TVPPA Education & Training

ELECTRICAL METERING
PROGRAM OUTLINE

Unit One- Basic Mathematics and Electricity

1. Electrical System Components
2. The Distribution System
3. Basic Math
4. Electrical Circuits
5. Trigonometry and Vectors

Unit Two - Fundamentals of Alternating Current

1. Alternating Current and Circuits Containing Resistance
2. Inductance in Alternating Current Circuits and Resistance and Impedance in Series Circuits
3. Capacitors are not only fun, they're Important Too!
4. Series Circuits: Resistance, Inductive Reactance, and Capacitive Reactance
5. AC Parallel Circuits and Series-Parallel Circuits
6. AC Instruments and Meters
7. AC Instruments and Meters
8. Alternating Current Generators
9. Transformers
10. Transformer Connections and Special Applications

Unit Three - Electrical Metering

1. Introduction to Substation Metering
2. Working Safely in the substation Environment
3. Electronics, Logic and Microprocessors
4. Review of Power Circuit Calculations
5. Data Acquisition and Power System Controls
6. Instruments and Instrument Transformers
7. Substation Switchboard Meters
8. Demand Metering
9. Meter Installations and Applications
10. Meter Testing and Maintenance

Electrical Metering labs are not currently offered through TVPPA. You may contact the MidSouth Electrical Metering Association at www.msema.com. If lab requirements are met through MSEMA, you may submit a copy of the certificate to TVPPA for an overall completion certificate for the Electric Metering Program.