

Advanced Hoisting & Rigging Syllabus

Time: 40 hours

Maximum Class Size: 8

Prerequisites: Hoisting & Rigging

Course Description: The Advanced Hoisting and Rigging class will provide students with additional opportunities to practice and hone the skills learned in the Hoisting and Rigging class. Students are tasked with not only performing rigging tasks but also conducting Job Safety Analysis' for a crew comprised of their fellow classmates. Students are also introduced to some new skills such as "tripping loads", using a chain-fall, and using a come along.

Goals/Objectives/Student Learning Outcomes:

- Explain crane and rigging safety awareness
- Explain OSHA subpart CC 1926.1408-cranes operating near power lines
- Identify six types of cranes
- Describe and demonstrate crane set-up
- Identify rigging slings and hardware
- Explain how to inspect riggings prior to use
- Describe three different sling configurations and when to use them
- Determine how to calculate load weights and center of gravity
- Explain how to calculate sling tension
- Describe come-along, chain-fall and beam clamp use
- Explain "lift and hold"
- Explain when and why you use engineered softeners
- Explain when and why you use padding
- Describe and demonstrate how to trip loads
- Demonstrate hand signals and how to relay hand signals
- Demonstrate verbal signals
- Explain why a Rigger's Checklist is used on jobsites

Classroom Rules and Procedures

- All classes begin at 6:30 am and end at 3:00 pm
- Upon entering classroom, all participants must sign in and be seated by 6:30 am
- Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessment.

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- Students are required to report to class ready to work and maintain the provided PPE

Textbooks

- LIUNA Hoisting & Rigging Participant Guide
- Advanced Hoisting & Rigging Student Handout Packet
- Advanced Hoisting & Rigging Exit Exam
- Advanced Hoisting & Rigging Hands-on Evaluation

Tools and Materials

- 8-3/4 shackles
- 4-2" x 6' eye to eye synthetic slings
- 4-2" x 8' eye to eye synthetic slings
- 4-2" x 10' eye to eye synthetic slings
- 4-2" x 12' eye to eye synthetic slings
- 4-2" x 16' eye to eye synthetic slings
- 4-2" x 20' eye to eye synthetic slings
- 1-2" x 8' 4-leg synthetic bridle
- 2-canvas nose bags
- 8-engineered softeners
- 1-ton chain fall
- 1-ton come along
- 4-20' tag lines
- 1-4' x 8' metal skip pan
- 4-air horns
- 4-30' tape measures
- 8-calculators
- Tub for 40-hour Rigging course
- Pens and pencils

Personal Protective Equipment

- 8 pairs of gloves
- 8 pairs of safety glasses
- 8 pairs of ear plugs
- 8 hard hats

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Course Requirements

To receive credit for the course, participants must:

- Be present for full forty hours
- Participate in all class exercises
- Pass a hands-on evaluation
- Pass a written exam

Course Policies

- Participants must be on-time and ready to work.
- Participants must return from breaks on-time.
- Participants must participate in each exercise and assignment
- Participants who are on “light duty” are not allowed to take this course due to the physically demanding requirements.

Assessment and Grading

Participants will be assessed on the following:

- All written exams must be passed with a score of 80% or above.
- All hands-on exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above

Safety

Failure to maintain and use PPE may result in dismissal from the course.