



## Fundamentals—Level One

### MODULE 27101-06 – ORIENTATION TO THE TRADE

Task Number	Item	Date(s)	Recorded By
This is a knowledge-based module—there is no performance profile examination.			

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

Task Number	Item	Date(s)	Recorded By
1	Calculate the quantities of lumber and wood products using industry-standard methods.		
2	Given a selection of building materials, identify a particular material and state its use.		

### MODULE 27103-06 – HAND AND POWER TOOLS

Task Number	Item	Date(s)	Recorded By
1	Demonstrate the safe and proper use of the following hand tools:		
	• Levels		
	• Squares		
	• Planes		
	• Clamps		
	• Saws		
2	Demonstrate or describe the safe and proper use of five of the following power tools:		
	• Circular saw		
	• Portable table saw		
	• Compound miter saw		
	• Frame and trim saw		

- Drill press
- Router/laminate trimmer
- Portable power plane
- Power metal shears
- Pneumatic nailer/stapler

## MODULE 27104-06 – READING PLANS AND ELEVATIONS

Task Number	Item	Date(s)	Recorded By
1	Interpret selected symbols and abbreviations used on drawings.		
2	Read and interpret site/plot plans.		
3	Read and interpret foundation, floor, and other plan view drawings.		
4	Read and interpret elevation view drawings.		
5	Read and interpret section and detail drawings.		
6	Read and interpret schedules.		
7	Read and interpret written specifications.		
8	Perform a quantity takeoff for materials.		

## MODULE 27105-06 – FLOOR SYSTEMS

Task Number	Item	Date(s)	Recorded By
1	Lay out and construct a floor assembly.		
2	Install bridging.		
3	Install joists for a cantilever floor.		
4	Install a subfloor using butt-joint plywood/OSB panels.		
5	Install a single floor system using tongue-and-groove plywood/OSB panels.		
6	Estimate the amount of material needed to frame a floor assembly.		
7	Given specific floor load and span data, select the proper girder/beam and joist size from a list of available girders/beams/joists.		

## MODULE 27106-06 – WALL AND CEILING FRAMING

Task Number	Item	Date(s)	Recorded By
1	Lay out, assemble, erect, and brace exterior walls.		
2	Cut and install ceiling joists on a wood frame building.		
3	Estimate the materials required to frame walls and ceilings.		

## MODULE 27107-06 – ROOF FRAMING

Task Number	Item	Date(s)	Recorded By
1	Use a framing square and speed square in laying out a roof.		
2	Frame and sheathe a gable roof with an opening.		
3	Erect a gable roof using trusses.		
4	Estimate the materials used in framing and sheathing a roof.		

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

Task Number	Item	Date(s)	Recorded By
1	Perform volume estimates for concrete quantity requirements.		
2	Construct a simple concrete form with reinforcement.		

## MODULE 27109-06 – WINDOWS AND EXTERIOR DOORS

Task Number	Item	Date(s)	Recorded By
1	Install a pre-hung window.		
2	Install a pre-hung exterior door.		
3	Install a lockset.		

## MODULE 27110-06 – BASIC STAIR LAYOUT

Task Number	Item	Date(s)	Recorded By
1	Lay out and build a small stair unit with a handrail to a given rise.		

# Level Two

## MODULE 27201-07 – COMMERCIAL DRAWINGS

Task Number	Item	Date(s)	Recorded By
27201-1	Locate 10 items contained in a set of commercial drawings. (The instructor will select the 10 items.)		
27201-2	Using a door and window schedule, identify the hardware, ratings, and finishing for each door and window.		
27201-3	Calculate the floor area in a floor plan.		

## MODULE 27202-07 – ROOFING APPLICATIONS

Task Number	Item	Date(s)	Recorded By
27202-1	Install fiberglass shingles on gable and hip roofs.		
27202-2	Close up a valley using fiberglass shingles.		
27202-3	Complete the proper cuts and install the main and hip ridge caps using fiberglass shingles.		
27202-4	Lay out, cut, and install a cricket or saddle.		
27202-5	Install wood shingles and shakes on roofs.		
27202-6	Complete the cuts and install the main and hip ridge caps using shakes/shingles.		
27202-7	Demonstrate the techniques for installing other selected types of roofing materials.		

## MODULE 27203-07 – THERMAL AND MOISTURE PROTECTION

Task Number	Item	Date(s)	Recorded By
27203-1	Install blanket insulation in a wall.		
27203-2	Install a vapor barrier on a wall.		
27203-3	Install selected building wraps.		

## MODULE 27204-07 – EXTERIOR FINISHING

Task Number	Item	Date(s)	Recorded By
27204-1	Install a selected cornice or box cornice using the proper safety precautions.		
27204-2	Estimate the amount of lap or panel siding required for a structure.		
27204-3	Install three of the most common siding types in your area.		

## MODULE 27205-07 – COLD-FORMED STEEL FRAMING

Task Number	Item	Date(s)	Recorded By
27205-1	Demonstrate the ability to build headers (back-to-back, box, and L-header).		
27205-2	Lay out and install a steel stud structural wall with openings to include bracing and blocking.		
27205-3	Lay out and install a steel stud non-structural wall with openings to include blocking and bracing.		

## MODULE 27206-07 – DRYWALL INSTALLATION

Task Number	Item	Date(s)	Recorded By
27206-1	Install gypsum drywall panels on stud walls and ceilings using different types of fastening systems, including: <ul style="list-style-type: none"><li>• Nails</li><li>• Screws</li><li>• Adhesives</li></ul>		
27206-2	Install gypsum drywall panels on a steel wall.		
27206-3	Select the type and thickness of drywall required for specific installations and estimate material quantities for the installation.		

## MODULE 27207-07 – DRYWALL FINISHING

Task Number	Item	Date(s)	Recorded By
27207-1	State the differences between the six levels of finish established by industry standards and distinguish a finish level by observation.		
27207-2	Properly prepare the following compounds for use: <ul style="list-style-type: none"><li>• Taping compound</li><li>• Topping compound</li><li>• Premix</li><li>• Quickset compound</li></ul>		
27207-3	Select the proper hand tools and perform the following: <ul style="list-style-type: none"><li>• Joint taping and finishing</li><li>• Fastener spotting</li><li>• Corner finishing</li><li>• Sanding</li></ul>		
27207-4	Patch damaged drywall.		

## MODULE 27208-07 – DOORS AND DOOR HARDWARE

Task Number	Item	Date(s)	Recorded By
27208-1	Install a selected metal frame door using the proper safety precautions.		
27208-2	Install a prehung door unit or door hanging system using the proper safety precautions.		
27208-3	Lay out and cut hinges in a wooden door.		
27208-4	Install a lockset and door closer using the proper safety precautions.		
27208-5	Install a bifold door using the proper safety precautions.		

## MODULE 27209-07 – SUSPENDED CEILINGS

Task Number	Item	Date(s)	Recorded By
27209-1	Use a water level and/or establish a level line at ceiling level such as is required when installing the wall angle for a suspended ceiling.		
27209-2	Lay out and install selected suspended ceiling systems according to specific plan. <ul style="list-style-type: none"><li>• Exposed grid ceiling system</li><li>• Metal pan ceiling system</li><li>• Direct-hung concealed grid system</li><li>• Drywall furring ceiling system</li></ul>		
27209-3	Draw a ceiling plan/sketch for a typical room, then use the plan/sketch to estimate the quantities of materials needed to install an exposed grid ceiling system in the room.		

## MODULE 27210-07 – WINDOW, DOOR, FLOOR, AND CEILING TRIM

Task Number	Item	Date(s)	Recorded By
27210-1	Make square and miter cuts to selected moldings using a metal/wooden miter box.		
27210-2	Make square and miter cuts to selected moldings using a power miter/compound miter saw.		
27210-3	Make a coped joint using a coping saw.		
27210-4	Use a pneumatic finish nailer to fasten molding.		
27210-5	Install interior trim, including: <ul style="list-style-type: none"><li>• Door trim</li><li>• Window trim</li><li>• Base trim</li><li>• Ceiling trim</li></ul>		
27210-6	Estimate the quantities of different trim materials required for selected rooms.		

## MODULE 27211-07 – CABINET INSTALLATION

Task Number	Item	Date(s)	Recorded By
27211-1	Lay out and identify various types of base and wall units following a specified layout scheme.		
27211-2	OPTIONAL - Install and assemble various types of factory-built base and wall units following a specified layout scheme.		

## MODULE 27212-07 – CABINET FABRICATION

Task Number	Item	Date(s)	Recorded By
27212-1	Use stationary power tools to make joints commonly used by cabinetmakers.		
27212-2	Build a cabinet from a set of drawings.		
27212-3	Install plastic laminate on a countertop core.		

# Level Three

## MODULE 27301-07 – RIGGING EQUIPMENT

Task Number	Item	Date(s)	Recorded By
27301-1	Perform a safety inspection on hooks, slings, and other rigging equipment.		
27301-2	Select, inspect, use, and maintain special rigging equipment, including: <ul style="list-style-type: none"><li>• Block and tackle</li><li>• Chain hoists</li><li>• Come-alongs</li><li>• Jacks</li><li>• Tuggers</li></ul>		
27301-3	Tie knots used in rigging.		

## MODULE 27302-07 – RIGGING PRACTICES

Task Number	Item	Date(s)	Recorded By
27302-1	Determine the center of gravity of a load.		
27302-2	Properly attach rigging hardware for routine lifts.		
27302-3	Use and interpret hand signals.		
27302-4	Perform sling tension calculations.		

## MODULE 27303-07 – PROPERTIES OF CONCRETE

Task Number	Item	Date(s)	Recorded By
27303-1	Calculate concrete volume requirements for rectangular, cylindrical, or other geometric structures using formulas, concrete tables, and/or concrete calculators, as applicable.		
27303-2	Perform a specimen casting for concrete strength testing using proper procedures.		
27303-3	Extract concrete samples using approved sampling method(s).		
27303-4	Perform a concrete slump test using proper procedures.		

## MODULE 27304-07 – REINFORCING CONCRETE

Task Number	Item	Date(s)	Recorded By
27304-1	Use appropriate tools to cut and bend reinforcing bars.		
27304-2	Demonstrate five types of ties for reinforcing bars.		
27304-3	Demonstrate proper lap splicing of reinforcing bars using wire ties.		
27304-4	Demonstrate the proper placement, spacing, tying, and support for reinforcing bars.		

## MODULE 27305-07 – HANDLING AND PLACING CONCRETE

Task Number	Item	Date(s)	Recorded By
27305-1	Properly handle, place, and consolidate concrete in selected concrete forms.		
27305-2	Use a screed to strike off and level a concrete surface.		
27305-3	Use a bullfloat and/or darby to level and smooth a concrete surface.		
27305-4	Use an edger to form a radius at the edges of a concrete pad, slab, etc.		
27305-5	Use a jointer to make control joints in a concrete surface.		
27305-6	Use a hand float and finishing trowel to level high spots, remove imperfections, and smooth a concrete surface.		

## MODULE 27306-07 – TRENCHING AND EXCAVATING

Task Number	Item	Date(s)	Recorded By
27306-1	Perform a trench inspection.		

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

Task Number	Item	Date(s)	Recorded By
27307-1	Establish elevations.		
27307-2	Lay out and construct a selected footing and foundation using an established gridline.		
27307-3	Install templates, keyways, and embedments.		
27307-4	Form and strip pier foundation forms and prepare for resetting at another location.		
27307-5	Construct and disassemble edge forms.		
27307-6	Install vapor barrier, reinforcement, and control joints.		

## MODULE 27308-07 – VERTICAL FORMWORK

Task Number	Item	Date(s)	Recorded By
27308-1	Erect, plumb, and brace a selected wall form.		
27308-2	Erect, plumb, and brace a column form.		
27308-3	Erect, plumb, and brace a stair form.		
27308-4	Install blockouts and embedded items.		

## MODULE 27309-07 – HORIZONTAL FORMWORK

Task Number	Item	Date(s)	Recorded By
27309-1	Erect, plumb, brace, and level different types of handset deck form systems.		
27309-2	Install edge forms.		
27309-3	Install blockouts and embedded items.		
27309-4	Locate and install construction joints.		

## MODULE 27310-07 – TILT-UP WALL PANELS

Task Number	Item	Date(s)	Recorded By
27310-1	Form a tilt-up panel in accordance with a drawing provided by the instructor.		
27310-2	Install inserts, reinforcement, and reveals.		

# Level Four

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

Task Number	Item	Date(s)	Recorded By
27401-1	Interpret a construction site/plot drawing and relate the man-made and topographic features and other project information to the layout and topography of the actual site.		
27401-2	Convert measurements given in feet and inches to equivalent decimal measurements stated in feet, tenths, and hundredths, and vice versa.		
27401-3	Properly use taping equipment and procedures to make distance and site layout measurements.		
27401-4	Determine approximate distances by pacing.		
27401-5	Set up, adjust, and field test a leveling instrument.		
27401-6	Use a builder's level, leveling rods, and differential leveling procedures to determine site and building elevations.		
27401-7	Record differential leveling data in field notes in accordance with accepted practices.		
27401-8	Use differential leveling and distance measurement procedures to transfer elevations up a structure.		
27401-9	Check and/or establish 90-degree angles using the 3-4-5 rule.		

## MODULE 27402-08 – SITE LAYOUT II: ANGULAR MEASUREMENT

Task Number	Item	Date(s)	Recorded By
27402-1	Perform calculations pertaining to angular measurements.		
27402-2	Recognize and properly care for site layout tools and instruments.		
27402-3	Read transit/theodolite scales and verniers.		
27402-4	Use a transit to lay out building lines using traditional and radial layout techniques.		
27402-5	Use trigonometric leveling techniques to determine unknown elevations.		

## MODULE 27403-08 – ADVANCED ROOF SYSTEMS

Task Number	Item	Date(s)	Recorded By
27403-1	Prepare an eave installation.		
27403-2	Install panels for a lap seam roof.		
27403-3	Install endlapped standing seam metal roof panels.		
27403-4	Seal sidelap seams for a standing seam metal roof.		

## MODULE 27404-08 – ADVANCED WALL SYSTEMS

Task Number	Item	Date(s)	Recorded By
27404-1	Apply paneling with wainscoting.		
27404-2	Construct firewalls in accordance with specifications.		

## MODULE 27405-08 – ADVANCED STAIR SYSTEMS

Task Number	Item	Date(s)	Recorded By
27405-1	Install open and closed service stair treads and risers.		
27405-2	Install treads and risers on open, closed, and/or combination open/closed main stairs.		
27405-3	Miter a finished stringer and risers.		
27405-4	Install a return nosing.		
27405-5	Install an over-the-post balustrade system.		
27405-6	Install a post-to-post balustrade system.		
27405-7	Lay out an elliptical stairway.		
27405-8	Install a preassembled stair rail system.		
27405-9	Install a false tread kit.		

## MODULE 27406-08 – INTRODUCTION TO LIGHT EQUIPMENT

Task Number	Item	Date(s)	Recorded By
27406-1	Demonstrate or simulate the procedures for the safe and proper operation of one or more types of selected light equipment, including: <ul style="list-style-type: none"><li>• Aerial lifts</li><li>• Skid steer loaders</li><li>• Trencher</li><li>• Generator</li><li>• Compressor</li><li>• Compactor</li><li>• Forklift</li><li>• Backho/loadere</li></ul>		

## MODULE 27407-08 – WELDING

Task Number	Item	Date(s)	Recorded By
27407-1	Match cutting torch tips to their applications.		
27407-2	Set up equipment for oxyfuel cutting.		
27407-3	Turn on, light, and adjust the equipment to obtain a neutral flame.		
27407-4	Cut mild steel, stop, and restart the cut.		
27407-5	Perform a basic weld.		

## MODULE 27408-08 – COMMERCIAL FINISH WORK

Task Number	Item	Date(s)	Recorded By
27408-1	From a set of drawings, identify the finishes required for different surfaces.		

## MODULE 27409-08 – SITE PREPARATION

This is a knowledge-based module—there is no performance profile examination.

# Level Five

## MODULE 27501-07 –CABINETMAKING

Task Number	Item	Date(s)	Recorded By
27501-1	Use stationary power tools to make joints commonly used by cabinetmakers.		
27501-2	Build a cabinet from a set of drawings.		
27501-3	Install plastic laminate on a countertop core.		