Rigger/Signal Person

BASIC RIGGER

Curriculum Notes
- 137.5 Hours
  - Includes 72.5 hours of Core Curriculum, which is a prerequisite for Level 1 completion and must be purchased separately.
- Updated in 2018.
- Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at www.nccer.org/irc.
- A Spanish translation of Rigging Fundamentals is available. Please see NCCER’s online catalog for more information.

PAPERBACK
Trainee Guide: $49 978-0-13-518508-7
Individual Modules: $20 see module list

INTERMEDIATE RIGGER

Curriculum Notes
- 105 Hours
- Updated in 2018.
- Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at www.nccer.org/irc.

PAPERBACK
Individual Modules: $20 see module list

MODULES
The modules listed below are included in the Trainee Guide. The following ISBNs are for ordering individual modules only.

Intermediate Rigging (17.5 Hours)

Load Dynamics (17.5 Hours)
ISBN 978-0-13-498789-7 (Module ID 21206; from Mobile Crane Operations Level Two) Covers load distribution, forward and backward stability, operational quadrants, submerged lifts, non-centered lifts, and other forces that affect stability.

Wire Rope (25 Hours)

Crane Communications (10 Hours)

Telescopic Boom Attachment Setup and Assembly (20 Hours)
ISBN 978-0-13-518668-8 (Module ID 21302; from Mobile Crane Operations Level Three) Covers the setup and stowing of swing-away extensions and various jibs, as well as the assembly of intermediate boom sections, on telescopic cranes. Includes the description and operating characteristics of manual and power luffing jibs.

Lattice Boom Assembly and Disassembly (25 Hours)

Continued on following page
Advanced Rigger

**Curriculum Notes**
- 95 Hours
- Updated in 2018.
- Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at www.nccer.org/irc.

**PAPERBACK**
- Trainee Guide: $49
- Individual Modules: $20

**MODULES**
The modules listed below are included in the Trainee Guide. The following ISBNs are for ordering individual modules only.

### Advanced Rigging (20 Hours)
(Module ID 38301) Explains how load weight and center of gravity affect lifting and crane stability. Load calculations for multi-crane lifts are presented, along with the application of equalizer beams. The movement of loads up an inclined plane and the line pull required are examined in detail. The module concludes with guidance in the rigging and handling of rebar bundles.

### Load Charts (35 Hours)
(Module ID 21301; from Mobile Crane Operations Level Three) Discusses the importance of load charts and charts that apply to different configurations. Includes on-rubber, on-outrigger, jib, and deduction charts, as well as range diagrams and operational notes. Covers parts of line and capacity calculations.

### Lift Planning (20 Hours)
(Module ID 21304; from Mobile Crane Operations Level Three) Discusses lift plan implementation, including reference information, calculations, single- and multiple-crane lifting, critical lifts, and engineering considerations.

### Hoisting Personnel (20 Hours)
(Module ID 21305; from Mobile Crane Operations Level Three) Examines ASME B30.23 and 29 CFR 1926.550(g) requirements while presenting advanced operation techniques for hoisting personnel.

### Crane Safety and Emergency Procedures (25 Hours)
(Module ID 21106; from Mobile Crane Operations Level One) Covers safety standards and best safety practices relevant to the operation of cranes. Describes safety considerations related to power lines, weather conditions, and specific crane functions.

### Basic Principles of Cranes (15 Hours)
(Module ID 21102; from Mobile Crane Operations Level One) Introduces mobile crane equipment with an in-depth discussion of terminology and nomenclature. Explains the basic scientific principles associated with mobile crane operation.

### Crane Communications (10 Hours)
(Module ID 53101) Describes the communication process between the signal person and the crane operator. Covers electronic communications as well as the standard hand signals in 29 CFR 1926.

**SIGNAL PERSON**

**Curriculum Notes**
- 50 Hours
- Updated in 2018.
- Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at www.nccer.org/irc.

**PAPERBACK**
- Trainee Guide: $49
- Individual Modules: $20

**MODULES**
The modules listed below are included in the Trainee Guide. The following ISBNs are for ordering individual modules only.

### Basic Principles of Cranes (15 Hours)
(Module ID 21305; from Mobile Crane Operations Level Three) Examines ASME B30.23 and 29 CFR 1926.550(g) requirements while presenting advanced operation techniques for hoisting personnel.