



## **Level One**

### **MODULE 28101 - INTRODUCTION TO MASONRY**

- Overhead projector and screen
- Whiteboard/chalkboard
- Appropriate Personal Protective Equipment
- Trainee Task Module
- Transparencies
- Pencil and paper
- Markers/chalk
- Examples of various sizes of brick
- Examples of various sizes of concrete masonry units
- Module Examination

### **MODULE 28102 - SAFETY REQUIREMENTS**

- Overhead projector and screen
- Whiteboard/chalkboard
- Appropriate Personal Protective Equipment
- Safety harnesses and lanyards
- Ladders
- Steel measuring tapes
- Gasoline-powered tools
- OSHA-approved gasoline containers
- Dust masks and respirators
- Eye protection
- Trainee Task Module
- Markers/chalk
- Pencils and paper
- Transparencies
- Module Examinations
- Performance Profile Sheets
- Material Safety Data Sheets (MSDS)
- Safety manual
- OSHA reference material
- Safety tags of different colors
- Gasoline

## MODULE 28103 - TOOLS AND EQUIPMENT

Overhead projector and screen  
Whiteboard/chalkboard  
Appropriate Personal Protective Equipment  
Scaffolding components  
Trowels  
Mason's hammers  
Mason's mashes  
Chisels  
Jointers  
Brushes  
Brick tongs  
Tool bags  
Plumb rules  
Rules  
Squares  
Mason's line  
Corner blocks, stretchers, trigs  
Corner pole  
Chalk line  
Plumb bob  
Mortar boxes, boards, and pans  
Hawks  
Hods  
Cubic foot measures  
Mixing shovels  
Mixing hoes  
Water barrel  
Wheelbarrow  
Mason's barrow  
Masonry saws (portable)  
Masonry splitters  
Grinders  
Power saws  
Power drills  
Powder fastener drivers (no charges)  
Trainee Task Module  
Transparencies  
Markers/chalk  
Manufacturer's instruction manuals  
for scaffolds  
Pencils and paper  
Module Examinations  
Performance Profile Sheets

## **MODULE 28104 - MATHEMATICS, DRAWINGS, AND SPECIFICATIONS**

Overhead projector and screen  
Whiteboard/chalkboard  
Appropriate Personal Protective Equipment  
Four-function calculators  
Modular and course spacing rules  
Trainee Task Module  
Trainee Module blueprints  
Transparencies  
Markers/chalk  
Paper and pencils  
Module Examinations  
Performance Profile Sheets

## **MODULE 28105 - MORTAR**

Overhead projector and screen  
Whiteboard/chalkboard  
Water hose/barrel(s)  
 $\frac{1}{2}$ "-gallon marked measure  
1 cup marked measure  
Mortar mixer(s)  
Mortar box(es)  
Cubic foot or other measures  
Mixing shovels  
Mixing hoes  
Trowels  
Stirring rod or spoon  
Appropriate Personal Protective Equipment  
Trainee Task Module  
Transparencies  
Markers/chalk  
Pencils and paper  
Cement  
Lime  
Sand  
Water  
Module Examinations  
Performance Profile Sheets

## MODULE 28106 - MASONRY UNITS AND INSTALLATION TECHNIQUES

Overhead projector and screen  
Whiteboard/chalkboard  
Appropriate Personal Protective Equipment  
Water hose/barrel(s) and buckets  
Mortar mixer  
Mortar pans and boards  
Cubic foot or other measures  
Mixing shovels  
Masonry saw(s)  
Masonry splitter(s)  
Course or modular spacing rules  
Framing squares  
4-foot mason's level  
Chalk lines  
Mason's line and line pins  
Corner blocks or stretchers  
Corner poles  
Trowels  
Mason's hammers  
Mashes  
Brick sets  
Block sets  
Concave jointers  
Dusting brushes  
Five-gallon pails  
 $\frac{3}{8}$ -inch and  $\frac{1}{2}$ -inch jigs or plywood scraps  
Bricks and/or blocks  
Eyedroppers  
Hammers  
Clock or watch with second hand  
Trainee Task Module  
Transparencies  
Markers/chalk  
Pencils and paper  
Cement (optional)  
Lime or kaolin  
Sand  
Water  
Dimensional lumber (2 × 4)  
Marking crayons  
Nails  
Pattern layout drawings (optional)  
Module Examinations  
Performance Profile Sheets

# Level Two

## MODULE 28201 - RESIDENTIAL PLANS AND DRAWING INTERPRETATION

Overhead projector and screen  
Whiteboard/chalkboard  
Plan sets from Masonry Level 1,  
Mathematics, Drawings, and Specifications  
Architect's scales  
Engineer's scales  
Mason's rules  
4-function calculators (Optional)  
Trainee Task Module  
Transparencies  
Module Examinations  
Performance Profile Sheets  
Paper and pencils  
Markers/chalk

## MODULE 28202 - RESIDENTIAL MASONRY

Overhead projector and screen  
Whiteboard/chalkboard  
Appropriate Personal Protective Equipment  
Framing square  
Measuring tape  
Modular rule  
Brooms  
Jointers  
Level  
Hand tamper  
Rubber mallots  
Mortar mixer  
Shovels  
Water hose/barrel(s) and buckets  
Mortar pans and boards  
Trowels  
Plumb bob  
Striking tool  
Trainee Task Module  
Markers/chalk  
Transparencies  
Paper and pencils  
Brick  
Block  
Firebrick  
Sand  
Cement  
Brick pavers  
Dimensional limber  
Plywood sheets  
Photographs of local brick steps and walks  
String  
Brochure from damper manufacturer  
Module Examination  
Performance Profile Sheets

## **MODULE 28203 - GROUT AND OTHER REINFORCEMENT**

Overhead projector and screen  
Whiteboard/chalkboard  
Two-speed grout (cement) mixer  
Measure(s)  
Bucket(s)  
Mechanical vibrator(s)  
Trowel  
Level  
Appropriate Personal Protective Equipment  
Trainee Task Module  
Transparencies  
Markers/chalk  
Paper and pencils  
Module Examinations  
Performance Profile Sheets  
Grout mix  
Water  
Blocks and low block wall (less than 5 feet)  
Mortar  
Sand  
Rod(s)  
Steel rebar  
Rebar spacers and tie wire  
Bond beam blocks  
Dimensional lumber for wall foundations  
Concrete masonry units

## **MODULE 28204 - METAL WORK IN MASONRY**

Overhead projector and screen  
Whiteboard/chalkboard  
Mortar mixers and pans  
Bracing lumber or jigs  
Appropriate Personal Protective Equipment  
Trainee Task Module  
Transparencies  
Markers/chalk  
Brick  
Block  
Mortar or Kaolin mix  
Water  
Materials (Continued)  
Steel reinforcement bar  
Bar spacers  
Rigid continuous joint reinforcement  
Adjustable continuous reinforcement  
Rigid unit ties (hardware cloth)  
Adjustable unit ties  
Rigid anchors and bolts  
Flexible anchors  
Knockdown door frames  
Set-up door frames  
Wooden jamb blocks  
Lug or slip sills  
Module Examination  
Performance Profile Sheets

## **MODULE 28205 - ADVANCED LAYING TECHNIQUES**

Overhead projector and screen  
Whiteboard/chalkboard  
Appropriate Personal Protective Equipment  
Water hose/barrel(s) and buckets  
Mortar mixer  
Mortar boards and pans  
Mixing shovels  
Course or modular spacing rule  
Framing square  
4-foot mason's level  
Chalk line  
Mason's line and trigs  
Corner blocks or stretchers  
Trowels  
Mason's hammer  
Brick set  
Block set

## MODULE 28205 - ADVANCED LAYING TECHNIQUES (Continued)

Concave jointer  
Dusting brush  
Five-gallon pail  
Hammer  
Steel tape  
Trainee Task Module  
Transparencies  
Markers/chalk  
Paper and pencils  
ASTM C139  
OSHA Regulations on confined spaces  
Marking crayons  
Local building code reference  
Manufacturer's literature on prefabricated panels and interlocking block  
Interlocking block  
Building paper  
Copper strips  
Neoprene strips  
Cement  
Lime or kaolin  
Sand  
Water  
Batter block  
Metal ties  
Wooden stakes  
Z-ties  
Brick  
Block  
Dimensional lumber (2 × 4)  
Plywood sheets  
Nails  
Module Examination  
Performance Profile Sheets

## **MODULE 28206 - CONSTRUCTION TECHNIQUES AND MOISTURE CONTROL**

Overhead projector and screen  
Whiteboard/chalkboard  
Trowel  
Level  
Paring Trowel  
Mixing container(s) and tool(s)  
Appropriate Personal Protective Equipment  
Trainee Task Module  
Transparencies  
Markers / chalk  
Pencils and paper  
Module Examination  
Performance Profile Sheets  
Brick / Block  
Mortar  
Flashing materials  
Loose fill insulation  
Blanket or batt insulation  
Anchors  
Portland cement  
Sand  
Water  
Wicking materials  
Wire mesh or metal lath  
Dimensional lumber

## **MODULE 28207 - ELEVATED WORK EQUIPMENT**

Overhead projector and screen  
Whiteboard/chalkboard  
Safety harness(es)  
Tubular steel scaffolding components  
Appropriate Personal Protective Equipment  
Hand tools  
Trainee Task Module  
Transparencies  
Markers/chalk  
Paper and pencils  
Brick  
Planks  
Dimensional lumber  
Module Examination  
Performance Profile Sheets

## **MODULE 28208 - CONSTRUCTION INSPECTION AND QUALITY CONTROL**

Overhead projector and screen  
Whiteboard/chalkboard  
Measures  
Mixing containers  
Rods  
Jars or beakers  
Slump test kits  
Eyedroppers  
Appropriate Personnel Protective Equipment  
Mason's tools  
Trainee Task Module  
Transparencies  
Markers/chalk  
Paper and pencils  
Module Examination  
Block  
Brick  
Mortar or Kaolin mix  
Sand  
Water  
Paper towels  
Masking tape  
Scrap lumber for bases  
Sodium hydroxide solution  
Copies of ASTM Standards Book

# Level Three

## MODULE 28301 - MASONRY IN HIGH-RISE CONSTRUCTION

Overhead projector and screen  
Whiteboard/chalkboard  
Appropriate Personal Protective Equipment  
Mortar mixer  
Basic masonry tools  
Mortar container(s)  
Safety harnesses  
Lanyards and associated hardware  
Lifelines and associated hardware  
Trainee Task Module  
Transparencies  
Markers/chalk  
Paper/pencils  
Module Examination  
Performance Profile Sheets  
Bricks  
Blocks  
Mortar or Kaolin mix  
Flashing materials  
Flexible sealant material  
Sand  
Water  
Mortar nets  
Metal coping  
Reglets  
Dimensional lumber (2 × 2 and 2 × 4)  
OSHA Materials Handling Guidelines

## MODULE 28302 - SPECIALIZED MATERIALS AND TECHNIQUES

Overhead projector and screen  
Whiteboard/chalkboard  
Appropriate Personal Protective Equipment  
Cutting benches with sand tray tops or sandbags  
Basic masonry tools  
Containers  
Mortar mixer  
Story poles  
Hammers  
Saws  
Screwdrivers  
Brushes  
Half barrels or other curved containers  
Stone cutting chisels  
Spirit levels  
Carpenter's squares  
Trainee Task Module  
Transparencies  
Markers/chalk  
Paper/pencils  
Module Examination  
Performance Profile Sheets  
Rubble stone  
Cultured stone  
Ashlar  
Glass block  
Refractory brick  
Acid brick  
Concrete block  
Glazed masonry tile, including cove and bullnose units  
Mortar or kaolin mix  
Marking crayons  
Water  
Ties  
Anchors  
Concrete  
Dimensional lumber  
Plywood  
Nails/screws  
Form oil or form release agent  
String line  
Wax  
Rags  
Oakum  
Copies of Local Building Codes  
Manufacturer's brochures on surface coatings, glass block, and refractory brick  
Different types of stone

## **MODULE 28303 - REPAIR AND RESTORATION**

Overhead projector and screen  
Whiteboard/chalkboard  
Appropriate Personal Protective Equipment  
Basic masonry tools  
Mortar containers  
Tuckpointing trowels  
Tuckpointing grinders  
Buckets  
Brushes, soft and hard  
Plugging chisel  
Electric drill  
Masonry drill bits  
Grout bags  
Trainee Task Module  
Transparencies  
Markers/chalk  
Paper/pencils  
Module Examination  
Performance Profile Sheets  
Mortar mix  
Sand  
Water  
Rags  
Inspection checklists  
Brick  
Wall(s) with damaged joints  
Wall(s) with stains (applied by Instructor)  
Detergents and soap  
Muriatic acid

## **MODULE 28304 - COMMERCIAL DRAWINGS**

Overhead projector and screen  
Whiteboard/chalkboard  
Architect's scales  
Appropriate Personal Protective Equipment  
Trainee Task Module  
Transparencies  
Markers/chalk  
Paper/pencils  
Module Examination  
Performance Profile Sheets  
Commercial drawings

## **MODULE 28305 - ESTIMATING**

Overhead projector and screen  
Whiteboard/chalkboard  
Four-function calculators  
Architect's scales  
Trainee Task Module  
Transparencies  
Markers/chalk  
Module Examination  
Performance Profile Sheets  
Paper/pencils  
Commercial drawings  
Residential drawings  
Estimating worksheets

## **MODULE 28306 - PROJECT PLANNING AND SUPERVISION**

Overhead projector and screen  
Whiteboard/chalkboard  
Optical levels  
Laser level  
Leveling rods  
Rotating laser level  
Appropriate Personal Protective Equipment  
Straightedges  
Materials  
Trainee Task Module  
Transparencies  
Markers/chalk  
Paper/pencils  
Module Examination  
Performance Profile Sheets  
Examples of CPM diagrams  
Construction stakes  
Purchase orders  
Local building codes  
Sample contract documents  
Example bar chart schedule  
Straightedges