

## MODULE CON3130: FURNITURE MAKING 3 (LEG & RAIL)

**Level:** Advanced

**Theme:** Manufacturing Systems (Processes and Applications)

**Prerequisite:** CON1120 Project Management

**Module Description:** Students use solid and/or manufactured materials and leg-and-rail or pedestal construction techniques to build a free-standing piece of furniture.

**Module Parameters:** Access to a materials and/or construction facility and to instruction from an individual with formal, specialized training in furniture and cabinetmaking.

**Supporting Modules:** CON2130 Furniture Making 1 (Box Construction)  
CON2140 Furniture Making 2 (Frame & Panel)

### 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 design features and joinery techniques of a typical leg-and-rail piece of furniture</li><li>• apply drawing and estimating skills and techniques to prepare a shop drawing, detailed material list and cost estimate</li><li>• plan and build a piece of furniture, using leg-and-rail construction techniques</li></ul> | <p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"><li>• analysis of a working drawing to determine the construction details of a leg-and-rail or pedestal piece of furniture</li><li>• application of technical drawing and estimating skills to make an accurate material list and cost estimate</li><li>• application of advanced joinery and finishing skills and techniques used to make a leg-and-rail or pedestal product.</li></ul> <p><i>Assessment Tool</i><br/><i>Project Assessment: Leg-and-Rail Construction, CON3130-1</i></p> <p><i>Standard</i><br/><i>The finished product will be constructed using the appropriate materials, joinery and finishing techniques. Joints are to be flush, tight fitting and square; finished surfaces are to be smooth and free from production defects. Overall dimensions should be within <math>\pm 2</math> mm</i><br/><i>Performance rating of 3 for each applicable task</i></p> | <p>10</p> <p>20</p> <p>70</p> |

**MODULE CON3130: FURNITURE MAKING 3 (LEG & RAIL) (continued)**

| Module Learner Expectations   | Assessment Criteria and Conditions   | Suggested Emphasis           |
|---|--|------------------------------|
| <p><i>The student will:</i></p> <ul style="list-style-type: none"> <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>observations of individual effort and interpersonal interaction during the learning process.</li> </ul> <p><i>Assessment Tool</i><br/> <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"> <li>Leg-and-Rail Construction</li> <li>Table Construction</li> </ul> | <p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>describe typical design and joinery techniques used in leg-and-rail and pedestal construction</li> <li>identify common methods and fastening systems to secure a wood top to an under-frame; e.g.:               <ul style="list-style-type: none"> <li>wood buttons</li> <li>metal plates</li> <li>pocket drilling</li> <li>blocks</li> </ul> </li> <li>describe common methods of transferring a pattern to a work piece such as a table leg or pedestal</li> <li>describe an appropriate method to reed and flute a surface.</li> </ul> | <p>Discuss the issue of form and function when investigating various leg-and-rail and/or pedestal design.</p> |

**MODULE CON3130: FURNITURE MAKING 3 (LEG & RAIL) (continued)**

| Concept   | Specific Learner Expectations  | Notes  |
|---|--|--|
| <p>Planning and Management</p> <ul style="list-style-type: none"> <li>• Product Design</li> <li>• Work Scheduling and Estimating</li> </ul> | <p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• select a product that requires the use of:               <ul style="list-style-type: none"> <li>– leg-and-rail or pedestal components</li> <li>– solid woods and/or composite materials</li> </ul> </li> <li>• interpret a working drawing to prepare a detailed material list and event schedule</li> <li>• design and build the required jigs and templates.</li> </ul> |  |
| <p>Implementation</p> <ul style="list-style-type: none"> <li>• Material Processing</li> </ul>   | <ul style="list-style-type: none"> <li>• use the appropriate tools, material and processes to:               <ul style="list-style-type: none"> <li>– measure and lay out stock</li> <li>– cut and shape components</li> <li>– machine appropriate joints</li> <li>– assemble with suitable fasteners</li> <li>– prepare for finishing.</li> </ul> </li> </ul>   | <p>The project may be finished in conjunction with CON2150: Finishing &amp; Refinishing.</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>• identify the further educational and skill-building opportunities related to custom furniture making</li> <li>• maintain a record of completed activities within a portfolio.</li> </ul>  |  |

