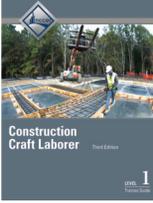


L1 CONSTRUCTION CRAFT LABORER

LEVEL 1



Curriculum Notes

- 175 Hours
- Includes 75 hours of Core, which is a prerequisite for Level 1 completion and must be purchased separately. For more information, please refer to page 9 of the full Curriculum Catalog or visit www.nccer.org/catalog.
- Updated: 2015, Third Edition
- Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at www.nccer.org/irc.

PAPERBACK

ISBN

Trainee Guide: \$69.99

978-0-13-413094-1

MODULES

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

Basic Safety (Construction Site Safety Orientation)

(12.5 Hours)

ISBN 978-0-13-407556-3

(Module ID 00101-15; from *Core*) Presents basic jobsite safety information to prepare workers for the construction environment. Describes the common causes of workplace incidents and accidents and how to avoid them. Introduces common personal protective equipment, including equipment required for work at height, and its proper use. Information related to safety in several specific environments, including welding areas and confined spaces, is also provided.

Introduction to Construction Math (10 Hours)

ISBN 978-0-13-413164-1

(Module ID 00102-15; from *Core*) Reviews basic math skills related to the construction trades and demonstrates how they apply to the trades. Covers multiple systems of measurement, decimals, fractions, and basic geometry.

Introduction to Hand Tools (10 Hours)

ISBN 978-0-13-412937-2

(Module ID 00103-15; from *Core*) Introduces common hand tools used in a variety of construction crafts. Identifies tools and how to safely use them. Also presents proper hand tool maintenance.

Introduction to Power Tools (10 Hours)

ISBN 978-0-13-412901-3

(Module ID 00104-15; from *Core*) Identifies and describes the operation of many power tools common in the construction environment. Provides instruction on proper use, as well as safe-handling guidelines and basic maintenance.

Introduction to Construction Drawings (10 Hours)

(10 Hours)

ISBN 978-0-13-412903-7

(Module ID 00105-15; from *Core*) Introduces the basic terms, components, and symbols of construction drawings, as well as the most common drawing types. Also covers the interpretation and use of drawing dimensions.

Introduction to Basic Rigging (7.5 Elective Hours)

ISBN 978-0-13-412905-1

(Module ID 00106-15; from *Core*) Provides basic information related to rigging and rigging hardware, such as slings, rigging hitches, and hoists. Emphasizes safe working habits in the vicinity of rigging operations.

Basic Communication Skills (7.5 Hours)

ISBN 978-0-13-412899-3

(Module ID 00107-15; from *Core*) Provides techniques for effective communication on the job. Includes examples that emphasize the importance of both written and verbal communication skills. Describes the importance of reading skills in the construction industry and discusses effective telephone and email communication skills.

Basic Employability Skills (7.5 Hours)

ISBN 978-0-13-412896-2

(Module ID 00108-15; from *Core*) Describes the opportunities offered by the construction trades. Discusses critical thinking and essential problem-solving skills. Also identifies and discusses positive social skills and presents information on computer systems and their industry applications.

Introduction to Material Handling (5 Hours)

ISBN 978-0-13-412892-4

(Module ID 00109-15; from *Core*) Describes the hazards associated with handling materials and provides techniques to avoid both injury and property damage. Also introduces common material-handling equipment.

Orientation to the Trade (2.5 Hours)

ISBN 978-0-13-340299-5

(Module ID 27101-13; from *Carpentry Level One*) Reviews the history of the trade, describes the apprentice program, identifies career opportunities for carpenters and construction workers, and lists the skills, responsibilities, and characteristics a worker should possess. Emphasizes the importance of safety in the construction industry.

Building Materials, Fasteners, and Adhesives (20 Hours)

(20 Hours)

ISBN 978-0-13-340300-8

(Module ID 27102-13; from *Carpentry Level One*) Introduces the building materials used in construction work, including lumber, sheet materials, engineered wood products, structural concrete, and structural steel. Also describes the fasteners and adhesives used in construction work. Discusses the methods of squaring a building.

Properties of Concrete (10 Hours)

ISBN 978-0-13-378674-3

(Module ID 27303-14; from *Carpentry Level Three*) Describes the properties, characteristics, and uses of cement, aggregates, and other materials used in different types of concrete. Covers procedures for estimating concrete volume and testing freshly mixed concrete, as well as methods and materials for curing concrete.

Site Layout One: Differential Leveling (20 Hours)

(20 Hours)

ISBN 978-0-13-378698-9

(Module ID 27401-14; from *Carpentry Level Four*) Covers the principles, equipment, and methods used to perform differential leveling. Also covers the layout responsibilities of surveyors, field engineers, and carpenters; interpretation and use of site/plot plan drawings; use of laser instruments; and methods used for on-site communication.

Handling and Placing Concrete (20 Hours)

ISBN 978-0-13-378683-5

(Module ID 27305-14; from *Carpentry Level Three*) Covers tools, equipment, and procedures for safely handling, placing, and finishing concrete. Describes joints made in concrete structures and the use of joint sealants.

Foundations and Slabs-On-Grade (20 Hours)

ISBN 978-0-13-378680-4

(Module ID 27307-14; from *Carpentry Level Three*) Covers basic site layout safety, tools, and methods; layout and construction of deep and shallow foundations; types of foundation forms; layout and formation of slabs-on-grade; and forms used for curbing and paving.

Continued on following page

L2 CONSTRUCTION CRAFT LABORER

LEVEL 2

Curriculum Notes

- 147.5 Hours
- Updated: 2015, Third Edition

PAPERBACK

Trainee Guide: \$109.99

ISBN

978-0-13-413096-5

MODULES

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

Reinforcing Concrete (15 Hours)

ISBN 978-0-13-378679-8

(Module ID 27304-14; from *Carpentry Level Three*) Explains the selection and uses of different types of reinforcing materials. Describes requirements for bending, cutting, splicing, and tying reinforcing steel and the placement of steel in footings and foundations, walls, columns, and beams and girders.

Vertical Formwork (22.5 Hours)

ISBN 978-0-13-378681-1

(Module ID 27308-14; from *Carpentry Level Three*) Covers the applications and construction methods for types of forming and form hardware systems for walls, columns, and stairs, as well as slip and climbing forms. Provides an overview of the assembly, erection, and stripping of gang forms.

Horizontal Formwork (15 Hours)

ISBN 978-0-13-378682-8

(Module ID 27309-14; from *Carpentry Level Three*) Describes elevated decks and formwork systems and methods used in their construction. Covers joist, pan, beam and slab, flat slab, composite slab, and specialty form systems and provides instructions for the use of flying decks, as well as shoring and reshoring systems.

Heavy Equipment, Forklift, and Crane Safety

(5 Hours)

ISBN 978-0-13-340366-4

(Module ID 75123-13; from *Field Safety*) Covers the safety hazards and precautions necessary when working near heavy equipment. Presents general safety requirements for the use of forklifts and cranes.

Steel Erection (2.5 Hours)

ISBN 978-0-13-340364-0

(Module ID 75110-13; from *Field Safety*) Covers common safety precautions related to steel-erection work, including controlled decking zones, hazardous materials and equipment precautions, tool safety, and appropriate personal protective equipment.

Electrical Safety (5 Hours)

ISBN 978-0-13-340362-6

(Module ID 75121-13; from *Field Safety*) Describes the basic precautions necessary to avoid electrical shock, arc, and blast hazards. It also describes the lockout/tagout procedure.

Introduction to Construction Equipment

(7.5 Hours)

ISBN 978-0-13-378706-1

(Module ID 27406-14; from *Carpentry Level Four*) Introduces construction equipment, including the aerial lift, skid steer loader, electric power generator, compressor, compactor, and forklift. An overview of general safety, operation, and maintenance procedures is provided.

Rough Terrain Forklifts (22.5 Hours)

ISBN 978-0-13-340322-0

(Module ID 22206-13; from *Heavy Equipment Operations Level Two*) Covers the uses of forklifts on construction sites. Includes instructions for lifting, transporting, and placing various types of loads, as well as safety, operation, and maintenance procedures.

Oxyfuel Cutting (17.5 Hours)

ISBN 978-0-13-418268-1

(Module ID 29102-15; from *Welding Level One*) Explains the safety requirements for oxyfuel cutting. Identifies oxyfuel cutting equipment and setup requirements. Explains how to light, adjust, and shut down oxyfuel equipment. Trainees will perform cutting techniques that include straight line, piercing, bevels, washing, and gouging.

Elevated Masonry (15 Hours)

ISBN 978-0-13-409845-6

(Module ID 28301-14; from *Masonry Level Three*) Describes how to work safely and efficiently on elevated structures. Explains how to maintain a safe work environment, ensure protection from falls, how to brace walls from outside forces, and how to identify common types of elevated walls. Stresses safety around equipment such as cranes and hoists.

Working from Elevations (5 Hours)

ISBN 978-0-13-340363-3

(Module ID 75122-13; from *Field Safety*) Explains the use of fall-protection equipment. Covers safety precautions related to elevated work surfaces, including ladders, scaffolding, and aerial lifts.

Your Role in the Green Environment (LEED V4)

(15 Hours)

ISBN 978-0-13-294863-0

(Module ID 70101-15) Geared to entry-level craft workers, *Your Role in the Green Environment* provides pertinent information concerning the green environment, construction practices, and building rating systems. This edition has been updated to reflect LEED v4 with emphasis on standards for building design and construction. The updated content features contemporary issues such as net zero buildings and an expanded focus on issues relevant to international construction.

