

# Commercial and Residential Wiring AAS - 82 credits

Program Area: Electrician (Fall 2025)

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

# **Program Description**

The Commercial and Residential Wiring AAS Degree program combines technical courses with general education courses, offering graduates an excellent foundation for employment leading to leadership roles, management positions, and potential transfer to institutions with baccalaureate degrees. This program is designed to develop entry-level skills; and to complete the program within two years, the student is advised to follow the program guide.

Approved by the Minnesota Department of Labor and Industry for one-year credit toward the Journeyman Electrician exam.

# **Program Outcomes**

The program is designed to provide students with the knowledge and ability to:

- 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 | 2       |      |
|           | Electrical Code              |         |      |
| 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       |      |
| MATH 1115 | Contemporary Math or         | 4       |      |
|           | Goal Area 4 course           |         |      |

**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<br>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       |      |
| General<br>Education<br>Electives | Choose from at least 2<br>different Goal Areas: 1-3 or<br>5-10 of the Minnesota<br>Transfer Curriculum | 11      |      |

**Total Credits** 

82



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# **Pre-program Requirements**

Successful entry into this program requires a specific level of skill in the areas of English/reading and mathematics.

## 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.

There are other ways to qualify. Visit <u>Course Placement</u> 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* (advising@lsc.edu) at 218-733-7601

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

or

Contact Faculty Advisor, Jerry Erickson (jerry.erickson@lsc.edu) or 218-733-6948



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LSC Major ID: 5055

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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 document is available in alternative formats upon request, by contacting <a href="Student Accessibility Services">Student Accessibility Services</a> at (218) 733-7650 or MRS/TTY (800) 627-3529.