

ELE 132 - INTERMEDIATE ELECTRICAL STUDIES I

Course Description

This course will introduce the intermediate electrical student and/or the apprentice electrician to new residential and commercial electrical concepts and reinforce concepts and skills learned in previous courses. Concepts include load calculations and branch feeder circuits, conductor selection and calculations, practical applications of lighting, hazardous locations, and overcurrent protection. Participants will also apply code rules from the National Electrical Code. Group 2 course.

Credit Hours

3

Contact Hours

4

Lecture Hours

2

Lab Hours

2

Required Prerequisites

ELE 122

Course Learning Outcomes

Knowledge:

- Identify conductor types.
- Define hazardous locations in various settings.

Application:

- Calculate wire size for various branch feeder circuits.
- Select the appropriate lighting fixtures for specific lighting situations.

Integration:

- Integrate branch feeder circuits with conductor terminations using appropriate wire sizing based on electrical blueprints for commercial and industrial settings.

Human Dimension:

- Take responsibility for completing work in a neat and proficient manner.

Caring - Civic Learning:

- Commit to the safety and wellbeing of everyone on the job site and the end user.
- Value the importance of electricity and the electrical field to daily life.

Learning How to Learn:

- Construct knowledge about the use of logic in electrical studies.
- Reflect on their ability to use the National Electric Code, the State of Michigan Electrical Administrative Laws, and OSHA Construction and Electrical safety rules effectively.