MODULES

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

Orientation to the Trade (2.5 Hours)
(Module ID 27102-13) 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.

Hand and Power Tools (10 Hours)
(Module ID 27103-13) Provides descriptions of hand tools and power tools used by carpenters. Emphasizes safe and proper operation, as well as care and maintenance.

Introduction to Construction Drawings, Specifications, and Layout (22.5 Hours)
(Module ID 27104-13) Covers the techniques for reading and using construction drawings and specifications, with an emphasis on drawings and information relevant to the carpentry trade. Introduces quantity takeoffs.

MODULES

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

Commercial Drawings Elective for Residential Path (25 Hours)
(Module ID 27201-13) Describes how to read and interpret a set of commercial drawings and specifications.

Cold-Formed Steel Framing (15 Hours)
(Module ID 27205-13) Describes the types and grades of steel framing materials, and includes instructions for selecting and installing metal framing for interior and exterior walls, loadbearing and nonbearing walls, partitions, and other applications.

Exterior Finishing Elective for Commercial Path (35 Hours)
(Module ID 27204-13) Covers the various types of exterior finish materials and their installation procedures, including wood, metal, vinyl, and fiber-cement siding.

Floor Systems (25 Hours)
(Module ID 27105-13) Covers framing basics and the procedures for laying out and constructing a wood floor using common lumber, as well as engineered building materials.

Wall Systems (10 Hours)
(Module ID 27111-13) Describes procedures for laying out and framing walls, including roughing-in door and window openings, constructing corners, partition Ts, and bracing walls. Includes the procedure to estimate the materials required to frame walls.

Ceiling Joist and Roof Framing (47.5 Hours)
(Module ID 27112-13) Describes types of roofs and provides instructions for laying out rafters for gable roofs, hip roofs, and valley intersections. Covers stick-built and truss-built roofs. Includes the basics of roof sheathing installation.

Introduction to Building Envelope Systems (12.5 Hours)
ISBN 978-0-13-340306-0
(Module ID 27110-13) Introduces types of stairs and common building code requirements related to stairs. Focuses on techniques for measuring and calculating rise, run, and stairwell openings, laying out stringers, and fabricating basic stairways.

Thermal and Moisture Protection (7.5 Hours)
(Module ID 27203-13) Covers the selection and installation of various types of insulating materials in walls, floors, and attics. Also covers the uses and installation practices for vapor barriers and waterproofing materials.

Roofing Applications Elective for Commercial Path (25 Hours)
(Module ID 27202-13) Describes how to properly prepare the roof deck and install roofing for residential and commercial buildings.

Doors and Door Hardware (20 Hours)
(Module ID 27208-13) Describes the installation of metal doors and related hardware in steel-framed, wood-framed, and masonry walls, along with their related hardware, such as locksets and door closers. Also discusses the installation of wood doors, folding doors, and pocket doors.

Continued on following page
Carpentry Level 2 (continued)

Drywall Installation (15 Hours)
(Module ID 27206-13) Describes the various types of gypsum drywall, their uses, and the fastening devices and methods used to install them. Contains detailed instructions for installing drywall on walls and ceilings using nails, drywall screws, and adhesives. Also discusses fire- and sound-rated walls.

Drywall Finishing (17.5 Hours)
ISBN 978-0-13-377913-4
(Module ID 27207-13) Describes the materials, tools, and methods used to finish and patch gypsum drywall. Also discussed automatic and manual taping and finishing tools.

Suspended Ceilings Elective for Residential Path
(15 Hours)
(Module ID 27209-13) Describes the materials, layout, and installation procedures for many types of suspended ceilings used in commercial construction, as well as ceiling tiles, drywall suspension systems, and pan-type ceilings.

Window, Door, Floor, and Ceiling Trim
(25 Hours)
(Module ID 27210-13) Describes the different types of trim used in finish work and focuses on the proper methods for selecting, cutting, and fastening trim to achieve a professional finished appearance.

Rigging Equipment (10 Hours)
ISBN 978-0-13-378675-0
(Module ID 38101-11; from Basic Rigger, Second Edition) Describes the use and inspection of basic equipment and hardware used in rigging, including slings, wire rope, and chains. Discusses attaching hardware such as shackles, eyebolts, and hooks, as well as rigging knots. Explains sling angles. Covers tuggers, jacks, hoists, and ratchet-lever hoists.

Rigging Practices (15 Hours)
(Module ID 38102-11; from Basic Rigger, Second Edition) Describes basic rigging and crane hazards as well as safety practices related to general rigging activities, working around power lines, and emergency response. Covers procedures for using slings and rigging pipes and valves.

Trenching and Excavating (15 Hours)
(Module ID 27306-14) Provides an introduction to working in and around excavations, particularly in preparing building foundations. Describes types and bearing capacities of soils; procedures used in shoring, shielding, and sloping trenches and excavations; trenching safety requirements, including recognition of unsafe conditions; and mitigation of groundwater and rock when excavating foundations.

Foundations and Slabs-On-Grade (20 Hours)
(Module ID 27307-14) 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.

Tilt-Up Wall Systems (22.5 Hours)
(Module ID 27309-14) Covers tools, equipment, and procedures for safely handling, placing, and finishing concrete. Describes methods used to create architectural and decorative treatments.
Carpentry Level 4

LEVEL 4

Carpentry Level 4

Curriculum Notes

- 182.5 Hours (162.5 Required, 20 Elective)
- Revised 2014, Fifth Edition
- Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at www.nccer.org/irc.

PAPERBACK ISBN
Trainee Guide: $97 978-0-13-382314-1
Individual Modules: $20 see module list

DIGITAL
NCCERconnect Access Card: $97 978-0-13-442810-9
NCCERconnect + Trainee Guide: $122 978-0-13-453969-0

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

Site Layout One: Differential Leveling

(20 Hours)
(Module ID 27401-14) 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.

Site Layout Two: Angular and Distance Measurement

(37.5 Hours)
(Module ID 27402-14) Covers the principles, equipment, and methods used to perform site layout tasks that require angular and distance measurements. Tasks include laying out building lines and determining elevations by trigonometric leveling. Covers the use of transits, theodolites, electronic distance measurement, and total stations. Reviews trade mathematics needed to perform calculations related to angular measurements.

Advanced Roof Systems

(20 Hours)
(Module ID 27403-14) Covers commercial roofing materials and structures and describes the procedures for installing commercial roofing such as lap seam, standing seam, and built-up roofs.

Advanced Wall Systems

(25 Hours)
(Module ID 27404-14) Covers installation of a variety of finishing materials, including concrete masonry units and brick. Also covers installation of curtain walls and fire-rated commercial construction.

Advanced Stair Systems

(25 Hours)
(Module ID 27405-14) Provides extensive coverage of the materials and techniques used in finishing wooden staircases. Also covers a variety of stair systems used in commercial construction.

Introduction to Construction Equipment

(7.5 Hours)
(Module ID 27406-14) 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.

Introduction to Oxyfuel Cutting and Arc Welding

(20 Elective Hours)
(Module ID 27407-14) Introduces the equipment, procedures, and safety practices used in cutting steel with oxyfuel equipment, as well as shielded metal arc welding, gas-tungsten arc welding, and gas metal arc welding. Labs include practice in cutting and welding techniques.

Site Preparation

(7.5 Hours)
(Module ID 27409-14) Covers the planning process that precedes the start of work on a construction site, including environmental considerations, personnel issues, access roads, traffic control, permits, site safety, utilities, and crane-related concerns.

Fundamentals of Crew Leadership

(20 Hours)
(Module 46101-11, Second Edition) Covers basic leadership skills and explains different leadership styles, communication, delegating, and problem solving. Jobsite safety and the crew leader’s role in safety are discussed, as well as project planning, scheduling, and estimating. Includes performance tasks to assist the learning process.

Cabinetmaking

PAPERBACK ISBN
Trainee Guide: $22 978-0-13-428854-3
This module expands on the knowledge and skills gained through the Carpentry Curriculum and provides the basic information needed to construct and apply finishes to custom cabinetry. It identifies and discusses various types of wood products, wood-joining techniques, power tools, cabinet doors, shelves, and hardware. Specific guidance is also provided for the installation of laminated countertops.

From the Ground Up

PAPERBACK ISBN
Workbook: $22 978-0-13-229164-4
Revised: 2006, Second Edition