

Program Information

The Anoka Technical College Construction Electrician diploma is a 72-credit program designed to develop skills in the installation and testing of electrical fixtures. Students will study wiring, including blueprint reading, wiring code, electrical theory and wiring laboratory. Many graduates of this program join unions to complete their apprenticeship training.

Program Learning Outcomes

By completing this program, students will achieve the following learning outcomes

1. Work safely amongst others.
2. Troubleshoot electrical circuits using proper technique.
3. Design and install single family dwelling circuits to NEC standards.
4. Design and install commercial and industry circuits to NEC standards.
5. Design and install control circuits to NEC standards.
6. Effectively follow verbal and written instructions.
7. Identify code articles that pertain to the project.

Endorsements

The Construction Electrician diploma is approved by:

- State Board of Electricity
- Twin Cities Joint Apprenticeship Committee,
- Many unions in the upper Midwest including:
 - Local 110 (St. Paul)
 - Local 292 (Minneapolis)
 - Local 343 (Mankato)
 - Local 242 (Duluth)
 - Local 294 (Bemidji and Iron Range)
 - Local 1426 (Fargo, East Grand Forks and Grand Forks)
 - Local 426 (Sioux City, Sioux Falls, Colorado and Kansas)

Course Prerequisites

Although no prior knowledge or experience is necessary to succeed in this program, prospective Construction Electrician students should have a high school diploma or GED. Helpful high school courses include electronics, drafting, carpentry, and algebra/trigonometry. Physical exertion is often required and electrical construction may be performed outdoors or under such conditions as heights, unfinished construction or high voltages.

Some courses may require appropriate test score or completion of basic math, basic English and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS), diploma, or certificate must meet the cumulative grade point average (GPA) of 2.0 or higher.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

As a construction electrician, program graduates will work with electrical materials on construction and remodeling jobs. More specifically, construction electricians plan, assemble, install and test electrical fixtures, apparatus and wiring that is used in both new and existing buildings. Construction electricians must have complete knowledge of electrical codes, theory and materials in order to correctly install and troubleshoot all types of electrical equipment and controls as required for each type of building.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](https://mn.gov/deed/job-seekers/job-outlook/) (https://mn.gov/deed/job-seekers/job-outlook/).

Experienced electricians who work for large companies have several options for advancement. Those who have good people skills may become supervisors. Those who have good organizational skills may become managers. Construction electricians may transfer to electrical jobs in the shipbuilding, automobile or aircraft industries. Some electricians start their own businesses. Those who have a master electrician’s license may become contractors.

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 60 Credits

<input type="checkbox"/>	ELEC 1001	Electrical Theory I	5
<input type="checkbox"/>	ELEC 1020	Residential Wiring Lab I.....	4
<input type="checkbox"/>	ELEC 1030	National Electrical Code I	2
<input type="checkbox"/>	ELEC 1061	Electrical Theory II.....	5
<input type="checkbox"/>	ELEC 1080	Residential Wiring Lab II	4
<input type="checkbox"/>	ELEC 1090	National Electrical Code II	3
<input type="checkbox"/>	ELEC 1101	Power Limited	2
<input type="checkbox"/>	ELEC 1107	PLC’s and Electronics for Electricians	6
<input type="checkbox"/>	ELEC 1110	Lighting.....	2
<input type="checkbox"/>	ELEC 1121	Electrical Heating & Air Conditioning	2
<input type="checkbox"/>	ELEC 1130	Plan Reading	2
<input type="checkbox"/>	ELEC 1140	Safety Principles/OSHA I.....	1
<input type="checkbox"/>	ELEC 1141	Safety/OSHA II.....	2
<input type="checkbox"/>	ELEC 2010	Commercial Wiring Lab I.....	3
<input type="checkbox"/>	ELEC 2020	Motors and Controls I.....	2
<input type="checkbox"/>	ELEC 2030	National Electrical Code III.....	3



(continued)

2018-2019

Construction Electrician

Diploma

- ELEC 2040 Three-Phase Electrical Theory..... 4
- ELEC 2060 Commercial Wiring Lab II..... 3
- ELEC 2071 Motors and Controls II..... 3
- ELEC 2080 National Electrical Code IV..... 2

General Education/MnTC Requirements: 12 Credits

Twelve (12) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- ENGL 1107 Composition I 4
- MATH 1400 Algebra and Trigonometry..... 5
- SPCH 1200 Interpersonal Communication 3

Also see: Architectural Technology AAS, Architectural Technology diploma, Architectural 2D CAD, and Construction Estimating certificate

Start Dates

Fall Semester.....August
Spring SemesterJanuary**

***Students who start in the spring will need more time to complete this program. Limited first semester technical courses are offered in the Spring semester.*

Faculty Contact

[Brian Schelkoph](#)..... 763-576-4228
[Tim Simpson](#) 763-576-4142

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence

Full Time

	Fall Semester	Spring Semester	Summer Semester (4 weeks)
1st YEAR	ELEC 1001..... 5	ELEC 1061..... 5	ELEC 1101..... 2
	ELEC 1020..... 4	ELEC 1080..... 4	ELEC 1110..... 2
	ELEC 1030..... 2	ELEC 1090..... 3	ELEC 1121..... 2
	ELEC 1140..... 1	ELEC 1141..... 2	ELEC 1130..... 2
	MATH 1400..... 5	TOTAL..... 14	TOTAL..... 8
TOTAL..... 17			
2nd YEAR	Fall Semester	Spring Semester	
	ELEC 2010..... 3	ELEC 1107..... 4	
	ELEC 2020..... 2	ELEC 2060 3	
	ELEC 2030..... 3	ELEC 2071..... 2	
	ELEC 2040..... 4	ELEC 2080..... 3	
ENGL 1107..... 4	SPCH 1200..... 4		
TOTAL..... 16	TOTAL..... 17		