



Australian Government

CPCMCM8001 Plan and manage complex projects

Release: 1

CPCMCM8001 Plan and manage complex projects

Modification History

Release 1.

This version first released with CPC Construction, Plumbing and Services Training Package Version 1.

Replaces superseded equivalent CPCMCM7001A Plan and manage complex projects.

Application

This unit of competency specifies the outcomes required to identify, plan, control and finalise complex projects.

The unit addresses the management of projects of significant scope and duration, for example developing and implementing a major new program or service, or constructing or designing a significant new piece of infrastructure.

The environment in which the project is managed is also complex and involves managing a project team which typically includes staff with diverse skill sets. Managing complex projects also involves significant reporting requirements.

This unit supports the attainment of skills and knowledge required for competent workplace performance in organisations of all sizes. It will support senior managers in all sectors of the construction industry who must exercise the skills needed to ensure projects are planned and managed effectively in order to deliver the required outcomes on time and within budget.

The unit may be contextualised to suit the strategic context in which the unit is applied, which may be across all sectors in the construction industry provided the essential outcomes of the unit are not changed.

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

Pre-requisite Unit

Nil

Competency Field

Management

Unit Sector

Common

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.

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|----|--|---|
| 1. | Identify strategic and operational needs of the project during planning phase. | 1.1. Project's strategic context and operational requirements are identified and analysed.

1.2. Organisation's strategic and business plans and their output requirements are identified and analysed.

1.3. Client requirements and impact of <i>legislation and industry codes and standards</i> are identified and fully explored.

1.4. <i>Risk management analysis</i> is conducted and risk management plan is developed and documented. |
| 2. | Prepare project plan. | 2.1. Precise <i>specifications and terms of reference</i> for the project are defined and documented.

2.2. Project budget is developed, specified to a level that can be used for managing sub-tasks, and documented.

2.3. Skills needed for successful completion of project are defined.

2.4. Physical and other resources required to support project are defined and documented and processes to secure them are commenced.

2.5. Timelines, schedules and critical path for the project are developed and documented, taking into consideration contingencies and time slippages.

2.6. Reporting and communication strategy or process is defined and documented. |
| 3. | Assemble project team and commence work. | 3.1. Appropriate project team members are secured and briefed regarding the project, their roles, levels of delegated responsibility, and outcomes to be achieved.

3.2. Communication processes are put in place to coordinate work and inform team members of progress. |

- 3.3. Clear reporting processes for team members are communicated.
- 4. Manage project.
 - 4.1. Project progress is monitored according to project plan requirements, using appropriate **project management tools** and methodologies.
 - 4.2. Team members are supported and their output is managed against key performance indicators identified in project plan.
 - 4.3. Corrections, changes and additions are made to project plan in light of changing circumstances to ensure project aims and outcomes are met.
 - 4.4. Resourcing to support project is monitored and corrections are made to reflect changing circumstances.
 - 4.5. Reporting of overall project progress is made to senior management or client as required and in line with project plan.
- 5. Finalise project.
 - 5.1. Required handover to staff members responsible for ongoing implementation or maintenance of project products or services is conducted efficiently, effectively and in line with organisational procedures.
 - 5.2. Project team members and relevant stakeholders are debriefed about conduct of project and outcomes achieved.
 - 5.3. Report is prepared analysing strengths and weaknesses of project plan and conduct of project.
- 6. Use project to improve future processes.
 - 6.1. Learning outcomes are identified and analysed to inform future complex projects.
 - 6.2. Strategic impact of project is considered and fed into the organisation's ongoing strategic planning processes.

Foundation Skills

This section describes core skills that are essential to performance and not explicit in the performance criteria. Employment skills essential to performance are explicit in the performance criteria of this unit of competency.

Skill	Performance feature
Learning skills to:	- engage in processes designed to research and update own knowledge of products, software systems and technology used in managing complex projects - reflect on and critically analyse experiences of planning and managing complex projects to determine training and development required to improve future performance of self, others and the organisation.
Numeracy skills to:	- represent and monitor projected resource costs in the form of budgets over the life of a complex project - estimate, monitor and manage the allocation of own time on project tasks and supervise the use of others' time to allocated project tasks.
Oral communication skills to:	liaise with clients and other stakeholders on project progress using appropriate vocabulary and technical terminology.
Reading skills to:	interpret and engage in analysis of documentation, including legislation, drawings, plans and specifications.
Writing skills to:	organise and present data in reports and strategy documents that respond to complex project requirements and include project plans and communication strategies involving analysis and recommendations.

Range of Conditions

This section specifies 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. Bold italicised wording, if used in the performance criteria, is detailed below.

<i>Legislation and industry codes and</i>	- Australian and international standards applicable to the project - building Acts and regulations
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standards must include:

- infrastructure supply regulations
- National Construction Code.

Risk management analysis must include:

- analysing potential for workers' compensation claims
- assessing public liability requirements
- establishing or confirming business continuity plans
- considering changing government policy or funding arrangements
- identifying environmental obligations
- identifying and mitigating work health and safety risks
- identifying property development and maintenance requirements.

Specifications and terms of reference must include:

- defining project aims
- describing outcomes to be achieved using clear metrics
- describing all stakeholders
- describing project parameters and scope of operations.

Project management tools must include:

- critical path analysis
- Gantt or PERT charts or other industry-accepted project management tools
- in-house or proprietary software
- scheduling and reporting templates.

Unit Mapping Information

CPCMCM7001A Plan and manage complex projects

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCMCM8001 Plan and manage complex projects

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Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. The person must successfully design, implement, manage and finalise two complex projects.

For each project, the person must produce a detailed project plan outlining a process and methodology for the planning, scheduling and sourcing of human and other resources. Each plan must also:

- specify how the project team members will be resourced, assembled and briefed on roles, responsibilities and deliverables
- outline processes for managing and communicating with a team of diverse skills and roles, including:
 - architects
 - lead contractors
 - mechanical engineers
 - hydraulic engineers
 - electrical engineers
- specify a process for project reporting that details frequency and format of reports
- ensure the project aligns to and supports organisational strategies and requirements.

For each project, the person must identify:

- at least one key learning outcome from the project
- where this learning could refine and improve future complex project management processes.

Knowledge Evidence

A person demonstrating competency in this unit must be able to demonstrate knowledge of:

- processes and practices involved in developing budgets
- principles of team leadership and human resource management relating to managing others working on a complex project

- processes involved in risk management, risk analysis and planning
- legislation, codes and standards relevant to the specific project:
 - Australian standards
 - building Acts and regulations
 - infrastructure supply regulations
 - international standards
 - the National Construction Code
- reporting mechanisms relevant to updating and informing clients and other stakeholders of project progress
- roles and responsibilities of relevant building project personnel
- sustainability requirements relevant to the project:
 - energy conservation
 - water conservation
- tools and models of project management used in managing complex construction projects.

Assessment Conditions

Assessment must be conducted in the workplace or a close simulation of the workplace.

Suitable assessment of performance would require:

- equipment:
 - computer with internet and email access
 - proprietary software with spreadsheet and word processing functionality and project management capabilities
- materials:
 - current legislation, codes and standards relevant to the specific project and the jurisdiction in which the project work is taking place, including:
 - building Acts and regulations
 - infrastructure supply regulations
 - Australian standards
 - international standards
 - project documentation, including design or project briefs, drawings, specifications, construction schedules and other supporting documents
 - research resources, including product information and data.

Assessor requirements

Assessors must satisfy the assessor requirements in the Standards for Registered Training Organisations (RTOs) current at the time of assessment.

Links

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