#### CRANES • RIGGING • LIFT PLANNING • MOBILE EQUIPMENT

# COURSE CATALOG



iti.com

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# WHY ITI?

Welcome to the **ITI Course Catalog**, your comprehensive guide for prospective students and those making training and professional development decisions for teams and organizations.

This Course Catalog is meant to provide a brief overview of the course offerings, learning paths, and curriculum services developed and provided by Industrial Training International, as well as best practices that pertain to course selection, registration, and post-training credentials.

At ITI your success and safety are our number one priority, even after you've completed your training with us. Our Customer Success Team is always here and happy to assist you along your journey, answering any questions or concerns, and following up with you to make certain that your training experience met or exceeded expectations.

A schedule of open enrollment course sessions at ITI Training Centers is published and maintained at **learn.iti.com** and provides additional course information and supported media including in-course images, videos, and student testimonials.



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Workforce Board, 128 – 10th Ave. SW, Box 43105, Olympia, Washington 98504-3105 Web: wtb.wa.gov Phone: 360-709-4600 E-Mail Address: pvsa@wtb.wa.gov



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At ITI we exist to serve and learn every day. That simple message drives **ALL** of our training solutions. We strive to have a solution for any and all of your training needs; whether it be attending a course at one of our state-of-the-art training centers or implementing ITI VR to help raise a new generation of crane operators, we want to find the solution that fits best for you.



#### CLIENT SITE TRAINING



An ITI Instructor comes to your location, to train your team, on your equipment. The ITI Technical Team can even create custom programs tailored to fit your specific training needs.

> VR ASSESSMENTS & CERTIFICATION



Learners experience a working construction site while identifying hazards across 10 risk domains, including Falls, Struck by Object, Electrocutions, and Caught-in/between, the "fatal four" dubbed by OSHA.

### Explore all ITI Training Solutions at www.iti.com/training

# REGULATORY, CERTIFICATION, CREDENTIALING ORGS. OF NOTE



The American Society of Mechanical Engineers (ASME) has audited and approved all of the courses in the ITI Fundamentals of Rigging Engineering Program.

Learn more about ASME and ITI collaborations at <a href="http://www.iti.com/about/asme">www.iti.com/about/asme</a>

In 2012, ITI underwent a string of audits and evaluations to become an Accredited User Training Company according to the Lifting Equipment Engineers Association. At the time, ITI was the first professional training company in North America to be Accredited by LEEA.

Learn more at <u>www.iti.com/about/leea</u>





ITI endorses the national certification program offered by the National Commission for the Certification of Crane Operators (NCCCO), and provides training to prepare candidates for NCCCO examinations.

Learn more at www.iti.com/courses/certification

The ITI Construction Hazard Identification assessment and certification has been granted accreditation by the Personnel Credentialing Accreditation Committee (PCAC) of the ANSI National Accreditation Board (ANAB).

Learn more at <u>www.iti.com/blog/construction-hazard-iden-</u> tification-certification-receives-anab-accreditation





### **ITI INSTRUCTORS AT YOUR LOCATION (CLIENT-SITE)**

Work with an ITI Training Solutions Advisor to set up a course at your location. Any of our ILT courses can be conducted onsite where an ITI Instructor travels to you, to train your team, on your equipment. www.iti.com/training/client-site

### **OPEN ENROLLMENT AT ITI TRAINING CENTERS**

www.iti.com/training/training-centers



ITI WOODLAND 9428 Old Pacific Highway Woodland, Washington 98674 360.225.1100



ITI HOUSTON 4601 Center Street, Suite B Deer Park, TX 77536 USA 832.324.4613



ITI TAMPA 2651 FL-60 Bartow, FL 33830 360.225.1100



**ITI MEMPHIS** 1701 Dunn Avenue Memphis, TN 38106 360.225.1100



ITI CLEVELAND 21000 Aerospace Pkwy Cleveland, OH 44142 360.225.1100



**ITI EDMONTON** 1803 - 11th Street Nisku, AB T9E 1A8 780.490.6611

Open enrollment courses are held at the ITI Woodland Training Center 3-4 weeks per month. Courses vary in length depending on the subject matter, ranging from one (1) to five (5), eight (8) hour days. Courses remain open until the registration limit is reached (varies by course). If a minimum enrollment threshold for a course is not reached 4-weeks prior to the course start date, ITI reserves the right to cancel the scheduled session. Participants enrolled in a canceled course session will be refunded in full or will have the option to move their registration to the next available schedule course.

#### Hours of Operation (Office and Training Center):

Monday – Friday 8 AM to 4:30 PM

#### Holidays (Office and Training Center):

- New Year's Day (Jan. 1)
- Memorial Day
- ✤ 4th of July
- Labor Day
- Thanksgiving (Thursday & Friday)
- Christmas Eve
- Christmas Day



#### learn.iti.com



#### **ITI CONTENT LIBRARIES**

- Crane & Rigging Fundamentals
- Certification Prep
- Crane & Rigging Advanced
- Rigging Engineering

#### A LA CARTE OR SUBSCRIPTION

- Single course purchases (12 mo. access)
- Individual Subscription Plans
- Group Subscription Plans
- Learning Hub Enterprise



#### LEARNING MANAGEMENT BEST PRACTICES



**Knowledge Base** 



Learner Transcript



Learning Paths



Live-Stream Events



**Discussion Boards** 



Learning Administrations



**Online Content Authoring** 



Live In-Person Events



**SME Office Hours** 



Certificate Management



Sub-Licenses



Analytics & Reporting



# RIGGING & SIGNALPERSON COURSES

#### www.iti.com/courses/rigging

ITI has been an innovator and pioneer in the rigging training space for more than 35 years and conducts more rigging training for corporate clients in North America than any other provider due to our expertise, the size of our training staff, and extensive curriculum. Under the broader category of *Rigging*, courses are further classified into the following sub-categories:





# RIGGING HARDWARE BASICS

Our **Rigging Hardware Basics Course** includes diagrams, video, and animation that covers rigging hardware in the following categories - identification, use, and inspection. Each topic is introduced by an ITI Instructor followed by an interactive learning activity. All content should take learners 20-40 minutes to complete.

ITI Basics Courses are short, impactful, and engaging learning content on absolute fundamental topics regarding cranes, rigging and heavy equipment. Introductory in nature, learning objectives from each individual Basics Course are covered in more detail in full-length ITI Crane & Rigging Online, On-Demand Courses.

#### **LEARNING OBJECTIVES:**

- · Identification of Rigging Hardware when provided images
- Understand when and where to use specific Rigging Hardware
- Recognize foundational processes in regards to the Inspection
   of Rigging Hardware

#### https://learn.iti.com/courses/rigging-hardware-basics

Course ID:	OL-BASIC-R-RHB
Duration:	20-40 Minutes
Credential:	Certificate of Completion
Availability:	Online 霬
Discipline:	Rigging Applications
Competency:	Level I
Language:	English, Spanish
Upon Completion:	0.4 CEUs

### INTRODUCTION TO RIGGING & LOAD HANDLING

Our 2-hour **Introduction to Rigging & Load Handling** course is designed to provide participants with an introductory overview of the responsibilities of a rigger. Course subjects include - rigging hardware types, rigging inspection criteria, selecting rigging, and working safely around a load lifting operation.

#### **COURSE CONTENTS:**

- Rigging Introduction
- Rigging Inspection
- Rigging Selection
- Load Handling

Learn the basics of rigging and load handling with this course from ITI. Best suited for learners with little to no experience in the crane and lifting industry.

#### https://learn.iti.com/courses/intro-to-rigging

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Course ID:	OL-INTRO-RIG-LH
Duration:	2 Hours
Credential	Certificate of Completion
Availability:	Online 室
L)iscinline:	Rigging Applications
Competency:	Fundamentals
Language:	English, Spanish
Upon Completion:	0.2 CEUs

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### **FUNDAMENTALS OF SLINGS** & RIGGING EQUIPMENT

Formerly Introduction to Rigging, follow experienced ITI instructors through our **Fundamentals of Slings and Rigging Equipment Online Course** with an in-depth presentation of fundamental knowledge for crane and rigging activities. Rigging identification, inspection, and basic theories are illustrated with video and images.

Experienced instructors from ITI will teach you about the equipment used in rigging, how to know which equipment to use, how to use it and inspect it, how to calculate hitch capacities and protect your rigging equipment. You will learn how to work with cranes, what your responsibilities are to the crane operator, and how to use hand and voice signals and taglines. There is a lot to cover, but once you have finished you will be well on your way to a safe and satisfying job as a signalperson and basic rigger.

#### **COURSE CONTENTS:**

- Rigging Identification
- Rigging Hardware
- Steel Slings

- Synthetic Slings
- Hitch Capacities
- Sling Protection



Course ID:	OL-FUND-SLING
Duration:	4 Hours
Credential:	Certificate of Completion
Availability:	Online 💼
Discipline:	Rigging Applications
Competency:	Fundamentals
Language:	English, Spanish
Upon Completion:	0.4 CEUs

#### https://learn.iti.com/courses/rigging-equipment-fundamentals



Led by ITI Co-Founder, Mike Parnell, our **Basic Rigging & Inspection Online Course** is designed to provide participants with a basic level of knowledge of rigging gear inspection, selection, and sizing; proper rigging procedures; and load control using typical rigging techniques.

Upon successful completion of this online course, a certificate of completion will be available for download and printing.

Quizzes conducted throughout this course are designed to reinforce the information presented. A mark of 70% must be achieved in order to receive a certificate of completion. Participants are able to repeat the course twice if the pass mark is not achieved.

#### **COURSE CONTENTS:**

- Rigging Identification
- Steel Slings
- Synthetic Slings
- Rigging Hardware
- Hitch Capacities
- Sling Protection

#### https://learn.iti.com/courses/basic-rigging-inspection

# Q

Course ID:	OL-BRI
Duration:	8 Hours
Credential:	Certificate of Completion
Availability:	Online 🚖
Discipline:	Rigging Applications
Competency:	Level I
Language:	English, Spanish
Upon Completion:	0.8 CEUs





# BASIC RIGGING & INSPECTION

Our 1-day **Basic Rigging & Inspection Program** is designed to provide participants with a basic level of knowledge of rigging gear inspection, proper rigging procedures, and load control using typical rigging techniques. Training is delivered in a classroom environment with interactive, problem-solving workshops.

#### SUBJECTS COVERED INCLUDE:

- Introduction to Rigging
- Hitch Terms & Types
- Rigging Gear Inspection
- Rigging Gear Selection
- Load Handling Activities
- Hand Signals

Each participant will receive a course workbook, a Rigging Gear Inspection Reference Card, and a Journeyman Rigger's Reference Card.

Participants completing the program will receive a Certificate of Attendance and Continuing Education Units (CEUs).

Course ID:	BRI
Duration:	1 Day
Credential:	Optional, Exam Fee Required
Availability:	Client Site, Training Center
Discipline:	Rigging Applications
Competency:	Fundamentals
Language:	English, Spanish
Upon Completion:	0.8 CEUs, Certificate of Completion

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/rigging/basic-rigging-and-inspection** 

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Our 2-day Intermediate Rigging Program with an optional additional day for Qualification, is designed to increase student's knowledge of rigging gear inspection, proper rigging procedures, and load control using typical rigging techniques. Classroom interactive, problem-solving workshops are followed by hands-on activities and written and practical exams. Those that pass the exams will receive qualification valid for 5 years.

#### SUBJECTS COVERED INCLUDE:

- Rigging Gear Inspection
- Load Weight Estimation
- Sling & Rigging Hardware Selection
- Sling Tension
- Locating Center of Gravity
- Load Control
- Load Moving Procedures

#### **COURSE TRAINING SCHEDULE:**

- Days 1-2: Classroom and Hands-On
- Day 3\*: Written and Practical Exams

Course ID:	IR
Duration:	2 Days
Credential:	Optional, Exam Fee Required
Availability:	Client Site, Training Center
Discipline:	Rigging Applications
Competency:	Level II
Language:	English, Spanish
Upon Completion:	1.6 CEUs, Certificate of Completion

\*Optional

Participants completing the program will receive a Certificate of Attendance, Continuing Education Units (CEUs), and Qualification as earned.

Please have a classroom, crane, rigging gear and loads available for the program.

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/rigging/intermediate-rigging** 

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# BULL RIGGING W/CHAIN HOISTS

Our 2-day **Bull Rigging with Chain Hoists Program** is an intermediate to advanced course which focuses on planning for and utilization of chain hoists and other similar devices to drift, upright and turn loads. At least half of this course involves hands-on activities moving loads into and out of an engineered structure, vertically through hatchways and through various other openings.

Center of Gravity

Lacking Methods

Load Cribbing

Load Turning

• Winch and Block Usage

#### SUBJECTS COVERED INCLUDE:

- Job Hazard Analysis
- Beam Rigging Connections
- Bull Rigging Safety Reminders
- Drifting loads with a Single or Multiple Rigging Point
- Load Distribution
- Hoist Tensions at Angles using Common Connector

#### **COURSE TRAINING SCHEDULE:**

• Days 1 - 2: Classroom and Hands-On

Each participant will receive a course workbook, Rigging Gear Inspection Reference Card, a Journeyman Rigger's Reference Card.

Participants completing the program will receive a Certificate of Attendance.

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/rigging/bull-rigging** 

BULL Course ID: Duration: 2 Days Credential: None Client Site, Availability: **Training Center** Rigging Discipline: Applications Competency: Level II Language: **English**, Spanish 1.6 CEUs, Certificate Upon Completion: of Completion

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Riggers working in tight confines with low headroom will benefit from our **Bull Rigging Online Course**. Learn the principles of safely drifting and load turning in a high risk environment.

#### **COURSE CONTENTS:**

- Bull Rigging JHA
- Beam Rigging Connections
- Bull Rigging Safety Reminders
- · Drifting Loads with a Common Rigging Point
- · Drifting loads with Multiple Load Rigging Points
- Load Distribution & Hoist Tensions at Angles using Common Connector
- Drifting Methods using Multiple Load Rigging Points
- Hoist Tensions using Multiple Load Rigging Points
- Drifting and Load Turning Workshop Series
- Vertical Pipe Handling

#### https://learn.iti.com/courses/bull-rigging-online



Course ID:	OL-BULL
Duration:	6 Hours
Credential:	Certificate of Completion
Availability:	Online 🚖
Discipline:	Rigging Applications
Competency:	Level II
Language:	English
Upon Completion:	0.6 CEUs

# RIGGER I & II TEST PREP

Riggers preparing for a Level I Rigging Certification exam will benefit from this online course with a comprehensive overview of basic rigger responsibilities. Make the most of your study time by using the quizzes and end-of-course test to guide your preparation and help you succeed on your certification exam.

#### **COURSE CONTENTS:**

- Inspection of slings, rigging hardware, below the hook lifting devices, hoists, winches, and other rigging equipment
- Correct use and common misuses of slings, rigging hardware, below the hook lifting devices, hoists, winches, and other rigging equipment
- Standards & regulations that govern slings, rigging hardware, below the hook lifting devices, hoists, winches, and other rigging equipment
- · Common knots and hitches
- Rigging hitches

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- Hand, voice, and other audible signals
- Planning and execution

#### https://learn.iti.com/courses/nccco-rigger-ii-prep





Course ID:	OL-CCO-R2
Duration:	6 Hours
Credential:	Certificate of Completion
Availability:	Online 🚖
Discipline:	Rigging Applications
Competency:	Level II
Language:	English
Upon Completion:	0.8 CEUs





Our 5-day **Master Rigger Program** with Qualification is designed to enhance the skills and knowledge of your riggers. Interactive, problem-solving workshops are followed by hands-on activities depending on the availability of client's equipment. The program will be customized based on the client's everyday activities. Written and Practical Exams will be administered. Those who successfully pass the exams will receive an ITI Qualification valid for 5 years.

Load Moving Procedures

Rigging Blocks & Winch

Multiple Hitch Systems

Multiple Crane Lifts

Load Control

Systems

Jacking & Rolling

#### SUBJECTS COVERED INCLUDE:

- Rigging Gear Inspection
- Load Turning
- Load Weight Estimation
- Inclined Planes
- Sling Tension
- Chain Fall Load Drifting
- Spreader Lifts

#### **COURSE TRAINING SCHEDULE:**

- Dav 1: Classroom
- Days 2-4: Classroom and Hands-On

Course ID: MR 4 Days (Training) Duration: 1 Day (Exams) **Optional**, Qualified **Rigger & Signalp-**Credential: erson (Additional Exam Fee Required) Client Site, Availability: **Training Center** Rigging Discipline: Applications Competency: Level III Language: **English**, Spanish 3.2 CEUs, Certificate Upon Completion: of Completion

Day 5: Qualified Rigger Exams

To properly execute ITI's Master Rigger Program at your location please review the above subjects to ensure that you will be able to supply the equipment, space, and lifting devices necessary to execute the stated subjects.

Each participant will receive a course workbook, Rigging Gear Inspection Reference Card, Master Rigger's Reference Card, Journeyman Rigger's Reference Card, Horizontal Rigging Reference Card and a Length : Height : Run Reference Card.

Please have a crane, rigging gear and loads available for the program.

Learn more, request a quote, and view upcoming open enrollment dates at:

#### www.iti.com/courses/rigging/master-rigger

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The **Advanced Rigging** online course provides workshop-based lessons to assist students in the calculations used in standard to complex rigging applications.

#### **Learning Objectives:**

- · Successfully estimate the weight of common industrial loads
- Successfully estimate the center of gravity of common industrial loads
- Successfully estimate the sling tension of common industrial loads
- Determine load distribution on various lifting systems
- Successfully determine tensions to chain falls and come-a-longs
- Understand the theory behind successful drifting operations
- Plan a controlled load turn
- Determine weight transfer
- Understand the theory behind load up-righting and turning
- Determine load to winches, jacks, rollers, and floors during special load handling activities
- Understand the theory required to successfully move loads horizontally
- Determine the load to rigging blocks
- Understand the mechanical advantage necessary to move a load vertically or horizontally
- Calculate sling tensions for off-level pick points.

#### https://learn.iti.com/courses/advanced-rigging

### RIGGING GEAR INSPECTOR LEVEL I - USA

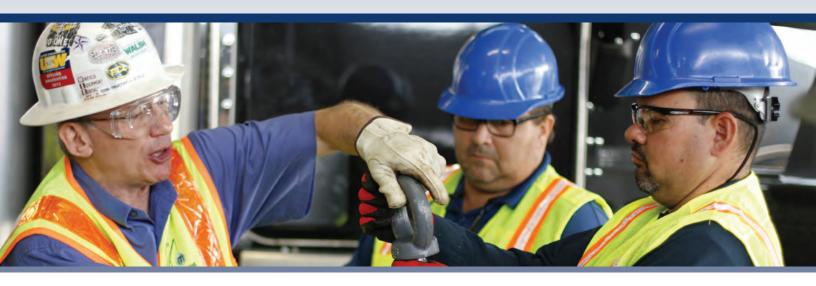
The **Rigging Gear Inspector Level I** online course is designed to build and enhance the skills of the student to become a Trained Rigging Gear Inspector – Level I USA. The course includes recorded inspection examples and inspection-related activities. Participants learn the removal criteria for wire rope, wire rope slings, synthetic web and round slings, chain slings, rigging hardware and below-the-hook lifting devices according to applicable US standards and regulations. A written exam is administered within the course with a score of 70% required to pass. A practical exam, featuring images of damaged rigging, is also required to complete the course and earn Trained Rigging Gear Inspector status, with an 80% score required to pass.

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Course ID:	OL-RGI1
Duration:	4 Hours
Credential:	Trained Rigging Gear inspector Level I - USA
Availability:	Online হ
Discipline:	Rigging Applications
Competency:	Level I
Language:	English
Upon Completion:	0.4 CEUs

#### https://learn.iti.com/courses/rigging-gear-inspector-1-online



Course ID: OL-AR Duration: 15 Hours Certificate Credential: of Completion Online হ Availability: Rigging Discipline: Applications Level III Competency: **English**, Spanish Language: Upon Completion: 1.5 CEUs





# RIGGING GEAR INSPECTOR LEVEL I & II

In our 3-day Rigging Gear Inspector Levels I & II Program, the participants will learn the removal criteria for rigging gear based on current OSHA regulations and ASME standards and guidelines. Each participant will inspect used and damaged gear, identifying any criteria for its removal from service. Successfully passing the written exams and hands-on inspections are required to become qualified. Qualification is valid for 3 years.

#### SUBJECTS COVERED INCLUDE:

- Wire Rope
- Wire Rope Slings
- Synthetic Web Slings
- Synthetic Round Slings

#### **COURSE TRAINING SCHEDULE:**

- Day 1:
  - Wire Rope
- Day 2:
  - Wire Rope Slings
  - Synthetic Web Slings
  - Synthetic Round Slings

- Alloy Chain Slings
- Rigging Hardware
- Below-the-Hook Lifting Devices
- Day 3:
  - Alloy Chain Slings
  - Rigging Hardware
  - Below-the-Hook Lifting Devices

Student materials consist of a 3-ring binder containing applicable OSHA 29 CFR regulations, a Wire Rope User's Manual, Journeyman Rigger's Reference Card, Rigging Gear Inspection Reference Card, manufacturer catalogs and inspection forms, and an inspection tool pack containing all tools necessary to conduct hands-on inspections of all gear types.

ITI will ship gear boxes of cataloged and photographed rigging gear to use for the hands-on inspections. We will also provide iPads for student classroom use that contain the ASME Standards.

Participants successfully completing the program will receive a Certificate of Attendance, Continuing Education Units (CEUs), and Qualification as earned.

Learn more, request a quote, and view upcoming open enrollment dates at: www.iti.com/courses/rigging/rigging-gear-inspector-1

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Course ID: RGI-1 Duration: 3 Days **Qualification (3** Credential: Years), Written + **Practical Evaluation** Client Site, Availability: **Training Center** Discipline: **Rigging Inspection** Competency: Level I Language: **English**, Spanish 2.4 CEUs, Certificate Upon Completion: of Completion



# 

Our 3-day **Rigging Gear Inspector Level III Program** is designed for those who have attained a Level II Rigging Gear Inspector Qualification from ITI. The course covers product application and troubleshooting, field analysis, field inspection processes, fabrication and quality control, wear and abuse prevention, and problem-solving techniques for wire rope, wire rope slings, synthetic web and round slings, chain slings, rigging hardware and below-the-hook lifting devices.

A written exam will determine participants' knowledge of manufacturing and fabrication techniques, ability to troubleshoot and confirm comprehension of how the regulations and standards are practically applied to daily crane and rigging activities. A five-year Level III Qualification is issued to participants who successfully pass the exam.

#### SUBJECTS COVERED INCLUDE:

- Wire Rope
- Wire Rope Slings
- Synthetic Web Slings
- Synthetic Round Slings
- Alloy Chain Slings

#### **COURSE TRAINING SCHEDULE:**

- Day 1:
  - Wire Rope
- Day 2:
  - Wire Rope Slings
  - Synthetic Web Slings
  - Synthetic Round Slings

- Rigging Hardware
- Below-the-Hook Lifting Devices
- Applicable Federal, State, and Provincial Regulations & Standards
- Day 3:
  - Alloy Chain Slings
  - Rigging Hardware
  - Below-the-Hook
  - Lifting Devices



Applicable Federal, State, and Provincial Regulations & Standards. ITI will provide Tablets (Kindle) for student classroom use that contain the ASME Standards.

Participants successfully completing the program will receive a Certificate of Attendance, Continuing Education Units (CEUs), and Qualification as earned.

Learn more, request a quote, and view upcoming open enrollment dates at:

#### www.iti.com/courses/rigging/rigging-gear-inspector-3

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# NCCCO RIGGER LEVEL I PREP & EXAMS

A **Certified Rigger Level I** can perform simple, repetitive rigging tasks when the load weight, center of gravity, rigging, and rigging configuration are provided or known by the rigger through experience or knowledge of - rigging inspection, rigging identification, hitch configurations and capacities, basic knots, hazard recognition, signaling operations, and use of various types of rigging equipment and their applications.

#### SUBJECTS COVERED INCLUDE:

- Inspecting rigging before use
- · Identifying rigging and rigging hardware
- Rigging attachments, hitch configurations, capacities, and basic knots
- Hazard recognition
- Signaling operations
- · Use and application of rigging equipment

#### **PREP COURSE & EXAM SCHEDULE\*:**

- Day 1-2:
  - Classroom Workshops
- Day 2:

- Written & Practical Exams

\*Schedule reflects prep course and exams when offered at ITI Training Centers

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/certification/rigger1** 

Course ID:	CCOR1-Prep
Duration:	2 Days
Credential:	5 Year NCCCO Rigger I Certification
Availability:	Client Site, Training Center, Simulcast
Discipline:	<b>Certification Prep</b>
Competency:	Level I
Language:	English
Upon Completion:	0.8 CEUs

**Industrial Training** International



Riggers preparing for Level I and II Rigging Certification exams will benefit from this online course with a comprehensive overview of intermediate rigger responsibilities. Includes Rigger Level I topics. Make the most of your study time by using our quizzes and end-of-course test to guide your preparation and help you succeed on your certification exam.



#### **COURSE CONTENTS:**

- Load weight estimation
- Sling tension
- Center of gravity
- Share of load
- Multi-part lines
- Level and incline planes
- Block and fairlead loading
- All Rigger I concepts:
  - Inspection, correct use, and standards & regulations for rigging equipment
  - Common knots and hitches
  - Rigging hitches
  - Hand, voice and other audible signals
  - Planning and execution

#### https://learn.iti.com/courses/nccco-rigger-i-prep

### SIGNALPERSON CERTIFICATION TEST PREP

This online course prepares personnel to work with and around mobile and overhead cranes, from communication and signaling, to crane dynamics and operations.

#### **COURSE CONTENTS:**

- Hand Signals
- Voice Signals
- Crane Types and Components
- Conditions and Hazards
- General Best Practices
- Working Near Power Lines
- Hoisting Personnel
- Practice Exam to check your knowledge

#### https://learn.iti.com/courses/701-signalperson-certification-test-prep

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Course ID:	OL-CCO-R1
Duration:	4-6 Hours
Credential:	Certificate of Completion
Availability:	Online 🚖
Discipline:	Rigging, Certification Prep
Competency:	Level I
Language:	English, Spanish
Upon Completion:	0.4 CEUs

Course ID:	OL-CCO-SP
Duration:	3 Hours
Credential:	Certificate of Completion
Availability:	Online হ
Discipline:	Rigging, Signalperson, Certification Prep
Competency:	Level I
Language:	English
Upon Completion:	0.3 CEUs



### NCCER BASIC RIGGER CERTIFICATION TEST PREP

This course will provide students with a better understanding of common rigging hardware, proper safety practices for load-handling, inspection techniques, hand signals, and hitch configurations. It is designed for someone in the crane and lifting industry who wants to prepare for NCCER certification. The NCCER Trainee Guide is included.

#### **COURSE CONTENTS:**

- Rigging Practices
- Crane Safety and Emergency Procedures
- Basic Principles of Cranes
- Crane Communications

#### https://learn.iti.com/courses/nccer-rigger-prep

Course ID:	OL-NCCER-BR
Duration:	6 Hours
Credential:	Certificate of Completion
Availability:	Online 室
Discipline:	Rigging, Certification Prep
Competency:	Fundamentals

Competency: Language:

English, Spanish

Upon Completion: 1.6 CEUs

### SIGNALING FOR MOBILE & OVERHEAD CRANES

Our **Signaling for Mobile & Overhead Cranes Online Course** prepares personnel to work with and around mobile and overhead cranes, from communication and signaling, to crane dynamics and operations.

#### **COURSE CONTENTS:**

- Crane Operations
- Hand Signals
- Knots, Hitches, Taglines
- Voice Signals



Course ID:	OL-SPMO
Duration:	3 Hours
Credential:	Certificate of Completion
Availability:	Online হ
Discipline:	Rigging, Signalperson
Competency:	Fundamentals
Language:	English
Upon Completion:	0.3 CEUs

#### https://learn.iti.com/courses/signalperson-and-crane-operations

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# NCCCO RIGGER LEVEL II PREP & EXAMS

A **Certified Rigger Level II** can select rigging components and procedures based on rigging capacity. A Rigger Level II can perform the following rigging tasks unsupervised: load weight and center of gravity estimation, lift point identification, rigging selection, pre-use inspection, rigging identification, hitch configurations, load angle factors, rigging capacities, load integrity, understanding of load dynamics and associated hazards, knowledge of hoisting equipment, winches, jacks, industrial rollers, and other load handling equipment.

#### SUBJECTS COVERED INCLUDE:

- · Estimate load weight and center of gravity
- Identify lift points
- · Determine and select rigging based on loading
- · Perform pre-use inspection of rigging and lift points
- Identify and attach rigging with knowledge of hitch configurations and load angle factors, rigging capacities, and load integrity
- · Understand load dynamics and associated hazards
- As applicable, Level II Riggers will also have a working knowledge of hoisting equipment, winches, jacks, industrial rollers, and similar equipment

#### PREP COURSE & EXAM SCHEDULE\*:

• Day 1-2:

- Classroom Workshops

• Day 2:

- Written & Practical Exams

\*Schedule reflects prep course and exams when offered at ITI Training Centers

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/certification/rigger2** 

Course ID: CCOR2-Prep Duration: 2 Days 5 Year Credential: NCCCO Rigger II Certification **Client Site, Training** Availability: Center, Simulcast, Online Discipline: **Certification Prep** Competency: Level II Language: English Upon Completion: 0.8 CEUs

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# NCCCO SIGNALPERSON PREP & EXAMS

This test prep course prepares candidates to take the NCCCO certification exams. NCCCO certification exams are designed for signal persons who are trained and who will use hand and voice signals in crane operations. Candidates must pass the NCCCO written and practical examinations to be certified.

#### **REQUIREMENTS FOR NCCCO SIGNALPERSON CERTIFICATION INCLUDE THE FOLLOWING:**

- Be at least 18 years of age
- Comply with NCCCO's Substance Abuse Policy
- Pass Written Examination
- Pass Practical Examination
- · Comply with NCCCO Code of Ethics

#### **PREP COURSE & EXAM SCHEDULE\*:**

- Day 1:
  - Classroom Workshops
  - Written & Practical Exams

\*Schedule reflects prep course and exams when offered at ITI Training Centers

Course ID:	CCOSP-Prep
Duration:	1 Day
Credential:	5 Year NCCCO Signalperson Certification
Availability:	Client Site, Training Center, Simulcast, Online
Discipline:	Certification Prep
Competency:	Level I
Language:	English
Upon Completion:	0.8 CEUs

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/certification/signalperson** 

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ITI offers optional Signal person and Rigger Qualification Exams following select Master Rigger and Intermediate Rigging Courses at ITI Training Centers. Written and practical exams are administered. Candidates who successfully pass the exams will receive a 5-year ITI Qualification that meets the requirements of OSHA.

#### **QUALIFIED SIGNALPERSON EXAMS:**

- Hand Signals
- Standard Voice Communication
- Basic Understanding of Crane Operations, Limitations & Capacities
- Site Considerations, Safety Issues, and Hazards
- Applicable Federal, State, and Provincial Regulations & Standards

#### **QUALIFIED RIGGER EXAM LEVELS:**

- Basic
- Intermediate
- Master

Course ID:	QSQR
Duration:	1 Day
Credential:	5 Year ITI Qualification
Availability:	Client Site, Training Center
Discipline:	Certification Prep
Competency:	Level I-III
Language:	English
Upon Completion:	0.8 CEUs

Learn more, request a quote, and view upcoming open enrollment dates at: www.iti.com/courses/rigging/qualified-rigger-signalperson-exams

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# QUALIFIED SLING FABRICATOR - WIRE ROPE

The ITI Qualified Fabricator Course consists of theoretical and hands-on instruction followed by fabricator qualification.

This course ranges from 1-3 days based on the learning objectives of the client and the items that they fabricate. Classroom instruction, procedures and documentation are followed by hands-on demonstration and training. Written and practical exams are administered to qualify fabricators.

As a member of AWRF (Associated Wire Rope Fabricators), ITI has conducted this course for dozens of its members, assisting them in establishing their procedures, documentation, and quality assurance while qualifying their fabricators.

#### **COURSE SUBJECTS\*:**

- Wire Rope Slings: Hand Splice
- Wire Rope Slings: Mechanical Splice
- Wire Rope Socketing: Zinc/Resin
- Alloy Chain Slings: Welded
- Alloy Chain Slings: Mechanical Assembly
- Synthetic Web Slings: Flat & Round
- Fiber Rope Slings: Hand Splice
- Metal Mesh Slings
- Proof/Pull Testing
- Applicable Federal, State, and Provincial Regulations & Standards

\*All course subjects can be added/dropped from individual course sessions as applicable to customer needs. We will also provide iPads for student classroom use that contain the ASME Standards.

Participants successfully completing the program will receive a Certificate of Attendance, Continuing Education Units (CEUs), and Qualification as earned.

Learn more, request a quote, and view upcoming open enrollment dates at:

#### www.iti.com/courses//rigging/qualified-sling-fabricator

**Industrial Training** International



### BASIC ENTERTAINMENT RIGGING & INSPECTION

Our **Basic Entertainment Rigging & Inspection Online Course** is designed to provide participants with a basic level of knowledge of rigging gear inspection, proper rigging procedures, and load control using typical rigging techniques in the entertainment rigging industry through problem solving workshops.

This seven hour course is made up of four modules with interactive video of hands-on instruction and lifting activities which make this online entertainment rigging course both engaging and educational.

#### **COURSE CONTENTS:**

- Terms & Definitions
- Rigger's Tools
- Hitch Types
- Sling Types
- OSHA Sling Law
- Equal Bridal Legs
- Workplace Safety
- Load Hazard Zone
- Personal Protection

#### https://learn.iti.com/courses/608-basic-entertainment-rigging-and-inspection

### MATH PRIMER FOR CONSTRUCTION & INDUSTRIAL WORKFORCE

Sharpen your math skills with our interactive Math Primer for Construction & Industrial Workforce Online Course.

#### **COURSE CONTENTS:**

- · Common math expressions
- Calculating area and volume
- Calculating weights
- · Calculating share of load



Course ID:	OL-MATH
Duration:	20-40 Minutes
Credential:	Certificate of Completion
Availability:	Online Ţ
Discipline:	General Safety, Health & Safety
Competency:	Fundamentals
Language:	English
Upon Completion:	0.1 CEUs

#### https://learn.iti.com/courses/math-primer-for-construction-industrial-workforce

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Course ID:	OL-BERI
Duration:	7 Hours
Credential:	Certificate of Completion
Availability:	Online 🚖
Discipline:	Entertainment Rigging
Competency:	Level I
Language:	English, Spanish
Upon Completion:	0.7 CEUs

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# **CRANE COURSES**

#### www.iti.com/courses/cranes

ITI conducts a variety of crane training courses that support end-users from operators to inspectors, and assembly/disassembly directors on all crane types including mobile (all variations), overhead, articulating boom, pedestal, and tower. Under the broader category of Cranes, courses are further classified into the following sub-categories:







Our **Mobile Crane Configurations Online Course** includes diagrams, video, and interactive pages devoted to describing mobile crane configurations. Each topic is introduced by an ITI Instructor followed by an interactive learning activity.



Course ID:	OL-BASIC-MC-CONFIG
Duration:	20 Minutes
Credential:	Certificate of Completion
Availability:	Online 🚖
Discipline:	Cranes
Competency:	Fundamentals
Language:	English, Spanish
Upon Completion:	0.1 CEUs

#### https://learn.iti.com/courses/mobile-crane-load-chart-basics



**OL-BASIC-MC-**

20-40 Minutes

of Completion

**Fundamentals** 

Online হ

Cranes

English

0.1 CEUs

Certificate

LOADCHART

Course ID:

Duration:

Credential:

Availability:

Discipline:

Language:

Competency:

Upon Completion:

Our **Mobile Crane Load Chart Basics Online Course** includes diagrams, video, and animation that cover crane load charts, load chart damage mode indicators, and range diagram(s). Each topic is introduced by an ITI Instructor followed by an interactive learning activity. All content should take learners 20-40 minutes to complete.

ITI Basics Courses are short, impactful, and engaging learning content on absolute fundamental

topics regarding cranes, rigging and heavy equipment. Introductory in nature, learning objectives from each individual Basics Course are covered in more detail in full-length ITI Crane & Rigging Online, On-Demand Courses.

#### **LEARNING OBJECTIVES:**

- What is a crane load chart?
- Identification and definition of load chart damage mode indicators
- Understanding and utilization of range diagram(s)

#### https://learn.iti.com/courses/mobile-crane-load-chart-basics



# MOBILE CRANE PRINCIPLES

Our **Mobile Crane Principles Online Course** includes diagrams, video, and animation that cover mobile crane components, purpose, the lever principle, and mechanical advantage/reeving. Each topic is introduced by an ITI Instructor followed by an interactive learning activity. Content should take learners 20-40 minutes to complete.

ITI Basics Courses are short, impactful, and engaging learning content on absolute fundamental topics regarding cranes, rigging and heavy equipment. Introductory in nature, learning objectives from each individual Basics Course are covered in more detail in full-length ITI Crane & Rigging Online, On-Demand Courses.

#### https://learn.iti.com/courses/mobile-crane-principles



Our **Mobile Crane Setup Basics Online Course** includes diagrams, video, and animation that cover site prep and set up, positioning and clearances, ground conditions, and pads/ mats. Each topic is introduced by an ITI Instructor followed by an interactive learning activity.

ITI Basics Courses are short, impactful, and engaging learning content on absolute fundamental topics regarding cranes, rigging and heavy equipment. Introductory in nature, learning objectives from each individual Basics Course are covered in more detail in full-length ITI Crane & Rigging Online, On-Demand Courses.

#### **LEARNING OBJECTIVES:**

- High-level understanding of Site Prep and Set Up Considerations when utilizing a mobile crane
- Identification and definition of fundamental ratios in terms of mobile crane Positioning and Clearances
- Identification and definition of potential hazards and best practices in terms of Ground Conditions
- Identification of mobile crane Pad and Mat best practices when presented with images and diagrams

#### https://learn.iti.com/courses/mobile-crane-setup-basics-07z6



Course ID:	ol-basic-mc-prin- Ciples
Duration:	20 Minutes
Credential:	Certificate of Completion
Availability:	Online 🚖
Discipline:	Mobile Crane Operations
Competency:	Fundamentals
Language:	English, Spanish
Upon Completion:	0.1 CEUs



Course ID:	OL-BASIC-MC- SETUP
Duration:	20-40 Minutes
Credential:	Certificate of Completion
Availability:	Online 🚖
Discipline:	Mobile Crane Operations
Competency:	Fundamentals
Language:	English
Upon Completion:	0.1 CEUs

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# MOBILE CRANE OPERATOR - INITIAL

This course is designed for those who have little or no experience with mobile crane operation. The course helps establish good operating practices for the participant while gaining seat-time and real-life operating experience. Participants will conduct pre-operational inspections of hydraulic cranes. Each will be given individual instruction regarding crane operating basics and will gain seat-time while handling an empty and loaded hook, as well as seat time on the ITI Simulations VR Crane Simulator.

#### SUBJECTS COVERED INCLUDE:

- Center of Gravity
- OSHA & ASME Standards
- Crane Set-up & Outrigger Positions
- Daily Inspections
- Boom Length & Angle
- Radius
- Load Weight Calculations
- · Operator's Responsibilities
- Rated Strength
- Load Chart Introduction
- Stability

#### **COURSE TRAINING SCHEDULE:**

- Day 1: Primarily classroom based. Course subjects are introduced, expanded on, and tied to real world examples and case studies.
- Days 2-5: Mix of classroom and hands-on practical time.

Each participant will receive a course workbook and a Mobile Crane Operator Reference Card.

Upon completing the program, participants will receive a Certificate of Attendance and Continuing Education Units (CEUs), and qualification as earned.

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/cranes/mobile-crane-operator-initial** 

Duration: 5 Days Certification of Credential: Completion **Client Site, Training** Availability: Center Discipline: **Crane Operation Fundamentals** Competency: Language: English, Spanish 4.0 CEUs, Certificate of Upon Completion: Completion

MCOI

Course ID:

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Boom truck operator training is designed to increase the operator's knowledge, skill, and proficiency level through classroom workshops and hands-on training.

The hands-on session includes operating with live loads and Virtual Reality (VR) Simulator sessions. Qualification is available.

#### SUBJECTS COVERED INCLUDE:

- Daily Inspection
- Communication
- Rigging Practices
- Boom Truck Setup
- Load Chart Interpretation
- Calculating Capacities
- Operator Responsibilities

#### **PREP COURSE & EXAM SCHEDULE:**

- Days 1 2:
  - Classroom Workshops
  - Hands-On Practical Exercises
- Day 3:

-Written & Practical Exams

\*Schedule reflects prep course and exams when offered at ITI Training Centers

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/cranes/boom-truck-operator** 

- Operating Practices
- Operating Near Power Lines
- Conditions that Effect
   Capacities
- Applicable Federal, State, and Provincial Regulations & Standards

Course ID:	вто
Duration:	3 Days
Credential:	5 Year ITI Qualification
Availability:	Client Site, Training Center
Discipline:	Crane Operation
Competency:	Level I
Language:	English, Spanish
Upon Completion:	2.4 CEUs

Industrial Training International



### OVERHEAD CRANE OPERATOR - QUALIFIED

Our 1-day **Overhead Crane Operator Program** is designed to instruct the operators in the proper operating techniques and pre-operational inspection of overhead lifting devices which include bridge, gantry, monorail, fixed hoists, and jib wall mounts. Interactive, problem-solving classroom workshops are followed by hands-on activities. A written exam and hands-on evaluation will be administered. Those participants who successfully pass will receive qualification valid for 5 years.

#### SUBJECTS COVERED INCLUDE:

- Introduction to Overhead Cranes
- OSHA & ASME Standards
- Control Functions
- Daily Inspections
- Hand Signals
- Sling & Rigging Hardware Selection
- Load Control

#### **COURSE TRAINING SCHEDULE:**

Day 1: Classroom & Hands-On

Course ID:	онсо
Duration:	1 Day
Credential:	Qualification (5 Years), Written + Practical Evaluation
Availability:	Client Site, Training Center
Discipline:	Overhead Cranes
Competency:	Level I
Language:	English, Spanish
Upon Completion:	0.8 CEUs, Certificate of Completion

Each participant will receive a course workbook and an Overhead Crane Operator Reference Card.

Participants completing the program(s) will receive a Certificate of Attendance, Continuing Education Units (CEUs) and qualification as earned. Please have your crane, rigging gear and loads available during the program.

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/cranes/overhead-crane-operator** 

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# PEDESTAL CRANE OPERATOR

Our 3-day **Pedestal Crane Operator Course** is recommended for employees who use shore or ship-based pedestal cranes. The participants are introduced to the core subjects listed below in both classroom and hands-on settings and are tasked with operating assignments that help to establish and/or demonstrate operating proficiency. Qualification is available.

#### SUBJECTS COVERED INCLUDE:

- Daily Pre-Operation Inspection
- Operating Practices
- Lift Considerations
- Hand Signals
- Load Charts
- Responsibilities

#### **COURSE TRAINING SCHEDULE:**

- Day 1: Classroom Workshops
- Days 2-4: Classroom & Hands-On
- Day 5: Written & Practical Exams (Optional)

Course ID:	PCO
Duration:	3 Days
Credential:	Qualification (3 Years)*
Availability:	Client Site, Training Center, VR Simulation
Discipline:	Crane Operation
Competency:	Level 1
Language:	English
Upon Completion:	2.4 CEUs, Certificate of Completion

\* Optional

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/cranes/pedestal-crane-operator** 

**Industrial Training** International

### SEVERE WEATHER EFFECTS ON CRANE OPERATIONS

Our **Severe Weather Effects on Crane Operations Course** is designed to address how environmental factors, specifically weather, can impact crane operations. The course modules consist of narrated videos, reference materials, and interactive elements intended to solidify key learning objectives.

Upon successful completion of this online course, a certificate of completion will be recorded and accessible for download and printing on the individual learner record. 0.05 continuing education units (CEUs), will also be awarded.

#### **LEARNING OBJECTIVES:**

- Describe how wind loads can affect crane operations
- · Describe how lightning can affect crane operations
- Describe how temperature can affect crane operations
- Describe how to mitigate risk associated with severe weather

Course ID:	OL-SWE
Duration:	20-40 Minutes
Credential:	Certificate of Completion
Availability:	Online 🕎
Discipline:	Cranes, Mobile Crane Operations
Competency:	Level I
Language:	English, Spanish
Upon Completion:	0.1 CEUs

#### https://learn.iti.com/courses/severe-weather-effects-on-crane-operations



Our **Overhead Crane Operator Online Course** is designed to increase the student's level of knowledge in proper use and pre-operational inspection of overhead cranes.

This overhead training course gives equipment operators a solid foundation in health and safety standards, preventative maintenance, and the proper procedures for safely operating overhead cranes. Delivered through multimedia presentations and interactive discussions, course content is reinforced through operator workbooks and supplementary handouts.

#### **COURSE CONTENTS:**

- Inspection Requirements
- Safety Procedures
- Inspection Components
- Mechanical Systems
- Structural Components
- Applicable Federal, State, and Provincial Regulations & Standards

#### https://learn.iti.com/courses/overhead-crane-operator



Course ID:	OL-OHCO
Duration:	4 Hours
Credential:	Certificate of Completion
Availability:	Online 🚖
Discipline:	Cranes, Overhead Cranes
Competency:	Level I
Language:	English
Upon Completion:	0.4 CEUs

## SUSPENDED PERSONNEL PLATFORM TRAINED USER

Our **Suspended Personnel Platform Trained User Online Course** is designed to train the student to plan safely and efficiently for the use of the suspended personnel platform in a lift.

Laying the foundation with common terms and definitions will help the student to properly identify the components of the platform. Using videos and photos, this course prepares the student to effectively plan and execute all stages of the lift, including the pre-operational inspection, proof test, trial lift, rigging and crane check, pre-lift meeting, post-lift meeting and post-operational inspection. After successful completion of this course, including a final written exam, the student will be issued a Trained User Certificate. For an additional fee, the student may request a field exam form to be administered by the student's employer. Upon successful completion of the field exam, the employer may issue an Authorized User Card which will be provided with the field exam form.

This course was developed by ITI subject-matter experts, in partnership with a Technical Advisory Group comprised of construction and general industry experts, and with, Lifting Technologies, an industry leader in man baskets and material platforms manufacturing - learn more at lifttech.com.

#### https://learn.iti.com/courses/suspended-personnel-platform

### WORKING AT-HEIGHTS AROUND MOBILE CRANES

Working at-heights is inherently a high-risk situation. Working at-heights in and around mobile cranes presents another set of variables that must be considered by all trades and roles within an individual job site. Understanding the risks and best practices for mitigating those risks, helps to ensure that all involved are put in the best position to succeed. Our **Working At-Heights Around Mobile Cranes Online Course** details the use of access and egress devices, fall prevention and protection devices to lower the risk of falling while working on and around mobile cranes.

#### **PRE-REQUISITES:**

General understanding of fall protection devices and methods.

#### **COURSE CONTENTS:**

- Introduction
- Regulations Overview
- Using Fall Prevention and Protection
- Planning Considerations
- Case Study
- Learning Check (Quiz)

Students who complete all of the modules in their entirety, will receive a certificate of completion, which can be accessed via their learner record.

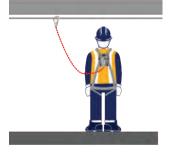
#### https://learn.iti.com/courses/working-at-heights-around-mobile-cranes

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Course ID:	OL-SPP
Duration:	4 Hours
Credential:	Certificate of Completion
Availability:	Online হ
Discipline:	Cranes, General Safety
Competency:	Level I
Language:	English, Spanish
Upon Completion:	0.4 CEUs

Course ID:	OL-AT-Height
Duration:	30 minutes
Credential:	Certificate of Completion
Availability:	Online 🚖
Discipline:	Cranes, Construction Safety
Competency:	Level I
Language:	English
Upon Completion:	0.1CEUs







Our **Carry Deck Operator** training is designed to increase the operator's knowledge, skill, and proficiency level through classroom workshops and hands-on training.

The hands-on session includes operating with live loads and Virtual Reality (VR) Simulator sessions. Qualification is available.

#### SUBJECTS COVERED INCLUDE:

- Crane Components
- Calculate Load Weight
- Demonstrate Operating Skills
- Load Charts
- Effects of Counterweight
- Proper Operating Practices
- Daily Inspection
- Proper Rigging Gear Selection
- Hand Signals

#### **COURSE TRAINING SCHEDULE:**

- · Days 1-2: Classroom and Hands-On
- Day 3: Optional Qualification Exams

Each participant will receive course workbooks and a Mobile Crane Operator Reference Card.

Participants completing the program will receive a Certificate of Attendance, Continuing Education Units (CEUs), and qualification as earned.

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/cranes/carry-deck-operator** 

Course ID: CDO Duration: 3 Days Qualification Credential: (Optional) Client Site, Availability: **Training Center** Discipline: **Crane Operations** Competency: Level I Language: English, Spanish 2.4 CEUs, Certificate Upon Completion: of Completion

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# ARTICULATING BOOM CRANE OPERATOR - QUALIFIED

Our 5-day ITI Qualified Articulating Boom Crane Operator Program is designed to increase the operator's knowledge, skill, and proficiency level through classroom and hands-on training.

Written testing and hands-on evaluations will be administered. Those operators who successfully pass will receive qualification that is valid for 5 years.

#### **SUBJECTS COVERED INCLUDE:**

- Center of Gravity
- Radius
- Leverage
- Load Charts
- Side Loading
- Calculating Capacities
- Operating Practices
- Operators Responsibilities

#### **COURSE TRAINING SCHEDULE:**

- Day 1: Classroom and Hands-On
- Day 2: Classroom and Hands-On
- Day 3: Classroom and Hands-On
- Day 4: Classroom, Hands-On and Exams
- Day 5: Exams

Each participant will receive course workbook(s) and a Mobile Crane Operator Reference Card.

Upon completing the program, participants will receive a Certificate of Attendance and Continuing Education Units (CEUs), and qualification as earned.

Learn more, request a quote, and view upcoming open enrollment dates at: www.iti.com/courses/cranes/articulating-boom-crane-operator

Course ID: ABO Duration. 5 Days Optional, Credential. **Exam Fee Required** Client Site, Availability: **Training Center** Discipline: **Crane Operation** Level II Competency: Language: **English**, Spanish 4.0 CEUs, Certificate Upon Completion: of Completion

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- Range Diagram Gross and Net Loads
- Set-up
- Daily Inspection
- Applicable federal, state and/or provincial regulations and
- standards (ASME, OHSA, OHS)



# MOBILE CRANE OPERATOR - QUALIFIED

Our **ITI Qualified Mobile Crane Operator Program** is designed to increase the operator's knowledge, skill, and proficiency level through classroom and hands-on training. Written testing and hands-on evaluations will be administered. Those operators who successfully pass will receive qualification that is valid for 5 years.

#### SUBJECTS COVERED INCLUDE:

- Crane Components
- Calculate Load Weight
- Demonstrate Operating Skills
- Load Charts
- Effects of Counterweight
- Proper Operating Practices
- · Daily Inspection
- Proper Rigging Gear Selection
- Hand Signals

#### **COURSE TRAINING SCHEDULE:**

- Days 1-3: Classroom and Hands-On
- Day 4: Written and Practical Exams
- Day 5: Exams

Each participant will receive course workbooks and a Mobile Crane Operator Reference Card.

Participants completing the program will receive a Certificate of Attendance, Continuing Education Units (CEUs), and qualification as earned.

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/cranes/mobile-crane-operator** 

Course ID: мсо Duration: 5 Days **Qualification** (5 Credential: Years), Written + **Practical Evaluation Client Site, Training** Availability: Center Discipline: **Crane Operation** Competency: Level II Language: **English**, Spanish 4.0 CEUs, Certificate Upon Completion: of Completion

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## MOBILE CRANE OPERATOR EVALUATOR

In our **Mobile Crane Configurations Online Course**, participants will learn about the Mobile Crane Operator Evaluator role as described in 29CFR 1926.1427.

At the conclusion of the 4-hour course is a video exam that places the student in common scenarios of operators and an evaluation taking place where it must be determined whether the situation was handled correctly or incorrectly.

#### **COURSE CONTENTS:**

- Federal OSHA 1926 Subpart CC
- Sample Evaluation Form
- Operator Aides
- Software
- Safety Devices
- Reference Materials

Course ID:	OL-MCOE
Duration:	4 Hours
Credential:	Certificate of Completion
Availability:	Online 📮
Discipline:	Cranes, Mobile Crane Operations
Competency:	Level III
Language:	English
Upon Completion:	0.4 CEUs

#### https://learn.iti.com/courses/707-mobile-crane-operator-evaluator-course





**INDUSTRIAL TRAINING** INTERNATIONAL



# MOBILE CRANE INSPECTOR

Our 5-day **Mobile Crane Inspector Program** is designed to increase the inspector's knowledge, skill, and proficiency level through classroom and hands-on training. Written testing and hands-on evaluations will be administered. Those inspectors who successfully pass will receive qualification that is valid for 5 years.

#### SUBJECTS COVERED INCLUDE:

- OSHA & ASME Standards
- Lower Structures
- Outriggers
- Safety Devices
- Wire Rope
- Upper Revolving Structure
- · Daily, Monthly, & Annual Checklists
- Inspection Requirements
- Testing Electrical, Hydraulic, & Air Systems

#### **COURSE TRAINING SCHEDULE:**

- Day 1: Classroom
- Days 2-4: Classroom and Hands-On
- Day 5: Written and Practical Exams

Participants completing the program will receive a Certificate of Attendance, Continuing Education Units (CEUs), and qualification as earned.

Please have your cranes and man-lift available for this training.

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/cranes/mobile-crane-inspector** 

Course ID:	MCI
Duration:	5 Days
Credential:	Qualification (5 Years), Written + Practical Evaluation
Availability:	Client Site, Training Center
Discipline:	Mobile Cranes
Competency:	Level II
Language:	English, Spanish
Upon Completion:	4.0 CEUs, Certificate of Completion

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Our 3-day **Overhead Crane Inspector Program** is designed to increase the inspectors' knowledge for inspection of overhead lifting devices which include bridge, gantry, monorail, fixed hoists, and jib wall mounts. Written exams and hands-on evaluations will be administered. Those inspectors who successfully pass will receive qualification that is valid for 5 years.

#### SUBJECTS COVERED INCLUDE:

- OSHA & ASME Standards
- Inspection Requirements
- Runway
- Daily, Monthly, Annual Checklists
- Testing

#### **COURSE TRAINING SCHEDULE:**

- Day 1: Classroom & Hands-On
- Day 2: Classroom & Hands-On
- Day 3: Written & Hands-On Exams

Participants completing the program will receive a Certificate of Attendance, Continuing Education Units (CEUs) and qualification as earned.

Please have your crane(s) and a man-lift available during the program.

Course ID:	онсі
Duration:	3 Days
Credential:	Qualification (5 Years), Written + Practical Evaluation
Availability:	Client Site, Training Center, Online
Discipline:	<b>Overhead Cranes</b>
Competency:	Level II
Language:	English, Spanish
Upon Completion:	2.4 CEUs, Certificate of Completion

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/cranes/overhead-crane-inspector** 

**Industrial Training** International

# OVERHEAD CRANE INSPECTOR

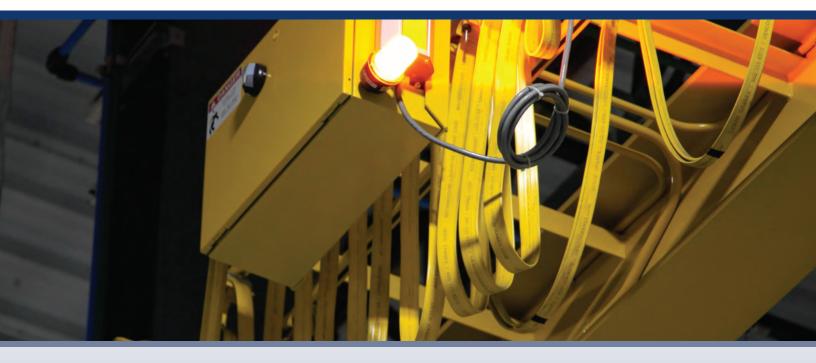
In our **Overhead Crane Inspector Online Course**, participants will gain valuable knowledge of the OSHA, ASME and CMAA standards that pertain to periodic inspections of overhead cranes. No certification issued. This is **NOT** a certification course as it does not include written or practical exams.

#### **COURSE CONTENTS:**

- Types and Classifications
- Record Keeping
- Terminology and General Requirements
- Runways and Wheels
- Chain Hoists (Electric and Manual)
- Lever Tools
- Crane Structure
- Cabs and Platforms
- Controls
- Gears and Couplings
- Wire Ropes, Sheaves, and Chains
- Electrical Systems

This course will discuss overhead crane inspection standards, inspection criteria, federal OSHA regulations, and industry standards including ASME B30.2, ASME B30.16, ASME B30.17, ASME B30.21, and CMAA Spec 70, 74, and 78.

#### https://learn.iti.com/courses/overhead-crane-inspector-fundamentals









Course ID:	OL-OHCI-FUND
Duration:	12 Hours
Credential:	Certificate of Completion
Availability:	Online 🚖
Discipline:	Crane Inspection, Overhead Cranes
Competency:	Level II
Language:	English, Spanish
Upon Completion:	1.2 CEUs



# PEDESTAL CRANE INSPECTOR

Our 3-day **Pedestal Crane Inspector Program** is recommended for client employees needing to improve their skills, knowledge and abilities as inspectors of pedestal cranes. Participants are introduced to the core subjects listed below in both classroom and hands-on settings, and are tasked with inspection assignments that help to establish and/or demonstrate inspection proficiency.

Qualification is available. A written exam and hands-on inspections are administered. A three-year ITI Qualification is issued to participants who successfully pass the exams

#### SUBJECTS COVERED INCLUDE:

- ASME Standards
- Lower Structures
- Inspection Requirements
- Safety Devices
- Upper Revolving Structure
- Daily, Monthly, Annual Checklist
- Testing Electrical, Hydraulic & Air Systems
- Safety Devices
- Wire Rope
- Applicable State & Provincial Requirements
- State/Province-Specific Crane Inspection Requirements

#### **COURSE TRAINING SCHEDULE:**

- Day 1-3: Classroom Workshop & Hands-On Practical Exercises
- Day 3: Written & Practical Exams

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/cranes/pedestal-crane-inspector** 

Course ID:	PCI
Duration:	3 Days
Credential:	Qualification (3 Years)
Availability:	Client Site, Training Center
Discipline:	Crane Inspection
Competency:	Level II
Language:	English
Upon Completion:	2.4 CEUs, Certificate of Completion

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# TOWER CRANE SAFETY & INSPECTION

Our 3-day **Tower Crane Safety and Inspection** is a course covering general tower crane knowledge. The 3-day course is aimed at those involved in inspection activities and safety compliance for tower cranes.

ITI tower crane courses offerings are carried out by partner, Morrow Equipment, at their state-of-the-art training center in Salem, Oregon. Morrow is the exclusive distributor of Liebherr manufactured tower cranes in the United States, Canada, Australia and New Zealand.



#### SUBJECTS COVERED INCLUDE:

- Erection
- Dismantling
- Climbing Systems
- Tower Crane Drive Technology
- Overload Systems
- Limit Switches
- Bolting Requirements
- Certification Procedures
- Load Testing
- Tower Crane Communications
- Structural Inspection
- Foundation Requirements
- Transport
- Anchorages and Recognition of Electrical Hazards
- Hands-om Field Inspections of Working Tower Crane

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/cranes/tower-crane-safety-inspection** 

Course ID: TCSI Duration: 3 Days Credential: NA **Client Site, Training** Availability: Center Discipline: **Crane Inspection** Competency: Level II Language: English 2.4 CEUs, Certificate Upon Completion: of Completion

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## **NCCCO MOBILE CRANE** OPERATOR PREP & EXAMS

To assist crane operators that need to comply with the newly revised OSHA 1926.1400 regulations, which requires crane operators working in construction or performing construction-related activities to be certified through a nationally accredited agency, ITI offers a **Mobile Crane Operator Course** with NCCCO Nationally Accredited Certification testing. The course includes a 3-day test prep to ensure mobile crane operators are prepared to take the NCCCO nationally accredited exams.

This program is designed to prepare participants to take the general and crane-specific exams in the NCCCO Crane Operator Certification Series.

#### **CERTIFICATION CATEGORIES INCLUDE:**

- Lattice Boom Crawler (LBC)
- Lattice Boom Truck (LBT)
- Telescoping Boom Swing Cab (TLL)
- Telescoping Boom Fixed Cab (TSS)

#### **COURSE TRAINING SCHEDULE:**

- Day 1-2: Classroom Workshops, Training, Sample Exams, Load Chart Exercises
- Day 4-5: Written & Practical Exams

Course ID:	CCO-MCO
Duration:	3 Days Prep, 2 Days for Exams
Credential:	Certification of Completion, NCCCO Certification upon passing exams
Availability:	Client Site, Training Center, Simulcast, VR Simulation
Discipline:	Certification Prep, Crane Operations
Competency:	Level I
Language:	English
Upon Completion:	2.4 CEUs, Certificate of Completion

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/certification/mobile-crane-operator** 

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# ARTICULATING BOOM CRANE OPERATOR TEST PREP

To assist crane operators that need to comply with the newly revised OSHA 1926.1400 regulations, which requires crane operators working in construction or performing construction-related activities to be certified through a nationally accredited agency, we offers an online Articulating Boom Crane Operator Certification Test Prep Course. This e-learning program is designed to prepare participants to take the general and cranespecific exams for national accredited agencies.

The inherent versatility and increased use of articulating boom or knuckle boom cranes on job-sites around the world presents a unique set of operator considerations and challenges. ITI's Articulating Boom Crane Operator Prep Course tackles these challenges head-on via interactive workshops, lessons from ITI instructors, and practice exams to check knowledge.

#### **COURSE CONTENTS:**

- Technical Knowledge
- Load Charts
- Site and Articulating Boom Set-Up
- Operations
- Watch lectures of ITI instructors as they walk you through the lesson plan
- Interactive lessons
- Practice exams to check your knowledge

#### https://learn.iti.com/courses/710-articulating-boom-crane-operator-course

### **MOBILE CRANE OPERATOR** TEST PREP

To assist crane operators that need to comply with the newly revised OSHA 1926.1400 regulations, which requires crane operators working in construction or performing construction-related activities to be certified through a nationally accredited agency, ITI offers an online Mobile Crane Operator Certification Test Prep Course. This e-learning program is designed to prepare participants to take the

general and crane-specific exams for national accredited agencies.

#### **COURSE CONTENTS:**

- General Crane Knowledge
  - Technical Information
  - Load Chart Components
  - Crane Site and Setup
  - Operations
  - Practice Exams
- Specialty Crane Load Chart Review and Exercises
  - Lattice Boom Truck

- Lattice
- Telesco
- Telesco
- Watch lectures of ITI instructors as they walk you through the lesson plan
- Interactive lessons
- Exercises, guizzes and practice exams to check your knowledge

#### https://learn.iti.com/courses/705-mobile-crane-operator

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Course ID:	OL-CCO-ABO
Duration:	4 Hours
Credential:	Certificate of Completion
Availability:	Online 🚖
Discipline:	Certification Prep, Mobile Crane Operations
Competency:	Level II
Language:	English, Spanish
Upon Completion:	0.4 CEUs

Course ID:	OL-CCO-MCO
Duration:	12 Hours
Credential:	Certificate of Completion
Availability:	Online 😨
Discipline:	Certification Prep, Mobile Crane Operations
Competency:	Level II
Language:	English
Upon Completion:	1.2 CEUs



e Boom Crawler	
opic Fixed Cab	
opic Swing Cab	



## **NCCCO OVERHEAD CRANE** OPERATOR PREP & EXAMS

The **NCCCO Overhead Crane Operator Course** is designed to prepare participants to take the NCCCO Overhead Crane Operator Written Exam.

#### **CERTIFICATION CATEGORIES INCLUDE:**

- Inspection Requirements
- Safety Procedures
- Inspection Components
- Mechanical Systems
- Structural Components
- Electrical, Hydraulic and Air Systems
- Hoist Systems
- · Safety Items
- OSHA/ANSI Standards
- Applicable State & Provincial Requirements
- State/Province-Specific Crane Inspection Requirements

#### **COURSE TRAINING SCHEDULE:\***

- Day 1: Classroom Workshops, Training, Sample Exams, Load Chart Exercises
- Day 2: Written & Practical Exams

\* Schedule reflects prep course and exams when offered at ITI Training Centers.

ссо-онсо Course ID: 1 Day Prep, 1 Day Duration: Exams Certification (5 Years) NCCCO Credential: **Overhead Crane** Operator Client Site, Training Availability: Center, Online, On-Demand Discipline: **Certification Prep** Competency: Level II Language: English 0.8 CEUs, Certificate Upon Completion: of Completion

Learn more, request a quote, and view upcoming open enrollment dates at: www.iti.com/courses/certification/overhead-crane-operator

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### **NCCCO TOWER CRANE** OPERATOR PREP & EXAMS

The **NCCCO Tower Crane Certification Program** provides training to prepare candidates for CCO examinations. Training Center courses prepare the student for tower crane, signal person and rigger written and practical examination.

Certification requirements include - written examination, practical examination, physical requirements, and a recertification requirement. All CCO written examinations are in multiple-choice format. The Tower Crane, Signal Person and Rigger programs use a single written exam with a practical exam for certification.

ITI tower crane courses offerings are carried out by partner, Morrow Equipment, at their state-of-the-art training center in Salem, Oregon. Morrow is the exclusive distributor of Liebherr tower cranes in the United States, Canada and Mexico.



Course ID:	CCO-TCO
Duration:	5 Days
Credential:	NCCCO Tower Crane Operator Certification
Availability:	Client Site, Training Center
Discipline:	Crane Certification
Competency:	Level II
Language:	English
Upon Completion:	2.4 CEUs, Certificate of Completion
	Duration: Credential: Availability: Discipline: Competency: Language:

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/certification/tower-crane-operator** 

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# OVERHEAD CRANE INSPECTOR -CERTIFICATION

Gain knowledge of the OSHA, ASME and CMAA standards that pertain to periodic inspections of overhead cranes.

Pre-requisite: Per CMAA 78-2.2.1, "A crane inspector should have a minimum of 2,000 hours of relevant work experience and training related to maintaining, inspecting, service, repairing and modifying cranes." If you do not meet this hour requirement yet, please do not register for this course. Instead, you may take the Overhead Crane Inspector course which does not issue a certification.

#### **COURSE CONTENTS:**

- Types and Classifications
- Record Keeping
- Terminology and General Requirements
- Runways and Wheels
- Chain Hoists (Electric and Manual)
- Lever Tools

- Crane Structure
- Cabs and Platforms
- Controls
- Gears and Couplings
- Wire Ropes, Sheaves, and Chains
- Electrical Systems

Course ID:	OL-OHCI-CERT
Duration:	12 Hours
Credential:	Certificate of Completion
Availability:	Online হ
Discipline:	Overhead Cranes, Crane inspection
Competency:	Level III
Language:	English, Spanish
Upon Completion:	1.2CEUs

#### https://learn.iti.com/courses/certified-overhead-crane-inspector



Refresh your knowledge of the OSHA, ASME and CMAA standards that pertain to periodic inspections of overhead cranes with the **Overhead Crane Inspector Recertification Online Course**.

**NOTE:** This course is only available to students who have been previously certified by Industrial Training International or Triple Phase Training.

#### **COURSE CONTENTS:**

- Types and Classifications
- Record Keeping
- Terminology and General Requirements
- Runways and Wheels
- Chain Hoists (Electric and Manual)
- Lever Tools

- Crane Structure
- Cabs and Platforms
- Controls
- Gears and Couplings
- Wire Ropes, Sheaves, and Chains
- Electrical Systems

https://learn.iti.com/courses/certified-overhead-crane-inspector-refresher

**OL-OHCI-CERTREF** Course ID: Duration: 20-40 Minutes Certificate Credential: of Completion Online 🗐 Availability: **Overhead Cranes**, Discipline: Crane inspection Competency: Level III Language: English Upon Completion: 1.2 CEUs

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# OVERHEAD CRANE ELECTRONIC FUNDAMENTALS

**Our Overhead Crane Electronic Fundamentals Online Course** is designed to provide an overview of DC and AC current, as well as basic principles related to electricity as they pertain to overhead crane technicians.

#### **LEARNING OBJECTIVES:**

- Explain the basic principle of electricity
- Contrast AC and DC electricity
- Summarize the difference between current and voltage
- Define common terms
- · Identify electrical symbols
- Explain the function of general components



Course ID:	OL-OHC-EF
Duration:	1 Hour
Credential:	Certificate of Completion
Availability:	Online 🚖
Discipline:	Overhead Cranes, Crane Maintenance
Competency:	Fundamentals
Language:	English, Spanish
Upon Completion:	0.1 CEUs

#### https://learn.iti.com/courses/overhead-crane-electric-motor-fundamentals





# TOWER CRANE TECHNICIAN

Our 5-day advanced **Tower Crane Technician Course** in tower crane service is intended for dedicated service personnel with advanced knowledge of tower crane mechanical and electrical system troubleshooting and repair. The course combines theory and practice using audiovisual presentations with hands-on training utilizing fully functional crane components.

ITI tower crane course offerings are carried out by partner, Morrow Equipment, at their state-of-the-art training center in Salem, Oregon. Morrow is the exclusive distributor of Liebherr tower cranes in the United States, Canada and Mexico.

#### SUBJECTS COVERED INCLUDE:

- Tower Crane Classifications
- · Configuration and Applications
- Electrical Power Supply & Grounding
- Structural Bolting Installation & Inspection
- Top Climbing/Bottom Climbing Procedures Review
- Climbing Support & Anchorage
- Tower Crane Drive Systems
- Load Testing & Movement Limits
- Overload Safety Systems
- Counterweight & Test Weights
- Tower Crane Electrical Schematics Basics
- Basic Fault Tracing
- Crane Controls & Functions
- Work Area Limitation Systems
- Safety & Accident Prevention
- General Inspection & Maintenance
- Applicable Safety Standards & Regulations

Learn more, request a quote, and view upcoming open enrollment dates at:

#### www.iti.com/courses/cranes/tower-crane-technician

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Course ID:	тст
<sup>p</sup> rerequisite:	Tower Crane Safety & Inspection
Duration:	5 Days
Credential:	NA
Availability:	Client Site, Training Center
Discipline:	Crane Technician
Competency:	Level II
_anguage:	English
Jpon Completion:	4.0 CEUs, Certificate of Completion



# 

Our 2-day **Tower Crane Management Course** covers a wide range of areas including crane applications, project planning, operation and maintenance requirements.

ITI tower crane course offerings are carried out by partner, Morrow Equipment, at their stateof-the-art training center in Salem, Oregon. Morrow is the exclusive distributor of Liebherr tower cranes in the United States, Canada and Mexico.

#### SUBJECTS COVERED INCLUDE:

- Tower Crane Applications
- Tower Crane Configurations
- Project Planning
- Crane Operations
- Site Preparation Requirements
- Counterweight and Ballasting Requirements
- Safety and Accident Prevention Electrical Power Supply & Grounding
- · Loading and Transport of Crane Components
- Erection and Dismantle Procedures
- Top Climbing and Crane Anchorage
- Bottom Climbing and Crane Support
- Rail Traveling Requirements
- Automatic Overload Safety Systems
- · Maintenance, Inspection and Record Keeping
- Applicable Safety Standards and Regulations



Course ID:	тсм
Duration:	2 Days
Credential:	NA
Availability:	Client Site, Training Center
Discipline:	Crane Inspection
Competency:	Level II
Language:	English
Upon Completion:	1.6 CEUs, Certificate of Completion

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/cranes/tower-crane-management** 

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# COVERHEAD CRANE

Our 2-day **Overhead Crane Technician I Course** will cover the basic aspects of bridge cranes, electronics, and motors. We will lay the foundation and begin building the knowledge and skills of the overhead crane technician. Hands-on exercises and labs with various pieces of equipment including pendants, magnetic contactors, remote control systems, and more are prominent in the course. Time spent on an actual overhead crane is included. Quizzes are administered throughout, as well as a written and practical examination to ensure proper understanding and comprehension. This course meets/exceeds OSHA, ASME, and CMAA standards.

#### SUBJECTS COVERED INCLUDE:

- Overhead crane components
- · Unified terms and definitions
- · Basics of electricity
- Electrical components including motors, brakes, transformers, contactors, and more
- Magnetic circuits including pendant integration, limit switches, and more
- Applicable Federal, State, and Provincial Regulations and Standards

#### **COURSE TRAINING SCHEDULE:**

Day 1-2: Classroom Workshops & Hands-On Practical Exercises

Course ID:	OHCT-I
Duration:	2 Days
Credential:	NA
Availability:	Client Site, Training Center, VR Simulation
Discipline:	<b>Crane Technician</b>
Competency:	Level I
Language:	English
Upon Completion:	1.6 CEUs, Certificate of Completion

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/cranes/overhead-crane-technician-1** 

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## OVERHEAD CRANE TECHNICIAN INTERMEDIATE - LEVEL II

Our 3-day **Overhead Crane Technician Level II Course** is truly one of a kind. This extensive course covers the major aspects of cranes, electronics, motors, variable frequency drives, encoders, brakes, and connections and circuit diagnostics. We will improve the technician's knowledge and skills and provide the tools to enhance proficiency in overhead crane maintenance, repair, and troubleshooting. Hands-on exercises and labs with various pieces of equipment including pendants, drives, magnetic contactors, remote control systems, encoders, and more are prominent in the course. Time spent on an actual overhead crane is included. Quizzes are administered throughout, as well as a written and practical examination to ensure proper understanding and comprehension. This course meets/exceeds OSHA, ASME, and CMAA standards.

#### SUBJECTS COVERED INCLUDE:

- Unified terms and definitions
- AC and DC circuit design
- Electrical components including motors, brakes, transformers, contactors, and more
- Magnetic circuits including pendant and remote system integration, reversing circuit, and more
- Control theory
- Control circuit testing
- Troubleshooting and diagnosis of magnetic circuits
- Variable frequency drives
- Encoders
- Brake adjustment and repair
- Applicable Federal, State, and Provincial Regulations and Standards

#### **COURSE TRAINING SCHEDULE:**

Day 1-3: Classroom Workshops & Hands-On Practical Exercises

Learn more, request a quote, and view upcoming open enrollment dates at:

#### www.iti.com/courses/cranes/overhead-crane-technician-2

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Course ID: OHCT-II Duration: 3 Days Credential. NA Client Site. Availability: **Training Center, VR** Simulation Discipline: **Crane Technician** Competency: Level II English Language: 2.4 CEUs, Certificate Upon Completion: of Completion





## MASTER OVERHEAD CRANE TECHNICIAN - LEVEL III

This fast-paced course will only briefly cover crane electronics, motor design, and VFD construction. The focus of this training is advanced circuit diagnosis and troubleshooting. We will provide the technician with enhanced diagnostic skills and the ability to be efficient in overhead crane maintenance, repair, and troubleshooting. Hands-on exercises and labs with various pieces of equipment including pendants, drives, magnetic contactors, remote control systems, encoders, and more are prominent in the course. Time spent on an actual overhead crane is included. Quizzes are administered throughout, as well as a written and practical examination to ensure proper understanding and comprehension. This course meets/exceeds OSHA, ASME, and CMAA standards.

#### SUBJECTS COVERED INCLUDE:

- Magnetic circuits including pendant and remote system integration, limit switches, wound rotor, eddy current brake, interlocking circuits and more
- Design controls for single phase and three phase motors
- · Isolation and testing of control circuits
- Troubleshooting and diagnosis of magnetic and VFD circuits
- VFD fault codes
- Faulty drive and encoder diagnosis
- · Isolation and testing of brake issues
- Adjusting and repair of brakes
- Schematics
- Applicable Federal, State, and Provincial Regulations and Standards

#### **COURSE TRAINING SCHEDULE:**

- Day 1-3: Classroom Workshops & Hands-On Practical Exercises
- Day 4 Written & Practical Exams are administered

Learn more, request a quote, and view upcoming open enrollment dates at:

#### www.iti.com/courses/cranes/overhead-crane-technician-3

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Course ID:	OHCT-III
Duration:	4 Days
Credential:	NA
Availability:	Client Site, Training Center, VR Simulation
Discipline:	Crane Technician
Competency:	Level III
Language:	English
Upon Completion:	3.2 CEUs, Certificate of Completion

# LIFT PLANNING & MANAGEMENT COURSES

#### www.iti.com/courses/lift-planning

ITI Lift Planning and Management Training is applicable to a wide range of personnel, from health and safety professionals to tradesmen in the field. Under the broader category of Lift Planning & Management, courses are further classified into the following sub-categories:









# CRANE ASSEMBLY

ITI's **Assembly and Disassembly (A/D) for Mobile Cranes Course** addresses the assembly and disassembly of lattice boom cranes as required by 29CFR1926.1400. As a supplement to this course, ITI also involves participants in the A/D work related to jibs and boom extensions for hydraulic, telescoping type cranes.

#### SUBJECTS COVERED INCLUDE:

- · Components & Configuration of Mobile Cranes
- Lattice Boom A/D
- Boom Extension & Jib A/D Best Practices
- Manufacturer's Prohibitions, Warnings, and Instructions
- Recommended Corporate Guidelines
- OSHA 29 CFR 1926.1400 Assembly/Disassembly Director
- Applicable Federal, State, and/or Provincial Regulation and ASME Standards

#### **COURSE TRAINING SCHEDULE:**

• Day 1-2: Classroom Workshops & Hands-On Practical Exercises

Course ID:	CADD
Duration:	2 Days
Credential:	N/A
Availability:	Client Site, Training Center
Discipline:	Equipment Operation
Competency:	Level II
Language:	English
Upon Completion:	1.6 CEUs

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/lift-planning/assembly-disassembly** 

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Our 1-day **Forklift Inspection Program** is designed to provide trainees with the knowledge and skill necessary to inspect and evaluate the condition of the forklift as required by OSHA 1910.178, ASME B56.6, and current industry standards.

#### AFTER COMPLETING THIS COURSE, THE TRAINEE WILL BE ABLE TO:

- Identify safety procedures and equipment needed to do inspections.
- Determine the inspection and record keeping requirements for forklifts.
- Identify the different types of forklifts and recognize each forklift component as necessary for inspection procedures.
- Locate, identify, and inspect the forklift's structural components.
- Locate, identify, and inspect the forklift's mechanical systems.
- Locate, identify, and inspect the forklift's electrical, hydraulic and air systems as applicable.
- Locate, identify, and inspect the forklift's safety items.
- Perform an inspection of a forklift.

#### **COURSE TRAINING SCHEDULE:**

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• Day 1: Classroom & Hands-On

Course ID:	FLI
Duration:	1 Day
Credential:	None
Availability:	Client Site, Training Center
Discipline:	Equipment Inspection
Competency:	Level I
Language:	English, Spanish
Upon Completion:	0.8 CEUs, Certificate of Completion

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/equipment/forklift-inspector** 

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Our 1-day **Forklift Operator Program** is designed to increase the participant's level of knowledge of proper and efficient forklift operation and meet the training requirements as defined under OSHA 29 CFR 1910.178. Written testing and hands-on evaluations will be administered. Those operators who successfully pass will receive qualification that is valid for 3 years.

#### **SUBJECTS COVERED INCLUDE:**

- · Operator Qualifications
- Operator Responsibilities
- Terminology
- Causes of Forklift Accidents
- Forklift Truck Components
- Pre-op and Safety Inspections
- Loads and Their Effects
- Proper Operating Practices
- OSHA Requirements

#### **COURSE TRAINING SCHEDULE:**

• Day 1: Classroom & Hands-On

Participants completing the program will receive qualification that is valid for 3 years.

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/equipment/forklift-operator** 

Course ID: FLO Duration: 1 Day Qualification (3 Credential: Years), Written + **Practical Evaluation Client Site, Training** Availability: Center Equipment Discipline: Operation Competency: Level I Language: **English**, Spanish 0.8 CEUs, Certificate Upon Completion: of Completion

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Our 1-day **Aerial Lift Inspector Program** is designed to increase the inspector's knowledge, skill, and proficiency level through classroom and hands-on training. Written exams and hands-on evaluations will be administered. Those inspectors who successfully pass will receive qualification that is valid 3 years for in-house inspections only.

#### SUBJECTS COVERED INCLUDE:

- ANSI & SIA Standards
- Safety Procedures
- Design Requirements
- Inspection Components
- Frequent & Periodic Inspection Requirements
- Hands-On Inspection

#### **COURSE TRAINING SCHEDULE:**

Day 1: Classroom & Hands-On

Participants completing the program will receive a Certificate of Attendance, Continuing Education Units (CEUs) and qualification as earned.

Please have your lift available during the program.

Course ID:	MEWP-I
Duration:	1 Day
Credential:	Qualification (3 Years), Written + Practical Evaluation
Availability:	Client Site, Training Center
Discipline:	Equipment Inspection
Competency:	Level II
Language:	English, Spanish
Upon Completion:	0.8 CEUs, Certificate of Completion

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/equipment/mewp-inspector** 

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# MOBILE ELEVATED WORK

Our 1-day **Mobile Elevated Work Platform Program** is designed to increase the participant's knowledge of proper and efficient elevating work platform operations. Written testing and hands-on evaluations will be administered for an independent boom style lift. Those operators who successfully pass will receive qualification that is valid for 3 years.

#### SUBJECTS COVERED INCLUDE:

- Load Ratings
- Pre-Operational Inspection
- Machine Stability
- Proper Operating Practices

#### **COURSE TRAINING SCHEDULE:**

• Day 1: Classroom & Hands-On

Each participant will receive a course workbook.

Participants completing the program will receive a Certificate of Attendance, Continuing Education Units (CEUs), and qualification as earned.

Please have your aerial lifts available for each program.

Course ID:	MEWP-O
Duration:	1 Day
Credential:	Qualification (3 Years), Written + Practical Evaluation
Availability:	Client Site, Training Center
Discipline:	Equipment Operation
Competency:	Level II
Language:	English, Spanish
Upon Completion:	0.8 CEUs, Certificate of Completion

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/equipment/mewp-operator** 



## CRANE & RIGGING MANAGEMENT BOOTCAMP

Our 1-day **Crane & Rigging Management Bootcamp** will provide all attendees with the foundational knowledge necessary to oversee employees conducting load handling activities. The session is an ideal learning environment for safety managers/professionals, training managers, and any personnel with a limited background when it comes to cranes and rigging.

#### SUBJECTS COVERED INCLUDE:

- · Lift Director & Site Supervisor
- ASME B30.5
- Load Handling Procedures
- Crane & Rigging Manual Best Practices
- · Crane Assembly and Disassembly Mobile Crane
- Audit Points for Crane & Rigging Operations
- OSHA & ASME Overview
- · Accident Investigation Mobile Crane

Participants completing the program will receive a Certificate of Attendance and Continuing Education Units (CEUs).

Course ID:	CRMB
Duration:	1 Day
Credential:	None
Availability:	Client Site, Training Center
Discipline:	Lift Planning & Management
Competency:	Level II
Language:	English, Spanish
Upon Completion:	0.8 CEUs, Certificate of Completion

Learn more, request a quote, and view upcoming open enrollment dates at: www.iti.com/courses/lift-planning/crane-rigging-mgmt-bootcamp

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Our 1-day Lift Planning Bootcamp focuses on the process of planning a lift, and the baseline knowledge required to do so. Attendees will begin with rigging applications, crane load charts, and ASME P30 Standards. The end of the course will have a lift planning workshop where a complete lift plan is developed.

#### SUBJECTS COVERED INCLUDE:

- Advanced Rigging Foundations
- Mobile Cranes & Load Charts
- ASME P30 Lift Planning Standard
- Lift Plan Development
- Multi-Crane Lifts
- Compressor Module Critical Lift Plan

Participants completing the program will receive a Certificate of Attendance and Continuing Education Units (CEUs).

Course ID:	LPB
Duration:	1 Day
Credential:	None
Availability:	Client Site, Training Center
Discipline:	Lift Planning & Management
Competency:	Level II
Language:	English, Spanish
Upon Completion:	0.8 CEUs, Certificate of Completion

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/lift-planning/lift-planning-bootcamp** 

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# LIFT DIRECTOR & CRITICAL LIFT PLANNING

Our 3-day Lift Director & Critical Lift Planning Program addresses the following subjects during a series of problem-solving workshops.

The Lift Director portion of the course addresses the responsibilities of a Lift Director as identified by 29CFR1926.1400 (OSHA or OHS), ASME P30.1 Lift Planning and ASME B30.5 Mobile and Locomotive Cranes. Participants are provided an outline of the recommended knowledge and skill subjects that should be mastered in order to become a competent Lift Director.

The Critical Lift Planning portion of the course focuses on the process of assessing risks, the compilation of crane and rigging data, crane operating areas, rigging methods, a safety checklist, personnel competencies and assignments, a proposed sequence of events, contingency plans and other category items as recommended in ASME P30.1 Lift Planning.

Participants will formulate a series of lift plans based on multiple scenarios and then will be challenged to solve a variety of problem-solving workshops related to partially completed plans (quiz format).

#### SUBJECTS COVERED INCLUDE:

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- Site Equipment Setup and Operation
- Roles, Responsibilities, and Qualifications of Lift Director and Personnel
- · Lifting Operations Personnel Assignments
- · Rigging / Rigging Decisions for Lift Planning
- Load Charts / Using Load Charts to Prepare a Lift Plan
- · Rigging Capacities and Methods
- Lift Plans Sequence of Events, LHE Placement and Usage
- Critical Lift Planning Elements Develop, Review and Evaluation

Each participant will receive a course workbook, Reference Cards (Rigging Gear Inspection, Journeyman Rigger, Master Rigger, Length : Height : Run, Horizontal Rigging, and Mobile Crane Operator), Critical Lift Forms, and the ASME B30.5 and P30.1 Standards.

Learn more, request a quote, and view upcoming open enrollment dates at:

#### www.iti.com/courses/lift-planning/lift-director-critical-lift-planning

Course ID. LDCLP Duration. 3 Days **Optional, NCCCO** Lift Director Certification Credential: Available (Additional Exam Fee Required) **Client Site, Training** Availability: Center Lift Planning & Discipline: Management Competency: Level III Language: **English**, Spanish 2.4 CEUs, Certificate Upon Completion: of Completion

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# PROJECT EXECUTION FOR LIFT PLANNERS & RIGGING ENGINEERS

Our 2-day **Project Execution for Lift Planners & Rigging Engineers Course** is held at scheduled times throughout the year, in various cities throughout the world. It offers students an in-person, interactive option to collaborate and develop engineered lift plans alongside other students and ITI Rigging Engineering Instructors.

# PROJECTS WILL BE DESIGNED FOR EXECUTION WITH A VARIETY OF LOAD HANDLING EQUIPMENT INCLUDING:

- Mobile Cranes
- Tower Cranes
- Telescoping Hydraulic Gantry Systems
- Hydraulic Jacks
- Strand Jacks
- Modular Lift Towers
- Hydraulic Skidding Systems
- Industrial Rolling Systems
- Winches & Blocks
- Hydraulic Platform Trailers
- · Spreader Beams & Complex Lifting Arrangements
- Customized Load Handling Equipment

#### **COURSE TRAINING SCHEDULE:**

This Course is "project-oriented" and involves minimal instructor lecturing. Students will select from several project scenarios to execute in an array of working environments and load choices.

Students are encouraged to utilize the computer systems that they are familiar with (e.g. AutoCAD, LiftPlanner, 3D Lift Plan).

Learn more, request a quote, and view upcoming open enrollment dates at:

#### www.iti.com/courses/lift-planning/project-execution

Course ID:	PE
Duration:	2 Days
Credential:	NA
Availability:	Client Site, Training Center
Discipline:	Rigging Engineering
Competency:	Level III
Language:	English
Upon Completion:	1.6 CEUs, Certificate of Completion

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### ACCIDENT INVESTIGATION FOR CRANES, RIGGING & MATERIAL HANDLING OPERATIONS

Our **Accident Investigation Course** begins with a series of workshops that focus on three disciplines related to load handling; crane operations, rigging activities and forklift operations. Problem-solving workshops help solidify participants' understanding and knowledge concerning equipment set-up, proper application, capacity information, inspection, hazard recognition and operational safety.

#### SUBJECTS COVERED INCLUDE:

- Understanding Equipment Operations
- Federal, State, Provincial Regulations and Standards
- · Operator/Rigger Assignments & Performance
- Fact vs. Fiction
- Leading Cause Identification
- · Violations of Corporate and Jurisdictional Requirements
- Corrective Action Plan
- Applicable federal, state, and/or provincial regulations and ASME standards

#### **COURSE TRAINING SCHEDULE:**

• Day 1-3: Classroom Workshops & Hands-On Practical Exercises

Course ID:	AI
Duration:	3 Days
Credential:	NA
Availability:	Client Site, Training Center
Discipline:	Site Prep & Hazard Recognition
Competency:	Level II
Language:	English
Upon Completion:	2.4 CEUs, Certificate of Completion

Learn more, request a quote, and view upcoming open enrollment dates at: **www.iti.com/courses/lift-planning/accident-investigation** 

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# FIELD LEADERSHIP ESSENTIALS

Our Field Leadership Essential Online Course is designed to provide you with the knowledge and skills necessary to successfully prepare and lead a crew performing work in the field, and the ability to communicate effectively with the customer. This engaging and practical online, on-demand course is divided into two sections, with three modules per section. Each module contains a clearly defined learning objective and provides you with several active opportunities to demonstrate comprehension by means of interactive audio, visual, and written content and exercises.

Upon successful completion of this online course, a certificate of completion will be recorded and accessible for download and printing on the individual learner record. 0.4 continuing education units (CEUs), will also be awarded.

#### **LEARNING OBJECTIVES:**

- Explain the fundamental leadership traits necessary to develop and influence a successful team.
- Demonstrate the required skills to properly prepare for the job, including job comprehension, plan development, risk assessment, and communication strategies.
- Demonstrate the required skills to prepare a team to successfully perform the job.
- Explain the aspects of making a profit that a field leader can control and demonstrate the ability to conduct a team meeting and job hazard briefing.
- Explain the aspects of customer satisfaction and demonstrate the required skills for keeping the customer informed.
- Identify the steps to monitor and mitigate risks and describe the process of failure analysis and continuous improvement.

#### https://learn.iti.com/courses/field-leadership-program







# ONLINE LIBRARIES COURSE CATEGORY OVERVIEW

### **CRANE & RIGGING FUNDAMENTALS LIBRARY**

Whether we are talking about crane and rigging training or building a house, a strong foundation is not something that is optional in either case. The ITI Online, On-Demand Crane & Rigging libraries consist of course titles which allow for beginners and those with limited exposure to crane and rigging operations, to establish the fundamental building blocks required to progress to more advanced topics and skills. The Crane & Rigging Fundamentals Library includes the following course titles:

- Rigging Hardware Basics
- Introduction to Rigging & Load Handling
- Fundamentals of Slings & Rigging Equipment
- Basic Rigging & Inspection
- Basic Entertainment Rigging & Inspection
- Mobile Crane Configurations
- Mobile Crane Load Chart Basics
- Mobile Crane Principles

- Mobile Crane Setup Basics
- Mobile Crane Operator Evaluator
- Severe Weather Effects on Crane Operations
- Signaling for Mobile and Overhead Cranes
- Overhead Crane Operator
- Overhead Crane Electronic Motor Fundamentals
- Math Primer for Construction & Industrial Workforce
- Field Leadership Essentials

The ITI Online Crane & Rigging Fundamentals Library contents are included in the following individual and group subscription plans:

- Individual Essentials
- Individual Professional
- Group Essentials
- Group Professional

### CRANE & RIGGING ADVANCED LIBRARY

The ITI Online, On-Demand Crane & Rigging Advanced Library consists of course titles that take a deep dive into hoisting and load handling subject matter. The Crane & Rigging Advanced Library includes the following course titles:

- Advanced Rigging
- Bull Rigging
- Overhead Crane Inspector

- Suspended Personnel Platform Trained User
- Working At-Heights Around Mobile Cranes

### **CERTIFICATION PREP LIBRARY**

The ITI Online, On-Demand Certification Prep Library consists of course titles designed to prepare students for nationally recognized certification exams. The Certification Prep Library includes course titles from the following certification disciplines:

- Articulating Boom Crane Operator Test Prep
- Mobile Crane Operator Test Prep
- Overhead Crane Inspector Certification
- Overhead Crane Inspector Recertification
- Rigger I Test Prep
- Rigger I & II Test Prep
- Singalperson Certification Test Prep

The ITI Online Crane & Rigging Advanced Library and the ITI Online Certification Prep Library contents are included in the following individual and group subxcription plans:

- Individual Professional
- Group Professional
- Enterprise

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# RIGGING ENGINEERING TRAINING LIBRARY



WHO	For personnel who plan and oversee lifting and load handling activities including Lift Planners, Crane & Rigging Managers, and Rigging Engineers.
WHAT	An accredited, comprehensive introduction to the engineering behind complex rigging, lifting, and transport activities.
WHERE	Powered by an online learning management system which showcases instructor lec- tures, quizzes, workshops, and exams with live instructor-led learning options available.
WHY	To gain a deep understanding of the engineering considerations for all modes of load handling.
WHEN	On-demand, online, with live instructor-led learning opportunities.
HOW	Over 20 of the world's finest rigging engineers and some very influential organizations have assembled to build the first training program of its kind.

#### **COURSE CERTIFICATES & ACCREDITATION**

The Program is accredited by LEEA, approved by ASME, and eligible for PDHs\* in most cases. A Program Certificate will be awarded to students who complete all Program Requirements.

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### ALTERNATIVE LOAD HANDLING EQUIPMENT ENGINEERING & APPLICATIONS

#### **COURSE OUTLINE**

- Module 1: Hydraulic & Strand Jacks
  - Module Introduction & Major Considerations
  - Strand Jacks
  - Compatible Mast Systems
  - Jack and Pack Systems
  - Heavy Duty Proprietary Systems
  - Elephant Foot Jacks
  - Gripper-Type Climbing Jacks
  - Push-Up Mast Systems
  - Cranes with Strand Jacks
- Module 2: Telescopic Hydraulic Gantries
  - Module Introduction & Major Considerations
  - Application & Engineering
  - Lift Planning & Operations
  - Strand Jacks on THGS
- Module 3: Modular Lift Towers & Various
   Systems
  - Module Introduction
  - Engineering Considerations for MLTs &

Alternative Lift Methods

- Layout & Construction Guidelines for MLTs & ALMs
- Operations of MLTs & ALMs
- Module 4: Horizontal Load Handling Systems
  - Module Introduction & Major Considerations
  - Skidding Systems
  - Rolling Systems
  - Alternative Horizontal Rigging Systems

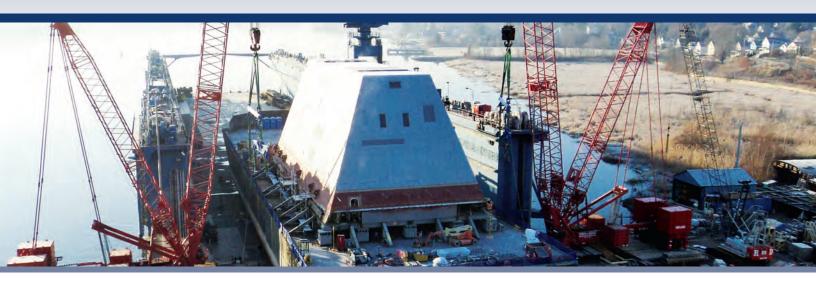
#### **COURSE MATERIALS**

Students will receive physical copies of the following course material:

- Rigging Engineering Basics by J. Keith Anderson
- Telescopic Hydraulic Gantry Systems by David
   Duerr
- Recommended Practices for Telescopic Hydraulic Gantry Systems by SC&RA (book only)
- Horizontal Load Handling Reference Card
- ASME B30.1

Learn more, request a quote, and view upcoming open enrollment dates at: https://learn.iti.com/courses/alternative-load-handling-equipment-engineering-and-applications

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#### **COURSE OUTLINE**

- Module 1: Introduction to Cranes & Derricks
  - Module Introduction & Major Considerations
  - Hoisting, Drums & Sheaves
  - Wire Rope & Fittings
  - Powered Lifting, Luffing, Derricks & the Contemporary Crane
  - Basis for Load Ratings
- Module 2: Crane Configurations
  - Module Introduction & Major Considerations
  - Derricks
  - Mobile Cranes
  - Load Spreading
  - Tower Cranes
  - Various Cranes
- Module 3: Loads & Forces
  - Module Introduction & Major Considerations
  - Static Loads
  - Dynamic Loads
  - Wind Loads
- Module 4: Stability Against Overturning
  - Module Introduction & Major Considerations
  - Mobile Cranes
  - Tower & Self-Erecting Cranes
  - Dynamic Stability

- Module 5: Crane Use & Planning
  - Module Introduction & Major Considerations
  - Mobile Crane Installations
  - Tower Crane Installations
  - Derrick Installations
  - Ground Surveying
  - Controlling Risk
  - Load Charts Rating Charts & Overloading
  - Mobile Cranes on Barges

#### **COURSE MATERIALS**

Students will receive physical copies of the following course material:

- Rigging Engineering Basics by J. Keith Anderson
- Cranes & Derrick by Lawrence K. Shapiro and Jay Shapiro
- Mobile Crane Support Handbook by David
   Duerr
- ITI Mobile Crane Operator Reference Card
- ASME B30.3
- ASME B30.5
- ASME B30.8

Learn more, request a quote, and view upcoming open enrollment dates at: https://learn.iti.com/courses/crane-and-derrick-engineering-installation-and-planning

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## ENGINEERING PRINCIPLES FOR RIGGING & LOAD HANDLING

#### **COURSE OUTLINE**

- Module 1: Statics and Dynamics
  - Module Introduction & Major Considerations
  - Vectors & Forces
  - Moments
  - Structures
  - Friction
  - Center of Gravity
- Module 2: Basic Structural Analysis & Design
  - Module Introduction & Major Considerations
  - Stress & Strain
  - Stress & Strain Supplement: Shear Stress & Shear Strain
  - Beam Shear & Bending
  - Beam Shear and Bending: Centroid & Moment of Inertia
  - Connections
  - Columns
- Module 3: Introduction to Dynamics
  - Module Introduction & Major Considerations
  - Rectilinear Kinematics

- Force & Acceleration
- Work & Energy
- Module 4: Hydraulics & Powered Lifting
  - Fundamentals Principles of Hydraulics
  - Definitions & Components of Hydraulics
  - Diagrams & Symbols of Hydraulics

#### **COURSE MATERIALS**

Students will receive physical copies of the following course material:

- Rigging Engineering Basics by J. Keith Anderson
- Cranes & Derrick by Lawrence K. Shapiro and Jay Shapiro
- Mobile Crane Support Handbook by David
   Duerr
- ITI Mobile Crane Operator Reference Card
- ASME B30.3
- ASME B30.5
- ASME B30.8

Learn more, request a quote, and view upcoming open enrollment dates at: https://learn.iti.com/courses/801-engineering-principles-for-rigging-and-load-handling-activities

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## LIFT PLANNING PROCEDURE CONSIDERATIONS & EXECUTION

#### **COURSE OUTLINE**

- Module 1: Introduction to Lift Planning
  - Module Introduction & Major Considerations
  - 8 Consideration Points
  - Analyzing Risk
  - Modularization
  - Human Performance Management
- Module 2: Building Lift Plans
  - Module Introduction & Major Considerations
  - Load Handling Roles & Responsibilities
  - 10 Load Handling Factors
  - Preparing a Lift Plan
  - Lifting Personnel
  - Lift Planning Meeting
  - · Lift Planning Software Overview
- Module 3: Executing Lift Plans
  - Module Introduction & Major Considerations
  - Crane Accident Studies and Statistics
  - · Accident Analysis and Case Studies

#### **COURSE MATERIALS**

Students will receive physical copies of the following course material:

- Rigging Engineering Basics by
   J. Keith Anderson
   ASME B30.8
- Lift Planning Workbook
- Lift Director Workbook
- Rigging with the Big Stuff Reference Card
- Length/Height/Run Reference
   Card
- ASME P30.1
- ASME B30.3

Learn more, request a quote, and view upcoming open enrollment dates at: https://learn.iti.com/courses/lift-planning-procedure-considerations-and-execution

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# RIGGING & LOAD HANDLING EQUIPMENT ENGINEERING & APPLICATIONS

#### **COURSE OUTLINE**

- Module 1: Slings and Shackles
  - Module Introduction & Major Considerations
  - Wire Rope Fundamentals
  - Wire Rope Slings
  - Chain Slings
  - Synthetic Web Slings
  - Synthetic Roundslings
  - Synthetic Rope Slings
  - Shackles & Hardware
- Module 2: Below-the-Hook Lifting Devices
  - Module Introduction & Major Considerations
  - Structural Design Factors
  - Lifting Beams & Spreader Bars
  - Lifting Lug Design
- Module 3: Lifting Equipment
  - Module Introduction & Major Considerations
  - · Hand & Lever Chain Hoists
  - Manual & Air Tuggers
- Module 4: Rigging Applications
  - Module Introduction & Major Considerations
- Rigging Selection, Hitch Types & Capacities
- Center of Gravity & Calculations
- Load Distribution
- Sling Tension
- Load Control
- Chain Hoists & Load Drifting

- · Levers, Jacking & Rolling
- Reeving
- Winches & Blocks
- Off-Level Pick Points
- Load Turning
- Module 5: Rigging Arrangements & Techniques
  - Stability & Equilibrium
  - Tandem Lifting
  - Upending & Inverting Loads
  - Vessel Upending Techniques
  - Load Sharing & Equalizing Arrangements
  - Suspension of Loads from Horizontal Lines

#### **COURSE MATERIALS**

Students will receive physical copies of the following course material:

- Rigging Engineering Rigging Gear Inspection Basics by J. Keith Reference Card Anderson Journeyman Rigger's
- Wire Rope User's Manual
- Wire Rope Sling User's Manual
- Crosby Catalog
- Heavy Lift Workbook and 

   ASME B30.20

   Reference Card
- ITI Master Rigger Workbook
- ASME B30.26

**Reference** Card

**Reference Card** 

Master Rigger's

ASME BTH-1

• ASME B30.9

Learn more, request a quote, and view upcoming open enrollment dates at: https://learn.iti.com/courses/rigging-load-handling-equipment-engineering-applications

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#### **COURSE OUTLINE**

- Module 1: Road Transport
  - Module Introduction & Major Considerations
  - Hydraulic Platform Trailers Overview & Case
     Studies
  - Hydraulic Platform Trailers Engineering & Calculations
  - Other Equipment
  - Operational Considerations, Regulations & Permitting
  - Securement & Lashing Design
- Module 2: Rail Transport
  - Module Introduction & Major Considerations
  - Equipment
  - Operational Considerations, Regulations & Permitting
  - Securement Design
- Module 3: Water Transport
  - Module Introduction & Major Considerations
  - Barges and Ships: Overview & Case Studies
  - · Barges and Ships: Engineering & Calculations
  - Classification Societies & Regulations

#### **COURSE MATERIALS**

Students will receive physical copies of the following course material:

- Rigging Engineering Basics by
  J. Keith Anderson
- The Art of Heavy Transport by Marco van Daal
- Hydraulic Platform Transporters Reference Card

Learn more, request a quote, and view upcoming open enrollment dates at: https://learn.iti.com/courses/specialized-transport-engineering-and-considerations

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## STANDARDS & REGULATIONS FOR LOAD HANDLING EQUIPMENT

#### **COURSE OUTLINE**

- Module 1: Global Standards
  - Module Introduction & Major Considerations
  - ASME B30 Load Handling Equipment
  - ASME P30 Lift Planning
  - CSA Z150 Mobile Cranes
  - CSA Z150 Tower Cranes
  - ISO
  - BS
  - DIN
  - EN
  - Additional Various Standards
- Module 2: Government Regulations
  - Module Introduction & Major Considerations
  - OSHA 1910
  - OSHA 1926
  - Canadian Federal & Provincial Regulations
  - LOLER & PUWER
  - Australia
  - Brazil
  - Various Regulations

- Module 3: Industry-Specific Requirements
  - Module Introduction & Major Considerations
  - NRC
  - DOE
  - API
  - State DOTs
  - MSHA
  - Canadian Mining Act
  - Various Industry Standards

#### **COURSE MATERIALS**

Students will receive physical copies of the following course material:

- Rigging Engineering Basics by J. Keith Anderson
- ASME B30.2

Learn more, request a quote, and view upcoming open enrollment dates at: https://learn.iti.com/courses/standards-regulations-for-load-handling-equipment

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**ITI Virtual Reality Simulation** training offers the most authentic and immersive industrial training simulator experience on the planet.

Featuring over 1,000 scenarios across 12 crane and equipment models to a community of subscribers that benefit with each new crane model, scenario and feature released.

#### Request a demo today at iti.com/vr/demo.





Construction hazards are plentiful, as are the training programs that address them like OSHA-10, online courses, and various internal safety courses. Practical, immersive assessment of these hazards has not been available until now.

The VR Construction Hazard ID Assessment is a major title in the ITI VR Industrial Skills Library which is delivered through VR Headsets any place your people are! The practical assessment can be administered by nearly anyone and covers 10 risk domains.

Developed with the participation of the NSC, Bechtel, DPR Construction, GLY Construction, Kiewit, Liberty Mutual Insurance, and United Rentals, the VR Construction Hazard ID experience challenges candidates to inspect a jobsite and identify several risk domains including hand tools, lock out/tag out, lifting and rigging, dropped objects, and more.





Learn more at iti.com/vr/construction-hazard-certification

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## **Experienced Minds and Hands**

#### **Crane and Rigging Accident Investigation**

Crane, rigging, and wire rope failure analysis is provided for clients who experience accidents. Findings can be used to modify rigging practices or in preparation for litigation. ITI maintains some of the industry's most highly-regarded experts in cranes operations, rigging applications, and wire rope.

#### **Procedure Manual Development**

Load handling and equipment manuals assist the client by developing and incorporating standard operating procedures for their worksite. The final document package can be used on the client's intra-web, and in printed form to provide clear guidance for employees involved in standard and critical lift activities.

#### **Crane and Rigging Performance Evaluations**

Load handling performance evaluations may focus on rigging usage, inspection, and overall worker skill levels. These independent, third-party evaluations have the potential to reveal current status and recommended areas of improvement.

#### **Expert Witness Services**

Services are provided for clients with claims concerning crane and rigging practices in connection to an incident, as well as suitability of equipment in regards to an incident.







### store.iti.com

A one-stop shop for all things crane, rigging, lift planning, and material handling, the ITI Bookstore offers a wide variety of books, reference materials, training resources, field tools, and more.

### RIGGING HANDBOOK Rigging **Crane Accidents** Engineering **BEST SELLERS** Basics New & Updated Resources RIGGING ENGINEERING Overhead Crane Operator Reference Card rhead Cran JOURNEYMAN RIGGER'S REFERENCE CARD **FIELD REFERENCE CARDS** Industry Trusted & Tested Information RIGGING KNOTS 4 WALLET REFER POSTERS & TOOLS Work Smarter, Work SAFE TELESCOPING BOOM CRANE DAILY CRANE LOG **INSPECTION FORMS** CRANE OPERATOR LOG BOOK To Keep Work Safe and Organized. store.iti.com rial Training

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#### CRANES • RIGGING • MATERIAL HANDLING • INDUSTRIAL SAFETY

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