

## **Performance Objectives for STC South Carpentry Program**

Utilizing: POS 46.0201 Carpentry

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(Excerpt from Chapter 339.22 Program Content in Vocational Education)

(i) Performance objectives. A vocational education program must identify performance objectives in accordance with criteria developed by the school entity in cooperation with the Occupational Advisory Committee. The performance objectives consist of the following three parts:

- (A) The conditions under which the task will be performed—the materials and supplies provided.
- (B) A description of the task.
- (C) The standard for how well the task shall be performed.



## **100 Safety/Occupational Orientation**

**Task: 101 Follow basic, lab and construction industry safety practices and procedures.**

**Condition:** Given a list of safety guidelines and a lesson on basic construction safety and labs safety and the necessary PPE, the student should be able to follow all safety rules pertaining to the carpentry trade.

**Standard:** Students will be graded against a safety rubric which accounts for the number and severity of safety infractions.

**Materials required per student:**

Learning guide 101

List of safety guidelines for the carpentry shop

Performance assessment for Task 101

**Task: 104 Follow procedures in Safety Data Sheets (SDS) system.**

**Condition:** Given an actual SDS and after lesson on what an SDS is and how to read them, the student should be able to follow the procedures set forth in an SDS for a given accidental exposure.

**Standard:** Students will be graded against a rubric which details the ability to read and interpret information on an SDS Sheet.

**Materials required per student:**

Learning guide 104

SDS sheet for Titebond wood glue

Performance assessment for Task 104

**Task: 105 Identify and follow all OSHA safety standards at the construction site.**

**Condition:** Given access to OSHA Construction guidelines and a lesson detailing the most common OSHA safety guidelines, the student should be able to recognize and follow basic OSHA guidelines.

**Standard:** Students will be graded against a rubric which identifies their ability to locate OSHA regulations and the students' ability to recognize unsafe conditions.

**Materials required per student:**

Learning guide 105

OSHA Construction guidelines

Performance assessment for Task 105

## **200 Hand Tools**

**Task: 201 Use and maintain small hand tools.**

**Condition:** Given access to small hand tools and after a demonstration on their use and care, the student should be able to use small hand tools safe and effectively to construct project 201A.

**Standard:** Students will be graded against a rubric which identifies the use of each small hand tool and the students' ability to use it according to industry standards.

**Materials required per student:**

Learning guide 201

Student tool bag, nippers, wrecking bar, pliers, adjustable wrench, C-clamp, spring clamp and wood clamp

Wood blocks for project 201A

Performance assessment for Task 201

**Task: 202 Use and maintain sawing tools.**

**Condition:** Given access to sawing hand tools and after a demonstration on their use and care, the student should be able to use sawing hand tools safe and effectively to complete project 202A.

**Standard:** Students will be graded against a rubric which identifies the use of each sawing hand tool and the students' ability to use it according to industry standards.

**Materials required per student:**

Crosscut hand saw, back saw, coping saw and hack saw.

1 - 2x4x8', 1 - 4' piece of baseboard and 1 - 2' piece of rebar

Learning guide 202

Performance assessment for Task 202

**Task: 203 Use and maintain fastening tools.**

Condition: Given access to fastening hand tools and after a demonstration on their use and care, the student should be able to use fastening hand tools safe and effectively to construct project 203A.

Standard: Students will be graded against a rubric which identifies the use of each fastening hand tool and the students' ability to use it according to industry standards.

Materials required per student:

Learning guide 203

Student tool bag, bar clamp, C clamp, wood clamp and spring clamp

Wood blocks for project 203A

Performance assessment for Task 203

**Task: 204 Use and maintain measuring tools.**

Condition: Given access to measuring tools and after a demonstration on their use and care, the student should be able to use measuring tools safe and effectively to construct project 204A.

Standard: Students will be graded against a rubric which identifies the use of each measuring tool and the students' ability to use it according to industry standards.

Materials required per student:

Learning guide 204

Performance assessment for Task 204

**Task: 205 Use and maintain cutting tools.**

Condition: Given access to cutting hand tools and after a demonstration on their use and care, the student should be able to use cutting hand tools safe and effectively to construct project 205A.

Standard: Students will be graded against a rubric which identifies the use of each cutting tool and the students' ability to use it according to industry standards.

Materials required per student:

Learning guide 205

Performance assessment for Task 205

**Task: 207 Use and maintain ladders.**

Condition: Given access to ladders and after a demonstration on their use and care, the student should be able to use ladders safe and effectively to demonstrate proficiency.

Standard: Students will be graded against a rubric which identifies the use of each ladder and the students' ability to use it according to industry standards.

Materials required per student:

Learning guide 207

Performance assessment for Task 207

**Task: 208 Use and maintain finishing tools.**

Condition: Given access to finishing tools and after a demonstration on their use and care, the student should be able to use finishing tools safe and effectively to construct project 208A.

Standard: Students will be graded against a rubric which identifies the use of each ladder and the students' ability to use it according to industry standards.

Materials required per student:

Learning guide 208

Performance assessment for Task 208

**Task: 210 Construct scaffolding**

Condition: Given prefabricated steel scaffold frames, braces, feet and guard rail, the student after watching a demonstration should be able to construct prefabricated scaffold pieces.

Standard: Students will be graded against a rubric which involves identifying scaffold pieces, assembly and recognizing potential safety hazards.

**Materials required per student:**

Learning guide 210

Manufactured frame scaffolding and braces

Scaffold accessories such as adjustable feet, guard rail and platforms

Performance assessment for Task 210



## **300 Power Tools**

### **Task: 301 Use and maintain stationary electric power tools.**

**Condition:** Given access to the stationary power tools within the carpentry shop, the student after watching a demonstration and passing the safety test on each machine with 100% accuracy, should be able to use the stationary machines to construct project 301A.

**Standard:** Students will be graded against a rubric which involves the safe use and operation of each machine as well as constructing project 301A to industry standards.

#### **Materials required per student:**

Learning guide 301

Machine safety tests

Machine performance tests

Performance assessment for Task 301

### **Task: 302 Use and maintain pneumatic tool systems.**

**Condition:** Given access to the pneumatic power tools within the carpentry shop, the student after watching a demonstration and passing the safety test on each tool with 100% accuracy, should be able to use the pneumatic tools to construct project 302A.

**Standard:** Students will be graded against a rubric which involves the safe use and operation of each pneumatic tool as well as constructing project 302A to industry standards.

#### **Materials required per student:**

Learning guide 302

Pneumatic tool safety tests

Pneumatic tool performance tests

Performance assessment for Task 302

**Task: 303 Use and maintain portable electric power tools.**

**Condition:** Given access to the portable power tools within the carpentry shop, the student after watching a demonstration and passing the safety test on each tool with 100% accuracy, should be able to use the portable power tools to construct project 303A.

**Standard:** Students will be graded against a rubric which involves the safe use and operation of each tool as well as constructing project 303A to industry standards.

**Materials required per student:**

Learning guide 303

Portable power tool safety tests

Portable power tools performance tests

Performance assessment for Task 303

## **400 Blueprint Reading**

**Task: 401 Interpret blueprints.**

**Condition:** Given a set of residential prints and after a lesson on basic print reading, the student should be able to read and interpolate information about various parts of the building.

**Standard:** Students will be graded against a rubric which involves the accurate interpretation of prints and a basic understanding of print reading.

**Materials required per student:**

Learning guide 401

Set of basic residential prints

Performance assessment for Task 401

**Task: 402 Interpret and comprehend standard symbols and abbreviations.**

**Condition:** Given a set of residential prints and after a lesson on the standard symbols and abbreviations used in residential prints, the student should be able to read and interpolate information about the various symbols and abbreviations used in residential prints.

**Standard:** Students will be graded against a rubric which involves the accurate interpretation of symbols and abbreviations used in residential blue prints.

**Materials required per student:**

Learning guide 402

Set of basic residential prints

Performance assessment for Task 402

**Task: 403 Interpret building specifications.**

Condition: Given a set of residential building specifications and after a lesson on their interpretation, the student should be able to extrapolate basic information concerning the building.

Standard: Students will be graded against a rubric which involves the accurate extrapolation of information contained within the building specifications.

**Materials required per student:**

Learning guide 403

Set of basic residential specifications

Performance assessment for Task 403

**Task: 404 Interpret a plot plan.**

Condition: Given a plot plan for a residential building and after a lesson on the major components of the plot plan, the student should be able to use a plot plan to position a building on the lot and establish the height of the first floor.

Standard: Students will be graded against a rubric which involves the accurate interpretation of the plot plan.

**Materials required per student:**

Learning guide 404

Set of basic residential prints, plot plan

Performance assessment for Task 404

**Task: 405 Interpret a foundation plan.**

Condition: Given a foundation plan for a residential building and after a lesson on the major components of the foundation plan, the student should be able to use a foundation plan to layout a footer and foundation within industry standard.

Standard: Students will be graded against a rubric which involves the accurate interpretation of information contained in a foundation plan.

**Materials required per student:**

Learning guide 405

Set of basic residential prints, foundation plan

Performance assessment for Task 405

**Task: 406 Interpret elevation plans.**

Condition: Given elevation drawings for a residential building and after a lesson explaining the necessity for elevations, the student should be able to identify necessary information from the elevation plans required to construct the building.

Standard: Students will be graded against a rubric which involves the accurate interpretation of information contained on an elevation drawing.

**Materials required per student:**

Learning guide 406

Set of basic residential prints, elevations

Performance assessment for Task 406

**Task: 407 Interpret details and section views.**

Condition: Given section and detail drawings for a residential building and after a lesson on what type of information is usually contained within, the student should be able to use the details and sections to gain information about what construction techniques are specified in the drawings.

Standard: Students will be graded against a rubric which involves the accurate interpretation of section and detail drawings.

**Materials required per student:**

Learning guide 407

Set of basic residential prints, section views

Performance assessment for Task 407

**Task: 408 Interpret floor, wall and roof framing plans.**

Condition: Given a set of framing prints for a residential building and after a lesson on how to interpret them, the student should be able to use the framing prints to gain essential knowledge of how the building is to be framed according to the prints.

Standard: Students will be graded against a rubric which involves the accurate interpretation of framing prints.

**Materials required per student:**

Learning guide 408

Set of basic residential prints, framing prints

Performance assessment for Task 408

**Task: 409 Interpret building and zoning codes.**

Condition: Given 2009 IRC code book and a lesson on how to read it, the student should be able to identify codes pertaining to the construction of a residential building.

Standard: Students will be graded against a rubric which involves the accurate interpretation of the IRC code book and the codes listed there in.

Materials required per student:

Learning guide 409

2009 IRC

Performance assessment for Task 409

**Task: 410 Interpret Americans with Disabilities Act (ADA) regulations.**

Condition: Given a copy of the 2010 ADA regulations and after a lesson on how to interpret them, the student should be able to use the regulations to determine a buildings compliance with the regulations.

Standard: Students will be graded against a rubric which involves the accurate interpretation of the 2010 ADA regulations.

Materials required per student:

Learning guide 410

2010 ADA Regulations

Performance assessment for Task 410





## **500 Site Preparation and Layout**

**Task: 501 Determine factors needed to be considered before the start of a building project.**

**Condition:** Given a lesson on what is required by local, county and state laws before the start of a building project, the student should be able to list the 4 most common factors that determine the success of a building project.

**Standard:** Students will be graded against a rubric which involves the accurate identification of laws, regulations or codes that must be followed before the start of a building project.

**Materials required per student:**

Learning guide 501

Building permit application, local or county zoning laws, deed restrictions

Performance assessment for Task 501

**Task: 502 Acquire a building permit.**

**Condition:** Given a lesson on what is required by local, county and state laws before the start of a building project, the student should be able to acquire the application for a building permit and fill it out properly.

**Standard:** Students will be graded against a rubric which involves the accurate application for a building permit.

**Materials required per student:**

Learning guide 502

Building permit application

Performance assessment for Task 502

**Task: 503 Use PA One Call System, Inc.**

Condition: Given a lesson on what the PA One Call System is and what it does, the student should be able to call and give appropriate and necessary information to the One Call system.

Standard: Students will be graded against a rubric which involves the accurate identification of what is required when calling the PA One Call system.

Materials required per student:

Learning guide 503

Website for PA One Call

Performance assessment for Task 503

**Task: 504 Establish elevations and grades from benchmarks using leveling instruments.**

Condition: Given a builders' level, transit and laser level and after a demonstration on how to use them, the student should be able to determine the difference in elevation between an existing benchmark and another point as well as establishing a benchmark for a given height from an existing known elevation.

Standard: Students will be graded against a rubric which involves the accurate reading of elevations between existing elevations, setting of level points and setting of height benchmarks from a given elevation.

Materials required per student:

Learning guide 504

Builders level, Transit and Laser level

Performance assessment for Task 504

**Task: 505 Stake out a building foundation using the Pythagorean theorem.**

**Condition:** Given a lesson on how to layout a building using two tape measure and Pythagorean theorem, the student should be able to calculate the building diagonal, and stake out the building to industry standards.

**Standard:** Students will be graded against a rubric which measures the students' ability to calculate and layout a building to industry specifications.

**Materials required per student:**

Learning guide 505

4 stakes for building layout

Performance assessment for Task 505

**Task: 506 Layout and construct batter boards.**

**Condition:** Given a lesson on what batter boards are and why they are used, the student should be able to locate, build and level a set of batter boards.

**Standard:** Students will be graded against a rubric which involves the accurate placement, construction and leveling of the set of batter boards.

**Materials required per student:**

Learning guide 506

16 stakes

2-1x4x8'

Performance assessment for Task 506



## **600 Footings and Foundations**

**Task: 601 Determine footer type.**

**Condition:** Given a lesson on what footers are and why they are necessary, the student should be able to recognize the different types of footers used in residential construction.

**Standard:** Students will be graded against a rubric which measures their ability to recognize the different types of footers used in residential construction.

**Materials required per student:**

Learning guide 601

Performance assessment for Task 601

**Task: 602 Use of leveling instruments.**

**Condition:** Given a lesson on the importance of having footers and foundations level, the student should be able to use dumpy levels, lasers or 4' levels to ensure the forms for footers and foundations are level and plumb.

**Standard:** Students will be graded against a rubric which involves the accurate placement, construction and leveling of forms used for ledgers, footers and foundations.

**Materials required per student:**

Learning guide 602

Laser level, dumpy level or 4' level

Performance assessment for Task 602

**Task: 603 Establish footer lines and elevations.**

Condition: Given an accurately positioned set of 4 building stakes and batter boards, the student should be able to layout the footer lines and form elevations.

Standard: Students will be graded against a rubric which involves the accurate placement of footer lines according to the building drawings and specifications.

Materials required per student:

Learning guide 603

Performance assessment for Task 603

**Task: 605 Layout and construct forms for footers.**

Condition: Given the layout completed in task 603 and after a lesson on constructing footer forms, the student should be able to construct footer forms to industry standards.

Standard: Students will be graded against a rubric which involves the accurate placement, construction and leveling of the footer forms.

Materials required per student:

Learning guide 605

15 stakes

8- 2x4x8'

Performance assessment for Task 605

**Task: 606 Layout foundations.**

Condition: Given a lesson on how to assemble Symons concrete wall forms, the student should be able to place a wood sill on the footer and construct the wall forms to industry standards.

Standard: Students will be graded against a rubric which involves the accurate placement, construction and leveling of concrete wall forms.

Materials required per student:

Learning guide 606

Symons wall forms with accessories

Performance assessment for Task 606

**Task: 607 Layout and construct forms for concrete slabs.**

Condition: Given a lesson on forming for concrete slabs and the material to do so, the student should be able to construct concrete forms that are accurate in layout, construction and placement.

Standard: Students will be graded against a rubric which involves the accurate placement, construction and leveling of the concrete slab forms.

Materials required per student:

Learning guide 607

6 stakes

2-2x4x8'

Performance assessment for Task 607

**Task: 608 Install reinforcing bars.**

Condition: Given a lesson on what re-bar is and its function within concrete and rebar with a placement plan, the student should be able to cut, tie and place rebar to industry standards.

Standard: Students will be graded against a rubric which involves the accurate cutting, placement and tying of rebar for concrete footers.

Materials required per student:

Learning guide 608

Rebar cutter/bender

Tie wire, end nippers

1 – 3/8" x 20' rebar

Performance assessment for Task 608

**Task: 609 Construct vertical and horizontal framework.**

Condition: Given a lesson on how to construct plywood concrete forms and the necessary material to construct them, the student should be able to construct plywood concrete forms for a small set of stairs.

Standard: Students will be graded against a rubric which involves the accurate layout, placement, construction and leveling of plywood concrete forms.

Materials required per student:

Learning guide 609

2 - 3/4" x 4 x 8' CDX plywood

4 – 2x8x8'

Performance assessment for Task 609



## **700 Framing – Floor Construction**

**Task: 703 Layout and install sill plates.**

**Condition:** Given a lesson on sill plates and how to install them, the student should be able to layout chalk lines and install sill plates on a foundation wall.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement, construction and fastening of sill plates.

**Materials required per student:**

Learning guide 703

2 – 2x6x8' pressure treated lumber

Sill sealer

½"-13 nuts and washers

Performance assessment for Task 703

**Task: 704 Layout and install floor joists, including manufactured floor joists.**

**Condition:** Given a lesson on floor joists and how to install them, the student should be able to layout the sill plates and install joists on the sill plates.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement, construction and fastening of floor joists.

**Materials required per student:**

Learning guide 704

4-2x10x8'

8d & 16d nails

Performance assessment for Task 704

**Task: 705 Layout and install joists for a cantilever floor.**

Condition: Given a lesson on floor joists and how to install them for a cantilevered floor, the student should be able to layout the sill plates and install the cantilevered joists on the sill plates.

Standard: Students will be graded against a rubric which involves the accurate layout, placement, construction and fastening of floor joists.

Materials required per student:

Learning guide 705

4-2x10x8'

8d & 16d nails

Performance assessment for Task 705

**Task: 706 Construct and install cross and solid bridging.**

Condition: Given a lesson on the need for cross bridging and how to layout wooden cross bridging, the student should be able to accurately layout, cut and install wooden cross bridging.

Standard: Students will be graded against a rubric which involves the accurate layout, placement, construction and installation of both cross and solid bridging.

Materials required per student:

Learning guide 706

1- 1x3x8'

1-2x10x8'

Performance assessment for Task 706

**Task: 707 Layout and install sub-flooring.**

Condition: Given a lesson on the need for subflooring and the installation methods, the student should be able to calculate the required amount of subflooring and be able to install subflooring onto floor joists.

Standard: Students will be graded against a rubric which involves the accurate layout, placement, construction and fastening of subflooring.

**Materials required per student:**

Learning guide 707

1 - ¾" x 4 x 8' subfloor

1 – Tube subfloor adhesive

8d nails

Performance assessment for Task 707

**Task: 708 Layout and construct floor openings.**

Condition: Given a lesson on how to construct openings in a floor frame, the student should be able to layout the opening and frame the members according to industry practices.

Standard: Students will be graded against a rubric which involves the accurate layout, placement, construction and fastening of openings in a floor frame.

**Materials required per student:**

Learning guide 708

6 – 2x10x8'

16d nails

Performance assessment for Task 708



## **800 Framing – Wall Construction**

**Task: 802 Layout and construct a wall.**

**Condition:** Given a lesson on how to construct exterior walls, the terminology of the pieces associated with wall construction and the material required, the student should be able to layout and construct a wall according to a plan.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement and construction of a wall according to given plan.

**Materials required per student:**

Learning guide 802

Floor Plan

10 – 2x4x8'

16d nails (50)

Performance assessment for Task 802

**Task: 804 Layout and construct door openings.**

**Condition:** Given a lesson on how to construct openings in walls and the applicable codes that must be followed, the student should be able to frame an opening for a door.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement and construction of a wall with a door opening according to given plan.

**Materials required per student:**

Learning guide 804

Floor Plan showing door opening

10 – 2x4x8'

1 – 2x6x8'

16d nails (50)

Performance assessment for Task 804



**Task: 805 Layout and construct window openings.**

Condition: Given a lesson on how to construct openings in walls and the applicable codes that must be followed, the student should be able to frame an opening for a window.

Standard: Students will be graded against a rubric which involves the accurate layout, placement and construction of a wall with a window opening according to given plan.

Materials required per student:

Learning guide 805

Floor Plan showing window opening

10 – 2x4x8'

1 – 2x6x8'

16d nails (50)

Performance assessment for Task 805

**Task: 806 Layout and construct solid headers.**

Condition: Given a lesson on how to construct openings in walls and the applicable codes that must be followed, the student should be able to frame an opening with the use of headers.

Standard: Students will be graded against a rubric which involves the accurate layout, placement and construction of a wall with headers used to frame openings according to a given plan.

Materials required per student:

Learning guide 806

Headers are included in the previous tasks 804 & 805

Performance assessment for Task 806

**Task: 807 Layout and install sheathing.**

Condition: Given a lesson on how to install sheathing for walls and the sheathing to use on the walls the student should be able to properly sheath 4 walls of the small house constructed in the earlier tasks.

Standard: Students will be graded against a rubric which involves the accurate layout, placement and fastening of OSB sheathing.

Materials required per student:

Learning guide 807

5 – 7/16" OSB

150 – 6d nails

Performance Assessment for Task 807



**Task: 808 Plumb, align and brace walls.**

Condition: Given a lesson on how to stand, align, plumb and brace walls and having the walls completed in earlier tasks, the student should be able to stand, plumb and brace the walls.

Standard: Students will be graded against a rubric which involves the accurate layout, placement, and squaring of the walls.

Materials required per student:

Learning guide 808

25 – 16d nails

Performance assessment for 808

**Task: 809 Layout and install metal studs.**

Condition: Given a lesson on how to assemble metal studs and the track and stud material, the student should be able to layout track, cut studs and fasten metal studs to track.

Standard: Students will be graded against a rubric which involves the accurate layout, placement, construction and plumbing of a steel stud wall.

Materials required per student:

Learning guide 809

5 – Steel studs

2 – Steel track

25 – Steel stud screws

Performance Assessment for 809



## **900 Framing – Roof Construction**

**Task: 903 Layout and install a ridge-board.**

**Condition:** Given a lesson on how to construct a roof with the use of rafters and the necessary material to construct a raftered roof, the student should be able to layout and install a ridge board.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement, construction and leveling of ridge board.

**Materials required per student:**

Learning guide 903

1 – 2x6x10'

25 – 16d nails

Performance assessment for Task 903

**Task: 904 Layout and install common rafters.**

**Condition:** Given a lesson on how to layout common rafters and the necessary material to construct a raftered roof, the student should be able to layout and install common rafters.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement, construction and installation of common rafters.

**Materials required per student:**

Learning guide 904

10 – 2x6x8'

50 – 16d nails

Performance assessment for Task 904

**Task: 905 Layout and install hip and jack rafters.**

**Condition:** Given a lesson on how to layout hip and jack rafters and the necessary material to construct a raftered roof, the student should be able to layout and install hip and jack rafters.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement, construction and installation of hip and jack rafters.

**Materials required per student:**

Learning guide 905

8 – 2x6x8'

25 – 16d nails

Performance assessment for Task 905

**Task: 906 Layout and install roof trusses.**

**Condition:** Given a lesson on how to install roof trusses and the necessary material to install them, the student should be able to layout the top plate and install roof trusses.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement and installation of roof trusses.

**Materials required per student:**

Learning guide 906

5 – 4/12 roof trusses

10 – Truss clips (Hurricane clips)

40 – Joist Hanger nails

Performance assessment for Task 906

**Task: 907 Layout and install roof sheathing.**

Condition: Given a lesson on how to install roof sheathing and the necessary materials to do so, the student should be able to install roof sheathing on the model house.

Standard: Students will be graded against a rubric which involves the accurate layout, placement and fastening of roof sheathing.

Materials required per student:

Learning guide 907

2 -5/8" OSB

50 – 8d ring shanked nails

Performance assessment for Task 907

**Task: 908 Layout and construct roof openings.**

Condition: Given a lesson on how to construct openings in roofs and a roof to construct the opening in, the student should be able to construct an opening of a given size into a roof.

Standard: Students will be graded against a rubric which involves the accurate layout, placement and construction of a roof opening.

Materials required per student:

Learning guide 908

4 – 2x6x8' SPF

25 – 16d nails

Performance assessment for Task 908



## **900A Roofing**

**Task: 910 Layout and install roofing paper.**

**Condition:** Given a lesson on the use and installation of roofing underlayment and given roofing underlayment and a sheathed roof, the student should be able to install roof underlayment according to manufacturer's specifications.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement and installation of roofing underlayment.

**Materials required per student:**

Learning guide 910

1 – Roll of roof underlayment

3 – strips of 5/16" T-50 staples

Performance assessment for Task 910

**Task: 911 Layout and install roofing materials.**

**Condition:** Given a lesson on the use and installation of roofing materials and given roofing materials and a sheathed roof, the student should be able to install roof shingles according to manufacturer's specifications.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement and installation of asphalt roof shingles.

**Materials required per student:**

1 – Sq. asphalt roof shingles

150 – 1 ¼" roofing nails

Performance assessment for Task 911

**Task: 912 Layout and install capping.**

**Condition:** Given a lesson on how to install cap shingles on hips and ridges of a roof and given the necessary material and a shingled roof without cap shingles, the student should be able to properly install cap shingles as per manufacturer's specifications.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement and installation of cap shingles.

**Materials required per student:**

1 – bundle of 3 tab shingles or bundle of pre-cut cap shingles

50 – 2" roofing nails

Performance assessment for Task 912



## **1000 Exterior Finish**

### **Task: 1003 Install housewrap.**

**Condition:** Given a lesson on the use and application of housewrap and housewrap and fasteners, the student should be able to install housewrap to a wall according to manufacturer's specifications.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement and installation of housewrap according to manufacturer's specifications.

#### **Materials required per student:**

1 – Roll housewrap

50 – 5/16" staples

Performance assessment for Task 1003

### **Task: 1004 Install exterior doors.**

**Condition:** Given a lesson on the installation of exterior doors and given an exterior door and accessories, the student should be able to install an exterior door and have it function properly.

**Standard:** Students will be graded against a rubric which involves the accurate installation of an exterior door according to supplied manufacturer's specifications.

#### **Materials required per student:**

1 – exterior door

1 – tube exterior caulk

50 – wood shims

20 – 3" screws

Performance assessment for Task 1004

**Task: 1005 Install windows.**

Condition: Given a lesson on the proper installation of new construction windows and given the window, wall and fasteners; the student should be able to install a window in a wall opening and have it function properly.

Standard: Students will be graded against a rubric which involves the accurate layout, placement and installation of a window according to manufacturer's specifications.

**Materials required per student:**

1 – New construction flanged window

1 – Tube exterior caulk

10 – 1 ¼" roofing nails

Performance assessment for Task 1005

**Task: 1006 Layout and install siding.**

Condition: Given a lesson on the use and application of vinyl siding and vinyl siding and fasteners, the student should be able to install vinyl siding to a wall according to manufacturer's specifications.

Standard: Students will be graded against a rubric which involves the accurate layout, placement and installation of vinyl siding according to manufacturer's specifications.

**Materials required per student:**

1 – Sq. vinyl siding

1 – OS corner

1 – IS corner

2 – J-channel

50 – 1 ¼" roofing nails

Performance assessment for Task 1006

**Task: 1007 Layout and install soffits and fascias.**

**Condition:** Given a lesson on the use and application of soffit & fascia and given soffit & fascia and fasteners, the student should be able to install soffit and fascia to a cornice according to industry standards.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement and installation of soffit and fascia according to industry standards.

**Materials required per student:**

- 1 – Piece of 12” center-vent soffit
- 1 – 10’6” piece of aluminum coil stock
- 20 – 1 ¼” roofing nails
- 10 – 1 ¼” white trim nails
- Performance assessment for Task 1007

**Task: 1008 Layout and install gutters and downspouts.**

**Condition:** Given a lesson on the use and application of gutters and downspouts and given the appropriate material and fasteners, the student should be able to install gutters and downspouts to a fascia and wall according to industry standards.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement and installation of gutters and downspouts according to industry standards.

**Materials required per student:**

- 1 – 10’ 5” K gutter with end caps, outlet and hangers
- 1 – 10’ piece of downspout
- 10 – White stainless steel screws
- Performance assessment for Task 1008

**Task: 1009 Layout and install exterior stair systems.**

**Condition:** Given a lesson on the layout of exterior stairs and given the material and a total rise, the student should be able to layout, construct and install a set of exterior stairs complete with balustrade to industry standards.

**Standard:** Students will be graded against a rubric which involves the accurate layout, construction and installation of an exterior set of stairs according to industry standards.

**Materials required per student:**

4 – 2x12x8'

4 – 2x4x8'

4 – 2x6x8'

50 – 3" exterior deck screws

Performance assessment for Task 1009

## **1100 Interior Finish**

**Task: 1103 Layout, install and finish drywall.**

**Condition:** Given a lesson on the use and application of drywall and drywall fasteners, the student should be able to install drywall to a wall according to industry standards.

**Standard:** Students will be graded against a rubric which involves the accurate layout, placement and installation of drywall according to industry standards.

**Materials required per student:**

4- ½" x4x8' drywall

50 – 1 ¼" drywall screws

25' – drywall tape

1/4 – bucket of joint compound

Performance assessment for Task 1103

**Task: 1104 Layout and install suspended and tile ceilings.**

**Condition:** Given a lesson on the installation of suspended and tile ceilings and given suspended and tile ceiling and accessories, the student should be able to install suspended and tile ceilings according to industry standards.

**Standard:** Students will be graded against a rubric which involves the accurate installation of suspended and tile ceilings according to industry standards.

**Materials required per student:**

2 – 10' wall angle, 2 – 12' main runner, 4 – 4' t's and 4 – 2' t's

25 – 2x4 and 12x12 ceiling tiles, 25 – ceiling lags

50 – 9/16" t-50 staples

Performance assessment for Task 1104

**Task: 1105 Layout and install interior doors.**

Condition: Given a lesson on the installation of interior doors and given the pre-hung door, the student should be able to install an interior door in an opening and have it function properly.

Standard: Students will be graded against a rubric which involves the accurate layout, placement and installation of an interior door according to industry standards.

**Materials required per student:**

1 – pre-hung interior door

25 – wooden shims

15 – 8d finish nails

Performance assessment for Task 1105

**Task: 1106 Layout and install door trim, casings and hardware.**

Condition: Given a lesson on the use and application of door trim and hardware and given the trim and hardware, the student should be able to install door trim and hardware according to manufacturer and industry standards.

Standard: Students will be graded against a rubric which involves the accurate layout, placement and installation of door trim and hardware according to industry and manufacturer's specifications.

**Materials required per student:**

3 – 7' door casing

1 – cylindrical lockset

Performance assessment for Task 1106

**Task: 1107 Layout and install window trim, casings and hardware.**

Condition: Given a lesson on the use and application of window trim and fasteners, the student should be able to install window trim and hardware to industry standards.

Standard: Students will be graded against a rubric which involves the accurate layout, placement and installation window trim and hardware according to industry standards.

Materials required per student:

2 – 7' window casing

1 – 3' 1x6 for stool

1 – 1x4x8 for extension jambs

Performance assessment for Task 1107

**Task: 1108 Layout and install baseboard and molding.**

Condition: Given a lesson on the use and application of baseboards and various moldings and given the appropriate material and fasteners, the student should be able to install baseboards and moldings to a wall according to industry standards.

Standard: Students will be graded against a rubric which involves the accurate layout, placement and installation of baseboards and moldings according to industry standards.

Materials required per student:

2 – 8' baseboard

1 – 8' chair rail

1 – strip finish nails for the finish nail gun

Performance assessment for Task 1108

**Task: 1109 Layout and install flooring materials.**

**Condition:** Given a lesson on the layout and installation of flooring materials, the student should be able to layout, and install various flooring materials to industry standards.

**Standard:** Students will be graded against a rubric which involves the accurate layout, construction and installation of flooring materials according to industry standards.

**Materials required per student:**

20 – random pieces of hardwood flooring

20 - VCT tiles and adhesive

Performance assessment for Task 1109

**Task: 1110 Layout and install interior stair systems.**

**Condition:** Given a lesson on the layout of interior stairs and given the material and a total rise, the student should be able to layout, construct and install a set of interior stairs complete with balustrade to industry standards.

**Standard:** Students will be graded against a rubric which involves the accurate layout, construction and installation of an interior set of stairs according to industry standards.

**Materials required per student:**

4 – 2x12x8'

4 – 1x12 stair tread material

2 – ¾" x4x8' veneer plywood

1 – 8' handrail

10 – 1 ¼" square balusters

Performance assessment for Task 1110



**Task: 1111 Install various types of insulation.**

Condition: Given a lesson on the use and installation of various types of insulation, the student should be able to, given the insulation and a structure to install, install various types of insulation according to manufacturers specified guidelines.

Standard: Students will be graded against a rubric which involves the accurate layout, construction and installation of various types of insulation according to industry standards.

Materials required per student:

1 – roll r-11/r-13 fiberglass insulation

1 – ¾" x4x8 extruded polystyrene insulation

Performance assessment for Task 1111