
SECTION HEADING

ELPL 1121: Electrical Distribution of Powerlines III

Description

Electrical Distribution of Powerlines III covers the function, operation, and types of fuses, circuit breakers, oil circuit reclosures and sectionalizers. Working with and around electrical equipment, and apparatus in substations will also be covered. Students will learn about the characteristics of transient voltages, types of distribution arrestors and safety. The course will also cover building overhead lines, stringing and sagging conductors, and ties and tying. Students will build OCR banks, capacitor banks, and three-phase transformer banks, work with underground distribution lines, connect sectional cabinets and pad-mounted transformers, and loop-feed URD lines. Tree trimming, and pole-top and bucket rescue will also be discussed.

Credits

4

Prerequisite

ELPL 1116

Topics to be Covered

1. Pole setting for three-phase overhead lines
2. Regulator stations
3. Capacitor banks, breaker banks, and three-phase transformer banks
4. Secondary Metering
5. Substation equipment
6. Wishbone transmission lines and three phase lines

Learning Outcomes

1. Demonstrate pole setting for three-phase lines
2. Build regulator station
3. Build capacitor bank
4. Build breaker bank
5. Build three-phase transformer bank
6. Install secondary metering
7. Install substation equipment
8. Build wishbone transmission lines
9. Retire three-phase lines
10. Clean up pole sight and building
11. Install security lighting

Credit Details

Lecture: 1

Lab: 3

OJT: 0