# **APR 101 : ELEC/MFG PLANT 1 - BASIC ELECTRIC THEORY**

## **Transcript title**

MPE 1 - Basic Electric Theory

#### **Credits**

4

## **Grading mode**

Standard letter grades

#### **Total contact hours**

84

### **Other hours**

84

## **Course Description**

Students will be introduced to content in trade math, fundamental concepts of electricity, resistance, Ohm's law, series circuits, parallel circuits, grounding, grounding electrode systems, and the National Electrical Code. This course will be taught in a lecture/lab format with hands-on use of meters, power supplies, relays and switches.

## **Course learning outcomes**

- 1. Solve mathematical formulas and equations related to theory and practices of the trade.
- 2. Describe and apply basic theory of electrical sources in DC series and parallel circuits.
- 3. Use a volt-ohmmeter and other test equipment to make electrical measurements.
- 4. Interpret the National Electrical Code requirements as they apply to the subject matter of the course.