

MODULE CON2130: FURNITURE MAKING 1 (BOX CONSTRUCTION)

Level: Intermediate

Theme: Manufacturing Systems (Processes and Applications)

Prerequisite: CON1120 Project Management

Module Description: Students develop basic joinery skills and knowledge related to case construction, by producing a box-type piece of furniture.

Module Parameters: Access to a woodworking or materials facility and to instruction from an individual with formal, specialized training in cabinetry/carpentry.

Curriculum and Assessment Standards

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<i>The student will:</i> <ul style="list-style-type: none">identify and describe the design features and processes used to construct a box-type furniture productapply basic furniture-making skills to plan and construct a piece of furniture based on box construction techniques	<i>Assessment of student achievement should be based on:</i> <ul style="list-style-type: none">analysis of an existing piece of furniture or drawing to correctly determine the:<ul style="list-style-type: none">materials used in surface and structural componentsjoints and fastenerstype of finishpotential weaknesses and points of wear	15
	<ul style="list-style-type: none">appropriate design/selection or modification of a box-type product that includes a set of working drawings, parts list, costs estimate, sequence of operations and work schedule	20
	<ul style="list-style-type: none">construction of a box-type furniture components or product. <p><i>Assessment Tool</i> <i>Project Assessment: Box Construction, CON2130-1</i></p> <p><i>Standard</i> <i>The product will be built using the appropriate materials, joinery and finishing techniques; joints are to be tight fitting, flush and square; finishes are to be smooth and free from production defects. Overall dimensions should be within ± 2 mm</i> <i>Performance rating of 2 for each applicable task</i></p>	65

MODULE CON2130: FURNITURE MAKING 1 (BOX CONSTRUCTION) (continued)

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>Integrated throughout</p>

Concept	Specific Learner Expectations	Notes
<p>Orientation</p> <ul style="list-style-type: none"> Box Construction Tool Safety Fittings 	<p><i>The student should:</i></p> <ul style="list-style-type: none"> research typical design and joinery techniques that are commonly used in box construction identify additional construction features such as: <ul style="list-style-type: none"> door drawer plinth describe the safe set-up and operation of hand and/or power tools to make a series of joints; e.g.: <ul style="list-style-type: none"> reinforced butt reinforced miter rabbet dado finger identify and describe the use of common fasteners and clamping procedures used with a specific joint identify common fittings and construction techniques used to make: <ul style="list-style-type: none"> flush sliding tambour fall flap doors. 	<p>This module can be combined with subsequent modules to accommodate more elaborate features such as doors, drawers and a plinth.</p> <p>Review the safe use of the appropriate tools to make a specific joint, such as dado head, router, biscuit joiner.</p> <p>Identify recommended adhesives in relation to intended use and type of joint.</p>

MODULE CON2130: FURNITURE MAKING 1 (BOX CONSTRUCTION) (continued)

Concept	Specific Learner Expectations	Notes
<p>Planning and Management</p> <ul style="list-style-type: none"> • Product Design • Estimating • Work Scheduling 	<p><i>The student should:</i></p> <ul style="list-style-type: none"> • select a box-type product that requires the use of: <ul style="list-style-type: none"> – solid wood and/or composites – a variety of joints and fasteners – typical lay-up and clamping procedures • prepare a material list and cost estimate from a working drawing • prepare a work schedule. 	<p>Suggest products such as:</p> <ul style="list-style-type: none"> • jewelry box • shelving unit • hope chest • speaker enclosure.
<p>Implementation</p> <ul style="list-style-type: none"> • Material Processing 	<ul style="list-style-type: none"> • use the appropriate tools, materials and processes to: <ul style="list-style-type: none"> – measure and lay out stock – cut stock to size – machine surfaces and joints – lay-up, glue, fasten and clamp – fill or plug exposed fasteners – prepare for finishing. 	<p>This project can be finished in conjunction with CON2150: Finishing & Refinishing.</p>
<p>Assessment</p> <ul style="list-style-type: none"> • Career Information • Career Preparation 	<ul style="list-style-type: none"> • identify the types of skills that are required of custom furniture builders • maintain a record of completed activities within a portfolio. 	<p>Discuss the need to be able to:</p> <ul style="list-style-type: none"> • read drawings • calculate and measure accurately • use effective planning and problem-solving strategies • use equipment and materials safely.

