EIMT 121 : Electrical Fundamentals

Credits: 3
Class Hours: 3 lecture
Description: This course introduces students to AC and DC electrical theory and practical concepts, including basic laws and formulas. This course includes how basic circuits are configured and the necessary materials required and the wiring of common electrical devices. Tools and test equipment requirements and simple wiring techniques will be covered.
Semester Offered: Fall, Spring
Course Student Learning Outcomes (CSLOs):

1. Explain the difference between AC and DC principles.
2. Calculate the voltage, resistance, and current for series, parallel, and series-parallel circuits.
3. Exhibit the safe work practices involved with working on testing electrical circuits.
4. Demonstrate the proper use and selection of electrical test equipment on a circuit.
5. Show the proper selection and use of the materials required for the circuits that they create.
6. Demonstrate the proper use of the tools required to assemble the projects in the lab.
7. Explain the rules (National Electrical Code) that are involved in the assignments of both classroom and lab.
8. Demonstrate the identification of electrical components of an electrical circuit, and the function of each one.