

# ATRF-1070: ROOFER'S SAFETY

## Cuyahoga Community College

**Viewing: ATRF-1070 : Roofer's Safety****Board of Trustees:**

January 2025

**Academic Term:**

Spring 2025

**Subject Code**

ATRF - Applied Industrial Technology - Roofing

**Course Number:**

1070

**Title:**

Roofer's Safety

**Catalog Description:**

Covers construction safety and health applied to the roofing industry following the Occupational Safety and Health Administration (OSHA) curriculum for the 30-hour Outreach Training Program for construction industry safety and health. Upon completion of course materials and required attendance hours, students receive their OSHA Construction 30-hour Outreach completion cards. Also includes basic first aid and CPR/AED certification through the Emergency Care and safety Institute (ECSI).

**Credit Hour(s):**

3

**Lecture Hour(s):**

3

**Requisites****Prerequisite and Corequisite**

Departmental approval: admission to Roofer's Apprenticeship program.

**Outcomes****Course Outcome(s):**

Obtain OSHA 30 certification for the construction industry.

**Essential Learning Outcome Mapping:**

Not Applicable: No Essential Learning Outcomes mapped. This course does not require application-level assignments that demonstrate mastery in any of the Essential Learning Outcomes.

**Objective(s):**

1. Explain the importance of safety in the construction industry and the role personnel play in safety and health.
2. List ways to prevent violence and reduce stress in the workplace.
3. Explain workers' compensation and OSHA compliance.
4. List and explain OSHA's construction standard (29CFR 1926) and corresponding safety practices.
5. Explain the relationship between ethics and job safety.

---

**Course Outcome(s):**

Explain how to respond to workplace hazards.

**Essential Learning Outcome Mapping:**

Not Applicable: No Essential Learning Outcomes mapped. This course does not require application-level assignments that demonstrate mastery in any of the Essential Learning Outcomes.

**Objective(s):**

1. Create a construction project safety plan.
2. Describe job safety, and prevention and control of workplace hazards.
3. Describe accident investigation, reporting and record keeping.
4. Describe an emergency response plan.
5. Define total safety management.

---

**Course Outcome(s):**

Discuss the roles and responsibilities of first aid rescuers, including knowing high-quality CPR, use of an AED, relief of foreign body airway instructions, and basic first aid procedures for common injuries and illnesses.

**Essential Learning Outcome Mapping:**

Not Applicable: No Essential Learning Outcomes mapped. This course does not require application-level assignments that demonstrate mastery in any of the Essential Learning Outcomes.

**Objective(s):**

1. Explain the specific priorities, roles and responsibilities of individuals who take on the role of first-aid rescuers.
2. Describe when and how to help a responsive and unresponsive choking adult, child and infant.
3. Describe how high-quality CPR improves survival rate.
4. Recognize when someone needs CPR and use of an automated external defibrillator (AED).
5. Describe how to perform adult, child, and infant CPR as a single rescuer and with help from other bystanders.
6. Discuss how to find the problem in various life-threatening conditions.
7. Explain the concepts of the Chain of Survival
8. Describe finding the problem, assessment, and activation.
9. Describe how to find information on preventing illness and injury.
10. Recognize elements of common injuries and illnesses.
11. Describe the key steps of first aid.
12. Recognize the legal questions that apply to first-aid rescuers.
13. Describe the risks of smoking and vaping and the benefits of a healthy lifestyle.
14. Describe the assessment and first aid actions for the following medical emergencies: breathing problems, asthma, choking, allergic reactions, heart attack, fainting, diabetes and low blood sugar, stroke and seizure, shock, drowning and drug overdoses.
15. Describe how to use an epinephrine pen.
16. Describe the assessment and first aid actions for the following injury emergencies: external bleeding, shock, penetrating injuries, amputation, internal bleeding, concussions, head, neck, and spine injuries, broken bones, sprains, burns and electrical injuries.
17. Describe the assessment and first aid actions for the following environmental emergencies: bites, stings, heat-related emergencies, cold-related emergencies, and poison-related emergencies.

---

**Course Outcome(s):**

Demonstrate skill in performing CPR for adults, children and infants, the use of an AED, relief of foreign-body airway obstructions and basic first aid procedures for common injuries and illnesses.

**Essential Learning Outcome Mapping:**

Not Applicable: No Essential Learning Outcomes mapped. This course does not require application-level assignments that demonstrate mastery in any of the Essential Learning Outcomes.

**Objective(s):**

1. Demonstrate how to respond to a medical emergency, finding the problem, assessment, and activation.
2. Demonstrate how to perform one-rescuer high-quality CPR for an adult, child, and infant.
3. Demonstrate how to use an AED on an adult and child.
4. Demonstrate how to perform effective rescue breaths using mouth-to-mouth or a barrier device for adult, children, and infants.
5. Demonstrate how to remove protective gloves.
6. Demonstrate how to use an epinephrine pen.
7. Demonstrate how to control bleeding and bandaging

**Methods of Evaluation:**

1. Quizzes
2. Assignments
3. Semester exam.
4. Practical demonstrations of skills
5. Class participation

**Course Content Outline:**

1. Safety movement in the construction industry
  - a. Past and present historical trends
  - b. Environmental safety and ISO 14000
2. OSHA compliance with personal protective equipment
  - a. Fire protection
  - b. Fall protection
  - c. Electrical safety
3. Cost of accident
  - a. Accident causation
  - b. Contractor insurance rating
4. Role of construction personnel in safety & health
  - a. Back safety
  - b. OSHA subparts P through Z, and related safety practices
5. Ethics and safety
  - a. Ohio's construction safety ranking
  - b. Drug-free safety program
  - c. Worker's compensation
  - d. Stress in the workplace
  - e. Promoting safety
6. Construction safety and health: Program and policies
  - a. Job safety and hazard analysis
  - b. Accident investigation, reporting, and record keeping
  - c. Emergency response plan
  - d. Total safety management
  - e. Bloodborne pathogens
7. First Aid Basics
  - a. Rescuer duties
  - b. Victim and rescuer safety
  - c. Phoning for help
  - d. Finding the problem, assessment, and activation
  - e. After the emergency
8. Medical emergencies
  - a. Breathing problems and asthma
  - b. Choking
  - c. Allergic reactions
  - d. Heart attack
  - e. Fainting
  - f. Diabetes and low blood sugar
  - g. Stroke
  - h. Seizure
  - i. Shock
  - j. Drug overdose
  - k. Drowning prevention
9. Injury emergencies
  - a. External bleeding
  - b. Shock
  - c. Wounds
  - d. Penetrating injuries
  - e. Amputation
  - f. Internal bleeding

- g. Concussions
- h. Head, neck, and spine injuries
- i. Burns and electrical injuries

10. Environmental emergencies

- a. Bites and stings
- b. Heat-related emergencies
- c. Cold-related emergencies
- d. Poison emergencies

11. CPR and AED

- a. CPR and AED for adults
- b. CPR and AED for children
- c. CPR for infants
- d. How to help a choking adult or child
- e. How to help a choking infant

12. Skills completion

- a. Finding the problem and chain of survival steps
- b. One-rescuer adult CPR and AED
- c. One-rescuer child CPR and AED
- d. One rescuer infant CPR
- e. Choking relief for adult, child, and infant
- f. Removing protective gloves
- g. Use of an epinephrine pen
- h. Controlling bleeding and bandaging

## Resources

National Safety Compliance. *OSHA Construction Industry Regulations*. 7th ed. Springfield, MO, 2024.

---

Goetsch, David L. *Construction Safety and Health*. 2nd ed. Boston: Pearson, 2021.

---

J. J. Keller & Associates, Inc. *OSHA Construction Safety Handbook*. 7th ed. Neenah, WI, 2024.

---

American Academy of Orthopaedic Surgeons. *Standard First Aid, CPR, and AED*. 8th ed. Emergency Care and Safety Institute, 2022.

---

## Resources Other

OSHA approved videos: *Personal Protection Equipment, Fire Protection, Fall Protection, Electrical Safety, Back Safety, and Violence in the Workplace*.

- Ohio DOT Highway Safety Manual. (2024). [https://www.transportation.ohio.gov/programs/highway+safety/highway-safety-manual-guidance/highway-safety-manual/](https://www.transportation.ohio.gov/programs/highway+safety/highway-safety-manual-guidance/highway-safety-manual)
- National Association of Home Builders. YouTube Channel. (2024). [https://www.youtube.com/c/NAHBTV/](https://www.youtube.com/c/NAHBTV)
- National Safety Compliance. YouTube Channel. (2024). [https://www.youtube.com/c/oshasafetytraining/](https://www.youtube.com/c/oshasafetytraining)
- ODOT Online Resource Library. (2024). [https://www.transportation.ohio.gov/about-us/resources/](https://www.transportation.ohio.gov/about-us/resources)
- FEMA Resource Center. (2024). <https://training.fema.gov/>