



Australian Government

MEM30023 Prepare a simple cost estimate for a manufactured product

Release: 1

MEM30023 Prepare a simple cost estimate for a manufactured product

Modification History

Release 1. Supersedes and is equivalent to MEM30023A Prepare a simple cost estimate for a manufactured product.

Application

This unit of competency defines the skills and knowledge required to apply the principles and concepts associated with the preparation of a cost estimate, based on known production and material costs, for a product. The estimate uses a limited number of variables and relates to a discrete product with a limited number of operations for manufacture.

The unit applies to engineering or related activities and is suitable for people giving technical support in manufacturing or engineering operations and those pursuing technical qualifications and careers at paraprofessional or technician level. All work is carried out under supervision.

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

Pre-requisite Unit

Nil

Competency Field

Engineering technician

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Obtain estimate brief	1.1 Follow standard operating procedures (SOPs) and comply with work health and safety (WHS) requirements at all times 1.2 Obtain brief for estimate and identify key requirements including timing, budget, resources, output and special conditions 1.3 Seek and obtain required assistance and approval from supervisor
2. Prepare a simple cost estimate	2.1 Identify relevant costing data and interpret from the estimate documents

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	2.2 Obtain organisational production costs from relevant sources 2.3 Prepare cost estimates in accordance with organisational guidelines 2.4 Obtain assistance and/or approval from supervisor for estimates prepared
3. Verify cost estimate	3.1 Source actual cost information from previous estimates 3.2 Compare actual costs with estimated cost to identify deviations and report as fractions or percentages 3.3 Prepare a report for supervisors that explains deviations

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for 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.

Estimate brief includes one or more of the following:	• project guidelines and instructions • internal requirements • external requirements • information from tender and/or contract documents • drawing specifications.
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Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM30023A Prepare a simple cost estimate for a manufactured product.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>

Assessment Requirements for MEM30023 Prepare a simple cost estimate for a manufactured product

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include:

- obtaining and identifying cost estimate key requirements
- preparing a simple cost estimate on at least two occasions
- verifying cost estimate
- reporting deviations as fractions or percentages
- obtaining assistance and approval from supervisor.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- simple cost estimates
- cost estimate brief, requirements and deviations
- overview of the impact on cost estimates of:
 - product manufacture
 - demand versus capability
 - make-or-buy
 - market-demand-price-competition
 - cost control
 - product costs
 - materials
 - resource consumption including water and power
 - labour
 - standard time/usage
 - margins and profit/loss
 - using proforma estimate sheets
 - using estimates as targets

- impact of value-adding and non value-adding activities
- lead times associated with:
 - raw material availability
 - equipment, tool design and commissioning
 - prototypes and trial builds
 - estimating processes
 - use of contract documents including drawings and specifications
 - consideration of general conditions and any special conditions
 - application of resources costs including labour, plant, material and subcontractors
 - contingency costs
 - allowance for contract variations
- hazards and control measures associated with preparing a simple cost estimate for a manufactured product, including allowing for housekeeping, safe work practices and procedures.

Assessment Conditions

- Assessors must:
 - have vocational competency in preparing a simple cost estimate for a manufactured product at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the Standards for Registered Training Organisations 2015 or its replacement and comply with the National Vocational Education and Training Regulator Act 2011, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Where possible, assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
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