

Print Date: 6/16/16
Course Objectives/Course Outline
Spokane Community College

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