

INDUSTRY CAREERS

ELECTRICAL CONSTRUCTION & MAINTENANCE TECHNOLOGY

Delivery: Daytime Classes
Start: Fall or Spring Semester, Full-Time Recommended
Location: Rosemount Campus

Outcomes

Electrical Construction & Maintenance A.A.S. Degree . . . 81 cr.
 Electrical Construction & Maintenance Diploma 75 cr.

Major Description

Designed to give students hands-on experience for entry-level positions in electrical construction, installation, operation and maintenance occupations, this program delivers technical courses in electrical/electronics theory plus the installation, maintenance, wiring, and testing of electrical/electronic apparatus and control devices through the application of the National Electric Code.

Work Environment

Able to work indoors and out, electricians must be safety conscious and able to distinguish colors. They find work with electrical contractors, technology system contractors, registered employers who only perform electrical work in facilities they own or lease, and manufacturers of electrical equipment.

Potential Job Titles

- Construction Electrician
- Electrical Installer
- Electrical Maintenance Worker
- Industrial Electrician
- Electrical System Specialist
- Solar Installer

Salary Data

- Average Wage: \$31.64/hour
- Top Earners: \$36.46/hour

ELECTRICAL CONSTRUCTION & MAINTENANCE TECHNOLOGY - A.A.S. DEGREE

*This is a sample course sequence.
 Please contact your program advisor regarding your academic plans.*

First Year - First Semester

ELEC1110	D. C. Electricity Theory and Lab	3
ELEC1120	A. C. Electricity Theory and Lab	3
ELEC1130	National Electrical Code I	3
ELEC1137	Construction Site Safety	1
ELEC1139	Electrical Construction Fundamentals	2
ELEC1140	Blueprint Reading for Technicians	3
MATS1205	Math for Electricians	3
Total Credits		18

First Year - Second Semester

ELEC1210	Analog/ Digital Electronics Theory	2
ELEC1220	Analog/ Digital Electronics Lab	4
ELEC1230	Construction Skills & Intro to Wiring Theory	3
ELEC1240	Construction Skills & Intro to Wiring Lab	6
SPEE1020	Interpersonal Communication	3
Total Credits		18

First Year - Summer Session

ENGL1150	Composition I	3
	General Education (MnTC Goal 3 or 4)	3
Total Credits		6

Second Year - First Semester

ELEC2110	Electrical Apparatus Theory	3
ELEC2120	Electrical Apparatus Lab	6
ELEC2131	Programmable Logic Controllers Theory	2
ELEC2141	Programmable Logic Controllers Lab	4
	General Education Elective**	3
Total Credits		18

Second Year - Second Semester

ELEC2210	National Electrical Code II	3
ELEC2220	Electrical/Electronic Controls & Systems Theory	2
ELEC2230	Electrical/Electronic Controls & Systems Lab	4
ELEC2241	Industrial & Maintenance Wiring Theory/Lab	3
ELEC2251	Commercial Wiring Theory and Lab	3
ELEC2260	Heating, Ventilation, and Air Conditioning Wiring Theory and Lab	3
Total Credits		18

Second Year - Summer Session

	General Education Elective**	3
Total Credits		3

TOTAL PROGRAM REQUIREMENTS 81

** Select General Education electives from any MnTC goal area.

ELECTRICAL CONSTRUCTION & MAINTENANCE TECHNOLOGY - DIPLOMA

This is a sample course sequence.

Please contact your program advisor regarding your academic plans.

First Year - First Semester

ELEC1110	D. C. Electricity Theory and Lab	3
ELEC1120	A. C. Electricity Theory and Lab	3
ELEC1130	National Electrical Code I	3
ELEC1137	Construction Site Safety	1
ELEC1139	Electrical Construction Fundamentals	2
ELEC1140	Blueprint Reading for Technicians	3
MATS1205	Math for Electricians	3
Total Credits		18

First Year - Second Semester

ELEC1210	Analog/Digital Electronics Theory	2
ELEC1220	Analog/Digital Electronics Lab	4
ELEC1230	Construction Skills & Intro to Wiring Theory	3
ELEC1240	Construction Skills & Intro to Wiring Lab	6
SPEE1020	Interpersonal Communications	3
Total Credits		18

First Year - Summer Session

	General Education Elective**	3
Total Credits		3

Second Year - First Semester

ELEC2110	Electrical Apparatus Theory	3
ELEC2120	Electrical Apparatus Lab	6
ELEC2131	Programmable Logic Controllers Theory	2
ELEC2141	Programmable Logic Controllers Lab	4
ENGL1150	Composition I (or ENGL1000)	3
Total Credits		18

Second Year - Second Semester

ELEC2210	National Electrical Code II	3
ELEC2220	Electrical/Electronic Controls & Systems Theory	2
ELEC2230	Electrical/Electronic Controls & Systems Lab	4
ELEC2241	Industrial & Maintenance Wiring Theory/Lab	3
ELEC2251	Commercial Wiring Theory and Lab	3
ELEC2260	Heating, Ventilation, and Air Conditioning Wiring Theory and Lab	3
Total Credits		18

TOTAL PROGRAM REQUIREMENTS 75

** Select General Education electives from any MnTC goal area.



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2017-2018 CATALOG