

CONSTRUCTION & MANUFACTURING

ELECTRICAL CONSTRUCTION & MAINTENANCE

Delivery: Daytime Classes

Start: Fall or Spring Semester, Full-Time

AWARDS

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.

Employment in this field typically requires successful completion of the Minnesota Electrical licensing exam.

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

See latest data at careerwise.minnstate.edu.

- Average Wage: \$35.75/hour
- Top Earners: \$49.65/hour

The Electrical Construction Maintenance program is approved by the Minnesota Board of Electricity.

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

This is a suggested sample course sequence.

Please contact your program advisor regarding your academic plans.

First Year - Fall Semester 18 cr

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

First Year - Spring Semester 18 cr

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

First Year - Summer Session 6 cr

ENGL1150	Composition I.	3
	General Elective (MnTC Goal 3 or 4).	3

Second Year - Fall Semester 18 cr

ELEC2110	Electrical Apparatus Theory	3
ELEC2120	Electrical Apparatus Lab.	6
ELEC2131	Programmable Logic Controllers Theory.	2
ELEC2141	Programmable Logic Controllers Lab.	4
	General Elective (any MnTC area)	3

Second Year - Spring Semester 18 cr

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	HVAC Wiring Theory and Lab.	3

Second Year - Summer Session 3 cr

	General Elective (any MnTC area)	3
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TOTAL PROGRAM REQUIREMENTS 81

ELECTRICAL CONSTRUCTION & MAINTENANCE TECHNOLOGY

DIPLOMA

This is a suggested sample course sequence.

Please contact your program advisor regarding your academic plans.

First Year - Fall Semester **18 cr**

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

First Year - Spring Semester **18 cr**

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

First Year - Summer Session **3 cr**

General Elective (any MnTC area)	3
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Second Year - Fall Semester **18 cr**

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.	3

Second Year - Spring Semester **18 cr**

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	HVAC Wiring Theory and Lab.	3

TOTAL PROGRAM REQUIREMENTS 75



DAKOTA COUNTY
TECHNICAL COLLEGE

A member of Minnesota State

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DCTC IS AN AFFIRMATIVE ACTION, EQUAL OPPORTUNITY EMPLOYER/EDUCATOR.

This information is available in an alternate format by calling 651-423-8469 or TTY/Minnesota Relay at 1-800-627-3529.