Course Title:  HVAC/R Electrical Applications  
Prefix and Course Number:  AIRC 106  

Course Learning Outcomes:

By the end of this course, a student should be able to:
- Demonstrate electrical safety procedures
- Describe the operation of an AC induction motor
- Identify types of AC induction motors
- Interpret basic electrical diagrams
- Identify types of basic electrical controls
- Analyze basic electrical diagrams for a gas and electric furnace

Outline:

1. Motors
   a. AC induction motor theory
   b. Types of AC induction motors
   c. Applications of AC induction motors
   d. Troubleshooting AC induction motors

2. Electric Furnace Operation
   a. Control circuits
   b. Schematic and wiring diagrams
   c. Sequence of operation
   d. Basic troubleshooting

3. Gas Furnace Operations
   a. Control circuits
   b. Schematic and wiring diagrams
   c. Sequence of operation
   d. Basic troubleshooting