SOUTHWESTERN TECHNICAL INSTITUTE

SYLVA, NORTH CAROLINA

CATALOG

1969 – 1970

AN INSTITUTION

OF

THE NORTH CAROLINA DEPARTMENT OF COMMUNITY COLLEGES

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SCHOOL CALENDAR

1969–1970

FALL QUARTER

55 Days

Registration ..... Wednesday, September 10
Classes Begin ..... Thursday, September 11
Fall Quarter Ends ..... Wednesday, November 26
Thanksgiving Holidays ..... Thursday, November 27
Friday, November 28

WINTER QUARTER

55 Days

Registration ..... Wednesday, November 26
Classes Begin ..... Monday, December 1
Last Day Before Christmas Holidays ..... Friday, December 19
Classes Resume ..... Monday, January 5
Winter Quarter Ends ..... Friday, February 27

SPRING QUARTER

55 Days

Registration ..... Friday, February 27
Classes Begin ..... Monday, March 9
Last Day Before Easter Holidays ..... Thursday, March 26
Classes Resume ..... Tuesday, March 31
Spring Quarter Ends ..... Tuesday, May 26

SUMMER QUARTER

55 Days

Registration ..... Tuesday, May 26
Classes Begin ..... Monday, June 8
Summer Quarter Ends ..... Friday, August 21
GRADUATION ..... Saturday, August 22

FOREWORD

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

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

Southwestern Technical Institute offers a variety of educational programs and training opportunities. These are available on campus and in the various communities within the service area. These programs are offered both during the day and in the evening. Each program is designed to meet specific needs of the young and old adults of Southwestern 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 its programs. Announcements contained herein are subject to change without notice and may not be regarded in the nature of binding obligations on the Institute or the State. Efforts will be made to keep changes to a minimum, but changes in policy by the State Board of Education, The Department of Community Colleges, or by local conditions may make some alterations in curriculums, fees, etc., necessary.

VISITORS

Visitors, and especially 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 ..... Governor
Edwin Gill ..... State Treasurer
Dr. A. Craig Phillips .... 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 Wikle ..... Bryson City

CURRICULUM ADVISORY COMMITTEES

Automotive Mechanics

Sammy Cogdill
John Cope
J. D. Reece
Reid Womack

Business

James Childress
Bruce MacMurray
Dr. Eugene Vosecky
Frances Winstead

Cosmetology

Cathie Hooper
Barbara Lewis
Freda Queen
Eunice Skidmore
Ruth Whitaker
Pete Wilson

Commercial Art and Advertising Design

Carmen Allison
James A. Gray
Dorothy Parris
Jim Smith
Charles Taylor

Drafting and Design — Mechanical

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

Industrial Electronics

J. Y. Burnette
J. E. Corbin
M. L. Hook
Dr. Rodney Leftwich
Howard A. Warren

Law Enforcement

Marcellus Buchanan
A. C. Evans
Thomas Gibbs
T. N. Massie
Lacy Thornburg

Masonry

W. B. Dillard
Dan Hooper

Practical Nurse Education

Rev. Robert Clegg
Dr. P. E. Dewees
Helen A. Hooper
Mrs. T. A. Fuller
Mrs. Charles Middleton
Don C. Morgan
Dr. Creighton Sossomon
Mrs. Robert Thutt

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

Corbin, Grady ..... Extension Director
B.S. Western Carolina University

Walton, Julie Hasselkus ..... Adult Education Director
B.A., Middlebury College; M.A., Vanderbilt 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

Payne, Wanda ..... 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; Graduate Work, Western Carolina University

Burrell, Janice Benfield ..... Learning Laboratory Coordinator
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; Post Graduate Work, University of Georgia

Davis, Mildred ..... Cosmetology
Pack Square Beauty College; Style League of America

Guillet, William M. ..... Art
Fordham University; Work Shop School of Advertising and Editorial Art; Parson's School of Design; Corcoran School of Art; Abbott School of Art; Columbia Tech; Cranbrook Academy of Art; National Art School

Hart, Phyllis ..... Business
B.S., Western Carolina University; EastTennessee State University; East Carolina College; Graduate Work, Western Carolina University

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; Graduate Work, W. C. U.

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

Woodson, John Rex ..... Industrial Electronics
Philco Service Training Schools; Western Carolina University; holds First Class Radio-Telephone Operator's license

PART-TIME FACULTY

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

Brown, Victoria J. ..... Business
A.A., Brevard Junior College; A.B., University of North Carolina, Chapel Hill; Western Carolina University

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

Clark, Rebecca ..... Business
B.S., Western Carolina University

Driver, Kenneth W. ..... Related Math
B.S., North Carolina State University, Raleigh

Estes, Judith S. ..... Learning Laboratory, Bryson City
Western Carolina University

Fouts, Merritt ..... Accounting
M.A., Western Carolina University

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

Houston, Fred ..... Masonry
Southwestern Technical Institute

Jones, Thomas W. ..... Business
A.B., Mars Hill College; J.D., Wake Forest University

McGee, C. Lewis ..... Related Physics
B.S., North Carolina State University, Raleigh; Appalachian State University; Western Carolina University

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

Reynolds, Frankie D. ..... Learning Laboratory, Franklin
Western Carolina University

Simmons, Shirley W. E. ..... Art
Centenary College; Art School of the John Herron Art University; John McCrady Art Institute

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

ADULT BASIC EDUCATION

Bennett, Mrs. Stanley ..... Adult Basic Education
Montreat College

Disbrow, Esther ..... Reading, Math
South-Western Normal School, San Marcos, Texas

Dryman, Merle ..... English
M.A., Western Carolina University

Earls, Grace ..... English, Math, Social Studies
B.S., Western Carolina University

Garrett, Docia ..... Reading
Meredith College

May, Rebekah ..... Adult Basic Education

Moss, Gertie ..... English
M.A., Western Carolina University

Slagle, Alice ..... English
B.S., Western Carolina University

Williams, Jack ..... A.B.E. Refresher Courses
B.A., Lenoir Rhyne College

EXTENSION

Bennett, P. R. ..... Firemanship
Bikslear, Nellie ..... Decoupage
Bumgarner, Mrs. Ed ..... Menu-Planning
Cabe, Mrs. Jack ..... Drawn Work
Childers, Russell ..... Sanitation Aid
Clayton, Mrs. Tom ..... Knitting
Cope, Kenneth ..... Firemanship
DeBord, Orene ..... Ceramics
Deweese, Robert K. ..... Supervisory Development Training
Gibson, Mary Jo ..... Knitting—Clothing Construction
Hooper, Ralph ..... Basic Art
Jarvis, Gene ..... Law Enforcement
Maddox, Carter ..... Costume Jewelry
Morgan, H. B. ..... Fly Tying
Ordway, Lorraine ..... Clothing Construction
Proffitt, Wayne ..... Parliamentary Procedure
Pruett, David G. ..... Adult Driver Education
Ramsey, Frank ..... Adult Driver Education
Sanford, Nell ..... Ceramics
Schockey, Pamela ..... Clothing Construction
Shelton, Carl Rogers ..... Small Engine Repair
Shores, Eddie ..... Agriculture
Smith, Carl, Jr. ..... Defense Tactics
Sossamon, Boyd ..... Firemanship

AREA COORDINATORS

Cope, Barton ..... Fire Service
Davis, Claude ..... Law Enforcement

Philosophy

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

"The only valid philosophy for North Carolina is the philosophy of total education; a belief in the incomparable worth of all human beings, whose claims upon the State are equal before the law and equal before the bar of public opinion; whose talents (however great or however limited or however different from the traditional), the state needs and must develop to the fullest possible degree.

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

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

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

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

The 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

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

range, 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."[2]

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[2]Loc. cit.

Objectives

The objectives may be stated as follows:

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

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 profit from the program otherwise.

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 to his employer. The Institute will provide instruction in numerous special fields to meet 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.

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 at least 18 years of age (or be a high school graduate) and must possess certain basic aptitudes and interests. No applicant may enroll in more than one curriculum.

The applicant should be in reasonably good health and have acceptable capabilities in his chosen field of work. The applicant may under certain conditions be required to furnish evidence of satisfactory health.

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 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 conference conducted with a member of the Student Personnel staff.

Admission With Advanced Standing

Southwestern Technical Institute will accept work and give credit for work completed in other technical institutes, community colleges, 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 Admissions Committee.

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 serve the student effectively.

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

Testing

As mentioned under admission procedures, 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 conferences 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.

Reference materials will be available to students during their training.

Placement Service

The Institute provides placement service through the Employment Security Commission and other employment sources. The objective of this service is to guide and assist the student and graduate in obtaining the type of employment 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.

Orientation

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

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 requests for applications regarding SCHOLARSHIPS 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 Foundation, Inc.

Southwestern Technical Institute is approved 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.

North Carolina State Board Of Education

A limited amount of money is available through the North Carolina State Board of Education and may be loaned to eligible students. Recipients of student loans may be granted financial assistance of not more than $300 per academic year. The number of loans will be determined by the demand and the availability of funds.

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.

Fees

TUITION:

Full Time Students — per quarter	$32.00
Part Time Students — per quarter hour	$ 2.50
INSURANCE — per year	$ 2.25
ACTIVITY— per year — full-time students	$ 3.00
*GRADUATION	$10.00
PNE UNIFORMS (PNE Students only) ..... approximately	$30.00

*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 quarterly price of all textbooks between $15 and $30.

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

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 officially 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, unless a course or curriculum fails to materialize.

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

Curricula Degrees, Diplomas and Certificates

Degree Program Defined

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

Diploma Program Defined

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

Certificate Program Defined

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

Grading System

Grades will be issued 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 Technologies or the School of Vocations 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." A failing grade for one report period will automatically place the student upon probationary standing for the following report period.

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 quarter hour
B—3 quality points per quarter hour
C—2 quality points per quarter hour
D—1 quality point per quarter hour

Grades of F (below 70), WP (withdrawal passing), WF (withdrawal failing), and I (incomplete) carry no quality point.

Quality point 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 below C.

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.

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.

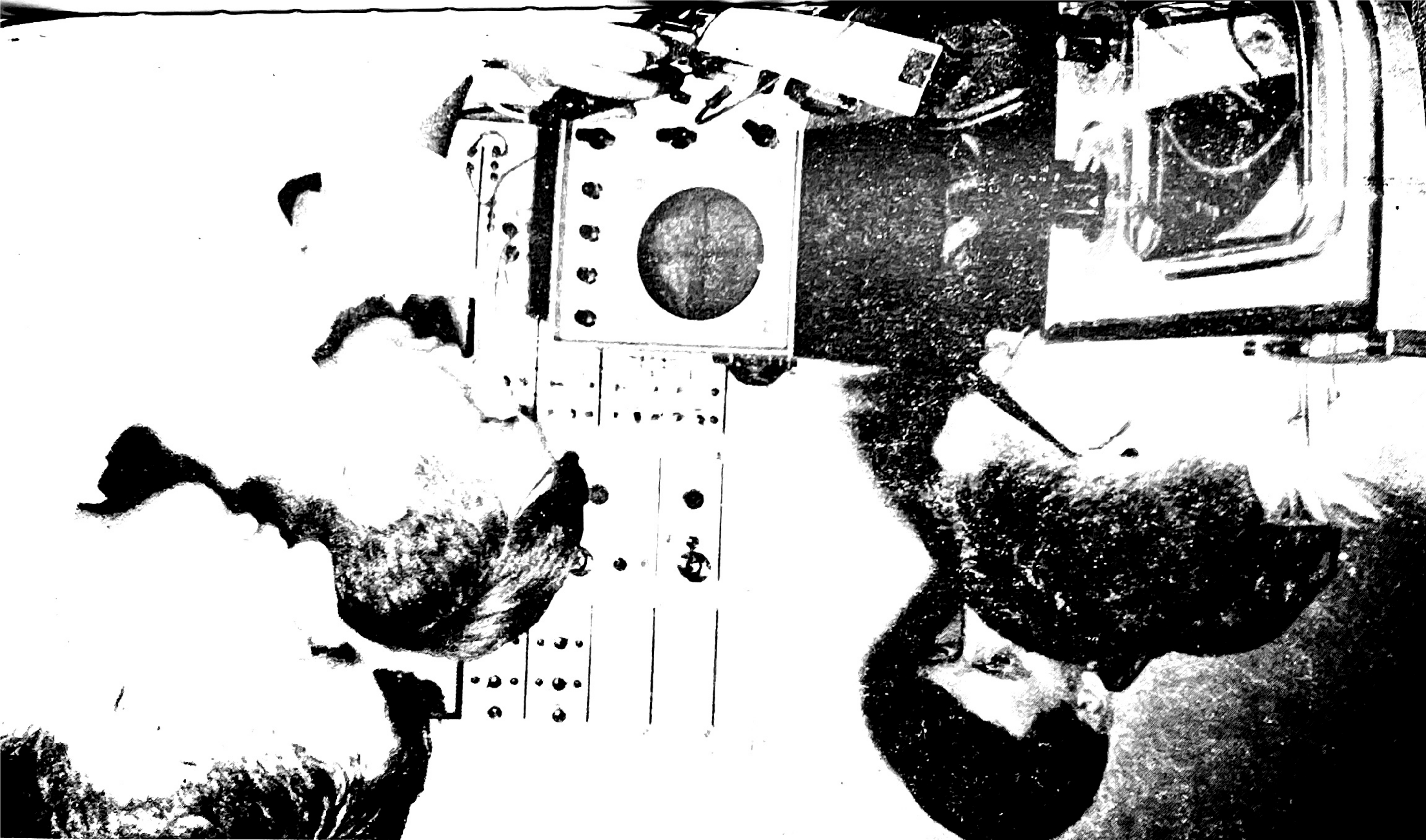
Students may be promptly dismissed for conduct which is considered incompatible with standards of propriety and good judgment.

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.

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.



School of Vocations

SCHOOL OF VOCATIONS

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

Automotive Mechanics

Child Care Worker

Cosmetology

General Masonry

Practical Nurse Education

Surveying

PROPOSED CURRICULUMS

Auto Body Repair

Heavy Equipment Mechanics

Heavy Equipment Operator

Industrial Sewing Machine Mechanics

The School of Vocations 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. Most of these curricula require one full year for completion. If a student elects to enroll in the School of Vocations through extension because of his work load, the time required for completion will be doubled. The evening schedule may require up to sixteen 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 Vocations 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 Vocations will require each student to demonstrate 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. 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 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.



AUTOMOTIVE MECHANICS

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

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

Course		Class	Lab	Credit
First Quarter				
PME 1101	Internal Combustion Engines	3	12	7
MAT 1101	Fundamentals of Mathematics	5	0	5
ENG 1101	Reading Improvement	2	0	2
PHY 1101	Applied Science	3	2	4
		13	14	18
Second quarter				
PME 1102	Engine Electrical & Fuel Systems	5	12	9
PHY 1102	Applied Science	3	2	4
ENG 1102	Communication Skills	3	0	3
DFT 1101	Schematics & Diagrams: Power Mechanics	0	3	1
		11	17	17
Third Quarter				
AUT 1123	Automotive Chassis & Suspension Systems	3	9	6
AUT 1101	Small Engine Repair	0	3	1
PSY 1101	Human Relations	3	0	3
WLD 1101	Basic Gas Welding	0	3	1
PHY 1103	Applied Science	3	2	4
		9	17	15
Fourth Quarter				
AUT 1124	Automotive Power Train Systems	3	9	6
BUS 1103	Small Business Operations	3	0	3
AUT 1125	Automotive Servicing	3	9	6
		9	18	15
TOTAL QUARTER HOURS:				65



CHILD CARE WORKER

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

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

		Class	Lab	Credit
First Quarter				
EDU 1001	The Nature and Scope of Day Care for Young Children	5	0	5
EDU 1002	Health & Safety of Young Children	5	0	5
EDU 1003	Creative Activities for Young Children	5	3*	6
EDU 1004	Field Experience in Child Care Facilities	-	6*	2
		15	9	18
Second Quarter				
EDU 1005	Working with the Young Child	3	9*	6
EDU 1006	Communicating Effectively with the Young Child	3	0	3
EDU 1007	Music in the Early Childhood Program	2	3*	3
EDU 1008	Science in the Early Childhood Program	2	3*	3
EDU 1009	Art in the Early Childhood Program	2	3*	3
		12	18	18
Third Quarter				
EDU 1010	Working with the Young Child with Problems	3	9*	6
EDU 1011	Conceptual and Language Development	3	0	3
EDU 1012	Literature in the Early Childhood Program	3	0	3
EDU 1013	Parent Education**	3	0	3
EDU 1014	Administration & Supervision in A Preschool Facility**	3	0	3
EDU 1015	Group Care of Infants**	3	0	3
		15	9	18
TOTAL QUARTER HOURS				54

*"Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

**Student to select any two.

COSMETOLOGY



This curriculum is approved by the North Carolina State Board of Cosmetic Art Examiners.

The student must complete a minimum of 1200 contact hours of instruction. After successfully completing this requirement, a student must apply to the State Board of Cosmetic Art Examiners for examination. Successful candidates will receive their North Carolina license in Cosmetology. The licensed Cosmetologist is in great demand throughout the United States. Many newly licensed Cosmetologists join the staffs of beauty salons while others open their own shops or form partnerships.

		Class	Lab	Contact Hours	Credit
First Quarter					
COS 1101	Introduction to Cosmetology	5	1	66	5
COS 1102	Bacteriology, Sanitation & First Aid	5	2	77	6
COS 1112	Personality	2	0	22	2
COS 1103	Shampoo and Rinse	0	2	22	1
COS 1105	Finger Waving & Pin Curling	1	9	110	6
COS 1107	Manicuring	1	2	33	2
		14	16	330	22
Second Quarter					
COS 1106	Hair Shaping	1	9	110	5
COS 1111	Hair Styling & Wig Care	2	9	121	7
COS 1115	Tinting and Bleaching	1	8	99	5
		4	26	330	17
Third Quarter					
COS 1110	Permanent Waving (Cold & Heat)	2	15	187	10
COS 1118	Anatomy	3	2	55	4
COS 1120	Facials	1	5	66	3
		6	22	308	17
Fourth Quarter					
COS 1119	Anatomy	2	4	66	4
COS 1116	Scalp Treatments	1	2	33	2
COS 1121	Disorders of Skin, Nails & Hair	5	3	88	6
COS 1122	Electricity	3	1	44	4
COS 1123	Chemistry	2	1	33	2
COS 1124	Operational Management	1	0	11	1
		14	11	275	19
					75

TOTAL QUARTER HOURS

GENERAL MASONRY



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

The masonry course is designed to give students training in various aspects of the trowel trades and includes instruction in brick and block work.

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

MASONRY

		Class	Lab	Credit
First Quarter				
MAS 1000	Masonry Shop	2	23	10
MAS 1001	Related mathematics & blueprint reading	5	0	5
		7	23	15
Second Quarter				
MAS 2000	Masonry Shop	2	23	10
MAS 1002	Advanced Blueprint Reading and Mathematics related to estimating	5	0	5
		7	23	15

INDUSTRIAL ELECTRONICS



This curriculum is designed to fill the ever-increasing demand for competent electronic technicians and operators to maintain and operate domestic and commercial electronic equipment, from small receiving equipment to broadcasting and communications transmitters as well as industrial control systems.

Study begins with basic atomic structure, electron theory and mathematics, and progresses through all necessary interrelated subject areas concurrently. Instruction in the electronics courses will be by an instructor who holds a Federal Communications Commission First-Class Radiotelephone Operator's License.

Fundamentals, as well as practical applications, are stressed throughout the course, and upon completion the student should easily pass the F.C.C. First-Class Radiotelephone license examinations.

OCCUPATIONAL OPPORTUNITIES

Graduates may be employed in any of these capacities: Electronics Maintenance Technician, TV Serviceman, Radio Serviceman, Factory Inspector, and Radio Operator.

		Class	Lab	Credit
First Quarter				
MAT 1115	Electrical Math and Slide Rule	8	0	8
ELC 1112	D.C. and A.C.	5	15	10*
ENG 1101	Reading Improvement	2	0	2
		15	15	20
Second Quarter				
MAT 1116	Electrical Math	5	0	5
ELN 1122	Vacuum Tubes and Circuits	5	9	8*
T-ELN 101	Electronic Instruments and Measurements	1	6	3*
ENG 1102	Communication Skills	3	0	3
ELN 1000	F.C.C. Rules and Regulations	2	0	2
		16	15	21
Third Quarter				
ELN 1123	Amplifier Systems	2	6	4*
ELN 1126	Transistor Theory and Circuits	4	15	9*
PSY 1101	Human Relations	3	0	3
		9	21	16
Fourth Quarter				
T-ELN 105	Control Devices	5	4	7
ELN 1128	TV Receiver Circuits and Servicing	3	9	6*
ELN 1130	Two-Way Mobile Maintenance	3	6	6*
		11	19	19
				76

*Manipulative Lab: 3 contact hours = 1 credit hour

TOTAL QUARTER HOURS

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 references, 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.

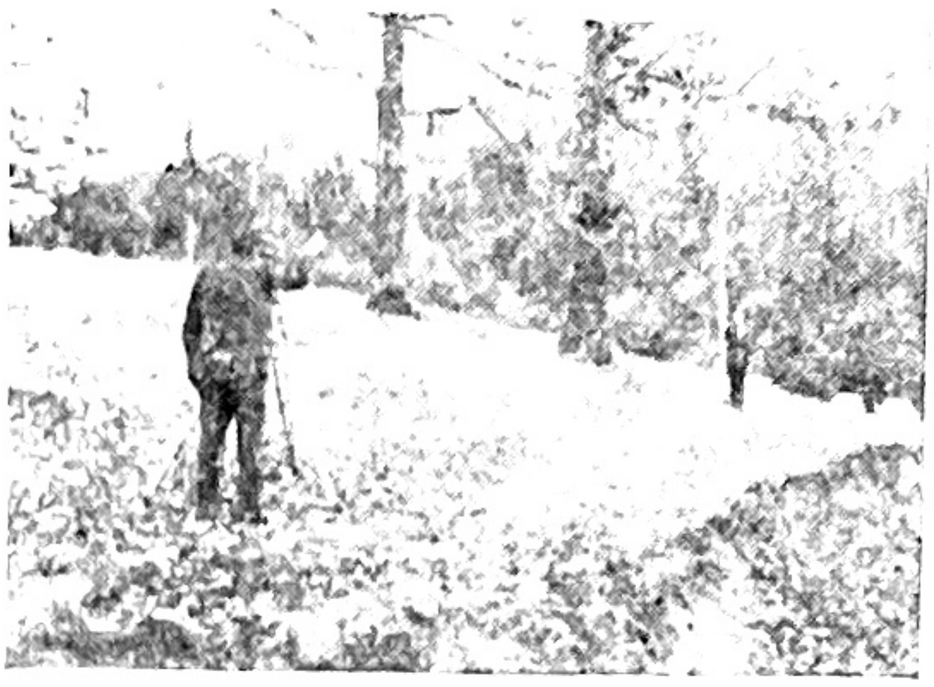
OCCUPATIONAL OPPORTUNITIES

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 patient's condition is stable and not complex; or it may consist of continuous direction in situations requiring the knowledge and skills of the registered nurse or physician. In the latter situation, the LPN may function in an assisting role in order to avoid assuming responsibility beyond that for which the one-year program can prepare the individual.

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	Cntct. Hrs. per Qtr.
First Quarter			
NUR 1001 Practical Nursing I	28	2	330
Second Quarter			
NUR 1002 Practical Nursing III	12	24	396
Third Quarter			
NUR 1003 Practical Nursing III	12	24	396
Fourth Quarter			
NUR 1004 Practical Nursing IV	12	24	396
TOTAL			1518

SURVEYING



(Night Programs)

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

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

OCCUPATIONAL OPPORTUNITIES

With the tremendous growth of road construction, real estate business and industry, employment is no problem. Opportunities are found with state and federal agencies, private contractors, engineering firms, industries and private land surveyors.

This class meets two nights per week—four hours per night—plus four hours on Saturday for field work.

Course	Class	Lab	Field	Credit
First Quarter — 88 Hours				
DFT 1121	2	2	0	3
MAT 1120	4	0	0	4
				7
Second Quarter — 110 Hours				
T-MAT 101	4	0	0	4
T-CIV 101	1	3	4	3½
				7½
Third Quarter — 110 Hours				
T-MAT 102	4	0	0	4
T-CIV 102	1	3	4	3½
				7½
Fourth Quarter — 88 Hours				
T-CIV 103	1	3	4	3½
T-CIV 100	2	0	0	2
				5½
				27½

TOTAL QUARTER HOURS

Proposed Curriculums
AUTO BODY REPAIR

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

OCCUPATIONAL OPPORTUNITIES

Graduates of the Auto Body Repair Curriculum are qualified for jobs in which they remove dents in automobile bodies and fenders; replace fenders; straighten frames, doors, hoods, and deck lids; and align wheels. In their work these craftsmen operate welding equipment. 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 interpret 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 foremen, supervisors, or managers.

Course		Class	Lab	Credit
First Quarter				
AUT 1111	Auto Body Repair	3	12	7
MAT 1101	Fundamentals of Mathematics	5	0	5
PHY 1101	Applied Science	3	2	4
ENG 1101	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
	TOTAL QUARTER HOURS			63

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 have created numerous employment opportunities in preventive 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 preventive 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. On 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
				65

TOTAL QUARTER HOURS

Heavy Equipment Operator

(EARTH MOVING)

In modern construction of industrial buildings, bridges, highways, shopning 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.

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

OCCUPATIONAL OPPORTUNITIES

The heavy equipment graduate 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 are devoted to the related areas of communication skills (English), basic mathematics, and human relations. Three hundred hours are 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

Industrial Sewing Machine Mechanics

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 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. Disucssion 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. Safety practice
   - G. General repair
   - F. Stitch formation

H. 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, Guages 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
- A. Trouble shooting on lockstitch
- B. Trouble shooting on chain stitch
- C. Trouble shooting on button sewer
- D. Trouble stooting 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 Technologies:

Accounting

Business Administration

Commercial Art and Advertising Design

Drafting and Design—Mechanical

Early Childhood Specialist

Executive Secretarial

Law Enforcement

Legal Secretarial

Medical Secretarial

PROPOSED CURRICULUMS

Associate in General Education Degree

Electronic Data Processing Technology—Business

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

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

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.

Course Title		Class	Lab	Credit
First Quarter				
T-ENG 101	Grammar	3	0	3
T-MAT 110	Business Mathematics	5	0	5
T-BUS 101	Introduction to Business	5	0	5
T-ECO 102	Economics	3	0	3
T-BUS 102	Typewriting (or elective)	2	3	3
		18	3	19
Second Quarter				
T-ENG 102	Composition	3	0	3
T-BUS 120	Accounting	5	2	6
T-ECO 104	Economics	3	0	3
T-BUS 115	Business Law	3	0	3
	Elective	3	0	3
		17	2	18
Third Quarter				
T-ENG 103	Report writing	3	0	3
T-BUS 123	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
		16	4	18

Fourth Quarter				
T-ENG 204	Oral Communication	3	0	3
T-EDP 104	Intro. to Data Pro. Systems	3	2	4
T-BUS 222	Accounting	5	2	6
T-BUS 124	Business Finance	3	0	3
T-SSC 201	Social Science	3	0	3
		17	4	19
Fifth Quarter				
T-ENG 206	Business Communication	3	0	3
T-SSC 202	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
		17	4	19
Sixth Quarter				
T-BUS 229	Taxes	3	2	4
T-BUS 269	Auditing	3	2	4
	Elective	10	0	10
		16	4	18
	TOTAL QUARTER HOURS			111



BUSINESS ADMINISTRATION

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

1. Understanding the principles of organization and management in business operation.
2. Understanding and skill in effective communication for business.
3. Knowledge of human relations as 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.

Course Title		Class	Lab	Credit
First Quarter				
T-ENG 101	Grammar	3	0	3
T-MAT 110	Business Mathematics	5	0	5
T-BUS 101	Introduction to Business	5	0	5
T-ECO 102	Economics	3	0	3
T-BUS 102	Typewriting (or elective)	2	3	3
		18	3	19
Second Quarter				
T-ENG 102	Composition	3	0	3
T-BUS 120	Accounting	5	2	6
T-ECO 104	Economics	3	0	3
T-BUS 115	Business Law	3	0	3
T-BUS 232	Sales Development	3	0	3
		17	2	18
Third Quarter				
T-ENG 103	Report Writing	3	0	3
T-BUS 123	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
		16	4	18
Fourth Quarter				
T-ENG 204	Oral Communication	3	0	3
T-SSC 201	Social Science	3	0	3
T-BUS 124	Business Finance	3	0	3
T-BUS 239	Marketing	5	0	5
T-EDP 104	Intro. to Data. Pro. Systems	3	2	4
		17	2	18
Fifth Quarter				
T-ENG 206	Business Communication	3	0	3
T-SSC 202	Social Science	3	0	3
T-BUS 235	Business Management	3	0	3
T-BUS 243	Advertising	3	2	4
	Elective	3	0	3
		15	2	16
Sixth Quarter				
T-BUS 229	Taxes	3	2	4
T-BUS 272	Principles of Supervision	3	0	3
T-BUS 271	Office Management	3	0	3
	Elective	10	0	10
		19	2	20
TOTAL QUARTER HOURS				109



COMMERCIAL ART AND ADVERTISING DESIGN

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

OCCUPATIONAL OPPORTUNITIES

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

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	General Illustration	2	6	4
T-CAT 116	Photography	2	6	4
T-CAT 123	Commercial Art and Advertising Design—General Layout	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	Industrial Art & Design	1	3	2
T-CAT 224	Commercial Art & Advertising Design	3	9	6
	Elective			4
		10	12	18
Fifth Quarter				
	Social Science Elective	3	0	3
T-CAT 225	Commercial Art & Advertising Design	4	12	8
T-CAT 217	Photography	2	6	4
	Elective			4
		9	18	19
Sixth Quarter				
	Social Science Elective	3	0	3
T-CAT 235	Advertising & Editorial Art Direction	5	0	5
T-CAT 226	Commercial Art & Advertising Design	4	12	8
	Elective			3
		12	12	19
	TOTAL QUARTER HOURS			108



DRAFTING AND DESIGN – MECHANICAL

Mechanical drafting and design technicians are concerned with the preparation of drawings for design proposals, for experimental models and items for production use.

These technicians are employed in many types of manufacturing, fabrication, research development and service industries. Substantial numbers also are employed in communications, transportation, public utilities, consulting engineering firms, and federal, state and local governments.

		Class	Lab	Credit
First Quarter				
T-ENG 101	Grammar	3	0	3
T-MAT 101	Technical Mathematics	5	0	5
T-PHY 101	Physics: Properties of Matter	3	2	4
T-DFT 101	Technical Drafting	0	6	2
T-MEC 101	Machine Processes	0	6	2
		11	14	16
Second Quarter				
T-ENG 102	Composition	3	0	3
T-MAT 102	Technical Mathematics	5	0	5
T-PHY 102	Physics: Work, Energy, Power	3	2	4
T-DFT 102	Technical Drafting	0	6	2
T-MEC 102	Machine Processes	0	6	2
		11	14	16

Third Quarter				
T-ENG 103	Report Writing	3	0	3
T-MAT 103	Technical Mathematics	5	0	5
T-PHY 103	Physics: Electricity	3	2	4
T-PHY 106	Applied Mechanics	5	0	5
T-DFT 103	Technical Drafting	0	6	2
		16	8	19
Fourth Quarter				
T-ENG 204	Oral Communication	3	0	3
T-DFT 201	Technical Drafting	2	6	4
T-DFT. 204	Descriptive Geometry	2	4	4
T-MEC 205	Strength of Materials	3	2	4
T-MEC 210	Physical Metallurgy	3	3	4
		13	15	19
Fifth Quarter				
	Social Science Elective	3	0	3
T-DFT 205	Design Drafting I	2	6	4
T-DFT 211	Mechanisms	3	2	4
T-MEC 211	Physical Metallurgy	3	3	4
	Elective			4
		11	11	19
Sixth Quarter				
	Social Science Elective	3	0	3
T-DFT 206	Design Drafting II	2	6	4
T-MEC 235	Hydraulics and Pneumatics	3	3	4
	Elective			4
	Elective			4
		8	9	19
	TOTAL QUARTER HOURS			108



EARLY CHILDHOOD SPECIALIST

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

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

		Class	Lab	Credit
First Quarter				
T-ENG 101	Grammar	3	0	3
T-PSY 104	The Dynamics of Human Behavior	3	2	4
T-SOC 104	The Family: A Cross-Cultural Survey	3	0	3
T-EDU 101	Child Growth and Development	3	0	3
T-SCI 101	General Science	3	4	5
		15	6	18
Second Quarter				
T-ENG 102	Composition	3	0	3
T-PSY 105	Human Growth & Development: Prenatal & Infant	3	0	3
T-SOC 105	Families in the American Culture	3	0	3
T-EDU 102	Programming for Young Children	3	6	5
T-NUT 102	Nutrition for Young Children	2	3	3
		14	9	17
Third Quarter				
T-ENG 103	Report Writing	3	0	3
T-PSY 106	Human Growth & Development: Early Childhood	3	0	3
T-SOC 106	The Family in the Community	3	0	3
T-EDU 103	Working with Young Children	3	9	6
T-HEA 101	Personal Hygiene and Health	2	0	2
		14	9	17
Fourth Quarter				
T-ENG 204	Oral Communication	3	0	3
T-PSY 201	Human Growth & Development: Middle Childhood & Adolescence	3	0	3
T-EDU 201	Activities for Young Children	3	9	6
T-SOC 201	The Child & Community Services	3	0	3
	Elective	3	0	3
		15	9	18
Fifth Quarter				
T-ENG 206	Business Communications	3	0	3
T-PSY 202	Human Growth & Development: Adulthood	3	0	3
T-EDU 202	Seminar-Practicum in Early Childhood	4	12	8
T-EDU 203	The Exceptional Child	3	0	3
	Social Science Elective	3	0	3
		16	12	20
Sixth Quarter				
	Social Science Elective	3	0	3
	Elective	3	0	3
T-EDU 204	Parent Education	3	0	3
T-EDU 205	Seminar-Practicum	2	15	7
T-EDU 207	Special Problems in Early Childhood	2	0	2
		13	15	18
				108

TOTAL QUARTER HOURS



EXECUTIVE SECRETARIAL

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.

Course Title		Class	Lab	Credit
First Quarter				
T-ENG 101	Grammar	3	0	3
T-BUS 102	Typewriting (or elective)	2	3	3
T-MAT 110	Business Mathematics	5	0	5
T-BUS 101	Introduction to Business	5	0	5
T-BUS 106	Shorthand (or elective)	3	2	4
		18	5	20
Second Quarter				
T-ENG 102	Composition	3	0	3
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
		16	7	19
Third Quarter				
T-ENG 103	Report Writing	3	0	3
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
		13	7	16
Fourth Quarter				
T-ENG 204	Oral Communication	3	0	3
T-BUS 206E	Dictation and Transcription	3	2	4
T-BUS 205	Advanced Typewriting	2	3	3
T-BUS 211	Office Machines	2	2	3
T-EDP 104	Intro. to Data Pro. Systems	3	2	4
		13	9	17

Fifth Quarter				
T-BUS 207E	Dictation and Transcription	3	2	4
T-BUS 214	Secretarial Procedures	3	0	3
T-SSC 201	Social Science	3	0	3
T-ENG 206	Business Communication	3	0	3
	Elective	3	0	3
		15	2	16
Sixth Quarter				
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
	Elective	10	0	10
		19	2	20
TOTAL QUARTER HOURS				108



LAW ENFORCEMENT (Police Science)

Today, as police agencies move toward a professional status, educational institutions are becoming the training centers for tomorrow's policemen. The North Carolina Department of Community Colleges' Law Enforcement Training program is dedicated to the purpose of developing proficiency in leadership in these people. Its development is based on present and future educational and training needs rather than those of the past.

The program is designed to provide occupational training for the individual who has a definite interest in and adaptability to a law enforcement career. It offers practical, technical, and general instruction to meet the requirements of various law enforcement agencies and provides the student with the skills, knowledges and attitudes necessary for employment at the operational or management level.

There is an increasing demand for properly trained law enforcement officers in industry, municipal, county, state, and federal agencies; and there is every reason to believe that the highly trained law enforcement officer will find challenging opportunities with public and private law enforcement services.

		Class	Lab	Credit
First Quarter				
T-ENG 101	Grammar	3	0	3
T-MAT 110	Business Math	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 & Local	5	0	5
T-PSC 114	Crime & Delinquency	5	0	5
T-BUS 115	Business Law	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 101	Chemistry	4	2	5
T-PSC 115	Criminal Law	5	0	5
		16	4	18
Fifth Quarter				
T-PSC 205	Criminal Evidence	5	0	5
T-PSC 210	Criminal Investigation	5	0	5
T-PSC 202	Firearms Training & Defensive Tactics	5	0	5
T-PSC 203	Introduction to Forensic Science	3	0	3
		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
TOTAL QUARTER HOURS				108



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.

Course Title		Class	Lab	Credit
First Quarter				
T-ENG 101	Grammar	3	0	3
T-BUS 102	Typewriting (or elective)	2	3	3
T-MAT 110	Business Mathematics	5	0	5
T-BUS 101	Introduction to Business	5	0	5
T-BUS 106	Shorthand (or elective)	3	2	4
		18	5	20
Second Quarter				
T-ENG 102	Composition	3	0	3
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
		16	7	19
Third Quarter				
T-ENG 103	Report Writing	3	0	3
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 & Vocabulary (Legal)	3	0	3
		16	7	19
Fourth Quarter				
T-ENG 204	Oral Communication	3	0	3
T-BUS 206L	Dictation & Transcription (Legal)	3	2	4
T-BUS 205	Advanced Typewriting	2	3	3
T-BUS 211	Office Machines	2	2	3
T-EDP 104	Intro. to Data Pro. Systems	3	2	4
		13	9	17
Fifth Quarter				
T-ENG 206	Business Communication	3	0	3
T-BUS 207L	Dictation & 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
		15	4	17
Sixth Quarter				
T-SSC 202	Social Science	3	0	3
T-BUS 208L	Dictation & Transcription (Legal)	3	2	4
T-BUS 271	Office Management	3	0	3
	Elective	10	0	10
		19	2	20
TOTAL QUARTER HOURS				112



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 in 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.

Course Title		Class	Lab	Credit
First Quarter				
T-ENG 101	Grammar	3	0	3
T-BUS 102	Typewriting (or elective)	2	3	3
T-MAT 110	Business Mathematics	5	0	5
T-BUS 101	Introduction to Business	5	0	5
T-BUS 106	Shorthand (or elective)	3	2	4
		18	5	20
Second Quarter				
T-ENG 102	Composition	3	0	3
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
		16	7	19
Third Quarter				
T-ENG 103	Report Writing	3	0	3
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 & Vocabulary (Medical)	3	0	3
		16	7	19

Fourth Quarter				
T-ENG 204	Oral Communication	3	0	3
T-BUS 206M	Dictation & Transcription (Medical)	3	2	4
T-BUS 205	Advanced Typewriting	2	3	3
T-BUS 211	Office Machines	2	2	3
T-EDP 104	Intro. to Data Pro. Systems	3	2	4
T-BUS 284M	Terminology & Vocabulary (Medical)	3	0	3
		16	9	20
Fifth Quarter				
T-ENG 206	Business Communication	3	0	3
T-BUS 207M	Dictation & 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
		15	4	17
Sixth Quarter				
T-SSC 202	Social Science	3	0	3
T-BUS 208M	Dictation & Transcription (Medical)	3	2	4
T-BUS 271	Office Management	3	0	3
	Elective	10	0	10
		19	2	20
TOTAL QUARTER HOURS				115

PROPOSED CURRICULUMS

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 reqiurements, 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 Title

First Quarter		Class	Lab	Credit
T-ENG 101	Grammar	3	0	3
T-MAT 101	Technical Mathematics	5	0	5
T-MAT 121	Numbering System & 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 Principles	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
	TOTAL QUARTER HOURS			108

Associate In Education Degree

The general education program offered at Sounthwestern 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

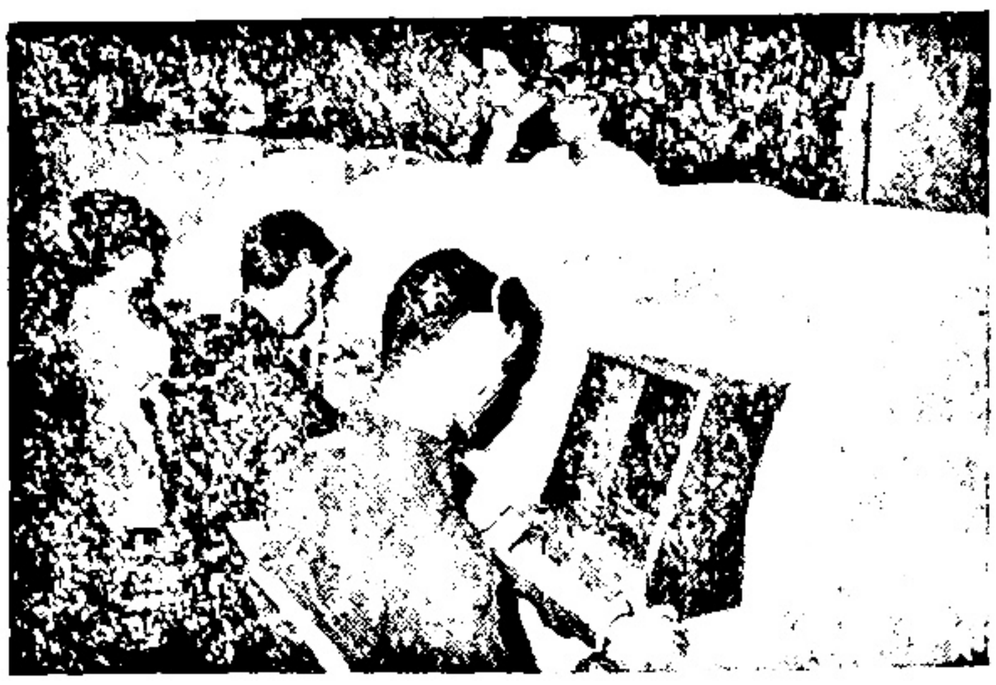
This introduction into the broad fields of knowledge permits the student to find himself and clarify his life goals. With this background he is able to intelligently choose additional course work in terms of his own interests and social needs. The program provides a wide choice of electives and permits 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		Credit Hours
First Quarter		
ENG 101	English	3
HIS 101	World Civilization	3
NSC 101	Physical Science	3
MUS 101	Music Appreciation	3
	Elective	4
		16
Second Quarter		
Eng 102	English	3
HIS 102	World Civilization	3
MTH 101	Modern Math	3
ART 101	Art Appreciation	3
	Elective	4
		16
Third Quarter		
ENG 103	Eng. Mstpcs. Soc. Sci.*	3
HIS 103	World Civilization	3
MTH 102	Introduction to Logic	3
PSY 101	Introduction to Psychology	3
	Elective	4
		16
Fourth Quarter		
ENG 201	Eng. Mstpcs. Nat. Sci.	3
BIO 201	General Zoology*	4
	Elective	9
		16
Fifth Quarter		
ENG 202	Eng. Mstpcs. Humanities*	3
BIO 202	General Botany	4
PHI 202	Introduction to Philosophy	3
	Elective	6
		16
Sixth Quarter		
ENG 203	Creative Writing	3
PHI 203	Contemporary Issues	3
	Elective	10
		16
	TOTAL QUARTER HOURS	96

*Indicates Co-requisite course.



LEARNING LABORATORY

Southwestern Technical Institute Learning Lab,
Bryson City Learning Lab, Franklin 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 wih 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 and technical institutes. 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 almost 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.

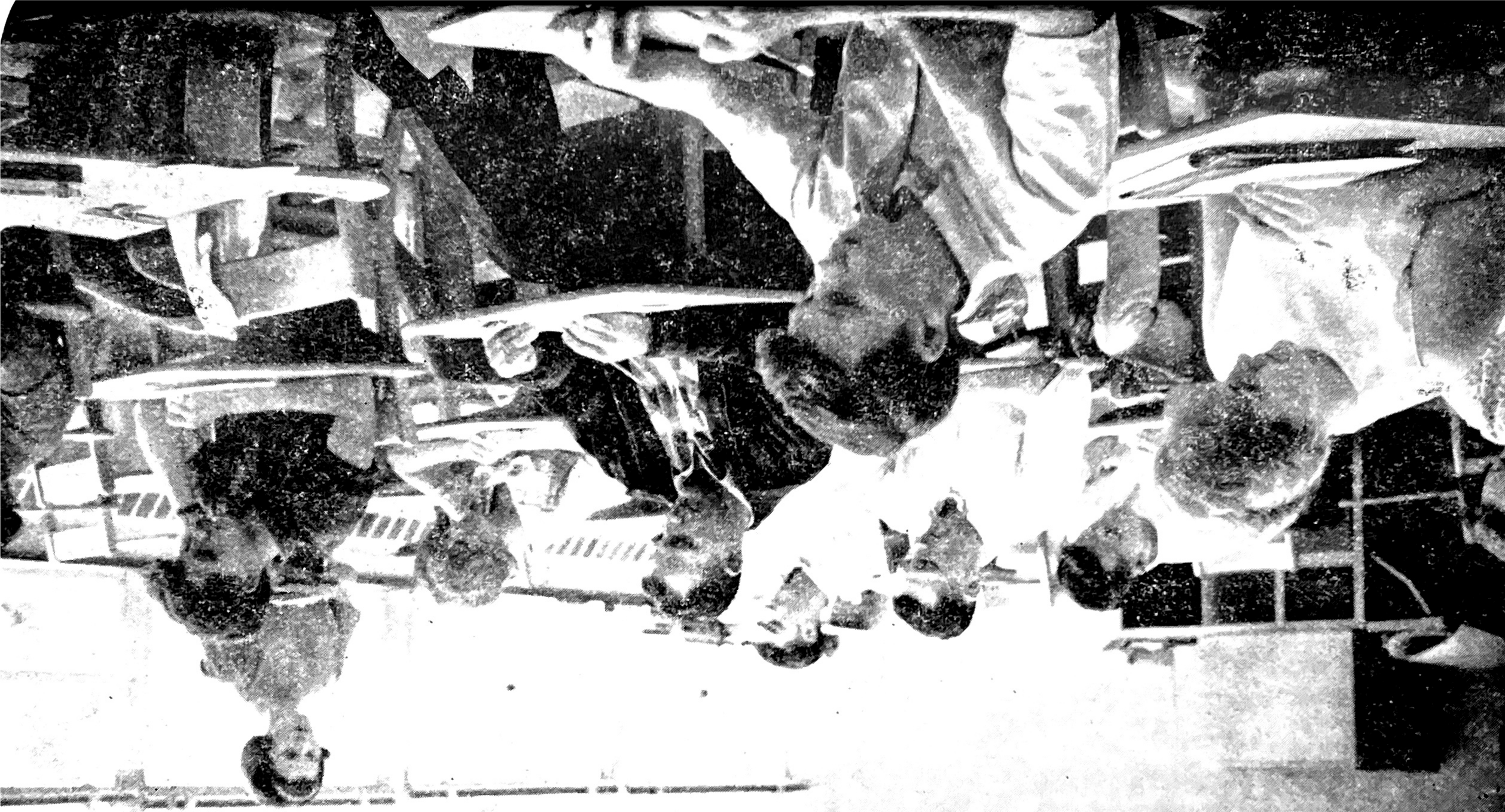
The stated purposes for the existence of the learning laboratories suggest that every effort should be made to meet the needs of those who are interested in participating in the program.

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.



Adult Education And Community Services

ADULT EDUCATION

General Information

Types of Programs

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

1. Full-time Preparatory: This is a 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.

3. Adult Evening Extension, Upgrading, and Updating: This program is organized for apprentices, trainees, tradesmen, mechanics, industrial workers, agricultural workers, and sales and marketing personnel. Classes are offered at night in such courses as Blueprint Reading, Practical Mathematics, Drafting, Welding, Electricity, Automatic Transmissions, National Electric Code, National Plumbing Code, Agriculture Techniques, Gas and Diesel Engines, Salesman Techniques, Home Nursing, and Business Law. Courses usually last from 18 to 144 clock hours and generally meet two evenings weekly.

Registration

Students may register at the Admissions Office at Southwestern Technical Institute, Webster Road, Sylva, North Carolina, or at designated places in Jackson, Macon, and Swain Counties.

Eligibility

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

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.

Requirements for Certificates and Diplomas

Certificates and diplomas are awarded on the basis of the following: (1) official enrollment, (2) class participation and 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.

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.

Adult Basic 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 offered to 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 or 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.).

GEDT

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 Test (GEDT). Those receiving an acceptable passing score of 225 points with no single 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 GED 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 at 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.

A suggestion for preparing for the examination follows:

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

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 Adult Evening Program and Adult Basic Education, contact:

Southwestern Technical Institute
Post Office Box 95
Sylva, North Carolina 28779
Telephone 586-4093

NEW AND EXPANDING INDUSTRY TRAINING

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.

SDT Courses Currently Available:

Course No.	Course Title	Hours
SDT-1:	Principles of Supervision	43-48
Part I	Fundamentals of Supervision	6-8
Part II	Relationships on the Job	1-18
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

OTHER TRAINING

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.

For a more detailed explanation of the materials to be presented, contact Southwestern Technical Institute.

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:

Elements of Offenses

Law of Arrest and Search and Seizure

Motor Vehicle Law

Court Structure and Procedure

Liquor Law

Law Enforcement Procedures

General Criminal Investigation

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

VOCATIONAL COURSE DESCRIPTIONS

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 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.

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.

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.

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.

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 1123 AUTOMOTIVE CHASSIS AND SUSPENSION SYSTEMS

Principles and functions of the components of automotive chassis. Practical job instruction in adjusting and repairing of suspension, and steering systems. Units to be studied will be shock absorbers, springs, steering systems, steering linkage, and front end and alignment. Prerequisite: PME 1102.

AUT 1124 AUTOMOTIVE POWER TRAIN SYSTEMS

Principles and functions of automotive power train systems, clutches, transmission gears, torque converters, drive shaft assemblies, rear axles and differentials. Identification of troubles, servicing, and repair.
Prerequisites: PHY 1102, AUT 1123.

AUT 1125 AUMOTIVE 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.

T-CIV 100 BOUNDARY CONTROL

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

T-CIV 101 Surveying I

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

T-CIV 102 SURVEYING II

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

T-CIV 103 SURVEYING III

Route surveys by ground and aerial methods; simple, compound, reverse parabolic and spiral curves; geometric design of highways, highway surveys and plans including mass diagrams.

COS 1101 INTRODUCTION TO COSMETOLOGY

Designed to give the student a background for the profession and an understanding of the laws and civic responsibilities involved.

COS 1102 BACTERIOLOGY, SANITATION, AND FIRST AID

A study of bacteriology to prevent the spread of disease in the shops, and instructions in sanitary measures and laws. Emphasis is placed on safety and methods of rendering first aid. Also instruction in health needs and habits of an individual.

COS 1103 SHAMPOO AND RINSE

This course covers the theory and practical training necessary to develop the manipulative skill for shampooing. Emphasis is placed on composition and application of various rinses.

COS 1105 FINGER WAVING AND PIN CURLING

A study of hair, use of comb, fingers, and waving lotion to produce a wave. The different styles of finger waving, pin curling, and roller curl are studied to enable the student to make application of finger waving and pin curling to various hair styles.

COS 1106 HAIR SHAPING

Skill in the use of scissors and razor for shaping the hair is developed in this course. The student becomes familiar with various methods of cutting hair which may be applied to specific hairstyling and permanent waving.

COS 1107 MANICURING

The care of the hands and nails with emphasis on correct procedures, techniques, materials, and equipment used in giving a manicure. Also attention devoted to developing an understanding of the relationship between customer and operator.

COS 1110 PERMANENT WAVING — COLD AND HEAT WAVE

This course is designed to provide a foundation for the practical art of permanent waving. Such topics as types of permanent waves, texture and elasticity of hair, and shaping of hair are included. Also the methods of permanent waving are taught.

COS 1111 HAIR STYLING AND WIG CARE

This course deals with the fundamental principles of hair styling and wig care. Through study of contour of the head and face a student learns to see the relationship of these features to various hair styles. Also extensive practice in the proper use of sculpture curls, brushing, and combing are included.

COS 1112 PERSONALITY

Designed to develop a pleasing personality, charm, and poise necessary to everyone in the beauty field.

COS 1115 TINTING AND BLEACHING

A study of techniques and applications involved in giving hair tints and bleaches; reaction of chemicals to certain textures of hair; composition, merits and limitations of softeners, developers, hair tints, and bleaches.

COS 1116 SCALP TREATMENTS

A study of the principles, techniques, materials, supplies and applications used in giving scalp treatments.

COS 1118 ANATOMY

The structure and function of the bones, muscles, and nerves with particular emphasis upon their application of cosmetology.

COS 1119 ANATOMY

A continuation of Anatomy with additional emphasis on the structure and functions of bones, muscles, and nerves as applied to the work of the cosmetoligist. Prerequisite: COS 1118.

COS 1120 FACIALS

Designed to aid in the understanding of the principles, techniques, purposes, application and benefits of facial massage and cosmetic use. The various types of facials appropriate for different types of skin is studied.

COS 1121 DISORDERS OF SKIN, NAILS AND HAIR

The cause, identification, and treatment of common skin disorders and scalp diseases.

COS 1122 ELECTRICITY

Designed to acquaint the student with electricity in its different phases as applied to cosmetology. Such topics as wallplate, high frequency and electrodes are studied and discussed.

COS 1123 CHEMISTRY

Designed to give the student an understanding of the basic principles of chemistry as they apply to the field of cosmetology. The major areas of work studied in this course are: fundamentals of chemistry, chemistry of soaps, hair preparations, nail preparations, deodorant preparations, creams and lotions, and facial preparations.

COS 1124 OPERATIONAL MANAGEMENT

Designed to give the student an understanding of the principles relating to the operation of a beauty shop. Emphasis on equipment, finance, and management.

EDU 1001 THE NATURE & SCOPE OF DAY CARE FOR YOUNG CHILDREN

Designed to promote understanding of the role and responsibilities of day care workers. Classroom activities include study of personal adjustment, the developmental sequence in infancy and childhood, and needs of young children for optimal intellectual, emotional, and social development. The importance of the adult-child relationship is emphasized throughout the course. Prerequisite: None.

EDU 1002 HEALTH AND SAFETY OF YOUNG CHILDREN

Designed to promote understanding of factors which influence physical and emotional health during infancy and childhood. Classroom activities focus on practices and procedures for promoting good health among children in group care. The influence of child care workers on health and safety and on the teaching of health habits is emphasized throughout the course.
Prerequisite: EDU 1001.

EDU 1003 CREATIVE ACTIVITIES FOR YOUNG CHILDREN

Designed to promote appreciation for the importance of a varied program of activities for young children and to develop understanding of types of activities which should be provided in a group care facility Classroom activities include discussion of media and techniques, experimentation with various media, and participation in planning actvity programs for different age groups. Prerequisite: EDU 1002.

EDU 1004 FIELD EXPERIENCE IN CHILD CARE FACILITIES

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

EDU 1005 WORKING WITH THE YOUNG CHILD

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

EDU 1006 COMMUNICATING EFFECTIVELY WITH THE YOUNG CHILD

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

EDUC 1007 MUSIC IN THE EARLY CHILDHOOD PROGRAM

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

EDU 1008 SCIENCE IN THE EARLY CHILDHOOD PROGRAM

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

EDN 1009 ART IN THE EARLY CHILDHOOD PROGRAM

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

EDU 1010 WORKING WITH THE YOUNG CHILD WITH PROBLEMS

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

EDU 1011 CONCEPTUAL AND LANGUAGE DEVELOPMENT

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

EDU 1012 LITERATURE IN THE EARLY CHILDHOOD PROGRAM

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

EDU 1013 PARENT EDUCATION**

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

EDU 1014 ADMINISTRATION AND SUPERVISION IN A PRESCHOOL FACILITY**

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

EDU 1015 GROUP CARE OF INFANTS**

Study of development from birth to age three and of the problems specific to group care of children under 3. Each student will develop a plan of care for a group of 5 children; the plan must reflect concern for the child's total development and show procedures for dealing with the practical problems of providing safe care for infants and toddlers.
Prerequisites: EDU 1001 and EDU 1002.

T-ELN 101 ELECTRONIC INSTRUMENTS AND MEASUREMENTS

A study of basic electronic instruments, their theory of operation, function, tolerances, and calibration. Both service and laboratory instruments will be studied. Laboratory experience will provide application of each type instrument studied.

T-ELN 105 CONTROL DEVICES

A study in depth of the electrical characteristics of vacuum tubes and transistors. Basic parameters and applications of each type device to the three configurations of a three terminal two port system will be included.

ELN 1000 FCC RULES AND REGULATIONS

A study of Federal Communication Rules and Regulations, as well as Federal laws pertaining to operation of wireless communication equipment.

ELN 1122 VACUUUM 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 stereophonic high fidelity amplifiers and auxiliary equipment. The operation and servicing of intercommunication amplifiers and switching circuits will also be taught.

ELN 1126 TRANSISTOR THEORY AND CIRCUITS

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

ELN 1128 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.

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 examinaton.

MAS 1000 History of brick and block laying, fundamental skills, laying to line, use and care of tools and equipment. Mortar mixing techniques and general masonry procedures.

MAS 1001 Mathematics and blueprint reading directly related to masonry. Estimating quantities and calculating dimensions from plans.

MAS 1002 Advanced blueprint reading and mathematics related to estimating.

MAS 2000 Development of fundamental skills, bond layout, projects with various types of masonry units, fireplaces, ornamental work, recent developments in the masonry field.

NUR 1001 PRACTICAL NURSING I

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

NUR 1002 PRACTICAL NURSING II

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

NUR 1003 PRACTICAL NURSING III

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

NUR 1004 PRACTICAL NURSING IV

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

PME 1101 INTERNAL COMBUSTION ENGINE

Development of a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems cooling systems; proper lubrication; and methods of testing, diagnosing and repairing. Prerequisite: None.

PME 1102 ENGINE ELECTRICAL AND FUEL SYSTEMS

A thorough study of the electrical and fuel systems of the automobile. Battery cranking mechanism, generator, ignition, accessories and wiring; fuel pumps, carburetors, and fuel injectors. Characteristics of fuels, types of fuel systems, special tools, and testing equipment for the fuel and electrical system. Prerequisite: PME 1101.

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 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 1108 BRAKE AND FRICTION SYSTEMS

Theory and application of 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 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 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 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 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.

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.

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.

Vocational Related Course Descriptions

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.

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, demensioning procedures, and notes. Prerequisite: None.

DFT 1121 DRAFTING

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

ELC 1112 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

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.

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.

T-MAT 101 TECHNICAL MATHEMATICS

The real number systems is developed as an extension of natural numbers. Number systems of various bases are introduced. Fundamental algebraic operations, the rectangular coordinate system, as well as fundamental trigonometric concepts and operations are introduced. The application of these principles to practical problems is stressed.

T-MAT 102 TECHNICAL MATHEMATICS

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

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.

MAT 1115 ELECTRICAL MATHEMATICS AND SLIDE RULE

An introductory algebra course with trigonometry and vectors needed in alternating current: algebraic operations of addition, subtraction, multiplication and division; use of letters and signs, grouping, factoring; exponents, rations and proportions; algebraic and graphic solutions of first-degree equations; introduction to trigonometric functions, their graphs and applications to right triangles. Addition, subtraction and resolution of vector quantities. Prerequisite: None.

MAT 1116 ELECTRICAL MATHEMATICS

A working knowledge of the powers of 10, Ohm's Law for series and parallel circuits, quadratic equations, Kirchoff's Laws, trigonometric functions, plane vectors, alternatin gcurrents, vector algebra and logarithms. Prerequisite: MAT 1115.

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 geometry; measurement of surfaces and volumes. Introduction to algebra. Practice in depth.

PHY 1101 APPLIED SCIENCE

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

PHY 1102 APPLIED SCIENCE

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

PHY 1103 APPLIED SCIENCE

The third in a series of courses of applied physical principles. Topics include basic principles of electricity, types of electricity, and its production, transmission, and transformation. The electron theory, electrical measurements, magnetism, electromagnetism, and the magnetic effects of electricity are also studied. Prerequisite: PHY 1102.

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.

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 relation 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.

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.

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. Insstrucion is given in the set-up and safe operation of oxyacetylene welding appartus. Students prepare joints by both hand and machine cutting with the oxyacetylene torch. Prerequisite: None.

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.

WLD 1112 WELDING

Demonstration by the instructor and practice by the 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.

Technical Course Descriptions

ART 101 ART APPRECIATION

An introduction to fundamental elements and principles of creative art expression emphasizing composition, design, shape, value, styles, and movements.

BIO 201 GENERAL ZOOLOGY

A comprehensive study of the animal kingdom, with special emphasis on the morphology, anatomy, physiology, genetics and ecological relationships. (Co-requisite with ENG 201)

BIO 202 GENERAL BOTANY

A comprehensive study of the plant kingdom with special emphasis on morphology, anatomy, physiology, taxonomy and ecology.

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 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 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 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 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.

T-BUS 107 SHORTHAND

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

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, Geographic, Subject, Soundex and Dewey Decimal filing. 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-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 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 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 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-BUS 183M 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 ofifces. Prerequisite: T-BUS 107.

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 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 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 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 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 207L 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 206.

T-BUS 207M 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 206M.

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 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 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 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-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 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-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 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. Prequisite: T-BUS 121.

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 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. Prerequisites: 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 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 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.

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 272 PRINCIPLES OF SUPERVISION

Introduces the basic responsibilities and duties of the supervisor and his relationship to superiors, surbordinates, and the associates. Emphasis on securing effective work force and the role of the supervisor. Methods of supervision are stressed. 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-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 wth 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 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 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 110 GENERAL ILLUSTRATION

Study of creative methods and rendering techniques used in the illustration field. Editorial illustration, advertising spots, cartoonists, fashion and retail product. Black and white and color problems will be assigned, using various mediums and materials. Emphasis on good drawing and research.

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 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-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-CAT 123 COMMERCIAL ART & ADVERTISING DESIGN—General Layout

Professional approach to advertising and editorial layout. The indicating of finished art concepts, visuals and ideas. Pencil roughs, colored sketches and comprehensive layouts.

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 INDUSTRIAL ART & DESIGN

A study of art and design for industry and business. Forms, charts and graphs, letterhead, trademarks and company publications. Use of the airbrush, photo retouching and airbrush art. Handling of annual reports.

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. Prerequisites: T-CAT 116.

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, hand-lettered documents, brochures and folders.
Prerequisite: T-CAT 123.

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 226 COMMERCIAL ART & ADVERTISING DESIGN

A course providing simulated 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 & EDITORIAL ART DIRECTION

A study of the art directors profession. The creating and coordinating of effective advertising campaigns and editorial designs for both national and local markets. The practical considerations, procedures and job opportunities, restrictions. Media selection, frequency of insertion, direct mail and response. The value of market research. Emphasis on dealing with professionals in related fields.

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, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique and perspective are introduced. Prerequisite: None.

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 for "details" and "working drawings," 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-DFT 103 TECHNICAL DRAFTING

Intersection and developments and their practical solutions. Where applicable, model solutions accompany the problems. The various techniques employed to produce and render isometric and oblique drawings, isometric, dimetric and trimetric projections will be included. Prerequisite: T-DFT 102.

T-DFT 201 TECHNICAL DRAFTING

Applications and constructions of charts, graphs, and nomographs in engineering and technical data. Screw threads, springs, keys, rivets. piping, and welding symbols, methods of representing and specifying will be covered. Basic mechanisms of motion transfer, gears and cams, will be studied and drawn with emphasis on methods of specifying, calculating, dimensions, and delineating. Prerequisite: T-DFT 103.

T-DFT 204 DESCRIPTIVE GEOMETRY

Graphic analysis of space problems involving points, lines, planes, connectors, and a combination of these. Practical design problems will be stressed with analytical verification where applicable. Visualization shall be stressed on every problem. Prerequisites: T-DFT 102, T-MAT 102.

T-DFT 205 DESIGN DRAFTING

Basic design is introduced in the study of motion transfer mechanisms as they relate to power trains. Principles of design sketching, design drawing, layout drafting, detailing from layouts, production drawings and simplified drafting practices constitute areas of study. Types and methods of specifying materials and workmanship are an integral part of the course.
Prerequisites: T-DFT 204, T-MAT 102, T-PHY 102.

T-DFT 206 DESIGN DRAFTING

Research to solve a problem in design by consulting various manuals, periodicals, and through laboratory experiments. A written technical report, preliminary design sketches, layout drawings, detail drawings, assembly and sub-assembly drawings, pictorial drawings, exploded pictorial assembly, patent drawings and specifications are required as a part of the problem.
Prerequisites: T-DFT 205, T-DFT 210.

T-DFT 211 MECHANISMS

Mathematical and drafting room solutions of problems involving the principles of machine elements. Study of motions of linkages, velocities and acceleration of points within a link mechanism; layout methods for designing cams, belts, pulleys, gears and gear trains.
Prerequisites: T-DFT 201 & 204, T-MAT 103, T-PHY 106.

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-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-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 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-EDP 104 INTRODUCTION TO DATA PROCESSING SYSTEMS

Fundamental concepts and operational principles of 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 prerequisite for all programming courses. Prerequisite: None.

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 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-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-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-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 105.

T-EDU 101 CHILD GROWTH AND DEVELOPMENT

Study of early growth and development, with emphasis on the principles and techniques for promoting the physical and mental health of the young child. Prerequisite: None.

T-EDU 102 PROGRAMMING FOR YOUNG CHILDREN

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

T-EDU 103 WORKING WITH YOUNG CHILDREN

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

T-EDU 201 ACTIVITIES FOR YOUNG CHILDREN

Individual and group exploration of activities and media for promoting optimal overall development of children, with special emphasis on music, art, science, and oral language development. Laboratory experiences provide opportunities to plan and implement a program which demonstrates the adaptability of specified activies and media to a variety of age levels.
Prerequisite: T-EDU 103.

T-EDU 202 SEMINAR-PRACTICUM IN EARLY CHILDHOOD

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

T-EDU 203 THE EXCEPTIONAL CHILD

Study of children with developmental variations requiring modification in activities. Consideration is given to recognition of problems, community resources, and appropriate activities for the child with exceptional deviations in personality or physical development.
Prerequisites: T-EDU 201 and T-SOC 201.

T-EDU 204 PARENT EDUCATION

Study of ways parents can be involved in the child development center, of the purposes and value of home visitation, and of techniques for reporting child progress to parents. The role of the early childhood specialist in aiding parents in guidance of the child's development is emphasized. Each student will develop a series of programs appropriate for presentation to the parents of preschool children. Prerequisites: T-SOC 106 and T-PSY 202.

T-EDU 205 SEMINAR-PRACTICUM

Seminar on child development problems. Continued experience in a variety of child care facilities. Prerequisite: T-EDU 202.

T-EDU 207 SPECIAL PROBLEMS IN EARLY CHILDHOOD

Directed study of a specialized area of early childhood, appropriate to the individual career interests of students.
Prerequisites: T-EDU 202 and T-EDU 203.

ENG 101 ENGLISH

A brief history of the English language and review of grammar with particular emphasis on composition and expository writing.

ENG 102 ENGLISH

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

ENG 103 ENGLISH MASTERPIECES IN THE SOCIAL SCIENCES

A continuation of ENG 101 and ENG 102 introducing the novel and with increased emphasis on writing and speaking on topics related to contemporary social problems. (Co-requisite with HIS 103)

ENG 201 ENGLISH MASTERPIECES IN THE NATURAL SCIENCES

A continuation, introducing the essay and with emphasis on writing and speaking on topics related to man in his biological and physical environment. (Co-requisite with BIO 201)

ENG 202 ENGLISH MASTERPIECES IN THE HUMANITIES

A continuation drawing from all literary forms with emphasis on expository writing and speaking on man and philosophy. (Co-requisite with PHI 202)

ENG 203 CREATIVE WRITING

Creative writing laboratory. Emphasis on imaginative writing with special emphasis on essays, short stories, and poetry.

HIS 101 WORLD CIVILIZATION

A survey of the cultural beginnings of Eastern and Western civilizations, dealing with migrations, cultural diffusion, and the development of governmental and ethical structures through the fall of the Roman Empire.

HIS 102 WORLD CIVILIZATION

A continuation of HIS 101 from the Middle Ages, through the Renaissance, the Voyages of Discovery, Colonization, the Reformation, and the Age of Enlightenment.

HIS 103 WORLD CIVILIZATION

A continuation beginning with the Industrial Revolution, the impact of industrial imperialism, the American and French Revolutions, the rise of political democracy and modern nationalism to the present. (Co-requisite with ENG 103)

MTH 101 MODERN MATHEMATICS

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

MTH 102 INTRODUCTION TO LOGIC

Emphasis on both inductive and deductive logic with particular attention to the bases of scientific evidence, probability theory, hypothetical and categorical syllogisms, causation and common fallacies.

MUS 101 MUSIC APPRECIATION

Designed to give a basic orientation to music with emphasis on simple form and analysis, instrumentation, aesthetics, masterpieces and other significant works.

NSC 101 PHYSICAL SCIENCE

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

PHI 202 INTRODUCTION TO PHILOSOPHY

An introduction to philosophic world frames emphasizing cosmology, ontology, epistemology, and axiology. (Co-requisite with ENG 202)

PHI 203 CONTEMPORARY ISSUES

A culminating interdisciplinary course dealing with the basic economic, social, scientific and moral issues confronting human society.

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-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 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-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-PSC 114 CRIME AND DELINQUENCY

Types and descriptions of professional and non-professional criminals and various aspects of juvenile delinquency in general.

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-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-PSC 202 FIREARMS TRAINING AND DEFENSIVE TACTICS

Detailed instruction in the use of firearms. Various aspects of ballistics. Each student required to sucessfully complete the F. B. I. pistol course. Each student required to successfully complete the judo-type training in personal defense. Riot control techniques are also emphasized.

T-PSC 203 INTRODUCTION TO FORENSIC SCIENCE

An introduction to crime laboratory techniques which stresses the examination of questioned documents, comparative micrography, polygraph examination, firearms identification, pathology, toxicology, immunology and fingerprint techniques.

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 introduces 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 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-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.

PSY 101 INTRODUCTION TO PSYCHOLOGY

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

T-PSY 104 THE DYNAMICS OF HUMAN BEHAVIOR

Study of human behavior, with emphasis on developmental aspects, motivations, common behavioral patterns, and the role of defense mechanisms in human behavior. Laboratory experiences will demonstrate a variety of theories related to human behavior. Prerequisite: None.

T-PSY 105 HUMAN GROWTH AND DEVELOPMENT:
PRENATAL AND INFANT

A detailed study of the developmental sequence of the prenatal and infant periods, with emphasis on developmental influences and conditions necessary for optimal development of individuals. Prerequisite: T-PSY 104.

T-PSY 106 HUMAN GROWTH AND DEVELOPMENT: EARLY CHILDHOOD

A detailed study of the developmental sequence during the preschool period, ages 2 to 6. Emphasis is given to factors influencing development; the importance of experiences in establishing patterns of behavior, attitudes, interpersonal skills; language usage; and the relationship of early childhood to later realization of potential. Prerequisite: T-PSY 105.

T-PSY 201 HUMAN GROWTH AND DEVELOPMENT:
MIDDLE CHILDHOOD AND ADOLESCENCE

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

T-PSY 202 HUMAN GROWTH AND DEVELOPMENT: ADULTHOOD

A study of adulthood in terms of developmental tasks, life problems, crises, adjustment mechanisms, and problems related to intellectual, emotional, and social aspects of the individual in relation to others and to sociey. Prerequisite: T-PSY 201.

T-SOC 104 THE FAMILY: A CROSS-CULTURAL SURVEY

Sudy of the family as a social unit, with primary focus on the influence of family relationships during infancy and childhood. Historical patterns and the evolution of family roles in various types of cultures provide opportunities to analyze and interpret the influence of the culture and the family in relation to the larger society. Prerequisite: None.

T-SOC 105 FAMILIES IN THE AMERICAN CULTURE

Study of the family in the American culture, changing patterns in family roles, the influence of socio-economic status on family relationships, factors associated with cultural deprivation, and the effects on children in such families. Prerequisite: T-SOC 104.

T-SOC 106 THE FAMILY IN THE COMMUNITY

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

T-SOC 201 THE CHILD AND COMMUNITY SERVICES

Study of the types of facilities needed by a community concerned with the well-being of its children. Analysis of child needs which can be met through community planning, with identification of local, state, and national resources. Prerequisite: T-SOC 106.

Technical Related Course Descriptions

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-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-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

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

T-HEA 101 PERSONAL HYGIENE AND HEALTH

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

T-MAT 101 TECHNICAL MATH

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.

T-MAT 102 TECHNICAL MATHEMATICS

A continuation of T-MAT 101. Advanced algebraic and trigonometric topics including quadratics, logarithms, determinates, progressions, the binomial expansion, complex numbers, solution of oblique triangles and graphs of the trigonometric functions are studied in depth. Prerequisite: T-MAT 10

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 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-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. Prerequiste: None.

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-MEC 101 MACHINE PROCESSES

An introductory course designed to acquaint the student with basic hand tools, safety procedures and machine processes of our modern industry. It will include a study of measuring instruments. characteristics of metals and cutting tools. The student will become familiar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming. Prerequisite: None.

T-MEC 102 MACHINE PROCESSES

Advanced operations on lathe, drilling, boring and reaming machines. Milling machine theory and practice. Thorough study of the types of milling machines, cutters, jig and fixture devices, and the accessories used in a modern industrial plant. Safety in the operational shop is stressed.
Prerequisite: T-MEC 101.

T-MEC 205 STRENGTH OF MATERIALS

Study of principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying and dynamic. Analyses of these stresses are made as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns and machine components. Prerequisites: T-PHY 106, T-MAT 103.

T-MEC 210 PHYSICAL METALLURGY

Introductory course in metallurgy, a basic study of the properties of metals and alloys. Analysis of the structure of metals and alloys, atomic structure. nuclear structure, and nuclear reactions. Solid (crystalline) structures, methods of designating crystal planes; liquid and vapor phases; phase diagrams; and alloy systems. Prerequisite: T-PHY 101.

T-MEC 211 PHYSICAL METALLURGY

Properties of metals and alloys, the reactions of metals, diffusion, carbonizing, metal bonding and homogenization; recrystallization and grain growth, age hardening, nitriding. internal oxidation; heat treatment of steel; laboratory experiments and demonstrations. Prerequisite: T-MEC 210.

T-MEC 235 HYDRAULICS AND PNEUMATICS

The basic theories of hydraulic and pneumatic systems. Conbinations of systems in various circuits. Basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators and reservoirs. Prerequisite: T-PHY 102.

T-NUT 102 NUTRITION FOR YOUNG CHILDREN

Study of basic nutrition, with emphasis on (1) methods of helping young children and their families learn nutritional concepts and (2) planning balanced diets for preschool children. Prerequisite: None.

T-PHY 101 PHYSICS: PROPERTIES OF MATTER

A fundamental course covering several basic principles of physics. The divisions included are solids and their characteristics, liquids at rest and in motion, gas laws and applications. Laboratory experiments and specialized problems dealing with these topics are part of this course. Prerequisite: None.

T-PHY 102 PHYSICS: WORK, ENERGY, POWER

The major areas covered in this course are work, energy, and power. Instruction includes such topics as statics, forces, center of gravity, and dynamics. Units of measurement and their applications are a vital part of this course. A practical approach is used in teaching students the use of essential mathematical formulas. Prerequisites: T-PHY 101, T-MAT 101.

T-PHY 103 PHYSICS: ELECTRICITY

Basic theories of electricity, types of electricity, methods of production, and transmission and transforming of electricity. Electron theory, electricity by chemical action, electricity by friction, electricity by magnetism, induction voltage, amperage, resistance, horsepower, wattage, and transformers are major parts of the course. Prerequisites: T-PHY 101, T-MAT 101.

T-PHY 106 APPLIED MECHANICS

Concepts and principles of statics and dynamics. Parallel concurrent and noncurrent force systems in coplanar and noncoplanar situations. Concepts of centroids and center of gravity moments of inertia, fundamentals of kinetics, and kinematics of velocity and motion.
Prerequisites: T-MAT 103, T-PHY 102.

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-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.

T-SCI 101 GENERAL SCIENCE

Study of basic concepts from biological, physical, and natural sciences. Laboratory experiences provide opportunities to develop projects for demonstrating simple science concepts to young children, utilizing materials from nature and simple equipment. Each student will develop a series of projects appropriate for a specific level of development. Prerequisite: None.

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-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.