



Australian Government

MEM22013 Coordinate engineering projects

Release: 1

MEM22013 Coordinate engineering projects

Modification History

Release 1. Supersedes and is equivalent to MEM22013A Coordinate engineering projects.

Application

This unit of competency defines the skills and knowledge required to coordinate and facilitate engineering or related projects which usually have a fixed term or purpose and involve specific engineering-related tasks, such as installation and commissioning of plant, design of equipment or major overhauls. It applies to coordination activities carried out within a range of engineering disciplines.

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

Pre-requisite Unit

MEM16006 Organise and communicate information

Competency Field

Management and organisation

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. Review and confirm parameters of delegated project	1.1 Follow standard operating procedures (SOPs) 1.2 Comply with work health and safety (WHS) requirements at all times 1.3 Establish scope and parameters of the engineering project from work information 1.4 Assess procurement requirements 1.5 Determine the need for appropriate technical and professional assistance based on project parameters 1.6 Review compliance requirements for project
2. Establish communication arrangements for	2.1 Assign work based on project requirements and obtain team agreement to plans, communication arrangements, responsibilities, schedules and requirements

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
delegated project	2.2 Establish liaison arrangements with other functional groups 2.3 Ensure efficient and documented arrangements for requests for further information (RFIs) from designers and other experts 2.4 Confirm internal and external reporting requirements including content, schedule and sign-off arrangements 2.5 Confirm suppliers, contractors and delivery schedules and any installation requirements
3. Coordinate implementation of delegated project	3.1 Coordinate actions to overcome constraints and contingencies, including coordination with stakeholders and make any required adjustments to plans and schedules 3.2 Coordinate and monitor specialist and technical support services to meet schedules, budgets and performance requirements 3.3 Maintain and monitor records of project tasks for accountability against objectives, schedule and budget 3.4 Apply principles of continuous improvement to implementation 3.5 Use project management, resources control and budgeting software
4. Report on outcomes	4.1 Record progress in accordance with procedures 4.2 Supervise project completion, including sign-off of project documentation in accordance with procedures

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.

Project parameters include	• designs • drawings
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those related to:	• standards • established implementation plan and schedule • budget and control measures • project management structure • functional team relationships • communications and reporting lines • materials, logistics and services procurement requirements • physical, human and skills development resources requirements.
Regulatory and compliance requirements include:	• work health and safety (WHS) requirements • codes of practice • regulations • standards • legal and other regulatory requirements • enterprise procedures • environmental protection and planning law • risk assessments • registration requirements • safe work practices • state and territory regulatory requirements.
Project context includes:	• customer-supplier relationships • regulatory requirements and environment • materials resourcing and labour and skills supply arrangements • market and competitive environment.
Budget and control measures for engineering-related projects include one or more of the following:	• audit • tenders • contracts • schedules • budget categories and items.
Stakeholders include one or more of the following:	• teams • contractors • support professionals and teams • technicians • functional groups • customers • suppliers.
Records of project includes one or more of the following:	• tenders and contracts • schedules • personnel • resource allocations and financial management procedures • standard operating procedures, including maintenance procedures • WHS committee minutes and action

	• risk management and mitigation • documentation and records of current safe work method statements (SWMS), safety data sheets (SDS), work permits, standards and codes of practice • audits • meetings and communications • graphics and specifications.
Continuous improvement implementation includes one or more of the following techniques:	• balanced scorecard • current and future state mapping • measuring performance against benchmarks • process improvement, problem-solving and decision-making • data management, generation, recording, analysing, storing and use of software • training for improvement systems participation • technical training.
Appropriate technical and professional assistance includes:	• technical support and advice relating to elements which have intrinsic dangers • professional and technical support for specific technologies and equipment • professional services for: • finance, accounts and tax • insurance and legal • training and human resources.
Constraints and contingencies include:	• financial, organisational, procedural or culture constraints • physical constraints including limits to resources, site access or logistical limitations.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM22013A Coordinate engineering projects.

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 MEM22013 Coordinate engineering projects

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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:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- coordinate an engineering-related project
- reviewing, confirming and establishing project objectives, plans, budgets and schedules
- identifying technical and engineering requirements of project from drawings, customer briefs, contracts and other appropriate sources
- co-operating, communicating and negotiating effectively with stakeholders
- using project management skills on at least two occasions including resource control and budget software
- managing for contingencies and non-conformances
- recording progress and completion of the project including sign-off in accordance with procedures.

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:

- safe work practices and procedures
- personal responsibilities in relation to:
 - role specification and delegations
 - workplace agreement or Award
 - negotiation with clients and/or supervisors
 - contracts
 - legal or regulatory obligations
 - professional and ethical considerations
 - agreed operational or project requirements
- context of project:
 - typical budget and control measures for engineering-related projects:

- requirements for and functions of technical documentation, graphics and specifications, meeting procedures, records and minute taking
- work health and safety (WHS) Acts and regulations relevant to engineering projects
- risk management procedures, isolation and notification procedures in the event of irregularities or accident
- contingency and constraints management
- continuous improvement processes and procedures
- sources of professional and technical assistance
- stakeholders
- project parameters
- compliance requirements.

Assessment Conditions

- Assessors must:
 - have vocational competency in coordinating engineering projects 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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