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# SECTION HEADING

## ELEC 2240: Transformers

### Description

Transformers describes basic transformer theory, construction, installation and troubleshooting of single phase and three phase transformers. Examine types of transformers including isolation, autotransformer and instrumentation transformers.

### Credits

3

### Prerequisite

ELCO 1100 or ELCO 1110

### Topics to be Covered

1. Single phase transformer construction, operation and calculations
2. Three phase transformer construction, operation and calculations
3. Single phase and three phase transformer connections

### Learning Outcomes

1. Identify types of transformers
2. Describe magnetic induction as it relates to transformer theory
3. Explain step-up/step-down transformers
4. Calculate power, voltage and current in a transformer circuit
5. Design transformer connection diagrams
6. Connect various types of transformers most commonly used in the electrician field
7. Prove transformer operation
8. Test values of voltage, current and power in a transformer circuit
9. Apply National Electrical Code standards

### Credit Details

Lecture: 2

Lab: 1

OJT: 0