



CATALOG
1978-1980

SECTION E

VOCATIONAL PROGRAMS

RICHMOND TECHNICAL INSTITUTE

RICHMOND TECHNICAL INSTITUTE

GENERAL CATALOG

1978-1980

SECTION A — GENERAL INFORMATION

SECTION B — STUDENT LIFE

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SECTION E — VOCATIONAL PROGRAMS

Cover by Ricky Harris

Richmond Technical Institute

**P. O. Box 1189
HAMLET, North Carolina 28345**

An Equal Opportunity Institution

Richmond Technical Institute reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedure as, and when, deemed necessary.

Students at Richmond Technical Institute are responsible for the observance of all regulations and policies contained in this catalog. Other regulations established by the administration in announcements through bulletins and other publications must also be observed. Students should familiarize themselves with these regulations. A claim of ignorance of regulations does not excuse failure to observe them.

ACCREDITATION

Southern Association of Colleges and Schools

North Carolina State Board of Education

North Carolina State Board of Nursing

Vocational Programs

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Vocational Programs

Vocational curricula at Richmond Technical Institute are generally one year (four quarters except for some evening programs) in length. Emphasis is on specific manipulative skills and applications of understanding plus some knowledge of mathematics, the sciences, and communicative skills.

The following vocational curricula are offered:

- Agricultural Science and Mechanization (Evening Only)
- Architectural Drafting (Day Only)
- Automotive Mechanics (Day and Evening)
- Automotive Transportation Maintenance (Day Only)
- Carpentry (Day Only)
- Cosmetology (Day Only)
- Electrical Installation and Maintenance (Evening Only)
- Electronics Servicing (Day Only)
- Industrial Maintenance — Electromechanical (Evening Only)
- Machinist Trade (Day Only)
- Masonry (Day Only)
- Practical Nurse Education (Day Only)
- Vending Machine Maintenance (Day Only)
- Welding (Day and Evening)

*"All knowledge is of itself of some value.
There is nothing so minute or inconsiderable
that I would not rather know it than not."*

— Johnson



Agricultural Science and Mechanization



Are you a veteran engaged in production agriculture? Or if you're not a veteran, are you interested in production agriculture? If so the Agricultural Science and Mechanization or Agricultural Science curricula may be of benefit to you. These programs offer the student a chance for a diploma in Agricultural Science and Mechanization or an Associate Degree in Agricultural Science. Either of these programs will be of help in production, maintenance, farm practices, and management in the agricultural area.

Richmond Technical Institute
an equal opportunity institution

Some Answers



How long will it take? In three years (12 quarters) you can earn your diploma in Agricultural Science and Mechanization. (That's 96 quarter credit hours.) You can add the required English and Social Science electives for your Associate in Applied Science Degree in Agricultural Science for a total of 114 quarter credit hours.

How much will it cost? \$3.25 per quarter credit hour for tuition, about \$40 per quarter for books, and \$3 each quarter for Student Activity fee.

*Out-of-state student tuition is \$16.50 per quarter credit hour for part-time students.

NOTE: Tuition rates are subject to change.

Can I get financial aid? RTI administers a number of student financial aid programs including scholarships, grants, loans and workstudy funds. In addition, RTI curricula are approved for veterans' educational benefits. For more information, contact our Financial Aid Officer. Veterans should consult with RTI Veterans Affairs Officer.

When can I start? New students are accepted into the Agricultural Science curriculum at the beginning of any quarter if space is available.

I'm interested. What should I do next? Get in touch with Student Services at RTI. They can answer your questions and give you the information you need to make a decision. There are also some admission procedures you need to know about and complete in ample time before registration. Call (919) 582-1980 or 997-3333 or write: Student Services, Richmond Technical Institute, P. O. Box 1189, Hamlet, NC 28345.



Agricultural Science and Mechanization

Agricultural Science & Mechanization

The Veterans Cooperative Farm Program,* designed primarily for those engaged in production agriculture, offers two options for the student: a diploma in Agricultural Science and Mechanization or an Associate Degree in Agricultural Science. The comprehensive basic curriculum — covering farm machinery, production and practices — is conducted on a part-time basis during a 36-month period. The student may enter the curriculum at the beginning of any quarter. Classes are held two evenings a week with a vacation period in July and August. For those who qualify, veterans benefits are available during the entire 36 months. A diploma in Agricultural Science and Mechanization will be awarded for satisfactory completion of 96 quarter credit hours.

Course Requirements

for
Agricultural Science & Mechanization
(Evening Only)

| Course Title | | Hours Per Week | | | Qtr. Hrs. Credit | |
|--------------|--|----------------|-------|--------|---------------------|----------|
| | | (Class) | (Lab) | (Shop) | | |
| AGR 138 | Farm Records and Taxes I | 2 | 2 | 0 | 3 | First |
| AGR 134 | Tobacco Production | 2 | 0 | 0 | 2 | Quarter |
| AGR 103 | Insect Control Practices | 2 | 0 | 0 | 2 | (Summer) |
| AGR 140 | Vegetable Production | 2 | 0 | 0 | 2 | |
| | | 8 | 2 | 0 | 9 | |
| AGR 122 | Farm Equipment Maintenance I | 0 | 0 | 3 | 1 | Second |
| AGR 121 | Weed Identification and Control | 2 | 0 | 0 | 2 | Quarter |
| AGR 109 | Soil Science | 2 | 0 | 0 | 2 | (Fall) |
| AGR 102 | Farm Business Management | 3 | 0 | 0 | 3 | |
| | | 7 | 0 | 3 | 8 | |
| AGR 101 | Farm Tractors I | 1 | 0 | 3 | 2 | Third |
| AGR 106 | Welding I | 1 | 0 | 3 | 2 | Quarter |
| AGR 126 | Forest Management I | 2 | 0 | 0 | 2 | (Winter) |
| | | 4 | 0 | 6 | 6 | |
| AGR 148R | Farm Records and Taxes II | 2 | 2 | 0 | 3 | Fourth |
| AGR 141R | Farm Tractors II | 0 | 0 | 3 | 1 | Quarter |
| AGR 107R | Welding II | 0 | 0 | 3 | 1 | (Spring) |
| | | 2 | 2 | 6 | 5 | |
| AGR 155 | Plant Diseases | 3 | 0 | 0 | 3 | Fifth |
| AGR 105 | Farm and Home Safety | 2 | 0 | 0 | 2 | Quarter |
| AGR 124R | Soil Management, Terracing and Drainage | 2 | 1 | 0 | 2 | (Summer) |
| AGR 183 | Poultry and Egg Production | 2 | 0 | 0 | 2 | |
| | | 9 | 1 | 0 | 9 | |
| AGR 110 | Crop Production I | 4 | 0 | 0 | 4 | Sixth |
| AGR 128R | Feed Grains | 3 | 0 | 0 | 3 | Quarter |
| AGR 139 | Lime and Fertilizers | 3 | 0 | 0 | 3 | (Fall) |
| | | 10 | 0 | 0 | 10 | |

(continued)

*The Veterans Cooperative Farm Program is conducted jointly by Richmond Technical Institute and the school boards of Richmond and Scotland counties.

Agricultural Science and Mechanization

Course Requirements

for
Agricultural Science & Mechanization
(continued)

| | Course Title | Hours Per Week (Class) | (Lab) | (Shop) | Qtr. Hrs. Credit | |
|----------|--------------------------------------|---------------------------|-------|--------|---------------------|--|
| AGR 108 | Beef Cattle Production | 2 | 0 | 0 | 2 | Seventh Quarter (Winter) |
| AGR 137R | Small Engines | 0 | 0 | 3 | 1 | |
| AGR 143R | Farm Marketing | 2 | 0 | 0 | 2 | |
| AGR 123 | Ornamental Horticulture | 2 | 1 | 0 | 2 | |
| | | 6 | 1 | 3 | 7 | |
| AGR 114 | Electricity I | 2 | 2 | 0 | 3 | Eighth Quarter (Spring) |
| AGR 117 | Animal Nutrition | 3 | 0 | 0 | 3 | |
| AGR 135 | Agricultural Law | 3 | 0 | 0 | 3 | |
| | | 8 | 2 | 0 | 9 | |
| AGR 144R | General Carpentry | 1 | 0 | 3 | 2 | Ninth Quarter (Summer) |
| AGR 136R | Forest Management II | 2 | 0 | 0 | 2 | |
| AGR 131 | Soybean Production | 2 | 0 | 0 | 2 | |
| AGR 142 | Agricultural Finance | 2 | 0 | 0 | 2 | |
| | | 7 | 0 | 3 | 8 | |
| AGR 146R | Swine Production | 3 | 0 | 0 | 3 | Tenth Quarter (Fall) |
| AGR 118 | Communications | 3 | 0 | 0 | 3 | |
| AGR 132 | Farm Equipment Management II | 2 | 2 | 0 | 3 | |
| | | 8 | 2 | 0 | 9 | |
| AGR 147R | Welding III | 1 | 0 | 3 | 2 | Eleventh Quarter (Winter) |
| AGR 149R | Electricity II | 2 | 2 | 0 | 3 | |
| AGR 133 | Farm Water Systems and Irrigation | 2 | 0 | 0 | 2 | |
| | | 5 | 2 | 3 | 7 | |
| AGR 119 | Taxes II | 2 | 2 | 0 | 3 | Twelfth Quarter (Spring) |
| AGR 120 | Crop Production II | 3 | 0 | 0 | 3 | |
| AGR 130 | Farm Chemicals | 3 | 0 | 0 | 3 | |
| | | 8 | 2 | 0 | 9 | |



"A
man
is
but
what
he
knoweth."
Bacon

Architectural Drafting



Designing, building and remodeling—our society changes and grows constantly. Vital to this process is the architectural draftsman who makes complete working drawings.

At RTI, you can learn—in only one year—the skills and knowledge you

need to become an architectural draftsman. You don't need artistic talent or special skills—just patience, neatness and a desire to learn.

It's a field with a future for men and women who want pleasant, rewarding work.



Some Answers

How long will it take? In one year (four quarters) you can graduate with a Diploma in Architectural Drafting. (That's 76 quarter credit hours of classroom and lab instruction.)

How much will it cost? \$39 each quarter for tuition,* about \$35 a quarter for books, and \$6 a quarter for the Student Activity fee.

How much time will it take? An average of five hours a day (Monday through Friday) for fulltime students.

Can I be a part-time student? Yes. Part-time tuition is \$3.25 per quarter credit hours (\$16.50 for out-of-state students).

Can I get financial help? RTI administers a number of student financial aid programs including scholarships, grants, loans and workstudy funds. In addition, RTI curricula are approved for veterans' educational benefits. For more information, contact our Financial Aid Officer. Veterans should consult with RTI's Veterans Affairs Officer.

*Out-of-state student tuition is \$198.00 per quarter.

What about a job after I finish? RTI has a very active job placement service for all graduating students. We'll tell you about job opportunities in your field and arrange interviews. After that, it's up to you!

What will I study? Your courses will include math, drafting, surveying, applied science, building materials and methods, etc.

When can I start? New students usually start in the Fall quarter. (If there is room, new students may be admitted at other times during the academic year.) However, before you can be admitted, there are several things you have to do. To find out more (about the curriculum or about admission), get in touch with Student Services, Richmond Technical Institute, P.O. Box 1189, Hamlet, N.C. 28345. Telephone (919) 582-1980 or 997-3333.

Note: Tuition rates are subject to change.

No individual will be denied admission to Richmond Technical Institute or participation in institution activities on the basis of race, creed, color, sex, national origin or handicap.

Architectural Drafting

Architectural Drafting Fundamentally, the architectural draftsman is concerned with the preparation of drawings for the construction of buildings and related structures. The graduate can work in many types of industry, public service agencies, offices of consulting engineers, architects, and contractors.

The architectural draftsman prepares complete working drawings for residences, commercial and industrial buildings, schools, offices and other types of structures, and may also assist in preparing estimates, bills of material and specifications.

After gaining experience, the draftsman may assist the architect and engineer with planning and design, assist in coordinating office and field work and supervise the preparation of working drawings.

The Architectural Drafting curriculum at RTI is designed to enable the graduate to advance rapidly in drafting proficiency. Courses are arranged in sequence to develop drafting skills and proficiency in mathematics and science. The first two quarters concentrate on courses basic to all fields of drafting. In the third and fourth quarters, the student takes specialized and related courses in preparation for entering architectural drafting occupations.

During a career, the draftsman will associate with many levels of personnel — administration, architects, engineers, skilled workmen — and must be able to communicate effectively with them. Therefore, the Architectural Drafting curriculum also contains courses designed to develop knowledge and skills in communication and human relations. Seventy-six quarter credit hours are required for graduation. The graduate is awarded a Diploma in Architectural Drafting.

Course Requirements for Architectural Drafting (Day Only)

| Course Title | | | Hours Per Week | | | Qtr. Hrs. Credit | |
|--------------|------|-------------------------------|----------------|-------|--------|------------------|-------------------------|
| | | | (Class) | (Lab) | (Shop) | | |
| DFT | 1121 | Drafting I | 3 | 12 | 0 | 9 | First Quarter (Fall) |
| ENG | 1101 | Reading Improvement | 3 | 0 | 0 | 3 | |
| PHY | 1101 | Applied Science I | 3 | 2 | 0 | 4 | |
| MAT | 1101 | Fundamentals of Mathematics | 5 | 0 | 0 | 5 | |
| | | | 14 | 14 | 0 | 21 | |
| DFT | 1122 | Drafting II | 3 | 6 | 0 | 6 | Second Quarter (Winter) |
| DFT | 1125 | Descriptive Geometry | 2 | 3 | 0 | 3 | |
| ENG | 1102 | Communication Skills | 3 | 0 | 0 | 3 | |
| PHY | 1102 | Applied Science II | 3 | 2 | 0 | 4 | |
| MAT | 1103 | Vocational Mathematics I | 3 | 0 | 0 | 3 | |
| | | | 14 | 11 | 0 | 19 | |
| DFT | 1141 | Building Trades Drafting I | 3 | 12 | 0 | 9 | Third Quarter (Spring) |
| MAT | 1104 | Vocational Mathematics II | 3 | 0 | 0 | 3 | |
| DFT | 1144 | Building Materials & Methods | 3 | 0 | 0 | 3 | |
| DFT | 1143 | Building Mechanical Equipment | 3 | 0 | 0 | 3 | |
| PSY | 1101 | Human Relations | 3 | 0 | 0 | 3 | |
| | | | 15 | 12 | 0 | 21 | |
| DFT | 1142 | Building Trades Drafting II | 3 | 12 | 0 | 9 | Fourth Quarter (Summer) |
| DFT | 1145 | Specifications and Contracts | 3 | 0 | 0 | 3 | |
| DFT | 1146 | Construction Surveying | 2 | 0 | 4 | 3 | |
| | | | 8 | 12 | 4 | 15 | |

Automotive Mechanics and Automotive Transportation Maintenance





"It is questionable if any mechanical inventions yet made have lightened the days toil of any human being."

— Mill

Auto Mechanics



Ours is a mobile society, and much of it moves by automobile. With improvements in fuel economy and new developments in sources of new fuels we will probably depend on the use of cars and trucks for many years.

Maintenance and preventive maintenance of motor vehicles is big business. You can prepare for your part in this exciting field in RTI's Automotive program. You can even work while you learn in the new Co-Op Option planned to begin in fall 1978.

Some Answers

How long will it take? In one year (four quarters) you can graduate with a Diploma in Automotive Mechanics (that's 69 quarter credit hours of classroom and shop instruction). You can choose the optional second year and graduate with a Diploma in Transportation Maintenance, (that's an additional 38 quarter credit hours of specialized instruction, practice and cooperative work experience). Initiation of the Transportation Maintenance Program, planned for fall 1978, is subject to change.

How much will it cost? \$39 each quarter for tuition,* about \$25 a quarter for books and \$6 a quarter for the Student Activity fee. Part-time tuition is \$3.25 per quarter credit hour (\$16.50 for out-of-state students).

How much time will it take? An average of five hours a day (Monday through Friday) for full time students. (forty hours per week in the second year).

Can I go to school at night? Yes, on a one half time basis.

Can I get financial help? RTI administers a number of student financial aid programs including scholarships, grants, loans and workstudy funds. In addition, RTI curricula are approved for veterans' educational benefits. For more information, contact our Financial Aid Officer. Veterans should consult with RTI's Veterans Affairs Officer.

What about a job after I finish? RTI has a very active job placement service for all graduating students. We'll tell you about job opportunities in your field and arrange interviews. After that, it's up to you!

What will I study? Your courses will include engines, fuel, electrical and other systems common to cars and trucks. Students choosing the second year options will study in specialized areas such as smog control devices and will spend approximately one half time in actual work experience in a commercial automotive shop.

When can I start? New students usually start in the Fall quarter. (If there is room, new students may be admitted at other times during the academic year.) However, before you can be admitted there are several things you have to do. To find out more (about the curriculum or about admission) get in touch with Student Services, Richmond Technical Institute, P.O. Box 1189, Hamlet, NC 28345. Telephone: (919) 582-1980 or 997-3333.

*Out-of-state student tuition is \$198.00 per quarter.



Automotive Mechanics and Transportation Maintenance

Automotive Mechanics and Automotive

Transportation Maintenance

This curriculum teaches the student the basic knowledge and skill needed to inspect, diagnose, repair or adjust automotive vehicles. Manual skills and knowledge of equipment are developed in practical shop work. A thorough understanding of the operating principles involved in modern automotive vehicles comes through class assignments, discussions, and shop practice. Related courses in communicative skills, physics, mathematics, human relations and business enable the student to advance in his job, become a more valuable employee, or operate a business successfully. Upon successful completion of the first four quarters of study, students with at least a 2.0 average may apply for three quarters of advanced automotive courses and co-op training. The co-op work experience must be in the Automotive Mechanics field of work. Graduates of these programs are qualified for employment as auto mechanics, sales technicians, truck and bus mechanics, maintenance supervisors or factory representatives. The student who successfully completes the 69 quarter credit hours required in the first four quarters is awarded a diploma in Automotive Mechanics. The student who successfully completes seven quarters, 107 quarter credit hours, is awarded a diploma in Automotive Transportation Maintenance.

Scientific discovery and new engineering create more complicated vehicles each year, thus requiring complex tools and trained mechanics for servicing and repair.

Course Requirements

**for
Automotive Mechanics
and
Automotive Transportation Maintenance
(Day)**

| Course Title | | | Hours Per Week | | | Qtr. Hrs. Credit | First Quarter (Fall) |
|--------------|--|--|----------------|-------|--------|------------------|-------------------------|
| | | | (Class) | (Lab) | (Shop) | | |
| PME 1101 | Internal Combustion Engines | | 3 | 0 | 12 | 7 | |
| MAT 1101 | Fundamentals of Mathematics | | 5 | 0 | 0 | 5 | |
| ENG 1101 | Reading Improvement | | 3 | 0 | 0 | 3 | |
| PHY 1101 | Applied Science I | | 3 | 2 | 0 | 4 | |
| | | | 14 | 2 | 12 | 19 | |
| PME 1102 | Engine Electrical and Fuel Systems | | 5 | 0 | 12 | 9 | Second Quarter (Winter) |
| ENG 1102 | Communication Skills | | 3 | 0 | 0 | 3 | |
| PHY 1102 | Applied Science II | | 3 | 2 | 0 | 4 | |
| MEC 1112 | Machine Shop Processes | | 0 | 0 | 6 | 2 | |
| | | | 11 | 2 | 18 | 18 | |
| AUT 1123 | Automotive Chassis and Suspension System | | 3 | 0 | 9 | 6 | Third Quarter (Spring) |
| AUT 1121 | Braking Systems | | 3 | 0 | 3 | 4 | |
| PSY 1101 | Human Relations | | 3 | 0 | 0 | 3 | |
| AHR 1101 | Automotive Air Conditioning | | 2 | 0 | 3 | 3 | |
| WLD 1101 | Basic Gas Welding | | 0 | 0 | 3 | 1 | |
| | | | 11 | 0 | 18 | 17 | |
| AUT 1124 | Automotive Power Train Systems | | 3 | 0 | 9 | 6 | Fourth Quarter (Summer) |
| AUT 1125 | Automotive Servicing | | 3 | 0 | 9 | 6 | |
| BUS 1106 | Business & Industrial Organizations | | 3 | 0 | 0 | 3 | |
| | | | 9 | 0 | 18 | 15 | |

(continued)

Automotive Mechanics and Maintenance

Course Requirements

for
Automotive Mechanics
 and
Automotive Transportation Maintenance
 (continued)

Automotive Transportation Maintenance (Advanced Courses and Co-op Training)

| Course Title | | | Hours Per Week | | | Qtr. Hrs. | |
|--------------|-------|------------------------------------|----------------|---------|----------|-----------|--|
| | | | (Class) | (Lab) | (Shop) | Credit | |
| PME | 1202R | Advanced Electrical Systems | 5 | 0 | 15 | 10 | |
| PME | 1184R | Co-Op I | 0 | 0 | 20 | 2 | |
| | | | <hr/> 5 | <hr/> 0 | <hr/> 35 | <hr/> 12 | |
| PME | 1224 | Advanced Automatic Transmissions | 5 | 0 | 15 | 10 | |
| PME | 1185R | Co-Op II | 0 | 0 | 20 | 2 | |
| | | | <hr/> 5 | <hr/> 0 | <hr/> 35 | <hr/> 12 | |
| PME | 1225R | Advanced Tune-Up & Smog Control | 5 | 0 | 12 | 9 | |
| PME | 1228R | Shop Management | 3 | 0 | 0 | 3 | |
| PME | 1186R | Co-Op III | 0 | 0 | 20 | 2 | |
| | | | <hr/> 8 | <hr/> 0 | <hr/> 32 | <hr/> 14 | |

Course Requirements for **Automotive Mechanics*** (Evening)

| Course Title | | | Hours Per Week | | | Qtr. Hrs. | |
|--------------|-------|--------------------------------------|----------------|---------|---------|-----------|--|
| | | | (Class) | (Lab) | (Shop) | Credit | |
| AUT | 1124 | Automotive Power Train Systems | 3 | 0 | 9 | 6 | |
| ENG | 1101 | Reading Improvement | 3 | 0 | 0 | 3 | |
| | | | <hr/> 6 | <hr/> 0 | <hr/> 9 | <hr/> 9 | |
| PME | 1101A | Internal Combustion Engines | 3 | 0 | 8 | 6 | |
| PHY | 1101 | Applied Science I | 3 | 2 | 0 | 4 | |
| | | | <hr/> 6 | <hr/> 2 | <hr/> 8 | <hr/> 10 | |
| PME | 1101B | Internal Combustion Engines Con't | 0 | 0 | 4 | 1 | |
| AUT | 1121 | Braking Systems | 3 | 0 | 3 | 4 | |
| MAT | 1101 | Fundamentals of Mathematics | 5 | 0 | 0 | 5 | |
| | | | <hr/> 8 | <hr/> 0 | <hr/> 7 | <hr/> 10 | |
| PME | 1102A | Engine Electrical & Fuel Systems | 3 | 0 | 6 | 5 | |
| AHR | 1101 | Automotive Air Conditioning | 2 | 0 | 3 | 3 | |
| | | | <hr/> 5 | <hr/> 0 | <hr/> 9 | <hr/> 8 | |

(continued)

* Course taught over 8 quarters with 1st quarter beginning fall quarter on odd numbered years.

Automotive Mechanics and Automotive Transportation Maintenance

Course Requirements

for
Automotive Mechanics
(continued)

| | | Course Title | Hours Per Week | | | Qtr. Hrs. | |
|-----|-------|---|-----------------------|-------|--------|------------------|--------------------------|
| | | | (Class) | (Lab) | (Shop) | Credit | |
| PME | 1102B | Engine Electrical & Fuel Systems | 2 | 0 | 6 | 4 | Flifth Quarter (Fall) |
| MEC | 1112 | Machine Shop Processes | 0 | 0 | 6 | 2 | |
| | | | 2 | 0 | 12 | 6 | |
| AUT | 1123 | Automotive Chassis and Suspension Systems | 3 | 0 | 9 | 6 | Sixth Quarter (Winter) |
| BUS | 1106 | Business and Industrial Organizations | 3 | 0 | 0 | 3 | |
| | | | 6 | 0 | 9 | 9 | |
| AUT | 1125 | Automotive Servicing | 3 | 0 | 9 | 6 | Seventh Quarter (Spring) |
| WLD | 1101 | Basic Gas Welding | 0 | 0 | 3 | 1 | |
| | | | 3 | 0 | 12 | 7 | |
| PHY | 1102 | Applied Science II | 3 | 2 | 0 | 4 | Eighth Quarter (Summer) |
| ENG | 1102 | Communication Skills | 3 | 0 | 0 | 3 | |
| PSY | 1101 | Human Relations | 3 | 0 | 0 | 3 | |
| | | | 9 | 2 | 0 | 10 | |

Carpentry and Cabinetmaking





*"An
investment
in
knowledge
pays
the
best
interest."*
Franklin

Carpentry and Cabinetmaking



As long as there are buildings, there will be a need for craftsmen who can work with wood and wood products.

Carpentry is a trade as old as civilization and as modern as tomorrow. At Richmond Tech you can acquire the knowledge and skills you need to become one of these respected craftsmen.

Richmond Technical Institute
an equal opportunity institution

Some Answers

How long will it take? In one year (four quarters) you can graduate with a Diploma in Carpentry and Cabinet making. (That's 62 quarter credit hours of classroom and shop instruction.)

How much will it cost? \$39 each quarter for tuition,* about \$25 a quarter for books and \$6 a quarter for the Student Activity fee.

How much time will it take? An average of five hours a day (Monday through Friday) for fulltime students.

Can I get financial help? RTI administers a number of student financial aid programs including scholarships, grants, loans and workstudy funds. In addition, RTI curricula are approved for veterans' educational benefits. For more information, contact our Financial Aid Officer. Veterans should consult with RTI's Veterans Affairs Officer.

What about a job after I finish? RTI has a very active job placement service for all graduating students. We'll tell you about job opportunities in your field and arrange interviews. After that, it's up to you!

* Out-of-state student tuition is \$198.00 per quarter.

What will I study? Your courses will include framing, millwork and cabinetmaking, estimating, blueprint reading, building codes, etc.

When can I start? New students usually start in the Fall quarter. (If there is room, new students may be admitted at other times during the academic year.) However, before you can be admitted there are several things you have to do. To find out more (about the curriculum or about admission) get in touch with Student Services, Richmond Technical Institute, P.O. Box 1189, Hamlet, N.C. 28845 Telephone: (919) 582-1980 or 997-3333



No individual will be denied admission to Richmond Technical Institute or participation in institution activities on the basis of race, creed, color, sex, national origin or handicap.

Note: Tuition rates are subject to change.

Carpentry and Cabinetmaking

Carpentry and Cabinetmaking

This curriculum is designed to train the student to enter the basic construction trades prepared to construct, erect, install, and repair structures of wood, plywood, and wallboard, using hand and power tools. Shop and classroom instruction offers the student the opportunity to acquire carpentry skills and related information, including a knowledge of mathematics, blueprint reading, methods of construction, and building materials. Graduates of the curriculum are prepared to work on new construction, maintenance, and repair of residential and commercial structures, conforming to local building codes. The graduate should have an understanding of building materials, concrete form construction, rough framing, roof and stair construction, the application of interior and exterior trim and finishes, and the installation of cabinets and fixtures. For graduation from the Carpentry and Cabinetmaking curriculum, 62 credit hours are required.

Course Requirements

for
Carpentry and Cabinetmaking
(Day Only)

| | Course Title | Hours Per Week | Qtr. Hrs. | |
|----------|---------------------------------------|----------------------|-----------|----------|
| | | (Class) (Lab) (Shop) | Credit | |
| ENG 1101 | Reading Improvement | 3 0 0 | 3 | First |
| MAT 1101 | Fundamentals of Mathematics | 5 0 0 | 5 | Quarter |
| DFT 1110 | Blueprint Reading: Building Trades | 0 3 0 | 1 | (Fall) |
| CAR 1101 | Carpentry | 3 0 15 | 8 | |
| | | 11 3 15 | 17 | |
| ENG 1102 | Communication Skills | 3 0 0 | 3 | Second |
| MAT 1112 | Building Trades Mathematics | 3 0 0 | 3 | Quarter |
| DFT 1111 | Blueprint Reading & Sketching | 0 3 0 | 1 | (Winter) |
| CAR 1102 | Carpentry: Framing | 3 0 15 | 8 | |
| | | 9 3 15 | 15 | |
| PSY 1101 | Human Relations | 3 0 0 | 3 | Third |
| CAR 1113 | Carpentry: Estimating | 3 0 3 | 4 | Quarter |
| CAR 1103 | Carpentry: Millwork and Cabinetmaking | 3 0 15 | 8 | (Spring) |
| | | 9 0 18 | 15 | |
| CAR 1114 | Building Codes | 3 0 0 | 3 | Fourth |
| BUS 1106 | Business and Industrial Organizations | 3 0 0 | 3 | Quarter |
| CAR 1104 | Carpentry: Finishing | 3 0 18 | 9 | (Summer) |
| | | 9 0 18 | 15 | |



"A thing of beauty is a joy forever"

— Keats



Cosmetology



Millions of dollars are spent every year by the American public on cosmetic products, to include care of the hair. Would you like to be a part of this growing service? There are many hair dressing businesses that need qualified hairdressers.

Richmond Technical Institute's Cosmetology curriculum is operated through a contract with the Southern Academy of Hairstyling in Hamlet, N.C. All instruction is conducted at and by the Academy. The State of North Carolina requires an individual to have a minimum training period of 1200 hours of instruction followed by a six month apprenticeship. A student may take an additional 300 hours of instruction and not be required to serve the six months apprenticeship.

Instruction is provided in all areas of cosmetology and includes professional ethics, personality development, anatomy, manicuring, hairdressing and cutting, hygiene, first aid, cosmetology law, massage and scalp treatment, and hair removal.

Richmond Technical Institute
an equal opportunity institution

Some Answers

How long will it take? A student who goes full-time, that is 38 hours a week, will be able to finish in about three quarters. You must complete a minimum of 1200 hours of instruction.

How much will it cost? \$39 each quarter for tuition and \$6 a quarter for the student activity fee. All books and supplies will be provided each student, free of charge, except uniforms, razors and scissors. You will spend about \$50 for these items.

Can I get financial aid? RTI administers a number of student financial aid programs, including scholarships, grants, loans and work study funds. For more information, contact our Financial Aid Officer.



Will I be able to go to work when I finish? No, but you will have the education and clinical application you need to take the State Board of Cosmetology examination. If you pass, you will be able to go to work in a shop. If you've had the minimum 1200 hours of instruction and you pass the State exam you can then serve your six months apprenticeship in a shop. If you had 1500 hours of instruction and pass the exam, the six months apprenticeship can be waived and you can go right to work.

How do I get started in my Cosmetology career? RTI has a very active Job Placement Service for all graduating students. We'll help you find the job openings and arrange interviews. After that, it's up to you! The Southern Academy of Hairstyling will also provide you with information on jobs available.

When can I start school? You can start at the beginning of any RTI quarter.

What should I do to start? A limited number of students can be accepted each quarter — the sooner you apply, the sooner you could start. For an application and information on admission procedures, call or write: Student Services at Richmond Technical Institute, P. O. Box 1189, Hamlet, N.C. 28345. Telephone (919) 582-1980 or 997-3333.



Cosmetology

Cosmetology* Courses in this curriculum provide the student with a knowledge in professional ethics, personality development, anatomy, manicuring, hairdressing and cutting, hygiene, first aid, cosmetology law, massage and scalp treatment, and hair removal. This curriculum is operated through a contract with the Southern Academy of Hairstyling in Hamlet, N.C. and all instruction is conducted at and by the Academy. An entering student is placed in the Beginners Department for the first 300 hours. During this period students are not permitted to work on members of the public. Upon successful completion of the 300 hours a student may enter the Advanced Department. Work in this department may be done on the public. The state of North Carolina requires an individual to have a minimum training period of 1200 hours of instruction followed by a six month apprenticeship. A student may take an additional 300 hours and not be required to serve the six months apprenticeship.

*This program not approved by the Veterans Administration.

Course Requirements

for
Cosmetology
(Day Only)

| Course Title | | Hours Per Week | | | Qtr. Hrs. Credit |
|--------------|--------------------------|----------------|-------|---------|------------------|
| | | (Class) | (Lab) | (Clin.) | |
| COS 1001 | Scientific Study I | 4 | 10 | 0 | 9 |
| COS 1002A | Mannequin Practice I | 2 | 0 | 5 | 3 |
| COS 1002B | Mannequin Practice II | 0 | 0 | 17 | 5 |
| | | 6 | 10 | 22 | 17 |
| COS 1003 | Scientific Study II | 4 | 0 | 0 | 4 |
| COS 1004A | Clinical Application I | 0 | 0 | 17 | 5 |
| COS 1004B | Clinical Application II | 0 | 0 | 17 | 5 |
| | | 4 | 0 | 34 | 14 |
| COS 1005 | Scientific Study III | 4 | 0 | 0 | 4 |
| COS 1006A | Clinical Application III | 0 | 0 | 17 | 5 |
| COS 1006B | Clinical Application IV | 0 | 0 | 17 | 5 |
| | | 4 | 0 | 34 | 14 |
| COS 1007 | Scientific Study IV | 4 | 0 | 0 | 4 |
| COS 1008A | Clinical Application V | 0 | 0 | 17 | 5 |
| COS 1008B | Clinical Application VI | 0 | 0 | 17 | 5 |
| | | 4 | 0 | 34 | 14 |

Electrical Installation and Maintenance





"Indebtedness to oxygen the chemist may repay, but not the obligation of electricity."

—Dickenson

Electrical Installation and Maintenance

Look around you. How many new homes, stores, manufacturing plants do you see under construction? Every one of these buildings requires electrical wiring as well as maintenance and additions after the initial installations.

That's what Electrical Installation and Maintenance is all about, a good trade in a field where the demand is great for the individual that can deliver the goods.

You can learn this trade at Richmond Technical Institute at night on a one-half time basis and continue to work at your present job.

Richmond Technical Institute
an equal opportunity institution



Some Answers



Can I get financial help? RTI administers a number of student financial aid programs including scholarships, grants, loans, and workstudy funds. In addition, RTI curricula are approved for veterans' educational benefits. For more information, contact our Financial Aid Officer. Veterans should consult with RTI's Veterans Affairs Officer.

What about a job after I finish? RTI has a very active job placement service for all graduating students. We'll tell you about job opportunities in your field (and there are many) and arrange interviews.

What will I study? Your courses will include study of Direct and Alternating Current, Blueprint Reading, Wiring, Applied Science, etc.

How long will it take? In two years of part-time study, you can graduate with a Diploma in Electrical Installation & Maintenance. (That's 72 quarter credit hours of classroom, lab and shop instruction.)

How much will it cost? \$3.25 per quarter credit hour* for tuition, about \$25.00 a quarter for books, and \$3.00 a quarter for the student activity fee. (Tuition for out-of-state students is \$16.50 per quarter credit hour.)

How much time will it take? About four hours each evening, Monday through Thursday.

When can I start? New students usually start in the Fall Quarter. (If there is room new students may be admitted at other times during the academic year.) However, before you can be admitted, there are several things you have to do. To find out more (about the curriculum or about admissions), get in touch with Student Services, Richmond Technical Institute, P.O. Box 1189, Hamlet, N. C. 28345. Telephone (919) 582-1980 or 997-3333.



*That averages about \$30.00 a quarter.

Electrical Installation and Maintenance

Electrical Installation and Maintenance Coupling laboratory and shop experience with classroom instruction, this curriculum provides basic knowledge, fundamentals and practices involved in the electrical trades. The student is taught a basic knowledge of wiring installations, electrical circuits and the measurements of voltage, current, power, and power factor of single and polyphase alternating circuits with an understanding of the fundamentals of the National Electric Code regulations. In addition, the student is provided a knowledge of motor and motor control systems, industrial electronic control systems, business procedures, organization and practices and communicative skills. The graduate of this curriculum is prepared to enter an electrical trade as an on-the-job trainee or apprentice, assisting in the planning, layout, installation, check out, and maintenance of systems in residential, commercial, or industrial plants. Seventy-two hours of required courses are needed for graduation.

Course Requirements
for
Electrical Installation and Maintenance
(Evening Only)

| | | Hours Per Week | | | Qtr. Hrs. Credit | First Quarter (Fall) | |
|-----|--------------|---|-------|--------|---------------------|-------------------------------------|--|
| | Course Title | (Class) | (Lab) | (Shop) | | | |
| MAT | 1115 | Electrical Math | 5 | 0 | 0 | 5 | |
| ELC | 1112RA | Direct and Alternating Current | 2 | 0 | 9 | 5 | |
| | | | 7 | 0 | 9 | 10 | |
| ELC | 1112RB | Direct and Alternating Current (Cont.) | 3 | 0 | 3 | 4 | Second Quarter (Winter) |
| ELC | 1113A | AC and DC Machines and Controls | 2 | 0 | 8 | 5 | |
| | | | 5 | 0 | 11 | 9 | |
| ELC | 1113B | AC and DC Machines and Controls (Cont.) | 3 | 0 | 4 | 4 | Third Quarter (Spring) |
| PHY | 1101 | Applied Science I | 3 | 2 | 0 | 4 | |
| DFT | 1110 | Blueprint Reading: Building Trades | 0 | 3 | 0 | 1 | |
| | | | 6 | 5 | 4 | 9 | |
| ENG | 1101 | Reading Improvement | 3 | 0 | 0 | 3 | Fourth Quarter (Summer) |
| DFT | 1113 | Blueprint Reading: Electrical | 0 | 3 | 0 | 1 | |
| PHY | 1102 | Applied Science II | 3 | 2 | 0 | 4 | |
| | | | 6 | 5 | 0 | 8 | |
| ELC | 1124 | Residential Wiring | 5 | 0 | 9 | 8 | Fifth Quarter (Fall) |
| | | | 5 | 0 | 9 | 8 | |
| ELN | 1118 | Industrial Electronics I | 3 | 0 | 6 | 5 | Sixth Quarter (Winter) |
| ELC | 1125A | Commercial and Industrial Wiring | 3 | 0 | 4 | 4 | |
| | | | 6 | 0 | 10 | 9 | |

(continued)

Electrical Installation and Maintenance

Course Requirements

for
Electrical Installation and Maintenance
(continued)

| Course Title | | | Hours Per Week | Qtr. Hrs. | |
|--------------|---|--|----------------------|-----------|--------------------------------|
| | | | (Class) (Lab) (Shop) | Credit | |
| ELC 1125B | Commercial and Industrial Wiring (Cont.) | | 2 0 8 | 5 | Seventh Quarter (Spring) |
| ENG 1102 | Communication Skills | | 3 0 0 | 3 | |
| PSY 1101 | Human Relations | | 3 0 0 | 3 | |
| | | | 8 0 8 | 11 | |
| ELN 1119 | Industrial Electronics II | | 3 0 6 | 5 | Eighth Quarter (Summer) |
| BUS 1106 | Business and Industrial Organizations | | 3 0 0 | 3 | |
| | | | 6 0 6 | 8 | |



*"Electricity-carrier of light
and power, devourer of time
and space, bearer of human
speech over land and sea,
greatest servant of man, it-
self unknown."*

— Elliot —

Electronics Servicing

More and more electronic devices are being developed to save time and for convenience, safety and health. Eventually, they require servicing and repair. The graduate of the Electronics Servicing Curriculum services radio, television, and communication equipment. As a graduate of this curriculum you could become a sales representative, service representative or operate a business of your own. If you are interested in electronics this curriculum may be what you're looking for.



Richmond Technical Institute

an equal opportunity institution

Some

Answers



Can I get financial help? RTI administers a number of student financial aid programs including scholarships, grants, loans and workstudy funds. In addition, RTI curricula are approved for veterans' educational benefits. For more information, contact our Financial Aid Officer. Veterans should consult with RTI's Veterans Affairs Officer.

What about a job after I finish? RTI has a very active job placement service for all graduating students. We'll tell you about job opportunities in your field (and there are many) and arrange interviews.

What will I study? Your courses will include Vacuum Tubes & Circuits, Amplifier Systems, Transistor Theory & Circuits, Business and Industrial Operations, etc.

When can I start? New students usually start in the Fall quarter. (If there is room, new students may be admitted at other times during the academic year.) However, before you can be admitted there are several things you have to do. To find out more about the curriculum or about admission, get in touch with Student Services, Richmond Technical Institute, P. O. Box 1189, Hamlet, NC 28345 Telephone (919) 582-1980 or 997-3333.

No individual will be denied admission to Richmond Technical Institute or participation in institution activities on the basis of race, creed, color, sex, national origin, or handicap.

How long will it take? In one year (four quarters) you can graduate with a Diploma in Electronics Servicing. (That's 72 quarter credit hours of classroom and lab instruction.)

How much will it cost? \$39 each quarter for tuition,* about \$35 a quarter for books, and \$6 a quarter for the Student Activity fee.

How much time will it take? An average of six hours a day (Monday through Friday) for fulltime students.

Can I be a part-time student? Yes. Part-time tuition is \$3.25 per quarter credit hour (\$16.50 for out-of-state students.)

* Out-of-state student tuition is \$198 per quarter.



Electronics Servicing

Electronics Servicing

Courses in this curriculum teach the student how to install, maintain, and service: amplitude modulated and frequency modulated home and auto radios; transistorized radios, monochrome and color television sets; intercommunications, public address and paging systems; high fidelity and stereophonic amplifiers; record players and tape recorders. In related courses, the student learns improved skills in communications and human relations and receives an introduction to business and industrial organizations. The graduate is prepared to enter a number of electronics repair careers such as a service representative, serviceman, manufacturer sales representative, inspector, etc. For graduation, 72 quarter credit hours are required. The graduate is awarded a Diploma in Electronics Servicing.

Course Requirements

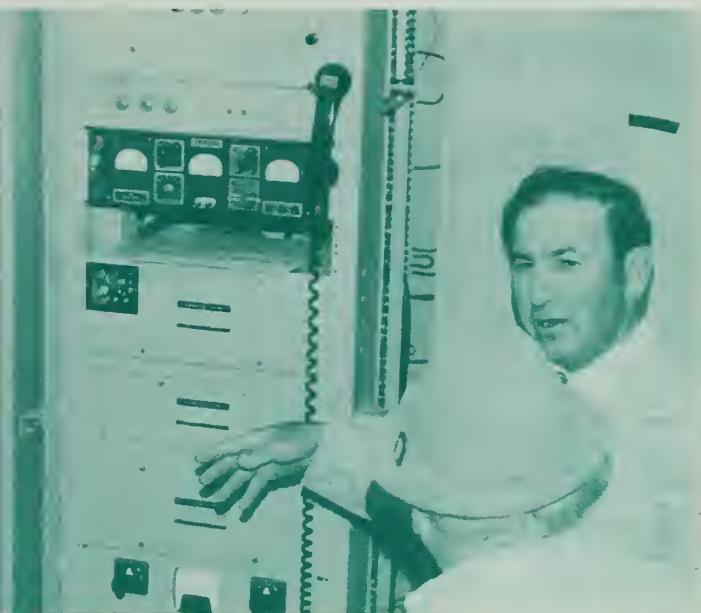
**for
Electronics Servicing
(Day Only)**

| | | Course Title | Hours Per Week | | | Qtr. Hrs. Credit | |
|-----|------|---|-----------------------|--------------|---------------|-----------------------------|--|
| | | | (Class) | (Lab) | (Shop) | | |
| MAT | 1115 | Electrical Mathematics I | 5 | 0 | 0 | 5 | |
| ENG | 1101 | Reading Improvement | 3 | 0 | 0 | 3 | |
| ELC | 1112 | Direct & Alternating Current— Electronics | 5 | 0 | 15 | 10 | First Quarter (Fall) |
| | | | 13 | 0 | 15 | 18 | |
| MAT | 1116 | Electrical Mathematics II | 5 | 0 | 0 | 5 | |
| ENG | 1102 | Communication Skills | 3 | 0 | 0 | 3 | |
| ELN | 1122 | Vacuum Tubes & Circuits | 5 | 0 | 9 | 8 | |
| ELN | 1123 | Amplifier Systems | 2 | 0 | 6 | 4 | Second Quarter (Winter) |
| | | | 15 | 0 | 15 | 20 | |
| ELN | 1125 | Radio Receiver Servicing | 2 | 0 | 6 | 4 | |
| ELN | 1126 | Transistor Theory and Circuits | 4 | 0 | 15 | 9 | |
| PSY | 1101 | Human Relations | 3 | 0 | 0 | 3 | Third Quarter (Spring) |
| | | | 9 | 0 | 21 | 16 | |
| ELN | 1127 | Television Receiver Circuits and Servicing | 10 | 0 | 15 | 15 | |
| BUS | 1106 | Business and Industrial Organizations | 3 | 0 | 0 | 3 | Fourth Quarter (Summer) |
| | | | 13 | 0 | 15 | 18 | |

Industrial Maintenance—Electromechanical



*"An
Investment
in
knowledge
pays
the
best
interest."*
Franklin



Industrial Maintenance

Electromechanical

In Industrial Maintenance, you learn to install, maintain and repair electrical and mechanical equipment used by industry. To do this, you'll learn about blueprints, operating metal-working machines, how to test electrical components, etc.

When you're through you're ready to be an electromechanical serviceman—which means you can find a good job in industrial maintenance. One of our graduates even became a plant manager!

Richmond Technical Institute
an equal opportunity institution

Some Answers

How long will it take? In two years of part-time study, you can graduate with a Diploma in Industrial Maintenance. (That's 72 quarter credit hours of classroom and shop instruction.)

How much will it cost? \$3.25 per quarter credit hour* for tuition, about \$35 a quarter for books, and \$3 a quarter for the Student Activity fee. (Tuition for out-of-state students is \$16.50 per quarter credit hour.)

How much time will it take? About four hours each evening Monday through Thursday.

Can I get financial help? RTI administers a number of student financial aid programs including scholarships, grants, loans and workstudy funds. In addition, RTI curricula are approved for veterans' educational benefits. For more information, contact our Financial Aid Officer. Veterans should consult with RTI's Veterans Affairs Officer.

What about a job after I finish? RTI has a very active job placement service for all graduating students. We'll tell you about job opportunities in your field and arrange interviews. After that, it's up to you!

* That averages about \$30 a quarter.



What will I study? Your courses will include welding, math, blueprint reading, machine shop, electrical and mechanical maintenance, etc.

When can I start? New students usually start in the Fall quarter. (If there is room, new students may be admitted at other times during the academic year.) However, before you can be admitted, there are several things you have to do. To find out more (about the curriculum or about admission), get in touch with Student Services, Richmond Technical Institute, P.O. Box 1189, Hamlet, N.C. 28345. Telephone: (919) 582-1980 or 997-3333.

Note: Tuition rates are subject to change.



No individual will be denied admission to Richmond Technical Institute or participation in institution activities on the basis of race, creed, color, sex, national origin or handicap.

Industrial Maintenance—Electromechanical

Industrial Maintenance—Electromechanical

This curriculum is designed to prepare a graduate to repair and maintain machinery, electrical wiring and fixtures, and hydraulic and pneumatic devices found in industrial establishments. Courses teach the student: how to follow directions from blueprints, sketches, manuals and codes; use of hand and machine tools; operation of metal-working machines (such as lathe, milling machine, drill press), and measurement and testing instruments; how to diagnose malfunctions of industrial machines; installation of machine parts; assembly of wires, insulation and electrical components using hand tools and soldering equipment; and how to test electrical components to locate shorts, faulty connections and defective parts. Upon completion of the curriculum, the student is prepared to be an electromechanical serviceman, able to install, maintain and service electrical and mechanical equipment. For graduation, 72 quarter credit hours are required. The graduate is awarded a Diploma in Industrial Maintenance-Electromechanical.

Course Requirements

for
Industrial Maintenance—Electromechanical
(Evening Only)

| | Course Title | Hours Per Week | Qtr. Hrs. Credit | |
|------------|--|----------------------|---------------------|-------------------------|
| | | (Class) (Lab) (Shop) | | |
| ENG 1101 | Reading Improvement | 3 0 0 | 3 | |
| MEC 1101A | Machine Shop Theory and Practice I | 1 0 6 | 3 | First Quarter (Fall) |
| WLD 1104 | Basic Welding and Cutting | 2 0 3 | 3 | |
| | | 6 0 9 | 9 | |
| DFT 1104 | Blueprint Reading Mechanical | 0 3 0 | 1 | |
| MAT 1101 | Fundamentals of Mathematics | 5 0 0 | 5 | |
| MEC 1101B | Machine Shop (Cont.) | 2 0 6 | 4 | Second Quarter (Winter) |
| | | 7 3 6 | 10 | |
| ENG 1102 | Communication | 3 0 0 | 3 | |
| PSY 1101 | Human Relations | 3 0 0 | 3 | |
| MEC 1102A | Machine Shop Theory and Practice II | 1 0 6 | 3 | Third Quarter (Spring) |
| | | 7 0 6 | 9 | |
| MEC 1140 | Hydraulics | 3 0 0 | 3 | |
| BUS 1106 | Business and Industrial Organizations | 3 0 0 | 3 | Fourth Quarter (Summer) |
| MEC 1102B | Machine Shop II (Cont.) | 2 0 6 | 4 | |
| | | 8 0 6 | 10 | |
| MAT 1115 | Electrical Mathematics | 5 0 0 | 5 | |
| ELC 1112RA | Direct and Alternating Current | 2 0 9 | 5 | Fifth Quarter (Fall) |
| | | 7 0 9 | 10 | |
| ELC 1112RB | Direct and Alternating Current (Cont.) | 3 0 3 | 4 | Sixth Quarter |
| ELC 1113A | AC and DC Machine Controls | 2 0 8 | 5 | (Winter) |
| | | 5 0 11 | 9 | |

(continued)

Industrial Maintenance—Electromechanical

Course Requirements

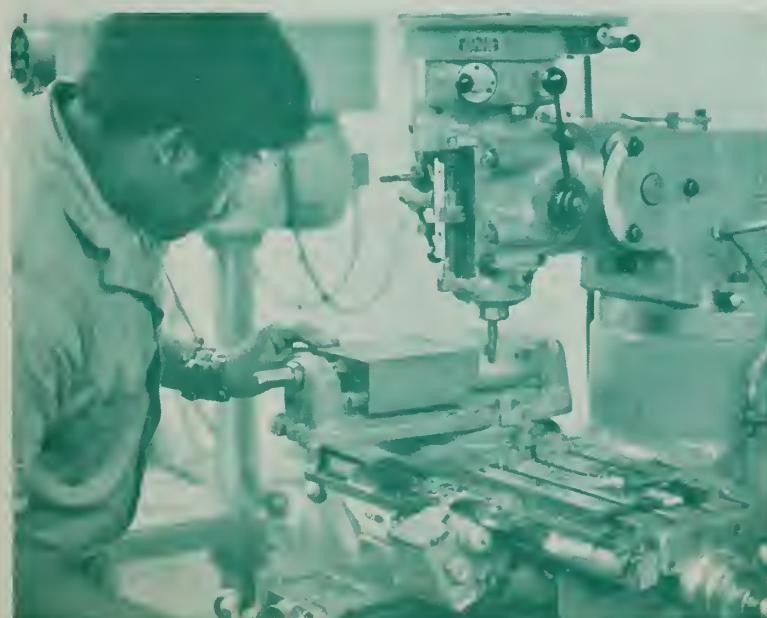
for

Industrial Maintenance—Electromechanical (Evening Only)

| | | Course Title | Hours Per Week | Qtr. Hrs. | |
|-----|-------|---|-------------------------------------|-----------|--------------------------------|
| | | | (Class) (Lab) (Shop) | Credit | |
| ELC | 1113B | AC and DC Machine Controls (Cont.) | 3 0 4 | 4 | Seventh Quarter (Spring) |
| MEC | 1133 | Electrical and Mechanical Maintenance I | 3 0 6 6 0 10 | 5 9 | |
| MEC | 1134 | Electrical and Mechanical Maintenance II | 3 0 6 | 5 | Eighth Quarter (Summer) |
| DFT | 1113 | Blueprint Reading Electrical | 0 3 0 3 3 6 | 1 6 | |

*"Knowledge
is that which
essentially
raises one
man above
another."*

— Addison



Machinist Trade

The Machinist is industry's most highly prized craftsman. The machinist's essential skills and knowledge produce work which is beautiful in its precision as well as practicality.

The machinist is never dead-ended in a boring production slot. The more ability and knowledge he or she acquires, the more rewards the machinist earns — rewards in pay, status and satisfaction.

At Richmond Technical Institute, you can begin this challenging, rewarding career through expert instruction and versatile shop experience. For those who take pride in their work — and for those who want work which is proud — the machinist trade can answer their need.

Richmond Technical Institute
an equal opportunity institution

Some Answers

How long will it take? In one year (four quarters) you can graduate with a Diploma in Machinist Trade. (That's 70 quarter credit hours of classroom and lab instruction.)

How much will it cost? \$39 each quarter for tuition,* about \$40 a quarter for books, and \$6 a quarter for the Student Activity fee.

How much time will it take? An average of six hours a day (Monday through Friday) for full-time students.

Can I be a part-time student? Yes. Part-time tuition is \$3.25 per quarter credit hour (\$16.50 for out-of-state students.)

Can I get financial help? RTI administers a number of student financial aid programs including scholarships, grants, loans and workstudy funds. In addition, RTI curricula are approved for veterans' educational benefits. For more information, contact our Financial Aid Officer. Veterans should consult with RTI's Veterans Affairs Officer.

What about a job after I finish? RTI has a very active job placement service for all graduating students. We'll tell you about job opportunities in your field (and there are many) and arrange interviews.

What will I study? Your courses will include Machine Shop Theory and Practice, Mechanical Blueprint Reading, Treatment of Metals, etc.

When can I start? New students usually start in the Fall Quarter. (If there is room new students may be admitted at other times during the academic year.) However, before you can be admitted, there are several things you have to do. To find out more (about the curriculum or about admission), get in touch with Student Services, Richmond Technical Institute, P.O. Box 1189, Hamlet, NC 28345. Telephone (919) 582-1980 or 997-3333.

*Out-of-state student tuition is \$198 per quarter.



Machinist Trade

Machinist Trade The machinist is a skilled metal worker who knows how to use machine and hand tools to shape metal parts according to blueprint specifications. About half of the curriculum at Richmond Technical Institute is concentrated on machine shop practice where the student gains a working knowledge of the lathe, milling machine, shaper, grinder, drill press and other modern machine tools. Shop practice teaches the student how to select the proper tools and finishing operations in the proper order. The student makes the standard computations of the dimensions of work, tooling feeds and speeds of machining, and uses precision measuring instruments to gauge the accuracy of work to thousandths of an inch. In addition to using precision measuring instruments, the machine student will have the opportunity to process machine operations using numerical control equipment. After four quarters of study, the Machinist Trade graduate is prepared to enter a career as a precision machine operator or precision measurement worker in a machine shop with a utility company, industry, or government. For graduation, 70 quarter credit hours are required. The graduate is awarded a Diploma in Machinist Trade.

Course Requirements for Machinist Trade (Day Only)

| | Course Title | Hours Per Week | | | Qtr. Hrs. Credit | |
|----------|---------------------------------------|----------------|-------|--------|---------------------|-------------------------|
| | | (Class) | (Lab) | (Shop) | | |
| MEC 1101 | Machine Shop Theory and Practice I | 3 | 0 | 12 | 7 | First Quarter (Fall) |
| MAT 1101 | Fundamentals of Mathematics | 5 | 0 | 0 | 5 | |
| DFT 1104 | Blueprint Reading I: Mechanical | 0 | 3 | 0 | 1 | |
| ENG 1101 | Reading Improvement | 3 | 0 | 0 | 3 | |
| PHY 1101 | Applied Science I | 3 | 2 | 0 | 4 | |
| | | 14 | 5 | 12 | 20 | |
| MEC 1102 | Machine Shop Theory and Practice II | 3 | 0 | 12 | 7 | Second Quarter (Winter) |
| MAT 1103 | Vocational Mathematics I | 3 | 0 | 0 | 3 | |
| DFT 1105 | Blueprint Reading II: Mechanical | 0 | 3 | 0 | 1 | |
| PHY 1102 | Applied Science II | 3 | 2 | 0 | 4 | |
| ENG 1102 | Communication Skills | 3 | 0 | 0 | 3 | |
| | | 12 | 5 | 12 | 18 | |
| MEC 1103 | Machine Shop Theory and Practice III | 3 | 0 | 12 | 7 | Third Quarter (Spring) |
| MEC 1115 | Treatment of Ferrous Metals | 2 | 0 | 3 | 3 | |
| MAT 1104 | Vocational Mathematics II | 3 | 0 | 0 | 3 | |
| PSY 1101 | Human Relations | 3 | 0 | 0 | 3 | |
| DFT 1106 | Blueprint Reading III: Mechanical | 0 | 3 | 0 | 1 | |
| | | 11 | 3 | 15 | 17 | |
| MEC 1104 | Machine Shop Theory and Practice IV | 3 | 0 | 15 | 8 | Fourth Quarter (Summer) |
| MEC 1116 | Treatment of Non-Ferrous Metals | 2 | 0 | 3 | 3 | |
| BUS 1106 | Business and Industrial Organizations | 3 | 0 | 0 | 3 | |
| MEC 1120 | Soldering and Brazing | 0 | 0 | 3 | 1 | |
| | | 8 | 0 | 21 | 15 | |

Masonry



*"An investment in knowledge
pays the best interest."*

Franklin



Masonry

The mason is a member of a select group of craftsmen who build for the future with the skills of yesterday and tomorrow.

Whether it's a fireplace or a condominium, a mason is the artisan whose skill and knowledge are vital. At Richmond Tech, you can learn how to become this kind of craftsman.

Richmond Technical Institute
an equal opportunity institution

Some Answers

How long will it take? In one year (four quarters) you can graduate with a Diploma in Masonry. (That's 64 quarter credit hours of classroom and shop instruction.)

How much will it cost? \$39 each quarter for tuition,* about \$20 a quarter for books and \$6 a quarter for the student activity fee.

How much time will it take each day? An average of five hours a day (Monday through Friday) for fulltime students.

Can I be a part-time student in Masonry? Yes. Part-time tuition is \$3.25 per quarter credit hour. (\$16.50 per quarter credit hour for students who do not live in N. C.)

Can I get financial help? RTI administers a number of student financial aid programs including scholarships, grants, loans and workstudy funds. In addition, RTI curricula are approved for veterans' educational benefits. For more information, contact our Financial Aid Officer. Veterans should consult with RTI's Veterans Affairs Officer.

What about a job after I finish? RTI has a very active job placement service for all graduating students. We'll tell you about job opportunities in your field and arrange interviews. After that, it's up to you!

* Out-of-state student tuition is \$198.00 per quarter.



What will I study? Your courses will include bricklaying, blueprint reading and sketching, masonry estimating, and Business and Industrial Organizations.

When can I start? New students usually start in the Fall quarter. (If there is room, new students may be admitted at other times during the academic year.) However, before you can be admitted there are several things you have to do. To find out more (about the curriculum or about admission) get in touch with Student Services, Richmond Technical Institute, P.O. Box 1189, Hamlet, NC 28345. Telephone: (919) 582-1980 or 997-3333.

No individual will be denied admission to Richmond Technical Institute or participation in institutional activities on the basis of race, creed, color, sex, national origin or handicap.

Note: Tuition rates are subject to change.

Masonry Courses in this curriculum impart knowledge of basic mathematics, blueprint reading, and masonry technology including methods used in laying out a masonry job with specific reference to rigid insulation, refractories, and masonry units specified for residential, commercial, and industrial construction. The graduate is prepared to lay brick as well as blocks made of tile, concrete, glass, gypsum or terra cotta and to construct or repair walls, partitions, arches, sewers, furnaces and other masonry structures. Career possibilities for the graduate include employment in new building construction, repair, alteration or modernization, or self-employment, with the potential for becoming a foreman, inspector or contractor. Sixty-four quarter credit hours are required for graduation. The graduate is awarded a Diploma in Masonry.

Course Requirements

for
Masonry
(Day Only)

| | Course Title | Hours Per Week | Qtr. Hrs. | |
|----------|---------------------------------------|----------------------|-----------|----------|
| | | (Class) (Lab) (Shop) | Credit | |
| MAS 1101 | Bricklaying I | 3 0 15 | 8 | First |
| MAT 1101 | Fundamentals of Mathematics | 5 0 0 | 5 | Quarter |
| DFT 1110 | Blueprint Reading: Building Trades | 0 3 0 | 1 | (Fall) |
| ENG 1101 | Reading Improvement | 3 0 0 | 3 | |
| | | 11 3 15 | 17 | |
| MAS 1102 | Bricklaying II | 5 0 15 | 10 | Second |
| MAT 1112 | Building Trades Mathematics | 3 0 0 | 3 | Quarter |
| DFT 1111 | Blueprint Reading & Sketching | 0 3 0 | 1 | (Winter) |
| ENG 1102 | Communication Skills | 3 0 0 | 3 | |
| | | 11 3 15 | 17 | |
| MAS 1103 | Bricklaying III | 5 0 15 | 10 | Third |
| PSY 1101 | Human Relations | 3 0 0 | 3 | Quarter |
| | | 8 0 15 | 13 | (Spring) |
| MAS 1104 | Bricklaying IV | 5 0 15 | 10 | Fourth |
| MAS 1113 | Masonry Estimating | 3 0 3 | 4 | Quarter |
| BUS 1106 | Business and Industrial Organizations | 3 0 0 | 3 | (Summer) |
| | | 11 0 18 | 17 | |



"...devoted
to service
and to
the high
ideals of
the nursing
profession."

Practical
Nurse
Pledge



Practical Nurse

Education

In hospitals, plants, doctor's offices, clinics and nursing homes, the Practical Nurse is part of the medical team helping people to live, providing for their comfort, easing their pain.

Graduates of Richmond Technical Institute's Practical Nurse Education curriculum are eligible to take the licensing exam from the State Board of Nursing which will allow them to be licensed Practical Nurses.

Richmond Technical Institute

an equal opportunity institution

Some Answers

How long will it take? In one year (four quarters) you can graduate with a Diploma in Practical Nurse Education. (That's 77 quarter credit hours of classroom, lab and clinical instruction.)

How much will it cost? \$39* each quarter for tuition, about \$40 a quarter for books, and \$6 a quarter for the Student Activity fee. Uniforms will cost about \$90 for the year.

How much time will it take? An average of six hours per day in class, lab and/or clinic. However, the curriculum is demanding and PNE students also put in a lot of home study time each week.

Can I get financial help? RTI administers a number of student financial aid programs including

* Out-of-state student tuition is \$198.00 per quarter.



scholarships, grants, loans and workstudy funds. In addition, RTI curricula are approved for veterans' educational benefits. For more information, contact our Financial Aid Officer. Veterans should consult with RTI's Veterans Affairs Officer.

What will I study? Your courses will include all types of practical nursing, plus science courses like anatomy and physiology, pharmacology, etc.

What about a job after I finish? RTI has a very active job placement service for all graduating students. We'll tell you about job opportunities in your field and arrange interviews. After that, it's up to you!

When can I start? New students start in the Fall quarter. Practical Nurse Education students are required to take courses in sequence, so entry at any other time of the year is virtually impossible.

Where will I go to class? RTI Practical Nurse Education is taught at Scotland Memorial Hospital in Laurinburg. Your classes will be there and you'll have clinical instruction at Scotland Memorial and clinics nearby.

I'm interested. What do I do next? Get in touch with RTI Student Services right away. A limited number of students can be accepted each year in the PNE program—the sooner you apply, the better your chances are of being admitted in the Fall. Student Services can answer your questions and explain application procedures. Write or call: Student Services, Richmond Technical Institute, P.O. Box 1189, Hamlet, NC 28345 Telephone: (919) 582-1980 or 997-333.

No individual will be denied admission to Richmond Technical Institute or participation in institution activities on the basis of race, creed, color, sex, national origin or handicap.

Practical Nurse Education

Practical Nurse Education Through classroom work and supervised hospital practice, this curriculum makes available to qualified persons the opportunity to prepare for participation in the care of patients of all age groups. The Licensed Practical Nurse is prepared to function in a variety of environments: hospitals, nursing homes, clinics, offices of doctors and dentists, public health departments and industries. Graduates of the Richmond Technical Institute Practical Nurse Education Curriculum are awarded a diploma and are eligible to take a licensing examination given by the North Carolina Board of Nursing.* A passing score on this examination entitles the individual to receive a license and to use the legal title, Licensed Practical Nurse. Seventy-seven quarter credit hours are required for graduation from the Practical Nurse Education Curriculum. This includes related courses in Math and English.

*In order for a Practical Nurse Education graduate to write the State Board of Nursing examination, s/he must pass all of the required courses in proper sequence. This is in accordance with policy established by the State Board of Nursing on June 20, 1968. Students must have a passing grade in each part of the clinical courses to pass the course.

Course Requirements for Practical Nurse Education (Day Only)

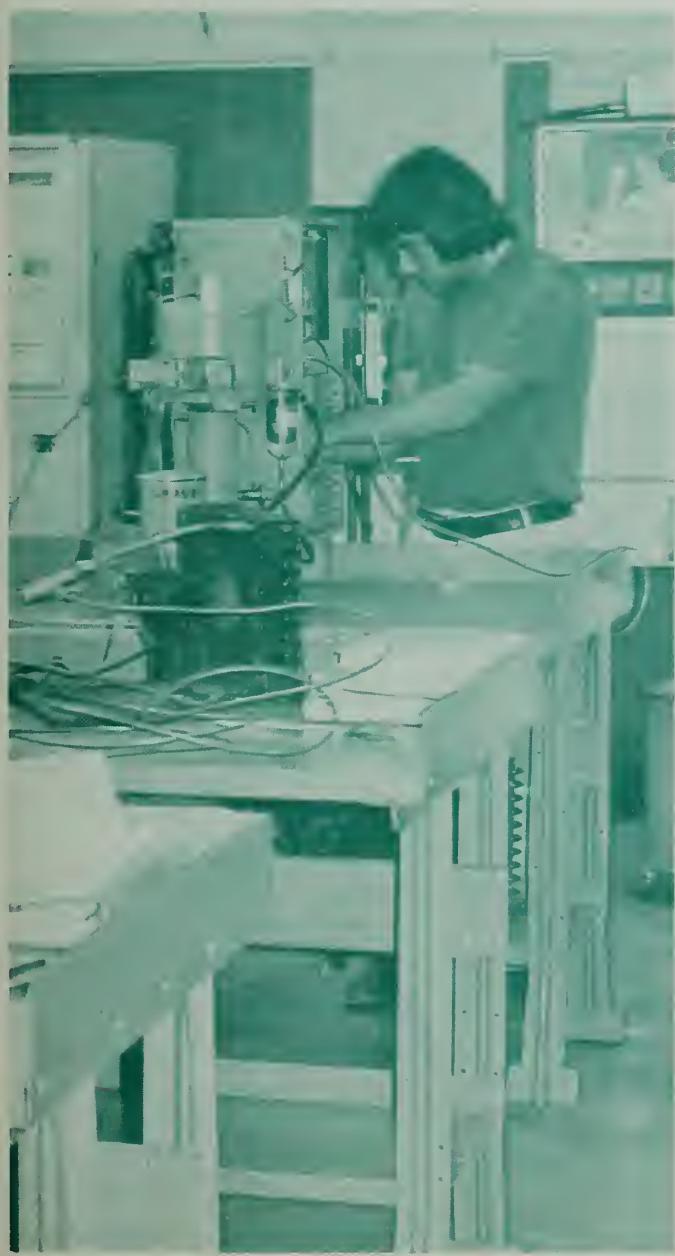
| Course Title | | Hours Per Week | | | Qtr. Hrs. Credit | First Quarter (Fall) | |
|--------------|------|---|-------|---------|------------------|----------------------|-------------------------|
| | | (Class) | (Lab) | (Clin.) | | | |
| PNE | 1111 | Fundamentals of Practical Nursing | 5 | 6 | 0 | 8 | |
| PNE | 1112 | Anatomy and Physiology | 5 | 2 | 0 | 6 | |
| PNE | 1113 | Growth & Development | 3 | 0 | 0 | 3 | |
| MAT | 1119 | Math for Practical Nurses | 3 | 0 | 0 | 3 | |
| PNE | 1114 | Nursing Ethics | 2 | 0 | 0 | 2 | |
| | | | 18 | 8 | 0 | 22 | |
| PNE | 1121 | Medical and Surgical Nursing I | 5 | 0 | 0 | 5 | Second Quarter (Winter) |
| PNE | 1122 | Pharmacology I | 5 | 0 | 0 | 5 | |
| PNE | 1123 | Nutrition | 3 | 0 | 0 | 3 | |
| PNE | 1124 | Introduction to Maternal Nursing and Child Care | 3 | 0 | 0 | 3 | |
| PNE | 1125 | Clinical Nursing I | 0 | 0 | 15 | 5 | |
| | | | 16 | 0 | 15 | 21 | |
| PNE | 1131 | Medical and Surgical Nursing II | 3 | 0 | 0 | 3 | Third Quarter (Spring) |
| PNE | 1132 | Nursing of Children | 2 | 0 | 0 | 2 | |
| PNE | 1133 | Maternity Nursing | 2 | 0 | 0 | 2 | |
| ENG | 1143 | Effective Communications | 3 | 0 | 0 | 3 | |
| PNE | 1135 | Practical Nursing Seminar I | 2 | 0 | 0 | 2 | |
| PNE | 1136 | Clinical Nursing II | 0 | 0 | 21 | 7 | |
| | | | 12 | 0 | 21 | 19 | |
| PNE | 1141 | Medical and Surgical Nursing III | 3 | 0 | 0 | 3 | Fourth Quarter (Summer) |
| PNE | 1142 | Mental Health | 2 | 0 | 0 | 2 | |
| PNE | 1145 | Practical Nursing Seminar II | 2 | 0 | 0 | 2 | |
| PNE | 1146 | Clinical Nursing III | 0 | 0 | 24 | 8 | |
| | | | 7 | 0 | 24 | 15 | |

Vending Machine Maintenance



*"There is always work,
and tools to work withal, for
those who will."*

—Lowell



Vending

Sale of goods by machine is growing by leaps and bounds. Almost daily you can discover goods that are being sold by vending machines for the first time.

You can purchase almost anything from an insurance policy at the nearest airport to a cup of hot coffee to help warm you up or keep you awake while driving late at night.

It takes much more than a swift kick to keep the modern vending machine working properly.

Vending machine maintenance personnel must be well prepared to diagnose and correct problems in electricity, refrigeration and mechanics.

Maybe you can see yourself in this exciting field of unlimited possibilities.

Richmond Technical Institute

an equal opportunity institution



How long will it take? In one year (four quarters) you can graduate with a Diploma in Vending Machine Maintenance. (That's 71 quarter credit hours of classroom and lab instruction.)

How much will it cost? \$39 each quarter for tuition,* about \$35 a quarter for books, and \$6 a quarter for the Student Activity fee.

How much time will it take? An average of six hours a day (Monday through Friday) for fulltime students.

Can I be a part-time student? Yes. Part-time tuition is \$3.25 per quarter credit hour (\$16.50 for out-of-state students.)

Can I get financial help? RTI administers a number of student financial aid programs including scholarships, grants, loans and workstudy funds. In addition, RTI curricula are approved for veterans' educational benefits. For more information, contact our Financial Aid Officer. Veterans should consult with RTI's Veterans Affairs Officer.

What about a job after I finish? RTI has a very active job placement service for all graduating students. We'll tell you about job opportunities in your field (and there are many) and arrange interviews.

Some Answers

What will I study? Your courses will include Basic Refrigeration, Coin & Currency Changers, Beverage Machines, Welding & Soldering, Applied Science, etc.

When can I start? New students usually start in the Fall quarter. (If there is room new students may be admitted at other times during the academic year.) However, before you can be admitted, there are several things you have to do. To find out more (about the curriculum or about admission), get in touch with Student Services, Richmond Technical Institute, P.O. Box 1189, Hamlet, NC 28345. Telephone (919) 582-1980 or 997-3333.



*Out-of-state student tuition is \$198 per quarter.

Vending Machine Maintenance

Vending Machine Maintenance

This curriculum, one of only five in the United States, provides the student with the necessary knowledge and skills to service, install, maintain, and repair all types of vending machines. Courses develop the ability to trace and identify electrical malfunctions, to use schematic diagrams to trace electrical circuits, and to understand refrigeration, heating, and coin mechanisms. Related courses in communication skills, human relations, and business and industrial organizations provide the student with additional knowledge needed for success. Seventy-one quarter credit hours are required for graduation. The graduate is awarded a Diploma in Vending Machine Maintenance.

Course Requirements

for
Vending Machine Maintenance
(Day Only)

| | Course Title | Hours Per Week | Qtr. Hrs. Credit | |
|----------|---|----------------------|------------------|----------------|
| | | (Class) (Lab) (Shop) | | |
| MAT 1115 | Electrical Mathematics I | 5 0 0 | 5 | First Quarter |
| ENG 1101 | Reading Improvement | 3 0 0 | 3 | |
| ELC 1161 | Basic Electricity-Electronics | 2 0 3 | 3 | |
| MEC 1252 | Coin and Currency Changers | 1 0 6 | 3 | |
| MEC 1253 | Mechanical Vending Machines | 3 0 6 | 5 | |
| | | 14 0 15 | 19 | |
| ENG 1102 | Communication Skills | 3 0 0 | 3 | Second Quarter |
| AHR 1102 | Basic Refrigeration | 3 0 3 | 4 | |
| MEC 1256 | Beverage Machines-Cold | 4 0 9 | 7 | (Winter) |
| PHY 1101 | Applied Science I | 3 2 0 | 4 | |
| | | 13 2 12 | 18 | |
| AHR 1103 | Refrigeration Servicing | 3 0 6 | 5 | Third Quarter |
| MEC 1257 | Beverage Machines-Hot | 3 0 6 | 5 | |
| PSY 1101 | Human Relations | 3 0 0 | 3 | (Spring) |
| WLD 1101 | Basic Gas Welding | 0 0 3 | 1 | |
| PHY 1102 | Applied Science II | 3 2 0 | 4 | |
| | | 12 2 15 | 18 | |
| MEC 1258 | Electrically Operated Vending Machines | 3 0 6 | 5 | Fourth Quarter |
| MEC 1259 | Vending Machine Installation, Service and Maintenance | 4 0 12 | 8 | |
| BUS 1106 | Business and Industrial Organizations | 3 0 0 | 3 | |
| | | 10 0 18 | 16 | |

Welding





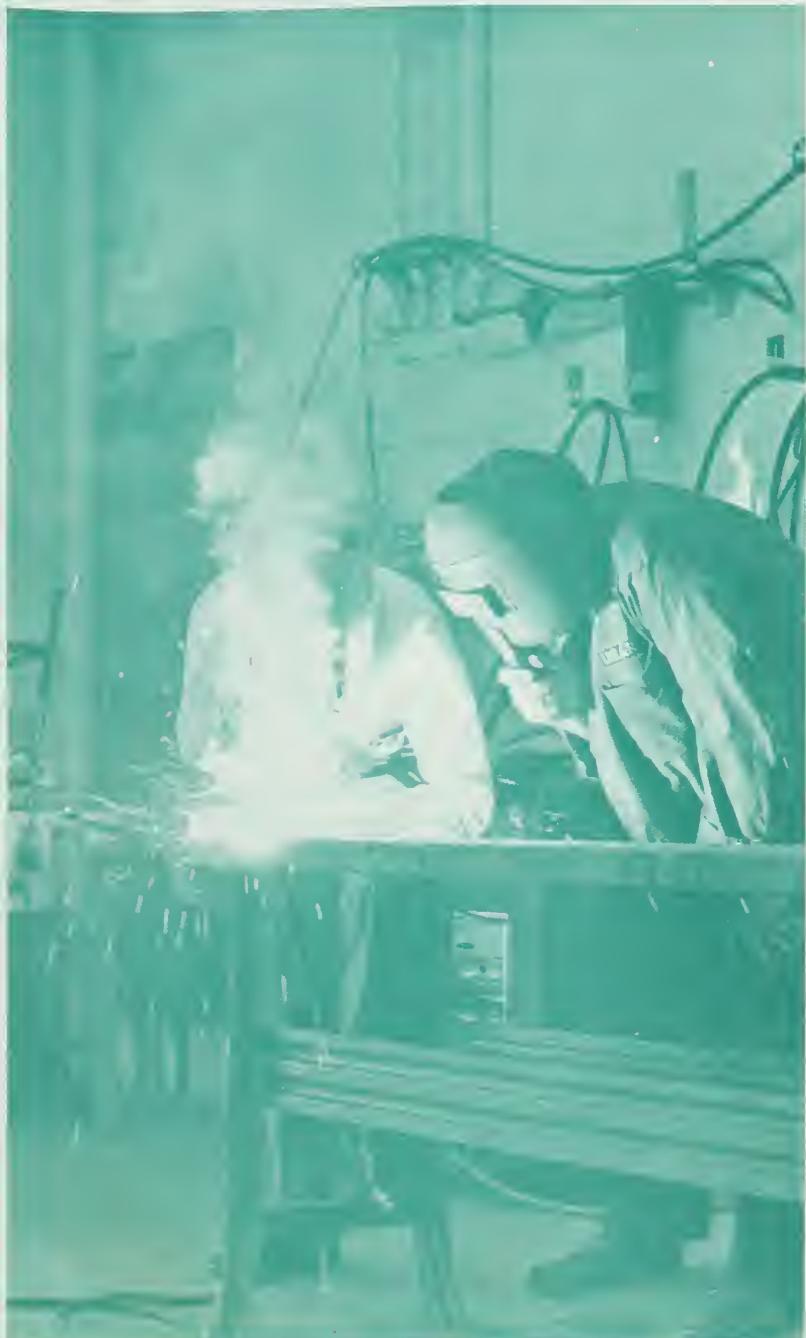
*"A man is but what
he knoweth."*

— Bacon

Welding

Without the welder, nothing produced or built with metal can be made. From jewelry to massive buildings, from undersea structures to space stations, the welder is essential. Because the welder is essential, the welder is valuable and can earn money for his or her time and respect for his or her skills.

Richmond Technical Institute offers you the instruction and shop experience you need to understand the principles, methods, techniques, and skills to start a career as a welder . . . a career which can give you employment and opportunity for the future.



Richmond Technical Institute

an equal opportunity institution

Some Answers

How long will it take? In one year (four quarters) you can graduate with a Diploma in Welding. (That's 72 quarter credit hours of classroom, lab & shop instruction.)

How much will it cost? \$39 each quarter for tuition,* about \$35 a quarter for books, and \$6 a quarter for the Student Activity fee.

Can I go to school at night? Yes.

How much time will it take? An average of six hours a day (Monday through Friday) for fulltime students.

Can I be a part-time student? Yes. Part-time tuition is \$3.25 per quarter credit hour (\$16.50 for out-of-state students.)

Can I get a financial help? RTI administers a number of student financial aid programs in-



cluding scholarships, grants, loans and workstudy funds. In addition, RTI curricula are approved for veterans' educational benefits. For more information, contact our Financial Aid Officer. Veterans should consult with RTI's Veterans Affairs Officer.

What about a job after I finish? RTI has a very active job placement service for all graduating students. We'll tell you about job opportunities in your field (and there are many) and arrange interviews.



What will I study? Your courses will include Welding, Blueprint Reading, Applied Science, Machine Shop Practice, etc.

When can I start? New students usually start in the Fall quarter. (If there is room new students may be admitted at other times during the academic year.) However, before you can be admitted, there are several things you have to do. To find out more (about the curriculum or about admission), get in touch with Student Services, Richmond Technical Institute, P.O. Box 1189, Hamlet, NC 28345. Telephone (919) 582-1980 or 997-3333.

*Out-of-state student tuition is \$198 per quarter.

Welding The curriculum is designed to provide a sound understanding of the principles, methods, techniques and skills essential in the welding field and metals industry. In the classroom, the student is taught theory and processes of welding. In the shop, the student learns electric arc, acetylene, mig and tig welding plus related techniques of cutting. Related courses teach the principles, symbols, mathematics, basic metallurgy, physics and blueprint reading, as well as communication skills and human relations. The graduate is prepared to enter a welding career in a wide variety of industries from production shop to space. Richmond Technical Institute requires 72 quarter credit hours for graduation. The graduate is awarded a Diploma in Welding.

Course Requirements

for
Welding
(Day)

| | | Course Title | Hours Per Week | Qtr. Hrs. Credit | |
|-----|-------|--------------------------------------|----------------------|------------------|----------------------|
| | | | (Class) (Lab) (Shop) | | |
| WLD | 1141 | Welding I | 5 0 15 | 10 | First Quarter (Fall) |
| MAT | 1101 | Fundamentals of Mathematics | 5 0 0 | 5 | |
| DFT | 1104 | Blueprint Reading I: Mechanical | 0 3 0 | 1 | |
| ENG | 1101 | Reading Improvement | 3 0 0 | 3 | |
| | | | 13 3 15 | 19 | |
| WLD | 1142 | Welding II | 5 0 15 | 10 | Second Quarter |
| MAT | 1103 | Vocational Mathematics I | 3 0 0 | 3 | (Winter) |
| MEC | 1113R | Welding Metallurgy | 2 3 0 | 3 | |
| PHY | 1101 | Applied Science I | 3 2 0 | 4 | |
| | | | 13 5 15 | 20 | |
| WLD | 1124R | Welding III | 5 0 18 | 11 | Third Quarter |
| PSY | 1101 | Human Relations | 3 0 0 | 3 | (Spring) |
| DFT | 1117 | Blueprint Reading: Welding | 0 3 0 | 1 | |
| PHY | 1102 | Applied Science II | 3 2 0 | 4 | |
| | | | 11 5 18 | 19 | |
| WLD | 1123R | Welding IV | 4 0 12 | 8 | Fourth Quarter |
| MEC | 1112 | Machine Shop Processes | 0 0 6 | 2 | (Summer) |
| ENG | 1102 | Communication Skills | 3 0 0 | 3 | |
| DFT | 1118 | Pattern Development and Sketching | 0 0 3 | 1 | |
| | | | 7 0 21 | 14 | |

Course Requirements

for
Welding*
(Evening)

| Course Title | | | Hours Per Week | | | Qtr. Hrs. Credit | First Quarter (Fall) |
|--------------|--------------------------------------|--|----------------|----------|-----------|---------------------|-------------------------------------|
| | | | (Class) | (Lab) | (Shop) | | |
| WLD 1141A | Welding I | | 3 | 0 | 9 | 6 | |
| ENG 1101 | Reading Improvement | | 3 | 0 | 0 | 3 | |
| | | | <u>6</u> | <u>0</u> | <u>9</u> | <u>9</u> | |
| WLD 1141B | Welding I (Cont.) | | 2 | 0 | 6 | 4 | |
| DFT 1104 | Blueprint Reading I: Mechanical | | 0 | 3 | 0 | 1 | |
| MAT 1101 | Fundamentals of Mathematics | | 5 | 0 | 0 | 5 | |
| | | | <u>7</u> | <u>3</u> | <u>6</u> | <u>10</u> | |
| WLD 1142A | Welding II | | 3 | 0 | 9 | 6 | |
| MAT 1103 | Vocational Mathematics I | | 3 | 0 | 0 | 3 | |
| | | | <u>6</u> | <u>0</u> | <u>9</u> | <u>9</u> | |
| WLD 1142B | Welding II (Cont.) | | 2 | 0 | 6 | 4 | |
| MEC 1113R | Welding Metallurgy | | 2 | 3 | 0 | 3 | |
| DFT 1117 | Blueprint Reading: Welding | | 0 | 3 | 0 | 1 | |
| | | | <u>4</u> | <u>6</u> | <u>6</u> | <u>8</u> | |
| WLD 1124RA | Welding III | | 3 | 0 | 9 | 6 | |
| PHY 1101 | Applied Science | | 3 | 2 | 0 | 4 | |
| | | | <u>6</u> | <u>2</u> | <u>9</u> | <u>10</u> | |
| WLD 1124RB | Welding III (Cont.) | | 2 | 0 | 9 | 5 | |
| PSY 1101 | Human Relations | | 3 | 0 | 0 | 3 | |
| DFT 1118 | Pattern Development and Sketching | | 0 | 3 | 0 | 1 | |
| | | | <u>5</u> | <u>3</u> | <u>9</u> | <u>9</u> | |
| WLD 1123R | Welding IV | | 4 | 0 | 12 | 8 | |
| | | | <u>4</u> | <u>0</u> | <u>12</u> | <u>8</u> | |
| PHY 1102 | Applied Science | | 3 | 2 | 0 | 4 | |
| ENG 1102 | Communication Skills | | 3 | 0 | 0 | 3 | |
| MEC 1112 | Machine Shop Process | | 0 | 0 | 6 | 2 | |
| | | | <u>6</u> | <u>2</u> | <u>6</u> | <u>9</u> | |

*Course taught over 8 quarters with 1st quarter beginning Fall Quarter on odd numbered years.

Vocational Programs / Course Descriptions

Vocational Programs Course Descriptions

| | | |
|-----------------|--|-----------------------|
| AGR 101 | Farm Tractors I | 2 credit hours |
| | A study of farm tractors, including gas and diesel engines. Emphasis is placed on internal combustion engines and electrical systems. 4 contact hours per week (1 class, 3 shop). | |
| AGR 102 | Farm Business Management | 3 credit hours |
| | A review of the functions of the manager of a business firm and the problems of farm operators. Development of the concepts of cost and budgets as an aid in choosing what to produce. An analysis of the factors of production to find the least cost production procedure. Data will be analyzed to select the level of production which yields the highest net revenue. Relationships between size, efficiency, and gross farm income and net farm income will be stressed. 3 contact hours per week (3 class). | |
| AGR 103 | Insect Control Practices | 2 credit hours |
| | A study of insects which affect crops commonly grown in the area. Included is identification and study of life cycle, host, and recommended control practice. 2 contact hours per week (2 class). | |
| AGR 105 | Farm and Home Safety | 2 credit hours |
| | Designed to acquaint the farmer with common types of farm and home accidents. Emphasis will be on accident prevention. The unit includes beginning first aid. 2 contact hours per week (2 class). | |
| AGR 106 | Welding I | 2 credit hours |
| | Covers arc welding. The safe and correct methods of assembling and operating welding equipment are stressed. Welded joints discussed and practiced in various positions applicable to mechanical repair work and steel fabrication. Care, maintenance, and selection of welding equipment and supplies are applied. 3 contact hours per week (1 class, 3 shop). | |
| AGR 107R | Welding II | 1 credit hour |
| | Covers gas welding. The safe and correct methods of operating equipment is stressed. Also included is flame cutting. 3 contact hours per week (3 shop). | |
| AGR 108 | Beef Cattle Production | 2 credit hours |
| | A study of the principles of selecting, breeding, care, and management of beef cattle. 2 contact hours per week (2 class). | |
| AGR 109 | Soil Science | 2 credit hours |
| | Deals with basic principles of classification, evaluation, and management of soils; care, cultivation, and fertilization of the soil, and conservation of soil fertility. 2 contact hours per week (2 class). | |
| AGR 110 | Crop Production I | 4 credit hours |
| | A study of the characteristics of field crops relative to varieties, environmental factors, rotation, fertilization, control of pests, and cultural practices pertinent to crop production. 4 contact hours per week (4 class). | |

Vocational Programs / Course Descriptions

| | | |
|-----------------|---|-----------------------|
| AGR 114 | Electricity I | 3 credit hours |
| | A study of basic principles of wiring farm buildings and the application of electricity to agriculture production. 4 contact hours per week (2 class, 2 lab). | |
| AGR 117 | Animal Nutrition | 3 credit hours |
| | A study of the composition of feeds, feed additives, and the nutritional requirements of livestock. Includes a study of the principles used in the formulation of practical and economical livestock rations. 3 contact hours per week (3 class). | |
| AGR 118 | Communications | 3 credit hours |
| | Designed to promote effective written and oral communications for the farm leader. 3 contact hours per week (3 class). | |
| AGR 119 | Taxes II | 3 credit hours |
| | Designed to give the student an understanding of all tax regulations and laws, particularly income taxes applicable to farming. A review of current tax regulations is included. 4 contact hours per week (2 class, 2 lab). | |
| AGR 120 | Crop Production II | 3 credit hours |
| | A continuation of the study of the characteristics of field crops relative to varieties, environmental factors, rotation, fertilization, control of pests, and cultural practices pertinent to crop production. 3 contact hours per week (3 class). | |
| AGR 121 | Weed Identification and Control | 2 credit hours |
| | A study of the identification and control of the annual and perennial weeds of economic importance in North Carolina. 2 contact hours per week (2 class). | |
| AGR 122 | Farm Equipment Maintenance I | 1 credit hour |
| | Care, repair and selection of the large units of farm equipment are included. Preventive maintenance by properly scheduled maintenance is stressed. 3 contact hours per week (3 shop). | |
| AGR 123 | Ornamental Horticulture | 2 credit hours |
| | A study of the principles of care and selection of plants, shrubs, trees, and grasses for the home landscape. Field trips and demonstrations will be utilized in the development of skills and practices needed in landscape planning. 3 contact hours per week (2 class, 1 lab). | |
| AGR 124R | Soil Management, Terracing and Drainage | 2 credit hours |
| | A continuation of the soil science unit, including the mechanics of terracing and drainage. Soil types will be reviewed as they pertain to terracing and drainage. 3 contact hours per week (2 class, 1 lab). | |
| AGR 126 | Forest Management I | 2 credit hours |
| | A unit dealing with the fundamentals of forestry and farm forestry problems, including planting, thinning, harvesting and marketing. 2 contact hours per week (2 class). | |
| AGR 128R | Feed Grains | 3 credit hours |
| | Stresses the value of scientific methods in the production of corn, oats, wheat, barley, and sorghum. Varieties, soils, fertilization, cultivation, harvesting, and utilization are included. 3 contact hours per week (3 class). | |

Vocational Programs / Course Descriptions

| | | |
|-----------------|--|-----------------------|
| AGR 130 | Farm Chemicals | 3 credit hours |
| | A study of agricultural chemicals — their importance, ingredients, formulation, and application — with emphasis upon the effective and safe utilization of chemicals in agricultural pest control. Major emphasis is placed upon weed identification and chemicals utilized for weed control. Part of the course is devoted to chemicals other than herbicides — such as insecticides, fungicides, and others. 3 contact hours per week (3 class). | |
| AGR 131 | Soybean Production | 2 credit hours |
| | Crop characteristics, varieties, environmental factors, rotation, control of pests and other production practices are covered. 2 contact hours per week (2 class). | |
| AGR 132 | Farm Equipment Maintenance II | 3 credit hours |
| | A continuation of Farm Equipment Maintenance. 4 contact hours per week (2 class, 2 lab). | |
| AGR 133 | Farm Water Systems and Irrigation | 2 credit hours |
| | A study of the farm water needs and waste disposal. Attention is given to planning and installing the system and its proper care and maintenance. Attention is also given to sources of farm water as related to farm irrigation systems. 2 contact hours per week (2 class). | |
| AGR 134 | Tobacco Production | 2 credit hours |
| | A review of the economic importance of tobacco in North Carolina and a detailed study of all aspects of the production and marketing of tobacco, with a brief look at the processing and manufacturing phases. 2 contact hours per week (2 class). | |
| AGR 135 | Agricultural Law | 3 credit hours |
| | A general unit designed to acquaint the student with certain fundamentals and principles of law, including contracts, agency and negotiable instruments. Includes the general study of law pertaining to partnership, corporation, sales, suretyship, bailments and real property. 3 contact hours per week (3 class). | |
| AGR 136R | Forest Management II | 2 credit hours |
| | This unit is a continuation, in greater depth, of Forest Management I. 2 contact hours per week (2 class). | |
| AGR 137R | Small Engines | 1 credit hour |
| | A study of two- and four-cycle, one cylinder gasoline engines and their power trains. The student will be taught preventative maintenance, trouble shooting, and repair of the typical auxiliary engine used on the farm. 3 contact hours per week (3 shop). | |
| AGR 138 | Farm Records and Taxes I | 3 credit hours |
| | An introductory unit to accounting methods related to the farm business. Acquaints the student with terminology, basic principles, and techniques used in recording transactions. Practical application of the principles learned are made working with actual farm situations. A study of taxes as related to farm income, forms, deductions, depreciation, and tax schedules applicable to farmers. 4 contact hours per week (2 class, 2 lab). | |

Vocational Programs / Course Descriptions

| | | |
|-----------------|--|-----------------------|
| AGR 139 | Lime and Fertilizers | 3 credit hours |
| | A review of the sources, function and use of the major and minor plant food elements; commercial fertilizer ingredients; soil acidity, liming materials; application of fertilizer and liming materials. 3 contact hours per week (3 class). | |
| AGR 140 | Vegetable Production | 2 credit hours |
| | This unit includes propagation of plants by seed, certified seed, cool and warm season vegetables, fertilization, disease and insect control, and marketing of vegetables. 2 contact hours per week (2 class). | |
| AGR 141R | Farm Tractors II | 1 credit hour |
| | A continued study of gas and diesel farm tractors. Emphasis is on power trains, braking and hydraulic systems. 3 contact hours per week (3 shop). | |
| AGR 142 | Agricultural Finance | 2 credit hours |
| | Analysis of the capital structure of modern commercial agriculture with emphasis on the sources of credit. A review of lending institutions, repayment, schedules, and credit instruments. Practice in the procedure of evaluating farm resources with attention to information needed for valuation, appraisal forms and procedure, discounting and depreciation. 2 contact hours per week (2 class). | |
| AGR 143R | Farm Marketing | 2 credit hours |
| | An analysis of the functions of marketing in 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. 2 contact hours per week (2 class). | |
| AGR 144R | General Carpentry | 2 credit hours |
| | Deals with the fundamentals of carpentry relative to construction commonly found on the modern farm. Included is the use of concrete, pole and frame construction techniques, plumbing, and the use of leveling instruments in construction. 4 contact hours per week (1 class, 3 shop). | |
| AGR 146R | Swine Production | 3 credit hours |
| | A study of the scientific methods of selecting, breeding, feeding, and management of swine. Special attention is given to housing and marketing. 3 contact hours per week (3 class). | |
| AGR 147R | Welding III | 2 credit hours |
| | A continuation of Welding II, with emphasis on specialized types of arc and gas welding. The student has an opportunity to build a working project. 4 contact hours per week (1 class, 3 shop). | |
| AGR 148R | Farm Records and Taxes II | 3 credit hours |
| | A continuation of Farm Records and Taxes I to include more depth in practical application of principles learned. A review of tax laws pertaining to farming is included. 4 contact hours per week (2 class, 2 lab). | |
| AGR 149R | Electricity II | 3 credit hours |
| | A study of wire sizes, switches, protective and safety devices, and maintenance of electrical motors and appliances. 4 contact hours per week (2 class, 2 lab). | |

| | | |
|-----------------|---|-----------------------|
| AGR 155 | Plant Diseases | 3 credit hours |
| | A unit dealing with the nature and symptoms of diseases in plants; the characteristics of plant diseases, causal agents, cause, identification, and control of the major plant diseases of the area. 3 contact hours per week (3 class). | |
| AGR 183 | Poultry and Egg Production | 2 credit hours |
| | A review of the growth of the various poultry enterprises — including market eggs, hatching eggs, and broiler production; marketing procedures; determining and controlling costs of production; choosing breeds and determining flock size, feeding size, feeding system, conversion ratios, labor efficiency, and other management factors. 2 contact hours per week (2 class). | |
| AHR 1101 | Automotive Air Conditioning | 3 credit hours |
| | 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. 5 contact hours per week (2 class, 3 shop). Prerequisite: PHY 1101 | |
| AHR 1102 | Basic Refrigeration | 4 credit hours |
| | Theories, basic laws, and principles of refrigeration applied to vending machine use is emphasized. Studies are made of the construction and operation of complete refrigeration systems and all their component parts. 6 contact hours per week (3 class, 3 shop). | |
| AHR 1103 | Refrigeration Servicing | 5 credit hours |
| | The students receive experiences in testing, trouble shooting, adjusting, removing and installing component parts. They remove refrigerants and use vacuum pumps. They add refrigerants by using charging cylinders and gauges. Silver soldering techniques are taught. Safety rules are observed in all operations. 9 contact hours per week (3 class, 6 shop). | |
| AUT 1121 | Braking Systems | 4 credit hours |
| | A complete study of various braking systems employed on automobiles and lightweight trucks. Emphasis is placed on how they operate, proper adjustment, and repair. 6 contact hours per week (3 class, 3 shop). Prerequisite: PHY 1102 | |
| AUT 1123 | Automotive Chassis and Suspension Systems | 6 credit hours |
| | 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, spring, steering systems, steering linkage, and front end alignment. 12 contact hours per week (3 class, 9 shop). | |
| AUT 1124 | Automotive Power Train Systems | 6 credit hours |
| | Principles and functions of automotive power train system: clutches, transmission gears, torque converters, drive shaft assemblies, rear axles and differentials. Identification of troubles, servicing, and repair. 12 contact hours per week (3 class, 9 shop). Prerequisites: PHY 1102, AUT 1123 | |

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| AUT 1125 | Automotive Servicing | 6 credit hours |
| | Emphasis is on the shop procedures necessary in determining the nature of troubles developed in the various components systems of the automobile. Troubleshooting of automotive systems, providing a full range of experience in testing, adjusting, repairing, and replacing. 12 contact hours per week (3 class, 9 shop). | |
| | Prerequisites: AUT 1123, AUT 1121, AHR 1101, PME 1102 | |
| BUS 1106 | Business and Industrial Organizations | 3 credit hours |
| | An introduction to the business world, government regulations, legal forms, management, internal organization, personnel management, production management, corporate financing, risk management and insurance, accounting, and marketing. 3 contact hours per week (3 class). | |
| CAR 1101 | Carpentry | 8 credit hours |
| | A brief history of carpentry and present trends of the construction industry. The course will involve operation care and safe use of carpenters handtools and powertools in cutting, shaping and joining construction materials used by the carpenter. Major topics of study will include theoretical and practical applications involving: materials and methods of construction, building layout, preparation of site, footings and foundation wall construction including form construction and erection and properties of concrete. 18 contact hours per week (3 class, 15 shop). | |
| CAR 1102 | Carpentry: Framing | 8 credit hours |
| | Instruction is given in the principles and practices of frame construction beginning with the foundation sills and including: floor joist, subfloor, wall studs, ceiling joist, rafters bridging, bracing, sheathing and interior wall partition and framing openings. Roof construction includes the layout and construction methods of common types of roofs using standard rafter construction, truss construction, and post and beam construction. Application and selection of sheathing and roofing is included. Consideration is given to the coordination of carpentry work with installation of the mechanical equipment such as: electrical, air conditioning, heating, and plumbing. 18 contact hours per week (3 class, 15 shop). | |
| | Prerequisites: CAR 1101, DFT 1110 | |
| CAR 1103 | Carpentry: Millwork and Cabinetmaking | 8 credit hours |
| | Cabinetmaking and millwork as performed by the general carpenter for building construction. Use of shop tools and equipment will be emphasized in learning methods of construction of millwork and cabinetry. Practical applications will include measuring, layout and construction of: stairs, and miscellaneous items. 18 contact hours per week (3 class, 15 shop). | |
| | Prerequisite: CAR 1102 | |
| CAR 1104 | Carpentry: Finishing | 9 credit hours |
| | Exterior and interior trim and finish carpentry will complete the general carpentry program. Included will be materials and methods used in finishing carpentry such as: exterior cornice, door and window trim; interior flooring, door and window facing, moldings, and cornice construction; installation of hardware; and installation of doors and windows. 21 contact hours per week (3 class, 18 shop). | |
| | Prerequisites: CAR 1103, DFT 1111 | |

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| CAR 1113 | Carpentry: Estimating | 4 credit hours |
| | This is a practical course in quantity "take off" from prints of jobs performed by the carpenter. Figuring the quantities of materials needed and costs of building various components and structures. 6 contact hours per week (3 class, 3 shop). Prerequisites: DFT 1111, MAT 1112 | |
| CAR 1114 | Building Codes | 3 credit hours |
| | A study is made of building codes and the minimum requirements for local, county, and state construction regulations. This involves safety, sanitation, mechanical equipment and materials. Also, review will be made of the minimum property requirements of the Federal Housing Administration and the North Carolina State Code. 3 contact hours per week (3 class). Prerequisite: CAR 1103 Corequisite: CAR 1104 | |
| COS 1001 | Scientific Study I | 9 credit hours |
| | This is a course for beginners in Cosmetology. It includes a study of professional ethics, grooming and personality development, sterilization, sanitation, first aid and bacteriology, cosmetology law, anatomy, chemistry, nails, nail disorders, manicuring, hair, scalp, skin, and disorders pertaining to the hair, scalp, and skin. 14 contact hours per week (4 class, 10 lab). | |
| COS 1002A | Mannequin Practice I | 3 credit hours |
| | A study of finger waving, pin curling, rollers, marcelling, hair relaxing, shampooing and rinses, scalp treatment, hair cutting, permanent waving, hairdressing and combing, hair tinting, bleaching, frosting, streaking, wig care and styling. 7 contact hours per week (2 class, 5 clinic). | |
| COS 1002B | Mannequin Practice II | 5 credit hours |
| | A continuation of the study of finger waving, pin curling, rollers, marcelling, hair relaxing, shampooing and rinses, scalp treatment, hair cutting, permanent waving, hairdressing and combing, hair tinting, bleaching, frosting, streaking, wig care and styling. 17 contact hours per week (17 clinic). | |
| COS 1003 | Scientific Study II | 4 credit hours |
| | A classroom study of skin, scalp, hair, nails, and their disorders, salesmanship, permanent waving, marcelling, relaxing, hairdressing, wigs, and hair coloring. 4 contact hours per week (4 class). | |
| COS 1004A | Clinical Application I | 5 credit hours |
| | A study of live model performance. This course is designed to develop skills and understanding of techniques and applications in the areas of bacteriology, pin curling, finger waving, rollers, permanent waving, marcelling, chemical relaxing, hairdressing and wigs, manicuring and pedicuring, skin and scalp disorders, hair coloring, and hair cutting. 17 contact hours per week (17 clinic). | |
| COS 1004B | Clinical Application II | 5 credit hours |
| | A continuation of the study of live model performance. This course is designed to develop skills and understanding of techniques and applications in the areas of bacteriology, pin curling, finger waving, rollers, permanent waving, marcelling, chemical relaxing, hairdressing and wigs, manicuring and pedicuring, skin and scalp disorders, hair coloring, and hair cutting. 17 contact hours per week (17 clinic). | |

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| COS 1005 | Scientific Study III | 4 credit hours |
| | A classroom study of anatomy, manicuring, chemistry, cosmetics-facials, hair styling, theory of massage, scalp treatments, superfluous hair removal, grooming and hygiene. 4 contact hours per week (4 class). | |
| COS 1006A | Clinical Application III | 5 credit hours |
| | This course gives continued laboratory practice and application of techniques in hair shaping, professional ethics, manicuring, chemistry, cosmetics-facials, hair styling, hair coloring, (rinses, etc.) and scalp treatments. 17 contact hours per week (17 clinic). | |
| COS 1006B | Clinical Application IV | 5 credit hours |
| | A continuation of the laboratory practice and application of techniques in hair shaping, professional ethics, manicuring, chemistry, cosmetics-facials, hair styling, hair coloring (rinses, etc.) and scalp treatments. 17 contact hours per week (17 clinic). | |
| COS 1007 | Scientific Study IV | 4 credit hours |
| | A classroom study of chemistry, sanitation, sterilization, hair coloring and lash and brow tinting, artistry in hair styling, beauty salon salesmanship management, electricity, cold waving and hair shaping. 4 contact hours per week (4 class). | |
| COS 1008A | Clinical Application V | 5 credit hours |
| | A continued study of laboratory practices in chemistry, sanitation, sterilization, hair coloring and lash and brow tinting, artistry in hair styling, cold waving, and hair shaping. 17 contact hours per week (17 clinic). | |
| COS 1008B | Clinical Application VI | 5 credit hours |
| | A continuation of the laboratory practice in chemistry, sanitation, sterilization, hair coloring and lash and brow tinting, artistry in hair styling, cold waving, and hair shaping. 17 contact hours per week (17 clinic). | |
| DFT 1104 | Blueprint Reading I: Mechanical | 1 credit hour |
| | Interpretation and reading of blueprints. Information on the basic principles of the blueprint; lines, views, dimensioning procedures and notes. 3 contact hours per week (3 lab). | |
| DFT 1105 | Blueprint Reading II: Mechanical | 1 credit hour |
| | 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. 3 contact hours per week (3 lab). Prerequisite: DFT 1104 | |
| DFT 1106 | Blueprint Reading III: Mechanical | 1 credit hour |
| | 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. 3 contact hours per week (3 lab). | |
| DFT 1110 | Blueprint Reading: Building Trades | 1 credit hour |
| | Principles of interpreting blueprints and trade specifications common to the building trades. Development of proficiency in making three view and pictorial sketches. 3 contact hours per week (3 lab). | |

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| DFT 1111 | Blueprint Reading & Sketching | 1 credit hour |
| | Principles of interpreting blueprints and specifications common to the building trades. Practice in reading details for grades, foundations, walls, elevations, chimneys, fireplaces, arches and cavity wall construction. Development of proficiency in making three view and pictorial sketches. 3 contact hours per week (3 lab). | |
| | Prerequisite: DFT 1110. | |
| DFT 1113 | Blueprint Reading: Electrical | 1 credit hour |
| | 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. 3 contact hours per week (3 lab). | |
| | Prerequisite: DFT 1110 | |
| DFT 1117 | Blueprint Reading: Welding | 1 credit hour |
| | A thorough study of trade drawings in which welding procedures are indicated. Interpretation, use and application of welding symbols, abbreviations, and specifications. 3 contact hours per week (3 lab). | |
| | Prerequisite: DFT 1104 | |
| DFT 1118 | Pattern Development and Sketching | 1 credit hour |
| | 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 angles layouts by the use of patterns and templates. 3 contact hours per week (3 shop). | |
| DFT 1121 | Drafting I | 9 credit hours |
| | An introduction to drafting and the study of drafting practices. The following are covered: Selection, use and care of instruments, single-stroke lettering, applied geometry, orthographic drawing and freehand sketching, dimensioning and notes. 15 contact hours per week (3 class, 12 lab). | |
| DFT 1122 | Drafting II | 6 credit hours |
| | Pictorial drawings including isometric, oblique and perspective; auxiliary views, sections and intersections. 9 contact hours per week (3 class, 6 lab). | |
| | Prerequisite: DFT 1121 | |
| DFT 1125 | Descriptive Geometry | 3 credit hours |
| | Analysis and solution of three-dimensional problems with drafting methods. A review of orthographic projection and auxiliary views; point, line and plane problems. 5 contact hours per week (2 class, 3 lab). | |
| | Prerequisite: DFT 1121 | |
| DFT 1141 | Building Trades Drafting I | 9 credit hours |
| | An introduction to architectural drafting. Further development of techniques in lettering styles, dimensioning, and drafting expression, basic residential planning, light construction principles, typical architectural details and working drawings of buildings. 15 contact hours per week (3 class, 12 lab). | |
| | Prerequisite: DFT 1122 | |

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| DFT 1142 | Building Trades Drafting II | 9 credit hours |
| | Further development of architectural drafting with more complex structures; preparation of complete sets of working drawings on individual projects, drafting room organization and practices. 15 contact hours per week (3 class, 12 lab). | |
| | Prerequisites: DFT 1141, DFT 1143, DFT 1144 | |
| DFT 1143 | Building Mechanical Equipment | 3 credit hours |
| | Electrical equipment, materials and drawing requirements for light construction; heating and cooling systems including heat loss and heat gain calculations; plumbing requirements. 3 contact hours per week (3 class). | |
| | Prerequisite: DFT 1122 | |
| DFT 1144 | Building Materials and Methods | 3 credit hours |
| | Materials and practices used in building construction including concrete, framing, footings and foundations, building layout, interior and exterior finishes, flooring, ceiling and roofing systems, masonry construction. 3 contact hours per week (3 class). | |
| DFT 1145 | Specifications and Contracts | 3 credit hours |
| | The purpose of specifications and the relationship with the other contract documents. An examination of all the contract documents, their relationships and applications. 3 contact hours per week (3 class). | |
| | Prerequisites: DFT 1141, DFT 1143, DFT 1144 | |
| DFT 1146 | Construction Surveying | 3 credit hours |
| | An introduction to surveying: The use and care of the steel tape, engineer's transit, and engineer's level in site surveys and buildings layout. 6 contact hours per week (2 class, 4 shop). | |
| | Prerequisite: MAT 1104 | |
| ELC 1112 | Direct and Alternating Current—Electronics | 10 credit hours |
| | A study of the structure of matter and the electron theory, the relationship between voltage, current and resistance in series, parallel and series-parallel circuits. Analysis of direct current circuits by Ohm's law and Kirchoff's law; sources of direct current potentials. Fundamental concepts of alternating current flow; a study of reactance, phase angle, power and resonance and alternating current circuit analysis. 20 contact hours per week (5 class, 15 shop). | |
| ELC 1112R | Direct and Alternating Current—Electrical and Industrial | 9 credit hours |
| | A study of the structure of matter and electron theory, the relationship between voltage, current and resistance in series, parallel and series-parallel circuits. Analysis of direct current circuits by Ohm's law and Kirchoff's law; sources of direct current potentials. Fundamental concepts of alternating current flow; a study of reactance, impedance, phase angle, power and resonance and alternating current circuit analysis. 17 contact hours per week (5 class, 12 shop). | |

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| ELC 1113 | Alternating Current and Direct Current Machines and Controls | 9 credit hours |
| 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. 17 contact hours per week (5 class, 12 shop). Prerequisites: ELC 1112, MAT 1115 | | |
| ELC 1124 | Residential Wiring | 8 credit hours |
| 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. 14 contact hours per week (5 class, 9 shop). Prerequisites: ELC 1113, DFT 1110 | | |
| ELC 1125 | Commercial and Industrial Wiring | 9 credit hours |
| 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. 17 contact hours per week (5 class, 12 shop). | | |
| ELC 1161 | Basic Electricity/Electronics | 3 credit hours |
| A study of the basic electrical/electronics principles and components needed for troubleshooting of the various devices used on modern machines designed to serve special purposes. A basic study is made of alternating current and electrical distribution in series and parallel circuits. The students become familiar with the following electrical terms: insulators, conductors, semi-conductors, coils, relays, solenoids and polarity. Safety with the use of electricity and electrical devices is stressed at all times. 5 contact hours per week (2 class, 3 shop). | | |
| ELN 1118 | Industrial Electronics | 5 credit hours |
| 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. 9 contact hours per week (3 class, 6 shop). Prerequisite: ELC 1113 | | |
| ELN 1119 | Industrial Electronics | 5 credit hours |
| 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. 9 contact hours per week (3 class, 6 shop). Prerequisite: ELN 1118 | | |
| ELN 1122 | Vacuum Tubes and Circuits | 8 credit hours |
| An introduction to vacuum tubes and their development; the theory, characteristics and operation of vacuum tubes, diodes, semi-conductor diodes, rectifier circuits, filter circuits, triodes, and simple voltage amplifier circuits. 14 contact hours per week (5 class, 9 shop). Prerequisites: ELC 1112 | | |

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| ELN 1123 | Amplifier Systems | 4 credit hours |
| | An introduction to commonly used servicing techniques as applied to monophonic and stereophonic high fidelity amplifier systems and auxiliary equipment. The operation and servicing of intercommunication amplifiers and switching circuits will also be taught. 8 contact hours per week (2 class, 6 shop). Prerequisites: ELC 1112 | |
| ELN 1125 | Radio Receiver Servicing | 4 credit hours |
| | Principles of radio reception and practices of servicing: included are block diagrams of radio receivers, servicing techniques of AM and FM receivers by resistance measurements, signal injection, voltage analysis, oscilloscope methods of locating faulty stages and components and the alignment of AM and FM receivers. 8 contact hours per week (2 class, 6 shop). Prerequisites: ELN 1122, ELN 1123 | |
| ELN 1126 | Transistor Theory and Circuits | 9 credit hours |
| | Transistor theory, operation, characteristics and their application to audio and radio frequency amplifier and oscillator circuits. 19 contact hours per week (4 class, 15 shop). Prerequisite: ELN 1123 | |
| ELN 1127 | Television Receiver Circuits and Servicing | 15 credit hours |
| | A study of principles of television receivers, alignment of radio and intermediate frequency amplifiers, adjustment of horizontal and vertical sweep circuits will be taught. Techniques of trouble-shooting and repair of TV receivers with the proper use of associated test equipment will be stressed. Additional study of more specialized servicing techniques and oscilloscope waveforms analysis will be used in the adjustment, troubleshooting and repair of the color television circuits. 25 contact hours per week (10 class, 15 shop). Prerequisites: ELN 1125, ELN 1126 | |
| ENG 1101 | Reading Improvement | 3 credit hours |
| | 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. 3 contact hours per week (3 class). | |
| ENG 1102 | Communication Skills | 3 credit hours |
| | Designed to promote effective communication through correct language usage in speaking and writing. 3 contact hours per week (3 class). Prerequisite: ENG 1101 | |
| ENG 1143 | Effective Communications | 3 credit hours |
| | Designed to promote effective communication through correct language usage, both spoken and written. The approach is practical with emphasis on vocabulary, diction, spelling, sentence and paragraph structure. The basic principles of grammar are used as a reference. This course is also designed to stimulate the practical nursing students in applying these basic tools in their daily experience. 3 contact hours per week (3 class). | |
| MAS 1101 | Bricklaying I | 8 credit hours |
| | The history of the bricklaying industry. Clay and shell brick, mortar, laying foundations, laying bricks to a line, bonding, and tools and their uses. Laboratory work will provide training in the basic manipulative skills. 18 contact hours per week (3 class, 15 shop). | |

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| MAS 1102 | Bricklaying II | 10 credit hours |
| Designed to give the student practice in selecting the proper mortars, layout, and construction of various building elements such as foundations, walls, chimneys, arches and cavity walls. The proper use of bonds, expansion strips, wall ties and caulking methods are stressed. 20 contact hours per week (5 class, 15 shop). | | |
| Prerequisite: MAS 1101 | | |
| MAS 1103 | Bricklaying III | 10 credit hours |
| Designed to give the student continued practice in layout and construction of various types of masonry units. 20 contact hours per week (5 class, 15 shop). | | |
| Prerequisite: MAS 1102 | | |
| MAS 1104 | Bricklaying IV | 10 credit hours |
| Layout and erection of reinforced grouted brick masonry lintels, fireplaces, glazed tile, panels, decorative stone, granite, marble, adhesive terra cotta and modular masonry construction theory and techniques. 20 contact hours per week (5 class, 15 shop). | | |
| Prerequisite: MAS 1103 | | |
| MAS 1113 | Masonry Estimating | 4 credit hours |
| This is a practice course in quantity "take off" from prints of the more common type jobs for bricklayers and masons. Figuring the quantities of materials needed and costs of building various components and structures. 6 contact hours per week (3 class, 3 shop). | | |
| Prerequisite: MAS 1103 | | |
| MAT 1101 | Fundamentals of Mathematics | 5 credit hours |
| 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. 5 contact hours per week (5 class). | | |
| MAT 1103 | Vocational Mathematics I | 3 credit hours |
| Fundamental properties and definitions; plane and solid geometric figures; selected general theorems; geometric construction of lines, angles and plane figures; dihedral angles; area of plane figures, and volumes of solids. Geometric principles are applied to shop operations. 3 contact hours per week (3 class). | | |
| Prerequisite: MAT 1101 | | |
| MAT 1104 | Vocational Mathematics II | 3 credit hours |
| 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 function; inverse functions, trigonometric equations. All topics are applied to practical problems. 3 contact hours per week (3 class). | | |
| Prerequisite: MAT 1103 | | |
| MAT 1112 | Building Trades Mathematics | 3 credit hours |
| Practical problems dealing with volumes, weights, ratios; mensuration; and basic estimating practices for building materials. 3 contact hours per week (3 class). | | |
| Prerequisite: MAT 1101 | | |

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| MAT 1115 | Electrical Mathematics I | 5 credit hours |
| An introductory course in mathematics including a review of arithmetic skills. Operations with algebraic terms are introduced. Basic skills with literal numbers, algebraic signs, factoring, and solutions of first degree equations for electrical formula manipulation are developed. Trigonometric functions and their graphs are studied briefly. 5 contact hours per week (5 class). | | |
| MAT 1116 | Electrical Mathematics II | 5 credit hours |
| A working knowledge of the powers of 10, Ohm's Law for series and parallel circuits, quadratic equations, Kirchoff's Law, trigonometric functions, plane vectors, alternating currents, vector algebra and logarithms. 5 contact hours per week (5 class). Prerequisite: MAT 1115 | | |
| MAT 1119 | Math for Practical Nurses | 3 credit hours |
| A study of basic arithmetic procedures: addition, subtraction, multiplication, division, fractions, percentages, ratios and proportions. A study of metric and apothecary systems of weights and measures is also included, along with Fahrenheit and centigrade scales, solutions and dosages. 3 contact hours per week (3 class). | | |
| MEC 1101 | Machine Shop Theory and Practice I | 7 credit hours |
| An introduction to the machinist trade and the potential it holds for a craftsman. 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. 15 contact hours per week (3 class, 12 shop). | | |
| MEC 1102 | Machine Shop Theory and Practice II | 7 credit hours |
| 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. 15 contact hours per week (3 class, 12 shop). Prerequisite: MEC 1101 | | |
| MEC 1103 | Machine Shop Theory and Practice III | 7 credit hours |
| Advanced work on the engine lathe, turning, boring and threading machines, grinders, milling machines and shapers. 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 gauges, protractors, comparators, etc. Basic exercises will be given on the turret lathe and on the tool and cutter grinder. 15 contact hours per week (3 class, 12 shop). Prerequisite: MEC 1102 | | |
| MEC 1104 | Machine Shop Theory and Practice IV | 8 credit hours |
| Development of class project using previously learned procedures in planning, blueprint reading, machine operations, final assembly and inspection. 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 faithfully and establishing good work habits and attitudes acceptable to the industry. 18 contact hours per week (3 class, 15 shop). Prerequisite: MEC 1103 | | |

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| MEC 1112 | Machine Shop Processes | 2 credit hours |
| Designed 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. 6 contact hours per week (6 shop). | | |
| MEC 1113R | Welding Metallurgy | 3 credit hours |
| A course in basic metallurgy which emphasizes characteristics of both ferrous and non-ferrous metals. All types of metallurgical heat treatment will be included. The welding heat affected zone will be given special attention. 5 contact hours per week (2 class, 3 lab). | | |
| MEC 1115 | Treatment of Ferrous Metals | 3 credit hours |
| Investigates the properties of ferrous metals and tests to determine their use. Instructions will include 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 of study. 5 contact hours per week (2 class, 3 shop). | | |
| MEC 1116 | Treatment of Non-Ferrous Metals | 3 credit hours |
| 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 alloy are studied. Powder metallurgy, titanium, zirconium, indium and vanadium are included in this course. 5 contact hours per week (2 class, 3 shop). Prerequisite: MEC 1115 | | |
| MEC 1120 | Soldering and Brazing | 1 credit hour |
| Emphasis will be placed on brazing and silver soldering carbide cutting tools and methods of applying carbide to wear surfaces. Welding demonstrations by the instructor and practice by students. 3 contact hours per week (3 shop). | | |
| MEC 1133 | Electrical and Mechanical Maintenance | 5 credit hours |
| To acquaint the student with the basic fundamentals of installation, maintenance and repair of machines. Miscellaneous electrical, mechanical, hydraulic, pneumatic and lubrication devices are installed and maintained. Methods of rigging and machine installation including location, leveling and fastening are covered. The use of precision measuring tools and checking for accuracy, squareness and correct center line distances is stressed for prestart inspection. 9 contact hours per week (3 class, 6 shop). Prerequisites: MEC 1101, MEC 1102, DFT 1104, DFT 1113 Corequisite: ELC 1112 | | |
| MEC 1134 | Electrical and Mechanical Maintenance | 5 credit hours |
| A study is made of those parts of the electrical code which affect the work of the industrial maintenance electrician. Practical experience is provided in wiring, installing and connecting the various types of services for lighting, heating and power installations. Training is provided in troubleshooting in the identification and testing of circuits, in making mechanical adjustments and related maintenance operations on various machines. Schematic diagrams showing the plan of operation for each system, electrical or mechanical, are used. 9 contact hours per week (3 class, 6 shop). Prerequisite: MEC 1133 | | |

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| MEC 1140 | Hydraulics—Fundamentals | 3 credit hours |
| | This course is arranged to give the student a general knowledge of the basic components of hydraulic systems, as well as a general understanding of the basic laws and formulas used in simple hydraulic calculations. Course covers such topics as the use of standard hydraulic symbols, pumps, control valves, control assemblies actuators and basic maintenance procedures. 3 contact hours per week (3 class). | |
| MEC 1252 | Coin and Currency Changers | 3 credit hours |
| | A study of the principles, functions, adjustments and the repair of coin rejectors, acceptors, and changers. A basic knowledge of the operation and maintenance of the several types of currency changers is required. 7 contact hours per week (1 class, 6 shop). | |
| MEC 1253 | Mechanical Vending Machines | 5 credit hours |
| | Consists of removing, adjusting and replacing component parts of machines for proper operation. Candy, cigarette, hot food, pastry and snack machines are typical mechanical vending machines. A complete knowledge of each machine, along with the trade terminology and nomenclature used in the vending trade, is included. Care and the proper and safe use of all types of hand tools, both electrical and manual is stressed. 9 contact hours per week (3 class, 6 shop). | |
| MEC 1256 | Beverage Machines—Cold | 7 credit hours |
| | The complete operation of a post mix beverage machine is learned by using several types designed by different manufacturers. Emphasis is placed on sanitation procedures and safety dealing with pressure systems. 13 contact hours per week (4 class, 9 shop). | |
| MEC 1257 | Beverage Machines—Hot | 5 credit hours |
| | Complete studies are made of brew-type coffee machines. Open and closed water systems and the safety rules which apply are stressed. 9 contact hours per week (3 class, 6 shop). | |
| MEC 1258 | Electrically-Operated Vending Machines | 5 credit hours |
| | Electrically-operated equipment included in this category is used for vending such products as: candy, cigarettes, milk and ice cream. Various methods are used to enable the vended products to reach the customer. Disassembling the coin components, cleaning, replacing, reassembling and making proper adjustments for good operations is practiced by the students. 9 contact hours per week (3 class, 6 shop). | |
| MEC 1259 | Vending Machine Installation, Service and Maintenance | 8 credit hours |
| | Provides a thorough knowledge of putting the machine in full operation including adding products and measuring the ingredients for proper amounts and detecting signs of wear on moving parts which may lead to future malfunctions. Troubleshooting is learned through pre-arranged "out-of-orders" on the machines. 16 contact hours per week (4 class, 12 shop). | |
| PHY 1101 | Applied Science I | 4 credit hours |
| | An introduction to physical principles and their applications in industry. Topics include systems of measurement, an introduction to the properties of solids, liquids and gases and the basic principles of force, motion, work, energy and power. 5 contact hours per week (3 class, 2 lab). | |

Vocational Programs / Course Descriptions

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| PHY 1102 | Applied Science II | 4 credit hours |
| Second in a series of two courses of applied physical principles. Topics include the fundamentals of electricity, the basics of heat and thermometry and the principles of light, color and sound. 5 contact hours per week (3 class, 2 lab). Prerequisite: PHY 1101 | | |
| PME 1101 | Internal Combustion Engines | 7 credit hours |
| 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 exhaust systems, cooling systems; proper lubrication; and methods of testing, diagnosing and repairing. 15 contact hours per week (3 class, 12 shop). | | |
| PME 1102 | Engine Electrical and Fuel Systems | 9 credit hours |
| 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. 17 contact hours per week (5 class, 12 shop). Prerequisite: PME 1101 Corequisite: PHY 1102 | | |
| PME 1184R | Co-Op I | 2 credit hours |
| Students will be placed in cooperative work experience jobs and will be supervised and evaluated by an on-the-job supervisor and a faculty member. Objectives for each student will be determined prior to job placement. 20 contact hours per week (20 shop). Prerequisite: Satisfactory completion of first four quarters. | | |
| PME 1185R | Co-Op II | 2 credit hours |
| Students will be placed in cooperative work experience jobs and will be supervised and evaluated by an on-the-job supervisor and a faculty member. Objectives for each student will be determined prior to job placement. 20 contact hours per week (20 shop). Prerequisite: Satisfactory completion of first four quarters. | | |
| PME 1186R | Co-Op III | 2 credit hours |
| Students will be placed in cooperative work experience jobs and will be supervised and evaluated by an on-the-job supervisor and a faculty member. Objectives for each student will be determined prior to job placement. 20 contact hours per week (20 shop). Prerequisite: Satisfactory completion of first four quarters. | | |
| PME 1202R | Advanced Electrical Systems | 10 credit hours |
| This course will give each student a deeper understanding of the complex electrical systems in today's automobile. Electrical accessories studied during this time will be power seats, power windows, windshield wipers and washers, engine gauges, and instrument testing and repair. 20 contact hours per week (5 class, 15 shop). | | |

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| PME 1224 | Advanced Automatic Transmissions | 10 credit hours |
| | This course is designed to provide a measure of depth in the understanding of automatic transmissions. Instruction includes classroom study, demonstrations, and student participation in disassembly, reassembly, and testing of selected transmissions. Special emphasis is placed on principles, function, construction, operation, servicing and "trouble-shooting" procedures and repair of various types of automatic transmissions. 20 contact hours per week (5 class, 15 shop). | |
| PME 1225R | Advanced Tune-Up & Smog Control | 9 credit hours |
| | A course designed to give each student a complete and deep knowledge of today's emission control systems including testing and overhaul of all major parts. The proper use of emission level testing equipment will be covered as well as component overhaul procedure. 17 contact hours per week (5 class, 12 shop). | |
| PME 1228R | Shop Management | 3 credit hours |
| | This course is designed to give the student an understanding of the problems and responsibilities of automotive shop management. It will cover responsibility to the owner, the customer and the employee, plus some of the problems that are present in management. 3 contact hours per week (3 class). | |
| PNE 1111 | Fundamentals of Practical Nursing | 8 credit hours |
| | This course is designed to include the principles basic to nursing practice; body mechanics for nurse and patient, medical and surgical asepsis, sterilization and disinfection techniques, use of hospital equipment, techniques in daily hygenic patient care. Laboratory practice in the simple skills and hygenic care of patients is included. 11 contact hours per week (5 class, 6 lab). | |
| PNE 1112 | Anatomy and Physiology | 6 credit hours |
| | An introduction to the fascinating study of the human body. A study is made of the general plan of the body and the nine systems: skeletal, muscular, respiratory, circulatory, digestive, urinary, endocrine, reproductive and nervous systems. 7 contact hours per week (5 class, 2 lab). | |
| PNE 1113 | Growth and Development | 3 credit hours |
| | A study of the growth and development of the person in the family. Topics covered include the physical and psychological development and the physical and psychological needs of the various age groups. 3 contact hours per week (3 class). | |
| PNE 1114 | Nursing Ethics | 2 credit hours |
| | Designed to help the student work and communicate effectively with the doctor, professional nurse, patient and allied hospital personnel. It is also designed to interest the student in community affairs and give her insight into the moral and legal aspects of nursing. Emphasis is placed on nursing activities and organizations. 2 contact hours per week (2 class). | |
| PNE 1121 | Medical and Surgical Nursing I | 5 credit hours |
| | Designed to introduce the student to a broad concept of illness; how the individual reacts to illness, how the illness affects the family and community, and how the diagnostic tests are made. Included in this course is a study of the care of the surgical patient, the aged, the patient with cancer, disorders of the musculoskeletal system and endocrine system. 5 contact hours per week (5 class). Prerequisites: PNE 1111, PNE 1112 | |

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| PNE 1122 | Pharmacology I | 5 credit hours |
| | Designed to give the practical nurse student a knowledge of drugs, the dangers involved in handling, laws regarding the use of drugs, side effects and skills in administering drugs intelligently and safely. 5 contact hours per week (5 class). Prerequisite: MAT 1119 | |
| PNE 1123 | Nutrition | 3 credit hours |
| | Designed to include the basic principles of nutrition. Topics covered include functions and sources of nutrients, the mechanism of digestion, absorption and metabolism of nutrients, meal planning, nutritional requirements for all age groups, endocrine glands and their importance and hospital diets. 3 contact hours per week (3 class). | |
| PNE 1124 | Introduction to Maternal Nursing and Child Care | 3 credit hours |
| | Designed as an introductory course to maternity nursing and nursing of children. Policies and procedures of the affiliating hospital are included. 3 contact hours per week (3 class). Prerequisite: PNE 1113 | |
| PNE 1125 | Clinical Nursing I | 5 credit hours |
| | Provides an opportunity for the student to apply safe and effective nursing measures while taking care of patients with common medical-surgical disorders. 15 contact hours per week (15 clinical). Prerequisite: PNE 1111 | |
| PNE 1131 | Medical and Surgical Nursing II | 3 credit hours |
| | The anatomical systems are used as a basis for organizing this course. A study of the critically ill patient is introduced first, followed by a study of the following systems: the urinary, the reproductive, the cardiovascular, the respiratory, and the gastrointestinal. 3 contact hours per week (3 class). Prerequisites: PNE 1121, PNE 1123 | |
| PNE 1132 | Nursing of Children | 2 credit hours |
| | Emphasis is placed on the difference between nursing the child and adult. Diseases and disorders are discussed in Medical-Surgical Nursing. Children and adolescents are included in much of that discussion. The focus in this course is upon special considerations — the precautions, adjustments, and adaptations that are necessary for the patient because of his age, size, emotional and social behavior. 2 contact hours per week (2 class). Prerequisite: PNE 1124 | |
| PNE 1133 | Maternity Nursing | 2 credit hours |
| | The theory necessary to comprehend the underlying principles of maternity nursing is included as well as the practical aspects of maternity care. Three units are included; the care of the patient during labor and delivery, the care of the mother and the care of the newborn baby. 2 contact hours per week (2 class). Prerequisite: PNE 1124 | |
| PNE 1135 | Practical Nursing Seminar I | 2 credit hours |
| | Designed to increase the student's ability to plan total nursing care for patients by identifying the problems they present and by analyzing these problems in group participation. Insofar as possible, these discussions will relate directly to the situation in which students are practicing. 2 contact hours per week (2 class). | |

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| PNE 1136 | Clinical Nursing II | 7 credit hours |
| | Provides an opportunity for the student to apply safe and effective nursing measures while taking care of the patients with more complex medical-surgical disorders, the obstetrical patient, the newborn child, and the pediatric patient. 21 contact hours per week (21 clinical). | |
| | Prerequisites: PNE 1125, PNE 1124 | |
| PNE 1141 | Medical and Surgical Nursing III | 3 credit hours |
| | Continuation of the study of the disorders of the body systems. Also included in the study is the patient with infectious disease, the dying patient and accident, emergency and disaster nursing. 3 contact hours per week (3 class). | |
| | Prerequisite: PNE 1131 | |
| PNE 1142 | Mental Health | 2 credit hours |
| | An introduction of mental, emotional and physical reactions caused by illness and hospitalization. Common terminology associated with the field of mental health is included. 2 contact hours per week (2 class). | |
| PNE 1145 | Practical Nursing Seminar II | 2 credit hours |
| | Continuation of group discussions of disorder of body systems in more complicated nursing situations. 2 contact hours per week (2 class). | |
| | Corequisite: PNE 1141 | |
| PNE 1146 | Clinical Nursing III | 8 credit hours |
| | Provides an opportunity for the student to apply safe and effective nursing measures while taking care of the patients with more complex medical-surgical disorders. 24 contact hours per week (24 clinical). | |
| | Prerequisite: PNE 1136 | |
| PSY 1101 | Human Relations | 3 credit hours |
| | 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. 3 contact hours per week (3 class). | |
| WLD 1101 | Basic Gas Welding | 1 credit hour |
| | Welding demonstration 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. 3 contact hours per week (3 shop.) | |
| WLD 1104 | Basic Welding and Cutting | 3 credit hours |
| | Welding demonstrations by the instructor and practice by students 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. 5 contact hours per week (2 class, 3 shop). | |

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| WLD 1123R | Welding IV | 8 credit hours |
| Introduction and practical operation of inert gas shielded operation, safety and practice in all positions. A thorough study of such topics as: principles of operation, shielding gases, filler rods, process variations and applications, manual and automatic welding, developing skills on how to sketch and layout work, learning how to repair and arc welding. A study will be made of the equipment. 16 contact hours per week (4 class, 12 shop). | | |
| Prerequisites: Welding I and II | | |
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| WLD 1124R | Welding III | 11 credit hours |
| Designed to provide practice in the welding of the horizontal, vertical and the horizontal fixed positions, using the shielded metal arc welding process according to sections VII and IX of the ASME code. Practice in welding of various materials to meet certification standards. The student uses various tests including the guided bend and tensile strength test to check the quality of his work. Emphasis is placed on quality work. 23 contact hours per week (5 class, 18 shop). | | |
| Prerequisites: Welding I and II | | |
| | | |
| WLD 1141 | Welding I | 10 credit hours |
| Introduction to the history of oxyacetylene and arc welding, the principles of welding and cutting, nomenclature of the equipment, assembly of unit. The operation of various AC transformers, AC and DC rectifiers, and DC motor generator arc welding units. Welding procedures such as practice of puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead positions, and the cutting of straight lines with the torch. Safety procedures are stressed throughout the program of instruction. 20 contact hours per week (5 class, 15 shop). | | |
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| WLD 1142 | Welding II | 10 credit hours |
| A review of basic oxyacetylene cutting and welding, preparation of metals, types of joints, welding procedures and testing of the welds. The operation of AC transformers and DC motor generator arc welding machines. 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 weakness in welding. Safety procedures are emphasized throughout the course. 20 contact hours per week (5 class, 15 shop). | | |

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| 22 | 23 | 24 | 25 | 26 | 27 | 28 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | |
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