

ELE 122 - BEGINNING ELECTRICAL STUDIES I

Course Description

This course will introduce the beginning 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 the science of electric lighting, learn about and practice mechanical conduit bending, sizing pull and junction boxes, installing conductors, and constructing and installing cable trays. 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 107

Course Learning Outcomes

Knowledge:

- Identify various types of electrical luminaries and lightbulbs.
- Identify appropriate pull and junction box sizes.

Application:

- Bend conduit using a mechanical conduit bending tool.
- Size and install pull and junction boxes.
- Construct and install cable trays.

Integration:

- Integrate conduit, pull and junction boxes, conductors, and cable trays based on electrical blueprints for residential and commercial 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.