

2024-2025 TTC Catalog

General Technology - Electrician-Industrial and Construction

Associate in Applied Science in General Technology

Electrician: Industrial and Construction Career Path

61-62 Credit Hours

The General Technology major allows students to select course work necessary to become multiskilled technicians. In addition to completing the college's core curriculum, students also complete course work in at least two technical areas. The following is an example of a career path available. The secondary paths may be substituted for courses in other programs' primary path. Interested students should talk with their advisors.

This career path prepares students for employment in the electrical construction and maintenance electrician trades. Emphasis is placed on electrical/ electronic theory, electrical equipment (motors, transformers, motor control and drive systems, programmable controllers, etc.), wiring techniques in accordance with the National Electric Code, and troubleshooting.

Students can earn only one General Technology degree in a single career path.

General Education Core Requirements

MAT 170 Algebra, Geometry and Trigonometry I 3

REQ GEN	Select from	3
	General Education	

REQ COM	Select from	3
	Communication	

REQ HUM	Select from	3
	Humanities	

REQ SSC	Select from	3
	Behavioral/Social Sciences	

Total: 15

Primary Technical Specialty Requirements

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 138 National Electrical Code I 2
EEM 139 National Electrical Code II 2
EEM 167 Commercial-Industrial Wiring I 2
EEM 168 Commercial-Industrial Wiring II 2
EEM 218 AC DC Machines with Electrical Codes I 2
EEM 219 AC DC Machines with Electrical Codes II 2
EEM 251 Programmable Controllers 3

Total: 27

Secondary Technical Specialty Requirements

EEM 105 Basic Electricity 2
EEM 163 Residential Wiring I 2
EEM 164 Residential Wiring II 2
EEM 173 Electrical Installation I 2
EEM 174 Electrical Installation II 2
EEM 221 DC AC Drives 3

Total: 13

Additional Requirements

EEM 107 Industrial Computer Techniques 2
or
EGR 110 Introduction to Computer Environment 3
EEM 151 Motor Controls I 4

Total: 6-7

Admission into this program requires proof of high school graduation (or GED) and qualifying placement levels.