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## SECTION HEADING

### ELUT 1110: Transformer Banking I

#### Description

Transformer Banking I covers the construction, purpose, uses, and calculations for distribution transformers. Emphasis will be on installation of single or three-phase banking practices that are used in the private and public sector of the electric utility industry.

#### Credits

3

#### Topics to be Covered

1. Wye, Delta, and Parallel transformer banks
2. Basic electrical theories and principles
3. Single phase, v phase, and 3 phase transformer connection

#### Learning Outcomes

1. Define: step-down transformers, step-up transformers, transformer efficiency, exciting current, ampere-turns, and primary winding to secondary winding voltage and current ratios.
2. Explain and calculate the correct voltage, current, and frequency operating requirements for transformers.
3. Describe and calculate a dual load, three phase, four wire service connected in delta-delta, delta-wye, wye-wye, wye-delta, open wye-open delta, and open delta-open delta.
4. Diagram and explain the standard procedures for making a delta-delta, delta-wye, wye-wye, wye-delta, open wye-open delta, and open delta-open delta using single-phase transformers
5. Connect both underground and overhead transformers in the following banks: parallel two transformers, a delta-delta, delta-wye, wye-wye, wye-delta, open wye-open delta, and open delta-open delta
6. Classify special transformers according to their use and application.

#### Credit Details

Lecture: 2

Lab: 1

OJT: 0