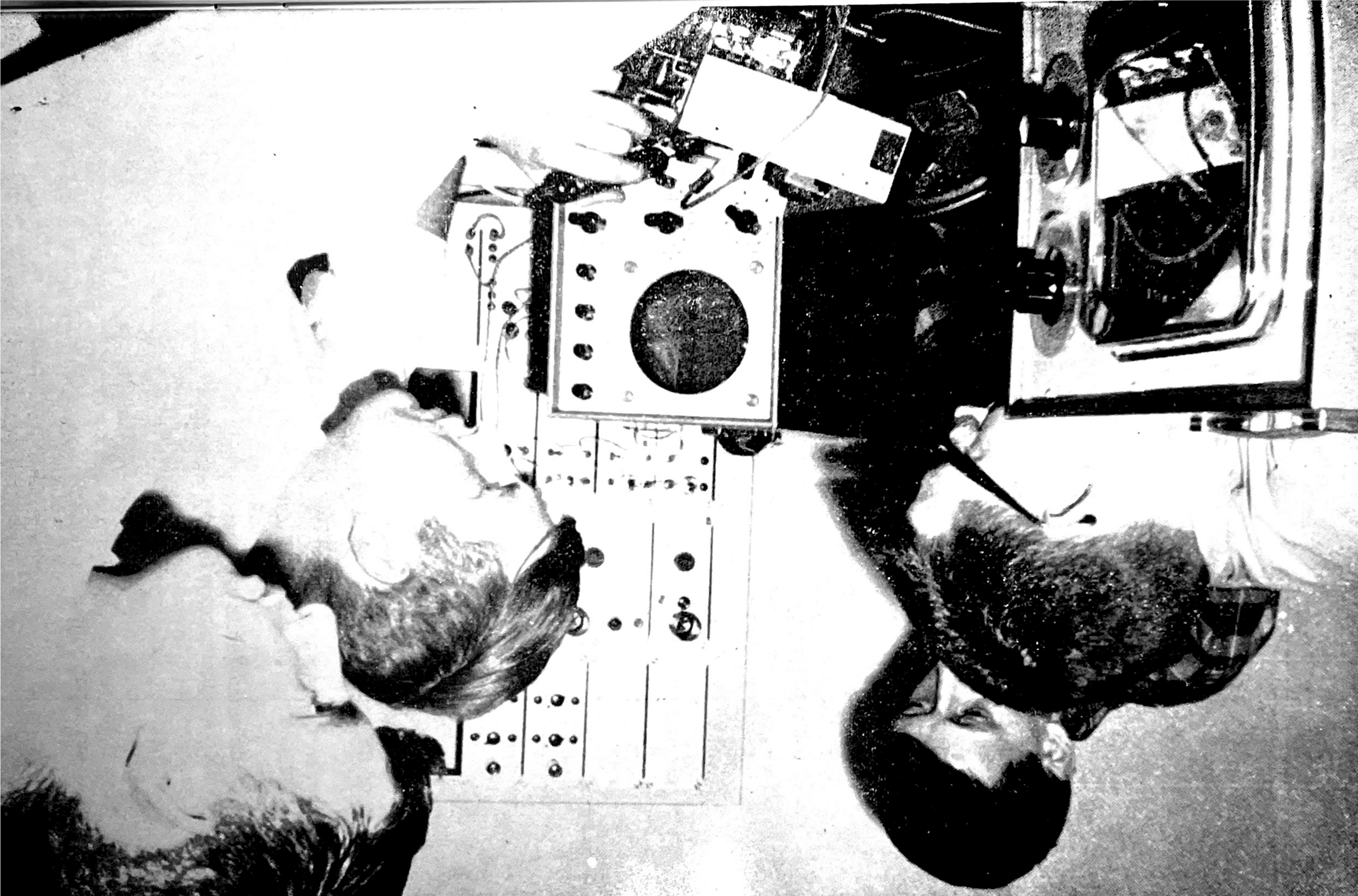
Southwestern Technical Institute was established to serve students within commuting distance of the campus. As a result, there are no dormitory or housing facilities on campus.

Although the Institute assumes no responsibility for housing, assistance will be provided to out-of-town students in locating suitable living accommodations if requested through the Student Personnel Office.

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.



School of Vocations

School of Vocations

The following areas of study are included in the School of Vocations:

Automotive Mechanics

Industrial Electronics

Block and Brick Masonry

Engineering Graphics

Practical Nurse Education
(Proposed Curriculums)

Auto Body Repair

Heavy Equipment Mechanics

Heavy Equipment Operator

Industrial Sewing Machine Mechanics

The School of Trades will offer a variety of courses on a 4 quarter basis. The areas of study reflect the employment opportunities in the Western part of North Carolina. These curriculums require one full year for completion. If a student elects to enroll in the School of Trades through extension because of his work load, the time required for completion will be doubled. The extension division will offer fifteen hours per week in a particular area of study. The full time schedule will require thirty hours per week.

The student enrolled in the School of Trades will spend most of his time in the shop working under actual industrial conditions. The rest of the time will be in the classroom and laboratory in related subjects. The School of Trades will require each student to demonstrate an ability to do work in his particular trade. Emphasis will be placed on becoming proficient in the use of machines, instruments, and other equipment related to a particular area of work.

Certain courses will be required of every student irrespective of his curriculum. These courses will enhance the student's ability toward his work. A thorough understanding of the American System of Economics as it relates to the free enterprise system and corporate structure will be required of every student.

The contact hours shown in curriculums are miminal. Institutions may enroll students for additional hours, upon request and with the approval of the institution, in order to enrich and broaden their educational experiences. Students so enrolled will be expected to follow strictly the schedules for which enrolled.

Single Curriculum Courses

Curriculum courses are those for which there is a tuition charge and for which credit is granted.

These courses may be offered on campus or other locations through the extension division.

Students enrolled in single curriculum courses may take up to 18 credit hours without having to satisfy entrance requirements. Upon completion of 18 credit hours, however, the student must meet current curriculum entrance requirements and pursue subsequent courses offered at the Institute.

All curriculum course tuition on a single or part-time schedule is set at the rate of $2.50 per credit hour.



AUTOMOTIVE MECHANICS

This is a one-year program providing a 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, the power train will be studied.

The courses are arranged in a sequence that gives the student the required technological and special courses as they are needed to coordinate 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 mechanics, Truck and Bus Mechanic, Shop Foreman, Maintenance Supervisor, Dealer, Service Manager, Sales Technician, Factory Representative, and Experimental Lab Work are among those occupational opportunities awaiting graduates of the Automotive Mechanic Curriculum.

Course	Class	Lab	Shop Practice	Credit
First Quarter				
AUT 1121 Automotive Theory and Practice	3	0	12	7
MAT 1121 Mathematics	5	0	0	5
ENG 1101 Reading Improvement	2	0	0	2
PHY 1104 Physics	3	2	0	4
	13	2	12	18
Second Quarter				
AUT 1122 Automotive Theory and Practice	3	0	12	7
PHY 1105 Applied Physics	3	2	0	4
ENG 1102 Communication Skills	2	0	0	2
DFT 1121 Blueprint Reading	3	0	0	3
	11	2	12	16
Third Quarter				
AUT 1123 Automotive Theory and Practice	3	0	12	7
AUT 1101 Small Engine Repair	3	0	0	3
SOC 1101 Human Relations	2	0	0	2
WLD 1112 Welding	0	0	3	1
PHY 1106 Applied Physics	3	2	0	4
	11	2	15	17
Fourth Quarter				
AUT 1124 Automotive Theory and Practice	3	0	9	6
SOC 1103 Management Procedures	3	0	0	3
AUT 1125 Automotive Testing and Service	3	0	9	6
	9	0	18	15

AUTOMOTIVE MECHANICS

COURSE DESCRIPTION

AUT 1121 AUTOMOTIVE THEORY AND PRACTICE — ENGINES

Designed to give the student a thorough knowledge in the use, maintenance, and storage of the various tools and measuring devices needed in automotive work. A study of the construction and operaiton of components of automotive engines. The student will learn testing of engine performance; servicing and maintenance for pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems; proper lubrication; and methods of testing, diagnosing and repairing of failure and defects in the various engine mechanisms. Prerequisite: None.

AUT 1122 AUTOMOTIVE THEORY AND PRACTICE — ELECTRICAL AND FUEL SYSTEMS

A thorough study of the electrical and fuel systems of the automobile, the electrical system and its components; battery cranking mechanism, generator, ignition, accessories, and wiring. Intensive training in the components and operation of various types of automotive fuel systems. Characteristics of fuels and types of fuel systems for which they are best adapted. The special tools, circuits, and testing equipment for the fuel and electrical system are studied. Prerequisite: AUT 1121.

AUT 1123 AUTOMOTIVE THEORY AND PRACTICE — CHASSIS AND SUSPENSIONS

Principles and functions of the components of automotive chassis. Practical job instruction in adjusting and repairing of the suspension, steering, and braking systems. Units to be studied will be shock absorbers, springs, steering systems, steering linkage, front end adjustments, types and servicing of braks, etc. Prerequisites: AUT 1121, 1122.

AUT 1101 — SMALL ENGINE REPAIR

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.

AUT 1124 AUTOMOTIVE THEORY AND PRACTICE — POWER TRAIN

Detailed analysis of the components of the automotive power train system, with the emphasis on identification of troubles which develop in these components and the correct servicing and repair. Included are: types of clutches, clutch operation, inspection and servicing clutches; functions of the transmission gears, principles and operation of the various transmission and torque converter types, service and repair; operation, diagnosis and servicing for drive shaft assemblies, rear axles, and differentials. Prerequisites: Phy 1105, 1106; AUT 1121, 1122, 1123.

AUT 1125 AUTOMOTIVE TESTING AND SERVICE

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 effort will be made to give the student a full range of testing and servicing experience. Prerequisites: AUT 1121, 1122, 1123, 1124.

INDUSTRIAL ELECTRONICS



This curriculum is designed to help fill the ever-increasing demand for competent Electronics Technicians to service domestic radios, TV receivers, and Hi-Fi Equipment, as well as industrial control systems. This curriculum starts with basic information in electricity, electronics and mathematics, and each subject is developed concurrently with the others as the course progresses.

During the last quarter some specialization is permitted so the individual may select a particular field of interest.

Trouble-shooting and maintenance on all types of equipment are emphasized after a thorough working knowledge is acquired.

OCCUPATIONAL OPPORTUNITIES

Electronics Maintenance Technician, TV Serviceman, Radio Serviceman, Factory Inspector, and Radio Operator.

Course	Class	Lab	Shop Practice	Credit
First Quarter				
MAT 1125 Electrical Math	5	0	0	5
ELC 1122 Direct and Alternating Current	7	8	3	12
ENG 1101 Reading Improvement	2	0	0	2
	14	8	3	19
Second Quarter				
ELN 1122 Vacuum Tubes and Circuits	5	10	0	10
ELN 1123 Amplifier Systems	2	0	6	4
ENG 1102 Communication Skills	2	0	0	2
SOC 1101 Human Relations	2	0	0	2
	11	10	6	18
Third Quarter				
ELN 1124 Vacuum Tubes and Circuits	4	4	0	6
ELN 1125 Radio Receiver Servicing	2	0	6	4
ELN 1126 Transistor Theory and Circuits	5	4	0	7
SOC 1103 Management Procedures	3	0	0	3
	14	8	6	20
Fourth Quarter				
ELN 1127 Television Receiver Circuits	10	0	15	15
or				
ELN 1128 Television Receiver Circuits and Servicing	5	0	12	9
Elective (1)	5	0	6	7
	10	0	18	16

ELECTIVE

ELN 1129 Single Side Band Systems	5	0	6	7
ELN 1130 Two-way Mobile maintenance	5	0	6	7
T-ELN 220 Electronic Systems	5	6		8

INDUSTRIAL ELECTRONICS

COURSE DESCRIPTION

ELC 1122 DIRECT AND ALTERNATING CURRENT

A study of the structure of matter and the electron theory, the relationship between voltage, current and resistance in series, parallel and series-parallel circuits. Analysis of direct current by Ohm's law and Kirchoff's law; sources of direct current potentials. Fundamental concepts of alternating current flow; a study of reactance, impedance, phase angle, power and resonance and alternating current circuit analysis. Prerequisite: None.

ELN 1122 VACUUM TUBES AND CIRCUITS

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.

ELN 1123 AMPLIFIER SYSTEMS

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

ELN 1124 VACUUM TUBES AND CIRCUITS

A continuing study of tubes and circuits; the theory, characteristics, and operation of the tetrode and pentrode tubes, voltage, and power amplifiers, tunable RF Amplifiers, oscillators and demodulator circuits.

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.

ELN 1126 TRANSISTOR THEORY AND CIRCUITS

Transistor theory, operation, characteristics and their application to audio and radio frequency amplifier and oscillator circuits.

ELN 1127 TELEVISION RECEIVER CIRCUITS

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 trouble shooting 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, trouble-shooting and repair of the color television circuits.

ELN 1128 TELEVISION RECEIVER CIRCUITS

This course, taught in conjunction with an elective, will be a shortened version of ELN 1127.

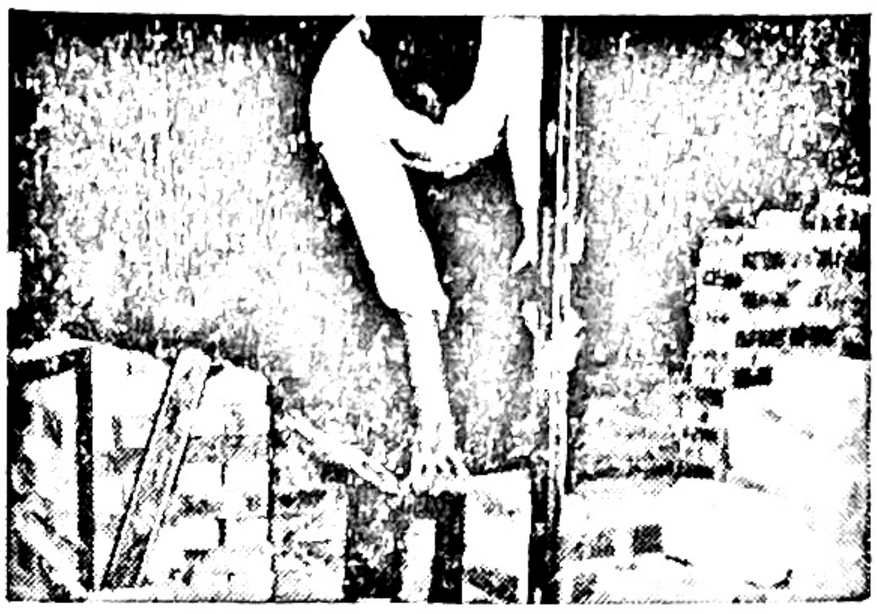
ELN 1129 SINGLE SIDE-BAND SYSTEMS

An inductory course of single side-band transmission systems with carrier frequency or without and the associated balanced modulator or phasing system used to produce this type of transmission. Time will be allotted also to the necessary circuity in the receiver to receive this type transmission.

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. Except for radio laws, sufficient information will be given to qualify the student to take the FCC second class radio-telephone license examination.

BRICK AND BLOCK MASONRY



This curriculum is designed to give the students knowledge of the fundamentals of masonry. Emphasis in the shop is placed on fundamental skills using the trowel, level, line, jointers, and masonry saw.

Shop projects include building corners, fireplaces, chimneys, all types of bonds, and ornamental work.

Students take related courses in mathematics, English, and blueprint reading. Latest developments in the masonry field, and related plumbing, heating, electrical, and carpentry are included in the classroom part of the masonry courses.

Upon completion of the requirements listed below, the student should be a qualified apprentice brick mason with an opportunity to advance rapidly in the masonry field.

OCCUPATIONAL OPPORTUNITIES

With the tremendous growth of industries and the volume of masonry being used for building, employment is no problem. Opportunities are found with private builders, general contractors or one's own business after several years' experience.

MASONRY

	Hours Per Week Class	Lab	Qtr. Hrs. Credit
First Quarter			
MAS 1101 Bricklaying	5	15	10
MAT 1101 Fundamentals of Mathematics	5	0	5
DFT 1110 Blueprint Reading: Building Trades	5	0	5
	15	15	20
Second Quarter			
MAS 1102 Bricklaying	5	15	10
MAT 1112 Building Trades Mathematics	5	0	5
DFT 1111 Blueprint Reading & Sketching	5	0	5
	15	15	20
Third Quarter			
MAS 1103 General Masonry	5	15	10
MAS 1113 Masonry Estimating	2	3	3
DFT 1112 Blueprint Reading & Sketching	3	2	4
	10	20	17

COURSE DESCRIPTION

MAS 1101

History of brick. Spreading mortar. Block laying. Simple leads and laying bricks to the lines. Mortar mixing techniques. Use and care of tools. Safety. Motion study. Basic unwritten laws of the masonry trade. Masonry definitions. Joining. Classification of brick.

MAS 1102

Types of bonds. Bond layout. Corner building. Reading the mason's rule. Related carpentry. Related electricity. Related plumbing. Development of speed in the basic skills.

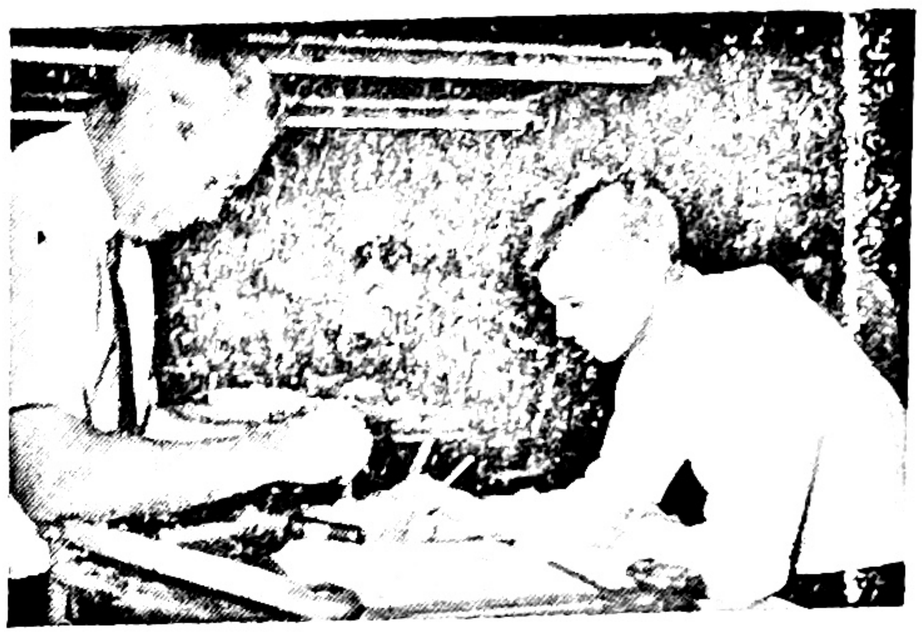
Estimating. Use of masonry saw. Patterns and ornamental bonds. Laying all types of brick and block. Laying window sills. Economics of the masonry trade.

This particular course is designed to help the mason understand the types of plumbing and heating systems that are used in modern building construction. The requirements to special framing on the part of the mason will be practiced.

MAS 1103

Building layout. Use of transit. Arches, fireplaces and chimneys. Study of recent developments in the masonry trade. Structural clay tile. Precast sone. SCR brick. Development of speed in all phases of the masonry trade.

ENGINEERING GRAPHICS



INTRODUCTION

Purpose of Curriculum

This curriculum is designed to prepare students to enter the field of mechanical drafting. The first two quarters contain courses basic to all fields of drafting. The third and fourth quarters contain specialization and related courses that prepare one to enter mechanical drafting occupations.

Each course is prepared to enable an individual to advance rapidly in drafting proficiency upon entering the field of work. Courses are arranged in sequence to develop drafting skills and proficiency in mathematics and science. The draftsman associates with many levels of personnel—administrative, architects, engineers, skilled workmen—and must be able to communicate effectively with them. Courses to develop knowledge and skills in communication, human relations, economics and industrial organization are provided to assist the student in developing understandings and confidence in his relations with other persons.

Job Description

Draftsman prepares clear, complete, and accurate working plans and detail drawings, from rough or detailed sketches or notes for engineering or manufacturing purposes, according to the specified dimensions; makes final sketch of the proposed drawing, checking dimension of parts, materials to be used, the relation of one part to another, and the relation of the various parts to the whole structure. Makes any adjustments or changes necessary or desired. Inks in lines and letters on pencil drawings as requird. Exercises manual skill in the manipulation of triangle, T-square, and other drafting tools. Lays tracing paper on drawing and traces drawing in pencil or ink. Makes charts for representation of statistical data. Makes finished designs from sketches. Utilizes knowledge of various machines, engineering practices, mathematics, building materials, and other physical sciences to complete the drawings.

Mechanical draftsman performs the general duties of a draftsman and also specializes in making rough drafting sketches of proposed mechanical devices, and then drawing necessary details. Prepares accurate scale drawings of parts or machines from specifications. Performs the general duties of a draftsman and also specializes in organizing and drawing of working drawings from final preliminary sketches from the designer, mechanical equipment and structural drawings included.

ENGINEERING GRAPHICS

First Quarter Course Title	Course Class	Hours Lab.	Qtr. Hrs. Credit
DFT 1121 Drafting	3	12	9
MAT 1103 Geometry	3	0	3
ENG 1101 Reading Improvement	2	0	2
PHY 1101 Applied Science	3	2	4
DFT 1109 Dynamics	3	2	4
	14	16	22
Second Quarter			
DFT 1122 Drafting	3	7	6
DFT 1125 Descriptive Geometry	2	3	3
MAT 1102 Algebra	5	0	5
ENG 1102 Communication Skills	3	0	3
PHY 1102 Applied Science	3	2	4
	16	12	21
Third Quarter			
DFT 1131 Mechanical Drafting	3	12	9
MAT 1104 Trigonometry	3	0	3
PSY 1101 Human Relations	2	0	2
MECH 1113 Shop Processes	2	3	3
DFT 1141 Building Trade Drafting	2	3	3
	12	18	20
Fourth Quarter			
DFT 1142 Building Trade Drafting	3	12	9
DFT 1145 Specifications and Contracts	2	0	2
CIV 1101 Surveying	2	3	3
BUS 1103 Small Business Operations	3	0	3
MAT 1105 Slide Rule	3	2	4
	13	17	21

COURSE DESCRIPTION

DFT 1109 DRAFTING

A study of basic mechanical movements and their application in machines, gearing ratios and drive mechanisms. Pumps and fluid transfer systems. Hydraulic circuits, control valves, cylinders, and their applications. Electrical components including relays, solonoids, and light and heat sensing devices, along with their use in electrical controls. Prerequisite: None.

MAT 1111 SLIDE RULE

A study of the slide rule scales, and practice in using them to solve problems involving multiplication, division, square and cube root, trigonometry, ratio and proportion, and logarithms of numbers. Prerequisite: MAT 1104 or MAT 1125.

DFT 1121 DRAFTING

An introduction to drafting and the study of drafting practices. Instruction is given in the selection, use and care of instruments, singlestroke lettering, applied geometry, freehand sketching consisting of orthographic and pictorial drawings. Orthographic projection, reading and instrument drawings 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. Prerequisite: None.

MAT 1103 GEOMETRY

Fundamental properties and definitions; plane and solid geometric figures, selected general theorems, geometric construction of lines, angles and plane figures. Dihedral angles, areas of plane figures, volumes of solids. Geometric principles are applied to shop operations. Prerequisite: None.

ENG 1101 READING IMPROVEMENT

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 to industry. Topics in this course include measurements; properties of solids, liquids, and gases; basic electrical principles. Prerequisite: None.

DFT 1122 DRAFTING

The trainee will study simple and successive revolutions and their applications to practical problems. Sections and conventions will be studied and both detail and assembly sections will be drawn. Intersections and developments will be studied by relating the drawing to the sheet metal trades. Models of the assigned drawings will be made from construction paper, cardboard, or similar materials as a proof of the solution to the problems drawn.

Methods of drawing and projecting axonometric, oblique, and perspective drawings will be studied with emphasis on the practical applications of pictorial drawings. Various methods of shading will be introduced and dimensioning and sectioning of oblique and axonometrc pictorials will be done. Prerequisite: DFT 1121.

DFT 1125 DESCRIPTIVE GEOMETRY

Graphical analysis of space problems. The problems deal with practical design elements involving points, lines, planes, connectors, and a combination of these. Included are problems dealing with solid geometry theorems. Where applicable, each graphical solution shall be accompanied by the analytical solution. Prerequisite: DFT 1121.

MAT 1102 ALGEBRA

Basic concepts and operations of algebra: historical background of our base-10 number system; algebraic operations: addition, subtraction, multiplication and division; fractions, letter representation, grouping, factoring, ratios and proportions, variation; graphical and algebraic solution of first degree equations; solution of simultaneous equations by: addition and subtraction, substitution, graphing; exponents, logarithms, tables and interpolation. Prerequisite: None.

ENG 1102 COMMUNICATION SKILLS

Designed to promote effective communication through correct language usage in speaking and writing. 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 1131 MECHANICAL DRAFTING

An introduction to mechanical drafting beginning with problems concerning precision and limit dimensioning. Methods of fastening materials, and fasteners: keys, rivets, springs, and welding. Symbols will be studied and drawings will be made involving these items. Principles of design will be introduced with the study of basic mechanisms of motion transfer; gears, cams, power trains, pulleys, belting and methods of specifying and calculating dimensions will be studied. Drawings will be made involving these mechanisms. Prerequisite: DFT 1122.

MAT 1104 TRIGONOMETRY

Trigonometric ratios; solving problems with right angles, using tables, and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions, trigonometric equations. All topics are applied to practical problems. Prerequisites: MAT 1102, MAT 1103.

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.

MEC 1113 SHOP PROCESSES (Materials and Processes)

A study of practices and processes used in the shaping, forming, and fabrication of wood, metal, plastics, and ceramics. The properties of these materials and their utilization in the various industries. A study of the various industries. A study of the various machines used in the forming of these materials and their capabilities. Practices used in fastening and forming these materials. Demonstrations of methods, machines and processes.

DFT 1141 BUILDING TRADES DRAFTING

An introduction to architectural drafting. Further development of techniques in lettering, dimensioning, freehand sketching and instrument drawing. Drawing of construction details, using appropriate material symbols and conventions. Working drawings, including plans, elevations, sections, scale details and full-size drawings will be prepared from preliminary sketches. Prerequisite: DFT 1112.

DFT 1142 BUILDING TRADES DRAFTING

Individual and group participation in the preparation of complete working drawings for a complex architectural structure. Study of drafting room organization and relationships of personnel within the architectural office. Prerequisites: DFT 1141, DFT 1143, DFT 1144.

DFT 1145 SPECIFICATIONS AND CONTRACTS

The purpose and writings of specifications will be studied along with their legal and practical application to working drawings. Contract documents will be analyzed and studied for the purpose of client-architect-contractor responsibilities, duties and mutual protection. Prerequisites: DFT 1141, DFT 1143, DFT 1144.

CIV 1101 SURVEYING

Basic instrumentation and topography will be studied together with field trips and drafting room application of site surveying. Prerequisite: MAT 1104.

BUS 1103 SMALL BUSINESS OPERATIONS

An introduction to the small 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. Prerequisite: None.



PRACTICAL NURSE EDUCATION

INTRODUCTION

The accelerated growth of population in North Carolina and rapid advancement in medical technology demand an increased number of well-trained personnel for health services. Realizing this need, the State Department of Community Colleges, in conjunction with local hospitals, administers programs of practical nurse education in local school systems, community colleges, technical institutes and in industrial education centers throughout the state.

STATE DIPLOMA AWARDED

The aim of the Practical Nurse Education Program is to make available to 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 referencs, and reports of medical and dental examination.

Throughout the one-year program the student is expected to grow continuously in acquisition of knowledge and understandings related to nursing, the biological sciences, the social sciences and in skills related to nursing practice, communications, interpersonal relations, and use of good judgment. 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 patent'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.

Job requirements for the Licensed Practical Nurse include suitable personal characteristics, ability to adapt knowledge and understandings of nursing principles to a variety of situations, technical skills for performance of bedside nursing, appreciation for differences of people and for the worth of every individual, a desire to serve and help others, and readiness to conform to the requirements of nursing ethics and hospital policies.

	Class	Lab.	Clinic	Qtr. Hrs. Credit
First Quarter				
Practical Nursing I	18	2	3	20
Second Quarter				
Practical Nursing II	12	2	21	20
Third Quarter				
Practical Nursing III	10	2	24	19
Fourth Quarter				
Practical Nursing IV	10	2	24	19
Totals				78

PRACTICAL NURSE EDUCATION

PRACTICAL NURSING I

COURSE DESCRIPTIONS

COURSE MATERIAL:

Nursing — History — Introduction to patient care

Health — Personal, physical and mental — Family — Community

Basic Science — Body structure and function — Bacteriology — Basic nutrition

Vocational Adjustments — Introduction to ethics and legal aspects of nursing

Communications and Human Relations

Classroom activities are planned to assist students in development of knowledge, understanding, appreciations and attitudes basic to effective nursing of patients of all ages and backgrounds with nursing needs arising both from the individuality of the patient and from inability for self-care as a result of health deviation. The student is encouraged to develop beginning skills in analysis of patient needs, both through classroom study of hypothetical patient situations and through planned patient experiences in the clinical environment. Beginning skills in nursing methods are developed through planned laboratory experiences, followed by related practice in actual patient care.

Clinical activities provide introduction to actual patient care through selected clinical assignments requiring application of current classroom and laboratory learnings.

PREREQUISITE: Admission requirements.

PRACTICAL NURSING II

COURSE MATERIAL:

Medical-Surgical Nursing — Patient care — Therapeutic Methods

Introduction to Maternity Nursing

Introduction to Nursing the Sick Child

Communications and Human Relations

Classroom activities center around analysis of nursing needs as viewed in perspective with the needs arising from the individuality of the patient and from the illness condition. Related information is presented as it is relevant to student's understanding of and ability to meet nursing needs of patients.

Clinical activities provide selected experiences in patient care in order for the student to develop skill in applying classroom learnings to a variety of patient situations.

PREREQUISITE: Practical Nursing I.

PRACTICAL NURSING III

COURSE MATERIAL:

Common Medical-Surgical Conditions

Care of the Subacutely Ill Child

Care of Maternity Patient and Newborn Infant With Complications

Medications and Pharmacology

Classroom activities center around analysis of nursing needs arising from the specific illness condition and the medical plan.

Clinical activities consist of guided experiences in nursing patients with conditions which illustrate classroom learnings.

PREREQUISITE: Practical Nursing II.

PRACTICAL NURSING IV

COURSE MATERIAL:

Needs of the Seriously Ill Patient

Needs of Patients in Immediate Post-Operative Period

Needs of Labor Patient

Needs of the Seriously Ill Child

Assuming the Role of Graduated Practical Nurse

Classroom activities center around the needs of seriously ill patients of all ages, of labor patients, and of patients immediately following surgery.

Clinical activities consist of guided experiences in the care of seriously ill patients, labor patients, and surgery patients, and is planned to parallel classroom learnings whenever possible.

PREREQUISITE: Practical Nursing III.

PROPOSED CURRICULUMS

AUTO BODY REPAIR

The field of automotive body repair and painting needs more well-trained people to meet the growing demand for the many special skills in this area of employment. In this program, much of the students' 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; take off fenders and replace them with new ones; straighten frames, doors, hoods, and deck lids; and align wheels. In their work these craftsmen operate welding equipment. They also make tests on and repair engine cooling systems. Auto body repairmen shrink stretched metal and prepare it for painting. They are called on to paint fenders and/or panels as well as to paint a complete vehicle. In addition to these duties, auto body repairmen remove, cut, fit, and install glass. They are required to remove and install interior trim; cut, sew, and install headings and seat covers; repair and replace upholstery and fabric tops on vehicles; and interpreting blueprints, charts instruction and service manuals, and wiring diagrams. These repairmen also prepare orders for repairs and parts as well as estimates and statements for adjusters. After gaining experience, many of these craftsmen open their own businesses or become body shop foreman, supervisors, or managers.

Course

First Quarter	Class	Lab	Credit
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 Reading Improvement	2	0	2
WLD 1101 Basic Gas Welding	0	3	1
	13	17	19
Second Quarter			
AUT 1112 Auto Body Repair	3	12	7
WLD 1105 Auto Body Welding	0	3	1
DFT 1101 Schematics and Diagrams: Power Mechanics	0	3	1
PHY 1102 Applied Science	3	2	4
ENG 1102 Communication Skills	3	0	3
	9	20	16
Third Quarter			
AUT 1113 Metal Finishing and Painting	3	12	7
PSY 1101 Human Relations	3	0	3
AUT 1115 Trim, Glass and Radiator Repair	2	9	5
	8	21	15
Fourth Quarter			
AUT 1114 Body Shop Application	3	21	10
BUS 1103 Small Business Operations	3	0	3
	6	21	13

AUTO BODY REPAIR

COURSE DESCRIPTIONS

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. Prerequisite: None.

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. 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, liquids, and gases; basic electrical principles. Prerequisite: None.

ENG 1101 READING IMPROVEMENT

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.

WLD 1101 BASIC GAS 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. Prerequisite: None.

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. Performs 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. Prerequisite: None.

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.

ENG 1102 COMMUNICATION SKILLS

Designed to promote effective communication through correct language usage in speaking and writing. Prerequisite: ENG 1101.

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.
Prerequisite: None.

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.

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 OPERATIONS

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.
Prerequisite: None.

(Proposed)

HEAVY EQUIPMENT MECHANICS

(EARTH MOVING)

In modern construction of industrial buildings, bridges, dams, highways, utility installations, airfields, and large shopping centers many types of heavy equipment has created numerous employment opportunities in preventative maintenance and repair. The development and application of earth moving machines has been an outstanding phase in our construction business, and especially in highway progress.

The curriculum in Heavy Equipment Mechanics is designed to help students acquire knowledge and skills in "troubleshooting" and repair of field equipment. This includes work on the internal combustion engines, and components of the machines, such as gear trains, hydraulic systems and friction systems. Related subjects are included to give the student instruction in basic mathematics, letters and reports, print reading, human relations, and welding practice. Some knowledge of the operation of heavy equipment will be presented.

OCCUPATIONAL OPPORTUNITIES

Graduates of this program may find employment with contractors that use heavy earth moving and other motorized construction equipment. This equipment may be used in highway construction and maintenance, quarries, strip mining, land clearing, building construction and industrial projects. Mechanics are used in areas of service, installation and preventative maintenance. They may make inspections and tests to determine the cause of faulty operation, and repair or replace defective parts to restore the machinery to proper operating condition. In many occasions they may be called upon to render service while the machinery is on the job. The state highway garages offer opportunities for heavy equipment mechanics since one-third of all highway expenditures is for the purchase, operation and repair of motorized equipment.

Course	Class	Lab	Credit
First Quarter			
MAT 1101 Fundamentals of Mathematics	5	0	5
ENG 1101 Reading Improvement	2	0	2
PME 1141 Gear Systems	2	6	4
PME 1101 Internal Combustion Engines	3	12	7
	12	18	18
Second Quarter			
ENG 1102 Communication Skills	3	0	3
DFT 1101 Schematics & Diagrams: Power Mechanics	0	3	1
PME 1102 Engine Electrical & Fuel Systems	5	12	9
PME 1142 Gear Systems	1	6	3
	9	21	16
Third Quarter			
PSY 1101 Human Relations	3	0	3
PME 1107 Gear Systems	3	12	7
PME 1111 Vehicle Operation & Safety	1	3	2
PME 1108 Brake & Friction Systems	1	3	2
PME 1104 Fuel & Lubricants	1	3	2
	9	21	16
Fourth Quarter			
PME 1147 Reports and Records	2	0	2
PME 1123 Hydraulic & Cable Controls	3	6	5
PME 1146 Trouble Analysis & Service	3	12	7
WLD 1103 Welding	0	3	1
	8	21	15

HEAVY EQUIPMENT MECHANICS
COURSE DESCRIPTIONS

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.
Prerequisite: None.

ENG 1101 READING IMPROVEMENT

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.

PME 1141 GEAR SYSTEMS

A study of clutches, conventional transmissions, and automatic transmissions. Automatic transmission study consists of fluid units, torque converter principles, automatic controls and planetary gear systems. Disassembly, inspection of parts, reassembly of components. Drive line and final drive assemblies are included.
Prerequisite: None.

PME 1101 INTERNAL COMBUSTION ENGINES

Principles of engine operation, including gasoline and diesel, two and four cycle, liquid and air cooled. Fundamentals of combustion theory, efficiency, cylinder and valve arrangements, fuel, fuel injection, torque, cooling and exhaust systems are studied. Disassembly, reassembly and inspection procedures of various engines.
Prerequisite: None.

ENG 1102 COMMUNICATION SKILLS

Designed to promote effective communication through correct language usage in speaking and writing.
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.
Prerequisite: None.

PME 1102 ENGINE ELECTRICAL & FUEL SYSTEMS

Gasoline and diesel fuel systems, principles of carburetion and fuel injection systems. Various types of carburetors and fuel injectors are studied and adjusted. A study of the fundamentals of electricity and magnetism as applied to engines. Includes elements of circuitry, batteries, and charging circuits, cranking motors and ignition. Diagnosis of trouble, disassembly, inspection, repair and reassembly of components and engines.
Prerequisite: PME 1101.

PME 1142 GEAR SYSTEMS

Tractor and crawler transmissions; conventional, auxiliary and torque converters are stressed in theory and actual repair. Steering clutches and steering brakes are included.
Prerequisite: PME 1141.

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.

PME 1107 GEAR SYSTEMS

Angle drives, open gear universals. Troubleshooting, disassembly, inspection and final assembly. Laboratory models and actual earth moving equipment are used for shop projects.
Prerequisite: PME 1142.

PME 1111 VEHICLE OPERATION AND SAFETY

Connecting and disconnecting tractor and trailer, loading and unloading of heavy equipment. Driving and parking tractor trailer combination. Study of ICC regulations as to safety, maintenance and transportation of heavy equipment.
Prerequisite: None.

PME 1108 BRAKE AND FRICTION SYSTEMS

Theory and application of the coefficient of friction and kinetic energy applied to the braking systems. Practical applications in relining brakes, turning drums, installing and adjusting brakes.
Prerequisite: PME 1107.

PME 1104 FUELS AND LUBRICANTS

A basic analysis of petroleum products used as fuels and lubricants in present day equipment. Application of fuels and lubricants to the requirements of heavy equipment units.
Prerequisite: None.

PME 1147 REPORTS AND RECORDS

Principles and procedures involved in writing letters and reports. Analyzing and making out job, time and cost sheets. Use of shop orders and reports stressed as a working experience.
Prerequisite: None.

PME 1123 HYDRAULIC AND CABLE CONTROLS

Review of fundamental hydraulic laws and practical application in rebuilding hydraulic systems, relining and adjusting brakes. Heavy duty brakes, vacuum assist and air brakes are emphasized. Theory and practice concerned with size and strength of cable and controls used in the various earthmoving equipment including proper usage of greases and lubricants.
Prerequisites: PME 1107, DFT 1101.

PME 1146 TROUBLE ANALYSIS AND SERVICE

Diagnosis of trouble and repair of components including the cooling systems, engines, electrical systems, gear trains, brakes, cables and controls on laboratory and field equipment. Preventative maintenance practices are stressed and use of report forms in preventative maintenance control is emphasized.
Prerequisites: PME 1107, PME 1108, PME 1102.
Corequisite: PME 1123.

WLD 1103 WELDING

The various processes used for joining materials by welding are discussed. Lecture, demonstrations and practice cover the oxyacetylene and arc welding processes, filler metals used, gases, currents, weldability of metals. Instruction is given in the set-up and safe operation of oxyacetylene welding apparatus. Students prepare joints by both hand and machine cutting with the oxyacetylene torch.
Prerequisite: None.

(Proposed)

HEAVY EQUIPMENT OPERATOR

(EARTH MOVING)

In modern construction of industrial buildings, bridges, highways, shopping centers, dams, ponds, and airfields, many types of heavy equipment are used. General adoption and widespread use of this heavy equipment has created numerous employment opportunities for operators. The development and application of earth moving machines has been an outstanding phase of our construction business, and especially in highway progress.

The purpose of this program is to prepare well trained operators of heavy earth moving equipment. There are many employment opportunities which now exist and will continue to exist for many years to come.

Students interested in the operational function of heavy equipment can choose this three month training program. Also, they may choose a major speciality from the following: pull shovel, backhoe, crawler type tractor, motor grader, scraper, shovel, dragline and clamshell.

OCCUPATIONAL OPPORTUNITIES

Operates several types of power construction equipment such as hoists, derricks, cranes, shovels, crawler tractor, motor graders or scrapers to excavate and grade earth, erect structural and reinforcing steel, and pour concrete.

The entire program is taught during one quarter, three months, or 360 clock hours. Sixty class hours of study is devoted to the related areas of communication skills (English), basic mathematics, and human relations. Three hundred hours is allotted to the use of heavy earth moving equipment chosen by the student. The student has an option of one of the two programs outlined below.

PROGRAM #1

Consists of four weeks with each of the following:

A. CRAWLER TRACTOR

a. Pushing
b. Bulldozing
c. Ditching
d. Sloping
e. Loading

B. MOTOR GRADER

a. Scarifying
b. Sloping
c. Ditching
d. Mixing
e. Finishing

C. MOTOR SCRAPER

a. Loading
b. Dumping
c. Ditching
d. High Speed

PROGRAM #2

Consists of four weeks with each of the following:

A. DRAGLINE
   a. Ditching
   b. Sloping
   c. Casting
   d. Loading

B. BACKHOE
   a. Ditching
   b. Excavating
   c. Loading
   d. Pipe Work

C. SHOVEL
   a. Loading
   b. Leveling
   c. Pit Control

Hauling Both Programs

Related Subjects (60 Hours)

   a. Communication Skills
   b. Basic Mathematics
   c. Human Relations

(Proposed)

INDUSTRIAL SEWING MACHINE MECHANIC

This one-year training program in Industrial Sewing Machine Mechanics is offered at Southwestern Technical Institute in both day and evening classes.

The objective of this program is to prepare persons for employment as Industrial Sewing Machine Mechanics in the needle trades and textile industry in North Carolina.

The following basic facts describe this program:

Length of program: 12 months, providing 800 hours of supervised training.

Contents: Trainees receive instruction and guided shop practice in the assembly, set up, wiring, operation, maintenance, adjustment, and complete overhaul of a variety of types of industrial sewing machines.

Outline of Training Instruction

I. Introduction — 2 hours

- A. Overview of the program
- B. Description of class and shop work
- C. Importance of the sewing machine mechanic to successful plant operation
- D. Explanation of rules and regulations
- E. Equipment and tools

II. Orientation to Human Relations — 8 hours

- A. Discussion of relationships with management
- B. Discussion of relationships with production supervisors
- C. Discussion of relationships with production employees

III. Lockstitch Machines — 125 hours

- A. Nomenclature
- B. Timing
- C. Adjustments
- D. Diagnosis and trouble
- E. Safety practices
- F. Set Ups
- G. General repair procedures
- H. Performance examination

IV. Zig-Zag Machines — 25 hours

- A. Nomenclature
- B. Timing
- C. Diagnosis and trouble shooting techniques
- D. Safety practices
- E. Performance examination

V. Overedge Machines — 30 hours

A. Nomenclature
B. Timing
C. Adjustments
D. Trouble Shooting
E. Safety practice
F. Stitch formation
G. General repair
H. Performance examination

VI. Button Sew Machines — 80 hours

A. Nomenclature
B. Timing
C. Adjustments
D. Set ups for various size buttons
E. General repair procedures
F. Safety practices
G. Performance examination

VII. Buttonhole Machines — 80 hours

A. Nomenclature
B. Timing and adjustments
C. Set up for various size buttonholes
D. General repair procedures
E. Safety practices
F. Trouble shooting
G. Performance examination

VIII. Blindstitch Machines — 40 hours

A. Nomenclature
B. Timing
C. Trouble shooting
D. Safety practices
E. General repair procedures

IX. Chain Stitch Machines (401 type stitch) — 120 hours

A. Nomenclature
B. Timing
C. Adjustments
D. Stitch formation
E. Trouble shooting
F. Safety practices
G. General repair procedures

X. Folders, Gauges and Attachments — 40 hours

A. Nomenclature
B. Adjustments and maintenance

XI. Motor Maintenance and Repair — 80 hours

A. Nomenclature
B. Adjustments and maintenance
C. Remove and replace clutch
D. Remove and replace stator
E. Drives, pulleys, belts
F. General repair procedures
G. Set up of machine stands
H. Electrical connections
I. Safety practices

XII. Stitch Formation — 80 hours

A. Stitches

1. 101 type — make stitch board
2. 200 type — make stitch board
3. 400 or 401 type — make stitch board
4. 600 type — make stitch board
5. 406 type — make stitch board
6. 604 type — make stitch board
7. 500 type — make stitch board

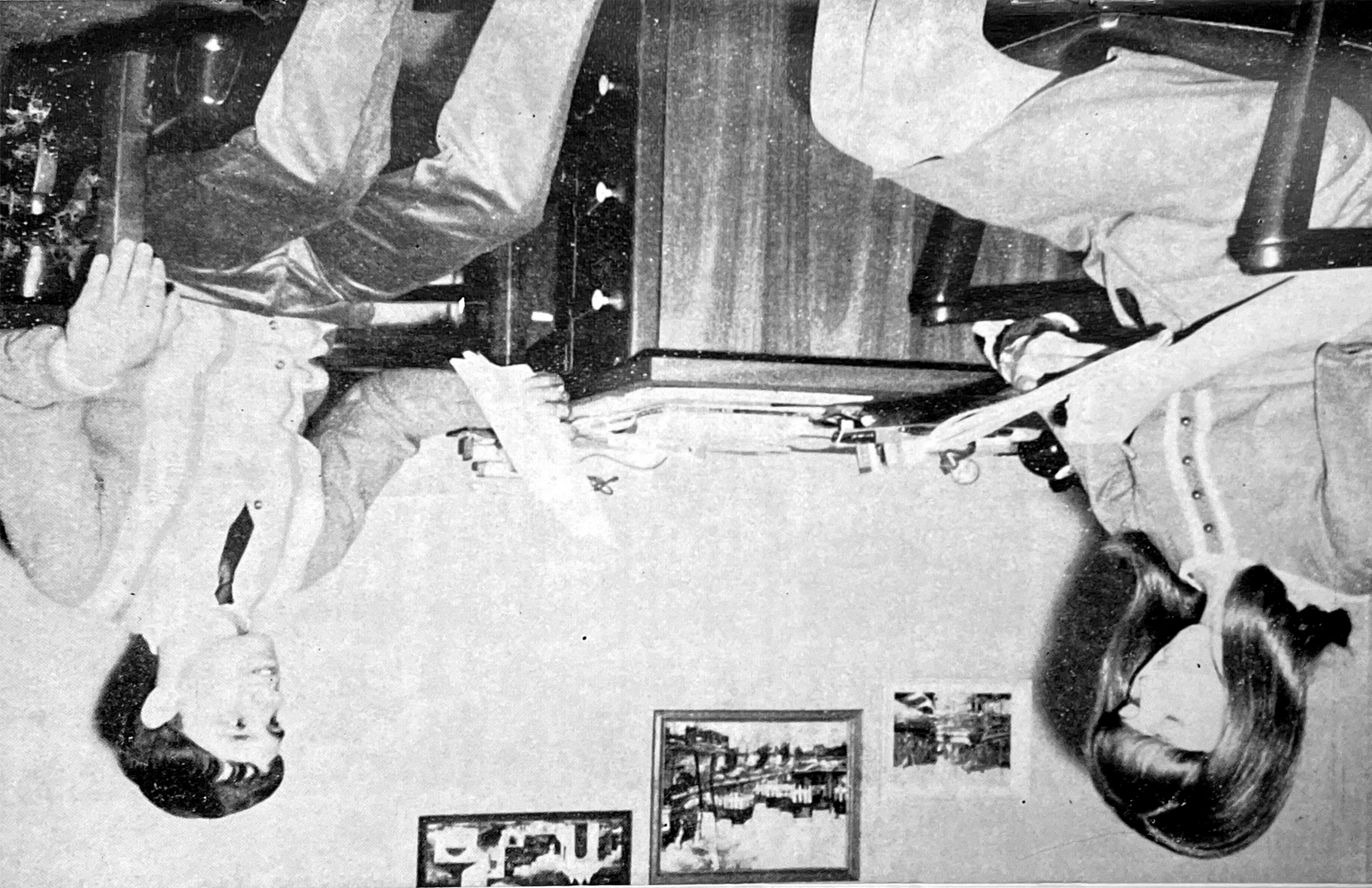
B. Seams

1. Types
2. How to make
3. Seam pucker

XIII. Special types of Machines

XIV. Review and test of all machines — 40 hours

A. Trouble shooting on lockstitch
B. Trouble shooting on chain stitch
C. Trouble shooting on button sewer
D. Trouble shooting on buttonhole
E. Trouble shooting on overedge
F. Trouble shooting on blindstitch
G. Parts requisition



School of Technologies

SCHOOL OF TECHNOLOGIES

The following areas of study are included in the school of technology:

ACCOUNTING

BUSINESS ADMINISTRATION

EXECUTIVE SECRETARIAL

LEGAL SECRETARIAL

MEDICAL SECRETARIAL

(Proposed Curriculums)

ELECTRONIC DATA PROCESSING TECHNOLOGY — BUSINESS

ASSOCIATE IN GENERAL EDUCATION DEGREE

COMMERCIAL ART AND ADVERTISING DESIGN

LAW ENFORCEMENT

The area of study in the School of Technology is two years in duration and will require from twenty to thirty hours per week of course work. If a student elects to enroll in the School of Technology through extension because of his work load, the time required for completion will be doubled. The extension or evening school division will offer fifteen hours per week in an area of study.

In addition to regular classroom work each student will be required to spend additional time on outside work assignments.

The School of Technology will require each student to become fully aware of the latest methods employed in the business world.

SINGLE CURRICULUM COURSES

Curriculum courses are those for which there is a tuition charge and for which credit is granted.

These courses may be offered on campus or in other locations through the extension division.

Students enrolled in single curriculum courses may take up to 18 credit hours without having to satisfy entrance requirements. Upon completion of 18 credit hours, however, the student must meet current curriculum entrance requirements and pursue subsequent courses offered at the Institute.

All curriculum course tuition on a single or part-time schedule is set at the rate of $2.50 per credit hour.

In North Carolina the opportunities in business are increasing. With the increasing population and industrial development in this State, business has become more competitive and automated. Better opportunities in business will be filled by students with specialized education beyond the high school level. The business Administration Curriculum and the Executive Secretarial Curriculum are designed to prepare the student for employment in one of many occupations common to business. Training is aimed at preparing the student in every phase of administrative work that might be encountered in the average business.

The contact hours shown in curriculum are minimal. Institutions may enroll students for additional hours, upon request and with the approval of the institution, in order to enrich and broaden their educational experiences. Students so enrolled will be expected to follow strictly the schedules for which enrolled.



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 operations.

2. Understanding and skill in effective communication for business.

3. Knowledge of human relations as they apply to the successful operations in the rapidly expanding economy.

OCCUPATIONAL OPPORTUNITIES

The graduate of the Business Administration Curriculum may enter 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. These encompassments 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.

BUSINESS ADMINISTRATION

Course Title	Class	Lab	Credit
First Quarter			
T-ENG 101 Grammar	5	0	5
T-MAT 110 Business Mathematics	5	0	5
T-BUS 101 Introduction to Business	5	0	5
T-ECO 102 Economics	3	0	3
	18	0	18
Second Quarter			
T-ENG 102 Composition	5	0	5
T-BUS 120 Accounting	5	2	6
T-ECO 104 Economics	3	0	3
T-BUS 115 Business Law	3	0	3
T-BUS 123 Business Finance	3	0	3
	19	2	20

Southwestern Technical College Library
P. O. Box 67
Sylva, North Carolina 28779

Third Quarter			
T-ENG 103 Report Writing	5	0	5
T-BUS 124 Business Finance	3	0	3
T-BUS 110 Office Machines	2	2	3
T-BUS 121 Accounting	5	2	6
T-BUS 116 Business Law	3	0	3
	18	4	20
Fourth Quarter			
T-ENG 204 Oral Communication	5	0	5
T-BUS 222 Accounting	5	2	6
T-BUS 232 Sales Development	3	0	3
T-BUS 239 Marketing	5	0	5
	18	2	19
Fifth Quarter			
T-EDP 104 Introduction, Data Processing Systems	3	2	4
T-BUS 225 Cost Accounting	3	2	4
T-ENG 206 Business Communication	5	0	5
T-SSC 201 Social Science	3	0	3
T-BUS 235 Business Management	3	0	3
	17	4	19
Sixth Quarter			
T-BUS 243 Advertising	3	2	4
T-SSC 202 Social Science	3	0	3
T-BUS 229 Taxes	3	2	4
T-BUS 272 Principles of Supervision	3	0	3
T-BUS 271 Office Management	3	0	3
	15	4	17
Seventh Quarter			
T-PSY 206 Applied Psychology	3	0	3
T-BUS 247 Business Insurance	5	0	5
T-BUS 233 Personnel Management	3	0	3
T-BUS 219 Credit Procedure and Problems	3	0	3
T-BUS 245 Retailing — Wholesaling	5	0	5
	19	0	19

Business Administration

COURSE DESCRIPTIONS

T-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. Prerequisite: None.

T-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.

T-BUS 124 BUSINESS FINANCE

Financing, federal, state, and local government and the ensuing effects upon the economy. Factors affecting supply of funds, monetary and credit policies. Prerequisite: T-BUS 123.

T-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. Prerequisite: None.

T-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. Prerequisite: None.

T-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—qualfications and requirements. Prerequisites: None.

T-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. Prerequisite: None.

T-BUS 229 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: T-BUS 121.

T-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. Prerequisite: None:

T-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. Prerequisite: None.

T-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: None.

T-BUS 233 PERSONNEL MANAGEMENT

Principles of organization and management of personnel, procurement, placement, training, performance checking, supervision, remuneration, labor relations, fringe benefits and security. Prerequisite: None.

T-BUS 219 CREDIT PROCEDURES AND PROBLEMS

Principles and practices in the extension of credit; collection procedures; laws pertaining to credit extension and collection are included. Prerequisite: T-BUS 120.

T-BUS 245 RETAILING

A study of the role of retailing in the economy including development of present retail structure, functions performed, principles governing effective operation and managerial problems resulting from current economic and social trends. Prerequisite: None.

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 things an accountant might do 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, auditor, 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.

ACCOUNTING

Course Title	Class	Lab.	Credit
First Quarter			
T-ENG 101 Grammar	5	0	5
T-MAT 110 Business Mathematics	5	0	5
T-BUS 101 Introduction to Business	5	0	5
T-ECO 102 Economics	3	0	3
	18	0	18
Second Quarter			
T-ENG 102 Composition	5	0	5
T-BUS 120 Accounting	5	2	6
T-ECO 104 Economics	3	0	3
T-BUS 115 Business Law	3	0	3
T-BUS 123 Business Finance	3	0	3
	19	2	20
Third Quarter			
T-ENG 103 Report Writing	5	0	5
T-BUS 124 Business Finance	3	0	3
T-BUS 110 Office Machines	2	2	3
T-BUS 121 Accounting	5	2	6
T-BUS 116 Business Law	3	0	3
	18	4	20

Fourth Quarter

T-ENG 204 Oral Communication	5	0	5
T-EDP 104 Introduction to Data Processing Systems	3	2	4
T-BUS 222 Accounting	5	2	6
..... Elective	6	0	6
	19	4	21

Fifth Quarter

T-ENG 206 Business Communication	5	0	5
T-SSC 201 Social Science	3	0	3
T-BUS 223 Accounting	5	2	6
T-BUS 225 Cost Accounting	3	2	4
T-BUS 235 Business Management	3	0	3
	19	4	21

Sixth Quarter

T-SSC 202 Social Science	3	0	3
T-BUS 229 Taxes	3	2	4
T-BUS 269 Auditing	3	2	4
..... Elective	4	0	4
	13	4	15

Seventh Quarter

T-PSY 206 Applied Psychology	3	0	3
T-BUS 247 Business Insurance	5	0	5
T-BUS 233 Personnel Management	3	0	3
T-BUS 219 Credit Procedures and Problems	3	0	3
T-BUS 245 Retailing-Wholesaling	5	0	5
	19	0	19

Accounting

COURSE DESCRIPTIONS

T-ENG 101 GRAMMAR

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: None.

T-BUS 102 TYPEWRITING

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts.
Prerequisite: None.

T-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.
Prerequisite: None.

T-BUS 101 INTRODUCTION TO BUSINESS

A survey of the business world with particular attention devoted to the structure of the various types of business organization, methods of financing, internal organization, and management.
Prerequisite: None.

T-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.

T-ENG 102 COMPOSITION

Designed to aid the student in the improvement of self-expression in business and technical composition. Emphasis is on the sentence, paragraph and whole composition.

Prerequisite: T-ENG 101.

T-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: T-MAT 110.

T-ECO 104 ECONOMICS

Greater depth in principles of economics, including a pentration into the composition and pricing of national output, distribution of income, international trade and finance, and current economic problems.

Prerequisite: T-ECO 102.

T-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.

Prerequisite: None.

T-BUS 123 BUSINESS FINANCE

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

Prerequisite: None.

T-ENG 103 REPORT WRITING

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: T-ENG 102.

T-BUS 124 BUSINESS FINANCE

Financing, federal, state, and local government and the ensuing effects upon the economy. Factors affecting supply of funds, monetary and credit policies.

Prerequisite: T-BUS 123.

T-BUS 110 OFFICE MACHINES

A general survey of the business and office machines. Students will receive training in techniques, processes, operation and application of the ten-key adding machines, full keyboard adding machines, and calculator.

Prerequisite: None.

T-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: T-BUS 120.

T-BUS 116 BUSINESS LAW

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

Prerequisite: T-BUS 115.

T-ENG 204 ORAL COMMUNICATION

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: T-ENG 101.

T-EDP 104 INTRODUCTION TO DATA PROCESSING SYSTEMS

Fundamental concepts and operational principles of data processing systems, as an aid in developing a basic knowledge of computers, prerequisite to the detail study of particular computer problems. This course is a prerequisite for all programming courses.

Prerequisite: None.

T-BUS 222 ACCOUNTING

Thorough treatment of the field of general accounting, providing the necessary foundation for specialized studies that follow. The course includes, among other aspects, the balance sheet, income and surplus statements, fundamental processes of recording, cash and temporary investments, and analysis of working capital.

Prerequisite: T-BUS 121.

T-ENG 206 BUSINESS COMMUNICATION

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, acknowledgments, remittances, and inquiry.

Prerequisite: T-ENG 102.

T-BUS 223 ACCOUNTING

Additional study of intermediate accounting with emphasis on investments, plant and equipment, intangible assets and deferred charges, long-term liabilities, paid-in capital, retained earnings, and special analytical processes.

Prerequisite: T-BUS 222.

T-BUS 225 COST ACCOUNTING

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

Prerequisite: T-BUS 121.

T-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.

Prerequisite: None.

T-BUS 229 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: T-BUS 121.

T-BUS 269 AUDITING

Principles of conducting audits and investigations; setting up accounts based upon audits; collecting data on working papers; arranging and systemizing the audit, and writing the audit report. Emphasis placed on detailed audits, internal auditing, and internal control.

Prerequisite: T-BUS 223.



EXECUTIVE SECRETRAIAL

The demand for better qualified secretaries in our ever-expanding business world is becoming more acute. The purpose of this curriculum is to outline a program that will provide training in the accepted procedures required by the business world and to enable persons to become proficient soon after accepting employment in the business office.

OCCUPATIONAL OPPORTUNITIES

The graduate of the Executive Secretarial Curriculum should have a knowledge of the business terminology, skill in dictation and accurate transcription of the business letters and reports. The graduate may be employed as a stenographer or a secretary. Stenographers are primarily responsible for taking dictation and transcribing letters, memoranda, and reports. The secretary, in addition to taking dictation and transcribing, is given more responsibility in connection with meeting office callers, screening telephone calls, and being an assistant to an executive. She may enter a secretarial position in a variety of offices in business such as insurance companies, banks, marketing institutions, and financial firms.

EXECUTIVE SECRETARIAL

Course Title	Class	Lab	Credit
First Quarter			
T-ENG 101 Grammar	5	0	5
T-BUS 102 Typewriting	2	3	3
T-MAT 110 Business Mathematics	5	0	5
T-BUS 101 Introduction to Business	5	0	5
T-BUS 106 Shorthand	3	2	4
	20	5	22
Second Quarter			
T-ENG 102 Composition	5	0	5
T-BUS 103 Typewriting	2	3	3
T-BUS 107 Shorthand	3	2	4
T-BUS 120 Accounting	5	2	6
T-BUS 115 Business Law	3	0	3
	18	7	21
Third Quarter			
T-ENG 103 Report Writing	5	0	5
T-BUS 104 Typewriting	2	3	3
T-BUS 108 Shorthand	3	2	4
T-BUS 121 Accounting	5	2	6
	15	7	18
Fourth Quarter			
T-BUS 110 Office Machines	2	2	3
T-BUS 112 Filing	3	0	3
T-ENG 204 Oral Communication	5	0	5
T-BUS 206E Dictation and Transcription	3	2	4
T-BUS 205 Advanced Typewriting	2	3	3
	15	7	18

Fifth Quarter			
T-BUS 211 Office Machines	2	2	3
T-EDP 104 Introduction to Data Processing Systems	3	2	4
T-BUS 207E Dictation and Transcription	3	2	4
T-BUS 214 Secretarial Procedures	3	2	4
T-SSC 201 Social Science	3	0	3
	14	8	18
Sixth Quarter			
T-ENG 206 Business Communications	5	0	5
T-SSC 202 Social Science	3	0	3
T-BUS 208E Dictation and Transcription	3	2	4
T-BUS 271 Office Management	3	0	3
	14	2	15
Seventh Quarter			
T-PSY 206 Applied Psychology	3	0	3
T-PSY 112 Personality Development	3	0	3
T-BUS 215E Office Application	6	0	6
T-ECO 102 Economics	3	0	3
	15	0	15

Executive Secretarial

COURSE DESCRIPTIONS

T-BUS 102 TYPEWRITING

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. Prerequisite: None.

T-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. Prerequisite: None.

T-BUS 103 TYPEWRITING

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: T-BUS 102 or the equivalent. Speed requirement, 30 words per minute for five minutes.

T-BUS 107 SHORTHAND

Continued study of theory with greater emphasis on dictation and elementary transcription. Prerquisite: T-BUS 106.

T-BUS 104 TYPEWRITING

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: T-BUS 103. Speed requirement, 40 words per minute.

T-BUS 108 SHORTHAND

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

T-BUS 112 FILING

Fundamentals of indexing and filing, combination theory and practice by the use of miniature letters, filing boxes, and guides. Alphabetic, Triple Check, Automatic, Geographic, Subject, Soundex, and Dewey Decimal filing. Prerequisite: None.

T-BUS 206E 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: T-BUS 108.

T-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: T-BUS 104. Speed requirements, 50 words per minute.

T-BUS 211 OFFICE MACHINES

Instructions in the operation of the bookkeeping-accounting machines, duplicating equipment, and the dictating and transcribing machines. Prerequisite: T-BUS 110.

T-BUS 207E 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: T-BUS 206.

T-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.

T-BUS 208E 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: 207.

T-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. Prerequisite: None.

T-PSY 112 PERSONALITY DEVELOPMENT

Desinged 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. Prerequisite: None.

T-BUS 215E OFFICE APPLICATION

During the sixth quarter only, students are assigned to work in the business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned, according to the course of study.

LEGAL SECRETARIAL



The demand for better qualified legal secretaries in our ever-expanding legal profession is becoming more acute. The purpose of the Legal Secretarial Curriculum is to outline a training program that will provide specialized training in the accepted procedures required by the legal profession, and to enable persons to become proficient soon after accepting employment in the legal office.

The curriculum is designed to offer the students the necessary secretarial skills in typing, dictation, transcription, and terminology for employment in the legal profession. The special training in secretarial subjects is supplemented by related courses in mathematics, accounting, business law, and personality development.

OCCUPATIONAL OPPORTUNITIES

The graduate of the Legal Secretarial Curriculum should have a knowledge of legal terminology, skill in dictation, and accurate transcription of legal records, reports, letters, and documents. The duties of a legal secretary may consist of: taking dictation and transcribing letters, memoranda and reports; meeting office callers and screening telephone calls; filing; and scheduling appointments. Opportunities for employment of the graduate exist in a variety of secretarial positions in the legal professions such as in lawyers' offices and state and government offices.

LEGAL SECRETARIAL

Course Title	Class	Lab.	Credit
First Quarter			
T-ENG 101 Grammar	5	0	5
T-BUS 102 Typewriting	2	3	3
T-MAT 110 Business Mathematics	5	0	5
T-BUS 101 Introduction to Business	5	0	5
T-BUS 106 Shorthand	3	2	4
	20	5	22
Second Quarter			
T-ENG 102 Composition	5	0	5
T-BUS 103 Typewriting	2	3	3
T-BUS 107 Shorthand	3	2	4
T-BUS 120 Accounting	5	2	6
T-BUS 115 Business Law	3	0	3
	18	7	21
Third Quarter			
T-ENG 103 Report Writing	5	0	5
T-BUS 104 Typewriting	2	3	3
T-BUS 108 Shorthand	3	2	4
T-BUS 110 Office Machines	2	2	3
T-BUS 112 Filing	3	0	3
T-BUS 183L Terminology and Vocabulary (Legal)	3	0	3
	18	7	21

Fourth Quarter			
T-ENG 204 Oral Communication	5	0	5
T-BUS 206L Dictation and Transcription (Legal)	3	2	4
T-BUS 205 Advanced Typewriting	2	3	3
T-BUS 211 Office Machines	2	2	3
T-EDP 104 Introduction to Data Processing Systems	3	2	4
	15	9	19
Fifth Quarter			
T-ENG 206 Business Communication	5	0	5
T-BUS 207L Dictation and Transcription (Legal)	3	2	4
T-BUS 214 Secretarial Procedures	3	2	4
T-SSC 201 Social Science	3	0	3
..... Elective	3	0	3
	17	4	19
Sixth Quarter			
T-SSC 202 Social Science	3	0	3
T-BUS 208L Dictation and Transcription (Legal)	3	2	4
T-BUS 271 Office Management	3	0	3
..... Elective	6	0	6
	15	2	16
Seventh Quarter			
T-PSY 206 Applied Psychology	3	0	3
T-PSY 112 Personality Development	3	0	3
T-BUS 215E Office Application	6	0	6
T-ECO 102 Economics	3	0	3
	15	0	15

Secretarial — Legal

COURSE DESCRIPTIONS

T-ENG 101 GRAMMAR

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: None.

T-BUS 102 TYPEWRITING

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts.
Prerequisite: None.

T-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.
Prerequisite: None.

T-BUS 101 INTRODUCTION TO BUSINESS

A survey of the business world with particular attention devoted to the structure of the various types of business organization, methods of financing, internal organization, and management.
Prerequisite: None.

T-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.
Prerequisite: None.

T-ENG 102 COMPOSITION

Designed to aid the student in the improvement of self-expression in business and technical composition. Emphasis is on the sentence, paragraph and whole composition.
Prerequisite: T-ENG 101.

T-BUS 103 TYPEWRITING

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: T-BUS 102 or the equivalent. Speed requirement, 30 words per minute for five minutes.

T-BUS 107 SHORTHAND

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

T-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: T-MAT 110.

T-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.
Prerequisite: None.

T-ENG 103 REPORT WRITING

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: T-ENG 102.

T-BUS 104 TYPEWRITING

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: T-BUS 103 or the equivalent. Speed requirement, 40 words per minute for five minutes.

T-BUS 108 SHORTHAND

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

T-BUS 110 OFFICE MACHINES

A general survey of the business and office machines. Students will receive training in techniques, processes, operation and application of the ten-key adding machines, full keyboard adding machines, and calculator.
Prerequisite: None.

T-BUS 112 FILING

Fundamentals of indexing and filing, combining theory and practices by the use of minature letters, filing boxes and guides. Alphabetic, Triple Check, Automatic, Geographic, Subject, Soundex, and Dewey Decimal filing.
Prerequisite: None.

T-BUS 183L 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.

Prerequisite: T-BUS 107.

T-ENG 204 ORAL COMMUNICATION

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: T-ENG 101.

T-BUS 206L 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 minutes on new material.

Prerequisite: T-BUS 108.

T-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: T-BUS 104. Speed requirement, 50 words per minute for five minutes.

T-BUS 211 OFFICE MACHINES

Instructions in the operation of the bookkeeping-accounting machines, duplicating equipment, and the dictation and transcribing machines.

Prerequisite: T-BUS 110.

T-EDP 104 INTRODUCTION TO DATA PROCESSING SYSTEMS

Fundamental concepts and operational principles of data processing systems, as an aid in developing a basic knowledge of computers, prerequisite to the detail study of particular computer problems. This course is a prerequisite for all programming courses.

Prerequisite: None.

T-ENG 206 BUSINESS COMMUNICATION

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, acknowledgments, remittances, and inquiry.

Prerequisite: T-ENG 102.

T-BUS 207L DICTATION AND TRANSCRIPTION

Covering materials appropriate to the course of study, the student develops the accuracy, speed, and vocabularly that will enable her to meet the stenographic requirements of business and professional offices. Minimum dictation rate of 110 words per minute required for five minutes on new material.

Prerequisite: T-BUS 206.

T-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.
Prerequisite: None.

T-BUS 208L 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 required for five minutes on new material.

Prerequisite: T-BUS 207.

T-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.
Prerequisite: None.



MEDICAL SECRETARIAL

The demand for better qualified medical secretaries in our ever-expanding medical profession is becoming more acute. The purpose of this curriculum is to outline a training program that will provide specialized training the accepted procedures required by the medical profession, and to enable persons to become proficient soon after accepting employment in the medical and health occupations.

The Medical Secretarial Curriculum is designed to offer the students the necessary secretarial skills in typing, dictation, transcription, and terminology for employment in the medical profession. The special training in secretarial subjects is supplemented by related courses in mathematics, accounting, business law, and personality development.

OCCUPATIONAL OPPORTUNITIES

The graduate of the Medical Secretarial Curriculum should have a knowledge of medical terminology, skill in dictation and accurate transcription of medical records, reports and letters. The duties of a medical secretary may consist of: taking dictation and transcribing letters, memoranda and reports; meeting office callers and screening telephone calls; filing, and scheduling appointments. The graduate may enter a secretarial position in a variety of offices such as physicians', private and public hospitals, federal and state health programs, and the drug and pharmaceutical industry.

MEDICAL SECRETARIAL

Course Title	Class	Lab.	Credit
First Quarter			
T-ENG 101 Grammar	5	0	5
T-BUS 102 Typewriting	2	3	3
T-MAT 110 Business Mathematics	5	0	5
T-BUS 101 Introduction to Business	5	0	5
T-BUS 106 Shorthand	3	2	4
	20	5	22
Second Quarter			
T-ENG 102 Composition	5	0	5
T-BUS 103 Typewriting	2	3	3
T-BUS 107 Shorthand	3	2	4
T-BUS 120 Accounting	5	2	6
T-BUS 115 Business Law	3	0	3
	18	7	21
Third Quarter			
T-ENG 103 Report Writing	5	0	5
T-BUS 104 Typewriting	2	3	3
T-BUS 108 Shorthand	3	2	4
T-BUS 110 Office Machines	2	2	3
T-BUS 112 Filing	3	0	3
T-BUS 183M Terminology and Vocabularly (Medical)	3	0	3
	18	7	21
Fourth Quarter			
T-ENG 204 Oral Communication	5	0	5
T-BUS 206M Dictation and Transcription (Medical)	3	2	4
T-BUS 205 Advanced Typewriting	2	3	3
T-BUS 211 Office Machines	2	2	3
T-EDP 104 Introduction to Data Processing Systems	3	2	4
T-BUS 284M Terminology and Vocabulary (Medical)	3	0	3
	18	9	22
Fifth Quarter			
T-ENG 206 Business Communication	5	0	5
T-BUS 207M Dictation and Transcription (Medical)	3	2	4
T-BUS 214 Secretarial Procedures	3	2	4
T-SSC 201 Social Science	3	0	3
..... Elective	3	0	3
	17	4	19
Sixth Quarter			
T-SSC 202 Social Science	3	0	3
T-BUS 208 Dictation and Transcription (Medical)	3	2	4
T-BUS 271 Office Management	3	0	3
..... Elective	3	0	3
	12	2	13
Seventh Quarter			
T-PSY 206 Applied Psychology	3	0	3
T-PSY 112 Personality Development	3	0	3
T-BUS 215E Office Application	6	0	6
T-ECO 102 Economics	3	0	3
	15	0	15

Medical Secretary

COURSE DESCRIPTIONS

T-ENG 101 GRAMMAR

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: None.

T-BUS 102 TYPEWRITING

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts.
Prerequisite: None.

T-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.
Prerequisite: None.

T-BUS 101 INTRODUCTION TO BUSINESS

A survey of the business world with particular attention devoted to the structure of the various types of business organization, methods of financing, internal organization, and management.
Prerequisite: None.

T-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.
Prerequisite: None.

T-ENG 102 COMPOSITION

Designed to aid the student in the improvement of self-expression in business and technical composition. Emphasis is on the sentence, paragraph and whole composition.
Prerequisite: T-ENG 101.

T-BUS 103 TYPEWRITING

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: T-BUS 102 or the equivalent. Speed requirement, 30 words per minute for five minutes.

T-BUS 107 SHORTHAND

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

T-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: T-MAT 110.

T-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.
Prerequisite: None.

T-ENG 103 REPORT WRITING

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: T-ENG 102.

T-BUS 104 TYPEWRITING

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: T-BUS 103 or the equivalent. Speed requirement, 40 words per minute for five minutes.

T-BUS 108 SHORTHAND

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

T-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.
Prerequisite: None.

T-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, Geograhpic, Subject, Soundex, and Dewey Decimal filing.
Prerequisite: None.

T-BUS 183M TEMINOLOGY 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.
Prerequisite: T-BUS 107.

T-ENG 204 ORAL COMMUNICATION

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: T-ENG 101.

T-BUS 206M 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 minutes on new material.
Prerequisite: T-BUS 108.

T-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: T-BUS 104. Speed requirement, 50 words per minute for five minutes.

T-BUS 211 OFFICE MACHINES

Instructions in the operation of the bookkeeping-accounting machines, duplicating equipment, and the dictating and transcribing machines.

Prerequisite: T-BUS 110.

T-EDP 104 INTRODUCTION TO DATA PROCESSING SYSTEMS

Fundamental concepts and operational principles of data processing systems, as an aid in devoloping a basic knowledge of computers, prerequisite to the detail study of particular computer problems. This course is a prerequisite for all programming courses. Prerequisite: None.

T-BUS 284M TERMINOLOGY AND VOCABULARY

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

Prerequisite: T-BUS 183M.

T-ENG 206 BUSINESS COMMUNICATION

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, acknowledgments, remittances, and inquiry.

Prerequisite: T-ENG 102.

T-BUS 207M 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 required for five minutes on new material.

Prerequisite: T-BUS 206M.

T-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.

Prerequisite: None.

T-BUS 208M 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 required for five minutes on new material.

Prerequisite: T-BUS 207.

T-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.

Prerequisite: None.

(Proposed)

Electronic Data Processing Technology — Business

The processing of data by electronic equipment has created vast changes in business and industry. Nowhere are these changes more apparent than in the occupations associated with the handling of business information. Much of the routine and time-consuming work of obtaining, compiling and reporting the information necessary for a business to operate can now be adapted to machine processing.

This curriculum is designed to give the student (1) an understanding of the principles of business operations, (2) experience with techniques and handling business data, and (3) functional competence in the application of data processing systems, and experience in computer programming of business records and accounts, inventory, sales, and income and expenditures essential to business and to management decisions.

Emphasis is upon business data processing and use of machines in solving business problems.

OCCUPATIONAL OPPORTUNITIES

The business data processing specialist applies currently available programming techniques to a defined problem with minimum supervision. He analyzes and defines systems requirements to develop a program for electronic data processing; conducts detailed analyses of systems requirements, and develops all levels of block diagrams and logical flow charts. Translates program details into coded instructions; establishes test data; tests, refines, and revises program and documents the procedures. Ascertains if other combinations of instructions would achieve greater flexibility, better machine utilization, or more dependable results. He may prepare a complete set of operating instructions for use by a console operator; on occasion, operates the console in processing program.

Course		Class	Lab.	Credit
	First Quarter			
T-ENG 101	Grammar	3	0	3
T-MAT 101	Technical Mathematics	5	0	5
T-MAT 121	Numbering System and Boolean Algebra	4	0	4
T-EDP 101	Functional Wiring Principles	2	3	3
T-EDP 104	Introduction to Data Processing Systems	3	2	4
		17	5	19
	Second Quarter			
T-ENG 102	Composition	3	0	3
T-MAT 102	Technical Mathematics	5	0	5
T-EDP 106	Business Programming	2	4	4
T-EDP 102	Functional Wiring Principals	2	3	3
T-BUS 120	Accounting	5	2	6
		17	9	21
	Third Quarter			
T-ENG 103	Report Writing	3	0	3
T-EDP 108	Scientific Programming	2	4	4
T-MAT 103	Technical Mathematics	5	0	5
T-MAT 214	Statistics	5	0	5
		15	4	17
	Fourth Quarter			
T-ENG 204	Oral Communication	3	0	3
T-EDP 202	Programming System Techniques	3	4	5
T-BUS 121	Accounting	5	2	6
T-BUS 110	Office Machines	2	2	3
		13	8	17

Fifth Quarter			
..... Social Science Elective	3	0	3
T-EDP 205 Linear Programming & Critical Path Method	2	4	4
T-BUS 225 Cost Accounting	3	2	4
T-BUS 115 Business Law	3	0	3
T-BUS 235 Business Management	3	0	3
	14	6	17
Sixth Quarter			
..... Social Science Elective	3	0	3
T-EDP 216 Research Project	1	8	5
T-BUS 116 Business Law	3	0	3
..... Elective	6	0	6
	13	8	17

Electronic Data Processing Technology — Business

COURSE DESCRIPTIONS

T-ENG 101 GRAMMAR

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: None.

T-MAT 101 TECHNICAL MATHEMATICS

The real number system is developed as an extension of natural numbers, Number systems of various bases are introduced. Fundamental algebraic operations, the rectangular coordinate system, as well as fundamental trigonometric concepts and operations are introduced. The application of these principles to practical problems is stressed.
Prerequisite: Satisfactory evidence that admission requirements have been met.

T-MAT 121 NUMBERING SYSTEM AND BOOLEAN ALGEBRA

A cursory treatment of the base-ten numbering system; functional introduction to numbering systems with bases other than 10, transformation from one system to another; fundamental operation in systems other than the decimal; a detailed study of the binary system in relation to machine calculations; principles of Boolean Algebra and its contribution to digital devices and data processing.
Prerequisite: None.

T-EDP 101 FUNCTIONAL WIRING PRINCIPLES

The fundamental principles of wiring necessary to perform basic machine functions of printing, punching, comparing and selection. A series of laboratory experiments support the theoretical aspects of this course.
Prerequisite: None.

T-EDP 104 INTRODUCTION TO DATA PROCESSING SYSTEMS

Fundamental concepts and operational principles of data processing systems, as an aid in developing a basic knowledge of computers, prerequisite to the detail study of particular computer problems. This course is a prerequisite for all programming courses.
Prerequisite: None.

T-ENG 102 COMPOSITION

Designed to aid the student in the improvement of self-expression in business and technical composition. Emphasis is on the sentence, paragraph and whole composition.
Prerequisite: T-ENG 101.

T-MAT 102 TECHNICAL MATHEMATICS

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

T-EDP 106 BUSINESS PROGRAMMING

The effective use of data processing equipment in meeting the information needs of business; utilizing the symbolic programming system as a tool in the solution of problems. The scope of the problems developed will vary from a modest payroll procedure to the total information retrieval for a large and complex business.
Prerequisites: T-EDP 101, T-MAT 101, T-EDP 104.

T-EDP 102 FUNCTIONAL WIRING PRINCIPLES

Additional study of the fundamental principles of wiring necessary to perform basic machine functions of printing, punching, comparing and selection with emphasis on the accounting machine. A series of laboratory experiments support the theoretical aspects of this course.
Prerequisite: T-EDP 101.

T-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 merchantile enterprises, to include practical application of the principles learned.
Prerequisite: T-MAT 110.

T-ENG 103 REPORT WRITING

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: T-ENG 102.

T-EDP 108 SCIENTIFIC PROGRAMMING

Designed to provide the student with sufficient knowledge of programming concepts so that he may easily master any specific system with a minimum of instruction. The student will analyze, evaluate and make minor program modifications. (Specific systems are treated in detail so that the student may learn advanced programming and logical decision making techniques as applied in sophisticated systems.)
Prerequisites: T-EDP 106, T-MAT 102.

T-MAT 103 TECHNICAL MATHEMATICS

The fundamental concepts of analytical geometry, differential and integral calculus are introduced. Topics included are graphing techniques, geometric and algebraic interpretation of the derivative, differentials, rate of change, the integral and basic integration techniques. Applications of these concepts to practical situations are stressed.
Prerequisite: T-MAT 102.

T-MAT 214 STATISTICS

The theory of statistics and its application in modern business. Kinds of regularity that exist among random fluctuations. Experience in associating and using mathematical models to interpret physical phenomena and predicting the outcomes of experiments related to practical business problems.
Prerequisite: T-MAT 102.

T-ENG 204 ORAL COMMUNICATION

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: T-ENG 101.

T-EDP 202 PROGRAMMING SYSTEM TECHNIQUES

The student will investigate the functions and capabilities of different data processing machines and will become familiar with some of the procedures necessary for programming objectives. Programming drills, exercises, and case studies will add the realism of processing data to theoretical knowledge.

Prerequisites: T-EDP 102, T-EDP 104, T-EDP 108.

T-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: T-BUS 120.

T-BUS 110 OFFICE MACHINES

A general survey of the business and office machines. Students will receive training in techniques, processes, operation and application of the ten-key adding machines, full keyboard adding machines, and calculator.
Prerequisite: None.

T-EDP 205 LINEAR PROGRAMMING AND CRITICAL PATH METHOD

Lecture and case problems encompassing the scope and potential of using mathematical programming with computers to increase industrial efficiency. This course presents the network technique of management planning, scheduling and control. Basic rules of network planning are presented with laboratory assignments designed to implement the theoretical aspects of Critical Path Methods (CPM).
Prerequisites: T-EDP 108, T-MAT 103, T-EDP 202.

T-BUS 225 COST ACCOUNTING

Nature and purposes of cost accounting; accounting for direct labor, materials, and factory burden; job cost, and standard cost principles and procedures; selling and distribution cost; budgets, and executive use of cost figures.
Prerequisite: T-BUS 121.

T-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.
Prerequisite: None.

T-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.
Prerequisite: None.

T-EDP-216 RESEARCH PROJECT

Individual assignments of a carefully selected project will be the work of the student during this quarter. It will give the student an opportunity to initiate and carry out a project taken from outside the school. This course places the responsibility upon the student to solve a significant problem with a minimum of assistance from the instructor.
Prerequisite: T-EDP 205.

T-BUS 116 BUSINESS LAW

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

(Proposed)

ASSOCIATE IN GENERAL EDUCATION DEGREE

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.

Course	General Education Credit Hours	Elective Credit Hours	Total Credit Hours
First Quarter			
ENG 101 English			
HIS 101 World Civilization			
NSC 101 Physical Science			
MUS 101 Music Appreciation			
	12	4	16
Second Quarter			
ENG 102 English			
HIS 102 World Civilization			
MTH 101 Modern Math			
ART 101 Art Appreciation			
	12	4	16
Third Quarter			
ENG 103 Eng. Mstpcs. Soc. Sci.*			
HIS 103 World Civilization*			
MTH 102 Introduction to Logic			
PSY 101 Introduction to Psychology			
	12	4	16
Fourth Quarter			
ENG 201 Eng. Mstpcs. Nat. Sci.			
BIO 201 General Zoology*			
	7	9	19

Fifth Quarter			
ENG 202 ENG. Mstpcs. Humanities*			
BIO 202 General Botany			
PHI 202 Introduction to Phil.*			
	10	6	16
Sixth Quarter			
ENG 203 Creative Writing			
PHI 203 Cont. Issues			
	6	10	16

* Indicates Co-requisite course.

(Proposed)

COMMRCIAL 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 enabling them to be employed in some facet of Commercial Artistry.

Equipped with professional competence and the potential for continuing growth and improvement, graduates are qualified for employment in advertising agencies, design studios, department stores, industrial advertising departments, government agencies, newspapers, television studios, printing and publishing houses.

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.

Course	Class	Lab	Credit
First Quarter			
T-ENG 101 Grammar	3	0	3
T-DFT 101 Technical Drafting	0	6	2
T-CAT 101 Advertising Principles	3	0	3
T-CAT 105 Life Study	2	3	3
T-CAT 121 Commercial Art & Advertising Design	3	9	6
	11	18	17
Second Quarter			
T-ENG 102 Composition	3	0	3
T-DFT 102 Technical Drafting	0	6	2
T-MAT 110 Business Mathematics	5	0	5
T-CAT 106 Life Study	0	6	2
T-CAT 122 Commercial Art & Advertising Design	3	9	6
	11	21	18

Third Quarter			
T-ENG 103 Report Writing	3	0	3
T-CAT 110 Industrial Illustration	2	6	4
T-CAT 116 Photography	2	6	4
T-CAT 123 Commercial Art & Advertising Design	3	9	6
	10	21	17
Fourth Quarter			
T-ENG 204 Oral Communications	3	0	3
T-CAT 205 Advertising Copywriting	3	0	3
T-CAT 212 Advertising Illustration	1	3	2
T-CAT 224 Commercial Art & Advertising Design	3	9	6
..... Elective			4
	10	12	18
Fifth Quarter			
..... Social Science	3	0	3
Elective	1	3	2
T-CAT 213 Advertising Illustration	3	9	6
T-CAT 225 Commercial Art & Advertising Design	2	6	4
T-CAT 217 Photography			4
..... Elective			
	9	18	19
Sixth Quarter			
..... Social Science	3	0	3
Elective	1	3	2
T-CAT 214 Advertising Illustration	5	0	5
T-CAT 235 Advertising Art Direction	3	9	6
T-CAT 226 Commercial Art & Advertising Design			3
..... Elective			
	12	12	19

Commercial Art and Advertising Design

COURSE DESCRIPTIONS

T-ENG 101 GRAMMAR

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: None.

T-DFT 101 TECHNICAL DRAFTING

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, free-hand 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.

Prerequisite: None.

T-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 medium and current publications in the field.

Prerequisite: None.

T-CAT 105 LIFE STUDY

A study of the body structure with emphasis on the skeletal and muscular systems, movement and the aging process. Graphical interpretation and response to live models with emphasis on proportioning, masses and movement.

Prerequisite: None.

T-CAT 121 COMMERCIAL ART & ADVERTISING DESIGN

An introduction to drawing and basic design fundamentals and principles. Emphasis is placed on line, two-and three-dimensional shapes, letter indication, sketching, perspective, light and shade, equipment and materials of the art and design profession.

Prerequisite: None.

T-ENG 102 COMPOSITION

Designed to aid the student in the improvement of self-expression in business and technical composition. Emphasis is on the sentence, paragraph and whole composition.

Prerequisite: T-ENG 101.

T-DFT 102 TECHNICAL DRAFTING

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 graphical analysis of space problems. Problems of practical design elements involving points, lines, planes, and a combination of these elements shall be studied. Dimensioning practices, approved by the American Standards Association will also be included. Introduction is given to intersections and developments of various types of geometrical objects.

Prerequisite: T-DFT 101.

T-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.

Prerequisite: None.

T-CAT 106 LIFE STUDY

Graphical interpretation and response to the live model covering topics such as proportioning, the aging process, character, expression and draping the model. This course will deal with building of the figure and such ingredients as placement, balance, rhythm, turning, twisting, wedging, distribution of masses, perspective of form, planes of form, abdominal arch, hair forms and variations.

Prerequisite: T-CAT 105

T-CAT 122 COMMERCIAL ART & ADVERTISING DESIGN

Advanced material in drawing, basic design, lettering, equipment and materials. Emphasis is placed on two-and three-dimensional form, perspective, sketching, rough and finished lettering. Laboratory will consist of assigned graphical problems with critique and discussion by class participation.

Prerequisite: T-CAT 121.

T-ENG 103 REPORT WRITING

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: T-ENG 102.

T-CAT 110 INDUSTRIAL ILLUSTRATION

A comprehensive approach to the tools, equipment, materials and utilization of the illustration. Laboratory exercises and problems covering such topics as retouching photographs, product illustration, production illustrations, renderings, preparation of visual charts, graphs and composites.
Prerequisite: T-DFT 102.

T-CAT 116 PHOTOGRAPHY

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.
Prerequisite: None.

T-CAT 123 COMMERCIAL ART & ADVERTISING DESIGN

Introduction to layout and design for printing. Mechanics of layout, properties of type, and basic reproductive processes. Laboratory exercises will consist of preparation of comprehensive art form for presentation on magazine covers, trademarks, book covers, textile designs, furniture designs, two-and three-dimensional display figures. Assigned graphical problems with critique and discussion by class members.
Prerequisite: T-CAT 122, T-DFT 102

T-ENG 204 ORAL COMMUNICATION

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: T-ENG 101.

T-CAT 205 ADVERTISING COPYWRITING

A study of the techniques used in creating effective advertising copy for various types of media; purposes and duties of the copywriter and legal problems encountered in copywriting. Theory and practice will be given in writing copy for the various media including retail and fashion copy, mail order, direct mail, business publications, radio and television.
Prerequisite: T-ENG 103.

T-CAT 212 ADVERTISING ILLUSTRATION

An introduction to advertising illustration through problems in shape, space, and light analysis. Laboratory exercises will explore the use of various media.
Prerequisite: T-CAT 123

T-CAT 224 COMMERCIAL ART & ADVERTISING DESIGN

An introduction to cartooning, intermediate layout and design techniques for printing. Laboratory assigned graphical problems will cover such topics as color separation, halftones, and materials for the development of posters, show cards, banners, hand-lettered documents, brochures and folders.
Prerequisite: T-CAT 123.

T-CAT 213 ADVERTISING ILLUSTRATION

Advanced work and assigned problems in advertising illustration. The student is urged to explore a variety of mediums.
Prerequisite: T-CAT 212.

T-CAT 217 PHOTOGRAPHY

Advanced photographic techniques and materials. Participation in studio and laboratory procedures illustrating the various applications and creating possibilities of photography in advertising.
Prerequisite: T-CAT 116.

T-CAT 225 COMMERCIAL ART & ADVERTISING DESIGN

Advanced problems in layout and design techniques for printing, illustration, cartooning, animation, display design and lettering. Laboratory and graphic problems dealing with magazine and book illustrations, the fashion figure, outdoor sign writing, displays and exhibits for business and industry.
Prerequisite: T-CAT 224.

T-CAT 214 ADVERTISING ILLUSTRATION

Assigned problems in advanced illustration. Emphasis is placed on originality and the readiness of the student to explore assigned graphical tasks and problems.
Prerequisite: T-CAT 213.

T-CAT 226 COMMERCIAL ART & ADVERTISING DESIGN

A course providing similated professional working conditions utilizing advanced layout and design techniques for printing. Each student will explore a variety of problems and present his solutions for general class critique and discussion. This course will climax with the review and presentation of the student's individual portfolio of professional work.
Prerequisite: T-CAT 225.

T-CAT 235 ADVERTISING ART DIRECTION

A study of the techniques used in creating effective advertising for various types of media. The physical consideration of the advertisement such as size, position, color, frequency of insertion, layout, coupons and inquiries. Analysis of techniques to cases in national, retail, mail order, industrial and professional advertising with consideration given to budgetary practices.
Prerequisite: T-CAT 101, T-CAT 225.

(Proposed)

LAW ENFORCEMENT

This curriculum is designed for high school graduates planning law enforcement careers.

OCCUPATIONAL OPPORTUNITIES

Working as a law enforcement officer in local, state, and national government. Working as a security officer for industry or a private security agency. He may advance into supervisory positions in law enforcement.

Course	Class	Lab	Credit
First Quarter			
T-ENG 101 Grammar	3	0	3
T-MAT 101 Technical Mathematics	5	0	5
T-PSC 101 Introduction to Law Enforcement	5	0	5
T-PSY 102 General Psychology	5	0	5
	18	0	18
Second Quarter			
T-ENG 102 Composition	3	0	3
T-SOC 102 Principles of Sociology	5	0	5
T-POL 102 Government — National	5	0	5
T-PSC 220 Police Organization & Administration I	5	0	5
	18	0	18

Third Quarter			
T-ENG 103 Report Writing	3	0	3
T-POL 103 Government — State and Local	5	0	5
T-PSC 221 Police Organization & Administration II	5	0	5
T-PSC 110 Police Role in Crime & Delinquency	5	0	5
	18	0	18
Fourth Quarter			
T-ENG 204 Oral Communications	3	0	3
T-PSC 201 Traffic Planning & Management	4	2	5
T-CHM Chemistry	4	2	5
T-PSC 115 Criminal Law	5	0	5
	16	4	18
Fifth Quarter			
T-BUS 235 Business Management	3	0	3
T-PSC 205 Criminal Evidence	5	0	5
T-PSC 210 Criminal Investigation	5	0	5
..... Elective	5	0	5
	18	0	18
Sixth Quarter			
T-PSC 211 Introduction to Criminalistics	4	3	5
T-PSC 225 Criminal Procedure	5	0	5
T-PSY 103 Adolescent Psychology	5	0	5
..... Elective	3	0	3
	17	3	18

LAW ENFORCEMENT

COURSE DESCRIPTIONS

T-ENG 101 GRAMMAR

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.

T-MAT 101 TECHNICAL MATH

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 pactical problems is stressed.

T-PSC 101 INTRODUCTION TO LAW ENFORCEMENT

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

T-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.

T-ENG 102 COMPOSITION

Designed to aid the student in the improvement of self-expression in business and technical composition. Emphasis is on the sentence, paragraph and whole composition.

T-SOC 102 PRINCIPLES OF SOCIOLOGY

An introductory course in the principles of sociology. An attempt to provide an understanding of culture, collective behavior, community life, social institutions and social change. Presents the scientific study of man's behavior in relation to other men, the general laws affecting the organization of such relationships and the effects of social life on human personality and behavior.

T-POL 102 GOVERNMENT—NATIONAL

English and colonial background, the articles of confederation and the framing of the federal constitution. The nature of the federal union; state rights, federal powers, political parties. The general organization and functioning of the national government.

T-PSC 220 POLICE ORGANIZATION AND ADMINISTRATION I

Introduction to principles of organization and administration, discussion of the service functions; e. g., personnel management, police management, training, communications, records, property maintenance and miscellaneous services.

T-ENG 103 REPORT WRITING

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.

T-POL 103 GOVERNMENT—STATE AND LOCAL

A study of state and local government, state-federal interrelationships, the functions and prerogatives of the branches. Problems of administration legal procedures, law enforcement, police power, taxation, revenues and appropriations. Special attention will be given to North Carolina.

T-PSC 221 POLICE ORGANIZATION AND ADMINISTRATION II

Continuation of the study of principles of organization and administration as applied to field operations; e. g., juvenile procedures; methods, techniques and fundamentals of patrolling; crime investigation; vice control; traffic supervision; and public relations.

T-PSC 110 POLICE ROLE IN CRIME AND DELINQUENCY

A study of the causes and theories of crime, social processes in the development of the criminal, the evaluation of penology and the police methods of today, functions and administration of prison systems, courts, and the police, parole and probation concepts and systems, modern trends in the rehabilitation of the criminal, and crime prevention problems.

T-ENG 204 ORAL COMMUNICATIONS

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 or theory to correct speaking habits and to produce effective oral presentation. Particular attention is given to conducting meetings, conferences, and interviews.

T-PSC 201 TRAFFIC PLANNING AND MANAGEMENT

A study of traffic law enforcement regulation and control; fundamentals of traffic accident investigation; and motor vehicle laws of North Carolina.

T-CHM 101 CHEMISTRY

Study of the physical and chemical properties of substances, chemical changes; elements, compounds, gases, chemical conoinations; 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.

T-PSC 115 CRIMINAL LAW

Designed to present a basic concept of criminal law and create an appreciation of the rules under which one lives in our system of government.

T-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.

T-PSC 205 CRIMINAL EVIDENCE

Instruction covers the kinds and degrees of evidence and the rules governing the admissibility of evidence in court.

T-PSC 210 CRIMINAL INVESTIGATION

This course introduced the student to fundamentals of investigation; crime scene search; recording, collection and preservation of evidence; sources of information; interview and interrogation; case preparation and court presentation; and the investigation of specific offenses such as arson, narcotics, sex, larceny, burglary, robbery and homicide.

T-PSC 211 INTRODUCTION TO CRIMINALISTICS

Continuation of the study of criminal investigation including a general survey of the methods and techniques used in modern scientific investigation of crime, with emphasis upon the practical use of these methods by the students. Laboratory techniques will be demonstrated and the student will participate in actual use of the scientific equipment.

T-PSC 225 CRIMINAL PROCEDURE

This course is designed to provide the student with a review of court systems; procedures from incident to final disposition; principles of constitutional, federal, state and civil laws as they apply to and affect law enforcement.

T-PSY 103 ADOLESCENT PSYCHOLOGY

A study of the nature and source of the problems of adolescents in western culture; physical, emotional, social, intellectual and personality development of adolescents.

ELECTIVE

Learning Lab



LEARNING LABORATORY

Southwestern Technical Institute Learning Lab

A Brief Summary Of What It Is

The Learning Laboratory program at Southwestern Technical Institute is designed to provide study opportunities in practically any field that might be of interest to residents of the Jackson, Macon, or Swain County area. Programmed study courses to meet the needs of the non-reader as well as the college graduate are available in the laboratory.

Persons interested in participating in the Learning Laboratory, after an initial interview, are provided study materials starting at a point in keeping with their achievement level and are able to progress from there. Students may elect study times adjusted to their own convenience and schedules in that the Laboratory will be in operation on a schedule adjusted to the needs of participants.

The Fundamentals Learning Laboratory system was designed by Dr. Edward T. Brown of the North Carolina Department of Curriculum Studies and Research. Labs are operated throughout the State under the North Carolina Department of Community Colleges in cooperation with the Community Colleges, Technical Institutes, and Industrial Education Centers. At the present time, there are thirty-two Learning Laboratories in operation over the State.

A "Learning Laboratory" is essentially an individual study situation, in which any person eighteen years of age or older may undertake most any level of reading, English, math, social studies, or science that he desires. All of the material used in the lab is programmed; therefore, there is no need for a classroom teacher. In fact, Dr. Brown has attempted to remove all resemblances of a classroom from the Learning Lab.

Programmed material is designed in such a manner as to aid the student in learning information in small sequences called "Frames." Each frame requires an immediate response, and each response is immediately checked. If the student fails to learn, or learns incorrectly, the program makes the correction or re-teaches. In this manner the student progresses at his own rate; he neither has to wait for others to catch up nor slow down to someone else's rate.

The coordinator, the person in charge of the learning lab, has the responsibility of locating the level at which a student can proceed to learn by himself, of formulating the sequence of programs the students will undertake to achieve his desired goal, and of administering the tests that will assure the student that he is approaching his goal.

Because there are no classes in the learning lab, there is no need for anyone to wait until the new quarter to enroll. Each student sets his own work sessions and attends the lab as many days each week and as many hours each day as he thinks he can attend regularly. There are no fees, and any adult can take as many courses as fit his needs.

The majority of students presently enrolled in learning labs are seeking to prepare themselves for the high school equivalency examination or to gain educational improvement of their own choosing. Some, however, are enrolled to upgrade themselves for a possible job promotion; while others are using the program for reinforcement in a technical curriculum or in their college work.

The stated purposes for the existence of the learning laboratories suggest that every effort should be made to meet the needs of those who are interested in participating in the program.

Admission Requirements For Learning Laboratory

Any adult who has a desire to raise his or her educational level and who is able to benefit from study in the Learning Laboratory may enroll.

Expenses

There is no charge for study in the Learning Laboratory.

RELATED COURSES

COURSE DESCRIPTIONS

T-ENG 101 GRAMMAR

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. Prerequsite: None.

T-ENG 102 COMPOSITION

Designed to aid the student in the improvement of self-expression in business and technical composition. Emphasis is on the sentence, paragraph and whole composition. Prerequisite: T-ENG 101.

T-ENG 103 REPORT WRITING

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: T-ENG 102.

T-ENG 204 ORAL COMMUNICATION

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: T-ENG 101.

T-ENG 206 BUSINESS COMMUNICATION

Developing 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: T-ENG 102.

T-ECO 102 ECONOMICS

The fundamental principles of economics including the institutions and practices by which people gain a livelihood. Included in 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.

T-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: T-ECO 102.

T-SSC 201 SOCIAL SCIENCE

An integrated course in the social sciences, drawing from the fields of anthropology, psychology, history, and sociology. Prerequisite: None.

T-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: T-SSC 201.

T-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. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to his adjustment problems as a worker and a member of the general community. Prerequisite: None.

T-BUS 110 OFFICE MACHINES

A general survey of the business and office machines. Students will receive training in techniques, processes, operation and application of the ten-key adding machines, full keyboard adding machines, and calculator. Prerequisite: None.

T-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. Prerequisite: None.

T-BUS 116 BUSINESS LAW

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

T-EDP 104 INTRODUCTION TO DATA PROCESSING SYSTEMS

Fundamental concepts and operational principles of data processing systems, as an aid in developing a basic knowledge of computers, prerequisite to the detail study of particular computer problems. This course is a prequisite for all programming courses. Prerequisite: None.

T-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 merchantile enterprises, to include practical application of the principles learned. Prerequisite: T-MAT 110.

T-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: T-BUS 120.

T-BUS 222 ACCOUNTING

Thorough working knowledge of concepts used in preparation and interpretation of financial statements. Each item of the income statement and balance sheet is carefully analyzed. Prerequisites: T-BUS 120, T-BUS 121.

T-BUS 223 ACCOUNTING

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

T-BUS 225 COST ACCOUNTING

Nature and purposes of cost accounting; accounting for direct labor, materials, and factory burden; job cost and standard cost principles and procedures; selling and distribution cost; budgets, and executive use of cost figures. Prerequisite: T-BUS 121.

DFT 1121 BLUEPRINT READING

Interpretation and reading of blueprints used by industry. A course designed to develop the 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. Prerequisite: None.

DFT 1122 BLUEPRINT READING

Interpretation and reading of blueprints used by industry. Information on basic principles of the blueprint; lines, views, dimensioning procedures and notes. Prerequisite: None.

DFT 1123 BLUEPRINT READING

Further practice in interpretation of blueprints as they are used in industry; study of prints supplied by industry; making plans of operations; passing on ideas, information, and processes. Prerequisite: DFT 1122.

DFT 1307 GENERAL DRAFTING

An introductory course in drafting for students needing a knowledge of drawing principles and practices for reading describing objects in the graphic language. The student is expected to gain basic skills in drawing with instruments, lettering, geometrical constructions, freehand sketching, and describing objects orthographically with principal views. Freehand sketching and orthographic reading are to be emphasized.

ELC 1122 DIRECT AND ALTERNATING CURRENT

A study of the electrical structure of matter and the electron theory, the relationship between voltage, current and resistance in series, parallel and series-parallel circuits. Time will be devoted to the analysis of direct current circuits by Ohm's law and Kirchoff's law; time will be allotted for the study of sources of direct potentials. Fundamental concepts of alternating current flow; a study of reactance, impedance, phase angle, power and resonance. Time will be allotted for alternating current circuit analysis.

ENG 1101 READING IMPROVEMENT

A concentrated effort to improve the student's ability to comprehend what he reads by training him to read more rapidly and accurately. The tachistoscope is 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. Reading faults of the individual are analyzed for improvement, and principles of vocabulary building are stressed.

ENG 1102 COMMUNICATION SKILLS

Development of the trainee'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.

ENG 1103 REPORT WRITING

Brief review of English grammar, spelling, and punctuation. Concentrated effort will be applied to the fundamentals of good writings; sentence structure, proper development of descriptive reporting, and the mechanics of report construction. Practice in writing letters and various report forms will be given and some time will be devoted to oral speech and note taking.

MAT 1000 ESTIMATING

This course is designed to give the student a basic understanding of estimating building materials from a blueprint, with emphasis on his major field.

MAT 1120 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.

MAT 1121 MATHEMATICS

Review of fundamental number concepts, operations, and systems of measurement. Mathematical situations dealing with common and decimal fractions, powers and roots, ratio and proportions, and percentages. A study of algebraic and geometric principles and concepts needed in understanding calculations, formulas, solution of equations, and selected plane and solid geometric forms. Prerequisite: None.

MAT 1122 MATHEMATICS

Foundation for a better understanding of applied mathematics. This course is a review of simple mathematical situations dealing with fractions, decimals, conversion of one to the other, short methods and checks, percentages and applications, ratio and proportion, and powers and roots. It will also present an introduction to axiomatic solution of equations and includes special products and factoring, algebraic fractions and their applications to equations. Prerequisite: None.

MAT 1123 MATHEMATICS

Fundamental geometric concepts and construction of plane and solid figures, surface and volume measurements, and related problems; introduction to trigonometry of the right triangle. Introduces gear ratio, lead screw and indexing problems with emphasis on application to the machine shop. Practical applications and problems will furnish the trainee with experience over the wide range of geometric propositions and trigonometric relations in shop problems, concluded by an introduction to compound angle problems. Prerequisite: MAT 1122.

MAT 1124 ALGEBRA

Basic concepts and operations of algebra: historical background of our base-10 number system; algebraic operations: addition, subtraction, multiplication and division; fractions, letter representation, grouping, factoring, ratio and proportions, variation; graphical and algebraic solution of first degree equations; solutions of simultaneous equations by: addition and subtraction, substitution, graphing; exponents, logarithms, tables and interpolation.

MAT 1125 ELECTRICAL MATHEMATICS

To acquaint the student with the fundamental concepts of algebra; basic operations of addition, subtraction, multiplication and division are covered; time is spent in the solution of first order equations, use of letters and signs, grouping, factoring, exponents, ratios, proportions. Solution of equations, both algebraically and graphically; a study of logarithms and use of tables. An introduction to trigonometric functions and their application to right triangles; a study of vectors for use in alternating current.

MAT 1126 TRIGONOMETRY

Trigonometric ratios; solving problems with right triangles, using tables, and interpolating; solution of oblique triangles using laws of sines and law of cosines; graphs of the trigonometric functions; inverse functions, trigonometric equations. All topics are applied to practical problems.

MAT 1200 ADVANCED ESTIMATING AND LAYOUT

This course is designed to give detailed methods of estimating and use of the builders level and transit in layout work. Prerequisite: MAT 1000.

WLD 1112 WELDING

Demonstration by the instructor and practice by student in the welding shop. Safe and correct methods of assembly and operating the welding outfit will be emphasized. Practice will be given for surface welding, bronze welding, silver brazing, and flame cutting methods applicable to mechanical repair work. Prerequisite: None.

WLD 1114 SHOP PROCESSES

Comparison of the unit-production and mass-production systems. Casting, forging and allied processes, welding and sheet metal working processes are demonstrated and discussed. Mass-production methods are studied in relationship to precision dimensional control. Prerequisite: WLD 1112.

PHY 1104 APPLIED PHYSICS I

Introductory course in physics and its applications. Covers systems of measurement, theory of matter, properties of solids, liquids, and gases. Prerequisite: None.

PHY 1105 APPLIED PHYSICS II

Basic principles of electricity, types of electricity, and its production, transmission, and transformation. Such factors as the electron theory, electrical measurement, magnetism, electromagnetism, and the magnetic effects of electricity constitute major areas of study. Prerequisite: PHY 1104.

PHY 1106 APPLIED PHYSICS III

Physical principles of force, energy, work and power; equilibrium and the laws of motion; principles of machines, mechanical advantage, and transmission of power in practical applications and the use of vectors and graphical presentations.

SOC 1101 HUMAN RELATIONS

The purpose of the course is to help the student acquire greater understanding of his relations to other persons through learning and applying some of the basic principles of human psychology. The problems of the individual and his work situation are studied in relations to the established organization of modern business and industry and in relation to government practices and labor organization, with special emphasis on the operating responsibilities of good management.

SOC 1103 MANAGEMENT PROCEDURES

Management procedures are developed to familiarize the prospective business man with the many important functions that must be carried on in the operation of a small business or enterprise. 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 are some of the subjects studied.



Adult Education

ADULT EDUCATION

General Information

REGISTRATION

Students may register at the Admissions Office at Southwestern Technical Institute, Webster Road, Sylva, North Carolina.

ELIGIBILITY

Persons 18 years old or over will be eligible to take these courses. Prerequisite courses will be indicated in the course descriptions.

COSTS

A nominal tuition fee may be charged to defray the expense of registration and enrollment, and also for supplies.

Students will be expected to purchase the necessary textbooks.

All fees for books, tuition, and supplies are due and payable at the beginning of the course.

Classes may meet between the hours of 8:30 A.M. and 10:00 P.M. on weekdays and evenings, once or twice weekly. Class periods will customarily be two or three hours in length. A schedule showing meeting nights and hours will be available as soon as possible after registration.

WHEN COURSES WILL BEGIN

Following registration, classes will begin as soon as an instructor is secured. 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 begin.

Types of Programs

Students may choose one of three types of programs in scheduling courses.

1. Full-time Preparatory: This is program organized for adults and out-of-school youth who desire to pursue a technical or trade preparatory course on a full-time basis. Classes, laboratories, and shop periods are scheduled for a minimum of six hours a day.

2. Part-time Preparatory: Adults and out-of-school youth may enroll for a trade preparatory or technical course on a part-time basis with classes scheduled at night. This program requires a minimum of three hours daily or five days a week in classroom, shop, and laboratory.

3. Adult Evening Extension, Upgrading, and Updating: This program is organized for apprentices, trainees, tradesmen, mechanics, industrial workers, agricultrual workers, farmers, sales and marketing personnel, pesticide handlers, and manufacturers and distributors of agricultural products. Classes are offered at night in such courses as Blueprint Reading, Practical Mathematics, Drafting, Welding, Electricity, Automatic Transmissions, National Electric Code, National Plumbing Code, Pesticides, Fertilizers, Gas and Diesel Engines, Farm Management, Farm Records and Accounts, Swine Production, Farm Credit, Salesman Techniques, Practical Nursing, Business Law, Feed Mill Operation, and Grain Handling. Courses usually last from 18 to 144 clock hours and meet at least two evenings weekly.

Other Classes

1. Supervisory Development Training: Classes in such subjects as Quality Control, Reading Improvement, Job Instruction, Job Methods, and Job Relations are provided for management, mid-management, supervisors, foremen, and foreladies in trades or industry.

2. Fire Service Training: Fire fighting techniques, pump operations, and fire control methods are taught by certified instructors in this organized instruction in fire service training, especially designed for volunteer fire departments.

4. New and Expanding Industry Class: This program is designed to assist in training workers to staff new or expanding industry.

5. Adult Basic Education.

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 has been developed to train persons interested in becoming supervisors and to provide instruction for supervisors at various levels of management as preparation for advancement.

Programs Available to Supervisors

I. Individual Course Program
II. Block of Course Program
III. Supervisory Development Training Diploma Program.

Requirements for Certificates and Diplomas

Certificates and diplomas for supervisory training are awarded on the basis of the following: (1) official enrollment, (2) class participation in discussions and projects, and (3) regular attendance. Certificates and diplomas cannot be awarded to those whose attendance is less than eighty per cent of the clock hours assigned to each course.

SDT Courses Currently Available:

Course No.		Course Title	Hours
SDT-1:		Principles of Supervision	44-48
	Part I	Fundamentals of Supervision	6-8
	Part II	Relationships on the Job	8-10
	Part III	Communications	6-8
	Part IV	How to Train Workers	6-8
	Part V	Performance and Job Evaluation	6-8
	Part VI	Job Management	6
	Part VII	Work Improvement	6
SDT-2:		Human Relations I	10
SDT-3:		Human Relations II	22
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:		Reading Improvement	15
SDT-10:		Work Measurement	22
SDT-11:		Job Methods	10
SDT-12:		Conference Leadership	10
SDT-13:		Instruction Training	10

SDT-14:	Creative Thinking	22
SDT-15:	Industrial Safety and Accident Prevention	22
SDT-16:	Industrial First Aid	10
SDT-17:	The Supervisor in North Carolina	10
SDT-18:	The Supervisory and Employee Benefits	10
SDT-19:	Job Analysis Training	12
SDT-20:	Cost Accounting for Supervisors	12
SDT-21:	Supervision in Hospitals	30-40

Fire Service Training

The units of study are designed to increase the firefighter's technical knowledge and improve his skills in fire-ground operations.

The course outlines (units) are not listed in sequential order and may be presented according to the needs of the individual fire departments. It is suggested, however, that "Firefighting Procedures" conclude any long-range program in which all of the units are studied.

The following titles are the broad classification of material to be presented. For a more detailed explanation, contact Southwestern Technical Institute.

TIE C/O 6-1 Forcible Entry
TIE C/O 6-2 Rope Practices
TIE C/O 6-3 Portable Fire Extinguishers
TIE C/O 6-4 Ladder Practices
TIE C/O 6-5 Hose Practices
TIE C/O 6-7 Salvage and Overhaul Practices
TIE C/O 6-8 Fire Apparatus Practices
TIE C/O 6-9 Ventilation
TIE C/O 6-10 Rescue Practices
TIE C/O 6-11 Protective Breathing Equipment
TIE C/O 6-12 Firefighting Procedures

Basic Peace Officers Training

The following program is available for the training of peace officers in the area. The curriculum guide has been prepared by Mr. James C. Harper, a research assistant for the Institute of Government at Chapel Hill.

The following is a partial list of the courses available in this area:

I. Courts — Law
II. Elements of Offenses
III. Law of Arrest
IV. Evidence
V. Search and Seizure
VI. Motor Vehicle Law
VII. Court Structure and Procedure
VIII. Liquor Law
IX. Techniques and Procedures of Arrest
X. Law Enforcement Procedures
XI. General Criminal Investigation
XII. Human Relations
XIII. Special Courses

Any interested persons should contact the Institute for more specific information.

Adult Education

This program is designed to give opportunities to adults to take courses in basic education such as reading, writing, and arithmetic. Those interested may also take courses on the high school level such as these:

General Mathematics

Economics

American Government

History

English

Natural Science

Community Services

Through the Division of Cultural Development and Community Services, adults may enroll in vocational programs such as the following:

Art

Art Appreciation

Music Appreciation

Dress Designing

Ceramics

Flower Arranging

Arts and Crafts

For further information concerning the Adults Evening Program and Adult Basic Education, contact

Southwestern Technical Institute
Webster Road
Post Office Box 95
Sylva, North Carolina 28779
Telephone 586-4091

High School Equivalency Program

An effort will be made to offer high school subjects for adults who failed to graduate from high school. In order that credit be given toward graduation, however, it will be necessary that a plan be worked out with the State Department of Public Instruction. Those who fit this circumstance should request by visit, letter, or telephone an appointment for taking placement tests which will determine if the applicant needs further study before applying for the General Educational Development Test. If additional study is indicated, one of more of the following courses will be available on a night schedule for approximately six hours each week:

1. Correctness and Effectiveness of Expression (English).
2. Literature (American and English).
3. Social Studies (history, civics, economics, government, etc.).
4. Mathematics (arithmetic, algebra, geometry, general math, etc.).
5. Natural Science (general science, biology, chemistry, physics, etc.).

Perhaps a more advantageous plan for others desiring certification of having completed a high school course of study is the High School Equivalency Program. Under this plan, individuals may take a series of tests called the General Education Development Tests (GEDT). Those receiving an acceptable passing score of 225 points with no single test score below 35 will be awarded a High School Equivalency Certificate. This certificate is generally accepted on a basis equal to a high school diploma for employment, promotion, or further education.

The GEDT tests cover five broad areas: English Expression, Literature, Mathematics, Social Studies, and Natural Science. They are administered at designated testing centers, the nearest of which is Western Carolina University in Cullowhee.

The following requirements must be met before taking the tests:

1. Minimum age: 18.
2. Residence: At least one year's bona fide residence in North Carolina.
3. File application on a special form, which is available in the office of the Superintendent of Schools.
4. Application must be endorsed and approved by the Superintendent of Schools.
5. Cost: A fee of $10 for the testing.
6. Have a valid vocational, educational, or other purpose in applying.

Retests may be taken on any or all tests not sooner than six months following the original testing date, or at the end of an intensive training course. Only one retest will be allowed within a twelve-month period.

Suggestions for preparing for the examination are the following:

Enroll in one of the adult classes which are available in the Adult Education Program.

New Industry Training

The training needs of a new or expanding industry are considered as priority items in the services offered by this institution.

Training needs are met by providing skilled instruction (usually by the plants own supervisors) to the prospective employees within the plant facility. This service is provided at no cost to the industry.