

Department:

HVAC

Course Description:

This course will explain job/site safety and precautions for job/site hazards; determine the uses of personal protective equipment (PPE); identify the safety equipment and procedures related to safe work practices and environment; identify fire prevention and protection techniques; explore Hazardous Communications (HazCom) including Material Safety Data Sheets (MSDA).

Course Competencies:

Upon completion of the course, the student should be able to:

1. Explain the role of Occupational Safety and Health Administration (OSHA) in job- site safety.
2. Explain OSHA's General Duty Clause and 1926 CFR Subpart C.
3. Describe the impact of accidents.
4. Identify the four high hazard areas.
5. Demonstrate hazard recognition and risk assessment techniques.
6. Explain the basics for construction health.
7. Identify basic fall, electrical, fire, trenching, materials handling, and heavy equipment hazards, and explain the general safety procedures associated with them.
8. Explain and demonstrate the use of appropriate personal protective equipment.
9. Explain and identify the various signs, signals, barricades, markers, and tags used on a job site.
10. Demonstrate proper housekeeping procedures.
11. Demonstrate an understanding of assured equipment grounding conductor programs and the use of ground-fault circuits (GFCIs).
12. Demonstrate and explain general hand- and power-tool safety guidelines.
13. Explain your company- or site-specific fall protection procedures and requirements.
14. Demonstrate and explain the proper use of ladders and scaffolding.
15. Explain the use of work permits and lockout/tag out procedures.
16. Demonstrate and explain the emergency procedures for trenching accidents.
17. Demonstrate proper manual lifting procedures.
18. Identify the hazards of working around or on heavy equipment.
19. Describe proper rigging safety procedures.
20. Demonstrate use of hand signals.

Course Content:

- A. Introduction to OSHA
- B. Material Handling
- C. Tools-Hand and Power
- D. Electrical
- E. Exit Routes, Emergency Actions Plans, and Fire Prevention
- F. Walking and Working Surfaces

- G. Flammable and Combustible Liquids
- H. Personal Protective Equipment
- I. Machine Guarding
- J. Hazard Communication
- K. Introduction to Blood borne Pathogens
- L. Safety and Health Programs

Learning Assessments:

Competencies may be evaluated by multiple measures, including multiple choice, true-false, fill-in-the-blank tests, as well as lab testing.

Instructional Materials:

Textbook: National Center for Construction Education and Research (NCCER) (2015). *Core Curriculum Trainee Guide, Introductory Craft Skills*, (5th ed.). New York, NY: Pearson. ISBN-13: 978-0134131436

Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students **must** complete the “Disabilities Self-Identification Form” on our [Disability Services website](#).

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.

A Note on Harassment, Discrimination and Sexual Misconduct

Highland Community College seeks to assure all community members learn and work in a welcoming and inclusive environment. Title VII, Title IX, and College policy prohibit harassment, discrimination and sexual misconduct. Highland Community College encourages anyone experiencing harassment, discrimination or sexual misconduct to talk to report to the Vice President for Student Services, the Human Resources Director or complete an [online report](#) about what happened so that they can get the support they need and Highland Community College can respond appropriately.

There are both confidential and non-confidential resources and reporting options available to you. Highland Community College is legally obligated to respond to reports of sexual misconduct, and therefore we cannot guarantee the confidentiality of a report, unless made to a confidential resource. Responses may vary from support services to formal investigations. As a faculty member, I am required to report incidents of sexual misconduct and thus cannot guarantee confidentiality. I must provide our Title IX coordinator with relevant details such as the names of those involved in the incident. For more information about policies and resources or reporting options, please review our [Equity Grievance Policy](#).