



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

**Course Required for:**  License & Continuing Education

**Purpose:** This course is one of the pre-requisites an applicant must successfully complete before being eligible to apply for a Hoisting Machine Operator license.

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

**Class Size:** 1 – 40 Trainees

**NYC Requirement:** To apply for a **Hoisting Machine Operator license**, the applicant must complete & 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).*

**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.); and
- Comply with all applicable laws, rules & regulations relating to occupancy, zoning, egress, fire detection, fire suppression, light, ventilation, cleanliness, sanitary facilities, emergency notification & 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 be:

- A Qualified Person with documented crane operator experience acceptable to the Department covering the Course Content outlined in this document; and
- An OSHA authorized trainer for the Construction Industry Outreach Program; and
- Hold either a valid Hoisting Machine Operators license from the City of New York or hold a valid national certification for crane operation.

**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 & bulletins.

<b>Course Content Outline</b>	<b>Instruction Delivery Method</b>
1. Introduction	Classroom Lecture/Discussion
2. Crane and Hoisting Machine Accidents <ul style="list-style-type: none"> <li>• Common causes of accidents with cranes and hoisting machines</li> <li>• Historical crane and hoisting machine accidents in NYC and other major cities</li> </ul>	Classroom Lecture/Discussion w A/V
3. OSHA 1925 Overview OSHA Crane and Derrick Standards (Subpart CC)	Classroom Lecture/Discussion w A/V
4. NYC Licensing <ul style="list-style-type: none"> <li>• Hoisting machines that require a licensed operator</li> <li>• Hoisting machines that are exempt from the requirements</li> <li>• Steps to get or renew a license</li> <li>• Discipline/suspension/revocation of license</li> </ul>	Classroom Lecture/Discussion w A/V
5. NYC Code Review Cover all applicable code, rules, related department policy statements, regulatory notices, bulletins & memos, including: 2014 Building Code, Chapter 33, 1 RCNY 3319-01, 1 RCNY 3319-02	Classroom Lecture/Discussion w A/V
6. NYC DOB Overview Cover all applicable administrative standard operating procedures, permits/department notifications, forms, filing & site documents, plans, inspection checklists/logs and wind & weather advisories	Classroom Lecture/Discussion w A/V
7. NYC DOT Overview Cover all applicable code, rules, regulations, operating procedures, policy procedures, Permits/notifications, forms, filing & site documents, plans, etc required by the New York City Department of Transportation to operate a crane	Classroom Lecture/Discussion w A/V
8. NYCTA Overview Cover all applicable code, rules, regulations, operating procedures, policy procedures, Permits/notifications, forms, filing & site documents, plans, etc required by the New York City Transit Authority to operate a crane near TA infrastructure	Classroom Lecture/Discussion w A/V
9. Inspection of Machinery and Ropes <ul style="list-style-type: none"> <li>• Daily</li> <li>• Periodic</li> <li>• Annual</li> </ul>	Classroom Lecture/Discussion w A/V
10. Maintenance and Repair of Machinery and Ropes <ul style="list-style-type: none"> <li>• Maintenance and repair requirements</li> <li>• Safeguards to take before beginning maintenance or repairs</li> </ul>	Classroom Lecture/Discussion w A/V
11. Reading Plans	Classroom Lecture/Discussion w A/V
12. Crane and Hoisting Machine Setup <ul style="list-style-type: none"> <li>• Ground conditions</li> <li>• Deviation from plans not permitted</li> <li>• Founding of crane/hoisting machine, outrigger placement, and cribbing</li> <li>• Danger to underground infrastructure, excavations, foundations, etc</li> </ul>	Classroom Lecture/Discussion w A/V

13.	<p>Operating Cranes and Hoisting Machinery</p> <ul style="list-style-type: none"> <li>• Operating manuals</li> <li>• Starting up</li> <li>• Hazards of operating in a dense urban environment</li> <li>• High wind hazards</li> <li>• Operating near power lines</li> <li>• Prohibition against hoisting over pedestrians, traffic, and adjoining buildings</li> <li>• Requirements for shutting down and securing the crane or hoisting machine</li> </ul>	Classroom Lecture/Discussion w A/V
14.	<p>Reading Load Charts NYC approved load charts</p>	Classroom Lecture/Discussion w A/V
15.	<p>Operational Aids and Safety Devices</p> <ul style="list-style-type: none"> <li>• Types of aids and safety devices</li> <li>• Functions and how to use Steps to take if operational aid/safety device not working</li> <li>• Acceptable means to substitute for a malfunctioning aid/safety device</li> </ul>	Classroom Lecture/Discussion w A/V
16.	<p>Lifting Loads</p> <ul style="list-style-type: none"> <li>• Weights &amp; materials</li> <li>• Center of gravity</li> <li>• Rigging requirements</li> <li>• Critical Picks</li> <li>• Securing suspended loads</li> </ul>	Classroom Lecture/Discussion w A/V
17.	<p>Signaling and Communication</p>	Classroom Lecture/Discussion w A/V
18.	<p>Important Additional Information</p> <ol style="list-style-type: none"> <li>a. General construction hazards and fall protection</li> <li>b. Accident/incident reporting protocols</li> <li>c. NYC DOB Unsafe Condition (311) Notification Procedure</li> <li>d. NYC DOI/Buildings Integrity Training Contact Information Sheet</li> </ol>	<p>Classroom Lecture/Discussion w A/V Classroom Lecture/Discussion w A/V Provide Copy to Trainee and Discuss Provide Copy to Trainee and Discuss</p>
19.	<p>Review all Training Topics</p>	Discussion w/Questions & Answers
20.	<p>Written (Multiple Choice) Test</p>	Classroom