

A total of 49 units is required for the certificate.

Required core courses (34 units):

| COURSE | TITLE | UNITS |
|-----------------------------------|--|-------|
| <input type="checkbox"/> CS 111 | Fundamentals of Programming 1 | 4 |
| <input type="checkbox"/> EL 104 | Introduction to Robotics and Mechatronics | 3 |
| or | | |
| <input type="checkbox"/> CEL 104 | Introduction to Robotics and Mechatronics | 3 |
| or | | |
| <input type="checkbox"/> ET 104 | Introduction to Robotics and Mechatronics | 3 |
| <input type="checkbox"/> EL 118 | Fundamentals of DC and AC Circuits Analysis | 3 |
| <input type="checkbox"/> EL 119 | Fundamentals of DC and AC Circuits Analysis Laboratory | 2 |
| <input type="checkbox"/> EL 122 | Electronic Devices and Circuits | 3 |
| <input type="checkbox"/> EL 123 | Electronic Devices and Circuits Laboratory | 2 |
| <input type="checkbox"/> EL 125 | Digital Devices and Circuits | 3 |
| <input type="checkbox"/> EL 126 | Digital Devices and Circuits Lab | 2 |
| <input type="checkbox"/> MT 117 | Print Reading and Interpretation | 3 |
| or | | |
| <input type="checkbox"/> WLDT 306 | Layout and Fabrication Interpretation | 3 |
| <input type="checkbox"/> EL 146 | Electronic Product Design, Fabrication and Documentation | 2 |
| <input type="checkbox"/> ET 140 | Engineering Drawing | 3 |
| <input type="checkbox"/> MT 109 | Survey of Machining and Manufacturing | 4 |

Plus a minimum of 15 units selected from the following:

| COURSE | TITLE | UNITS |
|---------------------------------|--|-------|
| <input type="checkbox"/> EL 105 | PC Preventive Maintenance and Upgrading | 3 |
| or | | |
| <input type="checkbox"/> EL 320 | A+ Certification | 2 |
| <input type="checkbox"/> EL 106 | Networking Essentials 1 | 3 |
| <input type="checkbox"/> EL 107 | Networking Essentials 2 | 3 |
| <input type="checkbox"/> EL 135 | Electronic Measurement and Instrumentation | 3 |
| <input type="checkbox"/> EL 136 | Electronics Measurement and Instrumentation Laboratory | 2 |
| <input type="checkbox"/> EL 128 | Introduction to Renewable Energy | 3 |

| | | |
|-----------------------------------|---|---|
| or | | |
| <input type="checkbox"/> CEL 128 | Introduction to Renewable Energy | 3 |
| or | | |
| <input type="checkbox"/> ET 128 | Intro to Renewable Energy | 3 |
| <input type="checkbox"/> EL 131 | Programmable Logic Controllers and Control Design | 3 |
| or | | |
| <input type="checkbox"/> CEL 131 | Programmable Logic Controllers and Control Design | 3 |
| or | | |
| <input type="checkbox"/> ET 131 | Programmable Logic Controllers and Control Design | 3 |
| <input type="checkbox"/> EL 133 | Mechatronic Systems 1 | 3 |
| or | | |
| <input type="checkbox"/> CEL 133 | Mechatronic Systems 1 | 3 |
| or | | |
| <input type="checkbox"/> ET 133 | Mechatronic Systems 1 | 3 |
| <input type="checkbox"/> EL 139 | Electrical Power, Motors, and Controls | 3 |
| or | | |
| <input type="checkbox"/> CEL 139 | Electrical Power, Motors, and Controls | 3 |
| or | | |
| <input type="checkbox"/> ET 139 | Electrical Power, Motors, and Controls | 3 |
| <input type="checkbox"/> EL 162 | Fluid Power And Control | 2 |
| or | | |
| <input type="checkbox"/> CEL 162 | Fluid Power and Control | 2 |
| or | | |
| <input type="checkbox"/> ET 162 | Fluid Power and Control | 2 |
| <input type="checkbox"/> ET 100 | Computer Aided Drafting and Design | 3 |
| <input type="checkbox"/> PHYS 100 | Concepts In Physics | 3 |
| or | | |
| <input type="checkbox"/> PHYS 110 | Introductory Physics | 3 |
| or | | |
| <input type="checkbox"/> PHSC 111 | Matter, Energy and Molecules | 4 |
| <input type="checkbox"/> WLDT 106 | Beginning Welding | 3 |
| <input type="checkbox"/> WLDT 107 | Advanced Welding | 3 |
| <input type="checkbox"/> WLDT 307 | G.M.A.W. Welding | 3 |
| or | | |
| <input type="checkbox"/> WLDT 308 | T.I.G. Welding | 3 |
| <input type="checkbox"/> WLDT 315 | Metal Fabrication | 4 |



Computer Networking and Electronics

Technology: Mechatronics

Certificate of Achievement

Suggested Course Sequence

The "Suggested Course Sequence" is an example of how to complete the requirements plus any additional general education that may be needed. If you would like to create a personalized Student Education Plan (SEP), schedule a meeting with a counselor.

FALL SEMESTER (YEAR 1)

| Course | Title | Units |
|-----------------------------------|--|-------|
| <input type="checkbox"/> ET 104 | Introduction to Robotics and Mechatronics | 3 |
| <input type="checkbox"/> EL 118 | Fundamentals of DC and AC Circuits Analysis | 3 |
| <input type="checkbox"/> EL 119 | Fundamentals of DC and AC Circuits Analysis Laboratory | 2 |
| <input type="checkbox"/> ET 140 | Engineering Drawing | 3 |
| <input type="checkbox"/> elective | major elective group 1 | 2-4 |
| Total Units | | 10-12 |

Tasks:

- Complete Career Exploration
- Meet with Counselor (SEP)
- Visit library and tutoring
- Review Financial Aid Requirements
- Apply AHC Scholarship

SPRING SEMESTER (YEAR 1)

| Course | Title | Units |
|-----------------------------------|--|-------|
| <input type="checkbox"/> EL 122 | Electronic Devices and Circuits | 3 |
| <input type="checkbox"/> EL 123 | Electronic Devices and Circuits Laboratory | 2 |
| <input type="checkbox"/> MT 117 | Print Reading and Interpretation | 3 |
| <input type="checkbox"/> elective | major elective group 2 | 2-4 |
| Total Units | | 13-15 |

Tasks:

- Set up Jobspeaker
- Attend Career Exploration Day
- FAFSA or Dream Act due March 2
- Apply AHC Scholarship

SUMMER SEMESTER (YEAR 2)

| Course | Title | Units |
|---------------------------------|-------------------------------------|-------|
| <input type="checkbox"/> CS 102 | Introduction to Computing with HTML | 3 |
| Total Units | | 3 |

Tasks

FALL SEMESTER (YEAR 2)

| Course | Title | Units |
|--------|-------|-------|
|--------|-------|-------|

| | | |
|-----------------------------------|----------------------------------|-------|
| <input type="checkbox"/> EL 125 | Digital Devices and Circuits | 3 |
| <input type="checkbox"/> EL 126 | Digital Devices and Circuits Lab | 2 |
| <input type="checkbox"/> CS 111 | Fundamentals of Programming 1 | 4 |
| <input type="checkbox"/> elective | major elective group 5 | 2-4 |
| Total Units | | 11-13 |

Tasks:

- Meet with a Counselor
- Develop Resume at Career Center
- Review Financial Aid Requirements
- Attend Job Fair/Career Exploration Day

SPRING SEMESTER (YEAR 2)

| Course | Title | Units |
|-----------------------------------|--|-------|
| <input type="checkbox"/> EL 146 | Electronic Product Design, Fabrication and Documentation | 2 |
| <input type="checkbox"/> MT 109 | Survey of Machining and Manufacturing | 4 |
| <input type="checkbox"/> elective | major elective group 5 | 2-4 |
| <input type="checkbox"/> elective | major elective group 5 (if needed) | 2-4 |
| Total Units | | 10-14 |

Tasks:

- Apply for Certificate with Counseling
- Utilize Job Search Resources
- Complete FAFSA or Dream Act by March 2
- Attend Job Fair/Career Exploration Day