Primary Path: 28-30 credit hours
ELW 111 Introduction to Electrical Line Worker 3
ELW 112 Introduction to Electricity 3
ELW 114 Overhead Line Construction I 3
ELW 211 Underground Line Construction I 3
ELW 231 Electrical Power Systems 3
ELW 115 Overhead Line Construction II 3
ELW 116 Overhead Line Construction III 3
ELW 117 Overhead Line Construction IV 3
ELW 212 Underground Line Construction II 3
ELW 221 Advanced Line Construction 3

Secondary Path: 12 credit hours
*CWE Cooperative Work Experience 4
AHS 106 Cardiopulmonary Resuscitation 1
AHS 114 Basic First Aid 1
EEM 165 Residential/Commercial Wiring 4
IMT 102 Industrial Safety 2

Additional Requirements: five credit hours
ELW 110 Electrical Computations 2
ELW 113 National Electrical Safety Code 3

*Students may substitute four credit hours from the EEM course listings for CWE. Any CWE must be performed in conjunction with the ELW program to count toward program graduation requirements.

Electrician: Automation and Industrial Course Display
Credit Requirements: 67 Semester Credit Hours

Students of this program are employed as automated controls technicians, electrical and instrumentation technicians, or robotics and automation technicians at manufacturing plants, chemical plants, food and beverage plants, water systems, and energy generation facilities. Job duties include installing, maintaining and repairing various types of electro-mechanical automation equipment.

Core Curriculum Requirements (15 credit hours)
REQ COM Select one course from Communication listing on page B-3 3
REQ HUM Select one course from Humanities listing on page B-3 3
REQ MAT Select one math course from Mathematics/Natural Sciences listing on page B-4 3
REQ OTH Select one course from other courses listed on pages B-3 and B-4 3
REQ SSC Select one course from Behavioral/Social Sciences listing on page B-3 3

Primary Path Requirements (31 credit hours)
EEM 113 DC Circuits I 2
EEM 114 DC Circuits II 2
EEM 119 AC Circuits I 2
EEM 120 AC Circuits II 2
EEM 129 Solid State Devices I 2
EEM 130 Solid State Devices II 2
EEM 218 AC/DC Machines with Electrical Codes I 2
EEM 219 AC/DC Machines with Electrical Codes II 2
EEM 221 DC/AC Drives 3
EEM 251 Programmable Controllers 3
EEM 252 Programmable Controllers Applications 3
EIT 110 Principles of Instrumentation 3
EIT 244 Computers and PLCs in Instrumentation 3

Secondary Path Requirements (15 credit hours)
EEM 167 Commercial/Industrial Wiring I 2
EEM 168 Commercial/Industrial Wiring II 2
EEM 151 Motor Controls I 4
IMT 132 Hydraulics 2
IMT 133 Pneumatics 2
IMT 163 Problem Solving for Mechanical Applications 3

Additional Requirements (6 credit hours)
EEM 107 Industrial Computer Techniques 2
EEM 108 Basic Industrial Skills I 2
EEM 110 Basic Industrial Skills II 2

Electrician: Automation and Industrial Career Path
Credit Requirements: 67 Semester Credit Hours

Recommended Sequence of Courses
First Semester – Fall
EEM 107 Industrial Computer Techniques 2
EEM 113 DC Circuits I 2
EEM 114 DC Circuits II 2
EEM 167 Commercial/Industrial Wiring I 2
EEM 168 Commercial/Industrial Wiring II 2
REQ MAT Select one math course from Mathematics/Natural Sciences listing on page B-4 3

Total 13
### Electrician: Automation and Industrial Career Path

**Credit Requirements:** 67 Semester Credit Hours

**Evening**

#### First Semester – Fall
- EEM 167 Commercial/Industrial Wiring I 2
- EEM 168 Commercial/Industrial Wiring II 2
- REQ MAT Select one math course from Mathematics/Natural Sciences listing on page B-4 3

**Total 14**

#### Second Semester - Spring
- EEM 113 DC Circuits I 2
- EEM 114 DC Circuits II 2
- REQ COM Select one course from Communication listing on page B-3 3

**Total 7**

#### Third Semester – Summer
- EEM 107 Industrial Computer Techniques 2
- EEM 119 AC Circuits I 2
- EEM 120 AC Circuits II 2

**Total 6**

#### Fourth Semester – Fall
- EEM 218 AC/DC Machines with Electrical Codes I 2
- EEM 219 AC/DC Machines with Electrical Codes II 2
- EEM 129 Solid State Devices I 2
- EEM 130 Solid State Devices II 2

**Total 8**

#### Fifth Semester – Spring
- EEM 151 Motor Controls I 4
- EEM 251 Programmable Controllers 3
- IMT 132 Hydraulics 2
- IMT 133 Pneumatics 2

**Total 12**

#### Sixth Semester – Summer
- EEM 221 DC/AC Drives 3
- EEM 252 Programmable Controllers Applications 3

**Total 6**

#### Seventh Semester – Fall
- IMT 132 Hydraulics 2
- IMT 133 Pneumatics 2
- REQ OTH Select one course from other courses listed on pages B-3 and B-4 3

**Total 7**

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**Second Semester – Spring**

<table>
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<th>Credits</th>
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<td>EEM 129</td>
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<td>EEM 130</td>
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<tr>
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<td>REQ OTH</td>
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**Third Semester – Summer**

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<td>Basic Industrial Skills II</td>
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<tr>
<td>EEM 218</td>
<td>AC/DC Machines with Electrical Codes I</td>
<td>2</td>
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<tr>
<td>EEM 219</td>
<td>AC/DC Machines with Electrical Codes II</td>
<td>2</td>
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<tr>
<td>EEM 221</td>
<td>DC/AC Drives</td>
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<td>EEM 251</td>
<td>Programmable Controllers</td>
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**Total 14**

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**Fourth Semester – Fall**

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<tr>
<td>EEM 252</td>
<td>Programmable Controllers Applications</td>
<td>3</td>
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<td>EIT 110</td>
<td>Principles of Instrumentation</td>
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<td>IMT 132</td>
<td>Hydraulics</td>
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<td>IMT 133</td>
<td>Pneumatics</td>
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**Total 14**

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**Fifth Semester – Spring**

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<td>Computers and PLCs in Instrumentation</td>
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<td>IMT 163</td>
<td>Problem Solving for Mechanical Applications</td>
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<td>REQ HUM</td>
<td>Select one course from Humanities listing on page B-3</td>
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<tr>
<td>REQ SSC</td>
<td>Select one course from Behavioral/Social Sciences listing on page B-3</td>
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**Total 12**

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