ANDOLPH TECHNICAL INSTITUTE CATALOG

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# RANDOLPH TECHNICAL INSTITUTE

## 1970-71 CATALOG

Drawer 1009
ASHEBORO, N. C. 27203
Phone 919 629-1471

RANDOLPH TECHNICAL INSTITUTE is a public supported technical institute operating under the regulation of the North Carolina State Board of Education and the Department of Community Colleges with a local board of twelve trustees as its governing body.

RANDOLPH TECHNICAL INSTITUTE began operation in 1962 as a joint city-county industrial education center under the direction of the Trades and Industrial Division, Department of Vocational Education. The North Carolina legislature in 1963 established a separate system of community colleges and RANDOLPH TECHNICAL INSTITUTE at that time became part of that system.

As established by the laws of the state of North Carolina, the Institute offers occupational and general adult education programs.

RANDOLPH TECHNICAL INSTITUTE is an approved state supported institution, vocational-technical curriculums are accredited by the appropriate state and federal agencies. Community service curriculums include a state approved high school equivalency program. The Institute is a member of the American Vocational Association and the American Technical Education Association.

# MESSAGE FROM THE PRESIDENT

I bid you a sincere welcome to Randolph Technical Institute and to your new career in the occupational field you have chosen.

The Institute has an excellent record of educational progress during its first seven years of operation; however, its future progress and your own personal achievements will rest largely with you. We feel that you have the ability, interest, and desire to succeed in your chosen area.

It is our hope that the time and effort you expend at Randolph Technical Institute will provide an entry into future doors of opportunity and that your success will be greatly enhanced through study at this institution.

M. H. Branson,

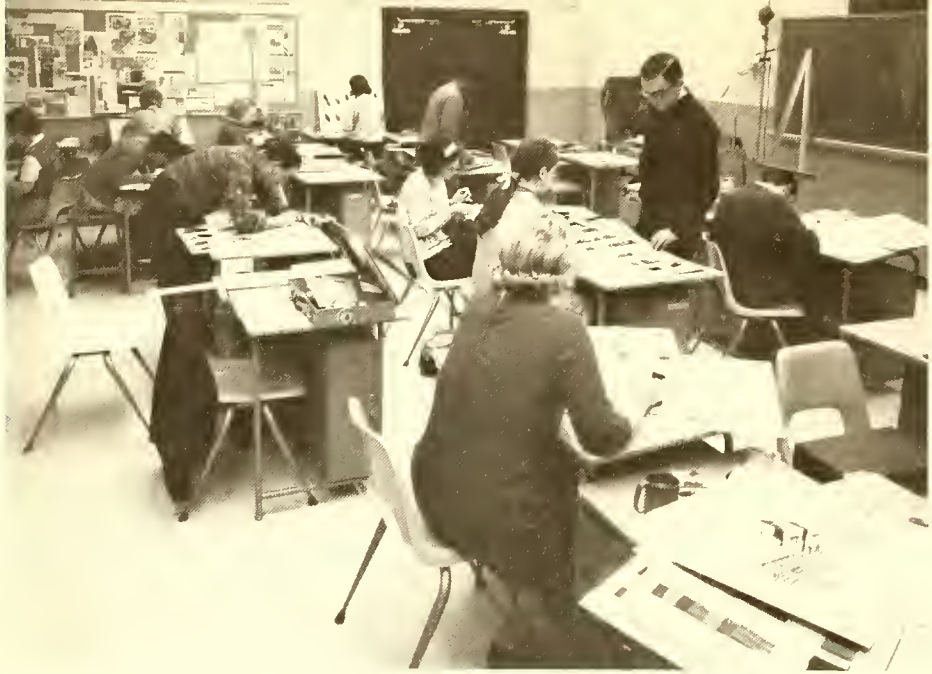
M. H. Branson

President

# THE INSTITUTE

RANDOLPH TECHNICAL INSTITUTE is an area vocational-technical school which accepts men and women for enrollment in a wide variety of subjects for the development of human resources. Each student is offered the type of education which will best provide for professional competence in his major field of study. We believe that this nation will remain a great and strong nation, a leader in world affairs and an innovator of many sorts, as long as its people are an educated people. Also, we believe that in the American tradition each person who comes to us as a student has the right as an individual to the very best educational opportunity that the community and state can provide and that we are obligated, therefore, to consider each student in the light of his potential and work with him in a manner designed to help him develop all of his capacities to the fullest. Training of highly skilled craftsmen and technicians is more important today than ever before because of the rapid industrialization of the South. New developments and higher standards of service go hand-in-hand with progress and change. In such a world, professional competence is of prime importance. If students are to take their places as fully contributing members of society, knowledge must be available at all levels. RANDOLPH TECHNICAL INSTITUTE recognizes this concept as one element of education, and programs offered by the institute will enable qualified youth and adults to successfully meet the challenges of our changing society. Demand for adequately trained students should far exceed the supply for many years to come. This institution will continue to meet area situations by its growth and expansion. Courses, programs, facilities and equipment will be added as demands become apparent and trends are determined.

It is to these ends that the RANDOLPH TECHNICAL INSTITUTE Board of Trustees and its administrative and instructional personnel must continue to have "deep-rooted" interests in vocational-technical education. We propose to have our institution as one which attempts to meet all of the educational needs of our adults and which sends its graduates into the industrial and business complex to become good, contributing members of society. It is to these ends, also, that we must be on the alert always to improve ourselves professionally, to discover better methods of performing our duties, and to understand the complex needs of our people.



# PROGRAMS OF STUDY

## VOCATIONAL AND TECHNICAL (Occupational)

RANDOLPH TECHNICAL INSTITUTE offers occupational education and training in vocational-technical curriculums including:

Two-year Associate in Applied Science Degree programs in engineering, agricultural, and design related technologies and semi-professional careers.

Diploma programs in industrial and service occupations. (Continuing education)

## COMMUNITY SERVICE EDUCATION

The Institute offers programs to meet the needs of the adult community through a wide range of courses in several areas:

Adult Basic Education courses in fundamentals of reading, writing, spelling and arithmetic (grades 1-8);

Adult Learning Laboratory — adult high school courses using programmed instruction (grades 8-12); General education courses for adults. Classes are offered year-round, day and evenings.

## DAY PROGRAMS

The Institute conducts all vocational and technical programs on a full-day basis. Vocational curricula operate five days per week with a thirty hour load. Technical curricula operate five days per week with a twenty-five hour load.

## SUMMER QUARTER

RANDOLPH TECHNICAL INSTITUTE conducts a summer quarter for all vocational programs. All art and design curriculums will offer controlled work-experience during the summer quarter.

## DEGREES

RANDOLPH TECHNICAL INSTITUTE offers the following degree: Associate in Applied Science for satisfactory completion of a specific program of study in occupational education.

**Specific requirements for the Associate in Applied Science Degree**

Satisfactory completion of an approved program of not less than 108 credit hours. A minimum cumulative grade point average of 2.0. (Students must have twice as many quality points as credit hours attempted in order to graduate. Satisfy all general and specific requirements of the Institute, including fulfillment of all financial obligations.

## CERTIFICATES AND DIPLOMAS

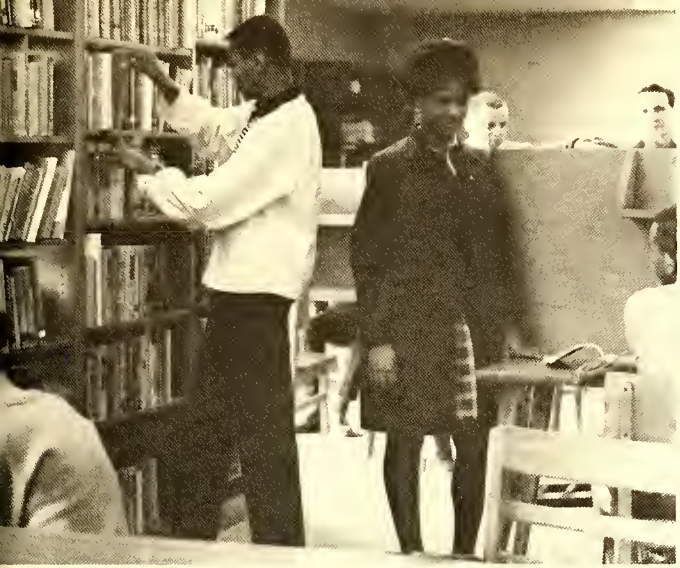
RANDOLPH TECHNICAL INSTITUTE awards certificates and diplomas for a wide variety of vocational and educational programs. Vocational diplomas are issued for completion of all one-year trade-level programs.

## CAMPUS FACILITIES

The Institution is housed in modern air-conditioned facilities in excess of 40,000 sq. feet. The building utilization is designed to meeting the educational needs of the student.

The present facilities at RANDOLPH TECHNICAL INSTITUTE consists of classrooms, shops, studio, library, teaching auditorium, and administrative and student services.

RANDOLPH TECHNICAL INSTITUTE is situated on a 25-acre campus, south of the business district in Asheboro. Located between Highway 220 By-Pass and Fayetteville Street, the Institute is easily accessible from Highways 64 and 220. It is expected that an expansion to the present campus will be needed in the near future to meet enrollment demands.



## BOOK STORE

In an effort to provide facilities that will make the educational process more complete, RANDOLPH TECHNICAL INSTITUTE provides an open book store for its students.

A wide variety of supplies are carried in the book store. In addition to the regular items, such as paper, pencils, portfolio, and drafting equipment, the store also carries such varied items as asbestos welding gloves, water colors, acrylic and oil paints, machine shop scales, and other student supplies. In addition to stocking the standard required textbooks, a wide variety of paper books are constantly in stock. The title selections cover both technical and vocational curriculums, plus books for pure reading enjoyment.

By providing such services, students at RANDOLPH TECHNICAL INSTITUTE have a quick and usable supply of resource material to supplement both required text and resource library material.

## INSTRUCTIONAL RESOURCE CENTER

The instructional resource center is the modern concept of the technical institute library. The library concept has been expanded to include all of the various research and study facilities.

RANDOLPH TECHNICAL INSTITUTE library is housed in new, spacious, well-lighted multipurpose quarters which features a reading lounge area and a seating capacity of 75 students.

The library contains approximately 6,000 volumes primarily in the scientific and technical area, with new volumes being added each year to meet the need of expanding curricula. The reference collection contains 7 sets of major encyclopedias and more than 150 specialized dictionaries, handbooks and reference books. The library subscribes to more than 125 periodicals of which about 50% are technical and trade, 15% professional and 35% general.

The Learning Laboratory will also use the facilities with a general office off from the main library. This area of the institute offers the best in programmed instruction to aid the student to finish high school or study a particular subject that is of interest.

The library is open from 8:00 a.m. to 10:00 p.m. daily with student library assistants and a librarian available to assist students in finding specific information, and to help those needing assistance in use of catalog or periodical indexes.

Every effort has been made at RANDOLPH TECHNICAL INSTITUTE to provide an atmosphere in the library that is conducive to research and study. As RANDOLPH TECHNICAL INSTITUTE grows, its instructional resource center will assume increasing importance in its total educational program.

## ADMISSION AND REGISTRATION

(Student Personnel Services)

Admission and registration is located in the Student Personnel Services adjacent to the student commons. This office is open from 8:00 a.m. to 5:00 p.m. Monday through Friday. For admissions information, call Student Personnel Services, (919) 629-1471.

## ELIGIBILITY

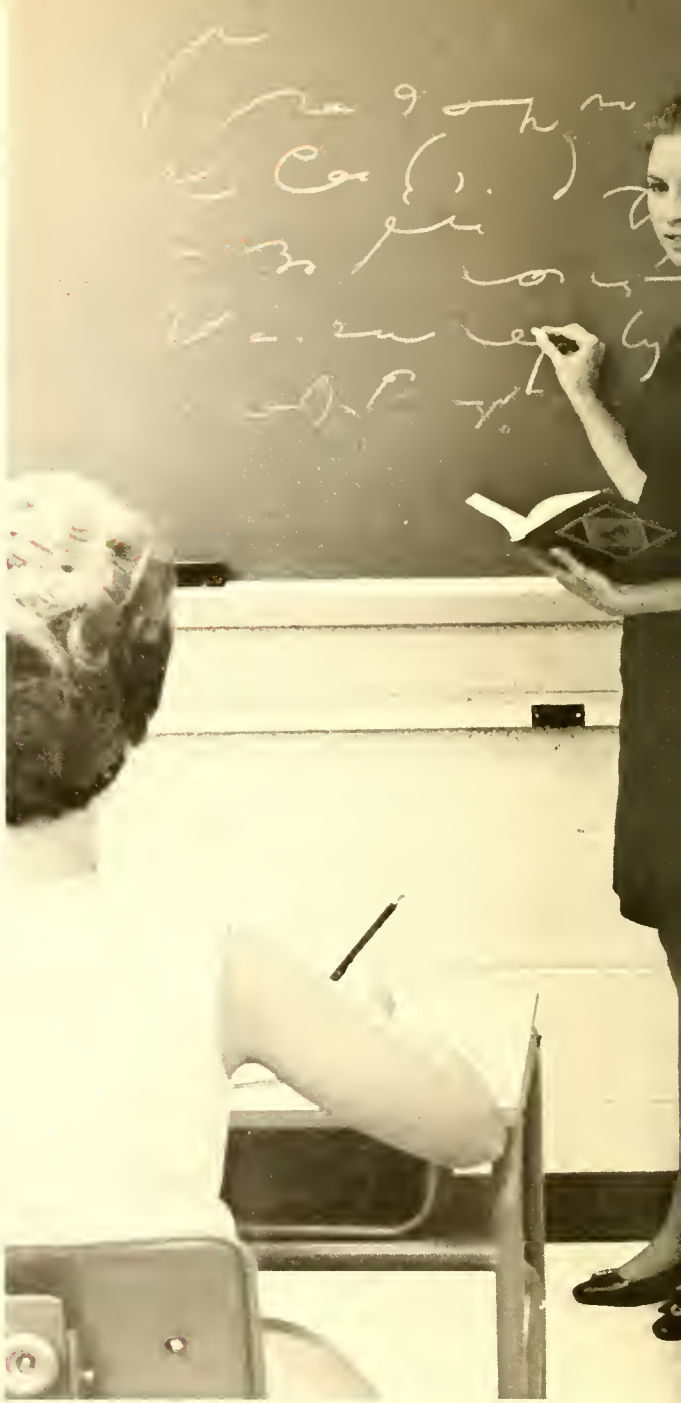
Applicants for admission to RANDOLPH TECHNICAL INSTITUTE must be 18 years of age or high school graduates if under eighteen. Special consideration may be given on an individual basis to students not meeting these specific entrance requirements. The Institute will accept students with a high school equivalency diploma into its vocational and technical programs.

Admission to RANDOLPH TECHNICAL INSTITUTE is open to all high school graduates and to transfer students from other colleges and universities.

## REGULAR STUDENTS

Students registered in continuing programs of the Institute leading to associate degrees and diplomas, including the Learning Laboratory high school equivalency program, are considered regular full-time students.

High school seniors intending to enroll in an occupational curriculum should submit their applications January 1 of their senior year, or as soon after as possible, for admission to the fall quarter of that year. Applicants will be notified of receipt of their applications and fees. No application will be processed until the fee has been paid. Applications can be obtained from all high school counselors and from the Institute Student Personnel Office.



## PRE-REGISTRATION REQUIREMENTS FOR REGULAR STUDENTS

**Pre-Registration Requirements**

Official transcripts — Applicants who are high school graduates should request their high school counselors to submit a copy of their high school transcript. In cases where the last six weeks work is not completed, a supplemental grade report should be forwarded to the Institute after the student's graduation.

Non-high school graduates should submit transcripts of all high school work.

Students transferring from other colleges or post-high school institutions must submit official transcripts from **all** such institutions attended.

Testing — (1) Applicants for admission to occupational programs are required to submit scores on the General Aptitude Test. (2) All new applicants for technical programs will be given a diagnostic reading test and developmental programs in reading will be offered simultaneously with regular scheduled English classes. (3) Pre-math test will be administered by the math instructor and scores will be used to determine teaching approach for most advantageous results.

Transcripts and test scores are not used as a basis for admission to the institute. They are used in counseling and advising students during registration.

## SPECIAL STUDENTS

Students who are not registered as regular full-time students in degree or diploma programs are considered special students. Admission requirements may differ from those for regular students; information can be obtained from the Student Personnel Office.

## FORMER STUDENTS

A regular student not currently enrolled who wishes to return to RANDOLPH TECHNICAL INSTITUTE must apply for re-admission at least one month before the quarter he wishes to attend.

## FOREIGN STUDENTS

Credentials of applicants from foreign countries will be evaluated in accordance with the general admission policy. An application, along with all necessary transcripts, must be submitted to the Institute no later than May 15 in the year the applicant desires to enter. Applicants must demonstrate a satisfactory command of English.

## HOUSING — TRANSPORTATION

Students seeking housing arrangements are to check with the Student Personnel Office to obtain the list of approved housing. The Institute will assist all students in making necessary arrangements. All housing is off campus in the community of Asheboro. Expenses for meals and lodging will be approximately $18.00 per week. Students must furnish their own transportation.

## REGISTRATION

Registration is the process of enrolling in a schedule of courses, or a program at the beginning of each quarter or at other specified times.

## LATE REGISTRATION

A late registration fee of $5 will be charged to all students, **without exception,** who register after the regular registration dates on the school calendar.

## COUNSELING

A staff which includes counselors, and other specialized workers provides appropriate counseling service as indicated by the students' needs.

**Admissions Counseling**

is provided to assist students to understand the various types of training programs available in the Institute and to clarify matters which pertain to qualifications and pre-requisites.

**Vocational Counseling**

is provided to help those students who wish

additional assistance in regard to the selection of a vocational objective or specialized field of study. Background of the individual, aptitudes as indicated by tests, current employment patterns, and other factors pertinent to the selection of a vocational choice are considered in making a final vocational choice.

Further information regarding counseling service is available through the Student Personnel Services.

## COUNSELING REQUIREMENTS

A full-time or part-time regular student must see a counselor within two weeks after receiving grades if:

He has earned a total of less than 25 quarter hours of credit, with a cumulative grade point average below 1.5.

He has earned 25 or more quarter hours of credit, with a cumulative grade point average below 1.75.

He has earned 48 or more quarter hours of credit, with a cumulative grade point average below 2.0.

## STUDENT ADVISORS

Each student is assigned a faculty advisor who assists him in planning a schedule to meet his educational goals.

The advisor serves as a consultant concerning class performance and problems, personal or personnel problems, and Institute activities. Advisors will normally be from the student's major field. The advisor also helps to identify students who need counseling or specialized counseling services.

## FINANCIAL AIDS

### Scholarships and Grants

Scholarships are awarded to deserving students who are enrolled or plan to enroll at RANDOLPH TECHNICAL INSTITUTE. To be eligible, an applicant must be enrolled and be in good standing, or be accepted for enrollment as a full-time student. Evaluation of scholarship applications is based on educational achievement, community and school activities, recommendations, future promise, and financial need.

The insured student loan program (College Foundation, Inc.) is available to both first year and continuing students. Under this program technical and vocational students may borrow for two years for a total of $2,000. Students attending a technical institute in North Carolina may contact the student aid officer at the Student Personnel Office for information and an application.

### Student Emergency Loans

Students who have satisfactorily completed one quarter at RANDOLPH TECHNICAL INSTITUTE may borrow sums up to $50 repayable in 30 or 60 days. These are granted to students who face sudden serious need for small loans. Students typically borrow from this fund to meet deadlines for tuition and/or the purchase of books and supplies when they cannot be expected to obtain the funds elsewhere.

### Student Employment

Students interested in working during the school year should be reminded that technical institute courses demand a considerable amount of a student's time. The office of Student Personnel Services assists in placing students in part-time jobs, primarily off campus. Many business firms make job opportunities available by registering their needs with this office. Efforts are made to place students on jobs for which they are capable and which do not interfere with their class schedule.

The Institute participates in the Vocational Work-Study Program. This federally supported program is intended for those students who can qualify under the financial terms of the program. Students may work up to 15 hours weekly while attending classes full time. During the summer and other vacation periods when they do not have classes, students may work full time (40 hours per week) under this program. Students who work 10 to 15 hours per week typically earn $350 to $600 per academic year.

## APPLYING FOR AID

Students may apply for a scholarship, a loan under the insured loan plan, or a campus job under the Vocational Work-Study Program by contacting the financial aid officer in the Student Personnel Office.

### Expenses

Asheboro and Randolph County area students who commute to RANDOLPH TECHNICAL INSTITUTE may expect to spend an average of $300 per year for tuition, books and supplies. Transportation to and from home is an additional expense. Non-resident students must consider off-campus room and board and personal expenses in addition to the above. A student in this category could expect an approximate total expense of $1,075.

## SOCIAL SECURITY BENEFITS

In 1965 the Social Security Act was changed to benefit some students attending college. For those who remain full-time students beyond high school, benefits have been extended from age 18 to 22. High school students who are less than 18 and are now receiving benefits should know that these benefits may continue as long as they are less than 22 years of age, unmarried, and enrolled as full-time students at an accredited college, university, vocational, trade, or technical school. The fact of this full-time attendance must be reported to the Social Security Administration.

## VETERANS INFORMATION

The new Veterans Readjustment Benefits Act (Public Law 358) provides educational subsistence to those veterans of the armed forces who served on active duty for more than 180 days, any part of which came after January 31, 1955. Applications should be sent to the Veterans Administration Regional Office, 301 North Main Street, Winston-Salem, North Carolina.

### Disabled Veterans

A veteran with a disability may have benefits under Public Law 894 or 815 and should make application to the nearest Veterans Administration Regional Office at least four weeks prior to registration.

### Children of Deceased or Disabled Veterans

The War Orphans Educational Assistance Act (Public Law 634) provides educational assistance for some children of deceased or totally and permanently disable veterans. Information regarding eligibility should be requested from a Veterans Administration Regional Office.

Once eligibility has been established, students should obtain admission to the Institute prior to making application to the Veterans Administration for a specific program. Students must have their course work approved by the institutions from which they plan to obtain a degree, and these courses must be listed on the Certificate of Eligibility, which is issued by the Veterans Administration. It is essential that all students entitled to veteran benefits present a copy of their Certificate of Eligibility to the Student Personnel Office, as soon as their registration is completed. Information regarding quarter credit requirements for subsistence may also be obtained from the school office. A period of two months should be allowed for the Veterans Administration subsistence check.

In cases where the minimum number of clock hours per quarter do not meet the requirements established by the Veterans Administration, Public Law 89-358, (25 hours technical, 30 hours vocational), a student may enroll on request for additional instructional hours deemed by the institution to be consistent with the program and appropriate to the student to make up twenty-five hours per week in a technical curriculum or sufficient hours of attendance to make up thirty hours per week in a vocational trade curriculum.

## LOW SCHOLARSHIP STATUS

A student whose cumulative grade point average falls below 1.75 any time after he completes 25 quarter hours of credit will be placed on low scholarship for that quarter. However, a student will be removed from low scholarship immediately in any quarter that his grade point average is 2.0 or higher.

## REPEATING A COURSE

A student who fails a course will be required to repeat the course with a passing grade in order to graduate. The first grade made on the course will be counted in the total quality point average.

## ACADEMIC PROBATION

Upon the recommendations of an Admissions Committee, Randolph Technical Institute will place on probation, students whose academic average drops below 1.5. If at any time a student's average drops below 2.0, he will be notified by the Student Personnel Office and reminded that it will be necessary to have a 2.0 before he can graduate.

Students on academic probation will have the following time limits on their probationary status:

1. One-Year Vocation Students - One Quarter
2. Two-Year Technical Students - Two Quarters

After his allotted time on probation, a student who is not off academic probation will be dismissed. In order to be readmitted, a student must meet the requirements of the Admissions Committee.

## ATTENDANCE

A student is responsible for maintaining regular prompt attendance in classes in which he is registered. Failure to do so may result in lowered grades or may cause the student to be dropped from the class and/or the Institute.

Absenteeism in excess of **20%** of the class hours scheduled per course for the quarter will result in an automatic failure.

## WITHDRAWAL FROM THE INSTITUTE

Students who find it necessary to withdraw from the institute during a quarter must report to the Student Personnel Office.

It is necessary to complete official withdrawal procedures. Failures to do so may be harmful to any future education or employment the student undertakes. Withdrawal procedures must be completed to be eligible for refund consideration.

## ATHLETICS

RANDOLPH TECHNICAL INSTITUTE will be offering a program of inter-collegiate sports as interests, needs, and facilities are available. Limited intramural programs will be organized as facilities and student interest dictate.

## CLASSIFICATION OF STUDENTS

**Full-time student:**

A student enrolled for 13 or more quarter hours is considered a full-time student.

**Part-time student:**

A student enrolled for 12 or less quarter hours is considered a part-time student.

**Special student:**

Any student who is not enrolled in a regular curriculum and whose final objective does not include graduation from RANDOLPH TECHNICAL INSTITUTE is classified as a special student.

## RULES AND REGULATIONS

All students are expected to conduct themselves in and around the campus in a manner in keeping with the highest standard of integrity and moral conduct. The following are specific areas of concern:

### Dress

As important as the technical and vocational knowledge a student gains from his post high school education is the opportunity he receives to acquaint himself with acceptable standards of dress and behavior. Each student is expected to adhere to the standards of dress demanded of the trade, business, or profession for which he is preparing.

### Parking

Adequate parking facilities have been provided for students, faculty, and visitors. Students may not park in spaces reserved for faculty and staff personnel. Students may park in any other areas in either the east or west parking lots. No privately owned vehicles shall be parked in any service driveway or on the aprons around the vocational building. A maximum speed limit of 10 miles per hour should be followed by all who drive on school property. Vehicles belonging to students will be towed away at owner's expense if parked in assigned spaces or driveways.

### Alcoholic Beverages and Drugs

The use or consumption of, being under the influence of, or being in possession of intoxicating beverages or drugs is prohibited on campus. To do so may result in permanent dismissal.

### Facilities

Use of school facilities by students, organizations or clubs must be approved by the administration.

### Financial Responsibility

Students are not permitted to default in the payment of fees, fines, loans, or other financial obligations due the school. All tuition, fees and other expenses must be paid prior to entering class. Any deviation from this policy must be approved by the president of the Institute.

### Gambling

All forms of gambling are prohibited. To do so may result in permanent dismissal.

### Accident Insurance

All students enrolled at RANDOLPH TECHNICAL INSTITUTE may participate in an accident insurance plan. This is offered on a voluntary basis and the Institute in no way underwrites this plan. Cost of this insurance is $3 per year. The administration encourages each person enrolling in a program to participate in this plan. Our office staff will be available to answer questions.

### Use of Telephones and Telephone Calls

No student will be taken out of class for a telephone call unless it is an emergency. There is a telephone in the lounge area for student use. Please do not ask to use school telephones.

### Smoking

Smoking may be permitted in various parts of the building dependent upon the activity and approval of the instructor. Smoking **is not** permitted at any time in the library or teaching theater. Good housekeeping practices should be maintained.

### Food and Drink

An area has been provided for snacks and drinks. Students and staff shall consume these items in the places designated and not in halls, shops, labs, and classrooms.

## ADMISSION WITH ADVANCED PLACEMENT

This provides for advanced placement based on the proficiency determination. Where an individual student's occupational experience and/or educational background closely parallels those experiences covered by a scheduled course, the appropriate instructor may evaluate the student's performance in these academics or skills by appropriate proficiency examinations to determine waiver of such courses. Where courses are waived for a student: (1) student will not register for that course, (2) the proficiency determination will be noted on student's permanent record without quality point consideration, and (3) student must substitute with prior approval of Director of Occupation Education appropriate electives to complete 96 quarter hours for technical curriculums. These electives may be individual research reports, independent studies, regularly scheduled courses, etc.

No proficiency examinations will be given prior to the approval of the Director of Occupational Education and speciality instructor concerned.

## WORK EXPERIENCE

Students enrolled in Commercial Graphics, Furniture Design, Interior Design, and Photography will have a required 10 week period of controlled work experience during the spring quarter of their second year. A major objective of this work experience program is to help students gain experience and knowledge in their particular field.

## PRE-TECHNICAL — DEVELOPMENTAL STUDIES

Certain pre-technical courses will be offered on an optional basis during the summer preceding the freshman year for those students who need developmental studies prior to entrance into the technical curriculum. Counseling and interview sessions prior to acceptance will determine if the student needs to enroll in the developmental studies.

## STUDENT ACTIVITIES

RANDOLPH TECHNICAL INSTITUTE attempts to provide as wide a variety of extra-curricular activities for students as possible. The Institute believes that such activities contribute to the overall growth and educational development of the individual. Each department is given the opportunity to form or expand a student club.

## STUDENT GOVERNMENT

All regular full-time students of the Institute are eligible to be represented through the student advisory council. Each department in the Institute is represented by one member of the class who serves on the student advisory council. The student advisory council is active in promoting the interests of the students, improving special facilities, organizing social events, and assisting organizations of the student body.

## REFUND POLICY FOR STUDENTS

Tuition refund for students shall not be made unless the student is, in the judgment of the Institution, compelled to withdraw for unavoidable reasons. In such cases, two-thirds (2/3) of the student's tuition may be refunded if the student withdraws within ten (10) calendar days after the first day of classes as published in the school calendar. Tuition refunds will not be considered for tuition of five dollars ($5) or less, except if a course or curriculum fails to materialize. Curriculum students who are attending as veterans and are receiving benefits under U. S. Code Title 38, Chapter 33 and 35, will be refunded under the provision of VA Regulation 14255. All students who withdraw from the Institute must have all financial obligations cleared by the business office before a refund will be issued.

## CREDITS

Credits for courses leading to Associate in Applied Science Degrees and vocational diplomas are given on a quarterly credit-hour basis. (In general, a class which meets one hour, five days a week yields five credit hours.) Laboratory and shop classes vary from this pattern.

## TRANSFER CREDIT

The Institute reserves the right to accept or reject credits earned at other colleges, universities, and institutions. In general, credit earned with a grade of "C" or better is accepted, provided the credit is appropriate to the student's program.

## GRADING SYSTEM

Letter symbols are used in the evaluation of achievement in all occupational programs. Numerical values (quality points) are assigned to letter grades in computing grade point averages.

Grade point averages are determined by dividing total grade points earned by total credit hours attempted. Cumulative grade point averages (G.P.A.) are determined by dividing total grade points by total credit hours earned for a period of more than one quarter.

| Numerical | Grade | Evaluation | Points |
|---|---|---|---|
| 93-100 | A | Excellent | 4 |
| 85- 92 | B | Above Average | 3 |
| 77- 84 | C | Average | 2 |
| 70- 76 | D | Minimum | 1 |
| Below 70 | F | Failure | |
| | I | Incomplete | |
| | W | Withdrawal | |

### Incomplete

Assigned at the discretion of the instructor and approval of the Director of Occupational Education for incomplete course work. For the course(s) where an **I** is assigned, hours will not be counted in quality point computation for that quarter, however an **I** must be completed during the following quarter or it automatically becomes an **F**.

### Withdrawal

Students desiring to withdraw from the Institute should contact the office of Student personnel to obtain the necessary forms and procedures for official withdrawal. A student who fails to withdraw officially will receive a grade of **F** for each course in which he is enrolled.

### Grade Reports

A grade report normally is issued to a student each quarter, provided his credentials and financial obligations to the Institute are in order. Grade reports will be mailed to all students.

### Honor Roll for Regular Sudents

A regular student who is enrolled for at least thirteen quarter hours of courses or the equivalent, receives no incompletes, and earns a grade point average of 3.0 or above is listed on the quarterly honor roll of the Institute.

### Occupational Programs, Day and Evening

Programs will be cancelled only by the President of the Institute. The decision of the Asheboro/Randolph County school superintendent's has no bearing on RANDOLPH TECHNICAL INSTITUTE operating its adult program during inclement weather. Our decision will be broadcast by radio and television stations.

Students and staff are requested **not** to call the administrative office. If you hear the announcement on radio and television, you can accept this as the Institute's procedure. Announcements will be made by 7 a.m. and 5 p.m. for the day and evening programs respectively.

## QUARTERLY FEES

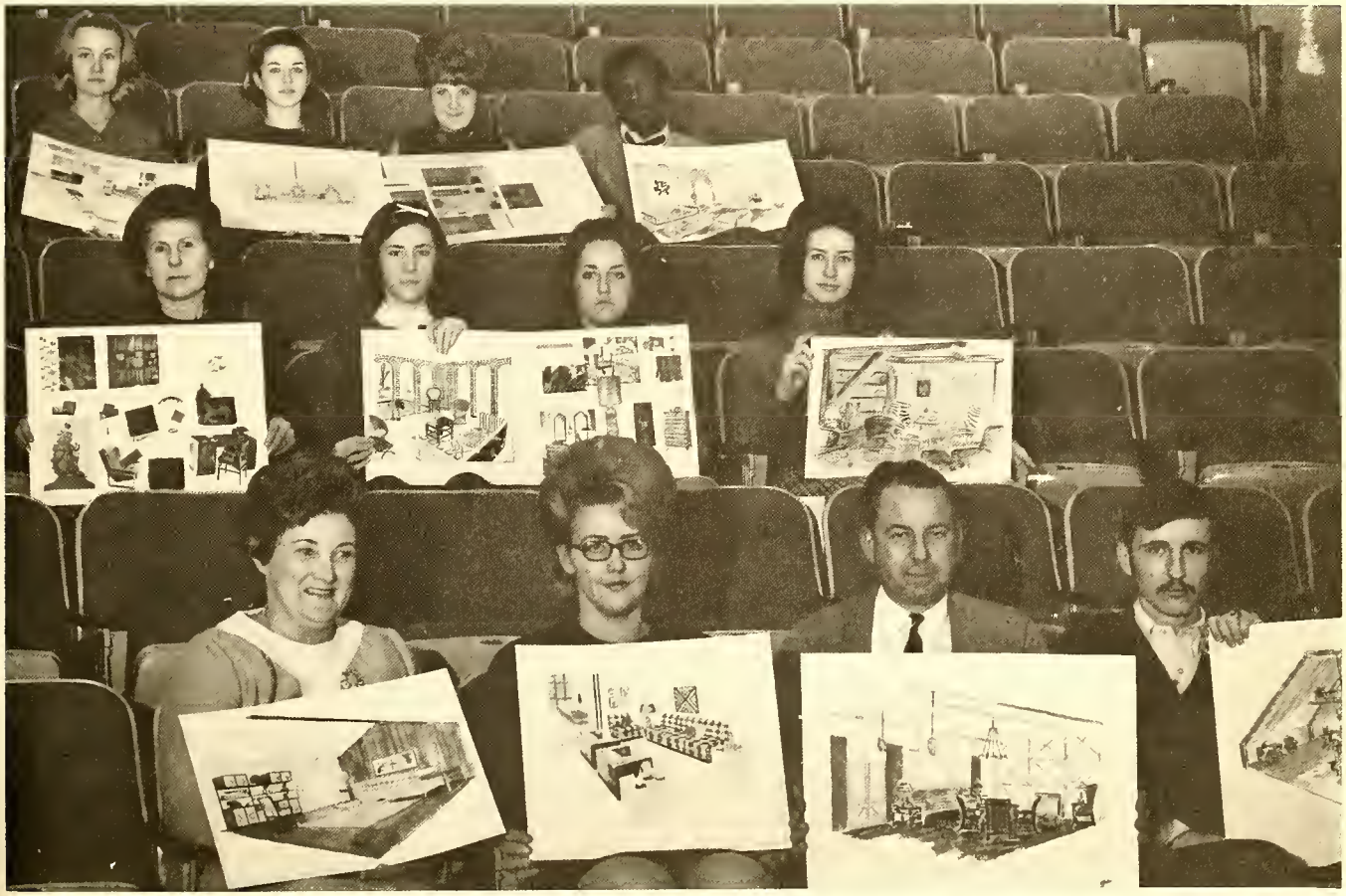
| | Resident | Non-Resident |
|---|---|---|
| Full-Time Preparatory | $32.00 | $80.00 |
| Part-Time Preparatory Per Credit Hour | 2.50 | 6.25 |

## MISCELLANEOUS SERVICE CHARGES

| | |
|---|---|
| * Application Fee (Paid one time only by all regular curriculum students.) | $10.00 |
| Year Book Fee | 5.00 |
| Official Transcript Fee (Each regular student will receive two transcripts free; additional copies each) | .50 |
| Graduation Fee (Includes degree or diploma) | 7.00 |

*(Non-Refundable in event of withdrawal from the institute.)

| | |
|---|---|
| Adult Basic Education | No Charge |
| High School Equivalency Program | No Charge |
| Public Service Programs | No Charge |
| Business and Industrial Service Programs | $1.00/10 Hours Instruction |
| Professional In-service Training | $1.00/10 Hours Instruction |
| Cultural Enrichment Programs | $1.00/10 Hours Instruction |



# OCCUPATIONAL CURRICULUMS

RANDOLPH TECHNICAL INSTITUTE provides occupational education for immediate opportunities, as well as those its students will find in the future. As the Institute looks to the future, it recognizes that the technology of instruction must constantly change in meeting the needs of modern education. New concepts, new programs of study are necessary as the institute plans and grows for tomorrow.

New facilities, programs, and methods of instruction will reflect the best in current growth and progress occurring nation wide, as well as advice from progressive lay advisory groups. This pattern of growth must be constantly evaluated, developed, controlled, and realistically applied if it is to serve as the vehicle by which our educational philosophy progresses.

Only by the development of a total education program can RTI bring about the social, economic, and attitudional changes necessary to the growth of its citizens.

Vocational and technical education not only offers the individual an opportunity to acquire skills but to develop those capacities for citizenship, self-respect and leadership so essential in becoming a well-educated person. It is to these goals that the Institute is dedicated.

Vocational and technical education at RANDOLPH TECHNICAL INSTITUTE has the following basic purposes: to prepare students for entry level employment, to provide programs for individuals who need further training to maintain or advance in their employment, to offer new and unique curriculums in keeping with future needs of industry in the area served by the Institute. Advisory committees assist in planning and evaluating curriculums and course content.

## OCCUPATIONAL PREPARATORY PROGRAMS

### Diploma Programs

The Institute offers five diploma programs. These one-year programs of study are designed to prepare students for entry employment in health-service and industrial occupations. These programs of study, which provide extensive skilled training in specific occupations, emphasize functional shop-laboratory work. Related technical and special general education instruction is offered through separate supporting courses or is integrated into the occupational content of these programs. Diploma programs offered at RANDOLPH TECHNICAL INSTITUTE are: Automotive Mechanics, Electrical Maintenance, Machinist, Practical Nursing, and Welding.

### Associate in Applied Science Degree Programs

The Vocational and Technical Division of the Institute offers nine Associate in Applied Science Degree programs. These two-year programs are designed to prepare students for semi-professional and technical careers in business, industry, and art and design occupations. Program content includes technical specialty courses, allied supporting subject matter, and special general education courses. Associate degree programs offered are: Agricultural Business, Business Administration, Electronics, Floral Design and Management, Furniture Design, Commercial Graphics, Interior Design, Photography, and Secretarial Science.

Associate in Applied Science Degree courses are not designed to transfer to four-year colleges or universities.

### Program and Course Descriptions

Each program of study described in this curriculum listing has a specific program designation which includes a prefix identifying whether the course is for technical or a one-year vocational diploma curriculum. For example, T-ELN 105 designates a technical electronics course while WELD 1122 indicates a course in the welding diploma program.

## RECOMMENDED HIGH SCHOOL PREPARATION

AGRICULTURAL BUSINESS
Two Years Mathematics, Laboratory Science

AUTOMOTIVE MECHANICS
Algebra or Modern Mathematics

BUSINESS ADMINISTRATION
Business Mathematics, Economics, Business Courses

COMMERCIAL GRAPHICS
Geometry, Art Courses

ELECTRICAL MAINTENANCE
Algebra or Modern Mathematics

ELECTRONICS TECHNOLOGY
Geometry, Advanced Algebra, Trigonometry, Physics, and Mechanical Drawing Courses

FLORAL DESIGN AND MANAGEMENT
Two Years Mathematics, Business Courses, Human Relations Course (Proposed - 1970-71)

FURNITURE DESIGN TECHNOLOGY
Geometry, Art, and Mechanical Drawing Courses

INTERIOR DESIGN
Home Economics, Art, and Mechanical Drawing Courses

MACHINIST
Algebra, Geometry

NURSING (LPN)
Modern Mathematics, Laboratory Science, Human Relations Course

PHOTOGRAPHY
Geometry, Chemistry, and Physics

SECRETARIAL SCIENCE (EXECUTIVE)
Business Mathematics, Business Courses

WELDING
Two Years High School Mathematics

# AGRICULTURAL AND BIOLOGICAL EDUCATION

## ARGICULTURAL BUSINESS TECHNOLOGY

Associate in Applied Science Degree

The Agricultural Business program is designed to prepare an individual to enter the broad field of Agricultural Business where the demand is ever increasing for additional knowledge in specific areas of business as well as production and management for technical agriculture.

Emphasis is placed on a strong background in accounting, operation of office machines and general business procedures. The program is designed to prepare an individual to enter a cluster of private, public and civil service Agricultural Business occupations:

- Management Trainee
- Farm Manager
- Greenhouse Specialist
- Field Serviceman
- Farm Products Inspector

The series of courses listed are designed to prepare the student to meet: (1) the requirement for the associate degree (2) the requirements to enter the occupational field of his choice as a qualified technical specialist.

## AGRICULTURAL BUSINESS TECHNOLOGY

| Course Title | Hours Per Week Class | Lab. | Quarter Hours 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-AGR 170 Plant Science | 5 | 2 | 6 |
| T-AGR 100 Introduction to Technical Agriculture | 2 | 0 | 2 |
| *Totals* | 20 | 2 | 21 |
| SECOND QUARTER | | | |
| T-ENG 102 Composition | 3 | 0 | 3 |
| T-AGR 185 Soil Science and Fertilizers | 5 | 2 | 6 |
| T-BUS 120 Accounting | 5 | 2 | 6 |
| T-AGR 104 Introduction to Agricultural Economics | 3 | 2 | 4 |
| *Totals* | 16 | 6 | 19 |
| THIRD QUARTER | | | |
| T-ENG 103 Report Writing | 3 | 0 | 3 |
| T-BUS 110 Office Machines | 2 | 2 | 3 |
| T-BUS 121 Accounting | 5 | 2 | 6 |
| T-AGR 125 Animal Science | 5 | 2 | 6 |
| *Totals* | 15 | 16 | 18 |
| FOURTH QUARTER | | | |
| T-ENG 204 Oral Communication | 3 | 0 | 3 |
| T-BUS 123 Business Finance | 3 | 0 | 3 |
| T-BUS 232 Sales Development | 3 | 0 | 3 |
| T-AGR 204 Farm Business Management | 5 | 2 | 6 |
| Elective | 0 | 0 | 3 |
| *Totals* | 14 | 2 | 18 |
| FIFTH QUARTER | | | |
| T-AGR 218 Agricultural Mechanization | 3 | 2 | 4 |
| T-AGR 201 Agricultural Chemicals | 5 | 2 | 6 |
| Social Science Elective | 3 | 0 | 3 |
| Elective | 0 | 0 | 3 |
| *Totals* | 13 | 4 | 16 |
| SIXTH QUARTER | | | |
| T-AGR 228 Livestock Diseases and Parasites | 3 | 2 | 4 |
| T-AGR 205 Agricultural Marketing | 5 | 2 | 6 |
| Social Science Elective | 3 | 0 | 3 |
| Elective | 0 | 0 | 5 |
| *Totals* | 11 | 4 | 18 |
| Total Hours in Courses | | | 99 |
| Electives (Max.) | | | 11 |
| Totals | | | 110 |

## FLORAL DESIGN

(Proposed 1970 - 1971)

Associate in Applied Science Degree

The Floral Design and Management curriculum is designed to prepare students for entry into the expanding floral industry.

This curriculum emphasizes not only the acquisition of the art of buying and arranging flowers and the management of a retail flower shop, but the art of salesmanship, effective communications, and sound business management. The program is designed to prepare the graduate for the following job opportunities:

- Flower Buyer
- Floral Designer
- Floral Sales
- Flower Shop Supervisor
- Retail Manager-Owner

The broad management and floral training provided in this curriculum, along with experiences gained on the job, should provide the graduate with adequate skills for a worthwhile position in the floral industry.

# FLORAL DESIGN AND MANAGEMENT TECHNOLOGY

| Course Title | Hours Per Week Class | Lab. | Quarter Hours Credit |
|---|---|---|---|
| *FIRST QUARTER* | | | |
| T-ENG 101 Grammar | 3 | 0 | 3 |
| T-BUS 101 Introduction to Business | 5 | 0 | 5 |
| T-DES 102 Design I | 2 | 6 | 4 |
| T-MAT 110 Business Math | 5 | 0 | 5 |
| Floral Design | 1 | 6 | 3 |
| *Totals* | 16 | 12 | 20 |
| *SECOND QUARTER* | | | |
| T-ENG 102 Composition | 3 | 0 | 3 |
| T-BUS 120 Accounting | 5 | 2 | 6 |
| T-DES 112 Design II | 2 | 6 | 4 |
| T-BUS 115 Business Law | 3 | 0 | 3 |
| Floral Design II | 1 | 6 | 3 |
| *Totals* | 14 | 14 | 19 |
| *THIRD QUARTER* | | | |
| T-ENG 103 Report Writing | 3 | 0 | 3 |
| T-BUS 121 Accounting | 5 | 2 | 6 |
| T-DES 125 Color Theory and Application | 2 | 4 | 4 |
| T-BUS 110 Office Machines | 2 | 2 | 3 |
| Floral Design III | 1 | 6 | 3 |
| *Totals* | 13 | 14 | 19 |
| *FOURTH QUARTER* | | | |
| Work Experience | 0 | 40 | 4 |
| *FIFTH QUARTER* | | | |
| T-ENG 204 Oral Communications | 3 | 0 | 3 |
| T-AGR 170 Plant Science | 5 | 2 | 6 |
| T-BUS 232 Sales Development | 3 | 0 | 3 |
| Elective | 3 | 0 | 3 |
| Floral Design IV | 1 | 6 | 3 |
| *Totals* | 15 | 8 | 18 |
| *SIXTH QUARTER* | | | |
| T-BUS 243 Advertising | 3 | 2 | 4 |
| T-BUS 123 Business Finance | 3 | 0 | 3 |
| Elective | 2 | 2 | 3 |
| Social Science Elective | 3 | 0 | 3 |
| Floral Design V | 1 | 6 | 3 |
| *Totals* | 12 | 10 | 16 |
| *SEVENTH QUARTER* | | | |
| T-BUS 229 Taxes | 3 | 2 | 4 |
| T-BUS 271 Office Management | 3 | 0 | 3 |
| T-ARG 153 Greenhouse Management | 1 | 6 | 3 |
| Social Science Elective | 3 | 0 | 3 |
| Floral Design VI | 1 | 6 | 3 |
| *Totals* | 12 | 12 | 16 |
| Total Quarter Hours in Courses | | | 96 |
| Electives (Min.) | | | 12 |
| *Totals* | | | 108 |

# BUSINESS AND COMMERCE

## BUSINESS ADMINISTRATION

Associate in Applied Science Degree

The business administration program has as its specific objectives to develop an understanding of the principles of organization and management in business operations. To obtain knowledge in accounting, finance, and business law. Successful completion of the program will allow graduates to pursue the following career opportunities:

- Sales Person
- Office Clerk
- Manager Trainee
- Production Supervisor Trainee
- General Business Trainee

Successful completion of the following courses will allow the business graduate to enter the working world with professional competence for the many phases of administrative work that might be encountered in the average business.

# BUSINESS ADMINISTRATION

| Course Title | Hours Per Week Class | Lab. | Quarter Hours Credit |
|---|---|---|---|
| *FIRST QUARTER* | | | |
| T-ENG 101 Grammar | 3 | 0 | 3 |
| T-BUS 102 Typewriting | 2 | 3 | 3 |
| T-MAT 110 Business Mathematics | 5 | 0 | 5 |
| T-BUS 101 Introduction to Business | 5 | 0 | 5 |
| T-ECO 102 Economics | 3 | 0 | 3 |
| *Totals* | 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 123 Business Finance | 3 | 0 | 3 |
| *Totals* | 17 | 2 | 18 |
| *THIRD QUARTER* | | | |
| T-ENG 103 Report Writing | 3 | 0 | 3 |
| T-BUS 124 Business Finance | 3 | 0 | 3 |
| T-BUS 110 Office Machines | 2 | 2 | 3 |
| T-BUS 121 Accounting | 5 | 2 | 6 |
| T-BUS 116 Business Law | 3 | 0 | 3 |
| *Totals* | 16 | 4 | 18 |
| *FOURTH QUARTER* | | | |
| T-ENG 204 Oral Communication | 3 | 0 | 3 |
| T-BUS 232 Sales Development | 3 | 0 | 3 |
| T-EDP 104 Introduction to Data Processing Systems | 3 | 2 | 4 |
| T-BUS 239 Marketing | 5 | 0 | 5 |
| Elective | 3 | 0 | 3 |
| *Totals* | 17 | 2 | 18 |
| *FIFTH QUARTER* | | | |
| T-ENG 206 Business Communication | 3 | 0 | 3 |
| Social Science Elective | 3 | 0 | 3 |
| T-BUS 243 Advertising | 3 | 2 | 4 |
| T-BUS 235 Business Management | 3 | 0 | 3 |
| Elective | 3 | 0 | 3 |
| *Totals* | 15 | 2 | 16 |
| *SIXTH QUARTER* | | | |
| Social Science Elective | 3 | 0 | 3 |
| T-BUS 229 Taxes | 3 | 2 | 4 |
| T-BUS 272 Principles of Supervision | 3 | 0 | 3 |
| T-BUS 271 Office Management | 3 | 0 | 3 |
| Elective | 6 | 0 | 6 |
| *Totals* | 18 | 2 | 19 |
| Total Quarter Hours in Courses | | | 96 |
| Electives (Min.) | | | 12 |
| *Totals* | | | 108 |

# BUSINESS AND COMMERCE

## EXECUTIVE SECRETARY

Associate in Applied Science Degree

The executive secretarial program has as its objective to develop self-assurance, abilities, and maturity necessary in becoming a qualified executive secretary. Successful completion of the program allows individuals to enter the following occupational fields:

- Executive Secretary-Trainee
- Administrative Assistant-Trainee
- Secretarial-General
- Stenographic

Successful completion of the following courses will provide the secretary with an adequate background of technical skills and general knowledge essential to success in the business world. Social graces and human relations will be an important part of this two-year curriculum.

## SECRETARIAL SCIENCE

| Course Title | Hours Per Week Class | Lab. | Quarter Hours Credit |
|---|---|---|---|
| FIRST QUARTER | | | |
| T-ENG 101 Grammar | 3 | 0 | 3 |
| T-BUS 102 Typewriting | 2 | 3 | 3 |
| T-MAT 110 Business Mathematics | 5 | 0 | 5 |
| T-BUS 101 Introduction to Business | 5 | 0 | 5 |
| T-BUS 106 Shorthand | 3 | 2 | 4 |
| *Totals* | 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 |
| *Totals* | 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 |
| *Totals* | 13 | 7 | 16 |
| FOURTH QUARTER | | | |
| T-ENG 204 Oral Communication | 3 | 0 | 3 |
| T-BUS 206E Dictation and Transcription (Executive) | 3 | 2 | 4 |
| T-BUS 205 Advanced Typewriting | 2 | 3 | 3 |
| T-BUS 211 Office Machines | 2 | 2 | 3 |
| T-EDP 104 Introduction to Data Processing Systems | 3 | 2 | 4 |
| *Totals* | 13 | 9 | 17 |
| FIFTH QUARTER | | | |
| T-ENG 206 Business Communication | 3 | 0 | 3 |
| T-BUS 207E Dictation and Transcription (Executive) | 3 | 2 | 4 |
| T-BUS 214 Secretarial Procedures | 3 | 2 | 4 |
| Social Science Elective | 3 | 0 | 3 |
| Elective | 6 | 0 | 6 |
| *Totals* | 18 | 4 | 20 |
| SIXTH QUARTER | | | |
| Social Science Elective | 3 | 0 | 3 |
| T-BUS 208E Dictation and Transcription (Executive) | 3 | 2 | 4 |
| T-BUS 271 Office Management | 3 | 0 | 3 |
| Elective | 6 | 0 | 6 |
| *Totals* | 15 | 2 | 16 |
| Total Quarter Hours in Courses | | | 96 |
| Electives (Min.) | | | 12 |
| *Totals* | | | 108 |

# ELECTRONICS

## ELECTRONICS ENGINEERING TECHNOLOGY

Associate in Applied Science Degree

The Electronics Engineering Technology program is designed to provide a basic background in electronic related theory with practical application of electronics for business and industry. Emphasis is on technical development and professional growth of the individual. Entry level employment includes:

- Electronic Engineering Technician
- Computer Maintenance Technician
- Radio and TV Control Room Operator
- Electromechanical Technician
- Instrument Mechanic Technician
- Communications Technician
- Telemetry Technician
- Industrial Electronics Technician
- Technical Writer
- Production Technician

The broad technical training provided in this curriculum, along with additional experience gained on the job, will enable the graduate to advance to positions of increasing responsibility in the electronics industry.

## ELECTRONICS

| Course Title | Hours Per Week Class | Lab. | Quarter Hours 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-ELC 101 DC Circuit Analysis | 4 | 6 | 6 |
| *Totals* | 15 | 14 | 20 |
| **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-ELC 102 AC Circuit Analysis | 4 | 6 | 6 |
| *Totals* | 15 | 14 | 20 |
| **THIRD QUARTER** | | | |
| T-ENG 103 Report Writing | 3 | 0 | 3 |
| T-MAT 103 Technical Mathematics | 5 | 0 | 5 |
| T-ELN 101 Electronic Instruments and Measurements | 2 | 3 | 3 |
| T-ELN 105 Control Devices | 5 | 6 | 7 |
| T-EDP 104 Introduction to Electronic Data Processing Systems | 3 | 2 | 4 |
| *Totals* | 18 | 11 | 22 |
| **FOURTH QUARTER** | | | |
| T-ENG 204 Oral Communication | 3 | 0 | 3 |
| T-MAT 201 Technical Mathematics | 5 | 0 | 5 |
| T-PHY 104 Physics: Light and Sound | 3 | 2 | 4 |
| T-ELN 205 Electronics Fundamentals | 5 | 6 | 7 |
| *Totals* | 16 | 8 | 19 |
| **FIFTH QUARTER** | | | |
| T-ECO 205 Applied Economics | 3 | 0 | 3 |
| T-ELN 210 Semiconductor Circuit Analysis | 5 | 3 | 6 |
| T-ELN 214 Wave Shaping and Pulse Circuits I | 2 | 3 | 3 |
| T-ELN 240 Digital Computers | 3 | 6 | 5 |
| *Totals* | 13 | 12 | 17 |
| **SIXTH QUARTER** | | | |
| T-PSY 206 Applied Psychology | 3 | 0 | 3 |
| T-ELN 215 Wave Shaping and Pulse Circuits II | 2 | 3 | 3 |
| T-ELN 220 Electronic Systems | 5 | 6 | 7 |
| T-ELN 245 Electronic Design Projects | 0 | 6 | 3 |
| *Totals* | 10 | 15 | 16 |
| Total Quarter Hours in Courses | | | 108 |
| Electives (Min.) | | | 6 |
| *Totals* | | | 114 |

# ART AND DESIGN

## INTERIOR DESIGN

Associate in Applied Science Degree

The Interior Design curriculum is designed to prepare students for a variety of job opportunities in the field of design. The curriculum is based upon the fact that today's residential and commercial interiors must creatively express contemporary living.

The study of historical styles as well as currently manufactured products, coordination of color, furniture, floor coverings, fabrics, wallpapers, drapery, paneling, hardware, paints and accessories is an integral part of the course. The student has the opportunity to cover the elements of interior design and to demonstrate his abilities in interior coordination. Beautiful, functional interiors must be sold as well as created and to assist the student in this area, courses are included in sales development, psychology, and other related courses.

Graduates of this program may qualify for various positions with the following types of employers:

- Furniture Manufacturers
- Architects
- Furniture Design Studios
- Photography Studios
- Interior Design Studios
- Interior Furnishings Dealer

# INTERIOR DESIGN

| Course Title | Hours Per Week Class | Lab. | Quarter Hours Credit |
|---|---|---|---|
| *FIRST QUARTER* | | | |
| T-ENG 101 Grammar | 3 | 0 | 3 |
| T-MAT 110 Business Mathematics | 5 | 0 | 5 |
| T-ART 101 History of Art | 3 | 0 | 3 |
| T-DES 102 Design | 2 | 6 | 4 |
| T-DFT 101 Technical Drafting | 0 | 6 | 2 |
| *Totals* | 13 | 12 | 17 |
| *SECOND QUARTER* | | | |
| T-ENG 102 Composition | 3 | 0 | 3 |
| T-ART 111 History of Art | 3 | 0 | 3 |
| T-DES 112 Design | 2 | 6 | 4 |
| T-DFT 108 Architectural Drafting | 0 | 6 | 2 |
| T-DES 120 Life Drawing | 2 | 4 | 4 |
| *Totals* | 10 | 16 | 16 |
| *THIRD QUARTER* | | | |
| T-ENG 103 Report Writing | 3 | 0 | 3 |
| T-ART 121 History of Art | 3 | 0 | 3 |
| T-DES 122 Design | 2 | 6 | 4 |
| T-DES 125 Color Theory and Application | 2 | 4 | 4 |
| T-DFT 140 Layout Drafting | 0 | 6 | 2 |
| *Totals* | 10 | 16 | 16 |
| *FOURTH QUARTER* | | | |
| T-ENG 204 Oral Communications | 3 | 0 | 3 |
| T-DES 201 Interior Design | 3 | 15 | 8 |
| T-DES 121 Market Materials | 2 | 6 | 4 |
| T-DES 205 Period Styles in Furniture and Decorating | 5 | 0 | 5 |
| *Totals* | 13 | 21 | 20 |
| *FIFTH QUARTER* | | | |
| T-DES 206 Furniture Design and Construction | 2 | 4 | 4 |
| T-DES 211 Interior Design | 3 | 15 | 8 |
| T-BUS 232 Sales Development | 3 | 0 | 3 |
| Social Science Elective | 3 | 0 | 3 |
| *Totals* | 11 | 19 | 18 |
| *SIXTH QUARTER* | | | |
| T-DES 273 Controlled Work Experience | 0 | 40 | 4 |
| T-DES 272 Seminar | 3 | 0 | 3 |
| *Totals* | 3 | 40 | 7 |
| *SUMMER QUARTER* | | | |
| T-DES 221 Interior Design | 2 | 9 | 5 |
| T-DES 231 Commercial Design | 2 | 9 | 5 |
| T-ARC 250 Survey of Contemporary Architecture | 5 | 0 | 5 |
| T-DES 226 Accessories and Lighting | 3 | 0 | 3 |
| Social Science Elective | 3 | 0 | 3 |
| *Totals* | 15 | 18 | 21 |

| | |
|---|---|
| Total Quarter Hours in Courses | 100 |
| Work Experience | 7 |
| Electives | 8 |
| *Totals* | 115 |

## FURNITURE DESIGN TECHNOLOGY

Associate in Applied Science Degree

In recent years it has become increasingly apparent that the furniture industry is being guided by designers and that their designs are largely responsible for the fantastic growth of this industry. The job opportunities in the area of design and furniture styling are plentiful. This two-year curriculum is intended to produce a person who is design oriented, with capabilities in the areas of communications between designer and factory. Technical skill will be primarily in the areas of proportion, scale, professional presentation, and visual communication. Individual student success will depend upon individual initiative, technical and creative abilities.

Employment opportunities for which graduates may qualify include:

- Furniture Design Firms
- Design Consultants
- Furniture Manufacturers
- Lamp Accessory Manufacturers
- Furniture Hardware Manufacturers
- Finishing Companies
- Plastic Manufacturers

# FURNITURE DESIGN

| Course Title | Hours Per Week Class | Lab. | Quarter Hours Credit |
|---|---|---|---|
| *FIRST QUARTER* | | | |
| T-ENG 101 Grammar | 3 | 0 | 3 |
| T-MAT 110 Business Mathematics | 5 | 0 | 5 |
| T-ART 101 History of Art | 3 | 0 | 3 |
| T-DES 102 Design | 2 | 6 | 4 |
| T-DFT 101 Technical Drafting | 0 | 6 | 2 |
| *Totals* | 13 | 12 | 17 |
| *SECOND QUARTER* | | | |
| T-ENG 102 Composition | 3 | 0 | 3 |
| T-ART 111 History of Art | 3 | 0 | 3 |
| T-DES 112 Design | 2 | 6 | 4 |
| T-DES 131 Visual Communications | 0 | 6 | 2 |
| T-DES 120 Life Drawing | 2 | 4 | 4 |
| *Totals* | 10 | 16 | 16 |
| *THIRD QUARTER* | | | |
| T-ENG 103 Report Writing | 3 | 0 | 3 |
| T-ART 121 History of Art | 3 | 0 | 3 |
| T-DES 122 Design | 2 | 6 | 4 |
| T-DES 125 Color Theory and Application | 2 | 4 | 4 |
| T-DES 132 Visual Communications | 0 | 6 | 2 |
| *Totals* | 10 | 16 | 16 |
| *FOURTH QUARTER* | | | |
| T-ENG 204 Oral Communications | 3 | 0 | 3 |
| T-DES 241 Furniture Design | 2 | 6 | 4 |
| T-DES 205 Period Styles in Furniture and Decorating | 5 | 0 | 5 |
| T-DES 233 Visual Communications | 2 | 6 | 4 |
| T-DES 230 Design in Materials | 2 | 6 | 4 |
| *Totals* | 14 | 18 | 20 |
| *FIFTH QUARTER* | | | |
| T-BUS 232 Sales Development | 3 | 0 | 3 |
| T-DES 242 Furniture Design | 2 | 6 | 4 |
| T-DES 234 Visual Communications | 2 | 6 | 4 |
| T-DES 248 Furniture Sketching and Professional Presentation | 2 | 6 | 4 |
| Social Science Elective | 3 | 0 | 3 |
| *Totals* | 12 | 18 | 18 |
| *SIXTH QUARTER* | | | |
| T-DES 263 Controlled Work Experience | 0 | 40 | 4 |
| T-DES 262 Seminar | 3 | 0 | 3 |
| *Totals* | 3 | 40 | 7 |
| *SUMMER QUARTER* | | | |
| T-DES 249 Current Market Survey | 3 | 0 | 3 |
| T-ARC 250 Survey of Contemporary Architecture | 5 | 0 | 5 |
| T-DES 243 Furniture Design and Production Methods | 3 | 9 | 6 |
| T-DES 235 Visual Communications | 2 | 6 | 4 |
| Social Science Elective | 3 | 0 | 3 |
| *Totals* | 16 | 15 | 21 |

| | |
|---|---|
| Total Quarter Hours in Courses | 102 |
| Electives | 6 |
| Work Experience | 7 |
| *Totals* | 115 |

## PHOTOGRAPHY

### Associate in Applied Science Degree

The Photography curriculum is designed to train a competent professional photographic technician who can be employed in the varied photographic industry, such as portraiture, illustration, commercial, industrial, photo-journalism, and photo-finishing with a minimum of additional training and experience. Special emphasis will be placed on skills in the following areas: black and white photography, color photography, color and black and white laboratory procedures, opportunities in the various fields of photography, all phases and types of photographic lighting, legal aspects of photography, account handling and business procedures. Liberal amounts of design training are incorporated into the curriculum to stimulate and develop individual creativity.

Employment opportunities include:

- Laboratory Technician
- Commercial Photographer
- Portrait Photographer
- Photo-Journalist
- Illustration Photographer
- Photo-Finisher
- Photography Production and Sales
- Public Relations Photographer

# PHOTOGRAPHY

| Course Title | Hours Per Week Class | Lab. | Quarter Hours Credit |
|---|---|---|---|
| *FIRST QUARTER* | | | |
| T-ENG 101 Grammar | 3 | 0 | 3 |
| T-PHO 107 Fundamentals of Photography | 3 | 9 | 6 |
| T-ART 101 History of Art | 3 | 0 | 3 |
| T-DES 102 Design | 2 | 6 | 4 |
| T-MAT 110 Business Math | 5 | 0 | 5 |
| *Totals* | 16 | 15 | 21 |
| *SECOND QUARTER* | | | |
| T-ENG 102 Composition | 3 | 0 | 3 |
| T-PHO 109 Intermediate Photography | 2 | 18 | 8 |
| T-DES 112 Design | 2 | 6 | 4 |
| T-ART 111 History of Art | 3 | 0 | 3 |
| *Totals* | 10 | 24 | 18 |
| *THIRD QUARTER* | | | |
| T-ENG 103 Report Writing | 3 | 0 | 3 |
| T-PHO 111 Applied Principles of Photography | 2 | 18 | 8 |
| T-DES 122 Design | 2 | 6 | 4 |
| T-ART 121 History of Art | 3 | 0 | 3 |
| *Totals* | 10 | 24 | 18 |
| *FOURTH QUARTER* | | | |
| T-ENG 204 Oral Communications | 3 | 0 | 3 |
| T-PHO 214 Professional Fields of Photography | 3 | 24 | 11 |
| T-BUS 115 Business Law | 3 | 0 | 3 |
| *Totals* | 9 | 24 | 17 |
| *FIFTH QUARTER* | | | |
| T-PHO 216 Professional Fields of Photography | 3 | 24 | 11 |
| T-BUS 195 Small Business Operations | 3 | 0 | 3 |
| Social Science Elective | 3 | 0 | 3 |
| *Totals* | 9 | 24 | 17 |
| *SIXTH QUARTER* | | | |
| T-PHO 218 Controlled Work Experience | 0 | 40 | 4 |
| T-PHO 219 Seminar | 3 | 0 | 3 |
| *Totals* | 3 | 40 | 7 |
| *SUMMER QUARTER* | | | |
| T-PHO 220 Professional Fields of Photography | 6 | 24 | 14 |
| Social Science Elective | 3 | 0 | 3 |
| *Totals* | 9 | 24 | 17 |

| | |
|---|---|
| Total Quarter Hours In Courses | 102 |
| Work Experience | 7 |
| Electives | 6 |
| Total | 115 |

## COMMERCIAL GRAPHICS

Associate in Applied Science Degree

One of the fastest changing areas of communication is the field of visual communication. The printing industry is quickly realizing the tremendous possibilities of offset printing and other new photographic graphic processes. In addition, the printing industry is becoming the graphic design and advertising studio with more and more advertising and graphic design jobs going directly to the printer. This is creating a new occupation — a combination of graphic artist and commercial and advertising artist — the commercial graphics man. The graduate of the commercial graphics program will have the enviable position of being able to perform in the commercial and advertising studio, in the printing industry, serve as a liaison between the two industries, or in many sales positions. He will be able to master the graphic design techniques, know advertising, and understand — with a working knowledge — the photographic graphic processes. In essence, he will be able to carry a project through from the conception of the idea to the finished printed project.

The Commercial Graphics program prepares students to work in advertising agencies, design studios, and in other art service agencies in the following areas:

- Advertising Layout
- Graphic Design
- Advertising Illustrator
- Illustration Layout Artist Trainee
- Packaging
- Poster Layout and Design

# COMMERCIAL GRAPHICS

| Course Title | Hours Per Week Class | Lab. | Quarter Hours Credit |
|---|---|---|---|
| *FIRST QUARTER* | | | |
| T-ENG 101 Grammar | 3 | 0 | 3 |
| T-MAT 110 Business Mathematics | 5 | 0 | 5 |
| T-ART 101 History of Art I | 3 | 0 | 3 |
| T-DES 102 Design I | 2 | 6 | 4 |
| T-DFT 101 Technical Drafting | 0 | 6 | 2 |
| *Totals* | 13 | 12 | 17 |
| *SECOND QUARTER* | | | |
| T-ENG 102 Composition | 3 | 0 | 3 |
| T-ART 111 History of Art II | 3 | 0 | 3 |
| T-DES 112 Design II | 2 | 6 | 4 |
| T-DFT 102 Technical Drafting | 0 | 6 | 2 |
| T-DES 120 Life Drawing | 2 | 4 | 4 |
| *Totals* | 10 | 16 | 16 |
| *THIRD QUARTER* | | | |
| T-ENG 103 Report Writing | 3 | 0 | 3 |
| T-ART 121 History of Art III | 3 | 0 | 3 |
| T-DES 122 Design III | 2 | 6 | 4 |
| T-CAT 125 Commercial Art | 2 | 6 | 4 |
| T-CGT 110 Lettering and Type | 2 | 6 | 4 |
| *Totals* | 12 | 18 | 18 |
| *FOURTH QUARTER* | | | |
| T-ENG 204 Oral Communications | 3 | 0 | 3 |
| T-CAT 101 Advertising Principles | 3 | 0 | 3 |
| T-CAT 207 Commercial Art | 2 | 6 | 4 |
| T-CGT 214 Graphic Arts | 2 | 6 | 4 |
| T-DES 220 Life Drawing | 2 | 4 | 4 |
| *Totals* | 11 | 22 | 19 |
| *FIFTH QUARTER* | | | |
| T-CAT 209 Commercial Art | 2 | 6 | 4 |
| T-CGT 216 Graphic Arts | 2 | 6 | 4 |
| T-CAT 217 Photography | 2 | 6 | 4 |
| T-CGT 218 Illustration Techniques and Principles | 2 | 6 | 4 |
| Social Science Elective | 3 | 0 | 3 |
| *Totals* | 11 | 24 | 19 |
| *SIXTH QUARTER* | | | |
| T-CGT 220 Controlled Work Experience | 0 | 40 | 4 |
| T-CGT 221 Seminar | 3 | 0 | 3 |
| *Totals* | 3 | 40 | 7 |
| *SUMMER QUARTER* | | | |
| T-CAT 211 Commercial Art | 2 | 9 | 5 |
| T-CGT 222 Graphic Arts | 2 | 9 | 5 |
| Social Science Elective | 3 | 0 | 3 |
| T-CAT 101 Advertising Principles | 3 | 0 | 3 |
| T-BUS 195 Small Business Operations | 3 | 0 | 3 |
| *Totals* | 13 | 18 | 19 |

| | |
|---|---|
| Total Quarter Hours In Courses | 102 |
| Work Experience | 7 |
| Electives | 6 |
| Total | 115 |

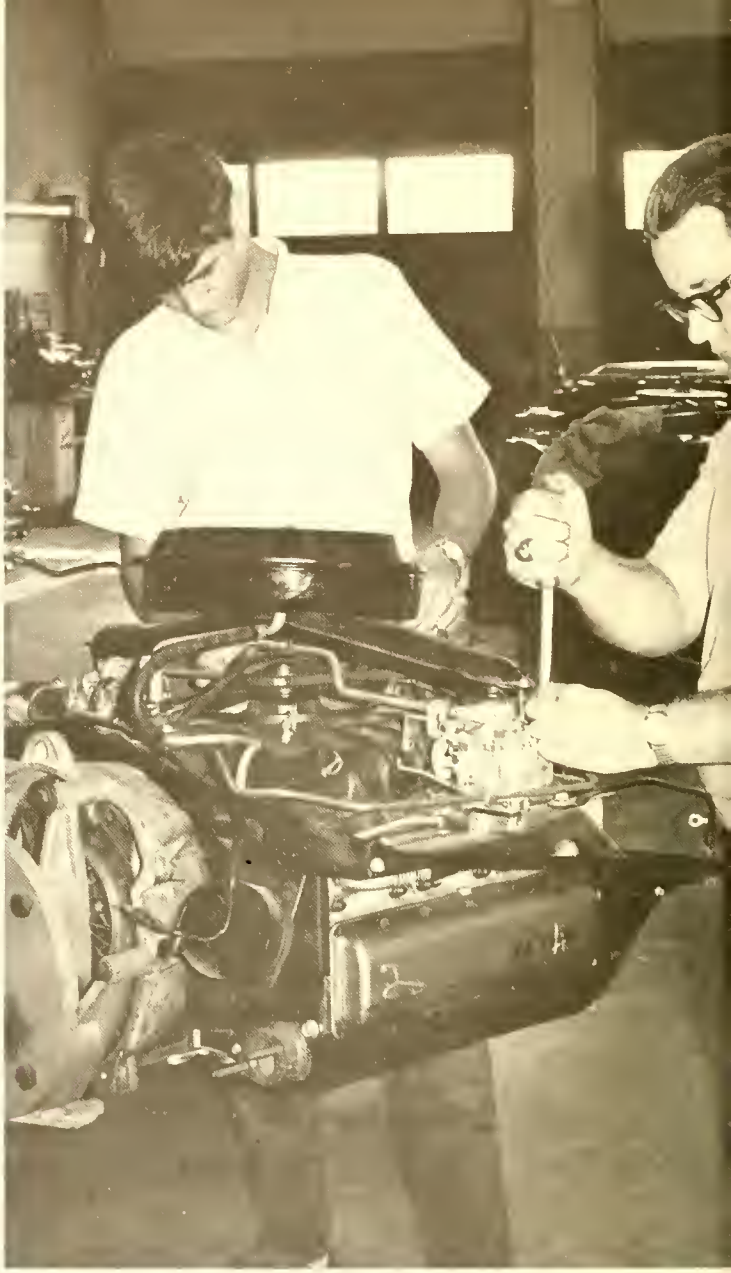
# AUTOMOTIVE MECHANICS

Diploma Program

The Automotive Mechanics program of studies prepares students for entry employment as automotive mechanics. The program emphasizes practical shop experience to develop mechanical and technical skills. Related technical instruction covers the functional principles and operational characteristics of the components of a modern automobile.

Instructional units are devoted to automotive fundamentals, engines, automotive electrical and fuel systems, automotive chassis and power train units, automotive air-conditioning, chassis and suspension systems, and general repair and servicing practices. Successful completion of the program allows individuals to enter the following occupational fields:

- Auto Mechanic
- Parts Manager
- Truck Mechanic
- Maintenance Service
- Dealer Service Manager
- Factory Representative
- Sales Technician



## AUTOMOTIVE MECHANICS

| Course Title | Hours Per Week Class | Lab. | Quarter Hours 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 |
| *Totals* | 13 | 14 | 18 |
| SECOND QUARTER | | | |
| PME 1102 Engine Electrical and Fuel Systems | 5 | 12 | 9 |
| ENG 1102 Communication Skills | 3 | 0 | 3 |
| DFT 1101 Schematics and Diagrams: Power Mechanics | 0 | 3 | 1 |
| PHY 1102 Applied Science | 3 | 2 | 4 |
| *Totals* | 11 | 17 | 17 |
| THIRD QUARTER | | | |
| AUT 1123 Automotive Chassis and Suspensions Systems | 3 | 9 | 6 |
| AUT 1121 Braking Systems | 3 | 3 | 4 |
| PSY 1101 Human Relations | 3 | 0 | 3 |
| AHR 1101 Automotive Air Conditioning | 2 | 3 | 3 |
| WLD 1101 Basic Gas Welding | 0 | 3 | 1 |
| *Totals* | 11 | 18 | 17 |
| FOURTH QUARTER | | | |
| AUT 1124 Automotive Power Train Systems | 3 | 9 | 6 |
| AUT 1125 Automotive Servicing | 3 | 9 | 6 |
| BUS 1103 Small Business Operations | 3 | 0 | 3 |
| *Totals* | 9 | 18 | 15 |

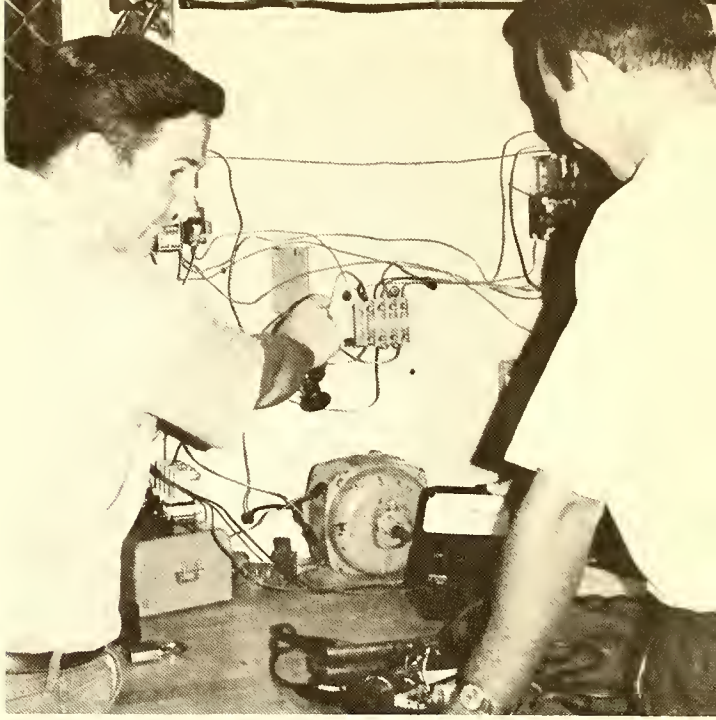
# ELECTRICAL MAINTENANCE

Diploma Program

This one-year electrical program prepares graduates for entry employment in either the construction or maintenance phase of the electrical industry. Major emphasis is on D.C. theory, A.C. theory, motor and generator controls, and commercial and industrial wiring practices. Special attention is given to industrial electronics as the electrical maintenance specialist will have overlapping duties in the field of electronics. Related technical instruction designed to support the laboratory shop activities is included.

Students completing this program will find employment in:

- Manufacturing
- Maintenance
- Construction
- Sales
- Utilities
- Service



## ELECTRICAL MAINTENANCE

| Course Title | Hours Per Week Class | Lab. | Quarter Hours Credit |
|---|---|---|---|
| **FIRST QUARTER** | | | |
| ELC 1124 Residential Wiring | 5 | 9 | 8 |
| DFT 1110 Blueprint Reading | 0 | 3 | 1 |
| ENG 1101 Reading Improvement | 2 | 0 | 2 |
| MAT 1115 Electrical Math | 5 | 0 | 5 |
| PHY 1101 Applied Science | 3 | 2 | 4 |
| ELC 1100 How to Study | 1 | 0 | 1 |
| *Totals* | 16 | 14 | 21 |
| **SECOND QUARTER** | | | |
| ELC 1112 Direct and Alternating Current | 5 | 12 | 9 |
| DFT 1113 Blueprint Reading: Electrical | 0 | 3 | 1 |
| ENG 1102 Communication Skills | 3 | 0 | 3 |
| PHY 1102 Applied Science | 3 | 2 | 4 |
| *Totals* | 11 | 17 | 17 |
| **THIRD QUARTER** | | | |
| ELC 1113 Alternating Current and Direct Current Machines | 5 | 12 | 9 |
| ELN 1118 Industrial Electronics | 3 | 6 | 5 |
| PSY 1101 Human Relations | 3 | 0 | 3 |
| *Totals* | 11 | 18 | 17 |
| **FOURTH QUARTER** | | | |
| ELC 1125 Commercial and Industrial Wiring | 3 | 8 | 6 |
| ELN 1119 Industrial Electronics | 3 | 6 | 5 |
| ELC 1114 Electrical Controls | 2 | 4 | 3 |
| BUS 1103 Small Business Operations | 3 | 0 | 3 |
| *Totals* | 11 | 18 | 17 |

# MACHINIST

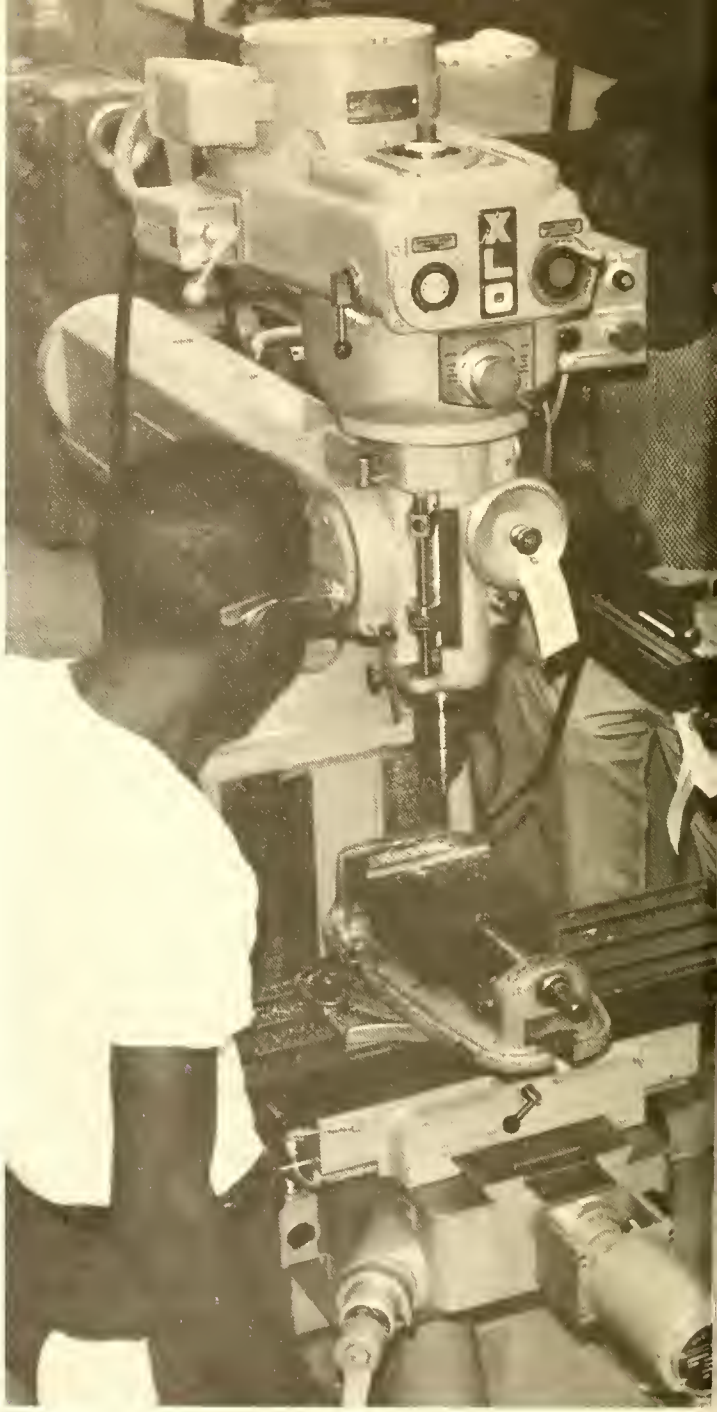
Diploma Program

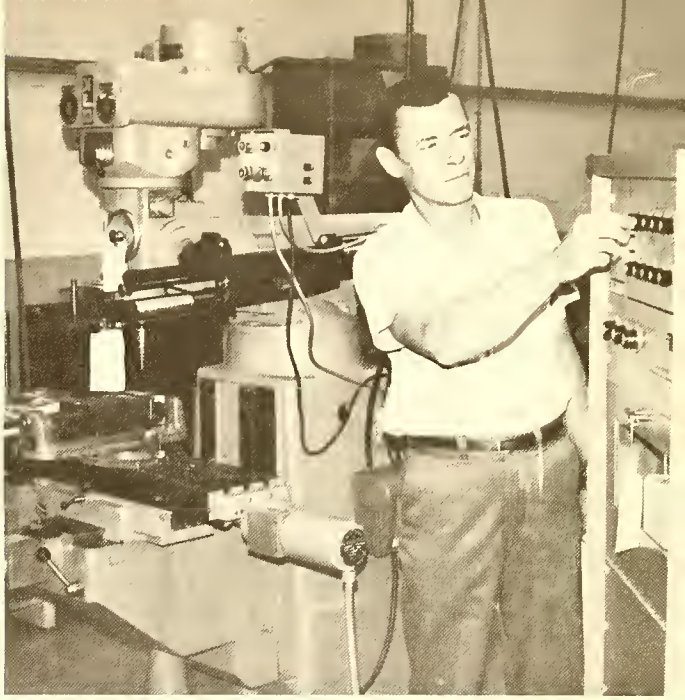
The Machinist program prepares students for entry employment in the metal trades industry. Required courses include machine shop theory and practice, blueprint reading, mathematics, heat treating, English, and basic gas welding.

Major operations included in the shop are bench work; measuring and layout tools; hardening of metals; and operation of drills, lathes, grinders, milling machines, shapers, and related specialty grinding and cutting tools. As an important phase of this Machinist program, time will be devoted to the fundamentals of numerical control, using a tape controlled milling drilling machine, with the student gaining experience on operation, programming, tape reading, and tape preparation.

Employment opportunities include:

- Manufacturing Firms
- Contractors
- Government Agencies
- Utilities
- Machinery Maintenance and Repair





## MACHINIST

| Course Title | Hours Per Week Class | Lab. | Quarter Hours Credit |
|---|---|---|---|
| FIRST QUARTER | | | |
| MEC 1101 Machine Shop Theory | 3 | 12 | 7 |
| MAT 1101 Fundamentals of Mathematics | 5 | 0 | 5 |
| DFT 1104 Blueprint Reading: Mechanical | 0 | 3 | 1 |
| ENG 1101 Reading Improvement | 2 | 0 | 2 |
| PHY 1101 Applied Science | 3 | 2 | 4 |
| *Totals* | 13 | 17 | 19 |
| SECOND QUARTER | | | |
| MEC 1102 Machine Shop Theory and Practice | 3 | 12 | 7 |
| MAT 1103 Geometry | 3 | 0 | 3 |
| DFT 1105 Blueprint Reading: Mechanical | 0 | 3 | 1 |
| PHY 1102 Applied Science | 3 | 2 | 4 |
| ENG 1102 Communication Skills | 3 | 0 | 3 |
| *Totals* | 12 | 17 | 18 |
| THIRD QUARTER | | | |
| MEC 1103 Machine Shop Theory and Practice | 3 | 12 | 7 |
| MEC 1115 Treatment of Ferrous Metal | 2 | 3 | 3 |
| DFT 1106 Blueprint Reading: Mechanical | 0 | 3 | 1 |
| MAT 1104 Trigonometry | 3 | 0 | 3 |
| PSY 1101 Human Relations | 3 | 0 | 3 |
| *Totals* | 11 | 18 | 17 |
| FOURTH QUARTER | | | |
| MEC 1104 Machine Shop Theory and Practice | 3 | 12 | 7 |
| MEC 1116 Treatment of Non-Ferrous Metals | 2 | 3 | 3 |
| WLD 1101 Basic Gas Welding | 0 | 3 | 1 |
| MAT 1123 Machinist Mathematics | 3 | 0 | 3 |
| BUS 1105 Industrial Organizations | 3 | 0 | 3 |
| *Totals* | 11 | 18 | 17 |
| Total Quarter Hours in Courses | | | 71 |

# NURSING (LPN)

Diploma Program

The Practical Nursing program prepares men and women for employment as bedside nurses in hospitals and other institutions. As a member of the health team, the practical nurse works under the direction of licensed physicians or under the supervision of an RN in giving nursing care to patients in uncomplicated situations or assists the registered nurse in more complex nursing situations.

Preclinical units of instruction include nursing skills, normal health and development, conditions of illness, and personal and vocational relationships.

Supervised clinical practice consists of selected learning experiences in accordance with the accepted roles of the licensed practical nurse. Clinical experience includes medical-surgical, geriatrics, care of mothers and infants, and care of children. The clinical experience is of primary importance to the student nurse in establishing rapport among patients and hospital co-workers and developing maturity in working with people.

Practical Nursing 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 examinations.

Graduates of accredited programs of practical nurse education are eligible to take the licensing examinations 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 licensure in other states on the basis of a statisfactory examination score, without repeating the examination.

## PRACTICAL NURSING

| Course Title | Hours Per Week Class | Hours Per Week Lab. | Quarter Hours Credit |
|---|---|---|---|
| FIRST QUARTER | | | |
| NUR 1001 Practical Nursing I | 28 | 2 | 330 |
| SECOND QUARTER | | | |
| NUR 1002 Practical Nursing II | 12 | 24 | 396 |
| THIRD QUARTER | | | |
| NUR 1003 Practical Nursing III | 12 | 24 | 396 |
| FOURTH QUARTER | | | |
| NUR 1004 Practical Nursing IV | 12 | 24 | 396 |
| *Totals* | | | 1518 |

* Figures given are averages, as there will be some variation from week to week.

# WELDING

Diploma Program

The welding program combines shop-laboratory experiences with related technical instruction to prepare students for entry employment in welding occupations.

In shop-lab practices, the student progresses from general oxyacetylene and arc welding to metallic inert gas (MIG) and tungsten inert gas (TIG) processes. Mechanical testing, industrial practices, and certification are included. Students who successfully complete this program and meet all requirements for certification are certified for structural steel in North Carolina. The Institute is working toward a certification program for pipe welders. Employment is available in the following occupational fields:

- Shipbuilding
- Automotive
- Aircraft
- Guided Missiles
- Railroads
- Construction
- Pipe Fitting
- Production Shop
- Job Shop

## WELDING

| Course Title | Hours Per Week Class | Lab. | Quarter Hours Credit |
|---|---|---|---|
| FIRST QUARTER | | | |
| WLD 1120 Oxyacetylene Welding and Cutting | 3 | 12 | 7 |
| MAT 1101 Fundamentals of Mathematics | 5 | 0 | 5 |
| DFT 1104 Blueprint Reading: Mechanical | 0 | 3 | 1 |
| PHY 1101 Applied Science | 3 | 2 | 4 |
| ENG 1101 Reading Improvement | 2 | 0 | 2 |
| *Totals* | 13 | 17 | 19 |
| SECOND QUARTER | | | |
| WLD 1121 Arc Welding | 3 | 12 | 7 |
| MAT 1103 Geometry | 3 | 0 | 3 |
| DFT 1117 Blueprint Reading: Welding | 0 | 3 | 1 |
| PHY 1102 Applied Science | 3 | 2 | 4 |
| ENG 1102 Communication Skills | 3 | 0 | 3 |
| *Totals* | 12 | 17 | 18 |
| THIRD QUARTER | | | |
| WLD 1124 Pipe Welding | 3 | 12 | 7 |
| WLD 1123 Inert Gas Welding | 1 | 3 | 2 |
| WLD 1112 Mechanical Testing and Inspection | 1 | 3 | 2 |
| DFT 1118 Pattern Development and Sketching | 0 | 3 | 1 |
| PSY 1101 Human Relations | 3 | 0 | 3 |
| *Totals* | 8 | 21 | 15 |
| FOURTH QUARTER | | | |
| WLD 1122 Commercial and Industrial Practices | 3 | 9 | 6 |
| WLD 1125 Certification Practices | 3 | 6 | 5 |
| MEC 1112 Machine Shop Processes | 0 | 6 | 2 |
| BUS 1105 Industrial Organizations | 3 | 0 | 3 |
| *Totals* | 9 | 21 | 16 |
| Total Quarter Hours in Courses | | | 68 |

# OCCUPATIONAL EDUCATION COURSE DESCRIPTIONS

**AHR 1101 AUTOMOTIVE AIR CONDITIONING (3)**

General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary in the mechanisms, the methods of operation, and control; proper handling of refrigerants in charging the system.

Prerequisite: PHY 1102.

**AUT 1121 BRAKING SYSTEMS (4)**

A complete study of various braking systems employed on automobiles and light weight trucks. Emphasis is placed on how they operate, proper adjustment, and repair.

Prerequisite: PHY 1102.

**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 alignment.

Prerequisite: PME 1102.

**AUT 1124 AUTOMOTIVE POWER TRAIN SYSTEMS (6)**

Principles and functions of atuomotive 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 AUTOMOTIVE SERVICING (6)**

Emphasis is on the shop procedures necessary in determining the nature of troubles developed in the various component systems of the automobile. Troubleshooting of automotive systems, providing a full range of experiences in testing, adjusting, repairing and replacing.

Prerequisites: AUT 1123, AUT 1121, AHR 1101.

**BUS 1103 SMALL BUSINESS OPERATIONS (3)**

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.

**BUS 1105 INDUSTRIAL ORGANIZATIONS (3)**

Methods, techniques, and practices of modern management in planning, organizing and controlling operations of a manufacturing concern. Introduction to the competitive system and the factors constituting product cost.

Prerequisite: None.

**DFT 1101 SCHEMATICS & DIAGRAMS: POWER MECHANICS (1)**

Interpretation and reading of blueprints. Development of ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Information on the basic principles of lines, views, dimensioning procedures, and notes.

Prerequisite: None.

**DFT 1104 BLUEPRINT READING: MECHANICAL (1)**

Interpretation and reading of blueprints. Information on the basic principles of the blueprint; lines, views, dimensioning procedures and notes.

Prerequisite: None.

**DFT 1105 BLUEPRINT READING: MECHANICAL (1)**

Further practice in interpretation of blueprints as they are used in industry; study of prints supplied by industry; making plans of operations; introduction to drafting room procedures; sketching as a means of passing on ideas, information and processes.

Prerequisite: DFT 1104.

**DFT 1106 BLUEPRINT READING: MECHANICAL (1)**

Advanced blueprint reading and sketching as related to detail and assembly drawings used in machine shops. The interpretation of drawings of complex parts and mechanisms for features of fabrication, construction and assembly.

Prerequisite: DFT 1105.

**DFT 1110 BLUEPRINT READING: BUILDING TRADES (1)**

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

Prerequisite: None.

**DFT 1113 BLUEPRINT READING: ELECTRICAL (1)**

Interpretation of schematics, diagrams and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial buildings;. Sketching schematics, diagrams, and electrical

plans for electrical installations using appropriate symbols and notes according to the applicable codes will be a part of this course.

Prerequisite: DFT 1110.

**DFT 1117 BLUEPRINT READING: WELDING (1)**

A thorough study of trade drawings in which welding procedures are indicated. Interpretation, use and application of welding symbols, abbreviations, and specifications.

Prerequisite: DFT 1104.

**DFT 1118 PATTERN DEVELOPMENT AND SKETCHING (1)**

Continued study of welding symbols; methods used in layout of sheet steel; sketching of projects, jigs and holding devices involved in welding. Special emphasis is placed on developing pipe and angle layouts by the use of patterns and templates.

Prerequisite: None.

**ELC 1112 DIRECT AND ALTERNATING CURRENT (9)**

A study of the electrical structure of matter and electron theory, the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. An analysis of direct current circuits by Ohm's Law and Kirchhoff's Law. A study of the sources of direct current voltage potentials. Fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Analysis of alternating current circuits.

Prerequisite: None.

**ELC 1113 ALTERNATING CURRENT AND DIRECT CURRENT MACHINES AND CONTROLS (9)**

Provides fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Instruction in the use of electrical test instruments in circuit analysis. The basic concepts of AC and DC machines and simple system controls. An introduction to the type control used in small appliances such as: thermostats, times, or sequencing switches.

Prerequisites: ELC 1112, MAT 1115.

**ELC 1124 RESIDENTIAL WIRING (8)**

Provides instruction and application in the fundamentals of blueprint reading, planning, layout, and installation of wiring in residential applications such as: services, switchboards, lighting, fusing, wire sizes, branch circuits, conduits, National Electrical Code regulations in actual building mock-ups.

Prerequisites; ELC 1113, DFT 1110.

**ELC 1125 COMMERCIAL AND INDUSTRIAL WIRING (9)**

Layout, planning, and installation of wiring systems in commercial and industrial complexes, with emphasis upon blueprint reading and symbols, the related National Electrical Codes, and the application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems.

Prerequisites: ELN 1118, ELC 1124.

**ELN 1118 INDUSTRIAL ELECTRONICS (5)**

Basic theory, operating characteristics, and application of vacuum tubes such as: diodes, triodes, tetrodes, pentodes, and gaseous control tubes, An introduction to amplifiers using triodes, power supplies using diodes, and other basic applications.

Prerequisites: ELN 1118.

**ELN 1119 INDUSTRIAL ELECTRONICS (5)**

Basic industrial electronic systems such as: motor controls, alarm systems, heating systems and controls, magnetic amplifier controls, welding control systems using thyratron tubes, and other basic types of systems commonly found in most industries.

Prerequisites: ELN 1118.

**ENG 1101 READING IMPROVEMENT (2)**

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 (3)**

Designed to promote effective communication through correct language in speaking and writing.

Prerequisite: ENG 1101.

**MAT 1101 FUNDAMENTALS OF MATHEMATICS (5)**

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 1103 GEOMETRY (3)**

Fundamental properties and definitions; plane and solid geometric figures, selected general theorems, geometric construction of lines, angles and plane figures. Dihedray angles, area of plane figures, volumes of solids. Geometric principles are applied to shop operations.

Prerequisite: None.

**MAT 1104 TRIGONOMETRY (3)**

Trigonometric ratios; solving problems with right triangles, using tables, and interpolating; solution of

oblique triangles using law of sines and law of cosines; graphs of the trigonometric fuctions; inverse functions, trigonometric equations. All topics are applied to practical problems.

Prerequisites: MAT 1103.

**MAT 1115 ELECTRICAL MATH (5)**

A study of fundamental concepts of algebra; basic operations of addition, subtraction, multiplication, and divisions; solution of first order equations use of letters and signs, grouping, factoring, exponents, ratios, and proportions; solution of equations, algebraically and graphically; a study of logarithms and use of tables; and introduction to trigonometric functions and their application to right angles; and a study of vectors for use in alternating current.

Prerequisite: None.

**MAT 1123 MACHINIST MATHEMATICS (3)**

Introduces gear ratio, lead screw and indexing problems with emphasis on application to the machine shop. Practical applications and problems furnish the trainee with experience in geometric propositions and trigonometric relations to shop problems; concludes with an introduction to compound angle problems.

Prerequisite: MAT 1104.

**MEC 1101 MACHINE SHOP THEORY AND PRACTICE (7)**

An introduction to the machinist trade and the potential it holds for craftsmen. Deals primarily with the identification, care and use of basic hand tools and precision measuring instruments. Elementary layout procedures and processes of lathe, drill press, grinding (off-hand) and milling machines will be introduced both in theory and practice.

Prerequisite: None.

**MEC 1102 MACHINE SHOP THEORY AND PRACTICE (7)**

Advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, milling machine and shaper. The student will be introduced to the basic operations of the cylindrical grinder and will select projects encompassing all the operations, tools and procedures thus far used and those to be stressed throughout the course.

Prerequisite: MEC 1101.

**MEC 1103 MACHINE SHOP THEORY AND PRACTICE (7)**

Advanced work on the engine lathe, turning, boring and threading machines, grinders, milling machine and shaper. Introduction to basic indexing and terminology with additional processes on calculating, cutting, and measuring of spur, helical, and worm gears and wheels. The trainee will use precision tools and measuring instruments such as vernier height gages, protractors, comparators, etc. Basic exercises will be given on the turret lathe and on the tool and cutter grinder.

Prerequisites: MEC 1102

**MEC 1104 MACHINE SHOP THEORY AND PRACTICE (7)**

Development of class projects using previously learned procedures in planning, blueprint reading, machine operations, final assembly and inspecting. Additional processes on the turret lathe, tool and cutter grinder, cylindrical and surface grinder, advanced milling machine operations, etc. Special procedures and operations, processes and equipment, observing safety procedures faithfuly and establishing of good work habits and attitudes acceptable to the industry.

Prerequisites: MEC 1102.

**MEC 1112 MACHINE SHOP PROCESSES (2)**

To acquaint the student with the procedures of layout work and the correct use of hand and machine tools. Experiences in the basic fundamentals of drill press and lathe operation; hand grinding of drill bits and lathe tools; set-up work applied to the trade.

Prerequisite: None.

**MEC 1115 TREATMENT OF FERROUS METALS (3)**

Investigates the properties of ferrous metals and tests to determine their uses. Instructions will include some chemical metallurgy to provide a background for the understanding of the physical changes and causes of these changes in metals. Physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, heat treatments for steel, surface treatments, alloy of special steel, classification of steels, and cast iron will be topics for study.

Prerequisite: None.

**MEC 1116 TREATMENT OF NON-FERROUS METALS (3)**

Continuation of the study of physical metallurgy. The non-ferrous metals: bearing metals, (brass, bronze, lead), light metals (aluminum and magnesium), and copper and its alloys are studied. Powder metallurgy, titanium, ziconium, indium and vanadium are included in this course.

Prerequisite: MEC 1115.

**NUR 1001 PRACTICAL NURSING I (3)**

Designed to assist students in acquiring the knowledge, understanding, 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 nurs-

ing methods are developed through planned labratory practice and supervised patient care.

**NUR 1001 PRACTICAL NURSING (20)**

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 (19)**

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 (19)**

Designed to introduce the student to care for 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.

**PHY 1101 APPLIED SCIENCE (4)**

An introduction to physical principles and their application in industry. Topics in this course include measurement; properties of solids, liquids, and gases; basic electrical principles.

Prerequisites: None.

**PHY 1102 APPLIED SCIENCE (4)**

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

Prerequisite: PHY 1101.

**PME 1101 INTERNAL COMBUSTION ENGINES (7)**

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

Prerequisite: None.

**PME 1102 ENGINE ELECTRICAL AND FUEL SYSTEMS (9)**

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

Prerequisite: PME 1101.

**PSY 1101 HUMAN RELATIONS (3)**

A study of basic principles of human behavior. The problems of the individual are studied in relation to society, group membership, and relationships within the work situation.

Prerequisite: None.

**T-AGR 104 INTRODUCTION TO AGRICULTURAL ECONOMICS (4)**

An introduction to economics, the functions of the economics system and agriculture's role in the economy. A review of the functions of the manager and an introduction to the principles he uses in making decisions to adjust to changing conditions. Analysis of the main sources of change which affect agricultural firms.

Prerequisite: None.

**T-AGR 125 ANIMAL SCIENCE (6)**

An introductory animal science course covering the fundamental principles of livestock production. A study of the animal body and the basic principles of reproduction, genetics, growth, fattening, digestion, along with the selection, feeding, improvement, processing and marketing of livestock.

Prerequisite: None.

**T-AGR 150 GENERAL HORTICULTURE (4)**

A course dealing with horticulture principles and the application of plant science fundamentals to horticultural practices.

Prerequisites: T-ARG 170.

**T-AGR 152 PLANT PROPAGATION (4)**

A course dealing with the fundamental principles involved in plant propagation, with emphasis in the practical knowledge of useful techniques for propagating plants.

Prerequisite: T-AGR 150.

**T-AGR 170 PLANT SCIENCE (6)**

An introductory general botany and crop science course covering the fundamental principles of the reproduction, growth, functions, and development of seed bearing plants with application to certain commercially important plants in North Carolina.

Prerequisite: None.

**T-AGR 180 GENERAL POULTRY SCIENCE (4)**

An introduction to the science of poultry production. The major phases of the study include the history of the poultry industry; the anatomy and physiology of the chicken; the breeds and varieties; the breeding principles; the principles of incubation, brooding, rearing, feeding, housing and management; marketing poultry products; and the science of disease and parasite prevention and control.

Prerequisite: None.

**T-AGR 185 SOIL SCIENCE AND FERTILIZER (6)**

A course dealing with basic principles of efficient classification, evaluation, and management of soils; care, cultivation, and fertilization of the soil, and conservation of soil fertility.

Prerequisite: None.

**T-AGR 201 AGRICULTURE CHEMICALS (6)**

A study of farm chemical pesticides, their ingredients, formulation, and farm application, with emphasis on the effective and safe use of chemicals in agricultural pest control.

Prerequisite: None.

**T-AGR 204 FARM BUSINESS MANAGEMENT (6)**

A review of the functions of the manager of a business firm and the problems he faces. Development of the concept of planning by both partial and complete budgeting. Review of the concepts of costs and the length of run in production. Practice in preparing enterprise budgets as an aid in choosing what to produce. Use of partial budgeting to find the least cost production procedure. Analysis of production data to select the level of production that yields the most net revenue. Relationship between size, efficiency and income of a farm. Review of procedures for evaluating the efficiency of the manager.

Prerequisite: T-ARG 104.

**T-AGR 205 AGRICULTURE MARKETING (6)**

An analysis of the functions of marketing, the economy and a survey of the problems marketing faces. A review of the market structure and the relationship of local, terminal, wholesale, retail and foreign markets. Problems in the operations of marketing firms including buying and selling, processing, standardization and grading, risk taking and storage, financing, efficiency, and cooperation. Discussion of procedures of marketing such commodities as grain, cotton, livestock and tobacco.

Prerequisite: T-AGR 104.

**T-AGR 218 AGRICULTURAL MECHANIZATION (4)**

A study of farm machinery management and labor-saving devices. The economics of selection and operation of farm machinery. Study and evaluation of feed grinders, and mixers, storage facilities, materials handling systems and other labor-saving devices.

Prerequisite: None.

**T-AGR 228 LIVESTOCK DISEASES AND PARASITES (4)**

A course dealing with the common diseases and parasites of livestock; sanitation practices and procedures with emphasis on the cause, damage, symptoms, prevention and treatment of parasites and diseases, and management factors relating to disease and parasite prevention and control.

Prerequisite: T-AGR 125.

**T-ARC 250 SURVEY OF CONTEMPORARY ARCHITECTURE (5)**

Study of contemporary styles in architecture, particularly those styles found in the United States construction methods and modern use of materials for residential, commercial, and industrial uses. Study by use of colored slides (and visits when possible) of the great people in American architecture and their contribution: Mies Van Der Rohe, F. L. Wright, Harrison and Associates, Saarinen and Associates, Edward D. Stone, Skidmore, Owings, Merrill, Louis Sullivan, Raymond Hood, etc.

Prerequisite: None.

**T-ART 101 HISTORY OF ART I (3)**

An introduction to the basic concepts and philosophies that govern the development of art. A study of both two and three dimensional art forms from Prehistoric through the Renaissance.

Prerequisite: None.

**T-ART 111 HISTORY OF ART II (3)**

A continuation of Art History I. The study of the art forms from the Renaissance through 1880.

Prerequisite: T-ART 101.

**T-ART 121 HISTORY OF ART III (3)**

Major emphasis is given to the changes in concepts of contemporary art forms beginning with Impressionism. Both oriental and occidental art will be studied. The course will emphasize the influence and changes these art forms have had on exterior and interior architecture, furniture design, and the decorative arts.

Prerequisite: T-ART 111.

**T-BUS 101 INTRODUCTION TO BUSINESS (5)**

A survey of the business world with particular attention devoted to the structure of the various types of business organization, methods of financing, internal organization, and management.

Prerequisite: None.

**T-BUS 102 TYPEWRITING (3)**

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the key-

board, simple business correspondence, tabulation, and manuscripts.

Prerequisite: None.

**T-BUS 103 TYPEWRITING (3)**

Instruction emphasizes the development of speed and accuracy with further mastery of correct typewriting techniques. These skills and techniques are applied in tabulation, manuscript, correspondence, and business forms.

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

**T-BUS 104 TYPEWRITING (3)**

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 (4)**

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

Prerequisite: None.

**T-BUS 107 SHORTHAND (4)**

Continued study of theory with greater emphasis on dictation and elementary transcription.

Prerequisite: T-BUS 106 or the equivalent.

**T-BUS 108 SHORTHAND (4)**

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 (3)**

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

Prerequisite: None.

**T-BUS 112 FILING (3)**

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 (3)**

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 (3)**

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 (6)**

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 (6)**

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 (3)**

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

Prerequisite: None.

**T-BUS 183E TERMINOLOGY AND VOCABULARY (3)**

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 205 ADVANCED TYPEWRITING (3)**

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.

**T-BUS 206E DICTATION AND TRANSCRIPTION (4)**

Develops the skill of taking dictation and of transcribing at the typewriter, materials appropriate to the course of study, which includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. 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 (4)**

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

Prerequisite: T-BUS 206.

**T-BUS 208E DICTATION AND TRANSCRIPTION (4)**

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 mintue required for five minutes on new material.

Prerequisite: T-BUS 207.

**T-BUS 211 OFFICE MACHINES (3)**

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

Prerequisite: T-BUS 110.

**T-BUS 214 SECRETARIAL PROCEDURES (4)**

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

Prerequisite: None.

**T-BUS 215E OFFICE APPLICATION (6)**

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

Prerequisite: T-BUS 214, T-BUS 205, T-BUS 208; T-BUS 211.

**T-BUS 232 SALES DEVELOPMENT (3)**

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 271 OFFICE MANAGEMENT (3)**

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 339 SOCIAL SCIENCE ELECTIVE — MARKETING (3)**

This area includes in depth investigation into marketing policies and practices. Specific areas of student interest will include retail marketing of consumer goods. The basic differences between retail marketing and industrial marketing will be investigated.

Prerequisite: None.

**T-DES 102 DESIGN I (4)**

An introduction to both two and three dimensional art forms and the various medias and techniques used to express them. Problems and aims of organization, the principles of design, and plastic elements will be studied. The course's aim is an appreciation and analysis of creative and functional design through participation.

Prerequisite: None.

**T-DES 112 DESIGN II (4)**

This course is a continuation of Design I. Emphasis is placed on freehand drawing and water color rendering. Exercises in rendering techniques will be studied along with life drawing, landscape painting and other two and three dimensional art forms

Prerequisite: T-DES 102.

**T-DES 120 LIFE DRAWING (4)**

Intensive study of the human figure using a model, of action, structure, volume, design and exp;ressive potentialities.

Prerequisite: None.

**T-DES 121 MARKET MATERIALS (4)**

A study in detail with emphasis placed on interior fittings such as furniture, drapery fabric, wall coverings, and floor finishes. New additions to the lines of home furnishing merchandise are brought before the students, discussed, and analyzed from the standpoint of materials, construction and design. Frequent field trips will be made to manufacturers of these products and suppliers' showrooms of floor finishes and wall coverings, as well as manufacturers' representatives frequently lecture to the students and present their products.

Prerequisite: None.

**T-DES 122 DESIGN III (4)**

This course is a continuation of Design II. More skillful and difficult design problems will necessitate the continued development of skills and techniques. Experiences in three dimensional constructive design to include a variety of materials: paper, wire, plaster, balsa wood, and beginning sculpture theory.

Prerequisite: T-DES 112.

**T-DES 125 COLOR THEORY AND APPLICATION (4)**

A study of basic color theory and color uses in interior design in all historic periods from Egyptian to contemporary and for all purposes, residential, commercial, and industrial.

Prerequisite: None.

**T-DES 131 VISUAL COMMUNICATIONS I (2)**

The students will begin by visualizing simple furniture designs. Furniture design in relationship to manufacturing will become part of the student's work. Both case goods and upholstered furniture will be studied in depth. Seminar speakers will be asked to initiate problems and critique.

Prerequisite: T-DFT 101.

**T-DES 132 VISUAL COMMUNICATIONS II (2)**

Students will become aware of case good construction and upholstery construction. Actual physical samples will be examined and detailed. Auxiliary views will be suggested for better visual communication. Neatness, completeness, and speed will become the normal situation. Seminar speakers will be asked to initiate problems and critique.

Prerequisite: Visual Communications I

**T-DES 2101 INTERIOR DESIGN I (4)**

A study of fabric construction and use in historic as well as contemporary settings. Draperies, furniture covers, bedding, bath fabrics, rugs and carpets. Laboratory experiments to determine composition of materials by testing.

Prerequisites: T-ART 121, T-DES 122, T-DES 125.

**T-DES 202 INTERIOR DESIGN PRESENTATION I (4)**

This course will show the inter-relationship of all previous courses. Actual sample client presentations will be prepared beginning with a scaled layout of the given area augmented with black and white or color renderings accompanied by a brochure composed of photographs and fabric samples mounted and annotated as to the areas.

Prerequisites: T-ART 121, T-DES 122, T-DES 125.

**T-DES 205 PERIOD STYLES IN FURNITURE & DECORATION (5)**

Detailed brochures and texts will be studied so that the student can easily recognize and locate chronologically period room designs. A course of definition in decorating techniques stressing the historically accurate designs of a given period from earliest times to present day.

Prerequisite: T-ART 121.

**T-DES 206 FURNITURE DESIGN AND CONSTRUCTION (4)**

A detailed study of furniture design of all periods as well as the materials used. Techniques of case work construction and present day upholstering procedures. This course should familiarize the student with the various woods, metals, marbles, and laminates used in furniture design as well as fillings such as spring, webb, and coil construction in residential and commercial seating.

Prerequisite: T-DES 205.

**T-DES 211 INTERIOR DESIGN II (4)**

A study of wall and floor coverings in historic as well as contemporary use. Flooring material (carpetpeting, wood, tile — soft and hard, stone, brick, etc.) and wall covering (paint, paper, fabric, paneling, stone brick, plaster treatments, etc.) This should be research lecture, and rendering work since all three are interrelated.

Prerequisite: T-DES 201.

**T-DES 212 INTERIOR DESIGN PRESENTATION II (4)**

At this point, the student should be prepared to execute a complete interior with standard, presentation techniques as outlined in Design Presentation I with the addition of a typed list of specifications listing each item that is used and describing it as to size, color, and location within the finished installation.

Prerequisite: T-DES 202.

**T-DES 221 INTERIOR DESIGN III (4)**

The integration of courses I and II into meaningful experiences by doing complete layout, color selection, furniture and accessory style selection, fabric and materials selection, cost estimates for a complete job (home, suite of offices, motel, retail stores). Emphasis on complete presentation for the client with visuals, swatches, etc.

Prerequisites: T-DES 212, T-DES 201, T-DES 211.

**T-DES 226 ACCESSORIES AND LIGHTING (3)**

The study of contemporary lighting devices designed in period and contemporary styles. Lighting measurement for different uses in residential, commercial, and industrial sites. The study of accessories used in residential and commercial decorating: lamp bases and shades, ash trays, coat racks, tableware, books, pillows, pictures, paintings, prints sculpture, linens, etc. The integration of these items into the total design

concept as to color and design will be stressed.

Prerequisite: None.

**T-DES 230 DESIGN IN MATERIALS (5)**

This area of study will involve the investigation of various materials which go into the construction and development of current furniture. Creativity will be stressed in the use of wood, metal, plastic, hardware, fabrics, glass, wood finishes, fastening equipment, upholstery filling material; with depth of study into their physical properties and characteristics. Seminar speakers and field trips will be organized whenever possible.

**T-DES 231 COMMERCIAL DESIGN (4)**

A survey of basic office layouts and design. Source studies and related texts discussing such commercial interiors as banks, restaurants, motels and various office requirements noting equipment required in these different installations.

Prerequisites: T-DES 211, T-DES 212.

**T-DES 233 VISUAL COMMUNICATIONS III (2)**

Student designs will become part of the subject matter used in their visual presentations. This area will continue to stress the following: Neatness, completeness and speed, with a concentrated effort in the area of furniture construction and modern production techniques. New products for use in making visual presentation will be investigated. Seminar speakers will be asked to initiate problems and critique.

**T-DES 234 VISUAL COMMUNICATIONS IV (2)**

This will be combined with Furniture Design II. Authentic period styles will be investigated and visual presentations made. Discussions into modern production techniques will be pursued in relation to authenticity of furniture styles. Creativity and innovation will be stressed. Seminar speakers will be asked to initiate problems and critique.

Prerequisite: Visual Communications III.

**T-DES 235 VISUAL COMMUNICATIONS V (2)**

This course will be taught in conjunction with the total presentation being developed in Furniture Design III. The visual presentations will be reviewed in relation to their professional quality and creative design. Students understanding and knowledge of furniture production is a major aim. Seminar speakers will be asked to initiate problems and critique.

Prerequisite: Visual Communications IV.

**T-DES 241 FURNITURE DESIGN I (4)**

Students will be given furniture design problems with specific requirements. Basic design principles will be stressed. The development of furniture lines from basic ideas, upholstered and case goods will be studied. Seminar speakers will provide professional background.

Prerequisite: T-DES 122, T-DES 125.

**T-DES FURNITURE DESIGN II (4)**

This will be a continuation of Furniture Design I. Furniture periods will be explored in relation to modern use and requirements. Furniture construction will be investigated. Modern methods of production will be included into the furniture designs developed. This will be supplemented by numerous field trips and seminar speakers. Creativity will be encouraged.

Prerequisite: Furniture Design I.

**T-DES 243 FURNITURE DESIGN III AND PRODUCTION METHODS (4)**

This is a continuation of Furniture Design II with a greater emphasis on production methods, and originality with emphasis on integrity as a designer. New types of construction will be encouraged and investigated. Students will select a known manufacturer for which they will prepare an entire design proposal. This will be done for both a case goods manufacturer and an upholstery manufacturer. Students will also develop a furniture line intended for contract use. The differences between contract furniture and home furnishings will be investigated in depth. A complete student portfolio will be required.

Prerequisite: Furniture Design II.

**T-DES 248 FURNITURE SKETCHING AND PROFESSIONAL PRESENTATION (4)**

Furniture sketching, roughs and scale drawing will be done in conjunction with Furniture Design II. Rendering techniques to be covered will include different media: pencil, felt tip, water color, color pencil, and acrylics. Complete presentations will be prepared and evaluated during class discussion. Seminar speakers will critique and provide a professional background.

Prerequisite: T-DES 122.

**T-DES 249 CURRENT MARKET SURVEY (3)**

This course will introduce the students to the present market, designs, and ideas. Market tours will be taken. If possible, individual factory showrooms located at nearby factories will be visited. New materials will be reviewed as well as new hardware designs. Sub-manufacturing concerns will be reviewed. The student will avail himself to all the catalog information that is part of the catalog library in the interior design department. Seminar speakers will be used to greatly expand this curriculum area.

Prerequisite: Furniture Design II.

**T-DES 262 SEMINAR (3)**

This seminar will be designed to supplement the controlled work experience portion of the Furniture Design curriculum. Emphasis will be upon evaluation of the work experiences, job orientation, along with presentations by members of the class relative to their particular work experiences. An additional feature of the seminar will provide for select guest speakers prior to entry into the controlled work experience and immediately following. This work experience is considered to be of value to the student in acquainting him with the specialized operations of the furniture industry and may serve as a pre-job placement procedure.

Prerequisite: T-DES 263.

**T-DES 263 CONTROLLED WORK EXPERIENCE - FD (4)**

This period of work experience is to provide the student with professional experience in furniture designing. An understanding of furniture design and production on a commercial basis is a major objective. Students will be evaluated by the instructor as to performance. Broadening of experience and knowledge of the furniture industry is a major objective. Students will be recommended for work experience on the basis of academic standing and individual performance to date. The Institute reserves the right to refuse recommending students whose placement might be detrimental to the program.

**T-DES 272 SEMINAR (3)**

This seminar will be designed to supplement the controlled work experience portion of the Interior Design curriculum. Emphasis will be upon evaluation of the work experiences, job orientation, along with presentations by members of the class relative to their particular work experiences. An additional feature of the seminar will provide for select guest speakers prior to entry into the controlled work experience and immediately following.

Prerequisite: T-DES 273

**T-DES 273 CONTROLLED WORK EXPERIENCE - ID (4)**

This period of work experience is to provide the student with professional experience in interior designing. An understanding of good design and design presentation on a commercial basis is a major objective. Students will be evaluated by the instructor as to performance. Broadening of experiences and knowledge of the design industry is a major objective. Students will be recommended for work experience on the basis of academic standing and individual performance to date. The Institute reserves the right to refuse recommending students whose placement might be detrimental to the program.

**T-DFT 101 TECHNICAL DRAFTING (2)**

The field of drafting is introduced as the student begins study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills and techniques of drafting included are: use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective are introduced.

Prerequisite: None.

**T-DFT 102 TECHNICAL DRAFTING (2)**

The application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, simple and successive revolutions, and sections and conventions will be studied. Most important is the introduction of the 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 108 ARCHITECTURAL DRAFTING (2)**

An approach in depth to the study of architectural drafting, development of techniques in architectural lettering, dimensioning, freehand sketching and instrument drawing. Drawing of construction details, using appropriate material symbols and conventions, and working drawings, including plans, elevations, sections, scale details and full size details will be prepared from preliminary sketches.

Prerequisite: T-DFT 101.

**T-DFT 140 LAYOUT DRAFTING (2)**

Continuation of Drafting with emphasis placed on sample room layouts, both residential and commercial; recognizing existing problems, structural changes and remodeling. Problems will be given making use of architectural floor plans and their solutions with a prescribed number of furniture items and equipment.

Prerequisite: T-DFT 102.

**T-ECO 102 ECONOMICS (3)**

The fundamental principles of economics including the institutions and practices by which people gain a livelihood. Included is a study of 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 108 CONSUMER ECONOMICS (3)**

Designed to help the student use his resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing his finances, increasing his resources, and to understand better the economy in which he lives.

Prerequisite: None.

**T-EDP 104 INTRODUCTION TO DATA PROCESSING SYSTEMS (4)**

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

Prerequisite: None.

**T-ELC 101 DC CIRCUIT ANALYSIS (6)**

Elementary principles of electricity including: basic electric units, Ohms law, Kirchhoffs law, network theorems, magnetics, basic electrical measuring instruments, inductance capacitance, since wave analysis and non-resonant resistive, inductive and capacitive networks.

Prerequisite: None.

**T-ELN 101 ELECTRONIC INSTRUMENTS AND MEASUREMENTS (3)**

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.

Prerequisite: T-ELC 102.

**T-ELC 102 AC CIRCUIT ANALYSIS (6)**

Series and parallel resonant-circuit analysis, resonant and non-resonant transformer analysis, basic diode power supply analysis, introduction to non-linear resistive control devices, and introduction to electromechanical devices.

Prerequisite: T-ELC 101.

**T-ELN 105 CONTROL DEVICES (7)**

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 .

Prerequisite: T-ELC 102.

**T-ELN 210 SEMICONDUCTOR CIRCUIT ANALYSIS (6)**

A study in some depth of the analysis and design of transistor circuits. Network theorems and equivalent circuits are used extensively in evaluating total circuit performance. Device peculiarities and limitations pertinent to reliable operations are considered. H. Y. Z. and T. parameters are employed as well as signal-flow graphs.

Prerequisite: T-ELN 105.

**T-ELN 214 WAVE SHAPING AND PULSE CIRCUITS I (3)**

Broadband amplifiers, magnetic amplifiers, multivibrators, wave shaping techniques, chopper amplifiers, clipper and clamper circuits.

Prerequisites: T-ELN 105, T-MAT 103.

**T-ELN 215 WAVE SHAPING AND PULSE CIRCUITS II (3)**

Pulse techniques, diode switches, gates, step-counters, restorers and other specific circuits which function as switches.

Prerequisite: T-ELN 214.

**T-ELN 220 ELECTRONIC SYSTEMS (7)**

A block diagram course investigating numerous electronic systems. Modules or blocks of various circuits already studied are arranged in various manners to produce complex electronic systems. Systems will be explained and reduced to functions and then to block diagrams. AM, FM, and Single Sideband transmitters and receivers, multiplexing, TV transmitters and receivers, pulse-modulated systems, computers, telemetry, navigational systems, sonar and radar will be considered.

Corequisite: T-ELN 215.

**T-ELN 240 DIGITAL COMPUTERS (4)**

An exploration into the methodology of counting and computing. Various computer techniques will be investigated including: non-sinusoidal waveforms, binary and decade counters, industrial counters, readout devices, logic circuits, arithmetic circuits, storage devices, input-output devices, computer control, analog to digital converters.

Prerequisite: T-ELN 214.

**T-ELN 245 ELECTRONIC DESIGN PROJECT (3)**

Students are required to design and construct a project approved by the instructor. Includes selection of project, design, construction, and testing of completed project. Projects may include: AM or FM transmitters or receivers, amplifiers, test equipment, control devices, simple counters, lasers, masers, etc.

Prerequitite: T-ELN 205.

**T-ENG 101 GRAMMAR (3)**

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 (3)**

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 (3)**

The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices are completed by the students. Practical application in the preparation of a full-length report is required of each student at the end of the term. This report must have to do with something in his chosen curriculum.

Prerequisite: T-ENG 102.

**T-ENG 204 ORAL COMMUNICATION (3)**

A study of basic concepts and principles of oral communications to enable the student to communicate with others. Emphasis is placed on the speaker's attude, 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 (3)**

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 injury.

Prerequisite: T-ENG 102.

**T-MAT 101 TECHNICAL MATHEMATICS (5)**

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

Prerequisite: Statisfactory evidence that admission requirements have been met.

**T-MAT 102 TECHNICAL MATHEMATICS (5)**

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

Prerequisite: T-MAT 101.

**T-MAT 103 TECHNICAL MATHEMATICS (5)**

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 (5)**

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

Prerequisite: None.

**T-MAT 201 TECHNICAL MATHEMATICS (5)**

A continuation of T-MAT 103. More advanced concepts of differentiation and integration are considered. Included are graphs and derivatives of the trigonometric functions, exponential and logarithmic differentiation and integration, advanced integration techniques, polar equations, parametric equations, and Fourier series.

Prerequisite: T-MAT 103.

**T-PHO 107 FUNDAMENTALS OF PHOTOGRAPHY (7)**

Photography is concerned with interpreting and recording events with a camera and in this course these concepts are thoroughly examined. In addition, the science of the photographic process, with its precise balance between light and chemical energy, is explored. Other areas of investigation include the laws governing the photographic application of optics, the measurement and behavior of light, reciprocity, the chemistry of processing light — sensitive emulsions, flash, and densitometry. Some characteristics of photographic film, paper and processing chemicals are listed. In the laboratory extensive practical application is made of these principles, along with a thorough grounding in the use of various cameras, meters densitometers, calculators, enlargers, and printers. Stressed are the three basics of a good photographer; technical skill, art ability, and business knowledge.

**T-PHO 109 INTERMEDIATE PHOTOGRAPHY (9)**

Intermediate Photography is a continuation of Fundamentals of Photography. Visual interpretation in photography is stressed. The student continues in

developing a visual concept of photography in relation to the fundamentals of lighting, composition and art principles. Intermediate Photography is concerned with the theory of the photographic process. This includes the broad application of photographic practices in the fields of advertising, science, and records which makes it imperative that the present-day photographer have a working knowledge of the principles and theories governing the chemical composition, exposure, and processing of negative and positive materials. Some of the subjects covered are: manufacture of photographic emulsions, the latent image, mechanism of exposure of silver halide grain, theory of development, mixing and washing, diffusion-transfer reversal processes, photographic sensitometry, photographic tone reproduction, structure of the developed image and the theory of exposure. Laboratory experiments of Intermediate Photography are tied in directly with the material covered.

Prerequisite: T-PHO 107.

**T-PHO 111 APPLIED PRINCIPALS OF PHOTOGRAPHY (9)**

Applied Photography is a continuation of Intermediate Photography. Practical problems in applying techniques to authentic situations are stressed. The student concentrates on methods of making functional photographs that are effective and forceful. He is learning to use the camera as a tool for examination and transmission of facts, feelings and ideas. A wide variety of assignments, such as product photography, people, picture stories, creative visualization and documentaries. are given that will introduce the many types of photography and improve laboratory skills.

Prerequisite: T-PHO 109.

**T-ARG 153 GREENHOUSE MANAGEMENT (3)**

Fundamentals and practices in greenhouse plant production. Construction and management of plastic and glass greenhouses, including the control of heat, light, ventilation, and humidity. Crop studies include both cut flower and pot plant crops. This phase of the floral design curriculum will help acquaint the student with realistic, on-the-spot greenhouse training under what are considered to be ideal conditions. Projects conducted in this particular course will provide the student with vital practical experience essential to good floral design. Time will be devoted to the students overall growth and progress.

Prerequisite: None.

**T-PHO 214 PROFESSIONAL FIELDS OF PHOTOGRAPHY (14)**

The Professional Fields will give the student an objective familiarization and study of the various aspects of portraiture, illustration, commercial, industrial, photo-journalism and photo-finishing. These courses are designed to give the student a clear picture of professional careers in photography which will assist him in selecting his major professional specialization. He will be introduced to the basic fundamentals of color materials, color photography, color processing, color printing, and some of the techniques involved. He will also be introduced to and trained in the use of color equipment. This training will include proper operation, maintenance, and problems one might encounter with the equipment.

Prerequisite: T-PHO 112.

**T-PHO 216 PROFESSIONAL FIELDS OF PHOTOGRAPHY (14)**

A continuation of Professional Fields of Photography. During this quarter the student will be exposed to more advanced techniques of color photography and reproduction and he will be taught the more versatile aspects of color photographic equipment. In addition, the student will have a number of required projects which he will complete from camera to the finished print or transparency. These projects will be varied, but will put more emphasis on the particular area of specialization in which the student is most interested. The projects will also provide the vital practical experience which the student needs.

Prerequisite: T-PHO 214.

**T-PHY 101 PHYSICS: PROPERTIES OF MATTER (4)**

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 (4)**

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-MAT 101, T-PHY 101.

**T-PSY 112 PERSONALITY DEVELOPMENT (3)**

Designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on grooming and methods of personality improvement. Prerequisite: None.

**T-PHO 218 CONTROLLED WORK EXPERIENCE — SPECIALIZED (4)**

This quarter of work experience is to provide the student with work experience within his area of specialization such as portraiture, illustration, commercial, industrial, photo-journalism, and photo-finishing. Broadening of experiences and knowledge of photography is a major objective. Students will be evaluated by both industry and instructor as to performance. Students will be recommended for work experience on the basis of academic standing and individual performance to date. The Institute reserves the right to refuse recommending students whose placement might be detrimental to the program.

Prerequisite: T-PHO 216.

**T-PHO 219 SEMINAR (3)**

The purpose of this program is two-fold; job orientation and evaluation of controlled work experience.

**T-PHO 220 PROFESSIONAL FIELDS OF PHOTOGRAPHY (14)**

Students will use this quarter in individual work to help remove deficiencies that they found during controlled work experience. Professional projects will be assigned to improve skills and provide necessary practical experience. Time will be devoted to a review and evaluation of the students professional skill and progress.

**T-PSY 206 APPLIED PSYCHOLOGY (3)**

A study of the principles of psychology that will be of assistance in the understanding of inter-personal relations on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated are: employee selection, supervision, job satisfaction and industrial conflicts. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to his adjustment problems as a worker and a member of the general community.

Prerequisite: None.

**T-SSC 201 SOCIAL SCIENCE (3)**

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

Prerequisite: None.

**T-SSC 202 SOCIAL SCIENCE (3)**

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.

**WLD 1101 BASIC GAS WELDING (1)**

Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice will be given for surface welding; bronze welding, silver-soldering, and flame-cutting methods applicable to mechanical repair work.

Prerequisite: None.

**WLD 1112 MECHANICAL TESTING AND INSPECTION (2)**

The standard methods for mechanical testing of welds. The student is introduced to the various types of tests and testing prodcedures and performs the details of the test which will give adequate information as to the quality of the weld. Types of tests to be covered are: bend, destructive, free-bend, guided-bend, nick-tear, notched-bend, tee-bend, non-destructive, V-notch, Charpy impact, etc.

Prerequisite: WLD 1120, WLD 1121.

**WLD 1120 OXACETYLENE WELDING AND CUTTING (7)**

Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, assembly of units. Welding procedures such as practice of puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead position, brazing, hard and soft soldering. Safety procedures are stresed throughout the program of instruction in the use of tools and equipment. Students perform mechanical testing and inspection to determine quality of the welds.

Prerequisite: None.

**WLD 1121 ARC WELDING (7)**

The operation of AC transformers and DC motor generator are welding sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect his weaknesses in welding. Safety procedures are emphasized throughout the course in the use of tools and equipment.

Prerequisite: None.

**WLD 1122 COMMERCIAL AND INDUSTRIAL PRACTICES (6)**

Designed to build skills through practices in simulated industrial processes and techniques: sketching and laying out on paper the size and shape description, listing the procedure steps necessary to build the product, and then actually following these directions to build the product. Emphasis is placed on

maintenance, repairing worn or broken parts by special welding applications, field welding and non-destructive tests and inspection.

Prerequisites: WLD 1120, WLD 1121.

**WLD 1123 INERT GAS WELDING (2)**

Introduction and practical operations in the use of inert-gas-shield arc welding. A study will be made of the equipment, operation, safety and practice in the various positions. A thorough study of such topics as: principles of operation, shielding gases, filler rods, process variations and applications, manual and automatic welding.

Prerequisites: WLD 1120, WLD 1121.

**WLD 1124 PIPE WELDING (7)**

Designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding processes according to Sections VIII and IX of the ASME code.

Prerequisite: WLD 1121.

**WLD 1125 CERTIFICATION PRACTICES (5)**

This course involves practice in welding the various materials to meet certification standards. The student uses various tests including the guided bend and the tensile strength tests to check the quality of his work. Emphasis is placed on attaining skill in producing quality welds.

Prerequisites: WLD 1120, WLD 1121, WLD 1123, WLD 1124.

**T-BUS 124 BUSINESS FINANCE (3)**

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 229 TAXES (4)**

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

Prerequisite: T-BUS 121.

**T-BUS 235 BUSINESS MANAGEMENT (3)**

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 verses the operating function. Role of management in business—qualifications and requirements.

Prerequisite: None.

**T-BUS 243 ADVERTISING (4)**

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 272 PSYCHOLOGY (3)**

Introduces the basic responsibilities and duties of the supervisor and his relationship to superiors, subordinates, and associates. Emphasis on securing an effective work force and the role of the supervisor. Methods of supervison are stressed.

Prerequisite: None.

**T-ECO 104 ECONOMICS (3)**

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-CAT 125 COMMERCIAL ART (4)**

A study of the basic principles of layout design and visual communication as applied to advertising and graphic design. The course will encompass a survey of communication media and their requirements in relation to advertising and graphic art design. Emphasis will be placed on the design and communicative effectiveness of art work.

Prerequisite: T-DES 122.

**T-CGT 110 LETTERING AND TYPE (4)**

An introduction to, and practice of, hand lettering fundamentals. This will include usage of tools and materials, mechanics of type (type face and size), copy size computation, and methods of type preparation for reproduction. Emphasis will be placed on the application of typography to graphic design.

Prerequisite: T-ART 121, T-DES 122.

**T-CAT 116 PHOTOGRAPHY (4)**

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

Prerequisite: None.

### T-CAT 207 COMMERCIAL ART (4)

This is a continuation of Graphic Design I involving more complex layout problems which will be reproduced in related graphic art courses. Emphasis will be placed on the technicalities of translating art work into camera-ready copy for photomechanical reproduction. This will include experience with the preparation of overlays, paste-ups, and such specifications as required by the printer.

Prerequisite: T-CAT 125.

### T-CAT 209 COMMERCIAL ART (4)

A continuation of Graphic Design II with emphasis on problems dealing with the illustration and layout of unit designs such as brochures, booklets, etc. including all necessary specifications and preparations needed for photomechanical reproduction. This course will be carried out in conjunction with Graphic Arts II which will serve as a production phase of problems initiated in Graphic Design III.

Prerequisite: T-CAT 207

### T-CGT 214 GRAPHIC ARTS (4)

Graphic arts courses will serve as the production phase of problems initiated in graphic design courses. This course is an introduction to the fundamentals of offset printing covering these areas: introduction to materials and tools, basic copy camera, darkroom techniques, film preparation, registration, plate processing, and basic press operations.

Prerequisite: T-ART 121, T-DES 122, T-CAT 125.

### T-DES 220 LIFE DRAWING II (4)

A continued study of human figure including the expressive use of the figure as a design element.

Prerequisite: T-DES 120.

### T-CGT 216 GRAPHIC ARTS (4)

A study of half tone and other screen processes incompassing the study of types of screens and their applications, exposure computations, film processing and quality control. Also included will be a survey of offset papers and inks and their application. The production of problems initiated in Graphic Design III will provide further experience in press operation.

Prerequisite: T-CGT 214.

### T-CAT 217 PHOTOGRAPHY (4)

Advanced photographic techniques and materials. Participation in studio and laboratory procedures illustrating the various applications and creative possibilities of photography in advertising.

Prerequisite: T-CAT 116.

### T-CGT 218 ILLUSTRATION TECHNIQUES AND PRINCIPLES 4)

Problems in illustration will be presented with emphasis on design and visual communication. Students will explore different techniques and media using a variety of stylistic approaches.

Prerequisite: T-CAT 207.

### T-CGT 220 CONTROLLED WORK EXPERIENCE (4)

This period of work experience is to provide the student with professional experience in graphic arts. An understanding of graphic arts production on a commercial basis is a major objective. Students will be evaluated by the instructor as to performance. Broadening of experiences and knowledge of the graphic arts field is a major objective. Students will be recommended for work experience on the basis of academic standing and individual performance to date. The institution reserves the right to refuse recommending students whose placement might be detrimental to the program.

### T-CAT 211 COMMERCIAL ART (5)

Special design problems which are geared to advanced training in specific areas of interest or individual necessity. Problems will encourage the carrying out of a design unit from its conception through the comprehensive stages of art work to the necessary preparation for advanced photomechanical reproduction to be carried out in Graphic Arts III.

Prerequisite: T-CAT 209.

### T-CGT 221 SEMINAR (3)

The purpose of this program is two-fold; job orientation and evaluation of controlled work experience.

### T-CGT 222 GRAPHIC ARTS (5)

Special production problems which are geared to advanced training in specific areas of interest or individual necessity. Problems will involve the production of the design unit initiated in Graphic Design IV including all necessary phases of make-ready required for printing.

Prerequisite: T-CGT 216.

### T-CAT 101 ADVERTISING PRINCIPLES (3)

A comprehensive survey of the history and development of advertising including a discussion of its economics and social values. An introduction to advertising media and current publications in the field.

Prerequisite: None.

**T-BUS 195 SMALL BUSINESS OPERATION (3)**

An introduction to business practices, 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.

**FLORAL DESIGN I, II, III, IV, V, & VI (3)**

The Advisory Committee is presently developing course descriptions for these. Basic concepts and experiences to be covered by these courses will be the different floral design groups provided by any florists, i.e. funeral arrangements, weddings, holiday decorations, corsages, potted plants, etc.

GOLD-N-CHIPS
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# COMMUNITY SERVICE

Community Service Curriculums are organized as an educational task to help fill the otherwise unmet educational needs of the community as they are identified or anticipated. It provides opportunities for an adult, regardless of his educational background, to re-train and update himself in employment, develop leadership and civic responsibility, grow in basic knowledge, improve in home and community life, expand knowledge in general education, and develop creativity in the fine arts.

The programs are divided at present into eight major areas.

**Adult Basic Education** classes in fundamentals of reading, writing, spelling, and arithmetic, offered primarily for those adults who lack such skills.

**High School Equivalency Program** includes programmed instruction in all subjects necessary for high school graduation.

**Public Service Programs** designed to provide training for public agencies such as law enforcement, fire departments, community groups in charge of hospitality and tourism, religious groups, and public school personnel.

**Business and Industrial Training Programs** to train supervisory personnel, to increase efficiency of business organization, and to update employee vocational skills.

**New and Expanding Industry Training** to promote the expansion of existing industries and to assist in the training of employees for new industries being established in North Carolina.

**Professional and Inservice Programs** designed to provide classes, workshops, and seminars for such professional agencies as Health and Welfare and public school administration.

**Cultural Enrichment Programs** in the development of an appreciation of and performance skill in the fine arts.

**Family Life** classes in home life, consumer education, citizenship, and parent education.

# EXTENSION DIVISON

The Extension Division cooperates with industry, professional organizations, and other interested groups in providing a varied group of curriculums and programs for the expressed purpose of updating and upgrading skills whereby the working man might enjoy a more satisfying and financially rewarding occupation. These classes may be held at any appropriate meeting place whether it be in industrial firms, public school buildings, libraries, or at the Institute.

NATIONAL ELECTRICAL CODE

Designed to give the student a working knowledge of the National Electrical Code as it applies to various calculations and installation requirements encountered in daily electrical work.

MACHINE SHOP

Time is devoted to the use of hand tools, measuring devices, lathes, drill presses, milling machines, grinders, and numerically controlled equipment.

WELDING

Includes classes in electric arc, oxyacetylene, pipe, and inert gas welding.

SMALL ENGINE REPAIR

This course will present instruction on the gasoline engine, theory and laboratory application to small two and four cycle engines. Time will be devoted to carburetion, ignition, tuneup, troubleshooting and overhaul.

AIR CONDITIONING & REFRIGERATION

Introductory theory will be covered, but the major emphasis will be upon the practical application of servicing and troubleshooting in the air conditioning, heat transfer, and refrigeration area.

FIRE SERVICE

Designed to train beginning firemen and upgrade experienced firemen in all aspects of firefighting procedures and equipment.

SUPERVISORY DEVELOPMENT TRAINING

Includes several courses designed to broaden the educational background of supervisors, to develop the leadership abilities of supervisors, and to provide preparatory supervision training.

LAW ENFORCEMENT TRAINING

Offers training designed to meet the needs of State, county, city, and other law enforcement agencies.

# GENERAL ADULT EDUCATION

Randolph Technical Institute offers General Adult Education as a part of its total community service. Courses are designed to fit the needs of adults in a variety of areas. These courses are offered at least once a year on a day or evening basis and more frequently as interest demands. Additional courses will be arranged where sufficient interest warrants such a course. Leaders from the community in civic, cultural, industrial, and business fields are available as instructors in General Adult Education courses.

## YOU AND THE LAW

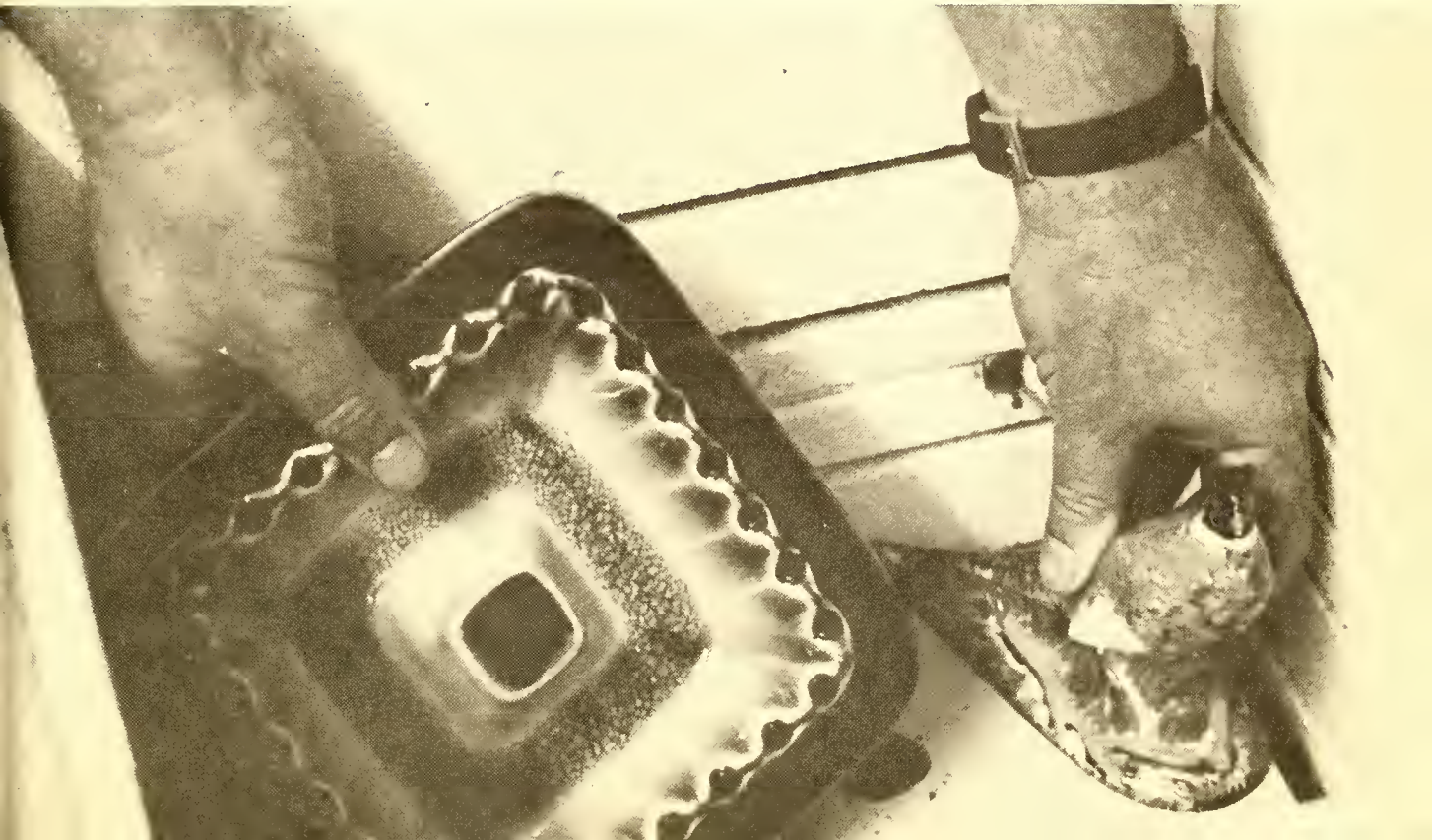
This course is designed to bridge the gap between the law and the individual, and to give him a concept of the language of the law as far as installment buying, wills, contracts, mortgages, damage suits, criminal infractions of the law, buying and selling property, etc. are concerned.

## BASIC SEWING

A basic garment in the form of a shirt-waist dress will be completed by the students in this course. Modern methods of sewing will be introduced which should enable the students to achieve professional like results.

## ART

The nature of this course will depend upon individual needs with individual instruction offered as needed. An opportunity will be offered beginning students to learn the basic fundamentals of various art approaches and give advanced students opportunities to further their knowledge of freelance oil painting.



BEGINNING KNITTING

A course for beginners who wish to learn how to select proper needles, yarn, etc. At least one sweater will be completed during the course, with emphasis placed on blocking, making button holes, etc.

INTERIOR DECORATING

A course especially planned for homemakers who have had limited experience in the area of interior decorating. Some topics of study are: color coordination, furniture arrangement, window treatment, floor covering, picture layout, etc.

INCOME TAX

The primary intent of this course is not to qualify the individual students for the preparation of income tax returns for the general public, but to instruct them in the preparation of their own returns, in filing declarations of estimated tax, and for assembling their information in situations where professional tax assistance is necessary.

CERAMICS

A course designed for the hobbyist who has a certain amount of knowledge of the basic terms and processes of ceramics but who wishes to expand his experience and skills. It will begin with the casting of objects and will follow into the decorative techniques for use on greenware or bisque ware. Use of tools, brushes and other materials will be emphasized.

CREATIVE TEACHING IN SUNDAY SCHOOL

This course is designed to aid teachers in presenting the lesson in a manner which would create discussion, interest, and personal questions on the part of the pupils. The use of visual aids, reference materials, personal experiences, and current events will be taught as methods of presenting the Sunday School lesson. The course will also include instructions in leading discussions and handling controversy in the class. Parts of the class time will be devoted to the discussion of problems encountered by the persons enrolled in the class. This class has been carefully designed to aid teachers of all age groups as well as teachers of all religious denominations.

DRIVER EDUCATION

This course will provide an opportunity for adults to learn proper and safe techniques of driving under the competent supervision of an accredited driving instructor. It will combine classroom work with car driving and observation which should enable the students to secure an adequate background in preparation for their driving tests.

CHORAL MUSIC

A course designed for a choir member, choir director, or just an individual who likes to sing. Students will be taught how to read music, the discipline of proper posture and proper breathing techniques, and basically how to control their voice in order to achieve full sound. Students will practice singing hymns, anthems, and musical selections from movies such as the **Sound of Music.**

FURNITURE REFINISHING

The course is mainly in two parts: removing old finishes and making simple repairs, then sanding, staining, filling, finishing, and polishing of fine grain woods such as walnut, mahogany, cherry, and others.

SLIMNASTICS

This will be a basic course in learning the basic exercises in toning the muscles which result from losing weight. In the course proper diet and health habits will be stressed.

# ADULT BASIC EDUCATION

Classes in Adult Basic Education are offered for adults, 18 years of age and over, who desire to improve their basic skills in reading, writing, and arithmetic. Classes are offered on a non-fee basis in both the day and evening program. Classes are held throughout Randolph County and are intended to raise the educational standards of the individual to meet the demand of today's world.

Individuals are counseled, tested, and placed in classes according to their reading ability and progress at their own individual rate. These classes are arranged according to grade level and are taught on an adult approach. All Adult Basic Education classes are non-credit.

### ABE 01 BASIC EDUCATION I

This class is for the non-reader and covers basic phonics, basic word recognition and approach to simple sentence reading. Reading being the main concern of these adults, the majority of the class time is spent in this area.

### ABE 02 BASIC EDUCATION II

At this level, the student continues to build his vocabulary and expands his basic work attack to include syllabication. Reading speed and comprehension are stressed, using various instructional aid.

### ABE 03 BASIC EDUCATION III

Students in Basic Education III broaden their scope of reading to include history, science, current events, and library skills with improved reading speed and comprehension. Arithmetic speed and accuracy are extended through seventh grade level.

# LEARNING LABORATORY

A complete adult high school program is offered to persons 18 years of age or older. The adult Learning Laboratory offers a new approach to education through the use of programmed instruction. These programmed materials enable the student to progress at his own speed and ability. Also, new students may enroll at anytime during the year.

There is a coordinator available in the Laboratory to assist all students between the hours of 8:00 a.m. to 9:30 p.m. Monday through Thursday and 8:00 a.m. to 5:00 p.m. on Friday. There is no cost to the student. Students completing high school through this program will be awarded a North Carolina High School Equivalency Diploma upon a satisfactory score on the General Education Development (G.E.D.).

Randolph Technical Institute has been approved by the North Carolina Department of Public Instruction and by the American Council on Education as a testing center for the administration of the General Educational Development Test Battery. This testing program, through which adults may earn a certificate of high school equivalency, is conducted by the Institute's Learning Laboratory where pretest examination and counseling are available.

# DIRECTORY OF INSTITUTE PERSONNEL

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DENNIS G. McMULLIN
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Genevieve Martin ---------- Secretary, Adult Education

Sue Newlin ---------- Secretary, Student Personnel

Martha Williams ---------- Secretary, Student Personnel

Mary Wood ---------- Secretary, Occupational Education

# OCCUPATIONAL EDUCATION CALENDAR 1970 - 71

| | |
|---|---|
| FALL QUARTER | |
| 3, 4, (Thursday, Friday) | Registration |
| September 8 (Tuesday) | Classes begin |
| September 15 (Tuesday) | Last day to register, drop, or add courses |
| October 6 (Tuesday) | Last day to withdraw from a course without receiveng an "F" |
| November 23 (Monday) | End of Fall Quarter |
| WINTER QUARTER | |
| November 24, 25 (Tuesday, Wednesday) | Registration |
| November 26, 27 (Thursday, Friday) | Thanksgiving Holidays |
| November 30 (Monday) | Classes begin |
| December 7 (Monday) | Last day to register, drop, or add courses |
| December 18 (Friday 5:00 P. M.) | Christmas Holidays begin |
| January 4 (Monday) | Classes resume |
| January 11 (Monday) | Last day to withdraw from a course without receiving an "F" |
| February 26 (Friday) | End of Winter Quarter |
| SPRING QUARTER | |
| March 2, 3 (Tuesday, Wednesday) | Registration |
| March 4 (Thursday) | Classes begin |
| March 11 (Thursday) | Last day to register, drop, or add courses |
| April 1 (Thursday) | Last day to withdraw from a course without receiving an "F" |
| April 8 (Thursday 10:00 P. M.) | Easter Holidays begin |
| April 13 (Tuesday) | Classes resume |
| May 21 (Friday) | End of Spring Quarter |
| SUMMER QUARTER | |
| May 27, 28 (Thursday, Friday) | Registration |
| May 31 (Monday) | Classes begin |
| June 7 (Monday) | Last day to register, drop, or add courses |
| June 28 (Monday) | Last day to withdraw from a course without receiving an "F" |
| July 2 (Friday 5:00 P. M.) | Summer Holidays begin |
| July 12 (Monday) | Classes resume |
| August 20 (Friday) | End of Summer Quarter |
| August 22 (Sunday) | Graduation Exercises |

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