

ROOFING: Level One

10104 Nails, Fasteners and Adhesives (6 Hours)

Introduces the configuration, composition, and application of nails, fasteners, and adhesives.

10501 Concrete and Reinforcement Materials (6 Hours)

Covers the composition of concrete and reinforcing materials.

04107 Tools of the Trade (7.5 Hours)

Describes the types and uses of hand and layout tools as well as cutting, bending, and forming machines used in the trade. Safety and maintenance guidelines are provided for each tool and machine.

04108 Fasteners, Hangers and Supports (7.5 Hours)

Describes the types of fasteners and common screw and bolt configurations. Factors for selecting fasteners most appropriate to the job are also identified.

04109 Steel and Other Metals (2.5 Hours)

Presents information on the types and properties of metals used in the trade and also describes systems and methods for gauging sheet metal.

04202 Principles of Layout (2.5 Hours)

Identifies and describes the tools, materials, and methods for sheet metal layout. The trainee is introduced to the principles and selected problems for parallel and radial line development and triangulation.

04301 Introduction to Sheet Metal Processes (15 Hours)

Introduces the skills, equipment, and procedures involved with metal cutting, bending, forming, and joining. Learning activities for hand tool and machine operations are included.

11203 Bolting and Aligning (5 Hours)

Covers machine bolts, including high-strength bolts, and procedures for both turn-of-nut and calibrated wrench tightening.

11301 Rigging (20 Hours)

Includes coverage of safe rigging practices, wire rope, types of slings used in the field, rigging equipment, hand signals, and knot tying.

ROOFING: Level Two

10205 Roof Systems (30 Hours)

Introduces tables on the rafter (framing square), deals with roof construction, and explains the methods for cutting roof members.

04312 Soldering (10 Hours)

Covers the selection and application of materials and tools for soldering sheet metal parts and sealing seams. Job sheets for eight common sheet metal soldering problems are provided.

04502 Gutters and Downspouts (10 Hours)

Presents information and learning activities for calculating downspout and gutter size. Fabrication exercises are included.

04503 Roof Flashing (7.5 Hours)

Outlines the principles of weather sealing as they apply to architectural sheet metal tasks. Procedures for the fabrication and installation of selected flashing components are included.

11201 Hand Tools (17.5 Hours)

Includes hands-on exercises to develop competence with various hand tools used by assemblers.

11202 Power Tools (17.5 Hours)

Covers proper use and care of the major power tools. Includes hands-on exercises.

11503 Trim and Flashing (10 Hours)

Covers general trim and flashing requirements of metal buildings and types of sealants used.

11601 Roof Panel Types and Systems Design (10 Hours)

Covers metal roofing, including both lap seam and standing seam roofs.

11602 Installing Standing Seam Roof Systems (32.5 Hours)

Covers requirements of standing seam roof erection and variations among systems.

11603 Installing Lap Seam Roof Systems (12.5 Hours)

Covers general sequence of erection, including laying out panel modularity, placing insulation, installing panels, and splicing gutter sections.

ROOFING: Level Three

09203 Physical Characteristics/ Properties of Metals (3 Hours)

Covers visual, magnetic, and spark methods of identifying metals as well as identification and specification of common commercial forms and structural shapes.

04313 Introduction to Welding, Brazing and Cutting (30 Hours)

Provides an overview of the basic welding processes. Learning activities and practice exercises are included.

10315 Roofing Applications (18 Hours)

Covers asphalt, fiberglass, wood shingles, wood shakes, corrugated metal and slate roofing, chimney saddles, and metal and shingles. A special section covers safety in roofing.

10316 Installation of Cornices, Gutters, and Downspouts (9 Hours)

Covers installation of cornices and their components, gutters, and downspouts.

04303 Fabrication II-Radial Line Development (50 Hours)

Discusses and describes the principles, uses, and types of fittings for radial line development.

11604 Reroofing (20 Hours)

Covers factors to be considered before any reroof project begins and the methods for installing a new roof over an old one.

07736 Roof Coatings (7.5 Hours)

Covers painted roofs, built-up roofs, single ply roofs, surface preparation, as well as proper procedures and precautions for working on roofs.

**Associated Builders & Contractors, Inc. – Central Ohio Chapter
Roofing Program – NCCER *Contren Learning Series***

ROOFING: Level Four

04103 Shop Production and Organization (25 Hours)

Covers recommended practices necessary to increase shop production and eliminate waste of time and materials. Various shop layouts and production monitoring techniques are studied.

04307 Fabrication IV-Comprehensive Review (60 Hours)

Reviews parallel line development and triangulation methods of fabrication. Fabrication exercises are included for each method.

Specialized Training to Cover Recent Industry Advances and Technology (65 Hours)