



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **LMTTF2006A Measure and scale geometric shapes**

**Revision Number: 1**

## **LMTTF2006A Measure and scale geometric shapes**

### **Modification History**

Not applicable.

### **Unit Descriptor**

**Unit descriptor** This unit covers the skills and knowledge to take accurate measurements and related information from customer information or actual objects or structures.

## Application of the Unit

### Application of the Unit

This unit applies to taking accurate measurements and related information from customer information or actual objects or structures and may involve interaction with enterprise clients either individually or in collaboration with other personnel from the enterprise.

Work may be conducted in a variety of environments, such as:

- operational indoor workplaces
- operational outdoor workplaces

Work may be conducted in small to large scale enterprises and may involve individual and team activities. Work is performed within defined procedures may require the exercise of discretion and judgement.

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 reading and interpreting and recording information on customer requirements, as well as measuring and calculating data using appropriate processes, tools and equipment. Problem solving skills will be applied to determine and obtain all necessary data. Self management skills are applied to ensure workplace and quality standards are achieved.

## Licensing/Regulatory Information

Not applicable.

## **Pre-Requisites**

**Prerequisites** LMTTF2005A

## **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 Interpret information                            | <ul style="list-style-type: none"><li>1.1 Drawings, sketches or diagrams provided by customer are identified and read</li><li>1.2 Workplace procedures and instructions are identified and read</li><li>1.3 Established dimensions are read from supplied drawings or other information</li><li>1.4 Missing dimensions or other unknown aspects of the product are identified through consultation with customer</li><li>1.5 Drawings or diagrams are scaled where necessary to obtain dimensions needed for production</li><li>1.6 Appropriate <b>tools, equipment and resources</b> are selected</li></ul> |
| 2 Obtain relevant dimensions from physical objects | <ul style="list-style-type: none"><li>2.1 Physical dimensions are taken from buildings, architectural structures, vehicles, caravans, or marine craft, as appropriate and recorded</li><li>2.2 Angles are calculated or otherwise determined and recorded for future reference</li><li>2.3 Geometric shapes are identified or determined and relevant information recorded</li><li>2.4 <b>OHS practices</b> are applied during the gathering of measurements both on and off site</li><li>2.5 Knowledge of measurements and scaling processes are applied to perform required tasks</li></ul>                |
| 3 Record and communicate data                      | <ul style="list-style-type: none"><li>3.1 Data is recorded using established workplace format and documentation</li><li>3.2 Information is stored</li><li>3.3 Data and associated information are passed on to personnel responsible for further action within the organisation</li></ul>                                                                                                                                                                                                                                                                                                                    |

## Required Skills and Knowledge

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

Demonstrates knowledge of:

- range of products and services offered by the workplace
- operating principles of products and equipment on offer
- common types of materials used in the industry and their applications
- limitations of canvas and other common materials used in the industry
- shrinkage rates for common materials used in the industry
- common types of strengthening and fastenings
- measuring instruments and techniques
- mathematical processes and formulae (e.g. areas, volumes)
- plane geometry and plane geometrical shapes
- meaning of engineering drawing symbols
- general principles of CAD
- product construction processes commonly used in the industry
- general industry housekeeping policies and procedures
- OHS practices, including hazard identification and control measures
- quality practices
- workplace practices
- recording and reporting practices

Demonstrates skills to:

- conceptualise customer needs from customer information
- interpret diagrams and drawings
- take accurate measurements
- take measurements off existing drawings
- calculate surface areas
- accurately calculate lengths subtended by angles
- accurately calculate angles
- accurately scale drawings to obtain dimensions
- establish positions of clear panels
- 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:

- take accurate measurements
- use information from diagrams and drawings
- calculate measurements
- scale dimensions
- document measurements

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. However, it may be found convenient to assess it in conjunction with *LMTTF2005A Translate information into measurements or diagrams*

## 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.

**Tools, equipment and resources may include**

- measuring equipment
- rules
- squares
- protractors
- calculators

**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** Textile Fabrication