

LMFFM3005B Fabricate custom furniture

<b>LMFFM3005B</b>	<b>Fabricate custom furniture</b>
<b>Unit descriptor</b>	This unit covers the competency to plan, construct and assemble custom furniture in response to specific orders and job requests.
<b>Employability skills</b>	This unit contains employability skills.
<b>Unit sector</b>	Furniture Making

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
1. Prepare for work	<ul style="list-style-type: none"> <li>1.1. Work instructions are used to determine custom job requirements, including design, tolerances, process, materials, finish and quantity</li> <li>1.2. Construction and assembly sequence are planned</li> <li>1.3. Procedures are determined for checking quality at each stage of the process</li> <li>1.4. Workplace health and safety requirements, including personal protection needs, are observed throughout the work</li> <li>1.5. Suitable work area is selected for the task</li> <li>1.6. Preparatory drawings and set-outs for tasks are completed</li> <li>1.7. Cutting list for components is developed</li> <li>1.8. Materials are selected following work instructions</li> <li>1.9. Tools and equipment suitable for construction are identified and checked for safe and effective operation</li> </ul>
2. Complete construction	<ul style="list-style-type: none"> <li>2.1. Materials are set out and prepared according to work instructions and components are marked according to industry practices</li> <li>2.2. Tools, machines and equipment are used in accordance with safety requirements and manufacturers' specifications</li> <li>2.3. Materials are bent and formed in accordance with the plan</li> <li>2.4. Components are manufactured and checked against set-outs for tolerances, fit and accuracy</li> </ul>
3. Assemble custom furniture	<ul style="list-style-type: none"> <li>3.1. Components are assembled and checked against set-outs for accuracy, fit, twist and distortion</li> <li>3.2. Doors, drawers and shelves are assembled and fitted</li> <li>3.3. Hardware and decorative accessories are applied to specification</li> <li>3.4. Product is prepared for final finish, including the removal of bruises, scratches, dents and marks</li> <li>3.5. Product is checked against plans at identified checkpoints</li> </ul>
4. Clean work area and maintain	<ul style="list-style-type: none"> <li>4.1. Faulty and/or defective equipment is tagged and reported in accordance with workplace procedures</li> </ul>

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equipment	<p>4.2. Waste and scrap are removed following workplace procedures</p> <p>4.3. Tools and equipment used are cleaned, inspected for serviceable condition, maintained and stored appropriately in accordance with workplace procedures</p> <p>4.4. Equipment and work area clean-up is maintained in accordance with workplace procedures</p>
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**REQUIRED SKILLS AND KNOWLEDGE**

This describes the essential skills and knowledge and their level, required for this unit.

**Required skills**

- collect, organise and understand information related to furniture design interpretation work orders, plans and safety procedures
- communicate ideas and information to enable confirmation of work requirements and specifications, coordination of work with site supervisor, other workers and customers, and the reporting of work outcomes and problems
- plan and organise activities, including the preparation and layout of the worksite and the obtaining of equipment and materials to avoid any back tracking, workflow interruptions or wastage
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate material requirements
- use pre-checking and inspection techniques to anticipate production problems, avoid reworking and avoid wastage
- use the limited workplace technology related to the fabrication, including tools, equipment and measuring devices

**Required knowledge**

- the types, characteristics, uses and limitations of solid timbers most common to furniture production
- the interpretation of plan representation of furniture design
- the preparation of drawings/set-outs/rods
- identification of hand and/or power tools, materials, equipment, processes and procedures
- workflow in relation to furniture production

**RANGE STATEMENT**

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording in the Performance Criteria is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

<b>Custom furniture</b>	Custom furniture is defined as one-off manufacture in response to specific customer requirements. It does not include variations or modification to a production line item Custom furniture may include, but is not limited to: wall units, vanity units, kitchen cabinets, side-boards/buffets, drawer units, display cabinets, counters, tables, beds
<b>Unit context</b>	<ul style="list-style-type: none"> <li>• OH&amp;S requirements include legislation, building codes, material safety management systems, hazardous substances and dangerous goods code</li> </ul>

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	<p>and local safe operating procedures</p> <ul style="list-style-type: none"> <li>• Work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organisation insurance requirements</li> <li>• Work involves reading and interpreting plans, customer liaison, developing set-outs, using hand and/or power tools, equipment and operating woodworking machinery</li> <li>• Competency may be demonstrated in workplaces involved in the manufacture of solid timber domestic furniture, commercial furniture and/or furniture components</li> </ul>
<p><b>Material bending and forming techniques are to include:</b></p>	<ul style="list-style-type: none"> <li>• steam and bend</li> <li>• and machined curves</li> </ul>
<p><b>Tools and equipment may include, but are not limited to:</b></p>	<ul style="list-style-type: none"> <li>• measuring tapes or rulers</li> <li>• hammers</li> <li>• mallets</li> <li>• squares</li> <li>• bevels</li> <li>• chisels</li> <li>• planes</li> <li>• hand saws</li> <li>• power saws</li> <li>• portable routers and trimmers</li> <li>• power drills/screwdrivers</li> <li>• pneumatic tools</li> <li>• hoses</li> <li>• clamps</li> <li>• screwdrivers and pincers</li> </ul>
<p><b>Machines may include, but are not limited to:</b></p>	<ul style="list-style-type: none"> <li>• band saws</li> <li>• cross cut saws</li> <li>• mitre saws</li> <li>• panel and rip saws</li> <li>• surface planers</li> <li>• panel planers</li> <li>• shaping machines and jigs</li> <li>• sanders</li> <li>• horizontal borers</li> <li>• vertical drill presses</li> <li>• dovetailers</li> <li>• pedestal grinders</li> <li>• wood turning lathes</li> <li>• veneer guillotines and presses</li> </ul>
<p><b>Materials to be used may include but are not limited to:</b></p>	<ul style="list-style-type: none"> <li>• timber</li> <li>• adhesives</li> <li>• screws</li> </ul>

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	<ul style="list-style-type: none"> <li>• nails</li> <li>• dowels</li> <li>• metal fasteners</li> <li>• knockdown fittings</li> <li>• glass</li> <li>• decorative finishes and abrasive paper</li> </ul>
<b>Personal protective equipment</b>	Personal protective equipment is to include that prescribed under legislation, regulations and enterprise policies and practices
<b>Information and procedures</b>	<p>Workplace procedures relating to the use of tools and equipment</p> <p>Work instructions, including job sheets, cutting lists, plans, drawings and designs</p> <p>Workplace procedures relating to reporting and communication</p> <p>Manufacturers' specifications and operational procedures</p>

**EVIDENCE GUIDE**

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the relevant Training Package.

<b>Critical Aspects of Evidence</b>	<ul style="list-style-type: none"> <li>• Interpret work order and locate and apply relevant information</li> <li>• Apply safe handling practices for equipment, products and materials</li> <li>• Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment</li> <li>• Follow work instructions, operating procedures and inspection processes to: <ul style="list-style-type: none"> <li>◦ minimise the risk of injury to self or others</li> <li>◦ prevent damage to goods, equipment or products</li> <li>◦ maintain required production output and product quality</li> </ul> </li> <li>• Produce one significant furniture item <ul style="list-style-type: none"> <li>◦ custom developed machining processes and outcomes</li> <li>◦ custom development and completion of assembly techniques and processes</li> <li>◦ the satisfaction of customer specifications in terms of dimensions, materials, function and aesthetics</li> </ul> </li> <li>• Work effectively with others</li> <li>• Modify activities to cater for variations in workplace context and environment</li> </ul>
<b>Resource Implications</b>	Access to plans, hand and/or power tools, equipment, cauls and jigs, woodworking machinery, materials, and a work area.
<b>Method of Assessment</b>	Assessment methods must confirm consistency of performance over time and in a range of workplace

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	<p>relevant contexts. Assessment should be by direct observation of tasks and questioning on underpinning knowledge. Assessment should be conducted over time and may be in conjunction with assessment of other units of competency.</p>
<b>Context of Assessment</b>	<p>Assessment may occur on the job or in a workplace simulated facility with relevant process equipment, materials, work instructions and deadlines.</p>