

## Commercial and Residential Wiring Diploma - 68 credits

Program Area: Electrician (Fall 2025)

**\*\*\*REMEMBER TO REGISTER EARLY\*\*\***

### Program Description

The Commercial and Residential Wiring diploma program teaches students to install, operate, and repair electrical systems. Students also learn to install wiring in buildings and to make power connections from an outside source. Training in the program includes simulated residential, commercial, and industrial settings. Also covered will be DC and AC motor controls, electrical distribution panels, and testing equipment.

Students become familiar with digital applications, analog solid state, and programmable controllers that are used within industrial settings throughout the nation.

This diploma transfers seamlessly into an AAS degree (82 credits) in Commercial and Residential Wiring.

### Program Outcomes

- Have a working knowledge and understanding of the National Electrical Code (NEC)
- Have a working knowledge of safety issues relating to the electrical industry and workplace
- Understand and be able to perform tasks relating to residential wiring
- Understand and be able to perform tasks relating to commercial wiring
- Understand and be able to perform tasks relating to industrial wiring

Qualified applicants should be aware that program class sizes are limited, which may delay acceptance into the program.

### Pre-Program Courses

Number	Name	Credits	Term
ELTN 1406	DC Electricity	4	
ELTN 1408	AC Electricity	4	
ELTN 1412	Digital Electronics	2	
ELTN 1422	Media and Cabling	2	
ELTN 1475	Introduction to the National Electrical Code	2	
ELTN 1530	Renewable Energy Systems	3	
ELTN 1428	Electrical Safety	1	
ELTN 1442	Motors and Generators	6	
ELTN 1470	Systematic Troubleshooting	1	
ELTN 1635	PLT Control Lab	3	
ELTN 2442	Automation Controllers	3	

### Required Courses

Number	Name	Credits	Term
ELEC 2403	Residential Wiring	4	
ELEC 2405	Electrical Blueprint Reading	2	
ELEC 2423	Commercial Wiring I	4	
ELEC 2433	Motor Control	3	
ELEC 2440	National Electrical Code I	2	
ELTN 2430	Introduction to Instrumentation	3	
ELEC 2523	Commercial Wiring II	4	
ELEC 2461	Electrical Troubleshooting	2	
ELEC 2503	Electrical Controls	3	
ELEC 2533	Industrial Wiring	4	
ELEC 2510	National Electrical Code II	2	
ELTN 2440	Motor Speed Controllers	3	
	Choose 1 credits from the following: <ul style="list-style-type: none"> <li>• Any <b>ELTN</b> or <b>ELEC</b> courses not listed above</li> <li>• ALTH 1435: American Red Cross Community First Aid and CPR (1 cr)</li> <li>• COMM 1601: Interviewing Procedure and Practice (1 cr)</li> </ul>	1	

**Total Credits**

**68**



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### Pre-program Requirements

Successful entry into this program requires a specific level of skill in the areas of English, mathematics, and reading. Program entry will depend, in part, on meeting the prerequisites listed below:

#### English/Reading:

- Eligible for ENGL 1106 - College Composition I, or
- Completion of ENGL/READ 0950/0955 (or equivalent or higher). ENGL/READ 0950/0955 may be taken concurrently with Semester I coursework.

#### Mathematics:

- Eligible for MATH 0970 - Intermediate Algebra, or
- Completion of MATH 0950/0955 (or equivalent or higher). MATH 0950/0955 may be taken concurrently with Semester I coursework.
- With instructor permission, concurrent enrollment in MATH 1115.

There are other ways to qualify. Visit [Course Placement](https://www.lsc.edu/become-a-student/course-placement/) to find out more.  
(<https://www.lsc.edu/become-a-student/course-placement/>)

For interpretation of test results and selection of appropriate coursework; or general information about the program, admissions, financial aid, and getting started at LSC, contact the [professional advising team](mailto:advising@lsc.edu) ([advising@lsc.edu](mailto:advising@lsc.edu)) at 218-733-7601

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For more information about the Commercial and Residential Wiring Diploma including course descriptions, course prerequisites, the program report, and potential career opportunities, see the [program website](https://www.lsc.edu/degrees/commercial-and-residential-wiring-diploma/) (<https://www.lsc.edu/degrees/commercial-and-residential-wiring-diploma/>)

or

Contact Faculty Advisor, [Jerry Erickson](mailto:jerry.erickson@lsc.edu) ([jerry.erickson@lsc.edu](mailto:jerry.erickson@lsc.edu)) at 218-733-6955



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LSC Major ID: 5054

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*All courses in diploma and/or certificate programs are acceptable for credit toward Lake Superior College degree programs as indicated on individual program planners. This is not a contract; Lake Superior College reserves the right to change the planner as necessary. This*



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document is available in alternative formats upon request, by contacting [Student Accessibility Services](#) or (218) 733-7650 or MRS/TTY (800) 627-3529.