



Department-Approved Course Requirements: 1-Hour Scaffolds - Suspended

Course Required for:	<input checked="" type="checkbox"/> Worker Training
Purpose:	This course is a specialized elective course that can help fulfill the requirement for an individual applying for a Site Safety Training Card. THIS IS AN AWARENESS LEVEL TRAINING ONLY and does not provide any other qualification or authorization outside of the Site Safety Training Card.
Duration:	1 Hour of instructional time, excluding breaks
Class Size:	1-40 Trainees
NYC Requirement:	In order to continue to operate in the City of New York, the designated construction worker is required to complete a minimum number of hours of approved site safety training and to carry site safety identification cards as proof of completion of the training (As per New York City Local Law 196 of 2017 also known as 'LL196' or 'Local Law'). This course provides one hour towards the satisfaction of that requirement.
Facility Requirements:	<p>The Training Facility used by the Course Provider must:</p> <ul style="list-style-type: none">• Have sufficient room to accommodate all expected attendees and the equipment needed to perform hands-on exercises where required as part of the course.• Make provisions for the presentation of training material in all media types (computer, projectors, video/DVD players, etc.); and• Comply with all applicable laws, rules and regulations relating to occupancy, zoning, egress, fire detection, fire suppression, light, ventilation, cleanliness, sanitary facilities, emergency notification and evacuation procedures. <p>Training may be held at construction sites, provided the above requirements are met.</p>
Instructor Requirement:	<p>To deliver this course the instructor(s) must demonstrate that he or she is credentialed or trained in instructional methods and learning processes. The instructor(s) must also successfully demonstrate his or her ability to solve or resolve problems relating to the subject matter by possession of a recognized degree, certificate, licensure or professional standing, or by extensive knowledge, training, and experience, in the subject matter being taught. To the extent that the course instructor(s) holds, or has held, a trade license issued by the Department, it must be in good standing and not be surrendered to, suspended by or revoked by the Department.</p> <p>The instructor(s) must also be authorized by the Occupational Safety and Health Administration ('OSHA') as a trainer(s) for its Construction and Outreach Program.</p>
Curriculum Requirement:	All topics listed under Course Content Outline must be covered using the listed Instructional Delivery Method . The time dedicated to each outline topic should be appropriate for the course content and can vary depending on the trade or job performed by the trainee. The Instructional Delivery Materials used in this course must contain all current applicable NYC Construction Code references, current rules, policies and bulletins.

**Course Curriculum
Proposal Package
Review:**

A comprehensive review will be performed by the **Department of Buildings** to determine compliance with these Course Curriculum Requirements.

Instruction Delivery Method

Media: Lecture/Discussion, Slide Presentation, Props; a synthetic rope (20') for use during sling angle demonstration in class, defective shackles, thimbles and other rigging equipment that has been removed and tagged damaged, new slings, a torque wrench, short

Handouts: Slides, references and handbook

Guided Learning: Instructor will guide trainees through various rope demonstrations including knots and angle loading.

Course Content Outline

1. Introduction
 - a. Instructor introduces topic and describes their qualifications and relevant experience for training this module.
 - b. Establish that all trainees can hear and fully understand you i.e. 'raise your hand if you fully understand me' or 'clap your hands if you fully understand me'
 - c. State basic classroom rules, bearings and decorum
 - i. Inform trainees of duration of training and breaks (if any)
 - ii. Remind trainees about limiting distractions (phone use, texting, sidebar conversations)
 - iii. Emergency procedures (location and means of egress, exits or other contingencies)
 - iv. Location of restrooms
 - d. Training Objectives and Expectations:
 - i. Trainees will become generally aware of hazards associated with suspended scaffolds.
 - ii. Trainees will be aware of administrative safety requirements associated with suspended scaffolds.
 - iii. **THIS TRAINING WILL NOT QUALIFY TRAINEES TO WORK ON SUSPENDED SCAFFOLDING.**
(Mention the 16-hour and 32-hour suspended scaffold course and describe that this one-hour session is **ONLY** an awareness level course)
2. Illustrate different types of suspended scaffolds
 - a. Catenary
 - b. Float (ship)
 - c. Interior Hung
 - d. Multi-level
 - e. Two-point suspension scaffold
 - f. Multi-point Adjustable
 - g. Needle Beam
 - h. Single-point Adjustable
3. By the use of a diagram and or illustration, describe the purpose and relevant safety controls employed for relevant components of a typical suspended scaffold with outrigger beams, the most common in New York City.
 - a. Outrigger beams

- b. Tiebacks
 - c. Rigging hardware (shackles, thimbles, 'J' clamps, dead-end of rope,
 - d. Abrasion protection
 - e. Platform
 - f. Motors
 - g. Guardrails systems
 - h. Netting
 - i. Tethered tool lanyards
 - j. Personal Fall Arrest Systems
 - k. Vertical Lifelines
 - l. Parapets
 - m. C-hooks
 - n. Parapet clamps
 - o. Sidewalk shed
 - p. Roof protections
 - q. Various rigging rope knots
4. Describe the typical hazards associated with the installation and use of suspended scaffold and respective safety controls:
- a. Falls to lower level
 - b. Struck-by falling objects
 - c. Wire rope failure
 - d. Stability
 - e. Winds
 - f. Environment conditions
 - g. Electricity
 - h. Overloaded of capacity
 - i. Human error miscalculation
 - j. Unstable structure and collapse
 - k. Abrasion of wire ropes
 - l. Abrasion of vertical lifelines
 - m. Inappropriate activity
 - n. Improper tieback
 - o. Defective/incorrect rigging equipment ('J' clamps not 'U' clamps)
 - p. Makeshift devices, such as boxes and barrels
 - q. Intermixed scaffold components from different manufactures
 - r. Heat to wire ropes
5. The Basic Science behind suspended scaffolding rigging: In simple terms explain and demonstrate principles of force, compression, tension, torque and angles.
- a. Explain ratios of outboard to inboard and counter weights
 - b. Force of angles

- c. Describe and illustrate the effects and prohibitions of environmental conditions including sustained wind speeds and gusts.
 - i. Sustained Wind
 - ii. Wind Gusts
 - d. Demonstrate the sail effect and shape of load
6. Design and Erection
- a. Permits for outrigger beams
 - b. Department of Building notifications for C-hooks
 - c. Designed by a qualified person
 - d. Erected in accordance with design
 - e. Loaded only in accordance with design
 - f. Erected, moved, dismantled, or altered only under the supervision of a competent person
 - g. Verification of integrity of parapets
7. Describe the inspection process and archiving of daily records
- a. Competent person inspected for visible defects before each shift, and after each occurrence that could affect a scaffold's integrity.
 - b. Inspection records
 - c. How to count counter weights
 - d. Explain rigging inspection process and provide examples of damaged rigging equipment and rope and undamaged.
8. Describe by illustration damaged parts of a suspended scaffold that has been damaged or weakened so that it no longer meets OSHA strength requirements must either be repaired, replaced, braced, or removed from service
9. Describe the people involved in rigging and hoisting activities
- a. Qualified Person for Site Safety
 - b. Professional Engineer
 - c. Qualified Rigger
 - d. Licensed Rigger
 - e. Rigging Competent Person (Rigging Foreman)
 - f. Competent Persons
10. Knots Hands-on exercise: Each trainee with use their 6' section of rope to tie several basic rope knots.
11. Resources:
- a. OSHA Subpart L and ANSI/ASME Regulations and Standards
 - b. Worker's Rights (See OSHA: <https://www.osha.gov/Publications/OSHA3146.pdf>)
 - c. OSHA Regional Map: <https://www.osha.gov/html/RAmap.html>
12. Debriefing (Informal evaluation)
- a. Guided by instructor, trainees, in a class discussion talk about the course's content and means of delivery and provide verbal feedback to the instructor.
 - b. Instructor takes notes (either committing them to writing during discussion or ascribing them later into noted-comments).

c. Instructor applies lessons learned from debriefing to future trainings.

13. Written (Multiple Choice with calculations) Assessment