ELE 135 - ADV COMMERCIAL ELECTRICAL

Course Description

Through structured classroom and hands-on skill building, the student will learn special circuits, panelboards selection and installation, the electric service, lamps and ballasts for lighting, luminaires, emergency, standby and optional standby systems, overcurrent protection, shortcircuit calculations, equipment and conductor short-circuit protection, low-voltage remote-control, and the cooling system. Group 2 course.

Credit Hours

Contact Hours

Lecture Hours

Lab Hours

Required Prerequisites

Course Learning Outcomes

Knowledge:

- · Explain panelboard selection.
- · Define overcurrent protection.
- · Describe optional power systems.
- · Recall low voltage remote control.

Application:

- · Design the electrical distribution layout for commercial buildings.
- · Develop Emergency/Optional power systems for commercial use.
- · Calculate lighting/special circuit loads.

Integration:

- · Evaluate load distribution to determine number/size/location of multiple panelboards.
- · Relate the variance in electrical demands from residential to commercial projects.
- · Illustrate layout and design techniques.

Human Dimension:

- · Adapt the ability to conceptualize and anticipate the need for various power requirements.
- · Assess the larger degrees of responsibility placed upon them.

Caring - Civic Learning:

· Debate what are the best types of alternate power.

Learning How to Learn:

· Identify their potential leadership ability.