



Australian Government

Department of Education, Employment and Workplace Relations

BCG1004A Carry out measurements and calculations

Release: 1

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Modification History

Not applicable.

Unit Descriptor

Not applicable.

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

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Element	Performance Criteria
1 Obtain measurements	1.1 Metadata only. Please contact NTIS/DEEWR
2 Perform simple calculations	2.1 Metadata only. Please contact NTIS/DEEWR
3 Estimate approximate quantities	3.1 Metadata only. Please contact NTIS/DEEWR

Required Skills and Knowledge

Not applicable.

Evidence Guide

Competency is to be demonstrated by the effective calculation of measurements and calculations of materials in accordance with the range listed in the range of variables statement, relevant to the work orientation.

(1) Critical Aspects of Evidence

It is essential that competence is observed in the following aspects:

- communicate effectively to enable accurate calculations and measurements
- demonstrate effective use of measuring devices
- accurate measurements taken and recorded
- perform simple calculations to specifications
- estimate quantities and costs to requirements

(2) Pre-requisite Relationship of Units

Nil

(3) Underpinning Knowledge and Skills

Knowledge

A knowledge of:

- drawings and specifications
- materials relevant to the construction process
- basic operations in simple geometry, measurement and calculations
- costing relative to the construction process

Skills

The ability to:

- read and interpret drawings
- measure and calculate manually
- record measurements
- operate electronic calculating devices
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- information on construction materials appropriate to the relevant construction process
- suitable work area appropriate to the activity
- suitable site plans/drawings and/or specifications
- measuring and calculating devices

(5) Method of Assessment

Competency shall be assessed while work is undertaken under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based upon integrated project work.

Assessment may be intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

(6) Context of Assessment

Competency shall be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

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Range Statement

This unit applies to simple projects applicable to:

- timber frames
- structural steelwork
- concrete
- brick/block work
- joinery
- tiling
- sheeting/panelling
- plastering
- final finishes
- fences
- formwork
- excavation work

Materials include all materials utilised in construction of commercial, industrial/domestic and civil construction projects, including hardware items.

Calculations to include:

- area
- perimeter
- volume
- mass
- scales
- ratios (ingredients/elements and triangulation)

Job instruction may involve:

- verbal direction/instruction
- written instruction
- provision of job drawing and details

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Unit Sector(s)

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