

Electronics and Computer Technology



Engineering • Manufacturing • Industrial Technology

Career Pathways

Associate of applied science degree graduates with specialization in electronics technology typically find employment as engineering aides, laboratory technicians and field service representatives. Many graduates transfer to nearby universities which offer a bachelor of engineering technology or bachelor of applied science degree on a “2 + 2” basis – two years at the community college and two years at the university. These graduates generally obtain engineering positions and often advance into management.

The program provides a solid foundation in general electronics in the first three semesters and moves into some currently and regionally important specialized areas in the fourth semester. Throughout, the program maintains a commitment of “hands-on” laboratory applications to support and reinforce theoretical discussions of circuits. To this end, the Electronics II course includes the construction of a finished electronic instrument which students may keep at their option. Graduates of this program will be prepared for entry-level employment in the following areas:

- Computer maintenance technician
- Electrical designer
- Electromechanical technician
- Electronic systems test technician
- Electronics technician
- Engineering aide
- Field service technician

In addition to completion of the required general education courses, students desiring the program designation on their transcript must complete the required core and specialized courses.

Credits

Required General Education Courses 19

ENGL 101 (Written and Oral Communication) or ENGL 151 (English Composition I)	3
¹ MATH	6
POLSC 151 (Introduction to Political Science)	3
² PHY 101, 151, or CHEM 150 or 151	4
³ Social Science/Humanities Elective.....	3

Required Core Courses 41

1st Semester	
† ELEC 125 (Fundamentals of Electricity)	3
⁴ MDTC 160 (Mechanical Drafting and CAD I)	4
2nd Semester	
† ELEC 132 (Electronics I)	4
† ELEC 135 (Digital Electronic Logic)	4
ELEC 141 (Industrial Automation and Process Control)	3
3rd Semester	
ELEC 133 (Circuit Analysis)	4
ELEC 134 (Electronics II)	4
ELEC 137 (Microprocessors).....	4
4th Semester	
ELEC 130 (Introduction to Programmable Logic Controllers)	2
ELEC 136 (Instrumentation)	3
ELEC 138 (Machinery and Power Control)	4
ELEC 144 (PC-Based Data Acquisition and Control)	2

Total Degree Requirements 60

† Tech Prep course. See page 14.

¹ See page 37 for specific Industrial Technology Division mathematics requirements for the associate of applied science degree.

² Electronics and computer technology students are strongly encouraged to take PHY 101 or 151.

³ See the social science/humanities alternatives listed on page 37.

⁴ Meets computer skills requirement.