



NCCER

13614 Progress Blvd, Alachua, Florida 32615
Phone: (888) 622-3720 E-mail: info@nccer.org

CONSTRUCTION CRAFT LABORER

Materials and Equipment

Level One

MODULE 00101-04 – BASIC SAFETY

- Transparencies
- Markers/chalk
- Blank acetate sheets
- Transparency pens
- Pencils and scratch paper
- Overhead projector and screen
- Whiteboard/chalkboard
- Appropriate personal protective equipment
- Copies of your local code
- Variety of communication tags and signs
- Dull and sharp cutting tools
- Code of Federal Regulations Part 1910*
- OSHA 29 CFR 1926*
- OSHA Form 300
- New and damaged hoses and regulators
- Materials to create hypothetical fire hazards
- Variety of safety tags
- Variety of types of personal protective equipment, including:
 - Hard hats
 - Safety glasses, goggles, and face shields
 - Safety harnesses
 - Gloves
 - Safety shoes
 - Hearing protection
 - Respiratory protection
- Copies of your company's fall protection plan
- Variety of ladders and scaffolds, including:
 - Straight ladders
 - Extension ladders
 - Stepladders
 - Manufactured scaffolds
 - Rolling scaffolds
- Sample material safety data sheet (MSDS)
- Variety of fire extinguishers
- Module Examinations
- Performance Profile Sheets

MODULE 00102-04 – INTRODUCTION TO CONSTRUCTION MATH

Transparencies
Markers/chalk
Blank acetate sheets
Transparency pens
Pencils and scratch paper
Overhead projector and screen
Whiteboard/chalkboard
Appropriate personal protective equipment
Copies of your local code
Sample work orders that require mathematical functions
60 straws
Calculator
Standard ruler (with 1/16-inch markings)
Metric ruler (with centimeters [cm] and millimeters [mm])
Architect's scale
Blueprint
Two lengths of wood
Small hand saw
Machinist's rule
Protractors
Module Examinations

MODULE 00103-04 – INTRODUCTION TO HAND TOOLS

Transparencies
Markers/chalk
Blank acetate sheets
Transparency pens
Pencils and scratch paper
Overhead projector and screen
Whiteboard/chalkboard
Appropriate personal protective equipment
Copies of your local code
Claw hammer
Wood board with nails to practice using hammers and mallets
Ball peen hammer
Mallet
Screwdriver
Wood board with screws to practice using screwdrivers
Sledgehammer
Stake

MODULE 00103-04 – INTRODUCTION TO HAND TOOLS (continued)

Nail pullers, including:

- Cat's paws

- Chisel bars

- Flat bars

Wood boards with nails to practice using nail pullers

Slip-joint pliers

Pliers, including:

- Slip-joint

- Long-nose

- Lineman

- Channellock®

- Vise-Grip®

Boards with wire and soft metals to practice using pliers

Rulers and measuring tools, including:

- Steel rules

- Measuring tape

- Wooden folding rules

Spirit level

Combination square

Try square

Square wood frames to practice using the measuring tools

Plumb bob

Self-chalker/plumb bob

Clamps, including:

- C-clamp

- Locking clamp

- Spring clamp

- Bar clamp

- Pipe clamp

- Hand-screw clamp

- Web clamp

Crosscut saws

Ripsaws

Sections of wood suitable for sawing

Files and rasps, including:

- Veneer knife file

- Square file

- Triangle file

- Flat file

- Rat-tail file

Materials to be filed

Wood chisel

Cold chisel

Wood and metal to practice using the chisels

Nonadjustable wrenches

Adjustable wrenches

Torque wrench

MODULE 00103-04 – INTRODUCTION TO HAND TOOLS (continued)

Wedges

Utility knife

Cardboard box to practice cutting with a utility knife

Wire brushes

Dirty tools to clean using wire brushes

Module Examinations

Performance Profile Sheets

MODULE 00104-04 – INTRODUCTION TO POWER TOOLS

Transparencies

Markers/chalk

Blank acetate sheets

Transparency pens

Pencils and scratch paper

Overhead projector and screen

Whiteboard/chalkboard

Appropriate personal protective equipment

Copies of your local code

Power drills, including:

- Electric drills

- Cordless drills

- Hammer drills

- Electromagnetic drills

- Pneumatic drills (air hammers)

- Electric screwdrivers

Variety of drill bits

Saws, including:

- Circular saws (Skilsaw®)

- Saber saws

- Reciprocating saws (Sawsall®)

- Portable handheld bandsaws

- Power miter box saws

Variety of saw blades

Changeable blades for saber saws

Boards to practice cutting

Grinders and sanders, including:

- Angle grinders (side grinders), end grinders, and detail grinders

- Bench grinders

- Portable belt sanders

- Random orbital sanders (finishing sanders)

Attachments for detail grinders

Metalwork to practice polishing

Materials to demonstrate a ring test

MODULE 00104-04 – INTRODUCTION TO POWER TOOLS (continued)

Miscellaneous power tools, including:

- Pneumatically powered nailers (nail guns)
- Powder-actuated fastening systems
- Air impact wrenches
- Pavement breakers
- Hydraulic jacks (Porta-Power™)

Nails

Air compressor

Nut and bolts to practice using the air impact wrenches

Module Examinations

Performance Profile Sheets

MODULE 00105-04 – INTRODUCTION TO BLUEPRINTS

Transparencies

Markers/chalk

Blank acetate sheets

Transparency pens

Pencils and scratch paper

Overhead projector and screen

Whiteboard/chalkboard

Appropriate personal protective equipment

Copies of your local code

Door, window, and hardware schedules

A complete set of plans, including:

- Architectural
- Civil
- Structural
- Mechanical
- Plumbing
- Electrical

Specifications

Blueprints with title block

Blueprints with a legend

Measuring tools, including:

- Engineer's scale
- Architect's scale
- Metric scale

Blueprints with a gridline system

Blueprints with interior and exterior measurements

Module Examinations

Performance Profile Sheets

MODULE 00106-04 – BASIC RIGGING

Transparencies
Markers/chalk
Blank acetate sheets
Transparency pens
Pencils and scratch paper
Overhead projector and screen
Whiteboard/chalkboard
Appropriate personal protective equipment
Copies of your local code
OSHA 29 CFR 1926
Identification tags for slings
Copies of *Figure 15* with the call outs covered
Damaged slings or photos of damaged slings
Two glasses
One liter of water
Anchor shackles and chain shackles
Various types of pins, including:
 Screw pin shackle
 Round pin or straight pin shackle
 Safety shackle
Damaged shackles and pins
Damaged and undamaged eyebolts
Undamaged lifting clamps
Rusty or corroded lifting clamps
Wire brush to clean lifting clamps
Damaged and undamaged rigging hooks
Module Examinations
Performance Profile Sheets

MODULE 00107-04 – BASIC COMMUNICATION SKILLS

Transparencies
Markers/chalk
Blank acetate sheets
Transparency pens
Pencils and scratch paper
Overhead projector and screen
Whiteboard/chalkboard
Appropriate personal protective equipment
Copies of your local code

MODULE 00107-04 – BASIC COMMUNICATION SKILLS (continued)

Examples of written materials commonly used on the job, including:

- Safety instructions

- Blueprints

- Manufacturer's installation instructions

- Materials lists

- Signs and labels

- Work orders and schedules

- Specifications

- Change orders

- Industry magazines and company newsletters

Trade manuals

Sets of instructions

Work-related forms, including:

- Accident reports

- Time and materials

- Training reports

- Time sheets

- Punch lists

- Change orders

- RFIs

Examples of well-written and poorly written emails

Module Examinations

Performance Profile Sheets

MODULE 27101-06 – ORIENTATION TO THE TRADE

Transparencies
Markers/chalk
Blank acetate sheets
Transparency pens
Pencils and scratch paper
Overhead projector and screen
Whiteboard/chalkboard
Appropriate personal protective equipment
Videotape (optional), *Careers in Construction: Carpentry Exploring Careers in Construction* (optional)
Television and videocassette recorder (optional)
Module Examinations

MODULE 27102-06 – BUILDING MATERIALS, FASTENERS, AND ADHESIVES

Transparencies
Markers/chalk
Blank acetate sheets
Transparency pens
Pencils and scratch paper
Overhead projector and screen
Whiteboard/chalkboard
Appropriate personal protective equipment
Samples of lumber containing:
 Grade stamps
 Natural defects
 Manufacturing defects
Samples of plywood containing grade stamps
Samples of engineered sheet materials (OSB, particleboard, etc.)
Samples of engineered lumber (LVL, PSL, glulam, etc.)
Samples of various concrete blocks
Samples of metal framing materials
Samples of various kinds of:
 Nails
 Screws
 Bolts
 Anchors
 Construction adhesives
Cross section of a tree trunk (optional)
Drill and bits
Hammer
Screwdriver
Calculator
Module Examinations
Performance Profile Sheets

MODULE 27401-08 – SITE LAYOUT I: DISTANCE MEASUREMENT AND LEVELING

Overhead projector and screen
Transparencies
Blank acetate sheets
Transparency pens
Whiteboard/chalkboard
Markers/chalk
Pencils and scratch paper
Appropriate personal protective equipment
Site plot plans for selected construction sites
Assortment of hubs, stakes, and laths
Assortment of different colored flagging tape
Permanent markers for marking stakes
Field notebooks for recording data
2" × 4" or 2" × 6" ledger boards
2" × 4" batter boards
Nylon string
Calculator
100 foot steel tape
Range poles
Plumb bobs/gammon reels
Hand sight levels
Tension spring
Chaining pins
Builder's level
Transit level
Tripods
Laser level
Assortment of leveling rods and accessories
Quick Quizzes
Module Examinations
Performance Profile Sheets

MODULE 27108-06 – INTRODUCTION TO CONCRETE, REINFORCING MATERIALS, AND FORMS

Transparencies
Markers/chalk
Blank acetate sheets
Transparency pens
Pencils and scratch paper
Overhead projector and screen
Whiteboard/chalkboard
Appropriate personal protective equipment
Hand calculator
Concrete calculator
Copies of a concrete table
Form boards, stakes, braces, ties, and spreaders

MODULE 27108-06 – INTRODUCTION TO CONCRETE, REINFORCING MATERIALS, AND FORMS (CONTINUED)

- 16-gauge tying wire
- Samples of various aggregates
- Samples of concrete mix
- Various bar supports and accessories
- Various mechanical splices for reinforcement steel
- Various sizes, types, and grades of reinforcement materials
- Samples of various types and sizes of wire fabric
- Exterior plywood or plyform
- Steel tape or rule
- Basic carpenter's toolbox
- Level
- Plumb bob
- String line
- Duplex nails
- Plan for simple form
- Circular saw and extension cord
- Copies of Worksheet 1
- Module Examinations
- Performance Profile Sheets

MODULE 27307-07 – FOUNDATIONS AND SLAB-ON-GRADE

- Overhead projector and screen
- Transparencies
- Blank acetate sheets
- Transparency pens
- Whiteboard/chalkboard
- Plumb bob and line
- Leveling rods and accessories
- Direct elevation rod
- Project plans
- Automatic leveling instruments
- Builder's level
- Tripod
- Laser level
- Batter boards
- Hub stakes
- Marker stakes
- Color-coded stakes or markers
- Markers/chalk
- Pencils and scratch paper
- Appropriate personal protective equipment
- Gammon reel
- Markers/chalk
- Pencils and scratch paper
- Appropriate personal protective equipment
- Steel tape (100')

MODULE 27307-07 – FOUNDATIONS AND SLAB-ON-GRADE (continued)

Gammon reelField notebook
Transit level
2' or 4' level
String line
Samples of rebar and WWR
Pier foundation forms
Manufacturer's literature on wall forms
Manufacturer's literature on leave-in-place forms
Edge forms
Copies of Quick Quiz*
Module Examinations**
Performance Profile Sheet**

MODULE 27304-07 – REINFORCING CONCRETE

Overhead projector and screen
Transparencies
Blank acetate sheets
Transparency pens
Whiteboard/chalkboard
Markers/chalk
Pencils and scratch paper
Appropriate personal protective equipment
Pieces of marked rebar
Copies of ASTM standards
Bent bars
Bar lists
Hooks and spirals
Steel wire bar supports
Precast concrete bar supports
Plastic bar supports
Standees
Welded-wire fabric
Deformed welded-wire fabric
ACI standards for concrete coverage
Bolt cutters
Electric shears
Hickey bar and jigs
Tie wire
Pliers
Spliced rebar
Mechanically spliced rebar
Copies of Quick Quiz*
Module Examinations**
Performance Profile Sheet**

MODULE 27305-07 – HANDLING AND PLACING CONCRETE

Overhead projector and screen

Transparencies

Blank acetate sheets

Transparency pens

Whiteboard/chalkboard

Markers/chalk

Pencils and scratch paper

Appropriate personal protective equipment

Equipment for moving, placing, and consolidating concrete, including:

Moveable chutes (such as used with mixer trucks)

- Drop chutes

- Elephant trunk

- Wheelbarrow

- Power buggy and/or carts

- Crane and bucket

- Belt conveyor

- Concrete pump

- Pneumatic gun

- Internal vibrator

- Rollerbug tamper

Equipment for screeding, leveling, and finishing concrete, including:

- Manual/power screeds

- Knee boards

- Darby floats/bullfoats

- Pointed trowels

- Edgers

- Jointers (groovers)

- Power saws

- Hand floats

- Hand trowels

- Finishing machines

- Brooms

- Assortment of combination tools

- Pointing and margin trowels

- Cement hammers

- Carborundum rubbing stones

- Sprayers

- Power grinders

- Properly-constructed concrete formworks

Sand

Boxes to contain wet sand

Copies of Quick Quiz*

Module Examinations**

Performance Profile Sheet**

Level Two

MODULE 27308-07 – VERTICAL FORMWORK

Overhead projector and screen

Transparencies

Blank acetate sheets

Transparency pens

Whiteboard/chalkboard

Markers/chalk

Pencils and scratch paper

Appropriate personal protective equipment

Sheets of plywood

Components used to construct wall forms, including assembly hardware, walers, strongbacks, braces, and stakes

Manufacturers' literature on different types of gang forms

Manufacturers' literature on different types of flexible wall forms

Tools and materials to construct a wall form

Materials to construct blockouts and embedments

Materials inventory

Tools and materials to construct column forms

Circular saw

Form assembly hardware

OSHA Standard 1926:700-701

Walers

Strongbacks

Manufacturers' literature on different types of wall-forming systems

Manufacturers' literature on different types of column forms

Drawings with design details

Manufacturers' literature on stay-in-place polystyrene forms

Basic stair form

Tools and materials to construct a stair form

Copies of Quick Quiz*

Module Examinations**

Performance Profile Sheet**

MODULE 27309-07 – HORIZONTAL FORMWORK

Overhead projector and screen
Transparencies
Blank acetate sheets
Transparency pens
Whiteboard/chalkboard
Markers/chalk
Pencils and scratch paper
Appropriate personal protective equipment
Walers
Strongbacks
Manufacturers' literature on deck framing systems
Manufacturers' literature on flying decks
Manufacturers' literature on column-mounted tables
Hand tools
Levels
Bracing materials
Shoring deck systems
Edge forms
Manufacturers' literature on different types of pan forms
Manufacturers' literature on shoring
Wood shore
Metal post shores
Manufacturers' literature on aluminum shoring
Samples of exterior grade plywood
Plyform®
Stringers
Joists
Blockouts
Embedded items
Materials for construction joints
Manufacturers' literature on bridge deck forms
Manufacturers' literature on culvert forms
OSHA 1926.703
Copies of Quick Quiz*
Module Examinations**
Performance Profile Sheet**

MODULE 28207 - ELEVATED WORK

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 21101-04 – ORIENTATION TO THE TRADE

Overhead projector and screen
Transparencies
Whiteboard/chalkboard
Markers/chalk
Blank acetate sheets
Transparency pens
Pencils and scratch paper
Appropriate personal protective equipment:
Hard hats
Work gloves
Safety harnesses
Safety shoes
Ear protection
Model crane (hydraulic boom)
Model crane (lattice boom)
Copies of company policies and procedures
Copies of site evacuation plans
Copies of ANSI and OSHA standards
TV and VCR
Videotape: *Construction Safety: Choice or Chance*,
by the Occupational Safety and Health Administration
Module Examinations

MODULE 30101 - INTRODUCTION TO THE TRADE

Equipment

Overhead projector and screen

Whiteboard/chalkboard

Trainee Task Module

Transparencies

Markers/chalk

Module Examination

MODULE 26101-00 – Electrical Safety

Overhead projector and screen

Whiteboard/chalkboard

Various types of personal protective and safety equipment, including rubber gloves, insulating blankets, lockout/tagout devices, hot sticks, fuse pullers, shorting probes, safety glasses, and face shields

Access to an eye wash station

Materials

Transparencies

Markers/chalk

Lockout/tagout devices and labels

Copy of the latest edition of the National Electrical Code®

OSHA Electrical Safety Guidelines (pocket guide)

Module Examinations

Performance Profile Sheets

MODULE 26102-08 – ELECTRICAL SAFETY

Overhead projector and screen

Transparencies

Blank acetate sheets

Transparency pens

Whiteboard/chalkboard

Markers/chalk

Pencils and scratch paper

Copy of the latest edition of the *National Electrical Code*®

OSHA Electrical Safety Guidelines (pocket guide)

NFPA 70E

Various types of personal protective and safety equipment, including:

Rubber gloves

Insulating blankets

Hot sticks

Fuse pullers

Shorting probes

Safety glasses

Face shields

Company safety manual

GFCI device

Company lockout/tagout procedures

Step ladders

Straight ladders

MODULE 26102-08 – ELECTRICAL SAFETY (CONTINUED)

Solvent MSDS
Fall arrest system
Safety harnesses
Lockout/tagout devices and labels
Access to eye wash station
TV/DVD/VCR player (optional)
Safety videos (optional)
Module Examinations
Performance Profile Sheet

MODULE 27406-08 – INTRODUCTION TO LIGHT EQUIPMENT

Overhead projector and screen
Transparencies
Blank acetate sheets
Transparency pens
Whiteboard/chalkboard
Markers/chalk
Pencils and scratch paper
Appropriate personal protective equipment
Aerial lift and operator's manual
Skid steer loader and operator's manual
Trencher and operator's manual
Portable generators and accessories
Portable generator operator's manual
Portable air compressor and accessories
Portable air compressor operator's manual
29 CFR 1926.453
Compaction equipment
Compactor operator's manual
Forklift and operator's manual
Backhoe and operator's manual
Quick Quiz
Module Examinations
Performance Profile Sheets

MODULE 22206-06 – FORKLIFTS

Overhead projector and screen
Transparencies
Blank acetate sheets
Transparency pens
Whiteboard/chalkboard
Markers/chalk
Pencils and scratch paper
Appropriate personal protective equipment
Forklift
Hand tools
Grease gun
Air gauge
Hydrometer
Rags
Fluids for equipment servicing
Company safety manual
Daily inspection checklist
Forklift operator's manual
Forklift maintenance manual
Machine maintenance records
Chocks and tie-down equipment
OSHA PowerPoint® presentation on forklift safety or video on forklift safety (optional)
TV/VCR/DVD player (optional)
Multimedia projector for PowerPoint® presentation (optional)
Computer with internet access (optional)
Base with upright and extension to hang a load (optional)
Wooden blocks or sample loads for tipping demonstration (optional)
Traffic cones or devices
Samples loads, including:
 Pallet of empty barrels
 Long pipe
Blocking
Module Examinations
Performance Profile Sheet

MODULE 29102-03 - OXYFUEL CUTTING

Overhead projector and screen
Transparencies
Blank acetate sheets
Whiteboard/chalkboard
Transparency pens
Markers/chalk
Pencils and scratch paper
Appropriate personal protective equipment
Oxygen cylinder (with cap)
Fuel gas cylinder (with cap)
Regulators (oxygen and fuel gas)
Hose set
Combination cutting torch
One-piece cutting torch
Assorted torch nozzles (cutting, washing, gouging)
Cylinder cart
Motorized oxyfuel track cutter
Framing squares
Combination squares with protractor head
Tape measure
Soapstone
Penknife
Pliers
Chipping hammer
Friction lighter
Vendor cutting tip chart
Tip cleaners and file
Wrenches (torch, hose, and regulator)
Steel plate

- Thin (16 to 10 gauge)
- Thick (1/4 inch to 1 inch)

Module Examinations
Performance Profile Sheets

MODULE 28301-05 – MASONRY IN HIGH-RISE CONSTRUCTION

Overhead projector and screen
Transparencies
Blank acetate sheets
Transparency pens
Whiteboard/chalkboard
Markers/chalk
Pencils and scratch paper
Appropriate personal protective equipment
Walkie-talkies
Throat microphone
ASME B30.5 Consensus Standard
Ground fault circuit interrupter
Safety harness
Lanyard
Lifeline
Television
VCR/DVD player
Module Examinations
Performance Profile Sheets

