



Australian Government

Department of Education, Employment and Workplace Relations

LMTMF6002A Design, evaluate and make patterns for medical grade custom-made footwear

Release: 1

LMTMF6002A Design, evaluate and make patterns for medical grade custom-made footwear

Modification History

Not applicable.

Unit Descriptor

Unit descriptor This unit covers the skills and knowledge required in the design, evaluation and making of patterns for the construction of medical grade custom-made footwear.

Application of the Unit

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This unit applies to activities associated with the design, evaluation and making of patterns for the construction of medical grade custom-made footwear. Work is generally conducted in a small business situation.

Patterns may be made by hand or by using machines and may be produced by footwear technicians, medical grade footwear practitioners or specialist pattern makers. Patternmaking can be performed using a variety of techniques, including two-dimensional geometric, direct three-dimensional or using computerised techniques.

Footwear types may include a range of styles and types, e.g. slip-on, court, boot, sandal, inner shoe.

Orthoses and prosthetic incorporation and selection should reflect compatibility with other interventions, e.g. leather heel and steel shanks for recommended leaf spring (metal) ankle or foot orthoses (AFO).

This unit is applied according to OHS and workplace practices of the enterprise, 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 skill associated with communication to interpret assessment and prescription information, discuss and confirm needs with other parties and document pattern design specifications. Numeracy skills are used to analyse measurements and other data to develop design. Planning and organising skills are used to create design and coordinate fitting and development processes and problem solving and initiative and enterprise are required to determine design requirements to meet client needs. Self management is required to ensure own work complies with client needs and quality standards.

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 Clarify assessments and prescriptions	1.1 Assessments and prescriptions are reviewed to confirm that all required information has been provided 1.2 Other parties are consulted, if necessary, to clarify or provide additional information
2 Determine resources required to prepare patterns	2.1 Materials to prepare pattern are selected 2.2 Appropriate techniques needed to prepare pattern are selected to ensure achievement of design and in accordance with OHS practices
3 Review and design patterns	3.1 For existing clients, patterns are reviewed against current requirements and modified consistent with specifications, as required 3.2 For new clients, patterns are designed based on client assessment information and foot and footwear measurements, consistent with specifications 3.3 Initial upper design is made on last 3.4 Information is accurately translated from three-dimensional last master to two-dimensional patterns 3.5 The standard patterns of upper and sole are produced in accordance with specifications and to accepted standards and construction tolerances
4 Make and evaluate mock up and fitting	4.1 Diagnostic fitting is evaluated, if used, and proposed construction and materials are reviewed in relation to viability of design, fitting and appropriateness 4.2 The design, pattern and construction materials are reviewed after outcomes of diagnostic fitting
5 Prepare specifications and materials requirements	5.1 Produce working specifications for construction of footwear to defined tolerances and standards 5.2 Identify material requirements for the construction of the footwear
6 Perform record keeping procedures	6.1 Client files are maintained to ensure accurate records are kept 6.2 Documentation is completed in accordance with established guidelines, policies and procedures

Required Skills and Knowledge

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

Demonstrates knowledge of:

- principles and concepts of pattern design and making
- range of medical grade custom-made footwear design, materials and construction methods
- general principles of medical grade footwear and orthotic design
- types of pattern making materials
- safety and environmental aspects of relevant workplace activities
- OHS practices, including hazard identification and control measures
- quality practices
- workplace practices
- recording and reporting practices

Demonstrates skills to:

- undertake the range of activities associated with designing and preparing patterns
- undertake the range of activities associated with selecting and modifying existing patterns
- develop the pattern with consideration to client requirements and construction requirements
- construct mock-ups
- test patterns and proposing alternative construction methods
- use manual or CAD systems
- use hand tools and operating equipment relevant to the making of patterns
- communicate effectively with individuals, work groups and supervisors
- read, interpret and follow information on work specifications, standard operating procedures and work instructions and other reference material
- maintain accurate records
- communicate within the workplace
- sequence operations
- meet specifications
- 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:

- obtain and clarify instructions and work requirements
- determine resources needed to prepare patterns
- select patterns to meet client specifications and requirements
- modify, check and test patterns
- prepare patterns
- make mock-ups
- use information from diagnostic fitting to refine and modify pattern
- produce working specifications
- identify material requirements to construct footwear
- conduct record keeping tasks associated with the preparation of patterns
- effective communication with client and medical grade footwear practitioners
- apply OHS 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

This unit may be assessed independently or in combination with

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.

assessment 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.

Materials may include:

- a full range of conventional leathers
- appropriate textiles
- plastic sheeting
- appropriate padding
- reinforcement
- sole and related materials
- fastening or closing devices
- other specific items such as:
 - adhesives
 - threads
 - steel toe caps

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 Medical Grade Footwear