

Electrical Technology A.A.S. (ELT)

This program is designed to prepare the student for employment as an electrical/electronics technician. The program provides students with knowledge and experiences in the areas of electrical wiring, blueprint reading, analog and digital electronics, programmable controllers, and industrial control systems.

Jobs for which graduates are expected to be qualified include electrical/electronics technician, field engineer, industrial maintenance technician, industrial equipment installer, and technical sales representative.

Upon successful completion of this program, graduates will be able to:

- connect a variety of electrophysical sensing devices into circuits which can convert physical changes into voltage changes capable of activating prime movers such as motors or relays.
- interpret commercial and industrial electrical blueprints.
- demonstrate effective communication skills by writing technical reports based on laboratory experiences.
- demonstrate critical thinking/problem-solving abilities by analyzing a nonfunctioning electrical circuit, determining the problem, and restoring circuit operation.
- demonstrate interpersonal relations, teamwork, and work ethics through group laboratory projects.

| First Semester Cr | | edits | |
|-------------------|----------------------------------|------------------|--|
| BGT 110 | Fundamentals of Technology | 3 | |
| ELE 120 | DC Circuits | 4 | |
| ELE 130 | Digital Fundamentals | 4 | |
| MAT 130* | Industrial Mathematics | 3 3 | |
| HAC 119 | Construction Print Reading | 3 | |
| | | 17 | |
| Second Semester | | | |
| ELE 165 | AC Circuits | 4 | |
| ELE 175 | Introduction to Microprocessors | 4 | |
| ENG 105 | Research and Composition | 3 | |
| HAC 140 | Electrical Maintenance I | 4 3 3 3 | |
| Elective | General Education | 3 | |
| | | 17 | |
| Third Semester | | | |
| ELE 210 | Electronic Circuits | 4 | |
| ELE 215 | Industrial Electronics | 2 | |
| ELE 235 | Programmable Controllers | 2 2 3 3 | |
| HAC 155 | Electrical Maintenance II | 3 | |
| HAC 160 | Residential Wiring | 3 | |
| | - | 14 | |
| Fourth Semester | | | |
| ENG 107+ | Writing in the Workplace | 3 | |
| HAC 250 | Commercial and Industrial Wiring | 3 | |
| PHY 201 | Introduction to Physics I | 4 | |
| Electives | Social Science/Humanities | 6 | |
| | | 16 | |
| | Credit Total | 64 | |

^{*}MAT 160 or higher level courses will also satisfy the mathematics requirement.

Prior Learning Assessment: Previous job training, certificates and work experience that may qualify for college credit (see academic advisor).

Gateway Courses: Based on placement testing in reading, writing and math, these prerequisite courses may have to be taken before placement in College English or Mathematics beginning the first semester and concurrently.

| RSS 099 | Basic Skills Reading | 3 |
|---------|-----------------------------------|---|
| RSS 100 | Critical Reading | 3 |
| ENG 099 | Basic Skills Writing | 3 |
| ENG 100 | Fundamentals of Writing | 3 |
| MAT 090 | Mathematical Literacy | 6 |
| ESL 251 | English for Academic Purpose | 6 |
| | (Required for ESL students only.) | |

Please note, taking gateway courses will increase your time for completion.

⁺ENG 106 may be substituted for ENG 107.