



Australian Government

MSFGN2001 Make measurements and calculations

Release: 2

MSFGN2001 Make measurements and calculations

Modification History

Release 2. Supersedes and is equivalent to MSFGN2001 Make measurements and calculations, (Release 1).

Release 1. New unit of competency

Application

This unit of competency describes the skills and knowledge required to identify the measuring equipment required in work task, and make and record accurate measurements and calculations. It includes identifying and responding to routine and non-routine problems with the process.

The unit applies to any individual taking measurements and making calculations as part of their job role.

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

Pre-requisite Unit

Not applicable.

Unit Sector

Generic

Elements and Performance Criteria

Elements	Performance Criteria	
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.	
1. Identify required measurements and equipment	1.1	Select measuring equipment suited to the task
	1.2	Identify measuring units to be used, and the level of detail required, from work documents
	1.3	Check condition and calibration of measuring equipment and confirm it is fit for purpose
2. Take measurements	2.1	Make justified estimate of range of results that may be obtained
	2.2	Identify and take account of external factors affecting

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		measurement accuracy
	2.3	Take measurements using mathematical techniques suited to task
	2.4	Compare measurements against range of expected results
	2.5	Check accuracy and correctness of numerical information
	2.6	Record results to required level of detail
3. Carry out calculations	3.1	Identify measurement data to be used for calculations from work instructions
	3.2	Determine calculation methods and techniques suited to task
	3.3	Make justified estimate of range of quantities that may be obtained
	3.4	Carry out calculations and check accuracy of results
	3.5	Record results to required level of detail
4. Address routine and non-routine problems	4.1	Identify known faults that can occur during measurement activity
	4.2	Identify and take necessary action on causes of routine faults
	4.3	Log problems according to workplace procedures
	4.4	Identify and report non-routine problems to designated personnel

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria of this unit of competency.

Oral communication skills to:	communicate ideas and information, and report problems
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This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria of this unit of competency.

Reading skills to:

- interpret familiar workplace documentation, including:
- work instructions: job sheets, cutting lists, plans, drawings and designs
- project plans and briefs
- product and material specifications

Unit Mapping Information

Release 2. Supersedes and is equivalent to MSFGN2001 Make measurements and calculations (Release 1).

Release 1. New unit of competency.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>

Assessment Requirements for MSFGN2001 Make measurements and calculations

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements, performance criteria, and foundation skills of this unit, which must include the ability to:

- work from specific project plans or briefs to accurately determine and cost the quantities of materials or products for a minimum of three different projects.

In the course of determining and costing the above projects, the person must:

- record estimation of results that may be obtained
- use measuring, calculating, and recording devices
- check and record results.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- purpose for measuring and calculating in workplace context
- mathematical principles and problem-solving strategies to make basic measurements and calculations
- uses and limitations of the following measuring equipment:
 - calculators
 - calipers
 - computers
 - laser or equivalent technology
 - rulers
 - squares
 - tapes measures
 - weighing scales
- workplace procedures and protocols relating to:
 - handling materials and products while undertaking measurement to minimise damage
 - recording and reporting outcomes of measurement and calculation
 - reporting non-routine problems
 - quality standards
- requirements of working with others in a team

Assessment Conditions

Assessment must occur in the workplace, or in a simulated environment that reflects workplace conditions and contingencies.

Access is required to:

- project plans and briefs
- measuring and calculating equipment specified in the knowledge evidence
- recording equipment required to demonstrate the performance evidence
- quality standards and enterprise procedures.

Assessors of this unit must satisfy the assessor requirements in applicable vocational education and training legislation, frameworks and/or standards.

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