# PROGRAMS

## ELECTRONICS ENGINEERING TECHNOLOGY - AUTOMATION & CONTROL

**Contact(s):** Gary Hatley

The Electronics Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify development and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, communication systems, and power electronic systems.

A broad-based core of courses including basic electricity, solid-state fundamentals, digital concepts, and microprocessors ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Special emphasis is placed on computer literacy, computer-aided design (CAD), data communications, electronic communications systems (telecommunications), as well as industrial controls (Programmable Logic Controller), microprocessor systems, and industrial control transducers. Online (Internet) experience is also an integral part of the EET program as much of the coursework provides hands-on laboratory experiments that often include accessing the web.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, or production control technician.

### Learning Outcomes

Upon completion of this program, students will be able to:

- Analyze and evaluate a broad variety of electronic technologies.
- Exhibit industry standard electronics skills and competencies.
- Analyze and evaluate a wide variety of electronics industry standard technologies.

### Electronics Engineering Technology – Automation and Control Degree – A40200

| First Year | | |
|---|---|---|
| **Fall** | | **Credit Hours** |
| ACA 111 | College Student Success | 1 |
| CIS 110 | Introduction to Computers | 3 |
| DFT 151 | CAD I | 3 |
| ELC 131 | Circuit Analysis I | 4 |
| MAT 171 | Precalculus Algebra | 4 |
| | Credit Hours | NaN |
| **Spring** | | **Credit Hours** |
| ELN 131 | Analog Electronics I | 4 |
| ELN 133 | Digital Electronics | 4 |
| ENG 111 | Writing and Inquiry | 3 |
| HYD 110 | Hydraulics/Pneumatics I | 3 |
| ISC 112 | Industrial Safety | 2 |
| | Credit Hours | 16 |
| **Summer** | | **Credit Hours** |
| MEC 130 | Mechanisms | 3 |
| Social Science elective[*] | | 3 |
| | Credit Hours | 6 |
| Second Year | | |
| **Fall** | | **Credit Hours** |
| ATR 212 | Industrial Robots | 3 |
| ELN 132 | Analog Electronics II | 4 |

| ELN 260 | Prog Logic Controllers | 4 |
|---|---|---|
| ENG 112 or ENG 114 | Writing and Research in the Disciplines Professional Research & Reporting | 3 |
| Humanities elective[*] | | 3 |
| | Credit Hours | 17 |
| **Spring** | | **Credit Hours** |
| ATR 214 | Advanced PLCs | 4 |
| CTS 120 | Hardware/Software Support | 3 |
| ELC 117 | Motors and Controls | 4 |
| ELN 234 | Communication Systems | 4 |
| | Credit Hours | 15 |
| | Total Credit Hours | NaN |

**Electronics Engineering Technology Part-time Pathway**

| **Term 1** | | **Credit Hours** |
|---|---|---|
| ACA 111 | College Student Success | 1 |
| ELC 131 | Circuit Analysis I | 4 |
| | Credit Hours | NaN |
| **Term 2** | | **Credit Hours** |
| ELC 117 | Motors and Controls | 4 |
| HYD 110 | Hydraulics/Pneumatics I | 3 |
| ISC 112 | Industrial Safety | 2 |
| | Credit Hours | 9 |
| **Term 3** | | **Credit Hours** |
| MEC 130 | Mechanisms | 3 |
| | Credit Hours | 3 |
| **Term 4** | | **Credit Hours** |
| ELN 260 | Prog Logic Controllers | 4 |
| Social Science or Humanities Elective[*] | | 3 |
| | Credit Hours | 7 |
| **Term 5** | | **Credit Hours** |
| ELN 131 | Analog Electronics I | 4 |
| ENG 111 | Writing and Inquiry | 3 |
| | Credit Hours | 7 |
| **Term 6** | | **Credit Hours** |
| CIS 110 | Introduction to Computers | 3 |
| MAT 171 | Precalculus Algebra | 4 |
| | Credit Hours | 7 |
| **Term 7** | | **Credit Hours** |
| DFT 151 | CAD I | 3 |

| ELN 132 | Analog Electronics II | 4 |
|---|---|---|
| | Credit Hours | 7 |
| **Term 8** | | **Credit Hours** |
| CTS 120 | Hardware/Software Support | 3 |
| ELN 133 | Digital Electronics | 4 |
| | Credit Hours | 7 |
| **Term 9** | | **Credit Hours** |
| ENG 112<br>or ENG 114 | Writing and Research in the Disciplines<br>Professional Research & Reporting | 3 |
| Social Science or Humanities Elective[*] | | 3 |
| | Credit Hours | 6 |
| **Term 10** | | **Credit Hours** |
| ATR 212 | Industrial Robots | 3 |
| | Credit Hours | 3 |
| **Term 11** | | **Credit Hours** |
| ATR 214 | Advanced PLCs | 4 |
| ELN 234 | Communication Systems | 4 |
| | Credit Hours | 8 |
| | Total Credit Hours | NaN |

## Electronics Engineering Technology – Mechatronics Certificate – C40200M

| First Year | | |
|---|---|---|
| **Fall** | | **Credit Hours** |
| ELC 131 | Circuit Analysis I | 4 |
| ELN 260 | Prog Logic Controllers | 4 |
| | Credit Hours | NaN |
| **Spring** | | **Credit Hours** |
| ELC 117 | Motors and Controls | 4 |
| HYD 110 | Hydraulics/Pneumatics I | 3 |
| ISC 112 | Industrial Safety | 2 |
| | Credit Hours | 9 |
| | Total Credit Hours | NaN |

## Electronics Engineering Technology - CCP

| Courses | | Credit Hours |
|---|---|---|
| ACA 111 | College Student Success | 1 |
| ELC 131 | Circuit Analysis I | 4 |
| ELN 131 | Analog Electronics I | 4 |
| ELN 133 | Digital Electronics | 4 |
| ELN 260 | Prog Logic Controllers | 4 |
| | Total Credit Hours | NaN |