

## OSHA 30 Syllabus

**Time:** 40 hours

**Maximum Class Size:** 10

**Prerequisites:** None

**Course Description:** The 40-hour OSHA Outreach Training Program provides training for workers and employers on the recognition, avoidance, abatement, and prevention of safety and health hazards in the workplace. The 40-hour program is designed for supervisors or those responsible to maintain safety in the workplace. Participants develop a deeper understanding of occupational health and safety through this comprehensive safety program. Topics addressed include: Managing safety and health, navigating the CFR, Falls, Electrocutions, Struck-by, Caught-in-between, Mechanized equipment, Health hazards in construction, PPE, Stairways and ladder, Fire protection, Scaffolds, Material handling, and Excavations, among others.

### **Goals/Objectives/Learning Outcome:**

At the end of the class, the participant will be able to:

- Explain the purpose of the OSH Act and OSHA
- Describe the difference between a horizontal and vertical standard and give one example of each
- Given specific information to locate within the OSHA Construction Standard, find the information and list the paragraph number where found
- Describe three ways of accessing OSHA
- Describe how OSHA targets a construction inspection
- Describe the three stages of an OSHA inspection
- Describe procedures used in the opening conference, walk-around, and closing conference
- Describe six different types of violations used by OSHA and give a brief explanation of each
- Describe the concept of the “General Duty Clause”
- Describe the multi-employer policy and how citations are issued to employers
- List the general safety and health training provisions of Subpart C
- Describe the requirements for housekeeping on the jobsite
- Describe requirements for first aid and medical attention on the jobsite
- Define the term “carcinogen”
- List at least two signs of exposure to coal tar pitch and describe three ways to prevent exposure
- Describe Raynaud’s Phenomenon and list at least two ways to protect yourself from exposure
- List four methods for reducing the vibrations that can cause Raynaud’s Phenomenon

## OSHA 30 Syllabus

- Determine whether hearing protection is needed in situational examples, using the formula described in this chapter to calculate exposure
- List five construction jobs that may require some form of ventilation
- List four situations in which employers are required to supply workers with personal protective equipment
- Describe at least two types of head protection and when they should be used
- List at least two areas in which employees must be trained if respirators are used on the job.
- Describe at least two different types of eye protection used, and the hazards that each type protects against
- Describe at least two different types of personal protective clothing, and give an example of when each should be worn
- List the citations the employers can receive when PPE is not used when required
- List the elements of the fire triangle and explain how each element helps a fire burn, and identify at least one source of each element in the workplace
- Describe Class A, B, C, and D fires and match the correct extinguishing media to each type of fire
- Demonstrate the requirements of a periodic fire extinguisher inspection and identify the five items that must be checked during an inspection
- List eight work practices to prevent fires on the jobsite
- Describe and demonstrate the correct use of a fire extinguisher
- Discuss the cause of highway injuries and fatalities, and list at least five ways to reduce or eliminate them
- Name the publication that contains regulations for traffic control and work zone safety
- Compare and contrast PPE requirements for daytime and nighttime roadwork
- Demonstrate the procedure for stopping, slowing, and releasing traffic with both a stop/slow paddle and a flag
- Explain the use of the three types of traffic barricades
- Describe at least two safe work practices for working around heavy equipment
- List three types of equipment that are required to have Roll-over Protective Structures (ROPS)
- List four general requirements for storage or disposal of materials
- Describe when a disposal chute is required and how it is constructed
- Discuss the importance of using safe debris disposal methods on a construction site
- Discuss the importance of ensuring that a crane is properly set up and leveled on firm ground
- Review and correctly demonstrate the appropriate hand signals for cranes
- Explain how and when cranes must be inspected
- List four OSHA rules for wire rope slings used for materials handling
- Describe three general requirements for safe rigging
- Describe the requirements of chain slings and how to identify whether they are of alloy steel
- Discuss example of crane fatalities and how you can apply information learned to prevent crane fatalities and injuries
- Describe three safety precautions for each of the following types of tools
  - Electrical

## OSHA 30 Syllabus

- Abrasive wheel
- Powder-actuated
- List and identify six kinds of tools mentioned in this chapter and give an example of how each is used
- Describe the procedure to follow when a powder-actual tool misfires
- Explain the difference between a “positive” on-off switch and a “momentary contact” on-off switch.
- Describe the purpose of a hot work permit program
- Describe how to store acetylene gas cylinders and regulators
- Describe how to inspect a cutting torch and hoses
- Decide the correct lens shade necessary for each of a variety of sample cutting operations
- Give three symptoms of lead exposure, and list and describe at least two ways to reduce exposure during the cutting or welding of surfaces covered with lead-based paint
- Describe the purpose of grounding an electrical system
- Demonstrate the inspection of electrical cords for physical damage. Given a variety of electrical cord, identify those that must not be used, and explain why
- Describe the operation of a ground fault circuit interrupter (GFCI)
- Explain the purpose of strain relief on electrical cords and tools
- Given equipment to test, demonstrate the use of a receptacle test and a continuity tester.
- Describe the requirement for working at various distances from live electrical lines, and what to do if work must be done within 10 feet of a live line
- List and describe three OSHA citations related to electrical hazards
- Describe two requirements stated in this chapter for building a safe scaffold platform
- List two exceptions to the requirement that scaffold platforms be fully planked
- Describe the overhang and overlap requirements for wooden planks used for scaffold platforms
- Explain the importance of ensuring that scaffold footings are sound and rigid
- Describe when it is necessary to tie a scaffold at regular intervals
- Calculate the minimum clearance needed to stay away from power lines
- Describe at least three situations requiring the use of personal fall arrest equipment and falling object protection
- Explain the guardrail requirement for scaffolds established by OSHA
- Describe the tie-off/fall protection requirements for working in a man lift
- List four topics in which you must be trained to work on a scaffold
- List three topics in which you must be trained to build a scaffold
- List the OSHA requirements for materials that are used to cover floor openings
- List the safety requirements that a personal fall arrest system (PFAS) must meet. Identify the anchorage, body wear, and connecting devices of a sample PFAS and demonstrate how to put it on
- List the spacing and strength requirements for guardrail system components
- Given pictures, graphics, or scenarios of guardrail systems, identify the components of the system. Identify the violation in the situation and corrective actions

## OSHA 30 Syllabus

- Explain the requirements with which a safety net system must comply when being used as fall protection
- Define the following terms: Benching, shield, competent person, slope ratio, cross braces, sloping, excavation, trench, hazardous atmosphere, uprights, sheeting, wales
- Describe three danger signs of a possible trench cave-in
- Describe two types of protection systems for excavations
- Describe the soil characteristics of type A, B, and C soil, and state the sloping requirements for each soil type
- List the OSHA requirements for access to and egress from excavations, given a set of construction scenario, determine access/egress requirements for each scenario (to within an accuracy of at least 80 percent)
- Describe at least two types of concrete construction. For each type, describe at least two hazards that may be encountered and discuss ways to reduce or eliminate them
- Describe the purpose and requirements for rebar and conduit caps
- Define what a limited access zone is, how large the zone must be, and how long it must remain in place
- Describe three of the most commonly issued OSHA citations for noncompliance with Subpart Q
- Describe and demonstrate the correct set-up and securing of an extension ladder per the guidelines of this chapter
- Describe and demonstrate safe work practices for hoisting material up a ladder
- Given a set of scenarios involving the use of hand rails, determining whether the hand rails meet OSHA requirements, or list the violation for each scenario.
- Given a set of graphics depicting the use of a stepladder, list the violation in each graphic
- Describe and demonstrate the procedure for using a stepladder per OSHA guidelines

### Standards

- |                                |   |
|--------------------------------|---|
| • 29 CFR 1926.330              | General Requirements                          |
| • 29 CFR 1926 Subpart C        | General Safety and Health Provisions          |
| • 29 CFR 1926 Subpart D        | Occupational Health and Environmental Control |
| • 29 CFR 1926 Subpart E        | Person Protective Equipment                   |
| • 29 CFR 1926 Subpart F        | Fire Protection and Prevention                |
| • 29 CFR 1926 Subpart G, O, W  | Heavy and Highway Work Zones                  |
| • 29 CFR 1926 Subpart H, N, CC | Materials Handling, Hoists & Cranes           |
| • 29 CFR 1926 Subpart I        | Tools-Hand and Power                          |
| • 29 CFR 1926 Subpart J        | Welding and Cutting                           |
| • 29 CFR 1926 Subpart K        | Electrical                                    |
| • 29 CFR 1926 Subpart L        | Scaffolds                                     |
| • 29 CFR 1926 Subpart M        | Fall Protection                               |
| • 29 CFR 1926 Subpart P        | Trench and Excavation Safety                  |
| • 29 CFR 1926 Subpart Q        | Concrete and Masonry Construction             |
| • 29 CFR 1926 Subpart X        | Stairways and Ladders                         |

## OSHA 30 Syllabus

### Classroom Rules and Procedures

- All classes begin at 6:30 am and end at 3:00 pm
- Upon entering classroom, all participants must sign in and be seated by 6:30 am
- Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessment.
- Students are required to report to class ready to work and maintain the provided PPE.

### Textbooks/Readings/Materials

- LIUNA: *OSHA Participant Guide*
- LIUNA: *OSHA Instructor Guide*
- OSHA 30 Student Handout Packet

### Personal Protective Equipment

- 10 pairs of gloves
- 10 pairs of Safety Glasses
- 20 pairs of Ear plugs
- 10 hard hats

### Course Requirements

To receive credit for the course, participants must:

- Be present for full forty hours
- Participate in all classroom exercises
- Pass a written exam
- Pass a hands-on exam

### Course Policies

- Participants must be on-time and ready to work.
- Participants must return from breaks on-time.
- Participants must participate in each exercise and assignment

### Assessment and Grading

Participants will be assessed on the following:

- All written exams must be passed with a score of 80% or above.
- All hands-on exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above.

## **OSHA 30 Syllabus**

### **Safety**

Failure to maintain and use PPE may result in dismissal from the course.