

Course Objectives/Course Outline
Spokane Community College

Course Title: HVAC/R Safety

Prefix and Course Number: AIRC 136

Course Learning Outcomes:

By the end of this course, a student should be able to:

- Explain the importance of safety standards in providing a safe and healthful workplace to workers
- Apply regulations for walking and working surfaces to avoid slips, trips, and falls in the workplace and recognize safe work practices for installing, maintaining, and using stairs ladders, and scaffolds
- Explain the requirements for exit routes and Emergency Action plans and describe the requirements for Fire Prevention plans and portable fire extinguishers
- Identify safe work practices around electricity, including understanding electrical terms, basic electrical safety principles, and regulations which pertain to electrical safety
- Select a variety of PPE based on workplace evaluation and the types of hazards, and take responsibility for correctly fitting, maintaining, and using personal protective equipment
- Identify the elements of the Hazard Communication Standard, identify physical and health hazards of chemicals included on a Hazardous Chemical Inventory, recognize the information required on Material Safety Data Sheets and warning labels, as well as how they are used and maintained, and the meaning of pictograms, under the Globally Harmonized System, and identify training program requirements
- Identify a confined space, its hazards, requirements for confined spaces, and duties and responsibilities of confined space workers
- Identify hazardous energy sources and use appropriate energy-isolating devices, and describe the procedures for conducting a lockout/tagout

Course Outline:

1. Introduction to Safety Standards
 - a. Worker's rights
 - b. Employer responsibilities
2. Fall Protection
 - a. WAC requirements
 - b. Fall restraint
 - c. Fall arrest
3. Electrical Safety
 - a. Grounding
 - b. GFCI
 - c. Job-site specific requirements
 - d. PPE
4. Struck-by
5. Caught-in or Between
6. Personal Protective Equipment
7. Hazardous Materials and Hazard Communication
8. Health Hazards in Construction