



Australian Government

Department of Education, Employment and Workplace Relations

MSL916005A Manage complex projects

Revision Number: 1

MSL916005A Manage complex projects

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the ability to interpret complex technical briefs, determine project methodologies and resource requirements, establish project plans, manage projects to successful conclusions and evaluate project outcomes.
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Application of the Unit

Application of the unit	<p>This unit of competency is applicable to senior technical officers and laboratory supervisors working in all industry sectors.</p> <p>Industry representatives have provided case studies to illustrate the practical application of this unit of competency and to show its relevance in a workplace setting. These can be found at the end of this unit of competency under the section 'This competency in practice'.</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. Interpret brief and design feasible project plan	1.1. Interpret and confirm project objectives, deliverables, constraints and principal work activities 1.2. Determine resource requirements, including personnel, equipment and materials 1.3. Develop a detailed implementation plan for the project outlining methodology, milestones and budget 1.4. Identify roles and responsibilities of project team members 1.5. Analyse quality requirements to ensure compliance with quality standards 1.6. Develop risk management strategies and risk management plans to ensure successful and timely outcomes
2. Establish and implement project plan	2.1. Brief team members about the project and allocate roles and responsibilities, balancing job roles and skills development opportunities 2.2. Establish communication and reporting mechanisms 2.3. Implement agreed time management strategies to ensure milestones are met 2.4. Apply agreed quality requirements to measure performance and outcomes
3. Manage project	3.1. Monitor and report progress of activities in relation to the project plan 3.2. Ensure income and expenditure is in line with the agreed project plan and budget 3.3. Work with the team to analyse and diagnose problems and to determine corrective actions 3.4. Implement agreed variations to the plan to accommodate changing situations 3.5. Maintain accurate records and communication with stakeholders and project team members
4. Finalise project	4.1. Ensure project objectives are met and deliverables are provided on time and within budget 4.2. Complete all reporting requirements
5. Evaluate project methodology	5.1. Assess the effectiveness of resource management in delivering project outcomes 5.2. Evaluate the effectiveness of communication processes used throughout the project

ELEMENT	PERFORMANCE CRITERIA
	5.3.Recommend improvements for future projects

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Required skills include:

- analysing a complex technical brief and preparing a feasible project implementation plan
- establishing a project team and implementing a project in response
- reaching milestones within budget
- consulting and communicating effectively to ensure the project outcomes are achieved
- maintaining accurate records and documentation in accordance with the enterprise procedures
- selecting and establishing operational systems for the project
- planning work activities, resources and finances to ensure the project outcomes are achieved within the timeframe and budget constraints
- monitoring and evaluating the progress of the project

Required knowledge

Required knowledge includes:

- purpose and methods of planning
- techniques for monitoring timelines, expenditure and team performance
- techniques for achieving effective communication and cooperation
- techniques for troubleshooting, problem solving and conflict resolution
- reporting requirements
- techniques for evaluation and continuous improvements
- relevant health, safety and environment requirements
- laboratory's business goals and key performance indicators

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	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Assessors should ensure that candidates can:</p> <ul style="list-style-type: none"> • analyse a complex technical brief and prepare a feasible project implementation plan • establish a project team and implement a project in response • reach milestones within budget • consult and communicate effectively to ensure project outcomes are achieved • maintain accurate records and documentation in accordance with enterprise procedures • select and establish operational systems for the project • plan work activities, resources and finances to ensure project outcomes are achieved within the timeframe and budget constraints • monitor and evaluate the progress of the project.
Context of and specific resources for assessment	<p>This unit of competency is to be assessed in the workplace or simulated workplace environment.</p> <p>This unit of competency may be assessed with:</p> <ul style="list-style-type: none"> • <i>MSL916002A Manage and develop teams</i> • <i>MSL936001A Maintain quality system and continuous improvement processes within work/functional area.</i> <p>Resources may include:</p> <ul style="list-style-type: none"> • procedures and documentation typically used by the enterprise • scheduling charts/strategic plans • GANTT charts • operational reports • financial plans • sample budgets.
Method of assessment	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> • review of reports, operational budgets and project

EVIDENCE GUIDE	
	<p>plans generated by the candidate</p> <ul style="list-style-type: none"> • review of project outcomes and customer satisfaction • questioning/interview to assess underpinning knowledge • feedback from project team and management • review of documented examples of quality performance improvements achieved and examples of significant problems solved • observation of the candidate's interaction with project team. <p>In all cases, practical assessment should be supported by questions to assess underpinning knowledge and those aspects of competency which are difficult to assess directly.</p> <p>Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.</p> <p>Access must be provided to appropriate learning and/or assessment support when required.</p> <p>The language, literacy and numeracy demands of assessment should not be greater than those required to undertake the unit of competency in a work like environment.</p>
This competency in practice	<p>Industry representatives have provided the case studies below to illustrate the practical application of this unit of competency and to show its relevance in a workplace setting.</p> <p>Manufacturing</p> <p>A cosmetics manufacturing company decided to upgrade the image of a product range which included lipsticks, nail lacquers, hair shampoos and conditioners. A technical specialist coordinated the project and organised input from marketing, development, quality assurance and production personnel. The production boundaries were defined through consultation with marketing and it was decided to update shades of shaded products and introduce natural ingredients wherever possible. The project had to be completed within a reasonably short timeframe and within a tight budget which placed overall constraints on the way the project could be handled. After developing and gaining approval for an</p>

EVIDENCE GUIDE

implementation plan, team members were briefed and development samples produced for approval. Product characteristics were checked and recommendations made for adjustments until each product met requirements. When pilot batch manufacture had been successfully completed, project development processes were fully documented and then passed to production to allow for efficient development of production batches.

Environmental

The quality team in a laboratory has set a goal of getting reports out more quickly and assigned the coordination of the project to one of the senior technical officers. The officer prepared an outline of the project, a timeframe, a resource list and budget. Specific tasks were allocated to members of the quality team according to their abilities and existing work commitments. The officer monitored the project's progress by tracking and adjusting elements as necessary. After the development of a final draft for the revised procedures, a draft project report was prepared for consideration by the quality team.

Food processing

A dairy company currently uses an imported cocoa-based product for the chocolate flavouring of their milk. Following a feasibility study of a range of ingredients, it was decided to investigate further an alternative source on the basis of cost. A technical specialist prepared a project plan that included required personnel, materials, equipment and a detailed GANTT chart. Key personnel from quality assurance, production, engineering, product development and marketing were chosen for the project team. The project was monitored to confirm progress, control expenditure and review the suitability of the alternative product source. At the end of the project, the technical specialist assessed the outcomes and prepared a detailed report that recommended the use of a local ingredient.

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.

Codes of practice

Where reference is made to industry codes of practice, and/or Australian/international standards, it is expected the latest version will be used

Complex projects

Complex projects may include:

- development or modification of products and services
- acquisition and commissioning of new equipment
- commissioning of laboratory facilities
- appraisal of supplies
- development of applications for customers
- validation of analytical methods and/or equipment
- quality improvement or corrective action teams
- restructuring of laboratory services
- reclassification of staff and staffing levels

Records

Records may include:

- lists of potential costs, invoices and payment records
- project and/or enterprise files and records
- reports to clients, personnel and higher management
- risk management plans and log books
- diaries, scheduling charts and other charts

Communication

Communication may include:

- computer generated communication
- customers, stakeholders, external authorities and project team
- reports, briefs, minutes, letters, oral briefings, advice and conversations and telephone calls

RANGE STATEMENT	
Resources	Resources may include: <ul style="list-style-type: none"> • personnel • budget • equipment, materials and facilities • computer project planning programs
Occupational health and safety (OHS) and environmental management requirements	OHS and environmental management requirements: <ul style="list-style-type: none"> • all operations must comply with enterprise OHS and environmental management requirements, which may be imposed through state/territory or federal legislation - these requirements must not be compromised at any time • all operations assume the potentially hazardous nature of samples and require standard precautions to be applied • where relevant, users should access and apply current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health

Unit Sector(s)

Unit sector	Communication/organisation
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Competency field

Competency field	
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Co-requisite units

Co-requisite units	

Co-requisite units		