



Australian Government

Department of Education, Employment and Workplace Relations

LMFFM4007A Produce curved and shaped components for custom furniture

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor This unit covers the competency to produce curved and shaped components for custom furniture.

Application of the Unit

Application of the unit This unit supports the attainment of skills and knowledge required for competent workplace performance in the wide variety of furniture maker operations. The competency applies to a work room and on site environment and involves application of skills and knowledge at a highly skilled craftsman or artisan level. These skills and knowledge are to be used within the scope of the individual's job and authority.

This unit requires employability skills in initiative and enterprise, planning and organising and problem solving in order to produce curved shaped components for custom furniture requirements. Communication skills are used to access and interpret work requirements and self management is applied to ensure project requirements are met.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

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.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for work	1.1. Applicable legislative, OHS and organisational requirements relevant to the production of curved and shaped components for custom furniture are verified and complied with 1.2. Instructions or plans are read and interpreted to identify process required to complete work tasks 1.3. Production materials are identified, evaluated and selected 1.4. Tools and equipment are selected and checked prior to use to ensure that they are appropriate for the work, serviceable and in a safe condition 1.5. Techniques for bending, forming and shaping components are identified, evaluated and selected for the particular applications 1.6. Sequence of work is planned, including the starting point, to ensure efficiency and quality of construction 1.7. Quality checking procedures are developed and documented for each step in the production process
2. Complete construction	2.1. Component specifications are set out according to work instructions and materials marked according to industry practices 2.2. Tools, machines and equipment are used in accordance with safety requirements and manufacturers' specifications 2.3. Material bending, forming and shaping are undertaken in accordance with the production plan 2.4. Components are checked against specified tolerances, fit and accuracy
3. Complete housekeeping	3.1. Unused materials are stored or recycled as required 3.2. Tools and equipment are cleaned, maintained and stored appropriately 3.3. Faulty or defective equipment is tagged and reported in accordance with workplace practices 3.4. Work area is cleaned and rubbish disposed of appropriately 3.5. Workplace documentation or reports are completed

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Demonstrates skills to:

- collect, organise and understand information related to work orders, basic 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
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise work flow and productivity
- use pre-checking and inspection techniques to anticipate problems in the production of curved and shaped components to avoid re-work and wastage
- innovate and modify techniques for bending, forming and shaping where conventional techniques are not achieving results
- select most appropriate and efficient bending or shaping technique for the given job
- recognise and respond to circumstances outside instructions or personal competence
- plan and organise activities, including the preparation and layout of the worksite and obtaining equipment and materials to avoid any back tracking, work flow interruptions or wastage
- use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate other material requirements
- clarify and confirm work instructions
- plan work within given task parameters
- accept responsibility for given tasks
- set, monitor and satisfy personal work goals
- satisfy the competency requirements for the job
- maintain current knowledge of tools and materials
- maintain current knowledge of installation techniques
- seek learning opportunities
- use the limited workplace technology related to the production of curved and shaped components for custom furniture including tools, equipment and measuring devices

Demonstrates knowledge of:

- State or Territory OHS legislation, regulations, standards and codes of practice relevant to the production of curved and shaped components for custom furniture
- organisational and site standards, requirements, policies and procedures for the production of curved and shaped components for custom furniture
- techniques for timber bending, forming and shaping
- types, characteristics, uses, limitations and maintenance requirements of solid

REQUIRED SKILLS AND KNOWLEDGE

timbers commonly used in furniture production

- types, characteristics, uses and limitations on hand and power tools used in timber bending, forming and shaping
- the interpretation of plan representation of furniture design
- techniques for the preparation of drawings/set-outs/rods and geometrical concepts
- environmental protection requirements
- established communication channels and protocols
- problem identification and resolution
- work flow within the workplace

Evidence Guide

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.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

- Comply with legislation, regulations, standards, codes of practice and established safe practices and procedures for the production of curved and shaped components for custom furniture
- Interpret work order and locate and apply relevant information
- Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment
- Follow work instructions, operating procedures and inspection practices to:
 - prevent damage to goods, equipment and products
 - maintain required production output and product quality
 - minimise the risk of injury to self and others
- Produce a minimum of six significant timber curved components, five from solid timber and one using ply:
 - one involving shaping from solid timber using hand techniques
 - one involving shaping from solid timber using machine techniques
 - one involving laminating
 - one involving use of heat/steam
 - one involving other techniques
- Items must demonstrate appropriate design, use of materials and strength for purpose
- Conduct operator maintenance on machines and related tools and equipment
- Work effectively with others
- Modify activities to cater for variations in workplace contexts and environment

Context of, and specific resources for assessment

- The application of competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of essential underpinning knowledge, other than confirmatory questions, will usually be conducted in

EVIDENCE GUIDE

an off-site context

- Assessment is to comply with relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - realistic curved and shaped component tasks
 - materials and equipment relevant to production of curved and shaped components for custom furniture
 - specifications and work instructions

Method of assessment

- Assessment must satisfy the endorsed assessment guidelines of the Furnishing Industry Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of underpinning knowledge
- Assessment methods must be by direct observation of tasks and include questioning on underpinning knowledge to ensure its correct interpretation and application
- Assessment may be applied under project related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other related units of competency

Range Statement

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.

- | | |
|------------------------------------|--|
| Legislative requirements | <ul style="list-style-type: none">• are to be in accordance with applicable legislation from all levels of government that affect organisational operation.• Requirements may include but not be limited to award and enterprise agreements, industrial relations, Australian Standards, confidentiality and privacy, OHS, the environment, equal opportunity, anti-discrimination, relevant industry codes of practice, duty of care and heritage |
| OHS requirements | <ul style="list-style-type: none">• are to be in accordance with Commonwealth, State or Territory legislation and regulations, organisational safety policies and procedures.• Requirements may include but not be limited to the use of personal protective equipment and clothing, fire fighting equipment, First Aid equipment, hazard and risk control and elimination, control of hazardous materials and substances, manual handling, including lifting and carrying |
| Organisational requirements | <ul style="list-style-type: none">• may include but not be limited to legal, organisational and site guidelines, policies and procedures relating to own role and responsibility, quality assurance, procedural manuals, quality and continuous improvement processes and standards, OHS, emergency and evacuation, ethical standards, recording and reporting, access and equity principles and practices, equipment use, maintenance and storage, environmental management (waste disposal, recycling and re-use guidelines) |
| Curved components | <ul style="list-style-type: none">• include curved timber components produced by laminating, coopering, steam bending and saw kerfing |
| Shaped components | <ul style="list-style-type: none">• include timber shaped by hand or static machine tools |
| Instructions | <ul style="list-style-type: none">• workplace instructions regarding techniques, materials, tools and equipment required in the production of curved and shaped components for custom furniture |

- workplace procedures relating to the use and operation of tools and equipment
 - workplace instructions, including job sheets, plans, specifications, drawings and designs
 - workplace procedures relating to reporting and communications
 - manufacturer instructions for the use of equipment and materials
- Materials**
- may include but are not limited to timber, plywood, MDF, veneer, plastic laminate, sheet metal, adhesives, screws, nails, dowels, decorative finishes, abrasive paper and finishing materials
- Tools and equipment**
- may include, but are not limited to, measuring tapes or rules, hammers, mallets, squares, bevels, chisels, planes, hand saws, power saws, power drills/screwdrivers, pneumatic tools, clamps, screwdrivers, pincers and rasps
- Machines**
- may include but are not limited to band saws, cross cut saws, mitre saws, panel and rip saws, surface planers, panel planers, belt sanders, horizontal borers, vertical, drill presses, dove-tailers, pedestal grinders, wood turning lathes, veneer guillotines and presses
- Material bending, forming and shaping techniques**
- techniques are to include steam/bending, laminating, coopering, saw kerfing, hand shaping and machine shaping

Unit Sector(s)

Sector Furniture design and technology