



## Department-Approved Course Requirements: 1-Hour Demolition Safety

Course Required for:  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:** 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 & 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, case study of structural collapse
- Handouts:** Slides, references and handbook
- Guided Learning:** Instructor will guide trainees through various demolition activities

## 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 with hazards typical to demolition activities.
    - ii. Trainees will be able to recognize and avoid hazards associated demolition operations
    - iii. Trainees should become aware of administrative safety requirements associated demolition activity.
    - iv. Trainees will be introduced generally to typical means and method or demolition.
2. Define OSHA's definition of demolition and deconstruction activities
3. Emphasize how demolition activities often deal with the unknown and spontaneous effects of weather, vibration and worker/contractor missteps.
4. Statistically illustrate that multiple fatalities in Permit Required Confined Spaces are common and how would-be rescuers are often at risk.
5. Describe in context to demolition safety various terms, activities and components of deconstruction activity.
  - a. Utility disconnects
  - b. Temporary electrical supply
  - c. Structural Collapse
  - d. Top-down deconstruction (tier by tier, loads relieved)
  - e. Prohibitions against dropping loads
  - f. Prohibitions against dropping debris outside the building envelope
  - g. Debris Chute Specifications
  - h. Design
    - i. Discharge gates
    - ii. Controlled Access Zones
    - iii. Proper angles
    - iv. Fall Protection
    - v. Fire Resistance
  - i. Mechanical Means

- j. Handheld demolition equipment
  - k. Fire Prevention and Protection Controls (FDNY and Chapter 33)
    - i. Fire suppression systems (cutting, capping and inspections)
    - ii. Standpipe (cutting, capping and inspections)
    - iii. Hot Work Permits
    - iv. Storage of combustibles
    - v. Means of egress maintenance
    - vi. Storage of flammables and compressed gases
  - l. Storage of debris
  - m. Removal of glass
  - n. Protection of the public
  - o. Dust Control
    - i. Dust mitigation control (public)
    - ii. Silica control plan (occupational)
    - iii. Respiratory protection
  - p. Demolition Plans, Engineering Surveys and Means and Methods
6. Discuss safe blasting procedures associated with demolition safety
7. Demolition Plans, Engineering Surveys and Means and Methods: Instructor to walk trainees through a typical demolition plan
8. Explain hazard communication (chemical) exposures and possible adverse health consequences
- a. Lead/Asbestos
  - b. Silica
9. Describe various personnel and their respective roles and responsibilities
- a. Qualified Person
  - b. Professional Engineer
  - c. Competent Persons
    - i. Inspections
  - d. Fire Guards
    - i. Hot work permits
    - ii. Inspections
    - iii. Time of coverage
  - e. Fire Impairment Coordinator
10. Fall Protection for Demolition Operations
- a. Types of fall arrest systems
  - b. Guardrails in place after demolition operations cease for the day
  - c. Signage
11. Exercise: Have trainees design a simple demolition plan around the use of a vertical multilevel discharge chute including controls and public safeguards for:
- a. Fall protection at higher levels
  - b. Stuck-by protection (stuck-by debris)
  - c. Fire prevention
  - d. Collapse

12. Resources:

- a. Applicable OSHA Standards Subpart T CFR Title 29 1926.850, Subpart M and Subpart Z
- b. FDNY Fire Code and FC Chapter 14
- c. NFPA 241
- d. Worker's Rights (See OSHA: <https://www.osha.gov/Publications/OSHA3146.pdf>)
- e. OSHA Regional Map: <https://www.osha.gov/html/RAmap.html>

13. 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.

14. Written (Multiple Choice) Assessment