

## MODULE CON1120: PROJECT MANAGEMENT

<b>Level:</b>	Introductory
<b>Theme:</b>	Manufacturing Systems (Processes and Applications)
<b>Prerequisite:</b>	CON1010 Basic Tools & Materials
<b>Module Description:</b>	Students develop basic shop drawing and estimating skills, and apply them to build a product.

**Module Parameters:** Access to a materials work centre, complete with basic drawing and construction tools, and to instruction from an individual with specialized training in the use of power tools.

### Curriculum and Assessment Standards

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> <li>identify and describe the parts of a technological system</li> </ul>	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>visual presentation of a technological system that includes: <ul style="list-style-type: none"> <li>– identification of the components of a technological system such as input, process, output, feedback</li> <li>– description of each component</li> <li>– explanation of the difference between an open and closed system.</li> </ul> </li> </ul> <p><i>Assessment Tool</i>  <i>Presentations/Reports: Technological System, CON1120–1</i>  <i>Illustrative Example: Technology System, CON1120–2</i></p> <p><i>Standard</i>  <i>Performance rating of 1 for each applicable task</i></p>	10
<ul style="list-style-type: none"> <li>apply basic drawing skills to prepare a shop drawing</li> </ul>	<ul style="list-style-type: none"> <li>demonstration of basic drawing skills to produce a shop drawing of a simple product with two or more parts.</li> </ul> <p><i>Assessment Tool</i>  <i>Project Assessment: Project Development and Presentation, CON1120–3</i></p> <p><i>Standard</i>  <i>Views are to be appropriately identified, laid out and measurements are within the accepted tolerance of <math>\pm 1</math> mm. Quality of lining, dimensioning and lettering meet accepted practice</i>  <i>Performance rating of 1 for each applicable task</i></p>	25



**MODULE CON1120: PROJECT MANAGEMENT** (continued)

Concept	Specific Learner Expectations	Notes
<p>Orientation</p> <ul style="list-style-type: none"> <li>• Technological System</li> <li>• Drawing Types</li> <li>• Product Design</li> <li>• Estimating</li> </ul>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• describe the components of a technological system; e.g.:               <ul style="list-style-type: none"> <li>– input</li> <li>– output</li> <li>– process</li> <li>– feedback</li> </ul> </li> <li>• list and describe common types of shop drawings</li> <li>• identify manual techniques and/or computer processes to create a drawing</li> <li>• identify a variety of products and describe the types of materials, joints, fastening and finishing systems that are used and explain how these details are shown on a drawing</li> <li>• identify the method of costing materials using lineal, area and volume measurements</li> <li>• describe methods that are used to estimate the amount of time required to complete a project.</li> </ul>	<p>Use activities related to the planning and development of a simple product to show how the parts of a technologies system work together.</p> <p>Have the students work primarily with orthographic, oblique and isometric drawings.</p> <p>Have students identify the types of fasteners and adhesives that are used in conjunction with butt, dado, rabbet and miter joints to produce a product.</p> <p>Point out the importance of being able to measure and calculate accurately in time and cost estimates and quality of the product.</p>
<p>Planning and Management</p>	<ul style="list-style-type: none"> <li>• create or modify a suitable product design</li> <li>• prepare a working drawing of a product with multiple parts</li> <li>• analyze the drawing to create a:               <ul style="list-style-type: none"> <li>– material list</li> <li>– cost estimate</li> <li>– work schedule.</li> </ul> </li> </ul>	<p>Project choices might include:</p> <ul style="list-style-type: none"> <li>• toy</li> <li>• furniture accessory</li> <li>• kitchen accessory.</li> </ul>

**MODULE CON1120: PROJECT MANAGEMENT** (continued)

Concept	Specific Learner Expectations	Notes
<p>Implementation</p> <ul style="list-style-type: none"> <li>• Material Processing</li> <li>• Health and Safety</li> </ul>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• for a product with multiple parts, use the appropriate tools, materials and processes to:               <ul style="list-style-type: none"> <li>– lay out, cut, surface and size materials</li> <li>– assemble and fasten parts</li> <li>– prepare for finishing</li> <li>– apply a simple finish</li> </ul> </li> <li>• matches the manufacturer’s recommendations and WHMIS regulations when using hazardous finishing materials</li> <li>• use personal protective equipment.</li> </ul>	<p>Review tool and equipment safety as well as the safe use of hazardous materials.</p> <p>Ensure containers are labelled and adequate ventilation is provided.</p>
<p>Assessment</p> <ul style="list-style-type: none"> <li>• Quality Control</li> <li>• Career Preparation</li> </ul>	<ul style="list-style-type: none"> <li>• identify methods to improve quality and productivity; e.g.:               <ul style="list-style-type: none"> <li>– accurate measurements</li> <li>– choice of correct tools</li> <li>– use of tools that are in good condition</li> </ul> </li> <li>• maintain a record of completed activities within a portfolio.</li> </ul>	<p>Students should be encouraged to make reflective notes and keep a record of work completed.</p>