



Australian Government

Department of Education, Employment and Workplace Relations

LMTLG3001A Make a prototype

Revision Number: 1

LMTLG3001A Make a prototype

Modification History

Not applicable.

Unit Descriptor

Unit descriptor This unit covers the skills and knowledge to design processes leading to the making of a prototype for marketing purposes.

Application of the Unit

Application of the Unit

This unit applies to the design of pattern and prototypes. Competence must be demonstrated in working largely independently and being accountable for own results including:

- carrying out assigned tasks
- coordinating processes
- setting and working to deadlines

Designs must reflect fashion trends and the enterprise focus of manufacture.

Work may be conducted in small to large scale enterprises and may involve individual and team activities.

The application of this unit is according to OHS practices of the enterprise and workplace practices, which may include:

- requirements prescribed by legislation, awards, agreements and conditions of employment
- standard operating procedures
- work instructions
- oral, written and visual communication
- quality practices, including responsibility for maintenance of own work quality and contribution to quality improvement of team or section output
- housekeeping
- tasks related to environmental protection, waste disposal, pollution control and recycling

This unit requires the application of skills associated with communicating information to personnel in other departments on the commercial viability of the prototype design, as well as the application of knowledge of the procedures for developing and testing the prototype. Problem solving, learning, initiative and enterprise are required to develop a prototype to meet customer requirements. Self management and planning and organising skills are used to ensure work complies with workplace requirements.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Set up workstation	1.1 Workstation is set up in accordance with specifications and workplace procedures
2 Design or modify existing model	2.1 Specification of customer requirements are interpreted 2.2 Components are designed, to conform with model, using CAD or manual technique with reference to all relevant operations 2.3 Materials, trims and colours are selected 2.4 Models are produced from appropriate materials 2.5 Ongoing liaison occurs with relevant departments in workplace to ensure workability and marketability of design, and availability of materials and resources including workforce skills
3 Produce prototype	3.1 Existing model is modified, or model is designed, to translate design concept into 3D 3.2 Making of prototype is coordinated using sample patterns, relevant designed components and all relevant manufacturing processes
4 Test prototype	4.1 Liaison occurs with other relevant departments in relation to practicality of design and cost of production, and predicted commercial success 4.2 Prototype is reviewed with customer specifications, and customer as appropriate 4.3 Corrections are made as necessary
5 Make samples	5.1 Samples are made for marketing or testing 5.2 Work is conducted according to OHS practices
6 Produce patterns	6.1 Standard or master pattern is created from the mean form 6.2 Standard is dissected to produce all working patterns, making adjustments for enterprise procedures and materials used to create patterns 6.3 Patterns are derived from the past pattern, allowing for adjustments as required

Required Skills and Knowledge

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

Demonstrates knowledge of:

- manufacturing focus of the enterprise
- manufacturing capacity, skill capacity, and tool or equipment base of workplace
- materials and properties and their reaction to manufacturing processes
- pattern design and prototype construction
- quality standards and handling procedures
- safety and environmental aspects of relevant processes
- workplace operations and reporting procedures
- OHS practices, including hazard identification and control measures
- practices for recording and reporting

Demonstrates skills to:

- interpret work specifications for complicated operations
- create standard patterns to specifications
- select appropriate materials
- produce prototypes using appropriate manufacturing processes
- make samples and correct as necessary
- meet work specifications
- communicate effectively with other relevant departments in the workplace
- read, interpret, and follow information on work specifications, standard operating procedures and work instructions, and other reference material
- maintain accurate records
- sequence operations
- clarify and check task-related information
- carry out work according to OHS practices

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 Training Package.

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

Demonstrates skills and knowledge to:

- plan and coordinate complicated design and prototype operations
- check work against work specifications and workplace standards
- prepare equipment and work prior to commencing operations
- apply complex techniques over the full range of operations
- check work against specifications
- apply workplace health and safety policies in work operations
- maintain accurate records

Consistently applies skills and knowledge when:

- organising work
- completing tasks
- identifying improvements
- using workplace practices
- using OHS practices
- recording and reporting accidents and incidents
- assessing operational readiness of equipment used and work processes
- recognising and adapting to cultural differences in the workplace, including modes of behaviour and interactions
- completing work systematically with attention to detail without damage to goods and equipment

Context and specific resources for assessment

Assessment may occur on the job or in an appropriately simulated environment and requires access to work areas, materials and equipment and to information on workplace practices and OHS practices.

Guidance information for assessment

This unit may be assessed independently or in combination with other relevant units.

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, if used 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/regulatory requirements All work must comply with relevant Federal and State or Territory legislative or regulatory requirements.

OHS practices OHS practices must include hazard identification and control, risk assessment and implementation of risk reduction measures specific to the tasks described by this unit, and may include:

- manual handling techniques
- standard operating procedures
- personal protective equipment
- safe materials handling
- taking of rest breaks
- ergonomic arrangement of workplaces
- following marked walkways
- safe storage of equipment
- housekeeping
- reporting accidents and incidents
- other OHS practices relevant to the job and enterprise

Unit Sector(s)

Sector Leather Production