



**Australian Government**

**MSFFDT5001 Apply ergonomics,  
anthropometrics and proxemic  
considerations to a product**

**Release: 1**

# MSFFDT5001 Apply ergonomics, anthropometrics and proxemic considerations to a product

## Modification History

Release 1 - New unit of competency

## Application

This unit of competency covers applying ergonomic, anthropometric and proxemic considerations to a product with integral design elements and principles based on a given design brief in an industry workplace or design studio environment. It involves application of skills and knowledge at a paraprofessional level.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

## Competency Field

## Unit Sector

Furniture design and technology

## Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |   |                      |     |   |
|---|----------------------|-----|---|
| 1 | Plan for application | 1.1 | Applicable work health and safety (WHS), legislative and organisational requirements relevant to applying ergonomics, anthropometrics and proxemic considerations to a product are verified and complied with |
|   |                      | 1.2 | Design brief is reviewed, confirmed and clarified with appropriate personnel  |
|   |                      | 1.3 | Client requirements and desires are reviewed, confirmed and clarified   |
|   |                      | 1.4 | Communication with others is established and maintained   |
|   |                      | 1.5 | Problems or underlying factors to be addressed by the   |

- design brief are verified
- 1.6 Elements of design are diagnosed for the intended design brief
- 1.7 Principles of design are diagnosed for the intended design brief
- 2 Apply ergonomics, anthropometrics and proxemics
  - 2.1 Concepts for the proposed solution to the design brief are reviewed for ergonomic, anthropometric and proxemic considerations
  - 2.2 Human body functions are assessed in the context of solutions for possible problems in supporting bodies of all shapes and sizes
  - 2.3 Ergonomic factors of a design are interrogated and refined
  - 2.4 Anthropometric factors of a design are interrogated and refined
  - 2.5 Proxemic considerations of a design are interrogated and reviewed
  - 2.6 Sample maquette and prototype are reviewed in accordance with ergonomics, anthropometrics and proxemics
  - 2.7 Different solutions to satisfy the requirements of the design brief are explored and reviewed
  - 2.8 Final working drawings in full scale are developed to test the ergonomic values of a design
  - 2.9 Specifications are reviewed and compiled in readiness for production
  - 2.10 Concept is planned for manufacture taking into account available equipment, resources, production sequences, schedules and timelines

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency. Detail on appropriate performance levels for each furnishing unit of competency in reading, writing, oral communication and numeracy utilising the Australian Core Skills Framework (ACSF) are provided in the Furnishing Training Package Implementation Guide.

## Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Range is restricted to essential operating conditions and any other variables essential to the work environment.

- Unit context includes:**
- WHS requirements, including legislation, building codes, material safety management systems, hazardous and dangerous goods codes, and local safe operating procedures or equivalent
  - work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organisation insurance requirements
  - work requires individuals to demonstrate conceptual and analytical ability, discretion, judgement and problem solving
  - customers or suppliers may be internal or external
- Design brief includes:**
- the aims, objectives, milestones for the design project
  - organisational or personal profiles
  - target audience
  - budget
  - timeline
  - consultation requirements
  - colour requirements
  - image requirements
  - function
- Appropriate personnel include:**
- trainers
  - supervisors
  - suppliers
  - clients
  - colleagues
  - managers
- Clients include:**
- suppliers
  - manufacturers

- Principles of design include:**
- private clients
  - colleagues
  - retailers
  - the public
  - balance
  - proportion (symmetry and asymmetry)
  - harmony
  - contrast
  - pattern
  - movement
  - rhythm
  - unity
  - style
  - focus
  - scale
  - dominant
  - sub-dominant
  - subordinate relationship
  - emphasis
  - proximity
  - alignment
  - space
  - anthropometry
  - ergonomics
  - arrangement
  - workload materials handling capacity
  - skills available
  - equipment capabilities
  - aesthetic relations
  - tension
  - development methods
- Concepts include:**
- ideas generated to respond to the design brief through both ideation drawings or sketching and written explanation
- Ergonomics include:**
- the study of the efficiency of persons in their working environment
- Anthropometrics include:**
- the scientific study of the measurements of the human body
- Proxemics include:**
- the study of socially conditioned spatial factors in ordinary human relations
- Maquette includes:**
- a miniature version of the intended final product to establish if the elements and principles of design have been achieved

- Prototypes include:**
- a full size replica of the intended product outcome based on concept sketches and freehand development drawings, produced from stiff cardboard, scrap timber or moulding clay
- Working drawings include:**
- drafted technical drawings or drawings produced on computer using computer-aided design (CAD) software packages
- Specifications include:**
- the measurements and procedures by which a product is constructed, and materials to be utilised
- Manufacturing processes include:**
- the methods by which the product will be produced, these steps entail working from working drawings and specifications, producing components utilising machine operations, assembly of the components and finishing techniques
- Information and procedures include:**
- work procedures/instructions
  - manufacturer specifications and instructions
  - standard forms of workplace process and procedures
  - organisation work specifications and requirements
  - legislation, regulations and codes of practice
  - quality and Australian Standards and procedures

## Unit Mapping Information

Supersedes and is equivalent to LMFFDT5001A Apply ergonomics, anthropometrics and proxemic considerations to a product

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>