

L1 MASONRY



LEVEL 1

Curriculum Notes

- 195 Hours (Includes 72.5 hours of Core Curriculum, which is a prerequisite for Level 1 completion and must be purchased separately. See p. 14 for ordering information.)
- Revised: 2013, Fourth Edition
- Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at www.nccer.org/irc.
- A Spanish translation of the third edition is available. Please see NCCER's online catalog for more information.

HARDCOVER

ISBN

Trainee Guide: \$69

978-0-13-375402-5

PAPERBACK

ISBN

Trainee Guide: \$67

978-0-13-340248-3

MODULES

All of the modules listed below are included in the Trainee Guide. The following ISBN and pricing information is for ordering individual modules only.

Introduction to Masonry (12.5 Hours)

Trainee \$20

ISBN 978-0-13-377930-1

Instructor \$20

ISBN 978-0-13-377936-3

(Module ID 28101-13) Covers basic masonry materials, tools, techniques, and safety precautions. Explains how to mix mortar by hand and lay masonry units. Also describes the skills, attitudes, and abilities of successful masons.

Masonry Safety (15 Hours)

Trainee \$20

ISBN 978-0-13-377931-8

Instructor \$20

ISBN 978-0-13-377937-0

(Module ID 28106-13) Describes how to identify the common causes of accidents and the hazards associated with masonry tools, equipment, mortar, and concrete. Focuses on using personal protective equipment, working safely from elevated surfaces, properly using masonry tools and equipment, and handling masonry materials safely.

Masonry Tools & Equipment (15 Hours)

Trainee \$20

ISBN 978-0-13-377932-5

Instructor \$20

ISBN 978-0-13-377939-4

(Module ID 28102-13) Describes a variety of hand tools, measuring tools, mortar equipment, power tools and equipment, and lifting equipment that masons use on the job, and explains how to use these tools correctly and safely. Provides instructions for assembling and disassembling scaffolds.

Measurements, Drawings, and Specifications (10 Hours)

Trainee \$20

ISBN 978-0-13-377933-2

Instructor \$20

ISBN 978-0-13-377940-0

(Module ID 28103-13) Reviews the calculation of distances and areas common in masonry work; describes the information found on residential construction drawings; and explains the role of specifications, standards, and codes.

Mortar (10 Hours)

Trainee \$20

ISBN 978-0-13-377934-9

Instructor \$20

ISBN 978-0-13-377941-7

(Module ID 28104-13) Explains the types and properties of mortar and the materials used in the mixture, including admixtures; provides instructions for mixing mortar by machine; and describes how to properly apply and store mortar.

Masonry Units and Installation Techniques (60 Hours)

Trainee \$20

ISBN 978-0-13-377935-6

Instructor \$20

ISBN 978-0-13-377942-4

(Module ID 28105-13) Covers characteristics of block and brick; how to set up, lay out, and bond block and brick; how to cut block and brick; how to lay and tool block and brick; and how to clean block and brick once they have been laid. Describes masonry reinforcements and accessories used to lay block and brick professionally and safely.

L2 MASONRY

LEVEL 2

Curriculum Notes

- 152.5 Hours
- Revised: 2014, Fourth 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

978-0-13-377970-7

MODULES

All of the modules listed below are included in the Trainee Guide. The following ISBN and pricing information is for ordering individual modules only.

Residential Plans and Drawing Interpretation (12.5 Hours)

Trainee \$20

ISBN 978-0-13-378178-6

Instructor \$20

ISBN 978-0-13-382525-1

(Module ID 28201-14) Explains how to work with residential plans and construction drawings and convert that information into action on the job. Describes the organization and format of plans, dimensioning and scaling, and estimating materials quantities from information on the plans.

Residential Masonry (25 Hours)

Trainee \$20

ISBN 978-0-13-378179-3

Instructor \$20

ISBN 978-0-13-382526-8

(Module ID 28202-14) Covers the construction techniques for residential and small structure foundations, steps, patios, decks, chimneys, and fireplaces. Describes work activities that the mason must perform, as well as those that tie into the masonry work.

Reinforced Masonry (20 Hours)

Trainee \$20

ISBN 978-0-13-378180-9

Instructor \$20

ISBN 978-0-13-382749-1

(Module ID 28203-14) Focuses on the use of grout and other types of reinforcement, such as reinforcing steel, to strengthen and support masonry structures. Describes the locations where grout can be used and the techniques for placement. Discusses the use and application of various types of reinforced masonry elements, such as rebar and bond beam lintels.

Masonry Openings and Metalwork (20 Hours)

Trainee \$20

ISBN 978-0-13-378181-6

Instructor \$20

ISBN 978-0-13-382750-7

(Module ID 28204-14) Introduces types of metal components, including metal rods, joint reinforcements, plates, anchors, fasteners, and hollow metal frames for doors and windows, and explains how they are installed.

Advanced Laying Techniques (40 Hours)

Trainee \$20

ISBN 978-0-13-378182-3

Instructor \$20

ISBN 978-0-13-382751-4

(Module ID 28205-14) Describes the construction of masonry wall systems, weep vents, and joints. Includes safety requirements and interaction with structural components.

Effects of Climate on Masonry (20 Hours)

Trainee \$20

ISBN 978-0-13-378184-7

Instructor \$20

ISBN 978-0-13-382752-1

(Module ID 28206-14) Describes materials and techniques used to apply insulation and methods of moisture control as they relate to the mason's trade. Includes hot- and cold-weather considerations.

Construction Inspection and Quality Control (15 Hours)

Trainee \$20

ISBN 978-0-13-382523-7

Instructor \$20

ISBN 978-0-13-382753-8

(Module ID 28207-14) Introduces the quality control requirements for masonry construction. Presents procedures for inspection and testing of masonry materials and finished masonry construction.

L3 MASONRY

LEVEL 3

Curriculum Notes

- 200 Hours
- Revised: 2014, Fourth 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

978-0-13-375045-4

MODULES

All of the modules listed below are included in the Trainee Guide. The following ISBN and pricing information is for ordering individual modules only.

Elevated Masonry (15 Hours)

Trainee \$20

ISBN 978-0-13-409845-6

Instructor \$20

ISBN 978-0-13-409853-1

(Module ID 28301-14) 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.

Specialized Materials and Techniques (60 Hours)

Trainee \$20

ISBN 978-0-13-409844-9

Instructor \$20

ISBN 978-0-13-409852-4

(Module ID 28302-14) Introduces unique types of masonry situations that won't be encountered on every job, including sound-barrier walls, arches, and the use of acid brick, refractory brick, and glass block. Describes the handling and construction of these materials, and introduces the intricacies of each.

Masonry Level 3 (continued)

Repair and Restoration (20 Hours)

Trainee \$20 ISBN 978-0-13-409843-2
Instructor \$20 ISBN 978-0-13-409851-7
(Module ID 28303-14) Details techniques for identifying and repairing common masonry problems of weathering, settling, stain, etc. Explains tuckpointing, the removal of efflorescence and stains, and crack repair. Includes sections on how to repair foundation walls, water intrusion, and localized problems, as well as fireplace and chimney repair.

Commercial Drawings (25 Hours)

Trainee \$20 ISBN 978-0-13-409842-5
Instructor \$20 ISBN 978-0-13-409850-0
(Module ID 28304-14) Explains how to read and identify drawings for commercial structures using previous experience from structural drawings as a baseline. Describes requirements for these drawings, as well as how to interpret and create plans for architectural, structural, and shop drawings.

Estimating (25 Hours)

Trainee \$20 ISBN 978-0-13-409841-8
Instructor \$20 ISBN 978-0-13-409848-7
(Module ID 28305-14) Describes how to estimate building materials, such as brick, block, grout, mortar, joint reinforcement, and masonry ties. Details multiple methods for estimating, as well as how to estimate for masonry elements such as openings and lintels.

Site Layout – Distance Measurement and Leveling (20 Hours)

Trainee \$20 ISBN 978-0-13-409857-9
Instructor \$20 ISBN 978-0-13-409847-0
(Module ID 28306-14) Covers the techniques needed to produce and read site plans and topographic maps. Describes the use of measuring devices such as tapes, range poles, plumb bobs, total stations, leveling instruments, and field notes. Also discusses the construction of batter boards and how to ensure correct measurements.

Stone Masonry (15 Hours)

Trainee \$20 ISBN 978-0-13-409856-2
Instructor \$20 ISBN 978-0-13-409846-3
(Module ID 28308-14) Focuses on the application of natural stone in masonry construction. Describes types of stone and how stone is cut, finished, and stored. Discusses equipment and tools for handling stone. Details how to estimate and install stone using anchors and mortars and explains how to install stone veneers.

Fundamentals of Crew Leadership (20 Hours)

Trainee \$43 ISBN 978-0-13-409855-5
Instructor \$43 ISBN 978-0-13-409860-9
(Module ID 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.