

# EET 103 - ELECTRICAL STUDIES I

---

## Course Description

Explore the fundamentals of electricity and electronics by developing introductory analysis, construction and troubleshooting techniques for DC and AC circuits. Safe electrical practices will be emphasized throughout the course as the student constructs circuits from schematics and diagrams using proper wiring and soldering techniques. Electrical measurements will be performed using multimeters and oscilloscopes. Group 2 course.

## Credit Hours

3

## Contact Hours

4

## Lecture Hours

2

## Lab Hours

2

## Required Prerequisites

MTH 23, may be taken concurrently

## General Education Outcomes supported by this course

Quantitative Reasoning

## Course Learning Outcomes

### Knowledge:

- Define electrical parameters.
- Describe the principles of operation for electrical systems.
- Identify circuit type by inspecting components and configuration.

### Application:

- Calculate electrical parameters of a resistive, inductive and/or capacitive circuit.
- Operate electrical test equipment.

### Integration:

- Construct an electrical circuit from a schematic and wiring diagram following proper techniques.
- Evaluate an electrical circuit using common test equipment.

### Human Dimension:

- Follow established best practices to safely work around electrical systems.

### Caring - Civic Learning:

- Reflect on how technology has created changes in their life.

### Learning How to Learn:

- Determine the appropriate use of circuits in real world applications.