

# EIMT 123 : Wiring Materials, Methods, and NEC Codes

**Credits:** 3

**Class Hours:** 2 lecture and 2 lecture/lab

**Description:** This course is an introduction to the National Electrical Code (NEC) requirements for branch circuit wiring. The selection and installation of materials and the methods used following NEC guidelines for common electrical circuits within the home are covered. Selection, sizing, and electrical safety requirements are explained as well as basic troubleshooting skills.

**Semester Offered:** Fall, Spring

**Course Student Learning Outcomes (CSLOs):**

1. Identify common electrical devices and determine their use.
2. Select the proper size wire, raceway, and box for a given circuit.
3. Exhibit safe work practices involved with working in a construction environment.
4. Interpret the grounding and bonding requirements with the proper ground-fault and arc-fault protection in the application of a single family dwelling.
5. Demonstrate the proper use of tools required to install materials in the required manner.
6. Explain the (National Electrical Code) rules related to the selection and installation of different materials.
7. Demonstrate the selection of the necessary electrical components based on the size of the circuit required and the equipment rating.
8. Demonstrate basic troubleshooting skills for common circuits.
9. Identify various career paths available in the electrical trade.
10. Define green technology and the employment opportunities for electricians.