

**COURSE CON2050: ROOF STRUCTURES 1 (FRAMING & FINISHING)****Level:** Intermediate**Theme:** Building Systems (Processes and Applications)**Prerequisite:** CON1010 Basic Tools & Materials**Description:** Students develop basic knowledge and skills associated with framing and finishing a simple roof system.**Parameters:** Access to a building site and/or construction facility and to instruction from an individual with specialized training in carpentry.**Supporting Course:** CON1070 Building Construction**Curriculum and Assessment Standards**

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> <li>identify and describe the different styles and parts of a roof system</li> </ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>a written or oral response that correctly identifies and describes basic roof styles and roofing components.</li> </ul> <p><i>Assessment Tool</i> <i>Response Assessment: Roof Construction, CON2050-1</i></p> <p><i>Standard</i> <i>Response rating of 2</i></p>	10
<ul style="list-style-type: none"> <li>read and interpret the appropriate drawings and specifications to create a roof framing and finishing estimate</li> </ul>	<ul style="list-style-type: none"> <li>description and quantities of materials required to frame, sheath and apply a finished covering on a typical roof.</li> </ul> <p><i>Assessment Tool</i> <i>Activity Assessment: Roof Construction, CON2050-2</i></p> <p><i>Standard</i> <i>Estimate includes all allowances for roof openings, over-run and waste requirements</i> <i>Performance rating of 2 for each applicable task</i></p>	20

**COURSE CON2050: ROOF STRUCTURES 1 (FRAMING & FINISHING)** (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> <li>apply roofing skills to assist in the framing and finishing of a roof structure</li> <li>demonstrate basic competencies.</li> </ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>demonstration of framing and finishing skills.</li> </ul> <p><i>Assessment Tool</i>  <i>Activity Assessment: Roof Construction, CON2050-2</i></p> <p><i>Standard</i>  <i>The roof is framed and covered according to conventional building practice. Specified dimensions are within <math>\pm 3</math> mm over 6 metres</i>  <i>Performance rating of 2 for each applicable task</i></p> <ul style="list-style-type: none"> <li>observations of individual effort and interpersonal interaction during the learning process.</li> </ul> <p><i>Assessment Tool</i>  <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>70</p> <p>Integrated throughout</p>

Concept	Specific Outcomes	Notes
<p>Orientation</p> <ul style="list-style-type: none"> <li>Roof Structures</li> </ul>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>list and describe the common styles of roofs</li> <li>define roof terms such as span, run, rise, slope and overhang</li> <li>describe the parts of a common rafter</li> <li>describe the parts of a typical roof truss</li> <li>describe the advantages of using roof trusses versus standard common rafters</li> <li>list and describe the parts of a boxed cornice</li> <li>identify sheathing grades and types; joint and nailing patterns</li> <li>list and describe the types of roof finishes.</li> </ul>	<p>Focus mainly on simple roof structures and coverings in this module. Intersecting roof structures are covered in CON3050: Roof Structures 2 (Framing &amp; Covering).</p> <p>Discuss issues related to the installation of air/vapour barriers and insulation.</p> <p>Refer to building codes for proper sheathing grades, nail sizes and spacing.</p>

**MODULE CON2050: ROOF STRUCTURES 1 (FRAMING & FINISHING) (continued)**

Concept	Specific Learner Expectations	Notes
<p>Planning and Management</p> <ul style="list-style-type: none"> <li>• Roof Design</li> <li>• Estimating</li> </ul>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• make a roof sketch indicating the location of roof trusses, look-out rafters, bridging, fascia headers, boxed cornices and sheathing patterns</li> <li>• prepare a material list specifying:               <ul style="list-style-type: none"> <li>– the size, slope and number of roof trusses or common rafters</li> <li>– thickness and quantities of sheathing</li> <li>– quantities of H-clips and metal anchors</li> <li>– style, colour, weight and quantities of asphalt shingles.</li> </ul> </li> </ul>	
<p>Implementation</p> <ul style="list-style-type: none"> <li>• Health and Safety</li> <li>• Tools and Processes</li> </ul>	<ul style="list-style-type: none"> <li>• check condition of ladders before using and observe safe angle ratios</li> <li>• use proper foot and head protection</li> <li>• identify hazards associated with wet or frosty conditions on sloped surfaces</li> <li>• identify safety devices that are used in conjunction with roof construction</li> <li>• use the appropriate tools and equipment to:               <ul style="list-style-type: none"> <li>– locate, fasten, square and plumb roof trusses</li> <li>– cut and install common rafters</li> </ul> </li> <li>• install look-outs, fascia and braces</li> <li>• apply sheathing and shingling.</li> </ul>	<p>Discuss methods of temporarily and permanently bracing roof trusses.</p> <p>Demonstrate appropriate methods to lay the ridge cap to minimize wind damage.</p>
<p>Assessment</p> <ul style="list-style-type: none"> <li>• Career Information</li> <li>• Career Preparation</li> </ul>	<ul style="list-style-type: none"> <li>• outline the trade qualifications and employment opportunities related to residential framing and roofing</li> <li>• maintain a record of activities within a portfolio.</li> </ul>	

