

# Department-Approved Course Requirements: 40-Hour Hoisting Machine Operator

REVISED 7/24

**Purpose:** This course is one of the pre-requisites an applicant must successfully complete before

being eligible to apply for a license as a Hoisting Machine Operator. After November 6, 2024, it is also a prerequisite for a limited Hoisting Machine Operator license for an

Articulating Boom Crane, Mini Crane, or Telehandler.

**Duration:** 40 Hours of instructional time, excluding breaks and meals

Class Size: 1 – 40 Trainees

**NYC Requirement:** To apply for a Hoisting Machine Operator license, or to apply on or after November 7,

2024, for a limited Hoisting Machine Operator license for an Articulating Boom Crane, Mini Crane, or Telehandler, the applicant must complete and submit to the Licensing Unit a certificate of completion for 40 hours of training as mandated by the Rules of the

City of New York, 1 RCNY §104- 09.

NOTE: In addition to this training, applicants for a Hoisting Machine Operators license

must also hold valid national crane operator certification(s).

**Delivery Requirements:** Where the Instruction Delivery Method indicates:

 Classroom Lecture/Discussion w A/V (Audio-Visual): the instruction may be delivered by virtual live classroom; however, self-study modules are not permissible.

**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, projector, video/DVD player, etc.).

 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 Requirements:**

To deliver this course the instructor(s) must:

- Be a Qualified Person with documented crane operator experience acceptable to the Department covering the Course Content Requirements in this document.
- Be an OSHA authorized trainer for the Construction Industry Outreach Program.
- Hold either a valid Hoisting Machine Operators license from the City of New York or hold a valid national certification for crane operation.
- Comply with all applicable Federal, State, and local laws, rules and regulations, and the Department's Industry Code of Conduct.

#### **Course Requirements:**

All topics listed under Course Content Requirements 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.

All statistics referenced should reflect the latest publicly available statistics. The selection of Case Studies should prioritize incidents in NYC since the prior renewal period and contain relevant and illustrative photos where available.

Refresher or Renewal Courses should focus on the updates since the prior renewal period.



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#### **Course Content Requirements**

### Instruction Delivery Method

1. Introduction

Classroom Lecture/Discussion

- 2. Crane and Hoisting Machine Incidents
  - Common causes of incidents with cranes and hoisting machines
  - Historical crane and hoisting machine incidents in NYC, and other major cities
- Classroom Lecture/Discussion w A/V

Classroom Lecture/Discussion w A/V

Classroom Lecture/Discussion w A/V

Classroom Lecture/Discussion w A/V

- 3. OSHA 1926 Overview
  - OSHA Crane and Derrick Standards (Subpart CC)

4. NYC Licensing

- Hoisting machines that require a licensed operator
- Hoisting machines that are exempt from the requirements
- · Steps to get or renew a license
- Discipline/suspension/revocation of license
- 5. NYC Code Review All applicable:
  - Codes
  - Rules
  - · Related department policy statements
  - Regulatory notices
  - Bulletins and memos
    - Including: 2022 Building Code
      - o Chapter 33
        - 1 RCNY 3316-01(d)(8)
        - 1 RCNY 3319-01
        - 1 RCNY 3319-02

Classroom Lecture/Discussion w A/V

- 6. NYC Department of Buildings All applicable:
  - Administrative standard operating procedures
  - · Permits/department notifications
  - Forms
  - Filing and site documents
  - Plans
  - Inspection checklists/logs
  - Wind and weather advisories
- 7. NYC Department of Transportation (DOT) All applicable required by the NYC Department of Transportation to operate a crane:
  - Codes
  - Rules
  - Regulations
  - Operating procedures
  - Policy procedures
  - Permits/notifications
  - Forms
  - Filing and site documents
  - Plans, etc.
- 8. NYC Transit Authority (NYCTA) All applicable required by the NYCTA to operate a crane/derrick:
  - Codes
  - Rules
  - Regulations
  - Operating procedures
  - Policy procedures
  - Permits/notifications
  - Forms

build safe | live safe

- Filing and site documents
- Plans, etc.

Classroom Lecture/Discussion w A/V

Classroom Lecture/Discussion w A/V

nyc.gov/buildings

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## Course Content RequirementsInspection of Machinery and Ropes

- Daily
- Periodic
- Annual

10. Maintenance and Repair of Machinery and Ropes

- Maintenance and repair requirements
- Safeguards before beginning maintenance or repairs

11. Reading Plans

12. Cranes and Hoisting Machine Setup

- Grounding conditions
- Deviation from plans not permitted
- Founding of crane/hoisting machine, outrigger, placement, and cribbing
- Danger to underground infrastructure, excavations, foundations, etc.

13. Cranes and Hoisting Machinery Operations

- Operating manuals
- Starting up
- Hazards of operating in dense urban environment
- High wind hazards
- Operating near power lines
- Prohibition against hoisting over pedestrians, traffic, and adjoining buildings
- Prohibition against hoisting a suspended load from a fork
- Requirements for shutting down and securing the crane

14. Reading Load Charts

NYC approved load charts

15. Operational Aids and Safety Devices

- Types of aids and safety devices
- Functions and what steps to take if operational aid/safety device are not working
- Acceptable means to substitute for a malfunctioning aid/safety device

16. Lifting Loads

- Weights and materials
- Center of gravity
- Rigging requirements
- Critical picks
- Securing suspended loads

17. Signaling and Communication

18. Important Additional Information

- General construction hazards and fall protection
- Incident reporting protocols

19. Handouts

- NYC Buildings Unsafe Condition (311) Notification Procedure
- NYC/DOI Buildings Integrity Training Contact Information Sheet

20. Review all Training Topics

21. Written (Multiple Choice) Test

**Instruction Delivery Method** 

Classroom Lecture/Discussion w A/V

Provide Copy to Trainee & Discuss

Discussion w/Questions & Answers

Classroom