



Australian Government

Department of Education, Employment and Workplace Relations

MEM30023A Prepare a simple cost estimate for a manufactured product

Release: 1

MEM30023A Prepare a simple cost estimate for a manufactured product

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers applying basic principles and concepts associated with the preparation of a cost estimate for a product.
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Application of the Unit

Application of the unit	<p>This unit applies to all manufacturing and engineering workplace environments. Work is carried out under supervision.</p> <p>Band: 0</p> <p>Unit Weight: 0</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Obtain tender/cost estimate requirements	1.1. Tender/cost estimate brief is obtained within established organisational framework, procedures and routines. 1.2. Key requirements are identified. 1.3. Assistance/approval from supervisor is obtained.
2. Prepare a simple cost estimate	2.1. Relevant costing data is identified and interpreted from the tender/cost estimate documents. 2.2. Organisational production costs are obtained. 2.3. Cost estimates are prepared according to established organisational framework, procedures and routines. 2.4. Assistance/approval from supervisor is obtained.
3. Verify cost estimate	3.1. Actual cost information is sourced from a completed tender/cost estimate project. 3.2. Actual costs are compared with estimated cost to identify deviations. 3.3. A report is prepared for supervisors to explain deviations according to established organisational framework, procedures and routines. 3.4. Assistance/approval from supervisor is obtained.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- undertaking numerical operations, geometry and calculations/formulae within the scope of this unit
- reading, interpreting and following information on written job instructions, specifications, standard operating procedures and other applicable reference documents
- undertaking simple report writing
- planning and sequencing operations
- checking and clarifying task-related information

REQUIRED SKILLS AND KNOWLEDGE**Required knowledge**

Look for evidence that confirms knowledge of:

- overview of the impact on cost estimates of:
 - product manufacture
 - demand vs. capability
 - make-or-buy
 - market-demand-price-competition
 - cost control
 - product costs
 - materials
 - resource consumption (water, power, etc.)
 - labour
 - standard time/usage
 - margins, profit/loss
 - using proforma estimate sheets
 - using estimates as targets
 - impact of value adding 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 - drawings, specifications
 - consideration of general conditions and any special conditions
 - application of resources costs - hourly rates (labour, plant, material, 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

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	<p>A person who demonstrates competency in this unit must be able to prepare a simple cost estimate for a manufactured product.</p>
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p>
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, i.e. the candidate is not in productive work, an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with preparing a simple cost estimate for a manufactured product, or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	<p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p>
Guidance information for	

EVIDENCE GUIDE

assessment

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. 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) may also be included.

Simple cost estimate

- Based on known production and material costs
- Cost can be estimated using a limited number of variables
- Estimate relates to a discrete product with a limited number of operations for manufacture

Tender/cost estimate brief

May include project guidelines and instructions, internal or external requirements, information from tender/contract documents, drawing specifications

Key requirements

May include timing, budget, resources, output, special conditions

Deviations

Reported as fractions or percentages, does not include standard deviations, six sigma etc.

Unit Sector(s)

Unit sector

Co-requisite units

Co-requisite units

Co-requisite units		

Competency field

Competency field	Engineering technician
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