



Department-Approved Course Requirements: 8-Hour Fall Prevention

Course Required for: **Worker Training**

Purpose: This course is a required 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: 8 Hours of instructional time, excluding lunch and 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 eight hours towards the satisfaction of that requirement.

Facility Requirements: The Training Facility used by the Course Provider must:

- 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.

Training may be held at construction sites, provided the above requirements are met.

Instructor Requirement: 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.

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.

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, Fall Protection Equipment (harnesses, lanyards, shock-absorbing decelerators, rope grabs etc.) Case Studies

Handouts: Slides, references and handbook

Guided Learning: Trainees will learn how to on their own calculate fall distances for various types of fall arrest devices and decide on proper anchorage points.

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 or 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 familiar terms associated with falls in construction
 - ii. Trainees will be able to recognize avoid and prevent falls hazards from causing harm.
 - iii. Trainees should become aware of regulatory safety requirements associated with falls, including OSHA's Subpart M.
 - iv. Trainees will learn how to make informed decisions when working at heights.
2. Illustrate statistics of fatal falls as the most common cause of death in construction
3. Provide illustrated cases of falls in New York City (use this portion of the training to appeal emotionally to trainees' sense of empathy and sympathy)
4. Explain that the Competent Person's Responsibilities
5. Describe the 3 types of Fall Hazards
 - a. Falls to below (leading cause to death in construction)
 - b. Falls to the same level (trips and slips)
 - c. Struck-by falling objects
6. Explain the nature of gravity and how weight is relative and depends (is a product of) on acceleration of and mass. This explanation must be designed in terms trainees can understand.
 - a. Force = Mass x Acceleration
 - b. Tension force
 - c. Angle force

7. Describe in detail the Components, Specifications and Regulatory Requirements of fall controls. Note some topics below; though not directly in fall protection OSHA Subpart M, must be addressed due to inherent fall hazards i.e. ladders, stairs and scaffolds.
 - a. Guardrails Systems
 - b. Nets (horizontal and vertical)
 - c. Controlled Access Zones
 - i. Masonry Overhead Bricklaying
 - d. Limited Access Zones
 - e. Controlled Decking Zones (Steel Erection)
 - f. Hole Covers
 - g. Accessibility (vertical movement i.e. breaks in elevation height)
 - h. Stairs and ladders
 - i. Scaffold use
 - j. Suspended
 - i. Supported
 - ii. Mobile Scaffolds (Scissor lifts)
 - iii. Aerial Lifts
 - k. Monitoring Systems
 - l. Unguarded Machinery
8. Stuck-by and fall-to-the-same level controls
 - a. Housekeeping
 - b. Storage prohibitions (unenclosed perimeters, shafts etc.)
 - c. Hardhats
 - d. Tethering of tools
 - e. Vertical Nets
 - f. Sidewalk Sheds
9. Describe in detail the Components, Specifications and Regulatory Requirements, including New York City Chapter 33, Section 3315.1, with trainee interactions (calculations, tabletop scenarios, decision-tree) the different types of fall protections systems.
 - a. Personal Fall Arrest Systems
 - b. Fall arrest with self-retracting lanyards
 - c. Fall restraint systems
 - d. Positioning systems
 - e. Horizontal life lines
 - f. Vertical life lines
10. Explain components of a prompt rescue plan
11. Exercise: calculation fall distances
12. Create and review a 20-point checklist (see example questions below) and illustratively provide comparative examples (compliant vs. non-compliant) for each point on the fall protection checklist. The checklist should include:
 - a. Will any work take place at a height of 5 feet or higher (as per NYC requirements)?

- b. Have all workers received adequate and proper training for utilizing fall protection system, ladders and or scaffolds.
- c. Is there a designated Competent Person present?
- d. What is the condition of the housekeeping?
- e. Are there any openings or trades working above that could pose a struck-by falling object hazard?
- f. Will Controlled Access Zones (CAZ) be established?
 - i. How will CAZ be precluded from entry?
 - ii. Who will be authorized to enter?
 - iii. Does the CAZ clear 10 feet in all directions from opening
 - iv. Is the CAZ broom swept and clear of material and debris that could fall?
- g. Will workers use ladders?
- h. What is the capacity of the ladder?
 - i. Is the footing and landing surface adequate?
 - ii. Is the ladder an adequate height?
 - iii. If an extension ladder or a job-made pass-through ladder, is the ladder positioned at the correct angle?
- i. Will workers use scaffolds?
- j. Has the Competent Person inspected scaffold?
 - i. Will workers utilize stilts?
- i. Only to use for the application of gypsum products
 - ii. Not to exceed a working length of 24 inches
 - iii. Have applicable guardrail systems been supplemented to control for increased working height?
- k. Are there any unenclosed perimeters where work will be performed?
 - i. Are perimeter protection wire ropes taut?
 - ii. Are perimeter protection wire ropes at proper heights (Zero, 21, 42 and 60 inches)
 - iii. Is netting properly secured with no more than 1-inch space openings?
- l. Are there any holes on the floor?
- m. Has the Competent Person inspected the shaft covers to ensure compliance with NYC's requirements?
- n. Are all holes covered?
 - i. Secured from displacement
 - ii. Demarcated 'hole' or 'cover'
 - iii. Adequate to carry intended loads
- o. Will work take place near or in shafts such as:
 - i. Elevator shafts
 - ii. Mechanical
 - iii. Electrical
 - iv. Plumbing
 - v. Stairwell
- p. What type of fall hazard controls will be utilized?
- q. Type of fall protection
- r. Capacity of anchorage points
- s. Integrity of anchorage points
- t. Inspection of equipment
- u. Is there a rescue plan in place for the use of Personal Fall Arrest Systems
- v. Has a Pre-task briefing taken place?

13. Exercise: Tabletop situations where trainees choose different types of fall protection for various different tasks.
14. Exercise: Trainees demonstrate making decisions and wearing generic fall protection equipment.
15. Resources:
 - a. <https://www.osha.gov/SLTC/fallprotection/construction.html>
 - b. Worker's Rights (See OSHA: <https://www.osha.gov/Publications/OSHA3146.pdf>)
 - c. OSHA Regional Map: <https://www.osha.gov/html/RAmap.html>
 - d. Debriefing (Informal evaluation)
 - e. 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.
 - f. Instructor takes notes (either committing them to writing during discussion or ascribing them later into noted-comments).
 - g. Instructor applies lessons learned from debriefing to future trainings.
16. Written (Multiple Choice with fall calculations and written explanations of answers) Assessment