

ELECTRONIC ENGINEERING TECHNOLOGY

pcc.edu/programs/electronic-engineering

CAREER AND PROGRAM DESCRIPTION

Electronic Engineering Technology (EET) is concerned with the theory and practice of applied electronics engineering. Emphasis is placed on the practical application of engineering knowledge. To apply electronics engineering knowledge requires a thorough background in mathematics and science. EET graduates possess a combination of theoretical and practical understanding and require minimal on-the-job training to become productive.

Graduates of an Associate of Applied Science Degree program in EET are called electronic engineering technicians and find employment in circuits and systems testing, product development, prototype construction and testing, circuit and systems medication, systems operation and manufacturing. EET graduates are expected to have good communication skills and be capable of creative problem solving, working independently and in teams. They should have extensive knowledge of both the hardware and software of electronic systems.

Employers of EET engineering technicians include research and development laboratories, electronic equipment manufacturers, public utilities, colleges and universities, government agencies, medical laboratories and hospitals, electronic equipment distributors, semiconductor manufacturers and manufacturing and processing industries that use electronic control equipment and others.

Students can complete the EET degree and/or the EET options in Biomedical Engineering Technology, Wireless and Data Communications, Renewable Energy Systems, and Mechatronics/Automation/Robotics Engineering Technology. The EET department also offers one certificate - Electronics Engineering Technology.

DEGREES AND CERTIFICATES OFFERED

ASSOCIATE OF APPLIED SCIENCE DEGREE

Electronic Engineering Technology
 Electronic Engineering Technology: Biomedical Engineering Technology
 Electronic Engineering Technology: Mechatronics/Automation/Robotics Engineering Technology
 Electronic Engineering Technology: Renewable Energy Systems
 Electronic Engineering Technology: Wireless and Data Communications Engineering Technology

LESS THAN ONE-YEAR: CAREER PATHWAY CERTIFICATE

Electronic Engineering Technology

Academic Prerequisites

- Basic computer skills in the Windows operating system, word processing and spreadsheets are required. Prerequisites and requirements vary depending upon the degree or certificate.
- Electronic Engineering Technology AAS Degree
 - a. Placement into WR 115 or higher
 - b. Placement into MTH 95 or higher
- Biomedical Engineering Technology AAS Degree
 - a. Placement into WR 115 or higher
 - b. Placement into MTH 95 or higher
 - c. Completion of any medical terminology course 3 credits or higher.
 - d. Completion of (BI 120) or (BI 121 , BI 122) or (BI 231, BI 232, BI 233)

- Mechatronics/Automation/Robotic Engineering Technology AAS degree
 - a. Placement into WR 115 or higher
 - b. Placement into MTH 95 or higher
- Renewable Energy Systems AAS Degree
 - a. Placement into WR 115 or higher
 - b. Placement into MTH 95 or higher
- Wireless and Data Communications Engineering Technology AAS Degree
 - a. Placement into WR 115 or higher
 - b. Placement into MTH 95 or higher
- Electronic Engineering Technology Certificate
 - a. Placement into WR 115 or higher
 - b. Placement into MTH 95 or higher

Academic Requirements

- None

Non-Academic Prerequisites

- Job-upgrade students: students who want to upgrade their job skills must meet individual course prerequisites and complete an advising interview with an EET advisor prior to enrollment. Admission is granted on a space available basis after the needs of the degree/certificate seeking full-time and part-time students are met.

Non-Academic Requirements

- Students can transfer classes from the EET degree into any BSEET. Please check with the department for courses which transfer to Oregon Institute of Technology's BSEET degree.

ASSOCIATE OF APPLIED SCIENCE DEGREE

Electronic Engineering Technology (p. 1)
 Electronic Engineering Technology: Biomedical Engineering Technology (p. 2)
 Electronic Engineering Technology: Mechatronics/Automation/Robotics Engineering Technology (p. 3)
 Electronic Engineering Technology: Renewable Energy Systems (p. 4)
 Electronic Engineering Technology: Wireless and Data Communications Engineering Technology (p. 5)

ELECTRONIC ENGINEERING TECHNOLOGY AAS DEGREE

Minimum 98 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. Some courses specified within the program may be used as General Education. Math/computation competency is met through the math course(s) required in the program of study. Students should consult with program advisors for course planning.

COURSE OF STUDY

The coursework listed below is required. The following is an example of a term-by-term breakdown.

| First Term | | Credits |
|------------------------|--|---------|
| EET 100D | Introduction to Computers and Networking | 4 |
| EET 101A | Electronic Lab Skills and Equipment 1 | 1 |
| EET 111 | Electrical Circuit Analysis I | 5 |
| EET 121 | Digital Systems 1 | 4 |
| MTH 111 or EET 100A | Precalculus I: Functions (MTH111=MTH111Z) ² or Math for Electronic Engineering Technology | 4 |

ELECTRONIC ENGINEERING TECHNOLOGY

ELECTRONIC ENGINEERING TECHNOLOGY

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|---|---|----|
| Second Term | | |
| EET 101B | Electronic Lab Skills and Equipment 2 | 1 |
| EET 112 | Electrical Circuit Analysis II | 5 |
| EET 122 | Digital Systems 2: Computing Systems | 5 |
| EET 188 | Industrial Safety | 2 |
| Electronic Engineering Degree Electives | | 4 |
| Third Term | | |
| EET 113 | Electrical Power | 5 |
| EET 123 | Digital Systems 3: Mixed-Signal Systems | 5 |
| EET 178 | Computing Environments for Technicians | 4 |
| General Education: 1 Course | | |
| Fourth Term | | |
| EET 221 | Semiconductor Devices and Circuits | 5 |
| EET 242 | Microcontroller and Embedded Systems | 4 |
| EET 252 | Electromechanical Systems Fundamentals | 2 |
| EET 254 | Electronic Engineering Technology Seminar | 1 |
| General Education: 2 Course | | |
| Fifth Term | | |
| EET 241 | Advanced Microcontrollers and Embedded Systems | 4 |
| EET 256A or EET 280A | EET Capstone Project 1 or Cooperative Education: Electronics Engineering Technology | 2 |
| EET 263 | PLC Fundamentals | 2 |
| Electronic Engineering Degree Electives | | 4 |
| General Education: 1 Course | | |
| Sixth Term | | |
| EET 223 | RF Communications Circuits | 5 |
| EET 256B or EET 280A | EET Capstone Project 2 or Cooperative Education: Electronics Engineering Technology | 2 |
| EET 272 | Motors and Motor Controls | 3 |
| EET 273 | Electronic Control Systems | 3 |
| Total Credits | | 98 |

1

OSHA industrial safety training can be substituted

Z

This course is part of Oregon Common Course Numbering. The following courses are equivalent:
MTH 111 and MTH 111Z

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Course cannot be substituted for another course.

Recommended General Education (p. 6)

ELECTRONIC ENGINEERING DEGREE ELECTIVES

| Code | Title | Credits |
|--------|--|---------|
| BA 101 | Introduction to Business (BA101=BA101Z) ^Z | 4 |
| BA 150 | Intro to Entrepreneurship | 4 |
| BA 205 | Business Communication Using Technology | 4 |
| BA 223 | Principles of Marketing | 4 |
| BA 236 | Product Management and Branding | 4 |
| BA 250 | Small Business Management | 3 |

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| BA 255 | Project Management - Business Environments | 4 |
| BA 277 | Professional Ethics in Business | 4 |
| HUM 221 | Leadership Development | 4 |
| MSD 113 | Influence Without Authority | 1 |
| MSD 116 | Creative Thinking for Innovative Change | 1 |
| MSD 121 | Leadership Skill Development | 3 |
| MSD 138B | Better Habits, Better Results | 1 |
| MSD 157 | Constructive Conflict Skills | 1 |
| MSD 177 | Team Building | 1 |
| MSD 279 | Project Management - Intro | 4 |
| PHL 206 | Introduction to Environmental Ethics | 4 |
| PHL 209 | Business Ethics | 4 |
| PHY 211 | General Physics (Calculus) | 5 |
| PHY 212 | General Physics (Calculus) | 5 |
| PHY 213 | General Physics (Calculus) | 5 |

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This course is part of Oregon Common Course Numbering. The following courses are equivalent:
BA 101 and BA 101Z

BIOMEDICAL ENGINEERING TECHNOLOGY AAS DEGREE

Minimum 103 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. Some courses specified within the program may be used as General Education. Math/computation competency is met through the math course(s) required in the program of study. Students should consult with a program advisor for course planning.

COURSE OF STUDY

The coursework listed below is required. The following is an example of a term-by-term breakdown.

| Term | Course | Credits | |
|-----------------------------|--|--|---|
| First Term | EET 100D | Introduction to Computers and Networking | 4 |
| | EET 101A | Electronic Lab Skills and Equipment 1 | 1 |
| | EET 111 | Electrical Circuit Analysis I | 5 |
| | EET 121 | Digital Systems 1 | 4 |
| MTH 111 or EET 100A | Precalculus I: Functions (MTH111=MTH111Z) ^Z or Math for Electronic Engineering Technology | 4 | |
| | Second Term | | |
| EET 101B | Electronic Lab Skills and Equipment 2 | 1 | |
| EET 112 | Electrical Circuit Analysis II | 5 | |
| EET 122 | Digital Systems 2: Computing Systems | 5 | |
| EET 188 | Industrial Safety ¹ | 2 | |
| General Education: 1 Course | | | |
| Third Term | | | |
| EET 113 | Electrical Power | 5 | |
| EET 123 | Digital Systems 3: Mixed-Signal Systems [§] | 5 | |
| EET 178 | Computing Environments for Technicians | 4 | |
| General Education: 1 Course | | | |
| Fourth Term | | | |
| EET 221 | Semiconductor Devices and Circuits | 5 | |
| EET 242 | Microcontroller and Embedded Systems | 4 | |

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| EET 252 | Electromechanical Systems Fundamentals | 2 |
| EET 254 | Electronic Engineering Technology Seminar | 1 |
| EET 260 | Biomedical Equipment Technology | 4 |
| Fifth Term | | |
| CIS 179 | Data Communication Concepts I | 4 |
| EET 261 | Medical Imaging Equipment | 3 |
| EET 280C | Cooperative Education: BMET Practicum | 5 |
| General Education: 2 Courses | | |
| Sixth Term | | |
| EET 223 | RF Communications Circuits | 5 |
| EET 262 | Biomedical Information Technology | 2 |
| EET 273 | Electronic Control Systems | 3 |
| EET 274 | Dental Equipment | 2 |
| EET 280C | Cooperative Education: BMET Practicum | 6 |
| Total Credits | | 103 |

1

OSHA industrial safety training can be substituted

Z

This course is part of Oregon Common Course Numbering. The following courses are equivalent:

MTH 111 and MTH 111Z

MTH 112 and MTH 112Z

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Course cannot be substituted for another course.

Recommended General Education (p. 6)

MECHATRONICS/AUTOMATION/ROBOTICS ENGINEERING TECHNOLOGY AAS DEGREE

Minimum 100 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. Some courses specified within the program may be used as General Education. Math/computation competency is met through the math course(s) required in the program of study. Students should consult with program advisors for course planning.

COURSE OF STUDY

The coursework listed below is required. The following is an example of a term-by-term breakdown.

| First Term | | Credits |
|-----------------------------|--|---------|
| EET 100D | Introduction to Computers and Networking | 4 |
| EET 101A | Electronic Lab Skills and Equipment 1 | 1 |
| EET 111 | Electrical Circuit Analysis I | 5 |
| EET 121 | Digital Systems 1 | 4 |
| MTH 111 or EET 100A | Precalculus I: Functions (MTH111=MTH111Z) ^Z or Math for Electronic Engineering Technology | 4 |
| Second Term | | |
| EET 101B | Electronic Lab Skills and Equipment 2 | 1 |
| EET 112 | Electrical Circuit Analysis II | 5 |
| EET 122 | Digital Systems 2: Computing Systems | 5 |
| EET 188 | Industrial Safety ¹ | 2 |
| General Education: 1 Course | | |
| Third Term | | |
| EET 113 | Electrical Power | 5 |

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|-----------------------------|---|-----|
| EET 123 | Digital Systems 3: Mixed-Signal Systems | 5 |
| EET 178 | Computing Environments for Technicians | 4 |
| General Education: 1 Course | | |
| Fourth Term | | |
| EET 221 | Semiconductor Devices and Circuits | 5 |
| EET 242 | Microcontroller and Embedded Systems | 4 |
| EET 252 | Electromechanical Systems Fundamentals | 2 |
| EET 254 | Electronic Engineering Technology Seminar | 1 |
| Mechatronics Electives | | |
| General Education: 1 Course | | |
| Fifth Term | | |
| EET 241 | Advanced Microcontrollers and Embedded Systems | 4 |
| EET 256A or EET 280A | EET Capstone Project 1 or Cooperative Education: Electronics Engineering Technology | 2 |
| EET 263 | PLC Fundamentals | 2 |
| Mechatronics Electives | | |
| General Education: 1 Course | | |
| Sixth Term | | |
| EET 223 | RF Communications Circuits | 5 |
| EET 256B or EET 280A | EET Capstone Project 2 or Cooperative Education: Electronics Engineering Technology | 2 |
| EET 272 | Motors and Motor Controls | 3 |
| EET 273 | Electronic Control Systems | 3 |
| Mechatronics Electives | | |
| Total Credits | | 100 |

1

OSHA industrial safety training can be substituted.

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This course is part of Oregon Common Course Numbering. The following courses are equivalent:

MTH 111 and MTH 111Z

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Course cannot be substituted for another course.

Recommended General Education (p. 6)

MECHATRONICS ELECTIVES

| Code | Title | Credits |
|---|---|---------|
| Renewable Energy Focus | | |
| EET 110 | Introduction to Renewable Energy | 3 |
| Courses from PCC's Solar Voltaic Manufacturing Technology Certificate | | |
| MT 101 | Introduction to Semiconductor Manufacturing | 1 |
| MT 102 | Introduction to Semiconductor Devices | 1 |
| MT 104 | Introduction to Solar Voltaic Processing | 1 |
| CH 100 | Everyday Chemistry with Lab | 4 |
| Courses from PCC's Manufacturing Technician Certificate | | |
| MCH 100 | Machine Tool Basics | 1 |
| MCH 110B | Blueprint Reading for Machine Manufacturing | 3 |
| MCH 115A | Geometric Dimensioning and Tolerancing I | 2 |
| MCH 120 | Machine Shop Math | 2 |

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| MCH 121 | Manufacturing Processes I | 5 |
| MCH 130 | Machine Shop Trigonometry | 2.5 |
| Courses from PCC's Technical Designer Certificate | | |
| CADD 115 | Practical Mathematics for CAD Designers and Drafters | 4 |
| CADD 175 | SolidWorks Fundamentals | 3 |
| CADD 185 | Inventor Fundamentals | 3 |
| CADD 195 | CAD Simulation for Drafters and Designers | 4 |
| CADD 235 | Materials and Design for Manufacturing Processes | 3 |
| CADD 245 | Product Design and Development Fundamentals | 3 |
| Courses from PCC's Mechanical Drafter Certificate | | |
| CADD 126 | Introduction to AutoCAD | 3 |
| CADD 160 | Drafting Fundamentals | 4 |
| CADD 175 | SolidWorks Fundamentals | 3 |
| CADD 265 | Mechanical Design Drafting | 4 |
| Courses from PCC's CAD Operator Certificate | | |
| CADD 175 | SolidWorks Fundamentals | 3 |
| CADD 185 | Inventor Fundamentals | 3 |
| CADD 235 | Materials and Design for Manufacturing Processes | 3 |
| CADD 275 | SolidWorks Advanced | 3 |
| Medical Equipment Focus | | |
| EET 260 | Biomedical Equipment Technology | 4 |
| EET 261 | Medical Imaging Equipment | 3 |
| EET 270 | | |
| Biotechnology Equipment Manufacturing Focus | | |
| Courses from PCC's Bioscience Technician Certificate | | |
| BIT 102 | Current Topics in Bioscience Technology | 2 |
| BIT 105 | Safety in the Bioscience Workplace | 2 |
| BIT 107 | Bioscience Lab Math | 2 |
| BIT 109 | Basic Laboratory Techniques and Instruments | 5 |
| BIT 125 | Quality Systems in Bioscience Technology | 2 |
| BIT 126 | Applied Quality Practice | 3 |
| BIT 181 | Exploring Bioscience | 3 |
| Semiconductor Equipment Focus | | |
| MT 101 | Introduction to Semiconductor Manufacturing | 1 |
| MT 102 | Introduction to Semiconductor Devices | 1 |
| MT 103 | Introduction to Micro and Nano Processing | 1 |
| MT 150 | Hand Tools for Assembly of Mechanical Systems | 1 |
| MT 223 | Vacuum Technology | 3 |
| MT 224 | Process Equipment I | 3 |
| MT 227 | Process Equipment II | 3 |
| MT 228 | Process Equipment III | 4 |
| MT 240 | RF Plasma Systems | 3 |
| Mechanical Focus | | |
| Courses from PCC's Mechatronics Technology Certificate | | |
| MT 151 | Intro to Hand Tools and Mechanical Assembly | 1 |
| MT 153 | Assembly of Mechanical Systems II | 3 |
| MT 155 | Mechanical Systems | 5 |
| Engineering Mechanical/Manufacturing Focus | | |

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| ENGR 102 | 2D Modeling and Engineering Graphics | 3 |
| ENGR 105 | 3D Modeling and Engineering Graphics | 3 |
| ENGR 211 | Statics | 4 |
| ENGR 212 | Dynamics | 4 |
| ENGR 213 | Strength of Materials | 4 |
| ENGR 231 | Material Science | 4 |
| ENGR 262 | Manufacturing Processes | 2 |

RENEWABLE ENERGY SYSTEMS AAS DEGREE

Minimum 101 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. Some courses specified within the program may be used as General Education. Math/computation competency is met through the math course(s) required in the program of study. Students should consult with program advisors for course planning.

COURSE OF STUDY

The coursework listed below is required. The following is an example of a term-by-term breakdown.

| | | Credits |
|---|--|---------|
| 3 | First Term | |
| 3 | EET 100D Introduction to Computers and Networking | 4 |
| | EET 101A Electronic Lab Skills and Equipment 1 | 1 |
| | EET 111 Electrical Circuit Analysis I | 5 |
| | EET 121 Digital Systems 1 | 4 |
| 4 | MTH 111 Precalculus I: Functions (MTH111=MTH111Z) ² | 4 |
| 3 | or EET 100A or Math for Electronic Engineering Technology | |
| | Second Term | |
| | EET 101B Electronic Lab Skills and Equipment 2 | 1 |
| | EET 112 Electrical Circuit Analysis II | 5 |
| | EET 122 Digital Systems 2: Computing Systems | 5 |
| | EET 188 Industrial Safety ² | 2 |
| | Renewable Energy Systems Elective | 2 |
| | General Education: 1 Course | |
| | Third Term | |
| | EET 110 Introduction to Renewable Energy ¹ | 3 |
| | EET 113 Electrical Power | 5 |
| | EET 123 Digital Systems 3: Mixed-Signal Systems | 5 |
| | EET 178 Computing Environments for Technicians | 4 |
| | Fourth Term | |
| | EET 221 Semiconductor Devices and Circuits | 5 |
| | EET 242 Microcontroller and Embedded Systems | 4 |
| | EET 252 Electromechanical Systems Fundamentals | 2 |
| | EET 254 Electronic Engineering Technology Seminar | 1 |
| | General Education: 1 Course | |
| | Fifth Term | |
| | EET 241 Advanced Microcontrollers and Embedded Systems | 4 |
| | EET 256A EET Capstone Project 1 | 2 |
| | or EET 280A or Cooperative Education: Electronics Engineering Technology | |
| | EET 263 PLC Fundamentals | 2 |
| | Renewable Energy Systems Elective | 2 |
| | General Education: 2 Courses | |

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|-----------------------------------|---|-----|
| Sixth Term | | |
| EET 223 | RF Communications Circuits | 5 |
| EET 256B or EET 280A | EET Capstone Project 2 or Cooperative Education: Electronics Engineering Technology | 2 |
| EET 272 | Motors and Motor Controls | 3 |
| EET 273 | Electronic Control Systems | 3 |
| Renewable Energy Systems Elective | | 4 |
| Total Credits | | 101 |

1
REE 201 of Oregon Tech can substitute

2
OSHA industrial safety training can be substituted

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This course is part of Oregon Common Course Numbering. The following courses are equivalent:
MTH 111 and MTH 111Z

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Course cannot be substituted for another course.

Recommended General Education (p. 6)

RENEWABLE ENERGY SYSTEMS PROGRAM ELECTIVES

| Code | Title | Credits |
|---|--|---------|
| Courses From PCC's Solar Voltaic Manufacturing Technology Certificate | | |
| CH 100 | Everyday Chemistry with Lab | 4 |
| MT 101 | Introduction to Semiconductor Manufacturing | 1 |
| MT 102 | Introduction to Semiconductor Devices | 1 |
| MT 104 | Introduction to Solar Voltaic Processing Manufacturing Processes | 1 |
| ENGR 262 | Manufacturing Processes | 2 |
| MCH 121 | Manufacturing Processes I | 5 |
| Sustainability | | |
| BA 278 | Eco-Innovation and Social Entrepreneurship | 4 |
| ESR 140 | Introduction to Sustainability | 4 |
| ESR 141 | Introduction to Individual Sustainability | 4 |
| G 184 | Global Climate Change | 4 |

WIRELESS AND DATA COMMUNICATIONS ENGINEERING TECHNOLOGY AAS DEGREE

Minimum 100 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of four courses of General Education. Some courses specified within the program may be used as General Education. Math/computation competency is met through the math course(s) required in the program of study. Students should consult with program advisors for course planning.

COURSE OF STUDY

The coursework listed below is required. The following is an example of a term-by-term breakdown.

| First Term | | Credits |
|------------|--|---------|
| EET 100D | Introduction to Computers and Networking | 4 |
| EET 101A | Electronic Lab Skills and Equipment 1 | 1 |
| EET 111 | Electrical Circuit Analysis I | 5 |

| | | |
|------------------------|---|---|
| EET 121 | Digital Systems 1 | 4 |
| MTH 111 or EET 100A | Precalculus I: Functions (MTH111=MTH111Z) ² or Math for Electronic Engineering Technology | 4 |
| Second Term | | |
| EET 101B | Electronic Lab Skills and Equipment 2 | 1 |
| EET 112 | Electrical Circuit Analysis II | 5 |
| EET 122 | Digital Systems 2: Computing Systems | 5 |
| EET 188 | Industrial Safety ¹ | 2 |

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|------------|---|---|
| Third Term | | |
| EET 113 | Electrical Power | 5 |
| EET 123 | Digital Systems 3: Mixed-Signal Systems | 5 |

| | | |
|-----------------------------|--|---|
| EET 178 | Computing Environments for Technicians | 4 |
| General Education: 1 Course | | |

| | | |
|-------------|---|---|
| Fourth Term | | |
| CIS 179 | Data Communication Concepts I | 4 |
| EET 221 | Semiconductor Devices and Circuits | 5 |
| EET 242 | Microcontroller and Embedded Systems | 4 |
| EET 254 | Electronic Engineering Technology Seminar | 1 |

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|---|--|---|
| Wireless & Data Communication Electives | | 4 |
|---|--|---|

| | | |
|------------|--|---|
| Fifth Term | | |
| EET 241 | Advanced Microcontrollers and Embedded Systems | 4 |

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|-------------------------|---|---|
| EET 256A or EET 280A | EET Capstone Project 1 or Cooperative Education: Electronics Engineering Technology | 2 |
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|---|--|---|
| Wireless & Data Communication Electives | | 4 |
|---|--|---|

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| General Education: 2 Course | | |
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|------------|--|--|
| Sixth Term | | |
|------------|--|--|

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| CIS 189 | Wireless Security | 4 |
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| CIS 278A | Cisco 1: Introduction to Networks | 4 |
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|---------|----------------------------|---|
| EET 223 | RF Communications Circuits | 5 |
|---------|----------------------------|---|

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|-------------------------|---|---|
| EET 256B or EET 280A | EET Capstone Project 2 or Cooperative Education: Electronics Engineering Technology | 2 |
|-------------------------|---|---|

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|-----------------------------|--|--|
| General Education: 1 Course | | |
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| | | |
|---------------|--|-----|
| Total Credits | | 100 |
|---------------|--|-----|

1
OSHA industrial safety training can be substituted

z
This course is part of Oregon Common Course Numbering. The following courses are equivalent:
MTH 111 and MTH 111Z

§
Course cannot be substituted for another course.

WIRELESS & DATA COMMUNICATION ELECTIVES

| Code | Title | Credits |
|----------|--------------------------------------|---------|
| CIS 121 | Information Systems and Programming | 4 |
| CIS 122 | Introduction to Programming Logic | 4 |
| CIS 140M | Operating Systems I: Microsoft | 4 |
| CIS 179 | Data Communication Concepts I | 4 |
| CIS 184C | Introduction to Information Security | 4 |
| CIS 189 | Wireless Security | 4 |
| CIS 240L | Linux Installation and Configuration | 4 |

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|----------|--|---|---|---|---|
| CIS 240M | Managing a Windows Server Environment | 4 | EET 112 | Electrical Circuit Analysis II | 5 |
| CIS 245 | Project Management - Information Systems | 4 | EET 122 | Digital Systems 2: Computing Systems | 5 |
| CIS 279L | Linux Network Administration | 4 | EET 188 | Industrial Safety ¹ | 2 |
| CIS 284C | Cybersecurity Concepts | 4 | Third Term | | |
| CIS 287M | Microsoft Server Security | 4 | EET 113 | Electrical Power | 5 |
| CIS 288M | Microsoft Network Administration | 4 | EET 123 | Digital Systems 3: Mixed-Signal Systems | 5 |
| CIS 289M | Microsoft Active Directory Administration | 4 | <hr/> | | |
| EET 262 | Biomedical Information Technology | 2 | Total Credits | | |
| HIM 283 | Health Information Systems | 4 | 41 | | |
| CIS 278B | Cisco 2: Switching, Routing, and Wireless Essentials | 4 | 1 | | |
| CIS 278C | Cisco 3: Enterprise Networking, Security, and Automation | 4 | OSHA industrial training can be substituted | | |

RECOMMENDED GENERAL EDUCATION

| Code | Title | Credits |
|-----------|---|---------|
| COMM 111Z | Public Speaking (COMM111=COMM111Z) | 4 |
| COMM 140 | Introduction to Intercultural Communication | 4 |
| COMM 227 | Nonverbal Communication | 4 |
| COMM 228 | Mass Communication and Society | 4 |
| COMM 237 | Gender and Communication | 4 |
| PHL 202 | Ethics | 4 |
| PHL 205 | Biomedical Ethics | 4 |
| PHL 206 | Introduction to Environmental Ethics | 4 |
| PHL 209 | Business Ethics | 4 |
| PSY 101 | Psychology and Human Relations | 4 |
| PSY 214 | Introduction to Personality | 4 |
| PSY 215 | Human Development | 4 |
| PSY 216 | Social Psychology | 4 |
| PSY 240 | Personal Awareness and Growth | 4 |
| SOC 205 | Social Change | 4 |
| SOC 206 | Social Problems | 4 |
| SOC 211 | Peace and Conflict Studies | 4 |
| SOC 213 | Diversity in the United States | 4 |
| WR 222 | Writing Research Papers | 4 |

**ELECTRONIC ENGINEERING TECHNOLOGY
LESS THAN ONE-YEAR: CAREER PATHWAY
CERTIFICATE**

Minimum 41 credits. Students must meet all certificate requirements.

Course of Study

The coursework listed below is required. The following is an example of a term-by-term breakdown.

| First Term | | Credits |
|------------------------|--|---------|
| EET 100D | Introduction to Computers and Networking | 4 |
| EET 101A | Electronic Lab Skills and Equipment 1 | 1 |
| EET 111 | Electrical Circuit Analysis I | 5 |
| EET 121 | Digital Systems 1 | 4 |
| MTH 111 or EET 100A | Precalculus I: Functions (MTH111=MTH111Z) ^Z or Math for Electronic Engineering Technology | 4 |
| Second Term | | |
| EET 101B | Electronic Lab Skills and Equipment 2 | 1 |